



# Nanakuli Community Baseyard

TMK (1) 8-7-09:02 (por.)

Lualualei, O'ahu, Hawai'i

Environmental Assessment and  
Environmental Impact Statement  
Preparation Notice

March 2009



Prepared for: TROPIC LAND LLC



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## **Environmental Assessment and Environmental Impact Statement Preparation Notice**

Prepared for:

**Tropic Land LLC**

Prepared by:

**Kimura International, Inc.  
1600 Kapiolani Boulevard, Suite 1610  
Honolulu, HI 96814**

March 2009



## Contents

<b>Section</b>	<b>Page</b>
<b>1. Introduction</b>	
1.1 Project Summary Information .....	1-1
1.2 Proposed Action .....	1-2
1.3 Project Location and Description .....	1-5
1.4 Background of the Project Area—Development History .....	1-7
1.5 Purpose of this EISPN and EA .....	1-8
1.6 Steps in the Environmental Review and Implementation Process.....	1-9
1.7 List of Possible Permits, Approvals, and Requirements for Regulatory Compliance .....	1-9
<b>2. Proposed Action</b>	
2.1 Project Description .....	2-1
2.2 Purpose of and Need for the Proposed Action .....	2-4
2.3 Other Alternatives Considered .....	2-4
2.3.1 No Action .....	2-4
2.3.2 Golf Course .....	2-5
2.3.3 Alternative Industrial Park Configurations .....	2-5
2.4 Preliminary Cost and Timetable .....	2-5
<b>3. Affected Environment, Environmental Consequences and Mitigation</b>	
3.1 Introduction .....	3-1
3.2 Physical Environment .....	3-1
3.2.1 Topography and Geology .....	3-1
3.2.2 Climate .....	3-2
3.2.3 Soils .....	3-2
3.2.4 Agriculture .....	3-4
3.2.5 Hydrological Conditions .....	3-6
3.2.5.1 Ground Water .....	3-6
3.2.5.2 Surface Water .....	3-6
3.2.6 Air Quality .....	3-7
3.2.7 Natural Hazards .....	3-4
3.2.7.1 Earthquakes .....	3-8
3.2.7.2 Hurricanes .....	3-8
3.2.7.3 Flood Hazard.....	3-8
3.3.8 Noise .....	3-10
3.3 Biological Resources .....	3-10
3.3.1 Terrestrial Fauna .....	3-10
3.3.2 Botanical Resources.....	3-12

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3.4	Archaeological, Historic and Cultural Resources .....	3-12
3.4.1	Archaeological and Historical Resources .....	3-12
3.5.2	Cultural Resources .....	3-16
3.5	Socio-Economic Environment .....	3-16
3.5.1	Population .....	3-16
3.5.2	Employment and Income .....	3-19
3.5.3	Industrial Land .....	3-20
3.6	Built Environment .....	
3.6.1	Visual Resources .....	3-22
3.6.2	Circulation and Traffic .....	3-22
3.7	Public Infrastructure and Services .....	3-22
3.7.1	Water .....	3-24
3.7.2	Wastewater System .....	3-24
3.7.3	Solid Waste Disposal .....	3-25
3.7.4	Electrical and Communication Systems .....	3-25
3.7.5	Public Services .....	3-25
<b>4.</b>	<b>Relationship of the Project to Land Use Plans, Policies, and Controls</b>	
4.1	Introduction .....	4-1
4.2	State of Hawai‘i .....	4-1
4.2.1	Hawai‘i State Plan .....	4-1
4.2.2	State Land Use Classification .....	4-2
4.3	City and County of Honolulu .....	4-4
4.3.1	General Plan .....	4-4
4.3.2	Wai‘anae Sustainable Communities Plan .....	4-7
4.3.3	Zoning .....	4-13
4.3.4	Special Management Area .....	4-13
<b>5.</b>	<b>Significance Criteria and Determination</b>	
5.1	Significance Criteria .....	5-1
5.2	Determination .....	5-3
<b>6.</b>	<b>References</b>	
<b>7.</b>	<b>Agencies and Persons to be Consulted in Preparing the Draft Environmental Impact Statement</b>	
7.1	Agencies and Organizations Consulted in Preparing the EISPN .....	7-1
7.1.1	Community Input and Outreach .....	7-1
7.2	Agencies and Organizations to be Consulted in Preparing the DEIS .....	7-1

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## Appendix

Correspondence from the State Historic Preservation Division related to Chapter 6E-42, Historic Preservation Review for TMK: (1) 8-7-009: 002

### Tables

1.	Archaeological Sites Summary and Significance .....	3-13
2.	Resident Population by Census Tract, Subareas, Region, County, and State, 1990 and 2000 .....	3-18
3.	Occupational Profile for Wai‘anae Coast and Island of O‘ahu, 2000 .....	3-19

### Figures

1.	Location Map .....	1-3
2.	Aerial Photograph .....	1-4
3.	Site Plan .....	2-4
4.	Soils Map .....	3-3
5.	ALISH-LSB Map .....	3-5
6.	Flood Insurance Rate Map .....	3-9
7.	Cultural Resources Map (Regional) .....	3-14
8.	Cultural Resources Map (Site) .....	3-15
9.	2000 Census Tracts .....	3-17
10.	Existing Industrial Zones, Wai‘anae Coast .....	3-21
11.	Public Infrastructure Map .....	3-23
12.	State Land Use Map .....	4-3
13.	Wai‘anae Sustainable Communities Plan, Land Use Map .....	4-12
14.	Zoning Map .....	4-14

## Glossary of Acronyms and Hawaiian Terms<sup>1</sup>

ALISH	Agricultural Lands of Importance to the State of Hawai‘i
BMP	Best Management Practice
CT	Census Tract
dB	decibel
DEIS	Draft Environmental Impact Statement
EA	Environmental Assessment
EISPN	Environmental Impact Statement Preparation Notice
FIRM	Flood Insurance Rate Map
HRS	Hawai‘i Revised Statutes
Ldn	day-night average noise level
LSB	Land Study Bureau, University of Hawai‘i
<i>makai</i>	toward the ocean (seaward)
<i>mauka</i>	toward the mountains (landward)
MSL	mean sea level
NPDES	National Pollutant Discharge Elimination System
OEQC	Office of Environmental Quality Control
SCP	Sustainable Communities Plan
SHPD	State Historic Preservation Division
SMA	Special Management Area
UBC	Uniform Building Code

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<sup>1</sup> English definitions of Hawaiian terms from *Hawaiian Dictionary*, Revised and Enlarged Edition (Pukui and Elbert, 1986) and *Dictionary of Hawaiian Legal Land-Terms* (Lucas, 1995)



## 1. Introduction

### 1.1 Project Summary Information

Project Name	Nānākuli Community Baseyard
Applicant/Landowner	Tropic Land LLC
Accepting Authority	State Land Use Commission (anticipated)
Tax Map Key	(1) 8-7-9: 2 (portion)
Location	East side of Lualualei Naval Access Road, approximately 1.5 miles from Farrington Highway, Wai‘anae District, Island of O‘ahu
Project Area	Approximately 96 acres
Project Description	<p>Tropic Land LLC proposes to develop a light industrial park on approximately 96 acres. The industrial park will contain 35-40 units, averaging two acres each. A single, secured entry is planned off of Lualualei Naval Access Road with a secondary access for fire and emergency purposes. The project site will be surrounded by a 30-foot wide, landscaped buffer along the Lualualei Naval Road frontage and 15-foot setbacks along the north and south property lines. An additional strip of land approximately 100 feet wide is planned <i>mauka</i> of the industrial area for drainage improvements and rockfall hazard mitigation.</p> <p>The project will be structured under a condominium property regime with individual lots and common ownership of internal roads and infrastructure. Two lots have been set aside for third-party development of an incubator center that will provide start-up spaces.</p> <p>Tropic Land LLC is planning to seek an I-1 zone for the proposed industrial area.</p>
Existing Uses	<p>The site is vacant and covered mostly with grasses, <i>haole koa</i> bushes, and isolated <i>kiawe</i> trees. Grasses are mowed periodically for fire control and used for silage.</p> <p>The entire site is subject to an existing Unilateral Agreement (UA) issued by the City and County of Honolulu related to the development of a golf course.</p>

State Land Use	Agricultural District
Zoning	P-2 Preservation
Flood Insurance Rate Map	The entire project site is situated within Flood Area Zone D (areas in which flood hazards are undetermined).
Special Management Area	No
EIS Preparer	Kimura International, Inc. 1600 Kapiolani Boulevard, Suite 1610 Honolulu, HI 96814 Contact: Glenn Kimura

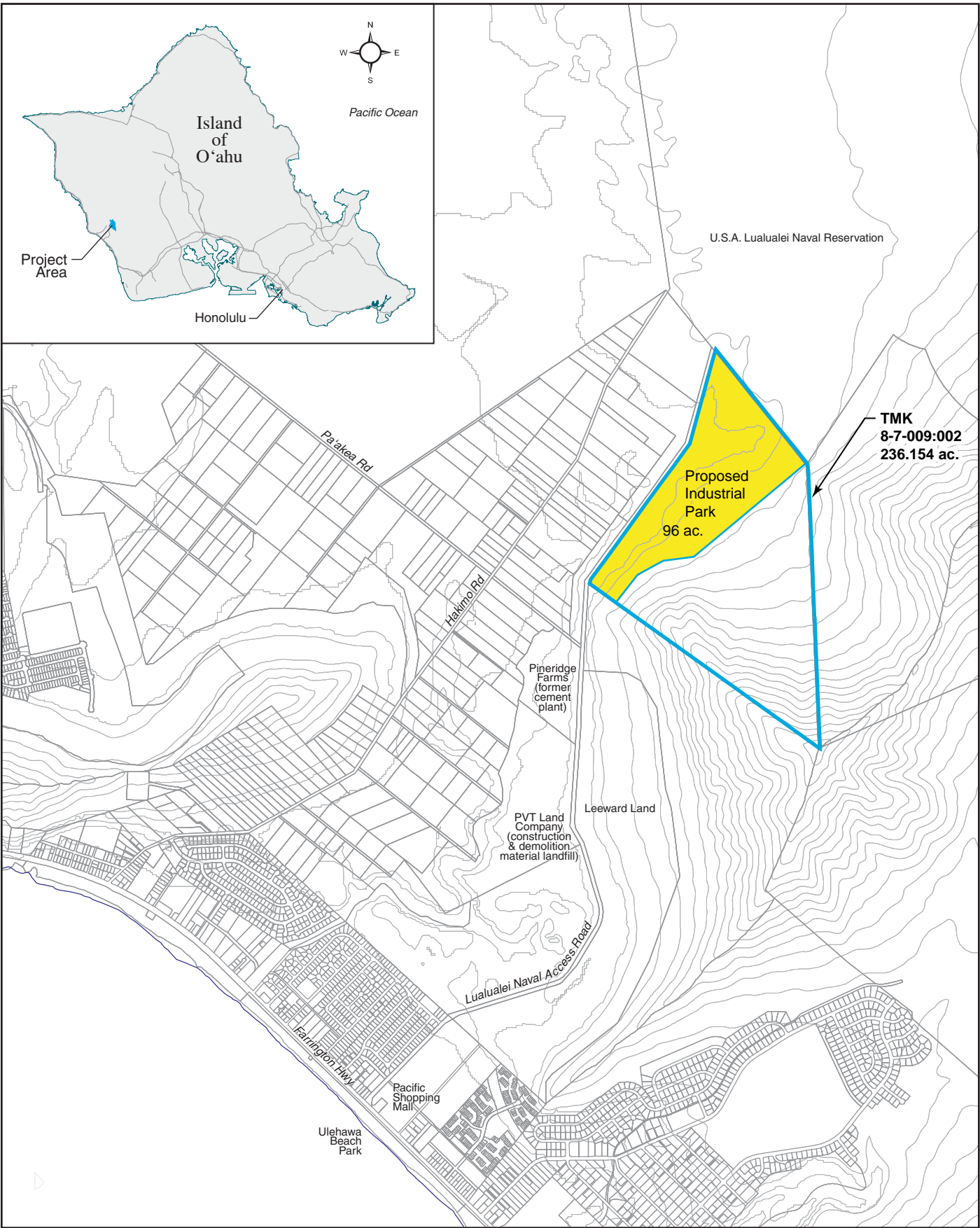
## 1.2 Proposed Action

Tropic Land LLC proposes to develop a light industrial park that would occupy approximately 96 acres on a portion of TMK 8-7-9: 02. The property is located on the east side of Lualualei Naval Access Road (see Figures 1 and 2). The industrial park will contain 35-40 units, averaging two acres each. The proposed number of units (or lots) is presented as a range to accommodate the possibility that lots in higher visibility areas; for example, along the main entry road and around intersections, may be further divided into smaller increments.

An incubator center is proposed for two of the lots. The incubator concept will enable small businesses to obtain affordable, start-up spaces. The concept includes an industrial building with approximately 25,000 SF, providing basic indoor spaces of up to 1,800 SF for a full bay. Open yard space will also be available in units measuring approximately 8,750 SF each.

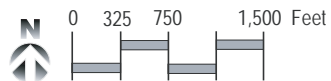
The project is planned with a single, secured entry off of Lualualei Naval Access Road and a secondary access for fire and emergency purposes. The existing linear tree farm will remain as a 30-foot wide landscaped setback along the Lualualei Road frontage. The north and south property lines will have 15-foot building setbacks. An additional strip of land, approximately 100 feet wide and mauka of the industrial lots, will be used for drainage improvements, rockfall hazard mitigation, and a fire break.

The project will be structured under a condominium property regime with individual ownership of the units (lots) and common ownership of the internal roads and infrastructure. Tropic Land LLC is planning to seek a zone change from P-2 to I-1 for the proposed 96-acre industrial park. The remainder of the P-2 zone on TMK 8-7-9: 02 (approximately 72.7 acres) will not be rezoned. A 67.3-acre portion of the TMK is located in the State Conservation District (County zone P-1) and will also remain unchanged.



**Figure 1**  
**Location Map**  
November 2008





**Figure 2**  
**Aerial Photograph**  
November 2008



### 1.3 Project Location and Description

The project area occupies a portion of the property identified as Tax Map Key 8-7-9: 02. The entire TMK measures 236.15 acres, of which the proposed action will occupy 96 acres. It is located in the upper Lualualei Valley approximately 2 miles *mauka* (inland) of Farrington Highway and immediately south of the U.S. Naval installation at Lualualei. The property is owned in fee by Tropic Land LLC.

**Access.** At present, formal access to the property is via Hakimo Road. An easement from the Navy allows access from Hakimo Road across Lualualei Naval Access Road to the subject property. Tropic Land LLC is working to obtain an easement from the Navy to use Lualualei Naval Access Road as a direct route from Farrington Highway.



Frontage of project site along Lualualei Naval Access Road. Gate to the Naval installation is at the end of the road.



Project site, looking southwest.

**Existing Use.** The project site is vacant and covered mostly with grasses, *haole koa* bushes, and isolated *kiawe* trees. A truck farm operated on 15 acres for a brief period in the 1980s, closing voluntarily in 1988.

Today, the property is used for limited and temporary storage by Tropic Land. Grasses are mowed periodically for fire control and used for silage. Trees were planted in a linear strip fronting Lualualei Naval Road in the summer of 2007. The entire site is subject to an existing Unilateral Agreement (UA) related to the development of a golf course.

**Surrounding Uses.** Land uses in the Lualualei Valley are generally divided into four zones. The lower valley or *makai* zone is characterized by a mix of residential and commercial uses that developed along Farrington Highway. The upper valley is occupied by the U.S. military, including the naval magazine and transmitter facility, and connects over the ridge to Schofield Barracks on the central O‘ahu plateau.

The western zone is dominated by numerous residential and farm lots that are arrayed along the *mauka-makai* axis of Hakimo Road. Lualualei Naval Access Road is the *mauka-makai* transportation axis for the eastern zone of the valley. Unlike Hakimo Road, the parcels on Lualualei Naval Access Road are larger and much fewer in number. This corridor has a distinctly industrial character, conveyed by the presence of the PVT landfill for construction and demolition debris and the former cement plant, now operated as a waste processing facility by West Oahu Aggregates and Pineridge Farms. The project site lies *mauka* of Pineridge Farms, and abuts the Naval installation. The foothills of Pu‘u Heleakala Ridge form the site’s eastern and southern boundaries.

#### 1.4 Background of the Project Area—Development History

The landowner prior to Tropic Land LLC was Kabushiki Kaisha Oban, (referred to as “Oban”) a Japanese corporation.

- **April 1991:** Environmental Impact Statement for a proposed golf course on the properties was completed and filed.
- **November 1993, January 1991:** A formal Archaeological Inventory Survey of the property was prepared by Cultural Surveys Hawai‘i in January 1991 and a revised survey was prepared in November 1993. The report was subsequently approved by the State of Hawai‘i Historic Preservation Division (SHPD). Eight archaeological sites were identified, of which seven are considered “no longer significant.” There is one significant site that is situated upslope and outside the proposed development area.
- **September 24, 1996:** In support of its proposal to develop an 18-hole golf course and accessory uses, Oban sought and obtained approval for a zoning change. The zoning change from AG-1 Restricted Agricultural District and AG-2 General Agricultural District to P-2 General Preservation District applied to approximately 188 acres out of a total of 254 acres. The zoning change was approved with conditions and recorded as Document 2337653 on September 24, 1996.
- **December 22, 2005:** The property was acquired by Tropic Land LLC from Oban.
- **September 4, 2007:** Meeting with the Wai‘anae Neighborhood Board (NB) to present information about the property and to solicit recommendations for its future use. The Wai‘anae NB recommended that a more formal presentation be made to the Planning and Zoning Committee. Several suggestions were made, but community consensus emerged for a light industrial park. Additional meetings with the Planning and Zoning Committee were held in Oct-Dec 2007.
- **November 2007:** Application to amend the Wai‘anae Sustainable Communities Plan submitted to the Department of Planning and Permitting.

- **May 20, 2008:** Initial project presentations made to the newly established Nānākuli/Mā‘ili Neighborhood Board. Follow-up discussions with the board occurred during regularly scheduled meetings in June and July.
- **July 15, 2008:** Members of the Nānākuli/Mā‘ili Neighborhood Board unanimously adopted a resolution supporting the proposed light industrial park.
- **October 21, 2008:** Members of the Nānākuli/Mā‘ili Neighborhood Board adopted a resolution supporting amendment of the Wai‘anae Sustainable Communities Plan to provide for the development of a light industrial park in Lualualei Valley.

### **1.5 Purpose of this Environmental Impact Statement Preparation Notice (EISPN) and Final Environmental Assessment (EA)**

This Environmental Impact Statement Preparation Notice (EISPN) has been prepared in accordance with the requirements of Chapter 343, Hawai‘i Revised Statutes (HRS) and Chapter 200 of Title 11, Department of Health Administrative Rules, “Environmental Impact Statement Rules.”

The environmental review process allows for three courses of action depending on a project’s anticipated level of environmental impact. The first course would be an “exemption” from environmental review according to the HAR Chapter 200 (Environmental Impact Statement Rules). These procedures are applicable to projects that typically do not impact the environment as determined by the relevant accepting authority.

The second course of action applies to projects whose environmental impact would not be “significant.” The term “significant” has a technical definition under HAR Chapter 200. For projects lacking a “significant” environmental impact, an Environmental Assessment (EA) is prepared and is the appropriate environmental review document.

The third course of action applies to projects expected to have a “significant” impact on the environment. For such projects, an Environmental Impact Statement (EIS) is prepared, and is the appropriate environmental review document.

Tropic Land elected to go straight to an EIS for two reasons. First, an EIS had been prepared to examine the impacts of the prior development proposal, the “Oban golf course,” and the current property owner desired a similar level of environmental evaluation for the proposed light industrial park. Second, an EIS would allow for comprehensive disclosure and discussion of potential environmental impacts and mitigations.



## **Trigger**

An Environmental Impact Statement is required for the project because it involves an amendment to the Wai‘anae Sustainable Communities Plan, an action described under Hawai‘i Revised Statutes Section 343-5(a)(6).

## **1.6 STEPS IN THE ENVIRONMENTAL REVIEW AND IMPLEMENTATION PROCESS**

The EISPN/EA has been submitted to the State Land Use Commission for a decision as to whether it is the proper accepting authority for the EIS. It will then be submitted to the State Office of Environmental Quality Control (OEQC) to initiate the environmental review process. The OEQC will notify the public that the prep notice is available for review in its bimonthly bulletin, the OEQC *Environmental Notice*. Official announcement by the OEQC initiates a 30-day comment period. Concurrently, project planners will distribute the EISPN/EA with a cover letter requesting comments (see distribution list in Chapter 7).

Following agency and public review of the preparation notice, project planners will prepare the Draft Environmental Impact Statement (DEIS). This document will address comments received during the review period.

## **1.7 LIST OF POSSIBLE PERMITS, APPROVALS, AND REQUIREMENTS FOR REGULATORY COMPLIANCE**

The following are the possible permits, approvals, and requirements for regulatory compliance:

### ***State of Hawai‘i***

- State Land Use Commission, boundary amendment
- Chapter 343, HRS, environmental review process
- Department of Health
  - Section 402, Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Permit
- Honolulu Real Estate Commission, registration of Condominium Property Regime

***City and County of Honolulu***

- Wai‘anae Sustainable Communities Plan, amendment
- Zoning change (from P-2 Preservation to I-1 Industrial)
- Grading permit
- Building permit

## **2. Proposed Action**

### **2.1 Project Description**

Tropic Land LLC proposes to develop an industrial park that would occupy approximately 96 acres in the upper Lualualei Valley. The project is currently known as the Nanakuli Community Baseyard. It is located on a portion of the property identified as TMK 8-7-9: 02. The project area is bordered by Lualualei Naval Access Road on the west, with agricultural lots on the other side of the roadway. Abutting the property on the north is the Navy Munitions Command, Lualualei Headquarters Branch. Steep cliffs, including the slopes of Pu‘u Heleakala, lie on the south and east. See Figure 3, Site Plan.

The industrial park will be comprised of 35-40 lots, averaging two acres each. Lots in higher visibility areas, such as those along the main entry road and around intersections, may be divided into smaller parcels for commercial and service-oriented businesses.

An incubator center is proposed for two of the lots. The incubator concept will enable small businesses to obtain affordable, start-up spaces. The concept includes a 25,000-SF industrial building providing indoor spaces of up to 1,800 SF for a full bay. Open yard space would also be available in increments of approximately 8,750 SF each.

The project will be structured under a condominium form of ownership with individual units (lots) and common ownership of internal roads and infrastructure. Tropic Land LLC is planning to seek an I-1 zone for the area that is planned for industrial use. The remainder of TMK 8-7-9: 02 will remain in the preservation zone. Covenants, Conditions, and Restrictions (CC&Rs) are being developed and sections relevant to project description and assessment of environmental impacts will be included in the DEIS.

#### **Infrastructure**

Access and Circulation. Formal access to the project site is via Hakimo Road, across land situated between Hakimo Road and Lualualei Naval Access Road (TMK 8-7-10: 06, also owned by Tropic Land), and an easement from the U.S. Navy to cross Lualualei Naval Access Road. Because the U.S. Navy has jurisdiction over Lualualei Naval Access Road, Tropic Land will need to acquire an easement to use this direct connector from Farrington Highway to the project site.

The development is planned with a single, secured entry off Lualualei Naval Access Road and a secondary access for fire and emergency purposes. Interior roads will be privately owned and maintained. Street will be designed with a 44-foot right-of-way and two 12-foot lanes. Street corners will be designed with wide turning radii to accommodate large trucks and trailers. Curbs, gutters, and sidewalks will be installed, although a variance may be requested for

sidewalk installation on one side only. Street lights and street trees will be installed for safety and aesthetic purposes.

Buffers and Setbacks. The existing linear tree farm will remain as a 30-foot landscaped setback along the Lualualei Road frontage. The north and south property lines will have 15-foot setbacks. An additional strip of land, approximately 100 feet wide and *mauka* of the industrial lots, will be used for rockfall hazard mitigation and a fire break.

Drainage. Retention facilities will be constructed to retain increases in storm drainage runoff that occurs as a result of the proposed development. These facilities will include a combination of swales, detention ponds, and underground storage tanks. The 100-foot *mauka* strip will also include drainage improvements to accommodate peak runoff from the hillside. Retention facilities within the strip are intended to dampen the peak runoff generated from the hillside.

Potable Water System. The project's potable water system will be connected to the existing 8-inch Board of Water Supply (BWS) water line along Hakimo Road. A new 8-inch transmission line and a new service road will be located along the northern property boundary line of TMK: 8-7-010: 006 (owned by Tropic Land). The new water line will cross Lualualei Naval Access Road and enter the project site. The potable water distribution system will be designed and constructed in accordance with BWS standards.

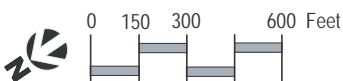
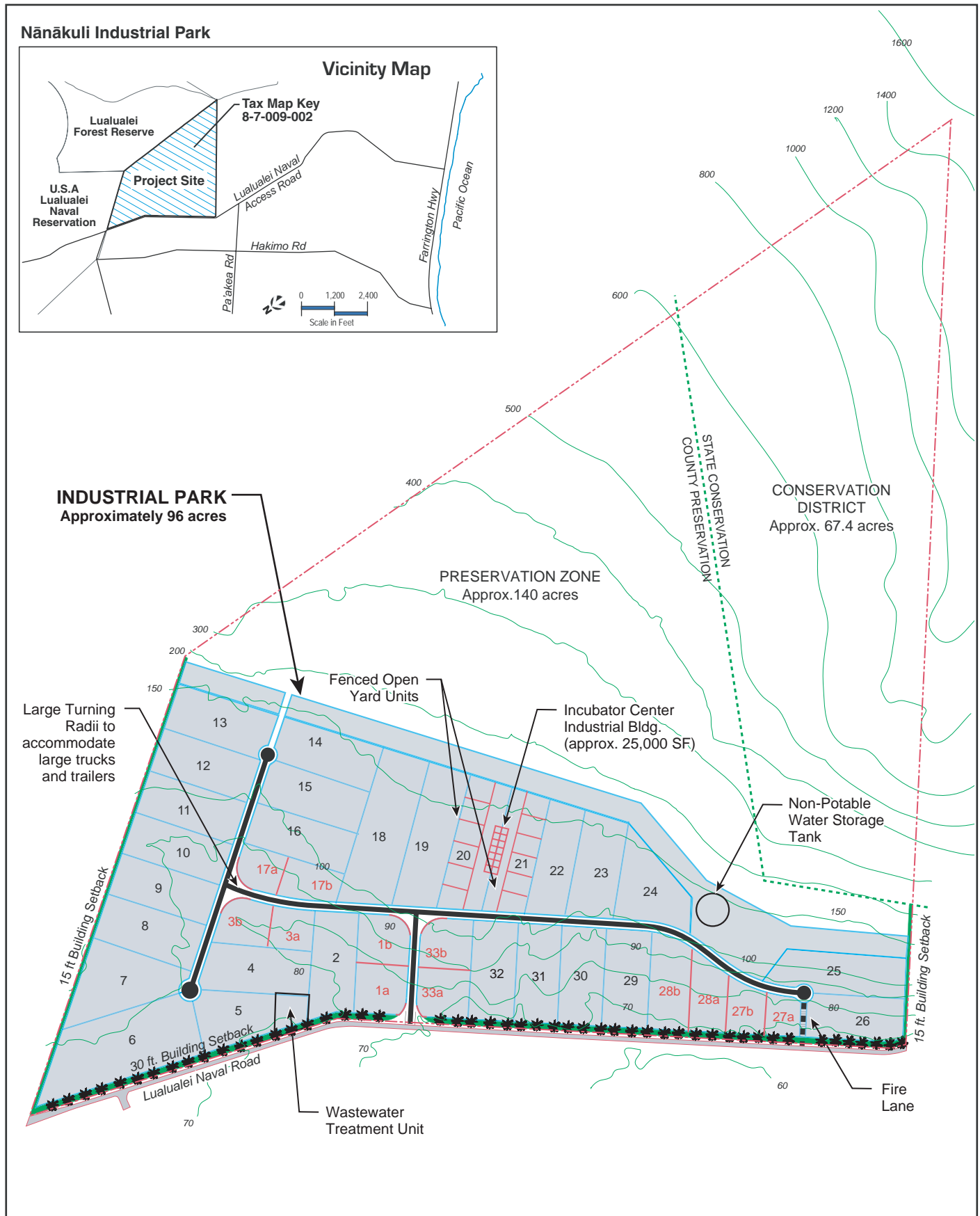
For fire protection purposes, the project requires flow of 4,000 gallons per minute (gpm) for a duration of 3 hours, and a minimum water storage capacity of 0.72 million gallons (MG). To accommodate these requirements, a storage facility with a 1.0 MG capacity will be constructed at a spillway elevation of approximately 242 feet.

Non-Potable Water System. There are two existing wells on site at the 145 to 155-foot elevation levels. The wells have been pump tested to yield 225 gpm (0.32 MGD) per well. A pump system and non-potable water main will dispense non-potable water for irrigation.

Wastewater System. The major components of the proposed wastewater system are the gravity collection system, wastewater treatment unit, and effluent disposal system. The system will be designed and constructed to State and County standards, but the on-site wastewater system will be privately operated and maintained.

The wastewater treatment unit will be located in a 10,000-SF, fenced area within the industrial park. A single basin reactor will employ cyclic biological treatment with a continuous activated sludge system. Treated wastewater effluent will be chlorinated, disinfected, and pumped to a non-potable water storage tank. Effluent may be supplemented with non-potable water from the existing wells for irrigation purpose.

Utilities. The necessary electrical, telephone, cable TV, and high-speed internet services will be provided by Hawaiian Electric Co., Hawaiian Telcom, and Oceanic Time Warner Cable. The existing electrical facility at Mikiloa Substation is expected to supply power to the project site.



## **2.2 Purpose of and Need for the Proposed Action**

There is a disparity on the Wai‘anae Coast between a growing residential population and its associated labor force—and the scarcity of employment opportunities and new industrial development within the same region. The proposed light industrial park is needed to create a new employment center and alleviate the gap between jobs and the available labor force.

The Wai‘anae Coast accounts for almost 5.0 percent of total population on O‘ahu, but less than 1.5 percent of the island’s employment. The imbalance is not expected to improve in the future. The Department of Planning and Permitting prepares socio-economic projections that are reported in the *Annual Report on the Status of Land Use on O‘ahu*. The *Annual Report* for Fiscal Year 2006 indicates that population in the Wai‘anae Development Plan area will grow moderately from 44,656 in 2005 to 52,285 in 2030. However, employment is projected to *decrease* from 7,253 in 2005 to 7,126 in 2030.

One obstacle to job growth, particularly in the traditional industrial sectors (represented by the employment categories of Transportation, Industrial, and Construction) is the lack of available and affordable space. Existing industrial development on O‘ahu is overwhelmingly concentrated within three Development Plan Areas, namely, the Primary Urban Center, ‘Ewa, and Central O‘ahu. The combined inventory of industrial space within the remaining Development Plan Areas of East Honolulu, Ko‘olaupoko, Ko‘olaupoko, North Shore, and Wai‘anae totals less than 1.0 million square feet, or only 2.7 percent of the islandwide total. This means that a large proportion of Wai‘anae Coast residents work outside their communities requiring longer commutes, more time spent away from families, and the greater financial and environmental costs of increased fuel use.

The proposed action addresses the ongoing deficiency of developable industrial land on the Wai‘anae Coast. The sustainability of a community, including the ability to support a range of economic activities and workplaces for its residents, requires a broad distribution of land use types. The light industrial park will provide opportunities for blue-collar trade and craft employers to locate within the community.

## **2.3 Other Alternatives Considered**

The potential impacts and benefits of taking no action, as well as other development alternatives will be evaluated in the DEIS. The following are brief summaries of these alternatives.

### **2.3.1 No Action**

The DEIS will describe the no-action or status quo alternative, which would leave the project site in its current condition.

### **2.3.2 Golf Course**

The golf course alternative would be based on a master plan for approximately 259 acres of Tropic Land's land holdings, affecting TMKs 8-7-9: 2 (proposed industrial park site) and 8-7-10: 6 and 10 (located across Lualualei Naval Road). In addition to the regulation 18-hole golf course, the master plan calls for a clubhouse, driving range, and nursery facility. The City Council approved a zoning change and Unilateral Agreement, effective September 24, 1996, that entitles the landowner to build the golf course project. However, upon acquiring the property in 2005, Tropic Land began considering alternative land uses. The search for other land use possibilities was based, in part, on community opposition to the golf course project that was evident in public comments on the EIS and during the Council's zoning deliberations. Moreover, the economic feasibility of developing a golf course has diminished over time with the decline of overseas visitors and the opening of other courses in West O'ahu.

The DEIS will discuss environmental impacts from the proposed golf course relative to the proposed light industrial park.

### **2.3.3 Alternative Industrial Park Configurations**

The process of developing the site plan included an examination of several industrial park configurations. The limits of development were set by steep slopes in the interior of the property. Within the flatter area, the alternatives featured variations in roadway layout and lot division. A more detailed discussion of the alternatives will be provided in the DEIS.

## **2.4 Preliminary Cost and Timetable**

Based on the conceptual site plan, the preliminary cost for mass grading and infrastructure construction is estimated at \$29 million.

Project occupancy is expected to occur within 18 months from approval of necessary land use amendments, rezoning, and permits. The initial phase is expected to include construction of roads, support infrastructure, and utilities. Industrial lot development will depend upon sales and market absorption.

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### **3. Affected Environment, Potential Impacts, and Mitigations**

#### **3.1 Introduction**

This chapter identifies the resource areas that will be addressed in the DEIS, describes the scope of the DEIS analysis, and identifies the anticipated environmental issues. Because the environmental analysis has not been completed yet, this EISPN/EA does not discuss project impacts, whether the impacts will be significant, or potential mitigation.

The information presented in this EISPN/EA is limited to a description of existing conditions from available sources of information (e.g., the EIS for the prior golf course proposal). These studies will be verified and updated for the Nānākuli Community Baseyard DEIS.

In addition to describing existing conditions, the DEIS will evaluate the environmental impacts of the proposed action on the various resource areas. The resource areas to be covered are organized into seven categories:

- physical environment
- biological environment
- archaeological, historic, and cultural environment
- socio-economic environment
- built environment
- public infrastructure and services

#### **3.2 Physical Environment**

##### **3.2.1 *Topography and Geology***

Generally, the project site slopes in a southwesterly direction towards Lualualei Naval Access Road. Approximately one-third of the site, situated below the 200-foot elevation level, is relatively flat. Slopes range from 0-10 percent from Lualualei Access Road to the foothills of the Pu‘u Heleakala ridge.

Slopes above the 200-foot elevation become abruptly steeper. It is estimated that the slope within this “second tier” of the property is within the 10-30 percent range. The far reaches of the property contain slopes that rise radically upward towards the peak of the ridge.

The industrial park will not extend above the 200-foot elevation. Portions of the property above the 200-foot elevation will be left in their current, undeveloped state and will remain in the preservation zone.

### **3.2.2 Climate**

Lualualei Valley is relatively arid. Mean annual rainfall is approximately 20-30 inches and varies from about 3.5 inches in December and January to about 0.4 inches in June and July. Mean pan evaporation is approximately 70-80 inches annually and varies from over 8 inches in July and August to about 4 inches in December and January.

Average temperatures within the area surrounding the project site varies from 70.3 degrees (January) to 76.7 degrees (October). Prevailing tradewinds come from the northeast direction at an average 10 mph (January) to 13.6 mph (July). Cloud cover varies from 51 percent in the summer to 63 percent in spring. Sunshine percentages range from 59 percent in the winter to 75 percent in the summer.

#### Potential Impacts and Mitigation Measures

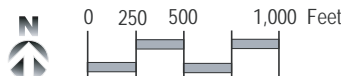
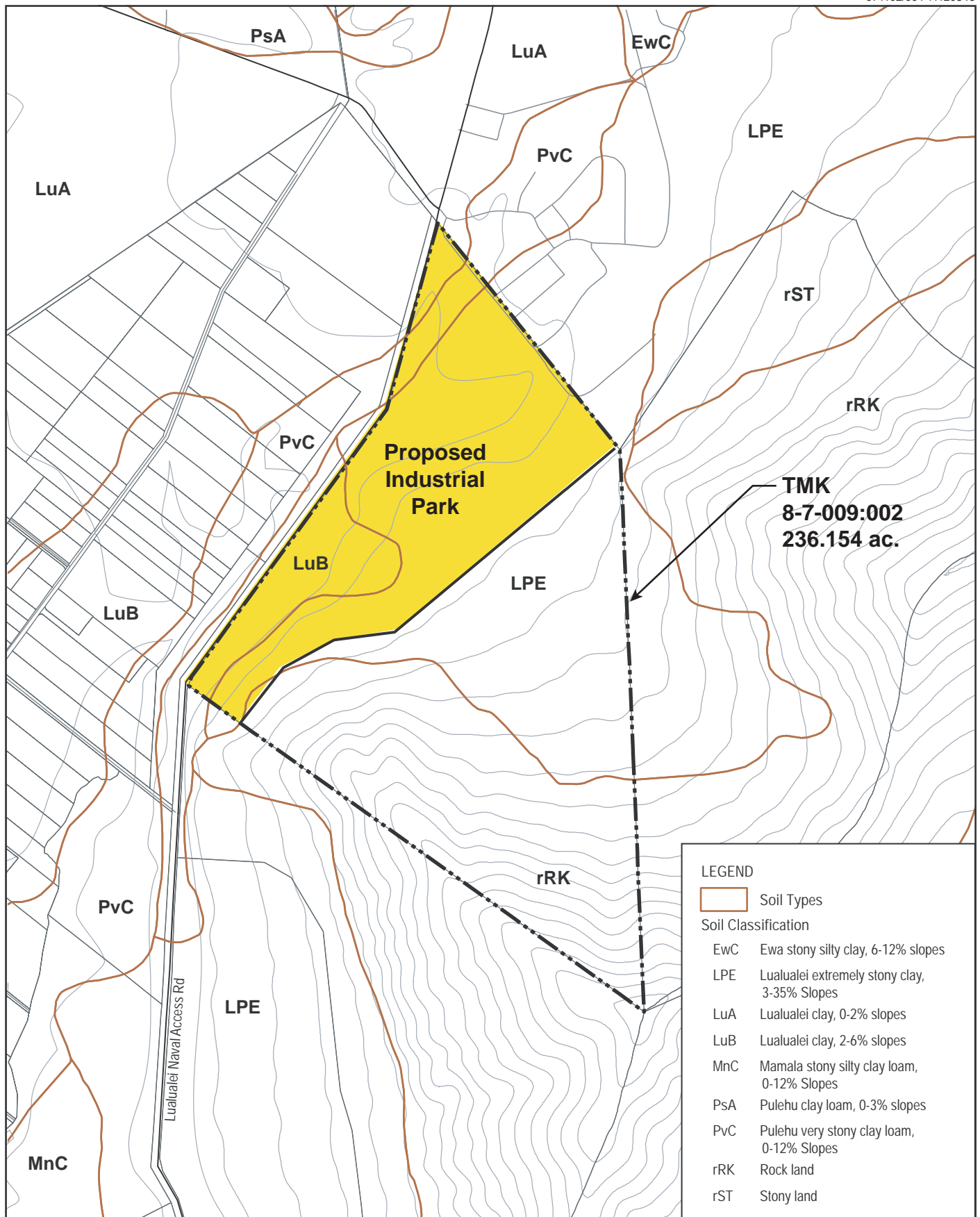
The proposed industrial park is not expected to have an effect on climactic conditions and no mitigation measures are planned. Climate, however, has secondary impacts. First, dry climate leaves the land susceptible to wildfires whether from natural or human causes. The undeveloped areas of the property will be part of the common area maintained by the condominium owners' association. They will be responsible for controlling vegetation and maintaining on-site fire suppression systems. Security measures will help to reduce fires related to vandalism and increase early detection. The area's dry, sunny climate offers beneficial conditions for installation of solar technologies. Electrical systems for individual buildings will be installed by the lot owners. Whenever possible, however, Tropic Land will investigate the use of alternative energies, for example for outdoor lighting and utility pumping needs.

### **3.2.3 Soils**

Soil types or classifications for the project site are based on soil surveys by the U.S. Department of Agriculture. According to the soil surveys, the project site contains mostly Lualualei extremely stony clay (LPE) with some Lualualei clay (LuB) on portions of the site directly abutting Lualualei Naval Access Road and covering the flatter portions of the site (see Figure 4). LPE soils occur on talus slopes on O'ahu that range from 3 to 35 percent. The soil is similar to LuB soils except that there are many stones on the surface and in the profile. Runoff is medium to rapid, and the erosion hazard is moderate to severe.

#### Potential Impacts and Mitigation Measures

Major portions of the project area contain soils in the Lualualei Series. The DEIS will discuss their suitability for the proposed use.



**Figure 4**  
**Soils Map**  
November 2008

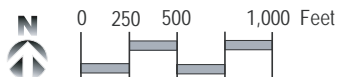
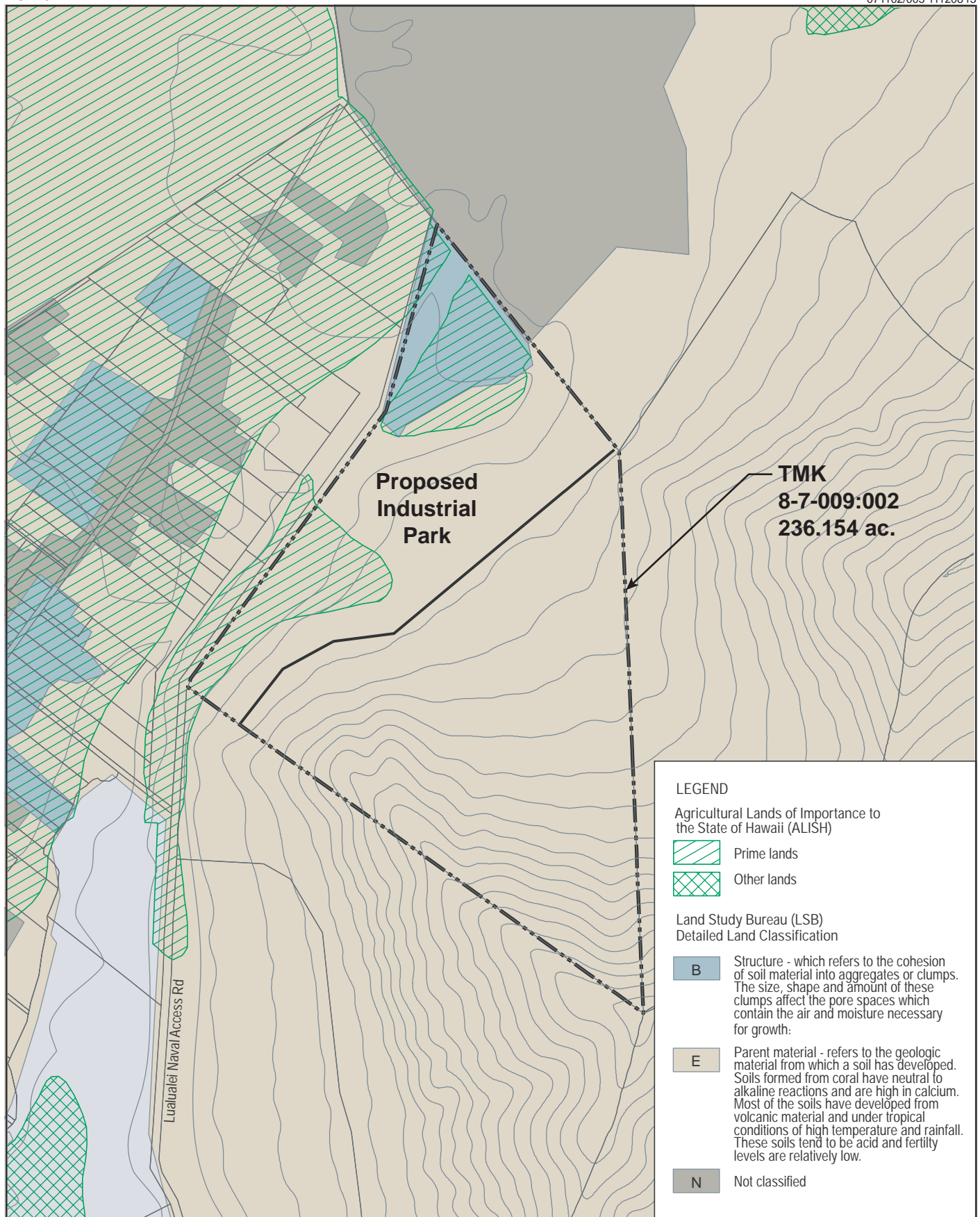
### **3.2.4 Agriculture**

Soils analyses for agricultural purposes by the U.H. Land Study Bureau have identified soils suitable for agriculture on 13.5 acres of the project area. Based on this analysis, 14 percent of the 96-acre project site is classified as containing Class “B” (or “prime” or “good”) agricultural lands, while 86 percent of the project site contains Class “E” lands’ that is, lands which are only “marginally” suitable for agricultural sue according to the LSB soils rating system (see Figure 5).

In the early 1900s, sugarcane was grown in Lualualei Valley and along much of the Wai‘anae Coast by the Wai‘anae Sugar Company, which ceased operations circa 1946. Whether sugarcane was grown on the project site itself is unconfirmed, although the presence of boulders suggests that the land may have been used primarily for pasturage. It is known that a small truck farm operated on the site for several years, ending operations in 1988. No other crop production has occurred since that time.

#### Potential Impacts and Mitigation Measures

The DEIS will identify potential impacts on these former sugar cane lands, their current use, and potential for other uses in the future.



**Figure 5**  
**ALISH-LSB Map**  
November 2008

### **3.2.4 Hydrological Conditions**

#### **3.2.4.1 Ground Water**

The information contained in this section is based on a 1988 study of groundwater sources within the site and immediate surroundings conducted by John F. Mink entitled *Groundwater Resources, Maile [sic], Waianae, Pu'u Haleakala [sic] to Ulehawa Stream*, October, 1988.

Two separate aquifers occur on the property: one consisting of limestone in the valley and the other composed of basalt underlying the valley fill and talus slopes. These aquifers are independent of each other. The source of groundwater in the limestone is recharged from rainfall and from mountain runoff reaching the valley; the source in the basalt is rainfall on talus slopes and ridges exposed to bedrock.

With proper development practice, several hundred gallons per minute of brackish water having 500 to 1000 mg/l chloride could be obtained from the two existing wells located within the project site.

#### Potential Impacts and Mitigation Measures

The groundwater is not potable and its potential use is primarily for irrigation. There are no plans to develop new wells on the project site. Groundwater conditions will be discussed further in the DEIS.

#### **3.2.4.2 Surface Water**

The project site is part of the Ulehawa Stream drainage basin which, overall, encompasses approximately 3,178 acres of land and several tributaries that discharge into Ulehawa Stream. The Ulehawa Stream drainage basin stretches from sea level to Ulehawa Beach Park to a maximum elevation of 3,098 feet at Palikea, at a distance of over 4.5 miles. Ulehawa Stream crosses the northwest section of the project site, then crosses under Lualualei Naval Access Road through culverts. Where it passes through the project site, Ulehawa Stream is an intermittent stream that is dry under normal conditions.

#### Stormwater Quality

As noted above, the project site contains soils in the Lualualei series which typically have two horizons, the surface A horizon and the underlying parent material or C horizon. In areas with nearly level topography the A horizon may be about 2 feet deep, but on the talus slopes the surface soil is expected to be thinner.

Lualualei soils crack widely upon drying, but has a high shrink-swell potential so that the cracks close when the soil is thoroughly wetted. This shrink-swell characteristic has a great impact on

the infiltration of water and permeability of the soil. When the soil is dry, water infiltration into the surface soil can be rapid; but once the cracks close in the wetted soil, the infiltration of water is greatly reduced. Consequently, runoff is medium to rapid on the steeper slopes.

#### Potential Impacts and Mitigation Measures

Storm water drainage and water quality issues will be discussed further in the DEIS.

### **3.2.6 Air Quality**

While there is no air monitoring station in the project vicinity, air quality is believed to be in compliance with State and federal standards due to the rural, lightly developed nature of the project area. The nearest major stationary sources, the PVT Landfill and Pineridge Farms, are located downwind under normal trade winds and, thus, would impact the project site air quality only during southerly (*kona*) wind conditions.

Similarly, the large power plant located some five miles away at Kahe Point is also downwind during trade wind conditions. Mobile source activity along Lualualei Naval Access Road is so low that such activity has minimal air quality impact. The state Health Department's nearest air monitoring station, located eight miles away at Barber's Point indicates compliance with State and federal standards despite being located adjacent to Campbell Industrial Park (and I-2, heavy industrial activities).

On an annual basis, wind conditions in the area are dominated by brisk trade winds; however, there is a marked seasonal difference in the velocity and persistence of such trade winds. Trade winds tend to decline in the fall and winter months (light and variable) which can contribute to higher pollutant concentrations. Near coastal areas also experience land-sea breeze regimes with onshore winds during the day and offshore winds at night.

#### Potential Impacts and Mitigation Measures

The DEIS will include a description of current air quality and the project's impact on future air quality.

### **3.2.7 Natural Hazards**

Natural hazards that could occur in the project area include earthquakes, hurricanes, and floods.

#### **3.2.7.1 Earthquakes**

The island of O‘ahu rarely experiences earthquakes because the island is not situated in a highly seismic area. The Uniform Building Code (UBC) provides minimum design criteria to address the potential for damages due to seismic disturbances. The UBC seismic provisions contain six seismic zones, ranging from 0 (no chance of severe ground shaking) to 4 (10% chance of severe shaking in a 50-year interval). O‘ahu is in UBC Seismic Zone 2A.

#### **3.2.7.2 Hurricanes**

Hurricanes are intense tropical cyclones with sustained (one-minute average) wind speeds greater than 75 miles per hour. They form over warm tropical water and generally travel in the same direction as the winds in the surrounding environment. In November 1982, Hurricane Iwa struck Kaua‘i and O‘ahu and caused \$234 million in property damage to both islands. Hurricane Iniki, which struck in September 1992, largely bypassed O‘ahu, but caused over \$1 billion in damage to Kaua‘i.

#### **3.2.7.3 Flood Hazard**

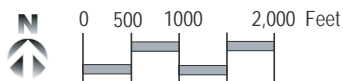
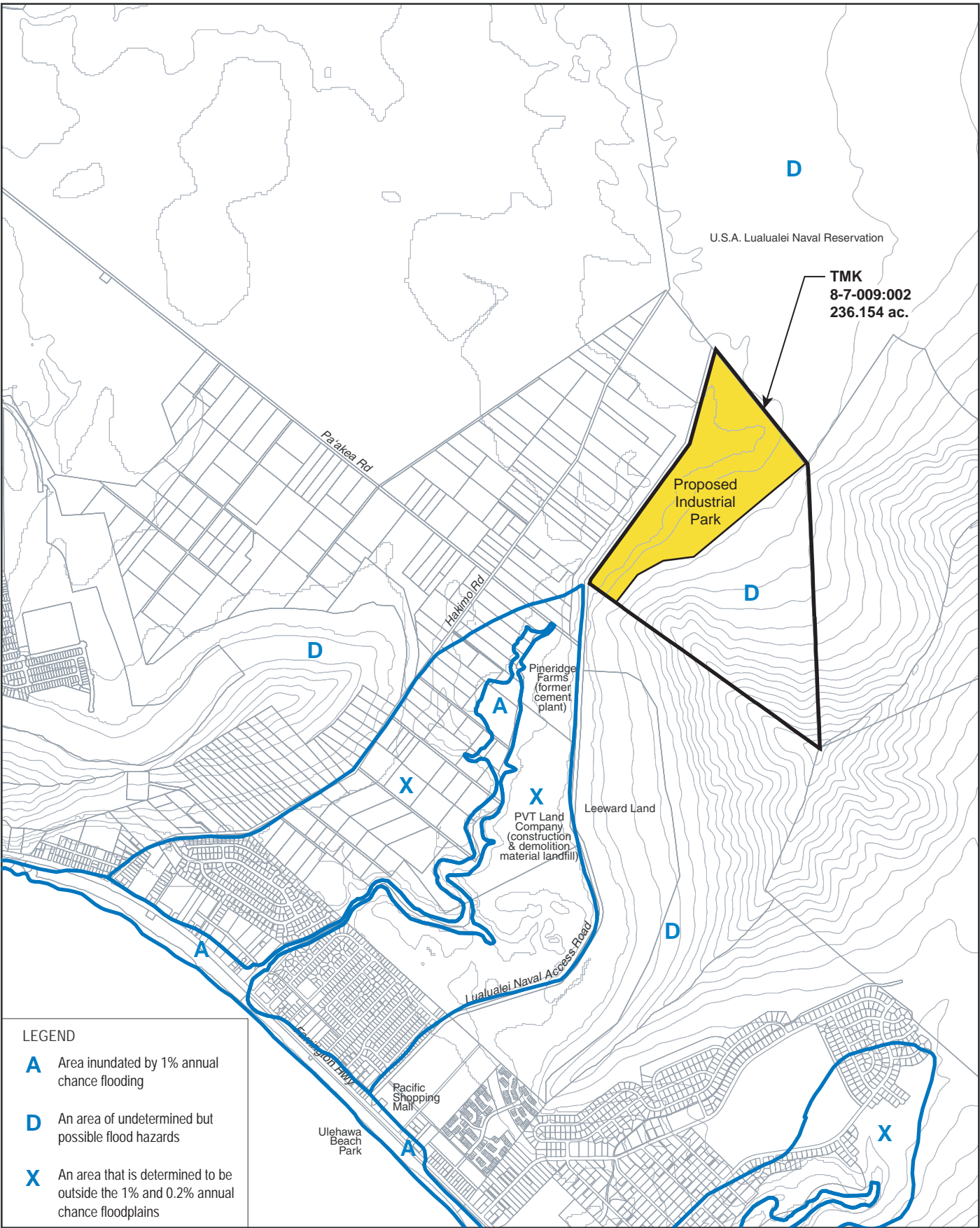
As shown in Figure 6, the Flood Insurance Rate Map (FIRM) indicates that the entire project site is situated within Flood Area Zone D (areas in which flood hazards are undetermined). There are currently no drainage improvements within the project site.

The project site is located outside the tsunami inundation zone.

#### **Potential Impacts and Mitigation Measures**

Potential impacts associated with natural hazards will be discussed further in the DEIS.





**Figure 6**  
**Flood Insurance Rate Map**  
November 2008

### 3.2.8 Noise

Existing background ambient noise levels in the project environs are controlled by traffic on Lualualei Access Road, local traffic on Hakimo Road, birds, dogs, wind, and foliage.

Existing traffic noise levels along Lualualei Access Road and Hakimo Road are moderate (approximately 61 to 62 Ldn) at a 50-foot setback distance from the roadway center line. Maximum noise levels (Lmax) associated with heavy truck and bus traffic on the two roadways are in the order of 78 to 85 dB at this setback distance. Minimum background ambient noise levels of approximately 35 to 50 dB occur between periods of traffic flow.

#### Potential Impacts and Mitigation Measures

The DEIS will discuss noise levels in the project vicinity. Noise-sensitive areas will be identified, and the impacts on these noise-sensitive areas will be described.

## 3.3 Biological Resources

### 3.3.1 Terrestrial Fauna

A report by Andrew Berger entitled *Terrestrial Vertebrate Animals of the Proposed Lualualei Golf Course*, August, 1990, was prepared for the golf course project and will be updated for the Nānākuli Community Baseyard DEIS. The information below is taken from the Berger report.

Of the four species of frogs that have been introduced into the islands, only the Giant Neotropical Toad (*Bufo marinus*) was observed on one occasion at the project site.

Several types of birds were observed at or near the project site. These include the following introduced species:

- Spotted or Lacenecked Dove (*Streptopelia chinensis*), which is common to the project site and surrounding area
- Barred Dove or Zebra Dove (*Geopelia striata*), which is common along cane haul roads and anywhere there are weed seeds
- Red-vented Bulbul (*Pycnonotus cafer*)
- Japanese White-eye (*Zosterops j. japonicus*), which is very common in all habitats in the lowlands of O‘ahu
- Common Indian Myna (*Acridotheres tristis*), common throughout O‘ahu’s lowlands
- Ricebird or Nutmeg Mannikin (*Lonchura punctulata*), common throughout the region
- House Sparrow (*Passer domesticus*);
- Red-crested Cardinal (*Paroaria coronata*), which occurs throughout the region;
- House Finch (*Carpodacus mexicanus frontalis*), common throughout the region;
- Feral pigeons (*Colombia livia*)

The only indigenous bird species, noted in Berger's report as "the only winter resident that would occupy the project region," is the Lesser Golden Plover (*Pluvialis dominica fulva*).

Berger's report on endemic Hawaiian birds noted that there is no suitable native forest habitat for any of the Hawaiian forest birds anywhere near the project site; that there is no suitable habitat for any of the endangered Hawaiian waterbirds on or anywhere near the project site; and that the *Pueo* or Hawaiian owl (*Asio flammeus sandwichensis*) was not observed in his field studies of animal species within or near the project site. Berger concluded that the site is not suitable for this owl.

Berger assumed that all of the following mammal species occur in the project site because of their common occurrence throughout the island:

Roof rat (*Rattus rattus*)  
Polynesian rat (*Rattus exulans*)  
Norway rat (*Rattus norvegicus*)  
Small Indian mongoose (*Herpestus auropunctatus*)  
Feral cat (*Felis catus*)  
Feral dog (*Canis familiaris*)

#### Potential Impacts and Mitigation Measures

The Berger field study made the following conclusions: None of the introduced species of birds identified in his report is an endangered or threatened species. A change in land use could provide more habitats for some of the introduced species.

Development of a golf course was not expected to have any effect on any seabird, and specifically, the black-crowned night heron, because there is no habitat at or near the project for this heron and wintering ducks or shorebirds. There are no suitable wetland habitats for any of the endangered Hawaiian waterbirds at or near the project site. The *Pueo* or Hawaiian Owl was never seen at or near the site nor is there any published record indicating its presence at or near the site.

Finally, Berger concluded that the development would not have adverse effects on any endemic ecosystem or on any native plant or animal.

The DEIS will include an updated avifauna and mammals study. The DEIS will discuss the presence or absence of threatened and endangered species or species of concern. Potential environmental problems or concerns will be identified and appropriate mitigation measures proposed.

### **3.3.2 Botanical Resources**

A detailed botanical survey of the project site was conducted by Char & Associates and titled *Botanical Survey, Proposed Lualualei Golf Course, Lualualei, Nanakuli, Oahu, September, 1990*.

*Kiawe* forests, which vary from open woodland to closed-canopy stands, form the dominant vegetation type within the project site. Buffel grass was the most common ground cover associated with this forest type. At about the 100-foot elevation contour, the composition of the forest changed with more openings among the trees (30 to 50 percent cover), and Guinea grass and green panic grass becoming co-dominant with buffel grass at this elevation level. At about the 200 to 250 foot elevation and higher, rocky outcroppings became numerous and *koa-haole* shrubs became more commonplace.

A total of 61 species of plants were found on the project site of which a majority (54 species or 88 percent of all species) were introduced species while 7 species (12 percent) were native species. Of the native species, 6 species were indigenous; that is, they occur in the Hawaiian Islands and elsewhere, and 1 was endemic or occurring only in the Hawaiian Islands. All of the native species of plants can be found throughout the Hawaiian Islands in areas with similar environmental conditions.

None of the 61 species were designated as threatened or endangered by the federal government (U.S. Fish and Wildlife Services, 1989) or State government.

#### Potential Impacts and Mitigation Measures

The DEIS will include an updated botanical survey. None of the vegetation types are anticipated to have undergone major change since 1990.

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

### **3.4.1 Archaeological and Historical Resources**

An archaeological survey of the project site was conducted in November, 1990 by Cultural Surveys Hawaii. The findings and conclusions of that survey are contained in *An Archaeological Inventory Survey for the Proposed Lualualei Golf Course, Lualualei, Waianae, Oahu, January, 1991*. Information in this section is based on that report.

Figure 7 shows cultural resources in the larger region and Figure 8 shows cultural resources that have been identified within TMK 8-7-09: 02. A total of seven (7) archaeological sites have been identified in and around what is now the site of the proposed industrial park. Only two of the sites (50-80-08-4366 and -4367) are interpreted as being attributable to traditional Hawaiian

activity, with one site (50-80-08-4366) probably representing prehistoric, recurrent habitation on the foothills of Pu‘u Heleakala. This is primarily evidenced by the presence of a probable hearth feature within the site complex.

Site 50-8-08-4367, a remnant wall section running adjacent to an intermittent stream bed, suggests an agricultural usage possible constructed to retain or divert water. Given the weathered condition of the structure, this site may be prehistoric.

The five remaining sites identified within the project area are attributable to historic land usage. Four sites (50-80-08-4364, -4370, -4372, and -4373) are associated with cattle ranching and include cattle walls, an historic house lot, and various other ranching infrastructure. One site (50-80-08-4365) represents a military shelter evidenced by the presence of bullets and C-ration cans.

Six of the seven sites in the project area were evaluated as “no longer significant” (NLS) because of lack of cultural or scientific interest beyond their plotted distribution. Site 50-80-08-4366 was determined likely to yield information important to prehistory or history. This site lies outside what was then the proposed golf course, and is similarly outside the proposed industrial park and, therefore, will not be disturbed. The following table summarizes the archaeological and historical sites and their significance.

**Table 1**  
**Archaeological Sites Summary and Significance, TMK 8-7-09: 02**

<b>State Site #</b>	<b>Site Type</b>	<b>Function</b>	<b>Significance</b>	<b>Recommendation</b>
50-80-08-4364	Wall	Ranching	NLS	None
50-80-08-4365	Shelter	Military	NLS	None
50-80-08-4366	Structural complex	Habitation	D	Preserve
50-80-08-4367	Wall remnant	Agriculture	NLS	None
50-80-08-4370	House lot	Ranching	NLS	None
50-80-08-4372	Foundation	Ranching	NLS	None
50-80-08-4373	Incinerator	Ranching-Military	NLS	None

NSL: No longer significant

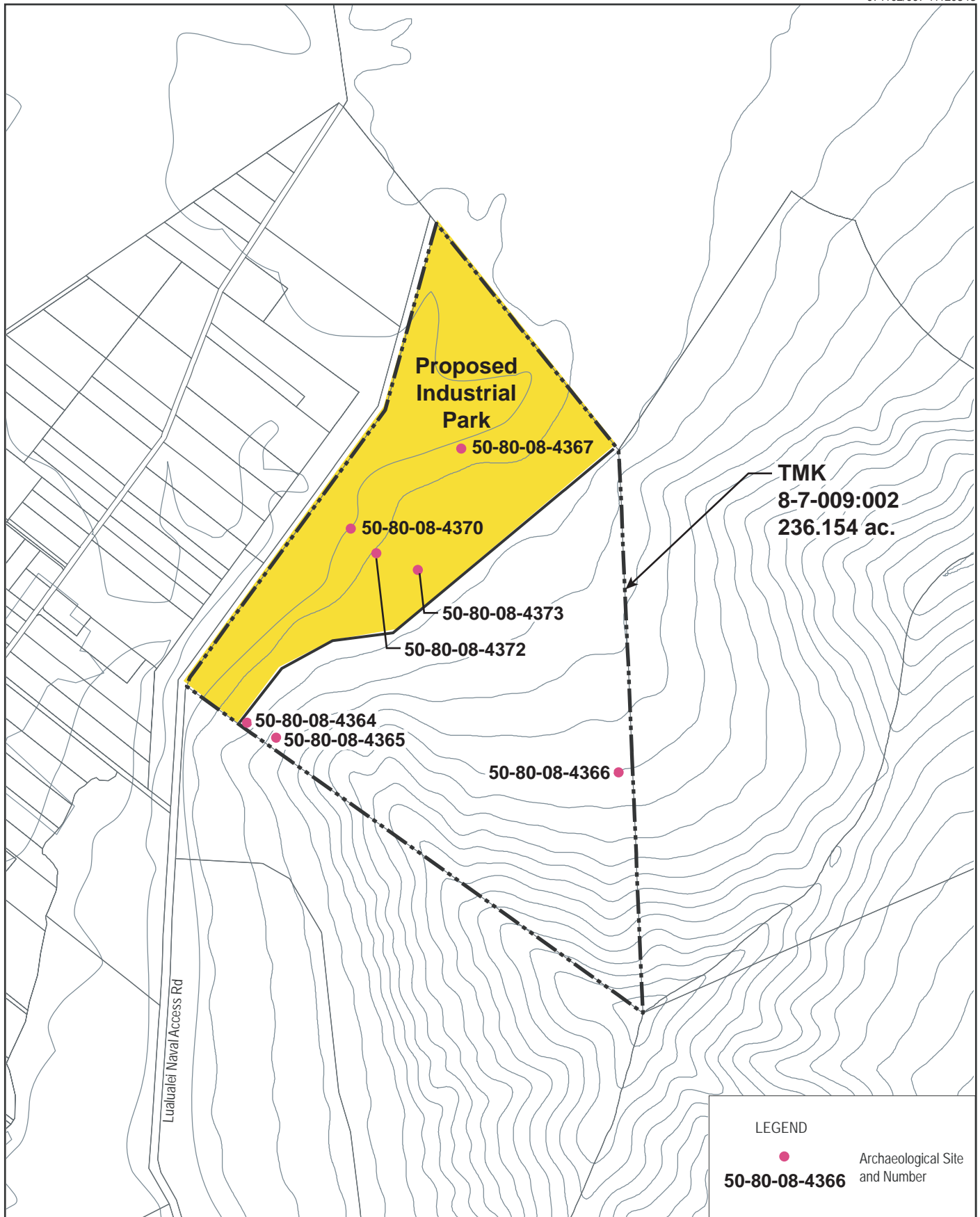
D: Significance criteria “D” per National Historic Preservation Act, wherein the site may be likely to yield information important to prehistory or history

Source: Cultural Surveys Hawaii. January 1991. *An Archaeological Inventory Survey for the Proposed Lualualei Golf Course, Lualualei, Waianae, Oahu.*









**Figure 8**  
**Cultural Resources Map (Site)**  
November 2008

### Potential Impacts and Mitigation Measures

The Department of Land and Natural Resources, State Historic Preservation Division (SHPD) was consulted during the environmental review process for the earlier golf course proposal. At that time, the SHPD determined that the golf course project would have no adverse impact on significant historical resources (see correspondence with SHPD in Appendix A). The project limits of the proposed industrial park are contained within the boundaries of the proposed golf course, and is not expected adversely affect historic resources.

#### **3.4.2 Cultural Resources**

A cultural impact assessment will be prepared to gather information about cultural practices and features that may be impacted by the proposed action. Findings will be presented in the DEIS. The cultural impact assessment will meet the requirements provided in the OEQC guidelines. The following tasks will be conducted:

- Conduct background research with the goal of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record.
- Review the existing archaeological information pertaining to the sites in the study area as they may allow one to reconstruct traditional land use activities and describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.
- Conduct oral interviews with persons knowledgeable about the historic and traditional practices in the project area and region.

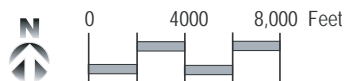
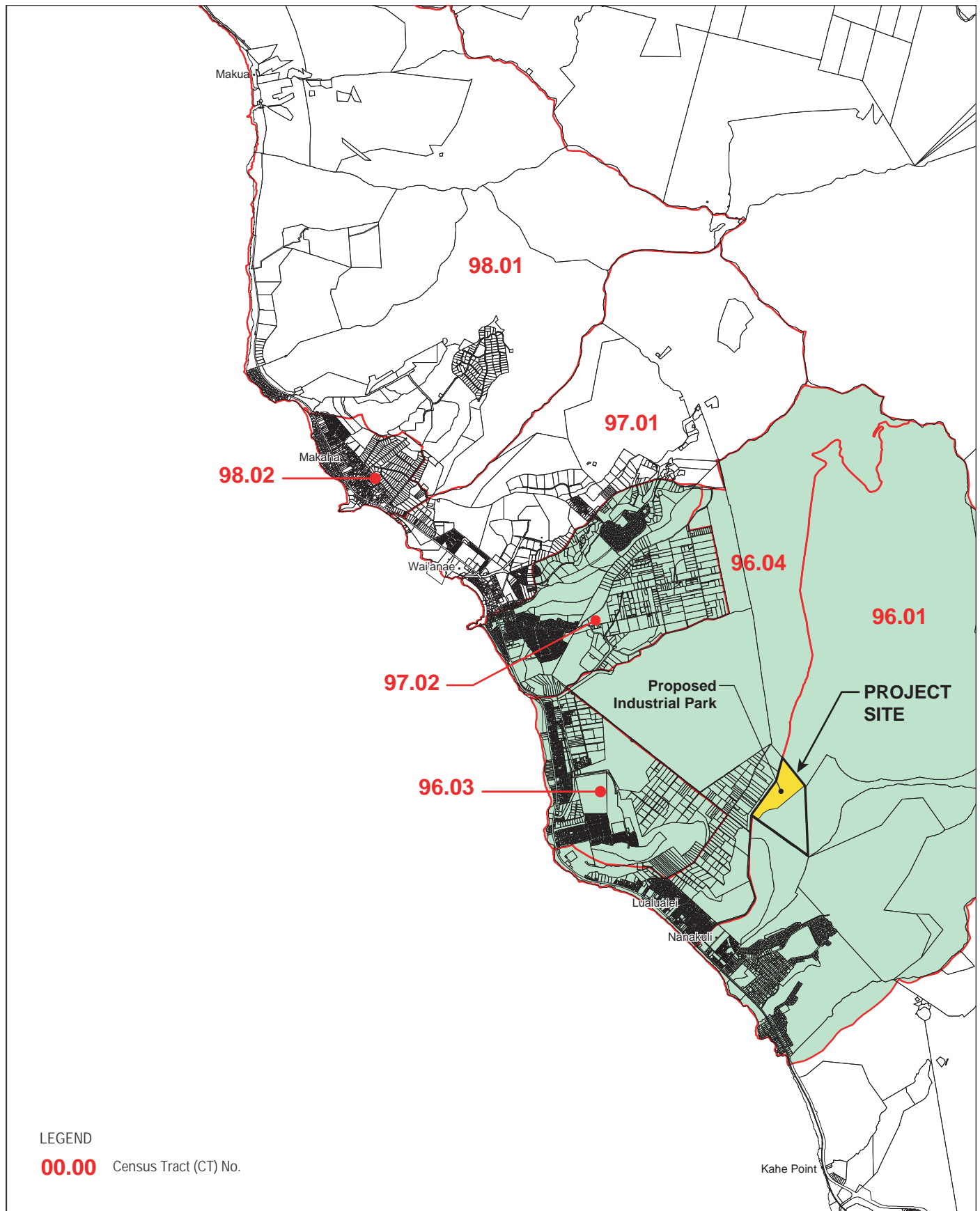
### **3.5 Socio-Economic Environment**

#### **3.5.1 Population**

The decennial censuses provide the most accurate and comprehensive set of socio-economic data. For the latest census, conducted in 2000, the U.S. Census Bureau divided the Wai‘anae Coast into seven census tracts (see Figure 9). The project site is located in Census Tract (CT) 96.01, which also includes Nānākuli Valley. Lualualei Naval Access Road is the dividing line between CT 96.01 and CT 96.04—the latter containing the residential areas of Lualualei.

The DEIS will provide a comprehensive analysis of socio-economic data. Although the background information in the EISPN/EA is limited, the population distribution and growth patterns provide an important context to understanding the project setting.





**Figure 9**  
**2000 Census Tracts**  
November 2008

For some the EIS analysis, the Wai‘anae Coast is further separated into two subareas:

Nānākuli-Lualualei-Ma‘ili

- CT 96.01 Nānākuli-Lualualei
- CT 96.03 Ma‘ili
- CT 96.04 Niuli‘i Reservoir
- CT 97.02 Lualualei Homesteads

Wai‘anae-Makaha

- CT 96.01 Wai‘anae Kai
- CT 98.01 Mākaha
- CT 98.02 Mākaha Valley-Mākua

**Table 2**  
**Resident Population by Census Tract, Subareas, Region, County, and State**  
**1990 and 2000**

<b>Geographic Area</b>	<b>1990</b>	<b>2000</b>	<b>Net Change</b>	<b>Percent Change</b>
<b><i>Census Tracts</i></b>				
CT 96.01 Nānākuli-Lualualei	5,974	6,854	880	14.7%
CT 96.03 Ma‘ili	6,820	7,946	1,126	16.5%
CT 96.04 Niuli‘i Reservoir	4,733	5,624	891	18.8%
CT 97.02 Lualualei Homesteads	6,153	8,125	1,972	32.0%
CT 97.01 Wai‘anae Kai	5,523	5,480	-43	-0.8%
CT 98.01/02 Mākaha	8,208	8,229	21	0.3%
<b><i>Subareas</i></b>				
Nānākuli-Lualualei-Ma‘ili	23,680	28,549	4,869	20.6%
Wai‘anae-Mākaha	13,731	13,709	-22	-0.2%
Wai‘anae Coast	37,411	42,258	4,847	13.0%
<i>% of Oahu</i>	<i>4%</i>	<i>5%</i>	<i>12%</i>	
O‘ahu (City & County of Honolulu)	836,231	876,156	39,925	4.8%
State of Hawai‘i	1,108,229	1,211,537	103,308	9.3%

Sources: U.S. Census, 1990, 2000

In 2000, there were 6,854 residents in CT 96.01 (Nānākuli-Lualualei). The larger community of Nānākuli-Lualualei-Mā‘ili had a residential population of 28,549. Together with the Wai‘anae-Mākaha community, the Wai‘anae Coast had a population of 42,258. Relative to the island as a whole, approximately 5 percent of O‘ahu’s population lived on the Wai‘anae Coast.

Although the Wai‘anae Coast has a relatively small share of the islandwide population, population *growth* was relatively high through the 1990s. The Wai‘anae Coast experienced a net increase of 4,847 people or a growth rate of 13.0 percent. In comparison, the island of O‘ahu had a growth rate of only 4.8 percent.

All of the net increase in population occurred in the Nānākuli-Lualualei- Mā‘ili area. The upper portion of the Wai‘anae Coast, Wai‘anae-Mākaha, experienced a small net decrease in population between 1990 and 2000.

### 3.5.2 Employment and Income

The Wai‘anae Coast accounts for almost 5.0 percent of total population on O‘ahu, but less than 1.5 percent of the island’s employment. The imbalance is not expected to improve into the future. The Department of Planning and Permitting prepares socio-economic projections that are reported in the *Annual Report on the Status of Land Use on Oahu*. The *Annual Report for Fiscal Year 2006* indicates that population in the Wai‘anae Development Plan area will grow moderately from 44,656 in 2005 to 52,285 in 2030. Over the same period, however, employment is projected to decrease from 7,253 in 2005 to 7,126 in 2030.

Table 3 shows the occupational profile of the Wai‘anae Coast labor market. In comparison to the island as a whole, Wai‘anae Coast residents are less likely to hold jobs in management positions. On the other hand, they are more highly concentrated in blue-collar occupations, including construction, extraction, and maintenance, as well as production, transportation, and material moving.

**Table 3**  
**Occupational Profile for Wai‘anae Coast and Island of O‘ahu, 2000**

Occupational Category	Wai‘anae Coast		O‘ahu	
	No. of Persons	Percent	No. of Persons	Percent
Management	3,173	22%	129,513	34%
Services	3,205	22%	75,149	20%
Sales	3,878	27%	111,376	29%
Farming	221	2%	2,534	1%
Construction	1,878	13%	30,180	8%
Production	2,180	15%	33,716	9%
All Occupations	14,535	100%	382,468	100%

Source: U.S. Census, 2000

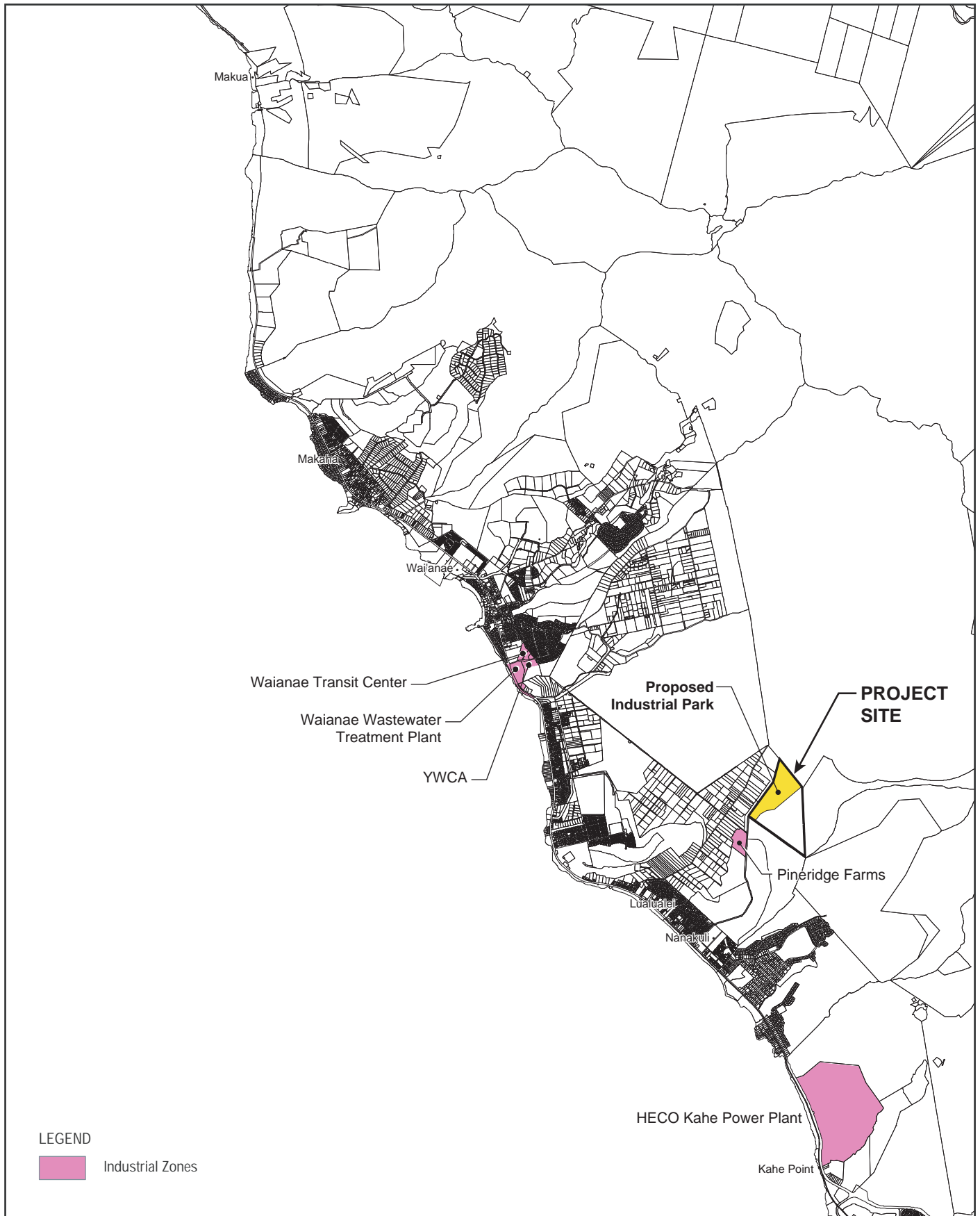
### **3.5.3 Industrial Land**

According to 2007 data compiled by real estate specialists, Colliers Monroe Friedlander, the total supply of existing industrial space on the island of O‘ahu was estimated at approximately 36.4 million square feet of floor area. The overall vacancy rate within O‘ahu’s industrial marketplace was estimated at 3 percent. Existing industrial development on O‘ahu is overwhelmingly concentrated within three designated Development Plan Areas, namely, the Primary Urban Center, ‘Ewa, and Central O‘ahu. Based on the Colliers data, the combined inventory of industrial space within the remaining Development Plan Areas of East Honolulu, Ko‘olaupoko, Ko‘olaupoko, North Shore, and Wai‘anae totaled less than 1.0 million square feet, or 2.7 percent of the islandwide total.

Figure 10 shows the existing distribution of industrially zoned land on the Wai‘anae Coast. The industrial acreages are mainly occupied by public and quasi-public entities, such as the HECO power generation plant at Kahe, Wai‘anae Wastewater Treatment Plant, and Wai‘anae Transit Center. The only privately-owned sites are 25 acres in the Lualualei Valley occupied by West O‘ahu Aggregates and Pineridge Farms, and 4.76 acres in Wai‘anae. Wai‘anae Coast small businesses looking for industrial space to lease or own have virtually no options but to locate outside their community.

#### Potential Impacts and Mitigation Measures

The DEIS will include a more detailed discussion of population, employment, and market data. The findings of a market study and employment forecast by Hastings Conboy Braig and Associates will be presented.



**Figure 10**  
**Existing Industrial Zones, Waianae Coast**

November 2008

### **3.6 Built Environment**

#### **3.6.1 Visual Resources**

The majority of the project site is currently open space. The project area is not visible from any public highway and is not located within any designated scenic corridor.

#### **3.6.2 Circulation and Traffic**

The project area fronts on Lualualei Naval Access Road. This two-lane road is currently under the jurisdiction of the U.S. Navy; however, its future disposition is under consideration by the Navy.

The project area is approximately 1.5 miles from Farrington Highway, which is classified as a principal arterial. The highway is owned by the State of Hawai‘i, Department of Transportation (HDOT). Where Farrington Highway intersects with Lualualei Naval Access Road, Farrington Highway is a four-lane, undivided highway. The highway runs parallel with the coastline and serves both regional and local transportation needs. The intersection of Lualualei Naval Road and Farrington Highway is fully signalized.

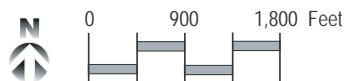
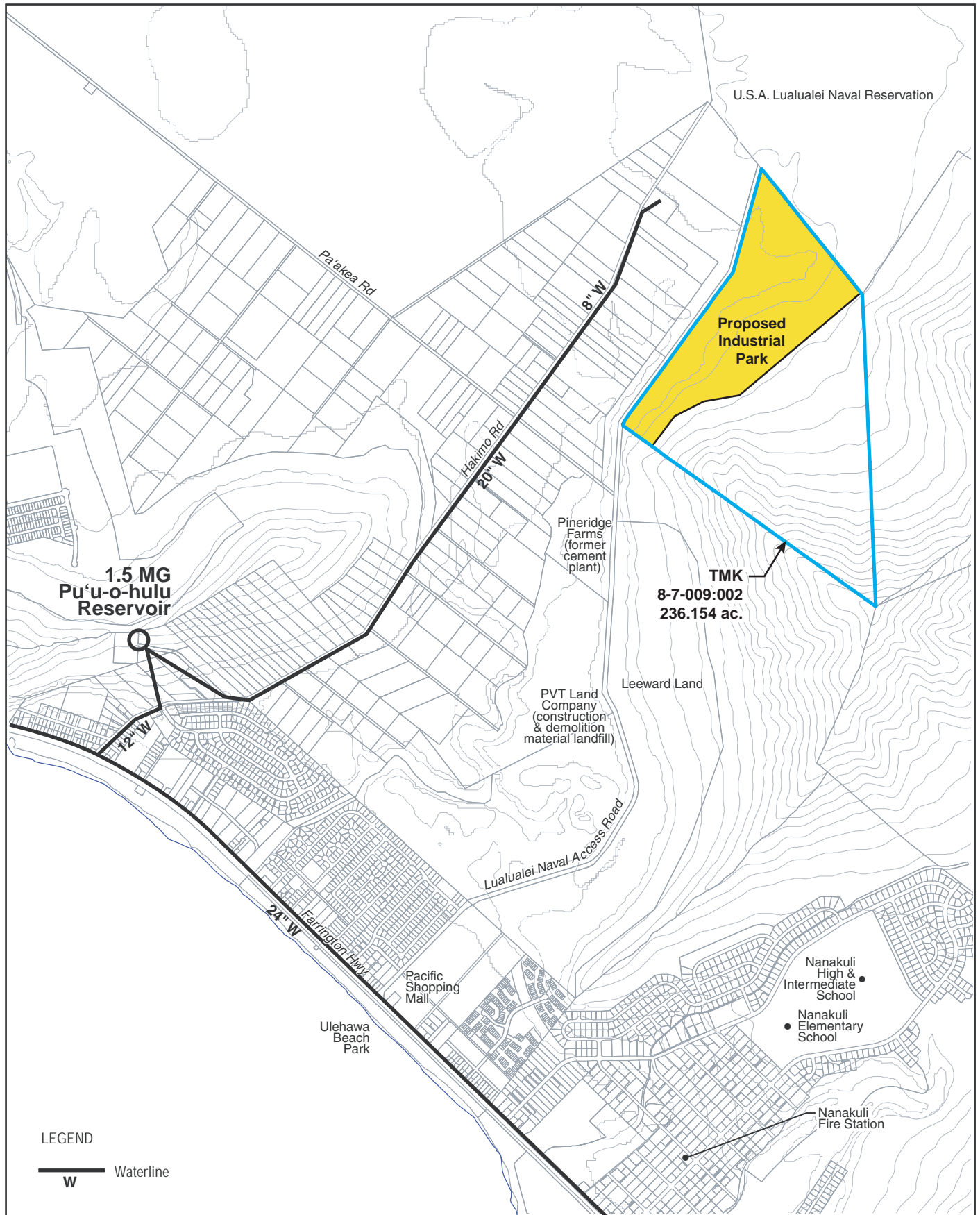
Lualualei Naval Access Road is a two-lane, two-way roadway, which provides access to the Naval installation. The posted speed varies between 25 mph and 45 mph.

#### Potential Impacts and Mitigation Measures

Traffic on Lualualei Naval Access Road is primarily from the Naval installation, as well as traffic generated by PVT Land Company and Pineridge Farms. Closer to Farrington Highway, the roadway is also used by traffic to and from the shopping center and adjacent residential subdivision. A traffic impact assessment will be prepared by the Traffic Management Consultant to address the subject project.

### **3.7 Public Infrastructure and Services**

The DEIS will describe existing public infrastructure and services, the impacts of the proposed action on those facilities and services, and potential mitigation measures. The DEIS will also evaluate potential indirect and cumulative impacts on public facilities and services as a result of the project.



**Figure 11**  
**Public Infrastructure Map**

November 2008



### **3.7.1 Water**

The Board of Water Supply's Pu'u-o-hulu system services the properties along Hakimo Road. The water storage facility located closest to the amendment area is Pu'u-o-hulu Reservoir which has a capacity of 1.5 million gallons. Domestic water is serviced through a 20-inch transmission line and 8-inch distribution lines along Hakimo Road.

#### Potential Impacts and Mitigation Measures

The DEIS will provide information on the project's anticipated water demand. The proposed potable water system will be connected to the existing 8-inch Board of Water Supply (BWS) water line along Hakimo Road. A new 8-inch transmission line with new service road will be located along the northern property boundary line of TMK: 8-7-010: 006 (owned by Tropic Land) and cross Lualualei Naval Access Road, entering the project site. The potable water distribution system will be designed and constructed in accordance with BWS standards.

For fire protection purposes, the project requires flow of 4,000 gallons per minute (gpm) for a duration of 3 hours, and a minimum water storage capacity of 0.72 million gallons (MG). To accommodate these requirements, a storage facility with a 1.0 MG capacity will be constructed at a spillway elevation of approximately 242 feet.

### **3.7.2 Wastewater System**

The project area is not served by the City and County's wastewater collection and disposal system. Residential areas between the project site and the junction of Waiolu Steet and Hakimo Road are serviced by cesspools. As a general policy, the City has no plans to install public sewers within the Agricultural District.

#### Potential Impacts and Mitigation Measures

The DEIS will provide information on project-generated wastewater flows. The major components of the proposed wastewater system are the gravity collection system, wastewater treatment unit, and effluent disposal system. The system will be designed and constructed to State and County standards, but the on-site wastewater system will be privately operated and maintained.

The wastewater treatment unit will be located in a 10,000-SF, fenced area within the industrial park. A single basin reactor will employ cyclic biological treatment with a continuous activated sludge system. Treated wastewater effluent will be chlorinated, disinfected, and pumped to a non-potable water storage tank. Effluent may be supplemented with non-potable water from the wells for irrigation purpose.



### **3.7.3 Solid Waste Disposal**

The primary solid waste disposal site on O‘ahu is the Waimanalo Gulch Sanitary Landfill, which is owned by the City and County of Honolulu and contracted to Waste Management of Hawaii for management and operation. The landfill, which opened in 1989, is located in the Kahe Valley. It accepts approximately 300,000 tons of municipal solid waste and 100,000 tons of ash and residue from H-POWER annually.

The PVT Land Company waste disposal site is approximately 5,500 feet from the project site. The privately owned PVT facility is the only authorized location on O‘ahu that accepts construction and demolition debris material.

#### Potential Impacts and Mitigation Measures

The DEIS will provide updated information on solid waste disposal facilities, and project impacts, if any, on landfill capacity.

### **3.7.4 Electrical and Communication Systems**

Electrical service is provided by Hawaiian Electric Co. Telephone and high-speed internet services are provided by Hawaiian Telcom and Oceanic Time Warner Cable. Oceanic also provides cable TV service.

There is an existing wood joint pole line along the Honolulu side of the Lualualei Naval Road right-of-way that abuts the project site. The poles carry HECO 3-phase, 11.5 kV, HTCOM, and OTWC lines. Power to this primary line is supplied by the Mikiloa Substation feeder No.3 on Pa‘akea Road.

#### Potential Impacts and Mitigation Measures

Electrical and communication service providers will be contacted during preparation of the DEIS to update information on existing service and planned upgrades.

### **3.7.5 Public Services**

The DEIS will update and supplement information on existing public facilities and services, and their adequacy relative to the proposed industrial park will be assessed.

### **Fire, Police, and Emergency Medical Service**

Fire. The closest fire station, located in Nānākuli Valley, is approximately 3.4 miles from the project site. The Nānākuli Station houses an engine unit and a tanker unit. Back-up fire service is provided from the Wai‘anae Fire Station, approximately 8 miles away.

Police. The project area falls within the service area of District 8 which stretches from ‘Ewa Beach to Ka‘ena. The District 8 headquarters are located in Kapolei. There is a substation in Wai‘anae which serves as a base for personnel patrolling the Wai‘anae Coast.

Emergency Health Care. The primary health care facility on the Wai‘anae Coast is the Wai‘anae Comprehensive Health Center in Mā‘ili. This facility provides 24-hour emergency services. Additional around the clock emergency health services are provided by Hawai‘i Medical Center West, located in ‘Ewa, with 102 beds for acute and critical care.

### **Potential Impacts and Mitigation Measures**

The DEIS will address the police and fire protection and emergency medical service requirements of this project.

## **4. Relationship of the Project to Land Use Plans, Policies, and Controls**

### **4.1 Introduction**

The DEIS will discuss the relationship of the project to federal, State, and local land use plans, policies and controls. This chapter of the EISPN/EA describes applicable statutes and regulations that will be discussed in the DEIS. Public input is requested on other land use policy issues that should be considered.

### **4.2 State of Hawai‘i**

Various State plans, policies, and land use controls provide guidelines for development within the State of Hawai‘i, including the Hawai‘i State Plan, State Functional Plans, and the State Land Use Plan.

#### **4.2.1 Hawai‘i State Plan**

The 1996 Hawai‘i State Plan is the umbrella document in the statewide planning system. It serves as a written guide for the long-range development of the state by describing a desired future for the residents of Hawai‘i and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

State Plan objectives for economic development include expanding employment opportunities to provide a better economic quality of life for the state’s residents. Another objective is to create a diversified economic base that is not overly dependent on a few industries. The DEIS will include further discussion on the project’s consistency with the Hawai‘i State Plan.

#### **State Functional Plans**

Part of the overall State planning system is the development of State Functional Plans. While the Hawai‘i State Plan establishes long-term objectives, the purposes of the Functional Plans are to define strategies for the function area and to provide strategies for departmental policies, programs, and policies. The DEIS will discuss the project in relation to the Employment Functional Plan, Agricultural Functional Plan, Transportation Functional Plan, and Energy Functional Plan.

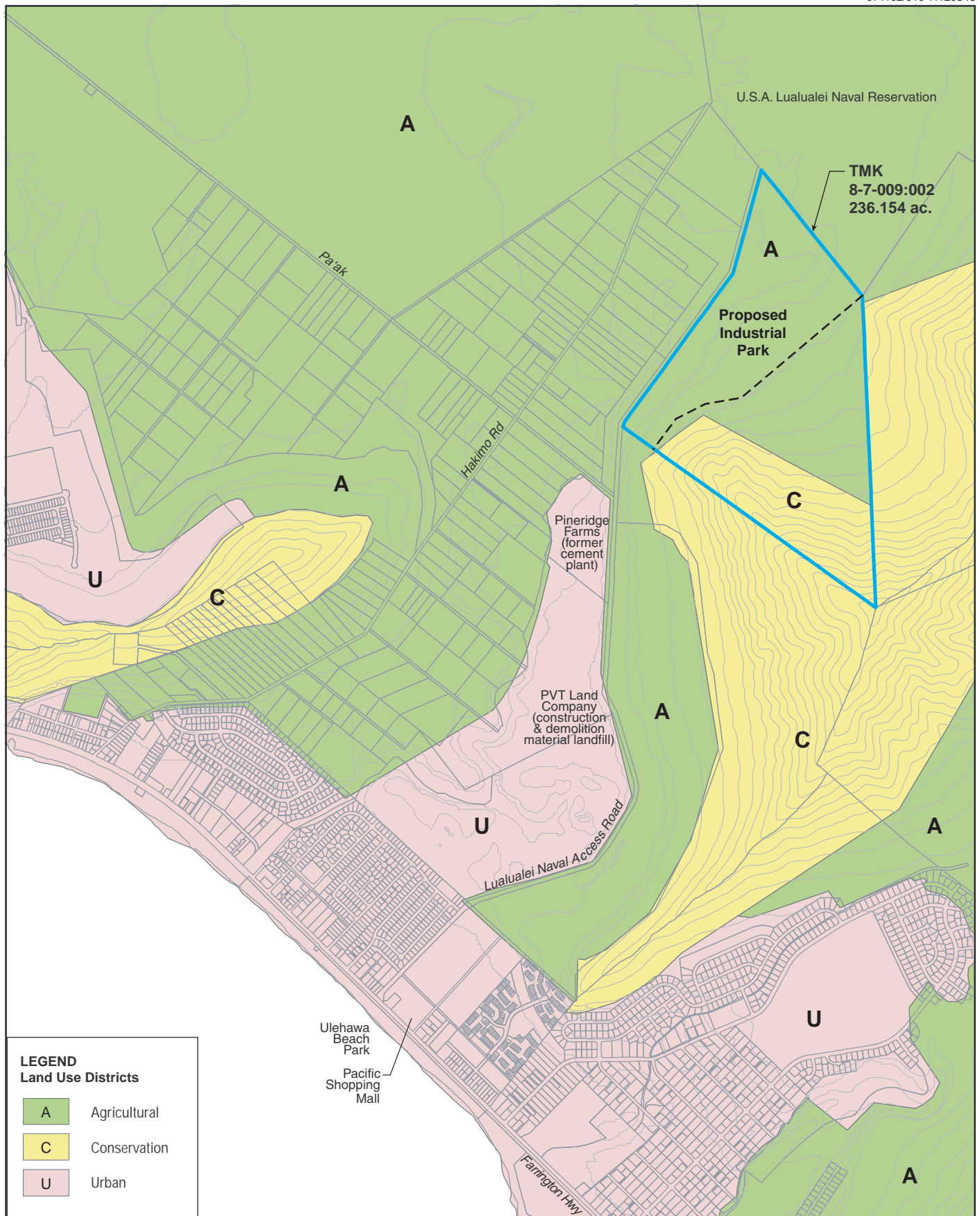
#### 4.2.2 State Land Use Classification

The State Land Use Commission, pursuant to Chapter 205 and 205A, HRS and Chapter 15-15, Hawai‘i Administrative Rules, is empowered to classify all lands in the state into one of four land use districts: Urban, Rural, Agricultural, and Conservation.

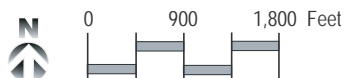
Figure 12 shows the State land use districts of the project area and vicinity. Currently, TMK 8-7-09: 02 is partially located in the Agricultural District (168.764 acres) and partially located in the Conservation District (67.439 acres). The Conservation District land, consisting of a steep ridge of Pu‘u Heleakala, is not affected by the proposed action. The proposed industrial park site is wholly located within the Agricultural District. Tropic Land will petition the State Land Use Commission to reclassify approximately 96 acres from Agricultural to Urban.

#### Current and Proposed State Land Use Classifications TMK: 8-7-09: 02

Land Use Districts	Current Acres	Proposed Acres
Agricultural	168.764	72.764
Conservation	67.439	67.439
Urban	0	96.000
Total	236.154	236.154



**Figure 12**  
**State Land Use Map**  
November 2008



### **4.3 City and County of Honolulu**

#### **4.3.1 General Plan**

The City and County of Honolulu General Plan was adopted in 1977 and subsequently amended through a series of amendments. The General Plan sets forth long-term goals and objectives, and strategies to achieve them. The proposed action is consistent with the following objectives and policies from the General Plan.

#### ***II. Economic Activity***

##### **Objective A To promote employment opportunities that will enable all the people of O‘ahu to attain a decent standard of living.**

- Policy 1 Encourage the growth and diversification of O‘ahu’s economic base.
- Policy 2 Encourage the development of small businesses and larger industries which will contribute to the economic and social well-being of O‘ahu residents.
- Policy 3 Encourage the development in appropriate locations on O‘ahu of trade, communications, and other industries of a nonpolluting nature.

*Discussion:* The project will provide an inventory of industrial space on the Wai‘anae Coast, which does not have a similar facility. The proposed project will be attractive to a mix of light industrial businesses and provide open yard space for storing materials, trucks, and heavy equipment.

##### **Objective C To maintain the viability of agriculture on O‘ahu.**

- Policy 1 Assist the agricultural industry to ensure the continuation of agriculture as an important source of income and employment.
- Policy 5 Maintain agricultural land along the Windward, North Shore, and Wai‘anae coasts for truck farming, flower growing, aquaculture, livestock production, and other types of diversified agriculture.

*Discussion:* The importance of agricultural production is recognized; however, the project area has clayey and rocky soils that are poorly suited for diversified agricultural. It is situated between industrial uses and the military installation in a location that has not experienced economically viable agricultural activity for decades.

**Objective G To bring about orderly economic growth on O‘ahu.**

Policy 2 Permit the moderate growth of business centers in the urban-fringe areas.

Policy 3 Maintain sufficient land in appropriately located commercial and industrial areas to help ensure a favorable business climate on O‘ahu.

*Discussion:* The region has demonstrated an ability to nurture small businesses involved in trucking, distribution, light manufacturing, construction trades, repair and related services. The proposed industrial park is intended to meet their current and future demand for industrial space with an affordable product.

**III. Natural Environment**

**Objective A To protect and preserve the natural environment.**

Policy 1 Protect O‘ahu’s natural environment, especially the shoreline, valleys, and ridges, from incompatible development.

Policy 4 Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, water-recharge areas, distinctive land forms, and existing vegetation.

Policy 6 Design surface drainage and flood-control systems in a manner which will help preserve their natural settings.

*Discussion:* The proposed development has been laid out to be compatible with the topography of the site. The light industrial park is confined to flat land and areas with mild slopes. The development footprint is smaller than the golf course previously proposed for the site, and will leave a larger expanse of the foothills undeveloped. Surface drainage, flood and erosion hazards, and rockfall hazards will be addressed in detail in the environmental document.

**VII. Physical Development and Urban Design**

**Objective A To coordinate changes in the physical environment of O‘ahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.**

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- |          |  |
|----------|--|
| Policy 2 | Coordinate the location of timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities. |
| Policy 3 | Phase the construction of new developments so that they do not require more regional supporting services than are available.   |
| Policy 7 | Locate new industries and new commercial areas so that they will be well related to their markets and suppliers, and to residential areas and transportation facilities.       |

*Discussion:* The proposed development will be designed to minimize impacts on public utility systems and services. The industrial park will need to be connected to the City's water system. Wells located on site may be able to supply non-potable water for landscape irrigation, sanitation, and some industrial purposes. An independent wastewater system will be developed on site. Safety systems will be provided on site and complement efforts by local police.

**Objective D To maintain those development characteristics in the urban fringe and rural areas which make them desirable places to live.**

- |          |   |
|----------|---|
| Policy 1 | Develop and maintain urban-fringe areas as predominantly residential areas characterized by generally low rise, low density development which may include significant levels of retail and service commercial uses as well as satellite institutional and public uses geared to serving the needs of households.  |
| Policy 4 | Maintain rural areas as areas which are intended to provide environments supportive of lifestyle choices which are dependent on the availability of land suitable for small to moderate size agricultural pursuits, a relatively open and scenic setting, and/or a small town, country atmosphere consisting of communities which are small in size, very low density and low rise in character, and may contain a mixture of uses. |

*Discussion:* The proposed industrial park is located off the main highway, where it will not detract from either the scenic views of the coast or the ambiance of small commercial villages in nearby Nānākuli and Mā'ili. The industrial park is also favorably situated from a transportation standpoint. Lualualei Naval Access Road is a substantial roadway capable of truck transportation. Compared to other *mauka-makai* roadways in the district, there is a low volume of residential traffic on Lualualei Naval Access Road and the uses adjoining the road are similarly industrial in nature. In terms of the regional roadway network, the location has ease of access to the freeway and being near the gateway to the Wai'anae district would minimize truck traffic farther up the coast.



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#### **4.3.2 Waianae Sustainable Communities Plan**

The proposed action is located in the Waianae Sustainable Communities Plan (WSCP) area. The current WSCP came into effect on July 9, 2000. A 5-year review of the plan is underway. As part of the plan update, Tropic Land LLC submitted a request to amend the WSCP to include the project area within the rural boundary.

The proposed action is consistent with the WSCP vision, particularly the community's desire to maintain economic self-sufficiency.

#### **Consistency with existing SCP vision**

*Department of Planning and Permitting, City and County of Honolulu,  
Wai'anāe Sustainable Communities Plan, July 2000*

##### **2.1 Vision Statement**

The vision for the future of Wai'anāe is a vision of a community living by values and customs that are firmly embedded in the rural landscape, the coastal shorelands, the ocean waters, the forested mountains, the diversity of cultures, the warmth of family and friends, and the Wai'anāe traditions of independence, country living, and aloha. (p. 2-1)

*Discussion:* The proposed action seeks to establish an employment center in the Wai'anāe District. The proposal will amplify the district's sense of independence, specifically economic independence and expand local employment opportunities. For some district residents, this key element of the vision is not yet fully realized, as the Wai'anāe Coast historically has experienced disproportionately high rates of unemployment and underemployment. There are ongoing efforts in the local schools and by non-profit organizations to encourage young people to strive for economic independence. At the same time, there are many on the Wai'anāe Coast who have successfully created small businesses, for example, in contracting, services, and trucking. The proposed development offers a potential venue for these businesses to operate within the community.

##### **2.2 Community Values**

###### **"We value economic choices in Wai'anāe"**

*For Wai'anāe, economic choices within the region are vital to the community's well-being. Having jobs in Wai'anāe allows families to spend less time commuting and more time with each other. It reduces traffic and stress. Economic choices also mean more convenience in acquiring necessary goods and services. (p. 2-3)*

*Discussion:* The proposed light industrial park and baseyard is a job-producing and economy sustaining land use. The industrial park has the potential to become an employment center

offering well-paid jobs that are within convenient commuting distance of Wai‘anae Coast communities.

### **2.3 Wai‘anae District: Rural Values and Qualities**

Population growth and land development in the Wai‘anae District over the past 40+ years have been more typical of a suburbanizing urban fringe community than that of a stable rural community. ... Continued urban and suburban development will consume agricultural lands and put still more stress on Wai‘anae’s roads, schools, parks, and other facilities, which are already overcrowded.

Discussion: Although the project area is undeveloped, it is not necessarily suited for commercial agriculture. Because of the clayey soils with poor drainage, the site is unable to sustain commercial agricultural operations, particularly in light of alternative areas available that have better growing conditions. The W SCP itself recognizes that the highly expansive clay soils on the lower slopes of the ridges are not good for agriculture (p. 2-10).

The proposed industrial park will not generate a need for public facilities, such as schools and parks. Truck traffic is expected to increase in the vicinity of the industrial park, but roads will be used more efficiently. The industrial park site is located close to the freeway and is likely reduce the volume of trips made further up the coast. Industrial park employees who live in the Wai‘anae District will not have to commute to more distant locations, such as Hālawā, Kalihi, or Airport/Māpunapuna.

There are important natural and cultural resources in the Wai‘anae District that should be protected and managed. The proposed development will not have an adverse affect on these resources.

Figure 13 shows a portion of the Waianae Sustainable Communities Plan, Land Use Map.

#### **3.1.1 Rural Community Boundary**

The rural community boundary is established to define, protect, and contain communities in areas which the General Plan designates “rural” and which exhibit the physical characteristics of rural lifestyles. The purpose of this boundary is to provide adequate lands for facilities needed to support established communities, to protect such communities from more intense land uses and patterns of development associated with more urban areas and to protect areas outside the boundary for agriculture or other resource or open space values. Where appropriate, this boundary also contains open space elements, the preservation of which is essential to the character of the rural community being defined. They may include lands designated “park,” “agriculture,” “preservation,” or areas with development-related hazards such as steep slopes or unstable soils.

Rural communities defined by this boundary consist of smaller, more dispersed, less intensively developed residential communities and towns, and minor industrial areas that are smaller than those of urban or urban fringe areas.

Development character is generally low-density, low-rise, small scale, and reflective of a “country” setting. Within residential areas, the landscaping and front yards which provide the foregrounds to their respective residences are the principal visual elements. In commercial areas, the pedestrian environment and associated amenities predominate, and storefronts on both sides of the street are simultaneously perceivable. Buildings are oriented principally toward the street, relate readily to a human scale, and are organized to encourage interaction between the public and private domains. (p. 3-7 and 3-8)

Discussion: The rural community boundary is a line that generally encompasses the built environment along the Farrington Highway corridor. The boundary provides for a limited amount of infill residential and commercial development. Except for a small number of isolated farm lots that are already surrounded by housing development, no other agricultural lands are to be included within the developed areas.

### **3.2.2.3 Limits on Urban Development**

*Future urban and suburban development in the Wai‘anae District should be limited to the Rural Community areas, and should not be allowed to intrude into the Coastal area, the Agricultural area, or the Preservation area. (p. 3-11)*

Discussion: As it is currently laid out, the rural community boundary circumscribes a fairly narrow set of land uses; namely, small-scale retail and service businesses and residences that create a compact physical form. “Small-scale” and “compact” are important characteristics for country towns and village centers (p. 2-19). Zones of “human-scale” interaction suggest a walkable, pedestrian scale. Elsewhere, the WSCP endorses clustering to “alleviate the strong ‘strip commercial’ development pattern that presently exists along Farrington Highway.” (p. 2-20)

To promote compact development, the rural community boundary excludes agricultural land, which is a land-extensive type of use. The WSCP allows for minor industrial areas within the rural community boundary, but industrial areas generally require more space, and allow buildings with larger footprints than would be found in a country town or village. Even a small industrial park, at a scale that is financially viable, would have to be land extensive. Therefore, a location along Farrington Highway or in the residential areas surrounding the highway would not be appropriate.

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### **3.9 Commercial and Industrial Uses**

#### **3.9.1 Overview of Commercial and Industrial Uses**

*In keeping with the overall theme of 'rural Wai'anae,' the General Plan does not foresee significant growth in commercial or industrial land use for the area. The projected growth in population may create a need for more support retail commercial and industrial acreage, although recent trends indicate a shifting of shopping habits away from local stores to the larger commercial centers in the 'Ewa District. Some local leaders have voiced the need for more local industrial parks. The potential size, financing, and tenant mix of any such industrial parks, however, have not been thought out in any detail.*

*Local small businesses and light industrial operations are an important source of jobs for Wai'anae's people. A healthy level of small local businesses is essential for the local economy and also lessens the volume of commuter traffic that causes severe congestion on Farrington Highway during morning peak traffic periods. (p. 3-39)*

#### **3.9.2.3 Encourage Light Industrial Businesses**

*Encourage the establishment of light industrial businesses that provide jobs for local people, and that are generally compatible with the predominantly residential uses of the Rural Community areas along the coast, but not in Makaha Valley. Light industrial uses should be allowed only in the Rural Community areas. Such areas such as the Wai'anae Small Boat Harbor may provide opportunities for ocean-related light industrial and research uses. (p. 3-40)*

#### **3.9.2.4 No Heavy Industry**

*Heavy industrial uses should not be permitted in the Wai'anae District. Such uses should be sited in the Campbell Industrial Park in 'Ewa. (p. 3-41)*

#### **3.9.3 Planning Guidelines for Commercial and Industrial Uses**

[No planning and/or design guidelines are provided for industrial uses.]

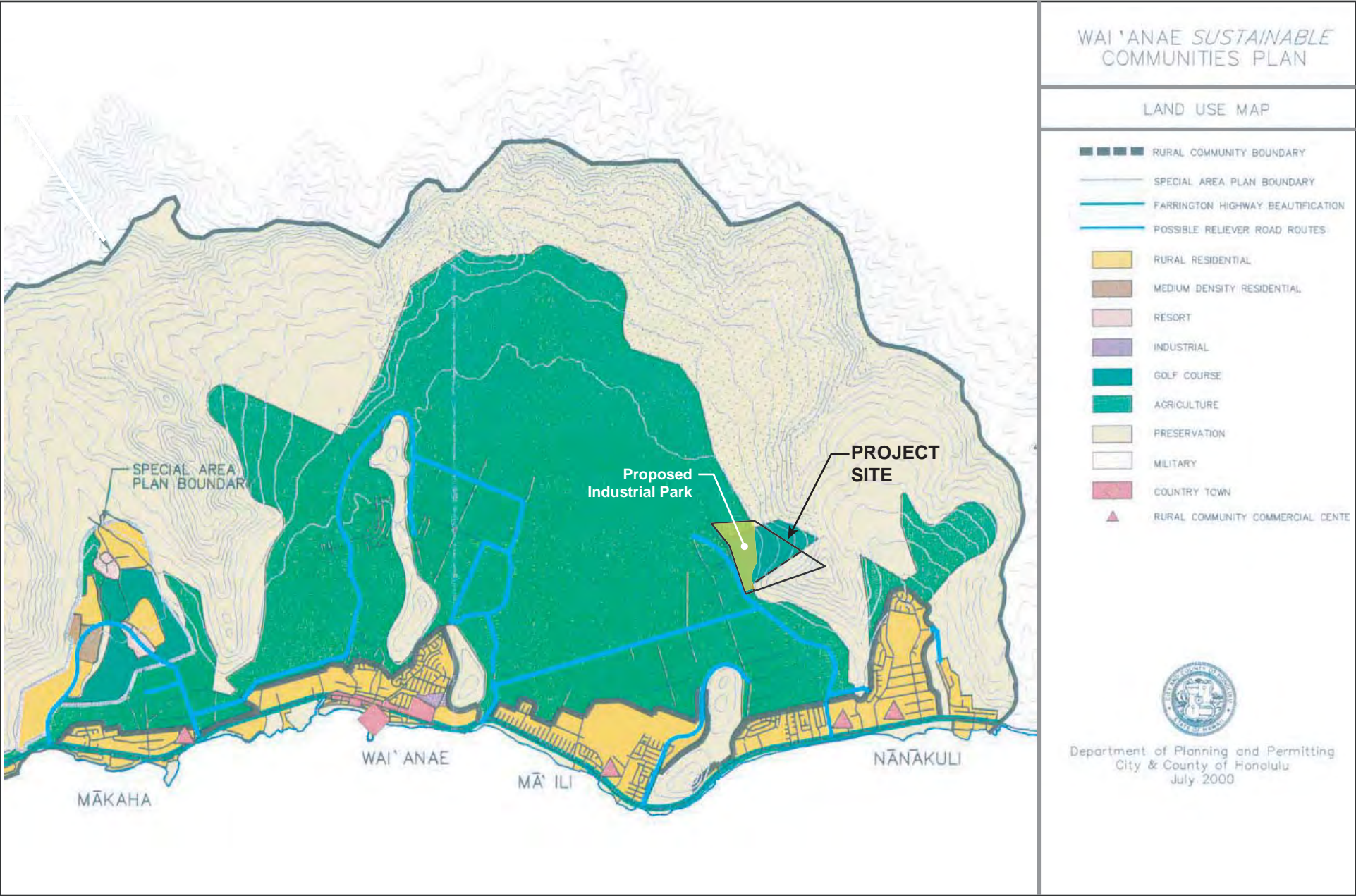
Discussion: As part of its internal planning process, Tropic Land has consulted informally with members of the Wai'anae community and with the Nānākuli-Mā'ili and Wai'anae Neighborhood Boards. There has been clear and consistent support for a light industrial park and baseyard that will provide a locally accessible, convenient, and affordable place for some types of Wai'anae Coast businesses. Anecdotal information indicates that Campbell Industrial Park is transforming into a higher intensity manufacturing and distribution center with concomitant increases in the unit cost of industrial land. A detailed supply and demand study for industrial space in the Nānākuli area is being prepared.

Tropic Land will seek a zone change to the I-1 district for approximately 96 acres of the parcel on the east side of Lualualei Naval Access Road. As defined by the Honolulu Land Use Ordinance, I-1 is a limited industrial district and would be compatible with the rural milieu and lifestyle of the Wai‘anae District. The proposed industrial development is expected to have few environmental impacts and uses are intended to complement the development scale of the communities they would serve. Land uses permitted within the industrial park will be further specified in the project’s covenants, conditions, and restrictions.

**3.11.2.2 No More Golf Courses**

*There is no land available within the Rural Community areas of the Wai‘anae Land Use Map that would be large enough for a golf course. Golf courses are considered to be incompatible with Agricultural lands or Preservation lands of the Wai‘anae District. Therefore, public agencies should enforce a policy of no new golf courses within the Wai‘anae District. (p. 3-52)*

Discussion: As part of the permitting process for the light industrial park, Tropic Land will amend the existing Unilateral Agreement which entitles golf course development on the property. Economic and land use conditions have changed since 1996, when the agreement was executed, and a golf course is not the most feasible use.



**Figure 13**  
**Waianae Sustainable Communities Plan Map**  
November 2008



### 4.3.3 Zoning

Figure 14 shows zoning in the project area and vicinity. The project site is currently zoned P-2, Preservation with a Unilateral Agreement allowing golf course use. The proposed development requires rezoning to I-1, Industrial. An existing industrial zone, the 25-acre Pineridge Farms property, is located 1,000 feet south and west of the project area.

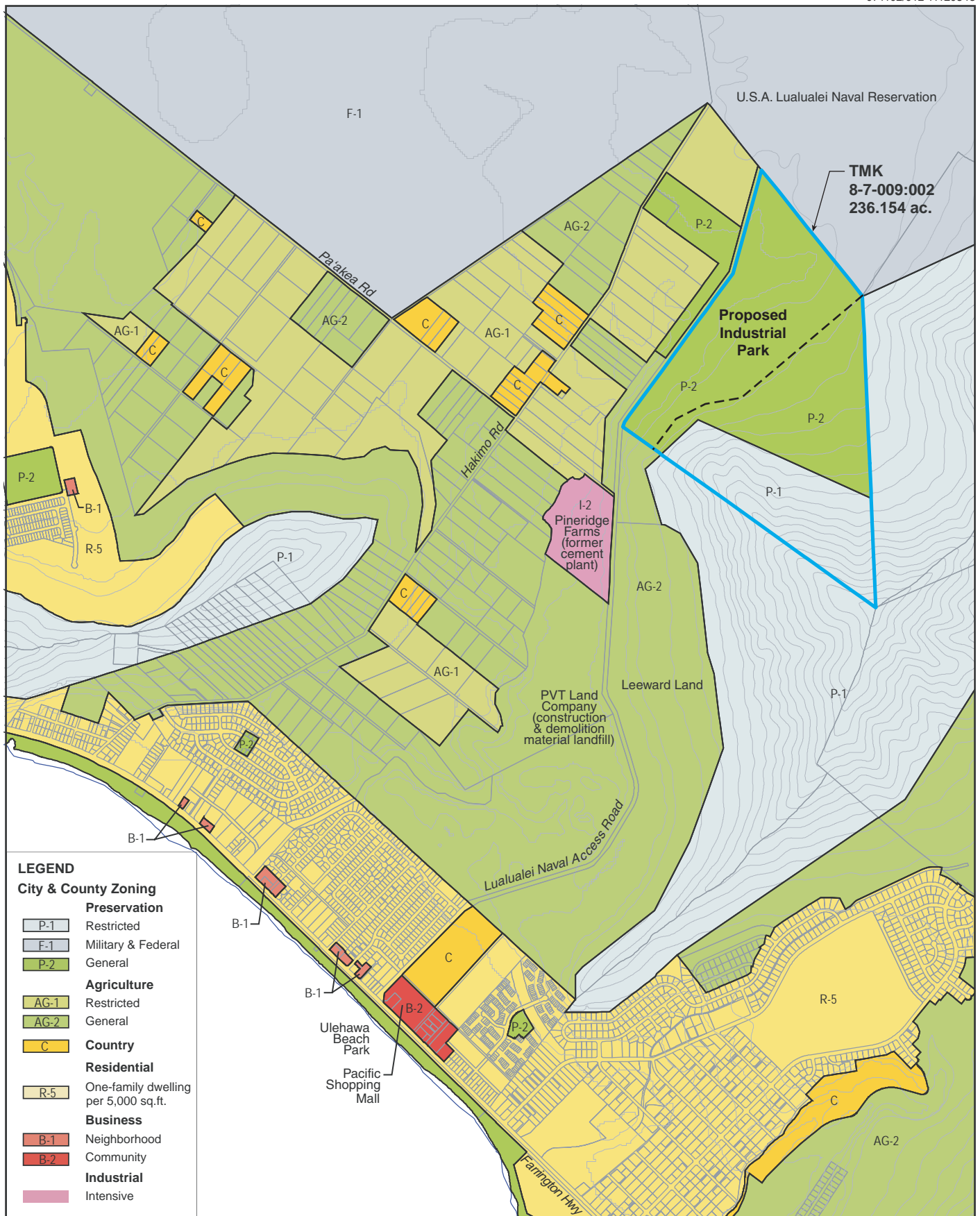
The DEIS will discuss the County zoning designations within the project area and the impact of zoning on each of the project alternatives.

#### Current and Proposed Zoning TMK: 8-7-09: 02

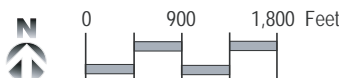
Zones	Current Acres	Proposed Acres
Preservation P-2	236.154	140.154
Industrial I-1	0	96.000
Total	236.154	236.154

### 4.3.4 Special Management Area

Coastal Zone Management objectives and policies (Section 205A-2, HRS) and the Special Management Area (SMA) guidelines (Section 25-3.2 ROH) have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai‘i. The project area is located outside of the SMA.



**Figure 14**  
**Zoning Map**  
November 2008



## 5. Significance Criteria and Determination

The DEIS will evaluate environmental impacts based on criteria established in the Hawai‘i Administrative Rules, Chapter 200 (Environmental Impact Statement Rules) and stated as follows.

**1. The project does not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.**

The proposed action will improve land that is presently undeveloped. An archaeological study conducted for an earlier development proposal did not find resources of cultural significance within the project area. An updated flora and fauna study will be included in the DEIS; but previous studies have not found biologically significant sites. Portions of the project site are classified as “prime lands” under the Agricultural Lands of Importance to the State of Hawaii (ALISH) and an isolated section is rated “B” under the Land Study Bureau (LSB) Detailed Land Classification system. The DEIS will provide more in-depth discussion of project impacts on farmland.

**2. The project does not curtail the range of beneficial uses of the environment.**

The proposed light industrial park is intended to increase the range of beneficial uses for the local community and the larger Wai‘anae Coast by providing an inventory of industrial space that is not available to prospective businesses at present.

**3. The project does not conflict with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

The proposed project is generally consistent with the environmental goals, policies, and guidelines defined in Chapter 344, HRS. Land form, climatic conditions, and other site attributes will be considered through the design and construction phases of the project to minimize environmental impacts over the life of the development.

**4. The project does not substantially affect the economic or social welfare of the community or state.**

The project is expected to have beneficial socio-economic consequences for the community. The proposed industrial park will establish an employment center in a part of the island that has faced sustained economic disadvantages. Jobs in the industrial, construction, and warehouse industries are appropriate for the region’s occupational profile and typically pay living wages.

**5. The project does not substantially affect public health.**

The project is not expected to have adverse impacts on public health. On the contrary, improved job prospects and income levels are indicators of positive public health and welfare conditions.

**6. The project does not involve substantial secondary impacts, such as population changes or effects on public facilities.**

The proposed action is not expected to increase the residential population in the general vicinity. Nor is the project expected to place undue burden on public facilities. The DEIS will further discuss potential impacts on public facilities and mitigation measures.

**7. The project does not involve a substantial degradation of environmental quality.**

Construction impacts will be temporary and, by adhering to Best Management Practices, substantial degradation of environmental quality is not expected. The DEIS will identify potential long-term environmental impacts mitigation measures.

**8. Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions.**

Project implementation may be phased depending on the absorption rate; however, the industrial park is a self-contained and master-planned development.

**9. The project does not affect any rare, threatened, or endangered species, or its habitat.**

The project site does not provide critical habitat for rare, threatened, or endangered species.

**10. The project does not detrimentally affect air or water quality or ambient noise levels.**

The project is not anticipated to degrade air or water quality. Ambient noise levels may increase due to higher volumes of truck traffic, but the project site is not located in proximity to sensitive noise receptors, such as residences, schools, or hospitals.

**11. The project does not affect nor is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.**

The project is not located within an environmentally sensitive area.

**12. The project does not substantially affect scenic vistas and view planes identified in county or state plans or studies.**

Although the project site is not located within a State- or County-designated view corridor, the proposed development is being planned with a landscaped strip along the main access road. *Mauka* views will not be obscured by the proposed development.

**13. The project does not require substantial energy consumption.**

In the short term, project construction will require energy in the form of gasoline and diesel fuel. Over the long term, job creation in Lualualei-Nānākuli is expected to reduce commute distances—and, therefore, fuel consumption—for Wai‘anae Coast residents who will not have to travel to and from jobs located farther away.

## **Determination**

Based on the significance criteria promulgated in Chapter 200 of Title 11 of the Hawai‘i Administrative Rules (11-200-12, HAR), and public and agency comments received during the pre-assessment consultation process, it has been determined that the potential environmental effects of the proposed action warrant preparation of an EIS. The forthcoming DEIS will examine all relevant features of the physical, biological, and man-made environment, evaluate potential impacts associated with the proposed project, and describe mitigation measures.

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## **7. Agencies and Persons to be Consulted in Preparing the Draft Environmental Impact Statement**

### **7.1 Agencies and Organizations Consulted in Preparing the EISPN**

Prior to preparing the EISPN, the following agencies and stakeholder groups were contacted:

- State of Hawai‘i, Land Use Commission
- State of Hawai‘i, Office of Planning
- State of Hawai‘i, Department of Health
- City and County of Honolulu, Department of Planning and Permitting
- City and County of Honolulu, Board of Water Supply

#### **7.1.1 Community Input and Outreach**

Beginning in September 2007, representatives of Tropic Land LLC have communicated with residents of the Wai‘anae Coast about future development of the Lualualei project site. The initial meeting with the Wai‘anae Neighborhood Board began with suggestions for development proposals that would benefit the community. During subsequent meetings with the Planning and Zoning Committee and the full board, Tropic Land has explained the project concept and addressed community concerns. Discussions continued with the Nānākuli-Mā‘ili Neighborhood Board after it was formed in the spring of 2008. Board members adopted two separate resolutions in July and October 2008 expressing support for the project.

##### Wai‘anae Coast Neighborhood Board, No. 24

September 4, 2007	Presentation to full board
October 10, 2007	Presentation to Planning & Zoning Committee
November 15, 2007	Discussion with Planning & Zoning Committee
December 4, 2007	Discussion with full board

##### Nānākuli-Mā‘ili Neighborhood Board, No. 36

May 20, 2008	Presentation to full board
June 24, 2008	Presentation to Planning & Zoning Committee
July 15, 2008	Presentation to full board, unanimous adoption of resolution to support development of the industrial park
October 21, 2008	Presentation to full board, adoption of resolution to amend the Wai‘anae Sustainable Communities Plan to provide for the development of a light industrial park in the Lualualei Valley

##### Other Organizations

Leeward Coast Chamber of Commerce  
Wai‘anae Rotary Club

## **7.2 Agencies and Organizations to be Consulted in Preparing the Draft Environmental Impact Statement**

The EISPN/EA will be sent to the following agencies with a request for comments.

### **Federal Agencies**

- U.S. Army Corps of Engineers, Honolulu District
- U.S. Environmental Protection Agency
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- U.S. Navy

### **State Agencies**

- Department of Agriculture
- Department of Accounting and General Services
- Department of Business, Economic Development & Tourism
- DBEDT, Energy Resources and Technology Division
- DBEDT, Planning Office
- Department of Hawaiian Home Lands
- Department of Land and Natural Resources
- State Historic Preservation Division
- Department of Health, Environmental Management Division
- Office of Environmental Quality Control
- Office of Hawaiian Affairs
- University of Hawai‘i-Mānoa, Environmental Center

### **City and County of Honolulu**

- Board of Water Supply
- Department of Design and Construction
- Department of Environmental Services
- Department of Planning and Permitting
- Department of Transportation Services
- Fire Department
- Police Department

### **Elected Officials, Community Organizations, and Other Organizations**

Honolulu City Council  
Councilmember Todd Apo, District 1

State Legislators

Representative Karen Awana, District 44  
Representative Maile Shimabukuro, District 45  
Senator Colleen Hanabusa, District 21

Community and Business Organizations

Nānāikapono Civic Club  
Nānākuli/Mā‘ili Neighborhood Board  
Native Hawaiian Legal Corporation  
Sierra Club  
Wai‘anae Coast Rotary Club  
Leeward Coast Chamber of Commerce

Utility Companies

Hawaiian Electric Co.  
Hawaiian Telcom  
Oceanic Time Warner Cable

Libraries

Wai‘anae Public Library

Newspapers

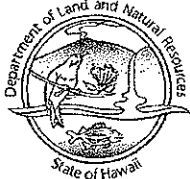
Honolulu Advertiser  
Honolulu Star Bulletin

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## **APPENDIX**

**Correspondence from the State Historic Preservation Division  
Related to Chapter 6E-42, Historic Preservation Review  
For TMK: (1) 8-7-009: 002**

LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

PETER T. YOUNG  
CHAIRPERSON  
HAWAII LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KALIFOWA ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

November 15, 2006

Dominic Miles  
Lyon Associates, Inc.  
841 Bishop Street, Suite 2006  
Honolulu, Hawai'i 96813

LOG NO: 2006.3748  
DOC NO: 0611AJ06  
Archaeology

Dear Mr. Miles:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –  
Notice of Intent Form C – Lualualei Grubbing Permit  
Lualualei Ahupua'a, Wai'anae District, Island of O'ahu  
TMK: (1) 8-7-009:002**

Thank you for the opportunity to review the aforementioned project, which we received on August 16, 2006. We apologize for the long delay in response. The proposed undertaking involves the clearing, grubbing, and mulching of the 60-acre area of potential effect.

A review of available documents indicates that the proposed undertaking will affect 60-acres of a larger 170-acre project area surveyed by Cultural Surveys Hawai'i (Hammatt *et al.* 1993. *An Archaeological Inventory Survey of a 170-acre Parcel in the Ahupua'a of Lualualei, Wai'anae District, Island of O'ahu.* [TMK: 8-7-9: portion 2; 8-7-10; 8-7-19: portion 1] SHPD Rpt No. O-792). The Hammatt *et al.* (1993) was accepted by this office in a letter (LOG NO: 10208, DOC NO: 9311EJ32) dated December 1, 1993.

There are two archaeological sites within the 60-acre APE of the proposed undertaking. These are: site -4371, remnants of a historic well, and site -4367, a historic wall segment. As stated in a letter (LOG NO: 9258, DOC NO: 9308ej17) dated September 7, 1993, we believe these sites have been adequately documented in the Hammatt *et al.* (1993) inventory survey. However, one archaeological site, SIHP NO. 50-80-08-4366 identified during the Hammatt *et al.* (1993) study was recommended for preservation. Site -4366 does not lie within the current APE, and thus, we believe it will not be impacted by the proposed undertaking.

Therefore, we believe the current undertaking will have "no effect" on historically-significant resources. However, should the APE or the scope of work for the proposed undertaking change, or if other portions of the subject parcel are to be developed, proactive archaeological mitigation (*e.g.* preservation plan for site -4366) will be required.

In the event that historic resources, including human skeletal remains, are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, O'ahu Section, needs to be contacted immediately at (808) 692-8015.



Mr. Dominic Miles  
Page 2

Please contact Mr. Adam Johnson if you have any questions or concerns about this letter.

Aloha,



Melanie Chinen, Administrator  
State Historic Preservation Division

AJ:



DEPUTIES

GILBERT COLOMA-AGARAN

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DIVISION  
LAND DIVISION  
STATE PARKS  
WATER AND LAND DEVELOPMENT

STATE OF HAWAII

October 24, 1997 DEPARTMENT OF LAND AND NATURAL RESOURCES

Jan Naoe Sullivan, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street, 7th Floor  
Honolulu, Hawaii 96813

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

LOG NO: 20361 ✓  
DOC NO: 9710EJ21

Dear Ms. Sullivan:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -- Request for a Special Use Permit  
(File No. 97/SUP-4) Mr. Robert Kava for Portion of Proposed Haleakala Golf  
Course  
Lualualei, Wai'anae, O'ahu  
TMK: 8-7-9:. por. 2**

In February of 1996 we commented on the rezoning of this parcel for the proposed Lualualei Golf Course (former name) from agricultural to preservation district. Our comments stated that:

An archaeological inventory survey of the proposed golf course parcel identified eight archaeological sites, two of which were related to traditional Hawaiian activity and six to historic land use. Seven of the eight sites are considered "no longer significant" due to their lack of cultural or scientific interest beyond the information retrieved during the survey. One site, 50-80-08-4366, is likely to yield information in prehistory and is recommended for preservation. This site is situated upslope of the golf course modification plans as submitted for the survey and as such will not be disturbed.

Also at that time we stated that the zone change application would have "no effect" on historic sites and asked that if development plans for the golf course were changed which may impact site -4366, that protective measures should be taken to assure the site's preservation.

The current application proposes development of 14.85 acres of the total project area. Site 50-80-08-4366 is not located in the current 14.85 acre parcel being considered under this permit and therefore we believe that the proposed development of the 14.85 acre parcel considered in this SUP, will have "no effect" on historic sites.

If you have any questions please call Elaine Jourdane at 587-0015.

Aloha

A handwritten signature in black ink, appearing to read "Don Hibbard", is written over the word "Aloha".

Don Hibbard, Administrator  
Historic Preservation Division

EJ:jk

OCT 24 1997

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII

1996 JAN 29 AM 8:00  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

96-00507  
MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
GILBERT COLOMA-AGARAN

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LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

January 12, 1996

Patrick T. Onishi  
Director of Land Utilization  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

LOG NO: 16202 ✓  
DOC NO: 9601EJ03

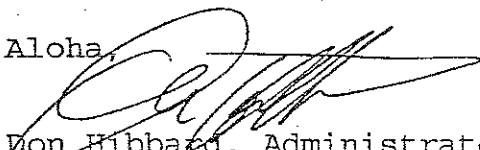
Dear Mr. Onishi:

SUBJECT: Application for a Zone Change, from AG-1 Restricted  
Agricultural District and AG-2 General Agricultural  
District to P-2 General Preservation District  
Lualualei, Wai'anae, O'ahu  
TMK: 8-7-10: 6, 10; 8-7-19: por. 1, por. 2

Thank you for the opportunity to review the zone change application, from agricultural to general preservation, for the proposed 18-hole golf course. The rezoning application accurately summarizes historic preservation concerns for the area. An archaeological inventory survey conducted for the proposed golf course found eight historic sites. Seven of these sites were considered no longer significant. The remaining site, a possible prehistoric habitation area (Site 50-80-08-4366), is located outside of the development area of the golf course and therefore will not be affected by current development plans. Therefore we believe that this zone change action will have "no effect" on historic sites.

If you have any questions please call Elaine Jourdane at 587-0015.

Aloha,

  
Don Hibbard, Administrator  
State Historic Preservation Division

EJ:jen



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

KEITH AHUE, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER II  
DONA L. HANAKE

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December 1, 1993

Mr. Harvey K. Hida, P. E., President  
Hida, Okamoto & Associates, Inc.  
1440 Kapiolani Blvd.  
Honolulu, Hawaii 96814

LOG NO: 10209  
DOC NO: 9311EJ33

Subject: Lualualei Golf Course Wells I through 4  
Lualualei, Wai'anae, O'ahu  
TMK: 8-7-09:002 and 8-7-10:010

Dear Mr. Hida:

This is to inform you that Cultural Surveys Hawaii has submitted an acceptable archaeological inventory survey report to our office. We have notified the Commission on Water Resources Management that the report has been submitted and is acceptable and that the condition requested for this permit has been met.

If you have any questions please contact Elaine Jourdane at 587-0015.

Sincerely Yours,

A handwritten signature in dark ink, appearing to read "Don Hibbard".

DON HIBBARD, Administrator  
State Historic Preservation Division

EJ:jt

DEC 01 1993



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

KEITH AILU, CHAIRPERSON  
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WATER AND LAND DEVELOPMENT

December 1, 1993

MEMORANDUM

LOG NO: 10208  
DOC NO: 9311EJ32

TO: Rae M. Loui, Deputy Director  
Commission on Water Resource Management

FROM: Don Hibbard, Administrator  
Historic Preservation Division 

SUBJECT: Well Construction & Pump Installation Permit Applications  
Lualualei Golf Course Wells 1 through 4  
Well Nos. 2508-10 through 2508-13  
Lualualei, Waiane, O'ahu  
TMK 8-7-09:002 and 8-7-10:010

Pursuant to our memorandum to you on September 7, 1993 (LOG 9258 and DOC 9308EJ18), we would like to inform you that an acceptable archaeological inventory survey report has been submitted to the Historic Preservation Division of the Department of Land and Natural Resources and that the condition requested for this permit has been met.

EJ:jt

DEC 01 1993

