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JUN 23 2010

LAND USE COMMISSION
Department of Business, Economic Development & Tourism
State of Hawai`i

ORLANDO "DAN" DAVIDSON
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Drafting Technician

June 2, 2010

Ms. Katherine Puana Kealoha, Director
Office of Environmental Quality Control
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813-2437

Dear Ms. Kealoha:

Subject: LUC Docket No. A09-782/Tropic Land LLC, a Hawaii limited liability company
Final Environmental Impact Statement (FEIS) – Nanakuli Community Baseyard
Lualualei, Waianae, Oahu, Hawaii; Tax Map Key: 8-7-09: por. 2

At its meeting on May 20, 2010, the Land Use Commission accepted the FEIS for the subject project. We respectfully request the publication of this acceptance in the next available issue of *The Environmental Notice*.

Enclosed please find the following:

1) Two copies of the FEIS;
2) OEQC Publication Form with Project Summary Description; and
3) FEIS Distribution List.

Two CD-ROMs, containing electronic versions of the FEIS and OEQC Publication Form with Project Summary Description, are also enclosed for your use.

Please feel free to contact Bert Saruwatari of my office at 587-3822, should you require clarification or any further assistance.

Sincerely,

ORLANDO DAVIDSON
Executive Officer

Enclosures

c: William W. L. Yuen, Esq. (w/o enclosures)
Arick B. Yanagihara (w/o enclosures)

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Nanakuli Community Baseyard

TMK (1) 8-7-09:02 (por.)
Lualualei, O‘ahu, Hawai‘i

Final Environmental Impact Statement

April 2010

Prepared for: **TROPIC LAND LLC**

Final Environmental Impact Statement

Nānākuli Community Baseyard

Lualualei, Wai'anae District, O'ahu, Hawai'i

This final environmental impact statement and all ancillary documents were prepared under the signatory's direction or supervision, and the information submitted, to the best of the signatory's knowledge, fully addresses document content requirements as set forth in HAR §11-200-17 and §11-200-18, as appropriate.

TROPIC LAND LLC

Arick Yanagihara

April 16, 2010
Date

Prepared for Tropic Land LLC

Prepared by Kimura International, Inc.

April 2010

4/13/2010 2225.01 FEIS Statement

Nānākuli Community Baseyard
TMK (1) 8-7-09: 02 (por.)
Lualualei, O‘ahu, Hawai‘i

Final Environmental Impact Statement

Prepared for:

Tropic Land LLC

Prepared by:

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

For Submittal to:

State of Hawaii Land Use Commission
In support of a District Boundary Amendment

April 2010

Preface

The following changes were made as the Draft Environmental Impact Statement (DEIS) transitioned into the Final Environmental Impact Statement (FEIS):

1. Substantive changes are indicated by font style. Deleted text is shown with a strikethrough. Added text is underlined.

2. A global change was made with “drinking water” replacing “potable water” and “non-drinking water” replacing “non-potable water.” For easier reading, these changes are not marked with strikethroughs and underlines.

3. In the table of contents, added material is indicated by underlining the section number, figure number, or table number.

4. Where a new table has been added to the main report, only the title of the table is underlined.

5. Chapter 3 in the DEIS was divided into two chapters in the FEIS, where the proposed action is discussed in Chapter 3 and alternatives are discussed in Chapter 4. Subsequent chapters and headings have been re-numbered.

Tropic Land LLC has received several suggestions to change the name of the project, the Nānākuli Community Baseyard. Because the project’s name was selected at the suggestion of and with the approval of the Nānākuli/Mā‘ili Neighborhood Board, and in order to avoid confusion in the review of the FEIS, Tropic Land has decided to defer any change to the name of the project until after consulting the Nānākuli/Mā‘ili Neighborhood Board.

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Glossary of Acronyms

ALISH	Agricultural Lands of Importance to the State of Hawai‘i
BMP	Best Management Practice
BWS	Board of Water Supply
CBT	Cyclic Biological Treatment
CC&Rs	Covenants, Conditions, and Restrictions
CT	Census Tract
CY	Cubic Yard
dB	Decibel
DEIS	Draft Environmental Impact Statement
DOH	Department of Health, State of Hawaii
DPP	Department of Planning and Permitting, City and County of Honolulu
EA	Environmental Assessment
EISPN	Environmental Impact Statement Preparation Notice
FEIS	Final Environmental Impact Statement
FIRM	Flood Insurance Rate Map
GIS	Geographical Information System
GPD	Gallons per Day
GPM	Gallons per Minute
HAR	Hawai‘i Administrative Rules
HDOT	Hawai‘i Department of Transportation
HECO	Hawaiian Electric Company
HRS	Hawai‘i Revised Statutes
Ldn	(Noise) Level, day-night average
LOS	Level of Service
LSB	Land Study Bureau, University of Hawai‘i
LUC	Land Use Commission
MG	Million Gallons
MGD	Million Gallons per Day
MPH	Miles per Hour
MSL	Mean Sea Level
NPDES	National Pollutant Discharge Elimination System
OEQC	Office of Environmental Quality Control
OMPO	Oahu Metropolitan Planning Organization
ORTP	Oahu Regional Transportation Plan
PSI	Pounds per Square Inch

SCP	Sustainable Communities Plan
SHPD	State Historic Preservation Division
SMA	Special Management Area
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
UA	Unilateral Agreement
UBC	Uniform Building Code
USLE	Universal Soil Loss Equation (U.S. Department of Agriculture)
V/C	Volume to Capacity (ratio)
VPH	Vehicles per Hour
WSCP	Wai‘anae Sustainable Communities Plan

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SUMMARY SHEET

Project Overview

Tropic Land LLC proposes to develop a 96 acre industrial park on a 236.15 acre parcel of land fronting Lualualei Naval Access Road, approximately two miles *mauka* of Farrington Highway and south of a U.S. Naval installation. The project area is a portion of Oahu Tax Map Key No. 8-7-9: 02. The parcel is owned in fee by Tropic Land LLC.

The proposed industrial park would consist of approximately 41 lots, averaging two acres each, and developed on a condominium basis. A business incubator center comprised of three lots, and including a 25,000 square feet building is proposed to provide affordable start-up space for small businesses. The project will have a single secured entry on Lualualei Naval Access Road and a secondary access for fire and emergency purposes. The project concept was developed through extensive consultation with, and with the support of a larger number of Leeward Coast residents, the Nānākuli-Mā‘ili Neighborhood Board and other business and community groups.

Tropic Land LLC seeks to amend the State Land Use District boundaries from the Agricultural District to the Urban District and a change in zoning from Preservation (P-2) to Industrial (I-1) for the planned industrial use. The remainder of TMK 8-7-9: 02 will remain in the State Agricultural and Conservation Districts and in the City and County Preservation Zone.

Alternatives Considered

A number of alternatives were considered for the site, which was formerly proposed for a golf course by the prior landowner. That proposal encompassed 259 acres, and included an 18-hole golf course, clubhouse, driving range, and nursery facility. In 1996, the Honolulu City Council approved a zoning change and Unilateral Agreement that entitles the landowner to build the golf course project. When Tropic Land acquired the property in 2005, it began considering alternative land uses, despite the existing land entitlements. Tropic Land was concerned with community opposition to the former golf course project, as well as economic conditions that reduced the viability of a golf course development. Diversified agriculture was considered and rejected due to adverse soil conditions and the adverse experience of prior tenants of the property..

The possibility of a light industrial park was raised through consultation with community members, who noted the Wai‘anae Coast’s growing residential population and labor force, yet limited employment and economic opportunities. <u>There is no other site on the Wai‘anae Coast that is zoned for the development of a light industrial park.</u> Several alternative configurations for an industrial park were evaluated. The alternatives varied by number of entrances and provided different roadway layouts and lot configurations. The preferred plan with a single entry was selected as the most efficient and secure.

Project Impacts and Mitigation

Topography and Physical Conditions. The project will consist of clearing and grading the 96-acre site of existing vegetation and replacing it with an industrial park facility. All grading operations will be conducted in compliance with County erosion control requirements. To mitigate rockfall hazard from cliffs near the project area, a 100-foot wide buffer will be constructed along the *mauka* boundary. The buffer will prevent falling rocks from rolling into the developed area. The buffer, in the form of an unlined swale or culvert, will also be incorporated into the drainage improvements and serve as a fire break. Additional rockfall mitigation measures may be implemented if recommended in a geotechnical analysis to be conducted during the project's design phase.

Construction Period Noise and Dust. During construction, there will be short-term, construction related dust and noise. These impacts will be temporary, and will be mitigated by complying with State and County standards. Fugitive dust will be controlled by watering work areas, wind screens, limiting disturbed areas, and covering stockpiled materials and open truckloads. Timely paving and landscaping of project areas early in the construction schedule will also reduce dust emissions.

Visual Impacts. The project will modify the visual character at the base of the mountain range by converting an open, undeveloped area to an industrial park. To reduce the visual impact of the proposed industrial park, no development will occur above the 200-foot elevation. Palm trees have been planted along the front and sides of the property to soften the view of the project from the street. Accent landscaping will be provided at the front gate and street trees planted along the internal streets.

Agriculture. The project will convert approximately 40 acres of arable lands to urban use. The impact on agriculture will be minimal, as these lands are not currently cultivated, and have not been cultivated since the 1980s. The soils in the petition area are clayey and rocky, and only about 13% of the project site is classified as Class B agricultural land with irrigation, with the remainder having marginal productivity. Affordable irrigation water is not available to the site.

Roadways and Traffic. Lualualei Naval Access Road will serve as the primary access road for the project. Truck traffic to and from the proposed industrial park is consistent with traffic generated by existing land uses along Lualualei Naval Access Road, including the PVT construction and demolition landfill, the Pineridge Farms recycling facility and Joint Base Pearl Harbor Hickam (JBPHH) Lualualei Annex, a U.S. Navy ordnance storage area and radio facility. The U.S. Navy, which owns Lualualei Naval Access Road, is willing to extend access to Tropic Land and its buyers to use this roadway on the same basis as being afforded to other private business on Lualualei Naval Access Road. The Navy has also agreed to grant a long-term easement to use Lualualei Naval Access Road to an association of adjoining property owners who presently use the road, in consideration of the property owners' agreement to maintain the road.

Traffic on Farrington Highway may also be impacted by the increased truck traffic. Tropic Land will discuss traffic mitigation measures with the State and the City, and is willing to participate in a fair-share arrangement to construct improvements to accommodate increased traffic following project build-out. Possible mitigation measures could include a dedicated left-turn lane from Farrington Highway onto Lualualei Naval Access Road, and a second left turn lane from Lualualei Naval Access Road onto Farrington Highway.

Utilities. Energy efficient design will be incorporated into development, and the industrial park will utilize recycled effluent for irrigation. The industrial park will be served by a privately owned and maintained independent wastewater treatment system. A solid waste management plan will be developed including efforts to minimize waste generated at the proposed industrial park during construction and operation. Recycling and landfill diversion practices by construction contractors and businesses will be encouraged.

Other. A landscaped buffer has been planned where Ulehawa Stream crosses the northwest section of the project area, creating a building setback. The project will not adversely impact flora and fauna, or any critical habitat on the project site. Tropic Land will utilize non-invasive and/or native plant species in landscaping common areas. Feeding of feral or stray cats within the development will be prohibited to reduce potential adverse impacts on birdlife within the development and on neighboring properties. The project will not adversely affect cultural resources.

Unresolved Issues. As indicated above the U.S. Navy is willing to extend access to Tropic Land and its buyers to use Lualualei Naval Access Road. An unresolved issue is the form of the definitive access agreement, which is under discussion with the Navy.

Compatibility with Land Use Plans and Policies

The development of the light industrial park requires an amendment to the State Land Use District from Agricultural to Urban for the 96-acre project area. The ~~DEIS~~ FEIS analysis demonstrates that the project is reasonable, conforms with the objectives of the Hawai‘i State Plan, and with the applicable Urban district standards.

The project is consistent with the Wai‘anae Sustainable Communities Plan (WSCP) objectives and is directly supportive of the WSCP value of economic choices. As a job-producing and economy sustaining land use, the industrial park has the potential to become an employment center, providing greater economic choice to families in the WSCP area. The Honolulu Department of Planning and Permitting’s Draft Wai‘anae Sustainable Communities Plan Revision for 2009 identifies industrial as an alternative land use for this site. The revised Wai‘anae Sustainable Communities Plan must be approved by the Honolulu City Council.

The project area is currently zoned P-2, Preservation with a Unilateral Agreement allowing golf course use. This zoning was obtained in ~~1999~~ 1996 by the previous landowner, who proposed a

golf course on the site and surrounding areas. Tropic Land is seeking a change in zoning from P-2 to Limited Industrial (I-1). The proposed light industrial park is consistent with the purpose of the I-1 district, is compatible with surrounding land uses, and will have minimal environmental impact.

Listing of Permits or Approvals

The following permits are required or potentially required:

State of Hawai‘i

- State Land Use Commission, State Land Use Boundary Amendment
- Department of Health, Section 402, Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Permit

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

1. INTRODUCTION

1.1 Proposed Action

Tropic Land LLC proposes to develop an industrial park that would occupy approximately 96 acres on TMK 8-7-9: 02, on the east side of Lualualei Naval Access Road (see Figure 3, Site Plan). The industrial park would consist of approximately 41 lots, averaging two acres each, and developed on a condominium basis. Lots in higher visibility areas, such as those along the main entry road and around intersections, may be further divided into smaller parcels. These locations are more likely to attract commercial businesses with greater customer interaction.

An incubator center is proposed for three 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 would also be available in units measuring approximately 8,750 SF each.

The project will have a single secured entry off of Lualualei Naval Access Road and a secondary access for fire and emergency purposes. The existing tree-lined setback will remain along the Lualualei Naval Access Road frontage. This setback measures 30 feet wide, except in the northwest corner of the property where a triangular piece of land, approximately 2.4 acres in size, is included in the setback. The north and south property lines have 15-feet setbacks. An additional strip of land, approximately 100 feet wide and *mauka* of the industrial lots, will be improved as an unlined swale or culvert for drainage improvements, rock fall hazard mitigation, and a fire break.

The project will be sold under a condominium form of ownership with individual 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 Oahu Tax Map Key 8-7-9: 02 will remain in the State Agricultural and Conservation Districts and in the City and County Preservation Zone.

1.2 Project Location and Description

The petition area is a portion of the property identified as Oahu Tax Map Key 8-7-9: 02. The entire parcel comprises 236.15 acres, of which the proposed project will occupy 96 acres. It is located in the upper Lualualei Valley approximately 2 miles *mauka* (inland) of Farrington Highway and immediately south of Joint Base Pearl Harbor Hickam (JBPHH) Lualualei Annex. The property is owned in fee by Tropic Land LLC. See Figures 1 and 2.

Access. At present, legal 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 has reached an understanding with the Navy for the use of the Lualualei Naval Access Road, which provides a direct route to the property from Farrington Highway. Tropic Land is currently discussing the form of a definitive access agreement with the Navy. The Navy has agreed to grant a long term easement to use Lualualei Naval Access Road to an association to be organized by the adjoining property owners, including Tropic Land LLC, who would be required to maintain the road.

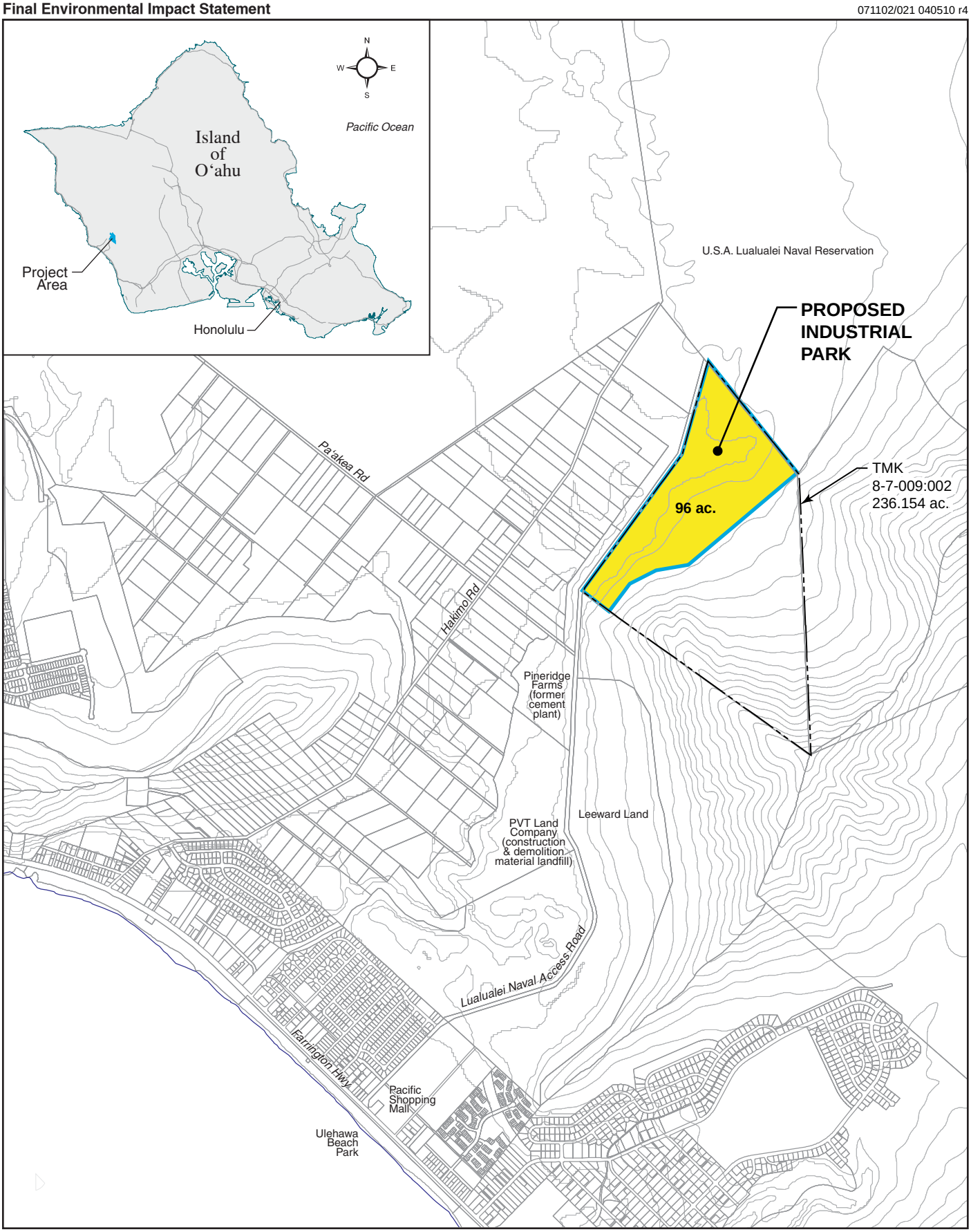

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Figure 1
Location Map
March 2010

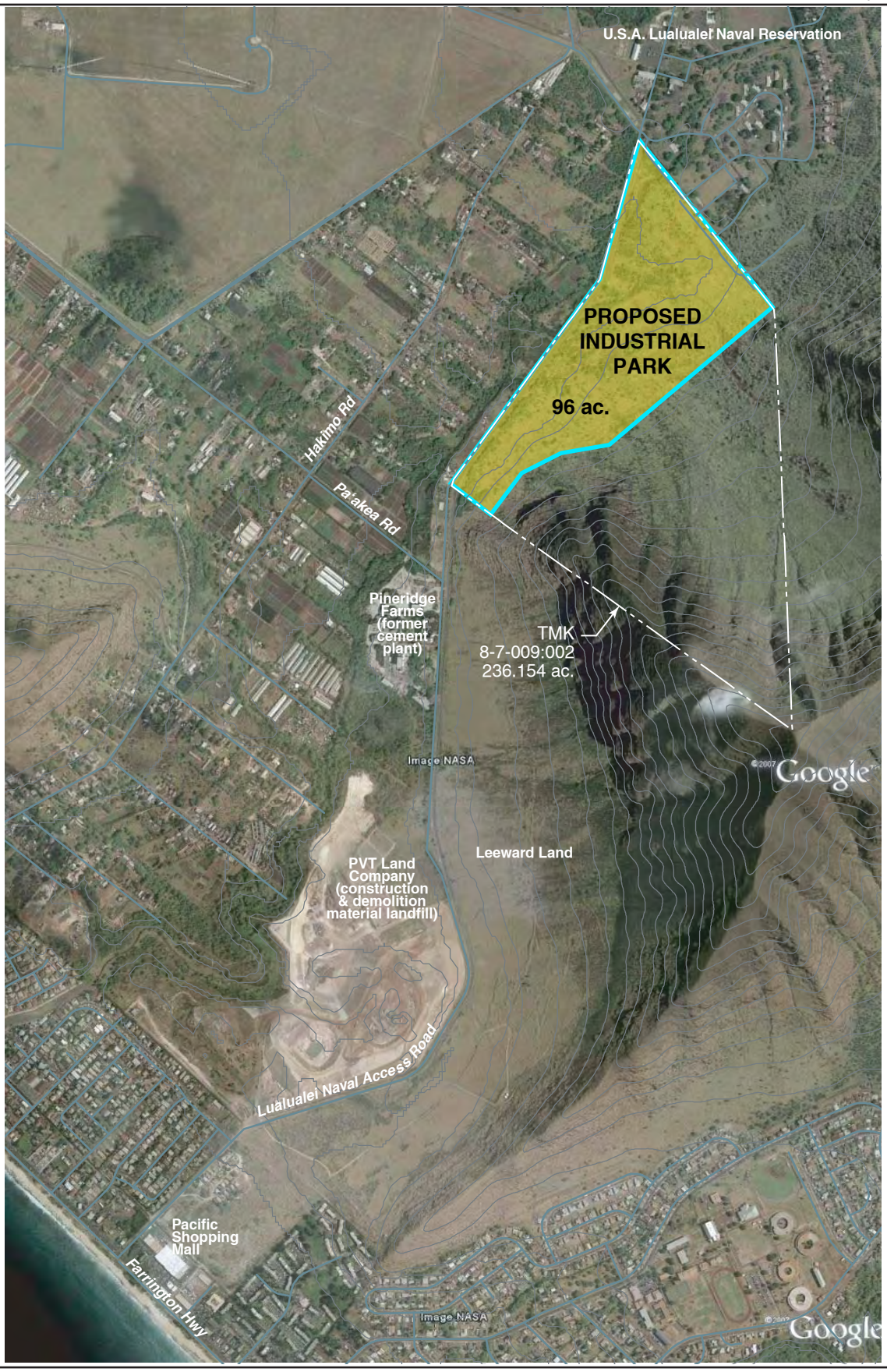

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Figure 2
Aerial Photograph
March 2010

Project site frontage along Lualualei Naval Access Road.

Frontage along Lualualei Access Road

Tropic Land entrance facing the Naval Reservation at the end of Lualualei Naval Road

Flat lands facing mountains.

1.3 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. Development of the project area for a proposed golf course was addressed in a Final EIS, accepted in 1991. The proposal included an 18-hole golf course and accessory uses. In 1996, Oban obtained approval of a conditional zoning change for approximately 188 acres from AG-1 Restricted Agricultural District and AG-2 General Agricultural District to P-2 General Preservation District. The zoning change was approved with conditions and recorded as Document 2337653 on September 24, 1996. The property has not been developed as a golf course. It was acquired by Tropic Land LLC from Oban in December 2005.

1.4 Purpose of the Final Environmental Impact Statement

This Final Environmental Impact Statement (FEIS) was prepared for the proposed action pursuant to Chapter 343, Hawai‘i Revised Statutes (HRS); and State Department of Health Title 11, Chapter 200, Hawai‘i Administrative Rules (HAR).

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 "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 under criteria 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 LLC elected to proceed directly to prepare 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 mitigation measures.

Before the proposed action can be implemented, the landowner (Petitoner) must obtain an amendment to the State Land Use District boundaries (from the Agricultural District to the Urban District), an amendment to the City and County of Honolulu Wai‘anae Sustainable Communities Plan, and a change in zoning from preservation (P-2) to industrial (I-1). The

completed EIS is intended to provide the environmental review needed to support the decision-making process in each case.

1.5 Steps in the Environmental Review and Implementation Process

An Environmental Impact Statement Preparation Notice (EISPN) was published by the State of Hawai‘i Office of Environmental Quality Control (OEQC) *Environmental Notice* on May 23, 2009. The 30-day public comment period ended on June 23, 2009. Comments received are included in ~~Chapter 8~~ Appendix M of this document.

~~This DEIS will be submitted to the OEQC for publication in the *Environmental Notice* announcing a 45-day public review period. Copies of the DEIS will be distributed to government agencies and interested parties.~~

The DEIS was published in the *Environmental Notice* on November 23, 2009, initiating a 45-day public review period which ended on January 7, 2010. Copies of the DEIS were distributed to government agencies and interested parties. Comments are reviewed in Chapter 9.

The FEIS will be submitted to the Land Use Commission (LUC) which is the accepting authority. Once the LUC has accepted the FEIS, it will be sent to OEQC for publication in the *Environmental Notice*.

1.6 List of Possible Permits, Approvals, and Requirements for Regulatory Compliance

The following permits are required or potentially required. Input on other approvals that may be necessary is requested from government agencies and other participants in the environmental review process.

	Anticipated Date for Application Submittal
Federal	
• U.S. Army Corps of Engineers, Jurisdictional Determination (Ulehawa Stream)	Completed
• Lualualei Naval Access Road Lease of Easement	2010
State of Hawai‘i	
• State Land Use Commission, State Land Use District Boundary Amendment	2010
• Department of Health, Section 402, Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Permit	2011
City and County of Honolulu	
• Wai‘anae Sustainable Communities Plan, Amendment	2010
• Zoning Change (from P-2 Preservation to I-1 Industrial)	2011
• Grading Permit	2011
• Building Permit	2011

1.7 Project Summary

Project Name	Nānākuli Community Baseyard
Applicant/Landowner	Tropic Land LLC
Accepting Authority	State Land Use Commission
Tax Map Keys	8-7-9: 2 (portion)
Location	East side of Lualualei Naval Access Road, approximately 2 miles from Farrington Highway, Wai‘anae District, Island of O‘ahu
Petition Area	Approximately 96 acres
Project Description	Tropic Land LLC proposes to develop a light industrial park on approximately 96 acres. The industrial park would consist of approximately 41 lots, averaging two acres each. The project would have a single secured entry off of Lualualei Naval Access Road and a secondary access for fire and emergency purposes. Surrounding the project site are a 30-foot wide, landscaped buffer along the Lualualei Road frontage, approximately 2.4 acres of green space in the northwestern corner, and 15-foot setbacks along the north and south property lines. On the *mauka* side, an additional strip of land approximately 100 feet wide is planned for construction of an unlined swale or culvert for drainage improvements, rock fall hazard mitigation, and a fire break. The project will be sold under a condominium form of ownership with individual lots and common ownership of internal roads and infrastructure. Three lots are set aside for a third party to develop an incubator center to provide start-up spaces. Tropic Land LLC is planning to seek an I-1 zone for the petition area. The remainder of TMK 8-7-9: 02 will remain in the preservation zone.
Existing Uses	The site is vacant and covered mostly with grasses, *haole koa* bushes, and isolated *kiawe* trees. Grasses are mowed periodically for fire control purpose and used for silage. The entire site remains subject to an existing Unilateral Agreement (UA) related to the development of a golf course.
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 Kapiʻolani Boulevard, Suite 1610 Honolulu, HI 96814 Contact: Glenn Kimura

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2. PURPOSE OF AND NEED FOR ACTION

There is a disparity in economic development opportunities on the Wai‘anae Coast. On the one hand, there is a growing residential population and labor force—yet, on the other hand, limited, and even stagnant, employment and available industrial space for business creation and expansion. The proposed light industrial park is needed to develop 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‘olauloa, 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.

Industrial Market Analysis[1]

According to data compiled at the end of 2007 by Colliers Monroe Friedlander (Colliers), the total supply of existing industrial space on O‘ahu was estimated at approximately 36.4 million square feet of floor area within 1,668 buildings. The indicated overall vacancy rate within the island’s industrial marketplace was 3%.

[1] Based on a Market Analysis and Employment Forecast Study prepared by Hastings, Conboy, Braig & Associates, Ltd. dated March 2008.

The geographic distribution of industrial space on O‘ahu can be allocated among 11 major sub-markets, with the four largest market areas identified as:

Kalihi/Sand Island	8.47 million square feet
Airport/Mapunapuna	8.26 million square feet
Campbell Industrial Park/Kapolei Business Park	5.60 million square feet
Bougainville/Halawa	3.23 million square feet

The seven remaining market areas have smaller inventories of industrial space ranging from as low as 467,000 square feet in Kailua to just over 2.4 million square feet in Iwilei.

Among the more notable aspects or characteristics of O‘ahu’s industrial marketplace is the geographic concentration of the existing supply. Existing industrial development is overwhelmingly concentrated within three of O‘ahu’s planning areas, namely the Primary Urban Center, ‘Ewa, and Central O‘ahu. The Colliers data indicate that the combined inventory of industrial space within the other five planning areas—East Honolulu, Ko‘olaupoko, Ko‘olauloa, North Shore, and Wai‘anae—totals less than 1.0 million square feet, or only 2.7% of the islandwide total.

The Primary Urban Center is characterized as a predominantly built-out market with potential redevelopment as a possible key component of future opportunities for industrial growth. ‘Ewa and Central O‘ahu are characterized as developing areas where the availability of land capable of accommodating continued building expansion is the primary driving force regarding future opportunities for growth in the supply of additional industrial land and buildings. Increased industrial development in ‘Ewa and Central O‘ahu is also a response to the continued growth and development of substantial residential communities within these two areas.

Another significant feature of O‘ahu’s industrial marketplace is its relatively low vacancy rate as it relates to pent-up demand. Pent-up demand is defined as the component or quantity of additional market demand that would need to be absorbed or otherwise introduced in the marketplace to restore normal equilibrium between supply and demand during periods of unusually low vacancy. Typically, normal equilibrium between supply and demand is reflected by an overall vacancy rate of, say, 5%. The Colliers data indicate that O‘ahu’s overall vacancy rate is 3%, with the vacancy rate in selected market areas calculated at less than 1%.

O‘ahu’s vacancy rate of 3% equates to approximately 1.1 million square feet of available floor space among a total building inventory of 36.4 million square feet of floor space. Under these conditions, an additional supply of approximately 750,000 square feet of industrial space would be the implied requirement for a normal, equilibrium vacancy rate of 5%. The estimated amount of pent-up industrial demand is equivalent to roughly 50% or one-half of the total inventory floor space currently developed at the Gentry Business Park in Waipio.

Industrial Market Analysis, Waʻianae Planning Area

The subject property's regional setting and relevant market area is defined as the Waiʻanae planning area. The area extends along the leeward coast of Oʻahu, west of the Waiʻanae Mountain Range, and encompasses the valleys of Nānākuli, Māʻili, Waiʻanae, Mākaha, and Mākua, and the residential communities of Nānākuli, Māʻili, Waianae, and Mākaha.

The Waiʻanae market area is characterized as an outlying, rural-agricultural district of Oʻahu. Almost one-fourth of the total land area within the Waiʻanae planning area is categorized as agricultural. Only about 5% of the total land area is categorized as urban, with most of the urban designated land used for single-family residential use. Almost two-thirds of the total land area is categorized as either reservation or military. The latter category includes the military installation located directly inland from the subject property.

Similar information is reported by the DBEDT Office of Planning. According to a 2004 report, the total acreage of vacant land zoned for commercial and/or industrial use within the Waiʻanae planning area was statistically equal to zero.

Yet, from an existing demand perspective, the Waiʻanae planning area accounts for roughly 5% of Oʻahu's total resident population and that continued population growth is projected for the area over the next twenty years. Also, demographic and socioeconomic data from the 2000 Census indicate a significant level of industrial job holders residing within the Waiʻanae planning area. An important implication of these statistics is the presence of an available labor force with industrial job training and experience already residing within the Waiʻanae market area.

Industrial Land Use Demand Forecasts

The DPP Socioeconomic Projections for the Waiʻanae Development Plan Area forecast a steady and moderate growth in population for the area. In contrast the future outlook for job opportunities in the area is a no growth/ declining scenario. The population forecast for Waiʻanae increases from 44,656 in 2005 to 52,285 in 2030, while the job/employment forecast for Waiʻanae fluctuates at a modest level from 7,253 in 2005 to 7,126 in 2030.

Within the DPP project model, significant job growth to the year 2030 is forecast to occur within three planning areas: Primary Urban Center, ʻEwa, and Central Oʻahu. All remaining planning areas , including East Honolulu, Koʻolaupoko, Koʻolauloa, North Shore, and Waianae, are projected to have limited prospect for increases in future job opportunities.

Table 1 presents a more detailed breakdown of the DPP job projections to 2030 by various employment categories. Of particular note is a marked decline forecasted construction jobs for the Waiʻanae planning area from 801 in 2005 to 368 in 2030. This represents more than a 50% loss in jobs for the construction industry within the subject market area. The forecasted decline

in construction jobs appears to reflect a perceived lack of anticipated new development within the Wai‘anae planning area.

Table 1
Forecasted Jobs by Employment Category to the Year 2030
for the City and County of Honolulu and Wai‘anae Planning Area

	2005	2010	2015	2020	2025	2030
City and County of Honolulu						
Armed Forces	40,368	40,368	40,370	40,370	40,370	40,370
Public Administration	36,703	37,606	38,601	39,392	40,304	41,282
Hotel	16,795	17,399	17,900	18,500	18,998	19,500
Agriculture	4,627	4,769	4,854	4,945	5,110	5,255
Transportation, Communication, Utilities	39,531	41,599	43,591	45,711	47,816	49,997
Industrial	30,143	31,094	32,052	32,873	33,715	34,636
Construction	25,086	26,187	26,281	26,464	26,975	27,475
Finance, Insurance, Real Estate	33,965	35,611	37,311	38,910	40,603	42,299
Services	201,186	211,296	221,665	231,745	242,163	252,844
Retail	94,447	99,300	104,237	109,120	114,059	119,053
Total Jobs	**522,851**	**545,229**	**566,862**	**588,030**	**610,113**	**632,711**
Wai‘anae Planning Area						
Armed Forces	47	47	47	47	47	47
Public Administration	401	401	401	405	414	421
Hotel	26	109	109	109	109	110
Agriculture	534	553	569	581	607	620
Transportation, Communication, Utilities	193	196	208	221	224	234
Industrial	115	115	115	115	115	115
Construction	801	649	356	373	368	443
Finance, Insurance, Real Estate	245	245	245	245	245	245
Services	3,586	3,586	3,586	3,586	3,586	3,586
Retail	1,305	1,305	1,305	1,305	1,305	1,305
Total Jobs	7,253	7,206	6,941	6,987	7,020	7,126

Source: Department of Planning and Permitting, Socioeconomic Projections, 2000-2030 by Development Plan Area

The data in Table 2 show the disparity in population and job distribution associated with the Waiʻanae planning area. Although Waiʻanae accounts for almost 5% of the total population count of Oʻahu, it has less than 1.5% of the total island-wide job count. This disparity is even greater with respect to jobs within the traditional industrial sectors of employment (represented by employment in the categories of Transportation, Communications, Utilities; Industrial; and Construction). For industrial sector jobs, the Waiʻanae planning area accounts for less than 1% of the island-wide forecast.

Table 2
Comparison of Population and Employment Forecasts for Oʻahu and Waiʻanae Planning Area

	2005	2010	2015	2020	2025	2030
Resident Population Forecast						
Oʻahu	912,913	952,661	995,562	1,037,252	1,078,058	1,117,322
Percent of Island Total	100%	100%	100%	100%	100%	100%
Waiʻanae Planning Area	44,656	45,172	46,991	48,891	50,685	52,285
Percent of Island Total	4.9%	4.7%	4.7%	4.7%	4.7%	4.7%
Employment/Job Forecast (Total Jobs)						
Oʻahu	522,851	545,229	566,862	588,030	610,113	632,711
Percent of Island Total	100%	100%	100%	100%	100%	100%
Waiʻanae Planning Area	7,253	7,206	6,941	6,987	7,020	7,126
Percent of Island Total	1.4%	1.3%	1.2%	1.2%	1.2%	1.1%
Employment/Job Forecast of Industrial Sector*						
Oʻahu	94,760	98,880	101,924	105,048	108,506	112,108
Percent of Island Total	100%	100%	100%	100%	100%	100%
Waiʻanae Planning Area	1,109	960	679	706	707	792
Percent of Island Total	1.2%	1.0%	0.7%	0.7%	0.7%	0.7%

* Industrial Sector jobs include all jobs within the employment categories: Transportation, Communications Utilities; Industrial; and Construction

Source: Department of Planning and Permitting, Socioeconomic Projections, 2000-2030 by Development Plan Area

The land use demand forecast by the HCBA study are based, in part, on projected modifications to the prevailing disparity between population distribution and job count distribution in the Waiʻanae planning area. The other engine of the land use demand forecast is an employment-

driven model. The methodology used to derive the land use forecasts is explained in the full study which is reproduced in Appendix B. The results of the employment are shown in Table 3.

Table 3
Industrial Land Use Demand Forecasts, 2005-2030
Proposed Light Industrial Park, Lualualei, O‘ahu

	2005	2010	2015	2020	2025	2030
Industrial Land Use Demand Forecast—Employment Model						
O‘ahu						
Industrial Sector Job Forecast	94,760	98,880	101,924	105,048	108,506	112,108
Land Use Conversion Factor*	2,500 SF/Job	2,500 SF/Job	2,500 SF/Job	2,500 SF/Job	2,500 SF/Job	2,500 SF/Job
Industrial Land Use Demand (acres)	5,438	5,675	5,850	6,029	6,227	6,434
Cumulative Demand (acres)	--	236	411	590	789	996
Wai‘anae Planning Area						
Modified Industrial Job Forecast @ **2.0%** of O‘ahu	1,109	1,978	2,038	2,101	2,170	2,242
Land Use Conversion Factor*	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job
Industrial Land Use Demand (acres)	127	227	234	241	249	257
Cumulative Demand (acres) HIGH END	--	100	107	114	122	130
Wai‘anae Planning Area						
Modified Industrial Job Forecast @ **1.7%** of O‘ahu	1,109	1,681	1,733	1,786	1,845	1,906
Land Use Conversion Factor*	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job
Industrial Land Use Demand (acres)	127	193	199	205	212	219
Cumulative Demand (acres) MID RANGE	--	66	72	78	85	92
Wai‘anae Planning Area						
Modified Industrial Job Forecast @ **1.5%** of O‘ahu	1,109	1,483	1,529	1,576	1,628	1,682
Land Use Conversion Factor*	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job	5,000 SF/Job
Industrial Land Use Demand (acres)	127	170	176	181	187	193
Cumulative Demand (acres) LOW END	--	43	49	54	60	66

* Land Use Conversion Factor represented as Land Area per Employee/Job

Source: Hastings, Conboy, Braig & Associates, Ltd., March 2008

At the high end forecast, based on a 2.0% capture rate of O‘ahu’s industrial sector jobs to the Wai‘anae planning area, industrial land use demand within the subject market area is forecast to

be sufficient to absorb approximately 100 to 115 net acres of additional industrial land between 2010 and 2020. By comparison, the proposed subject project is anticipated to introduce 70 net acres of new industrial land onto the market during the same approximate time period.

At the mid-range forecast, based on a 1.7% capture rate of O‘ahu’s industrial sector jobs to the Wai‘anae planning area, industrial land use demand within the subject market area is forecast to be sufficient to absorb approximately 65 to 80 net acres of additional industrial land between 2010 and 2020. Again, the proposed subject project is anticipated to introduce 70 acres of new industrial land onto the market during this same approximate time period.

At the low end forecast, based on a 1.5% capture rate of O‘ahu’s industrial sector jobs to the Wai‘anae planning area, industrial land use demand within the subject market area is forecast to be sufficient to absorb approximately 45 to 55 net acres of additional industrial land between 2010 and 2020. Under this scenario the effective market absorption of the proposed subject project is anticipated to extend beyond a 15- to 20-year time horizon.

The rationale behind the use of modified industrial sector job forecasts for the Wai‘anae planning area was based on an expectation that a significant level of relocation demand (also referred to as transient demand) could potentially be attracted to the subject market area. This potential form of demand might well be the future result of selected industrial businesses acting on a desire to relocate their operations to a lower-cost option with better proximity to available labor resources.

Available market data indicate a geographic disparity between a growing resident population and potential industrial labor force residing within the Wai‘anae market area and the scarcity of any discernable new industrial development and employment opportunities within the same market area. The proposed Nānākuli Community Baseyard has the potential to alleviate or mitigate some of the effects of this ongoing disparity between labor force and job market locations.

The market study concluded that if the proposed light industrial park were successful in obtaining the necessary government approvals, “there is sufficient potential demand in the marketplace to achieve project absorption within, perhaps, a three- to five-year time frame” (Hastings, Braig, Conboy & Associates, 2008: 18).

Interest from the Business Community

Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a “baseyard”-type development that offers industrial space for less intensive activities.

Fifteen of the 21 businesses reported current addresses in Wa‘ianae. The remaining six businesses are currently located in Honolulu, ‘Aiea, Pearl City, ‘Ewa Beach, and Kapolei.

The business incubator is proposed to afford a home for start up businesses. The Wai‘anae Coast Coalition, a non-profit organization, is leading the planning effort for the business incubator component of the project.

3. PROPOSED ACTION[1]

This chapter discusses the proposed light industrial park, tentatively named Nānākuli Community Baseyard, and alternative development schemes that have been considered.

General History and Background

In December 2005, Tropic Land LLC purchased the property from Kabushiki Kaisha Oban and the rights to develop a golf course on the property. After purchasing the property, Tropic received numerous comments from Wai‘anae Coast residents opposing the development of a golf course and requesting that development options be reconsidered. One of the suggestions was to develop a light industrial park. Other suggestions included a Disney-type theme park, golf driving range, affordable housing, and stock car racing facility. However, the predominant request was to develop a light industrial park.

At the September 4, 2007 meeting of the Wai‘anae Coast Neighborhood Board, Tropic announced its willingness to reconsider the golf course development and to discuss alternative development options with members of the community. Tropic met with the Board’s Planning and Zoning Committee on October 10 and November 15, 2007 and shared preliminary plans for a light industrial park. The Planning and Zoning Committee voted to forward the proposed project to the entire Board for further discussion and consideration at its meeting on December 4, 2007.

Tropic first met with the newly established Nānākuli-Mā‘ili Neighborhood Board on May 20, 2008 and made a presentation to the full board. A follow-up presentation was made to the Planning and Zoning Committee on June 24, 2008. Both meetings provided opportunities for public input. On July 15, 2008, the Board unanimously adopted a resolution to support the development of the light industrial park.

3.1 Project Description

Light Industrial Park

Tropic Land LLC proposes to develop an industrial park that would occupy an approximately 96 acre portion of the property in the upper Lualualei Valley. The project is currently known as the Nānākuli Community Baseyard. The petition 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 JBPHH Lualualei Annex. Steep cliffs, including the slopes of Pu‘u Heleakala, lie on the south and east. See Figure 3, Site Plan.

[1] Chapter 3 in the DEIS has been separated into two separate chapters. Chapter 3 in this FEIS focuses on the proposed action. Chapter 4 in this FEIS discusses other alternatives considered during the project planning process.

The industrial park will be comprised of approximately 41 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 three 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 sold 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) will be imposed on the industrial park. The CC&Rs will be used as a mechanism to minimize and mitigate adverse environmental impacts, as described in Chapter5 and 7of this FEIS.

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. The U.S. Navy has agreed to grant Tropic Land LLC and other adjoining property owners a long term easement for the use of the Lualualei Naval Access Road, and is currently discussing the form of an easement agreement. Appendix K contains correspondence between Tropic Land and the Navy, including a conceptual outline for the operation and maintenance of Lualualei Naval Access Road by an association of road users. Consultation among the relevant parties is in progress.

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 may be installed. Street lights and street trees will be installed for safety and aesthetic purposes.

Buffers and Setbacks. The existing line of palm trees will remain as a 30-foot landscaped setback along the Lualualei Naval Access Road frontage. In the northwest corner of the property, the setback will encompass Ulehawa Stream. Additional landscaping may be installed within this permanent green space; however, all development will occur outside the setback. The stream itself will remain in its natural state.

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.

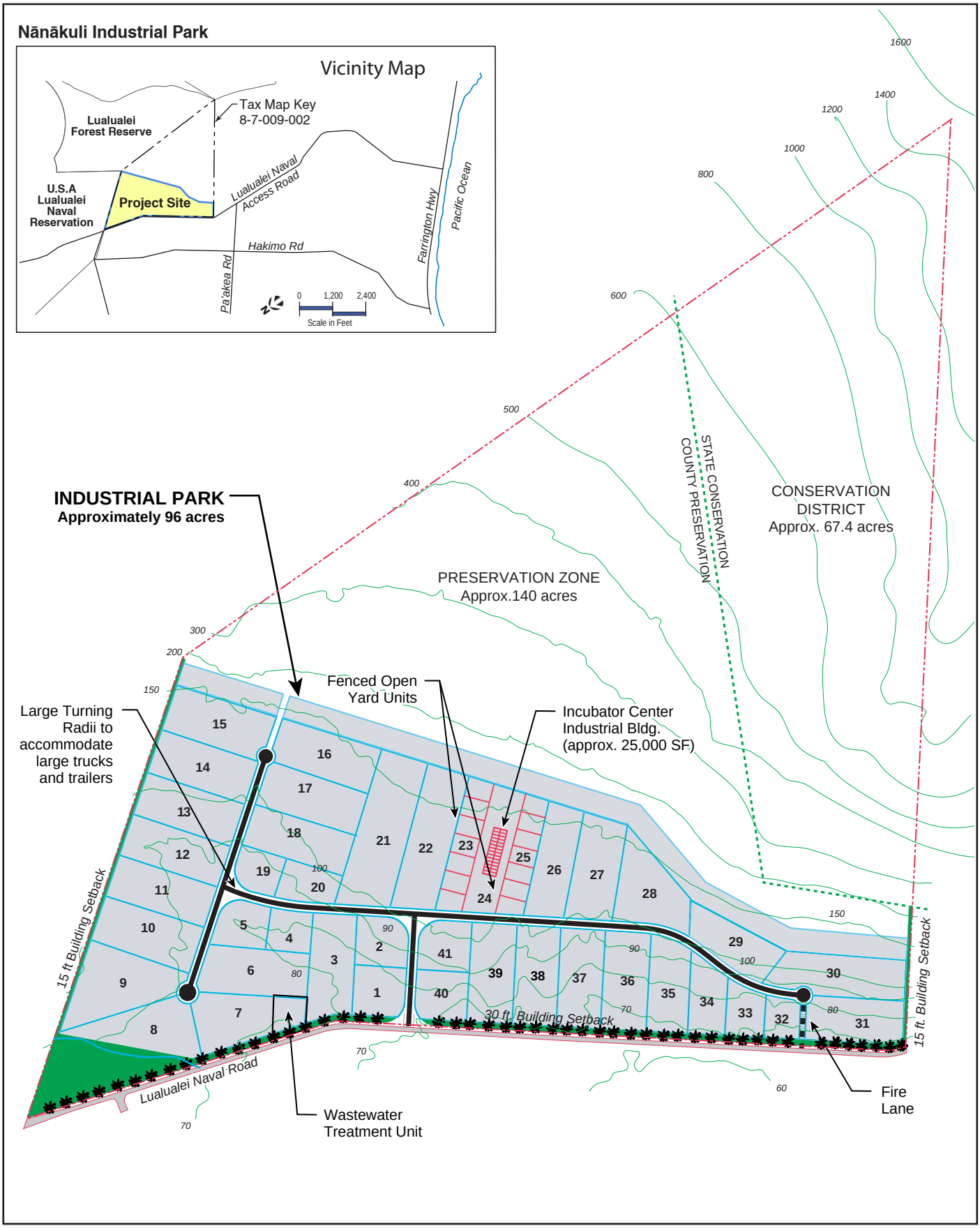
Drinking Water System. The project's drinking water system will be connected to the existing 8-inch Board of Water Supply (BWS) water line along Hakimo Road. A new 16-inch transmission line will be extended along Pa‘akea Road and Lualualei Naval Access Road. The drinking water distribution system will be designed and constructed in accordance with BWS standards and also to meet fire protection requirements. (Figure 4)

Non-Drinking Water System. A pump system and non-drinking water main will dispense treated effluent for irrigation. (Figure 5)

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. (Figure 6)

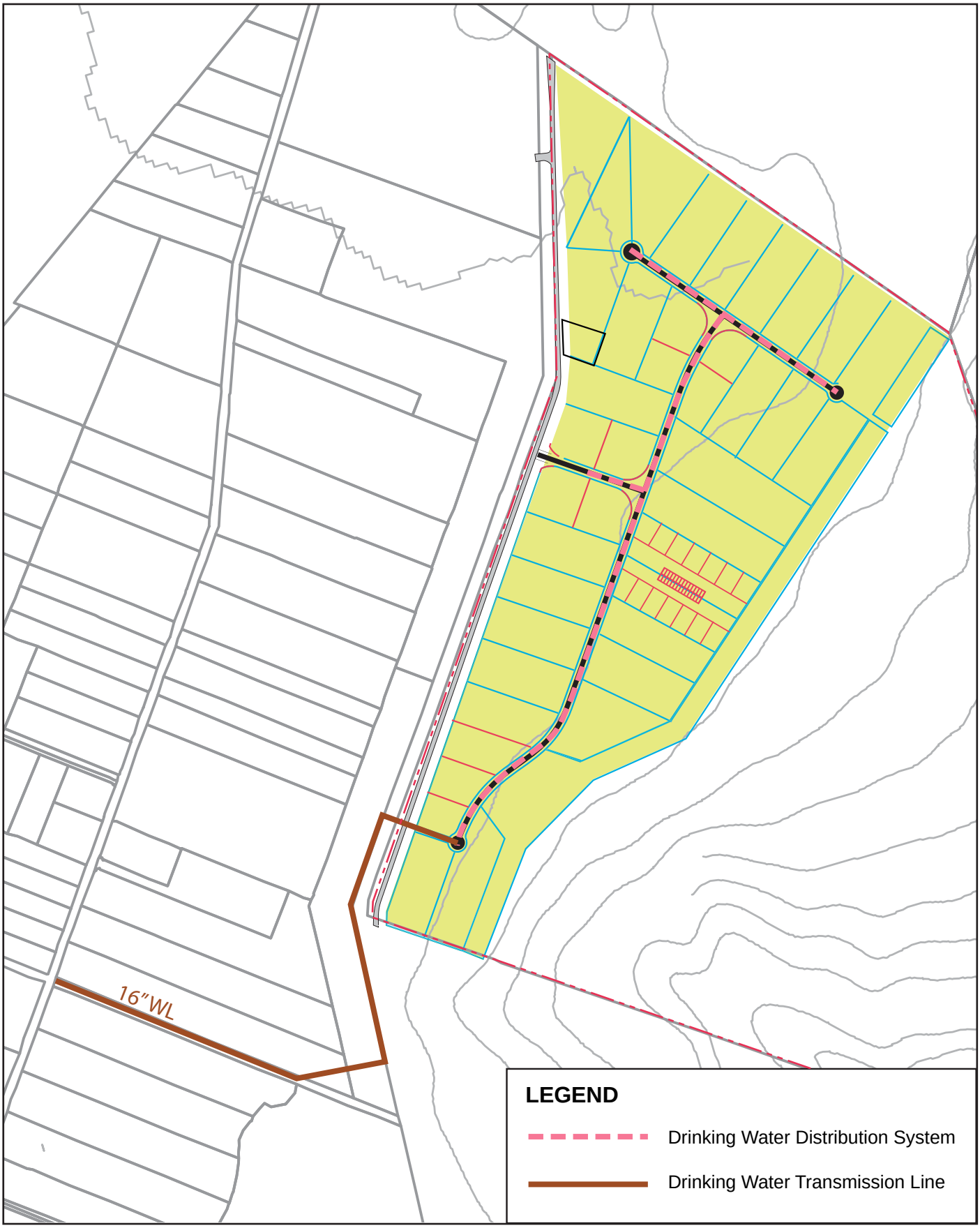
The wastewater treatment unit will be located in a 10,000-SF, fenced area within the industrial park. A single basin reactor will employ cyclic biological treatment with a continuous activated sludge system. Treated wastewater effluent will be chlorinated, disinfected, and pumped to a non-drinking water storage tank. Effluent may be supplemented with ~~non-drinking water from the existing wells~~ potable or drinking water 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~~ Mikilua Substation is expected to supply power to the project site.



0 150 300 600 Feet

Figure 3
Site Plan
March 2010



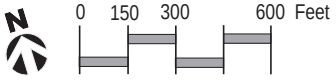
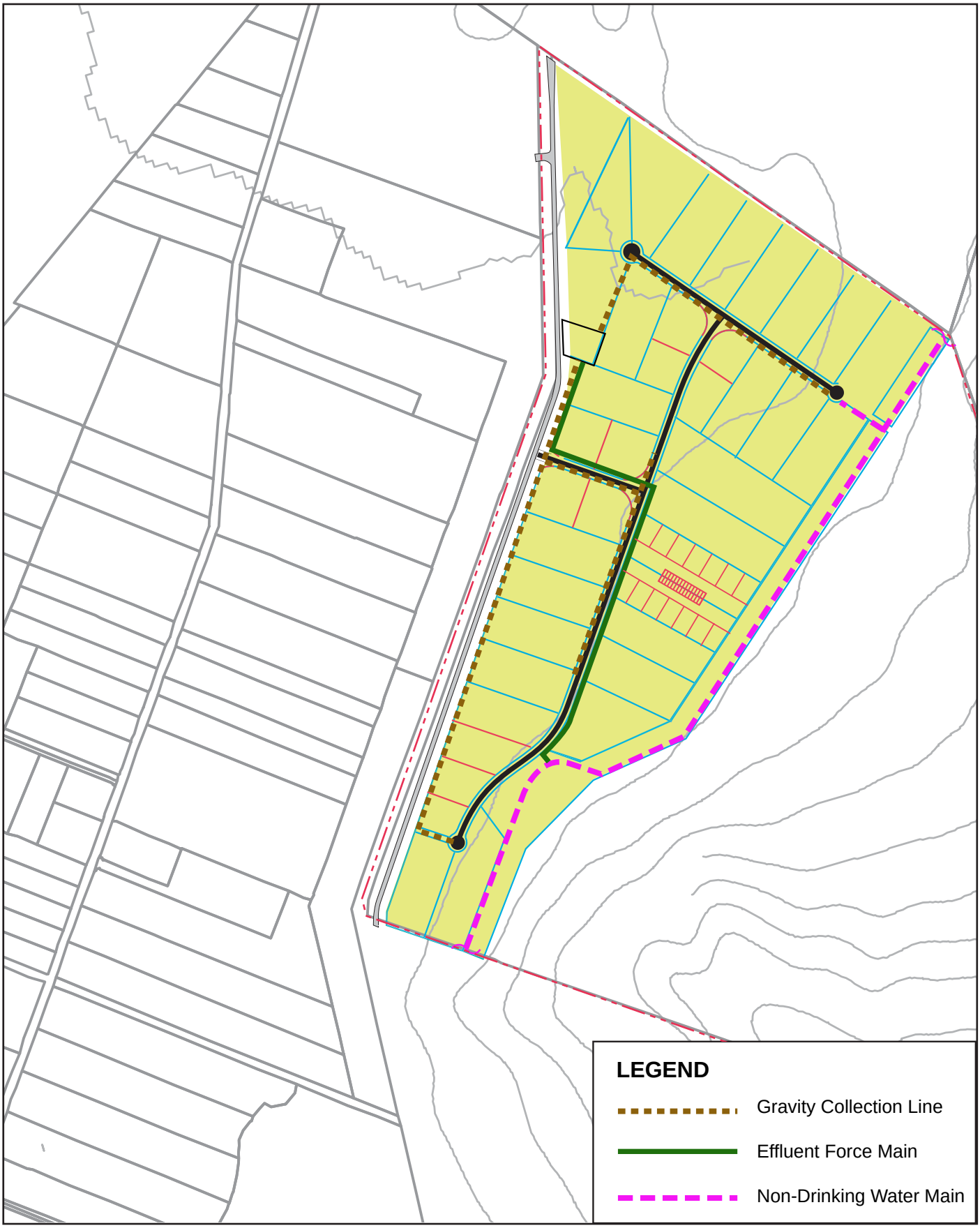


Figure 4
Drinking Water Distribution System
March 2010



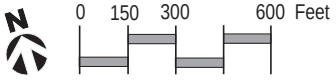
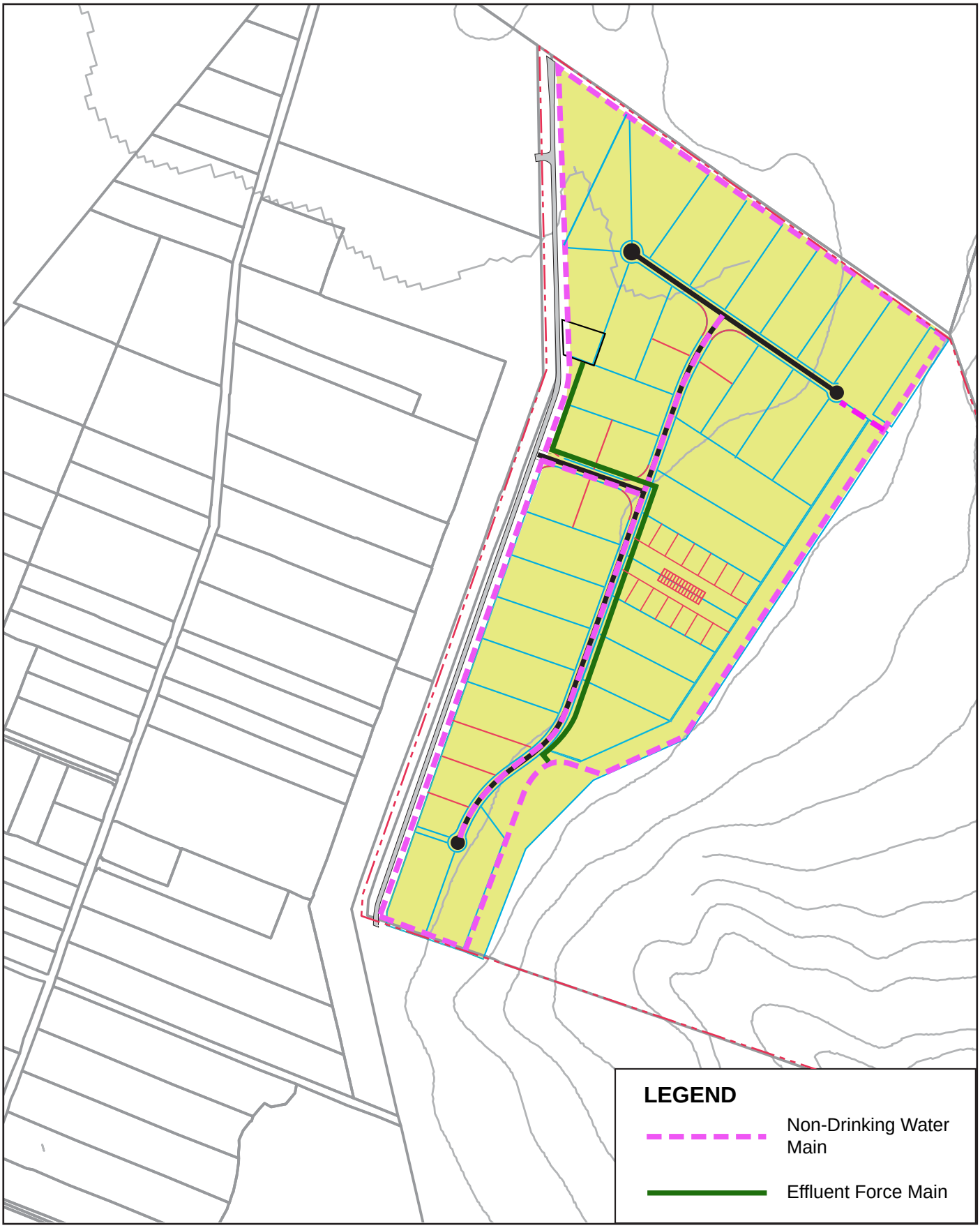


Figure 5
Wastewater System
March 2010



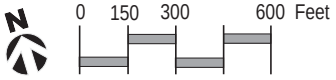


Figure 6
Non-Drinking Water System
March 2010

3.2 Preliminary Cost and Timetable

Based on the conceptual site plan, the preliminary cost for mass grading and infrastructure construction is estimated at $29 million. Unit owners are expected to spend approximately $30 million to construct unit improvements.

Project occupancy is expected to occur within 18 months from approval of necessary land use amendments, rezoning, and permits. As the master developer for the project, Tropic Land, LLC plans to construct the infrastructure for the light industrial park over a period of ten years. The phased development would proceed as shown in Figure 7. The affected land area and incremental infrastructure components are described in Table 4.

Table 4
Infrastructure Phasing Plan

Phase	Area (Acres)	Road* (Feet)	Grading** (Cubic Yards)	Wastewater Treatment System	Rockfall Mitigation	Irrigation	Off-site 16" Water Line	Fire Lane
I	23	1,400	40,000	X	X	X	X	
II	22	1,600	30,000			X		
III	15	400	25,000	X	X	X		
IV	36	1,300	53,000		X	X		X
Total	96	4,700	148,000					

* Road work to include curb, gutter, sidewalk, drainage, water, sewer, electrical, street lighting systems.

** Grading work is limited to the roadway and rockfall mitigation areas only; quantities approximate.

Industrial lot development will depend upon sales and market absorption. A market study for this project developed three forecasts for industrial land demand in the Wai‘anae planning area. The conservative forecast was based on the assumption that the Wai‘anae area would capture 1.5% of future industrial job growth on O‘ahu; the mid-range forecast was based on capturing 1.7% of future industrial jobs, and the aggressive forecast based on capture of 2.0% of future industrial jobs. Under the aggressive and mid-range forecasts, the 10-year demand for industrial land would exceed the supply of 70 net acres offered by this project. Under the conservative forecast, the 10-year demand for industrial land of 54 acres is 77% of the supply offered by this project. Under either forecast, Tropic Land can reasonably expect the project will be absorbed within 10 years of receipt of all government approvals. Under either forecast, Tropic Land can reasonably expect the project will be absorbed within 10 years of receipt of all government approvals. A summary of the market study is contained in Chapter 2 of this document and the full study may be found in Appendix B.

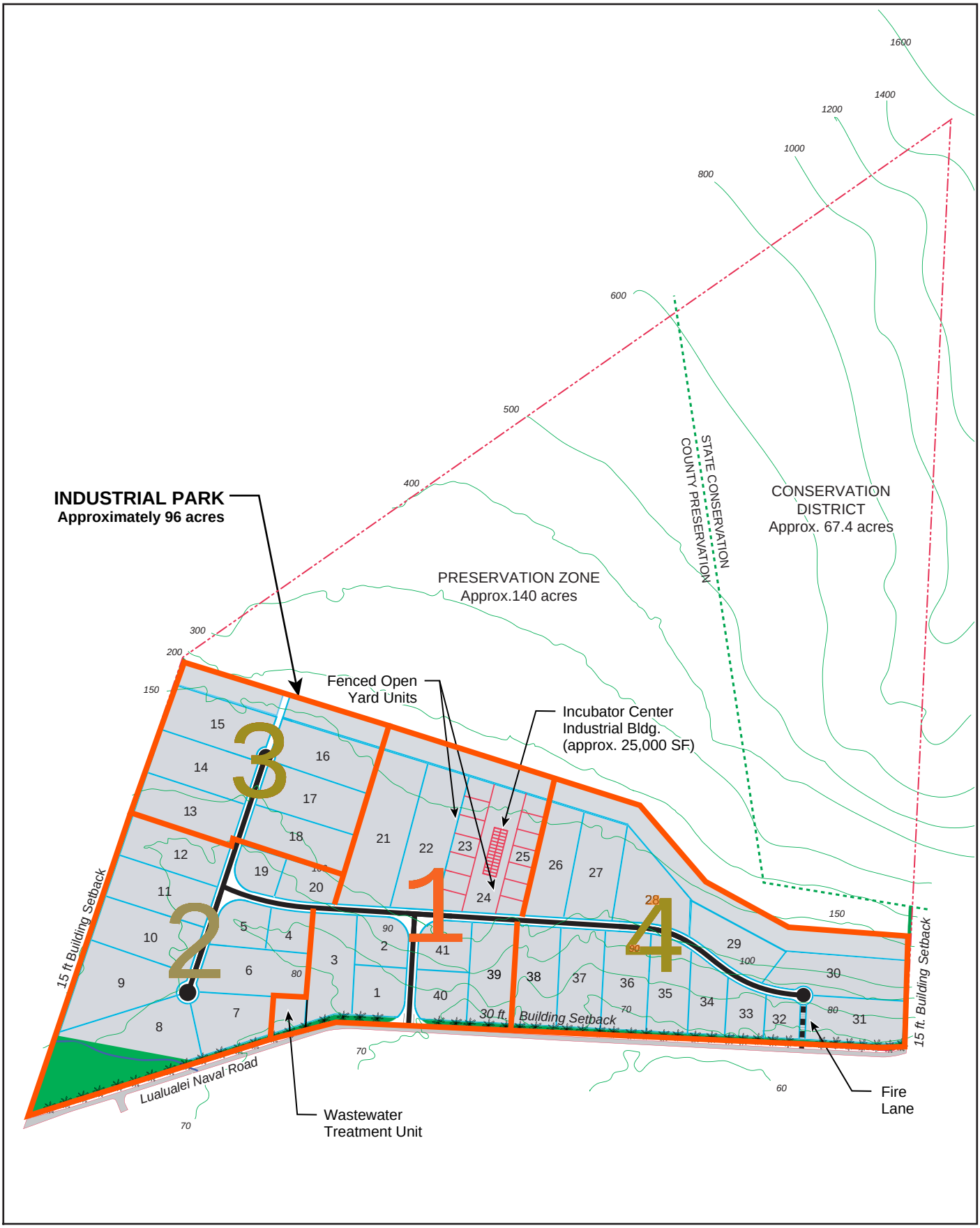


Figure 7
Project Phasing
March 2010

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4. ALTERNATIVES CONSIDERED

This chapter discusses alternatives to the proposed development that were considered during the planning process.

4.1 No Action

Under the No Action alternative, the property would remain in its present fallow condition. The industrial facilities and associated infrastructure proposed under the Nānākuli Community Baseyard project would not be realized. This alternative would result in the loss of benefits generated by the proposed development:

- No light industrial uses would occur on the site. Demand for affordable industrial space on the Wai‘anae Coast would not be met.
- The employment forecast of 560 to 840 direct jobs at full build-out of the project would be a foregone benefit.
- Future opportunities for new businesses and relocation opportunities for businesses to relocate closer to their workforce would not be realized.

The No Action alternative does not meet the owner’s objectives, regional economic development benefits, and opportunities for new or expanded businesses, products, and markets. The No Action alternative would result in less environmental impacts than the proposed project since site conditions would remain unchanged. In light of changes made to the Wai‘anae Sustainable Communities Plan (draft currently under public review), this alternative would not address community support for limited industrial expansion.

4.2. Golf Course

The golf course alternative is based on an earlier master plan involving 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 includes 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.

Figure 8 shows the footprint of the proposed light industrial park superimposed over the proposed golf course project. The proposed industrial park and golf course would entail conversion of the same amount of agricultural land (approximately 40 acres) with a “B” rating on the east side of Lualaulei Naval Access Road. However, because of its larger footprint, the golf course would disturb about 50 percent more ground area than the proposed light industrial park. The light industrial park would have a greater amount of impermeable surfaces compared

to the golf course; however, each project is prohibited from increasing the net runoff from the property; therefore, drainage impacts will be the same. Neither project is expected to generate significant adverse effects on noise, air quality, threatened or endangered biological resources, or cultural resources.

Compared to the golf course, the proposed light industrial will have greater impacts in terms of traffic, water, and wastewater generated. These impacts are due to the significantly greater benefits in long-term employment, estimated between 560 and 840 jobs, compared to 70 for the golf course.

	Golf Course	**Industrial Park**
Area disturbed	145 ac.	96 ac.
Water use (drinking water)	9,850 gpd	22,550 gpd
Traffic generated	Weekday Peak AM: 73 Weekday Peak PM: 109	Weekday Peak AM: 522 Weekday Peak PM: 518
Jobs created	Construction: 170 person-year Long term: 70 jobs	Construction: 80-100 person-year Long term: 560 to 840 jobs

Despite existing entitlements, Tropic Land began considering alternative land uses upon acquiring the property in 2005. 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 City 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.

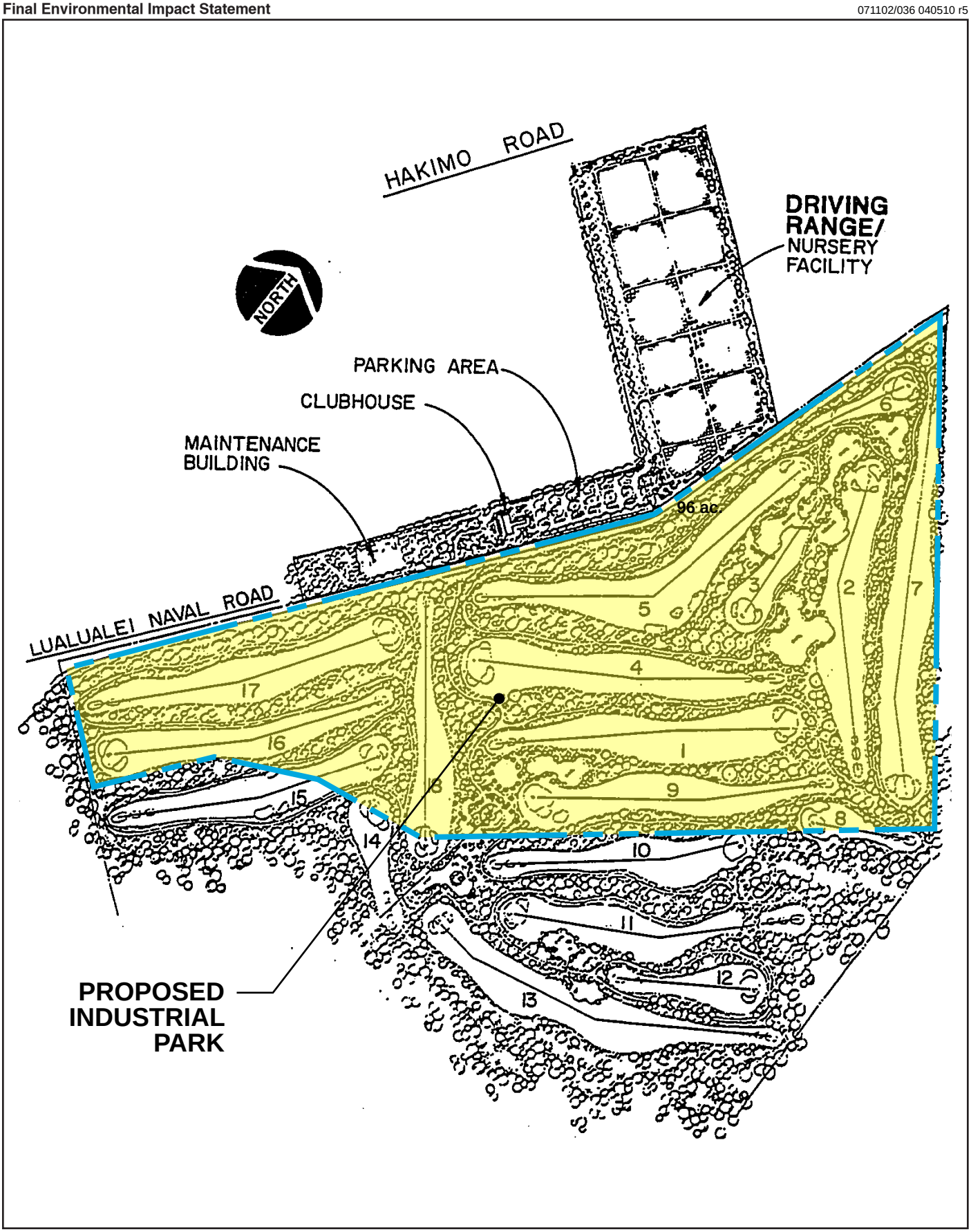

Figure 8
Comparison of Industrial Park and Golf Course

4.3 Other Alternatives Considered

In 2007, project scoping meetings were held with the Wai‘anae Neighborhood Board—prior to establishment of the Nānākuli/Ma‘ili Neighborhood Board—during which suggestions for how the property should be developed were considered. Among the land uses suggested were affordable housing, amusement park, educational campus, golf driving range, heavy equipment training facility, and light industrial park. Of these, the light industrial park concept received a level of local endorsement that exceeded the other suggestions, with Tropic Land receiving numerous inquiries from business people and approximately 600 expressions of support from the community. Based on community interest, land use compatibility, and landowner experience and expertise, the other alternatives were considered but not pursued.

Farm Lots. Agricultural land use, either as a single operation or multiple farm lots was suggested initially by members of the Waianae Neighborhood Board and mentioned in some of the DEIS comments. Long-term use for agricultural purposes was dismissed as an alternative based on the agricultural consultant’s report and information obtained from individuals who previously farmed the project site. Following publication of the DEIS, Tropic Land further investigated the history of farming on the project site. Interviews were conducted with three men who have first-hand experience in farming the property. Appendix L contains oral histories provided by:

- Tadashi Araki, who, with his brother, farmed the site for approximately 25 years, ending in the early 1980s
- Sonny Bradley, who helped to install the irrigation system on the Araki farm, and whose relatives worked for the Arakis
- Albert Silva, whose *ohana* previously owned the property, who has been on the property since childhood, who raised cattle on a portion of the property, and who was employed at the Naval reservation, now known as JBPHH Lualualei Annex

A common theme of the interviews was the inability of the stony, adobe soil to support productive farm activity. Mr. Araki’s account details the intensive practices used to achieve a viable farm, including soil conditioning and amendments, pest control, experiments with different types of crops and auxiliary agricultural products, and advice from technical experts.

The poor outcomes obtained by the Araki brothers are consistent with Tropic Land’s own experience with on-site horticultural production. Since 2007, Tropic Land has cultivated a variety of palm trees in an attempt to landscape the setback areas. Despite soil amendments, fertilization, and irrigation, tree growth is stunted. There is no evidence that farming would be a sustainable enterprise given the particular conditions of this site. Therefore, agriculture is not considered a viable alternative.

4.4 Alternative Locations for the Light Industrial Park

Private, undeveloped land zoned for industrial use is unavailable on the Wai‘anae Coast (see Figure 23). Except for less than 5 acres in Wai‘anae Town, all other industrial land is used for public or quasi-public purpose, or supports an ongoing business. Therefore, implementing Tropic Land’s concept of industrial space for the “employment and service needs of rural and suburban communities”—as the I-1, Limited Industrial District is defined in the City and County of Honolulu’s Land Use Ordinance—is not possible without rezoning and, likely, redistricting.

4.5 Alternative Industrial Park Configurations

The planning process included an examination of alternative configurations for the proposed industrial park. The limits of development were established by the steep slopes in the interior of the property. Within the flatter area, the alternatives featured variations in roadway layout and lot division. In addition to the preferred site plan, two alternatives were considered (Figure 9).

Alternative A. This layout features two entrances to the development with internal roads forming a single “T” intersection. Ultimately, this alternative was dismissed in favor of a site plan with a single entrance with gate control for improved security.

Alternative B. This alternative features a single entrance, supplemented by a secondary fire lane for emergency access. However, the layout involves a more extensive network of roads and utility lines, resulting in higher development costs than the preferred site plan.

Figure 9
Alternative Industrial Park Configurations
March 2010

5. AFFECTED ENVIRONMENT, ANTICIPATED IMPACTS, AND MITIGATION MEASURES

This chapter presents background information on the existing human and natural environment pertaining to the project site. Utilizing this background, the proposed project is evaluated as to the potential for it to generate significant environmental impacts. Impact discussions are divided into short-term construction-related impacts and long-term operations-related impacts. Mitigation measures are identified and recommended in this chapter.

Technical consultant reports have been prepared to supplement the environmental impact statement. Findings from these reports are included herein and the reports may be found in the appendices.

5.1 Topography and Soils

Existing Conditions

Topography

Generally, the project site slopes in a southwesterly direction towards the Lualualei Access Road. Approximately one-third of the parcel is situated below the 200-foot elevation above sea level. This area is relatively flat, sloping at a 12% rate from Lualualei Access Road upward to the foothills of Pu‘u Heleakala ridge.

Above the 200-foot elevation, the site takes on a more abrupt slope. It is estimated that the slope within this “second tier” of the parcel is within the 10-30% range. The rest of the parcel includes the foothills of the Pu‘u Heleakala ridge which slopes radically upward towards the peak of the ridge.

Soils

Soil types or classifications for the project site are based on soil surveys by the U.S. Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service). 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 Access Road and covering the flatter portions of the site (Figure 10). This section focuses on the erosion potential of on-site soils. Please see Section 4.7 for a discussion of soil suitability for agricultural production.

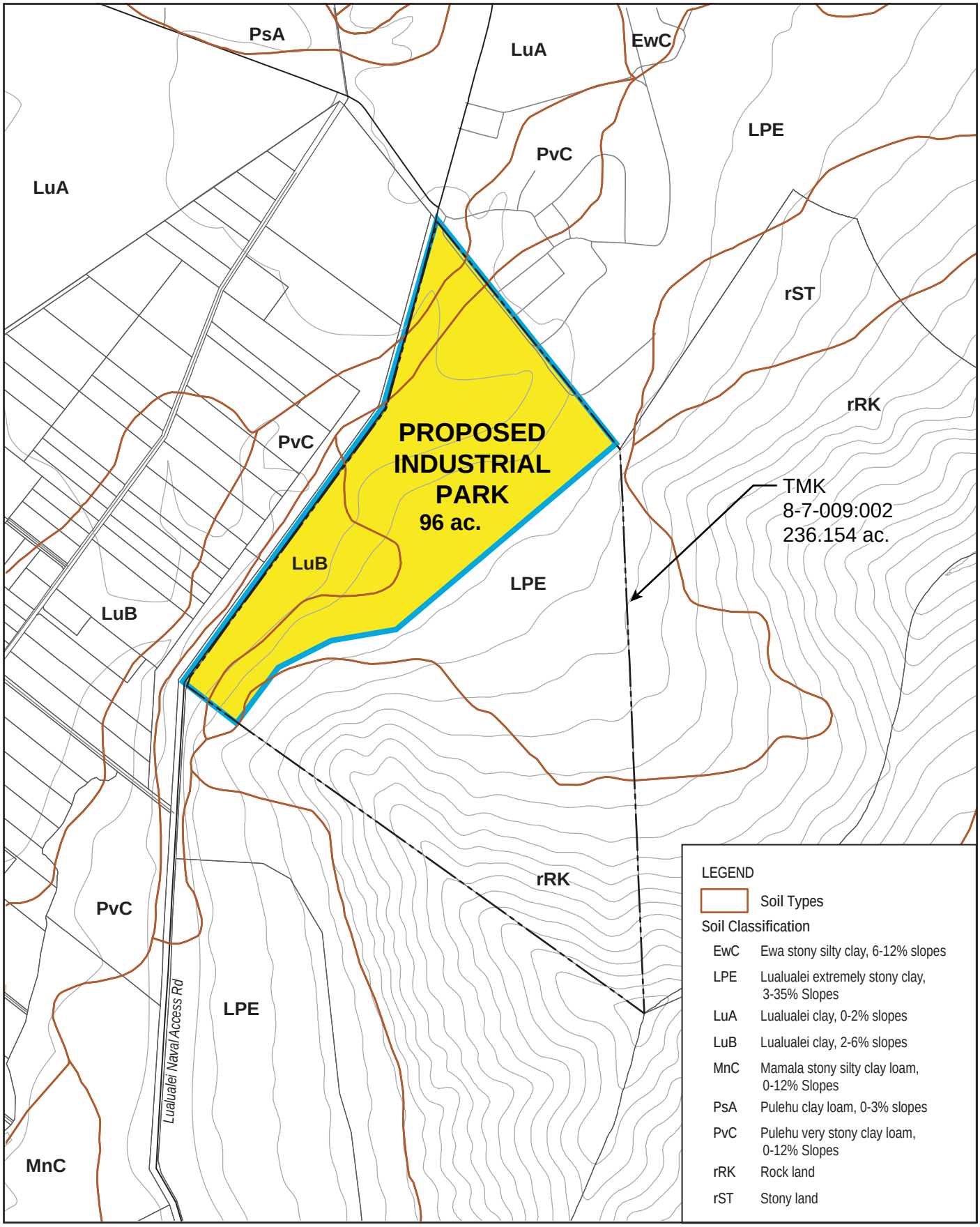

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Figure 10
Soils Map
March 2010

Erosion Potential

Most of the project site consists of LPE extremely stony clay. 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 in steeply sloped areas. LuB soils are also present in the project site and characterized by slow runoff with a slight erosion hazard.

Grading

The grading concept is to provide relatively level lots. Total earthwork quantities of cut and fill for the development is estimated to be approximately 450,000 cubic yards (CY). An effort to balance earthwork quantities is expected to minimize the cost of purchasing off-site borrow material and/or disposing of excess excavated material at an off-site location. Grading operations will be in conformance with the applicable ordinances of the City and County of Honolulu.

Soil Erosion

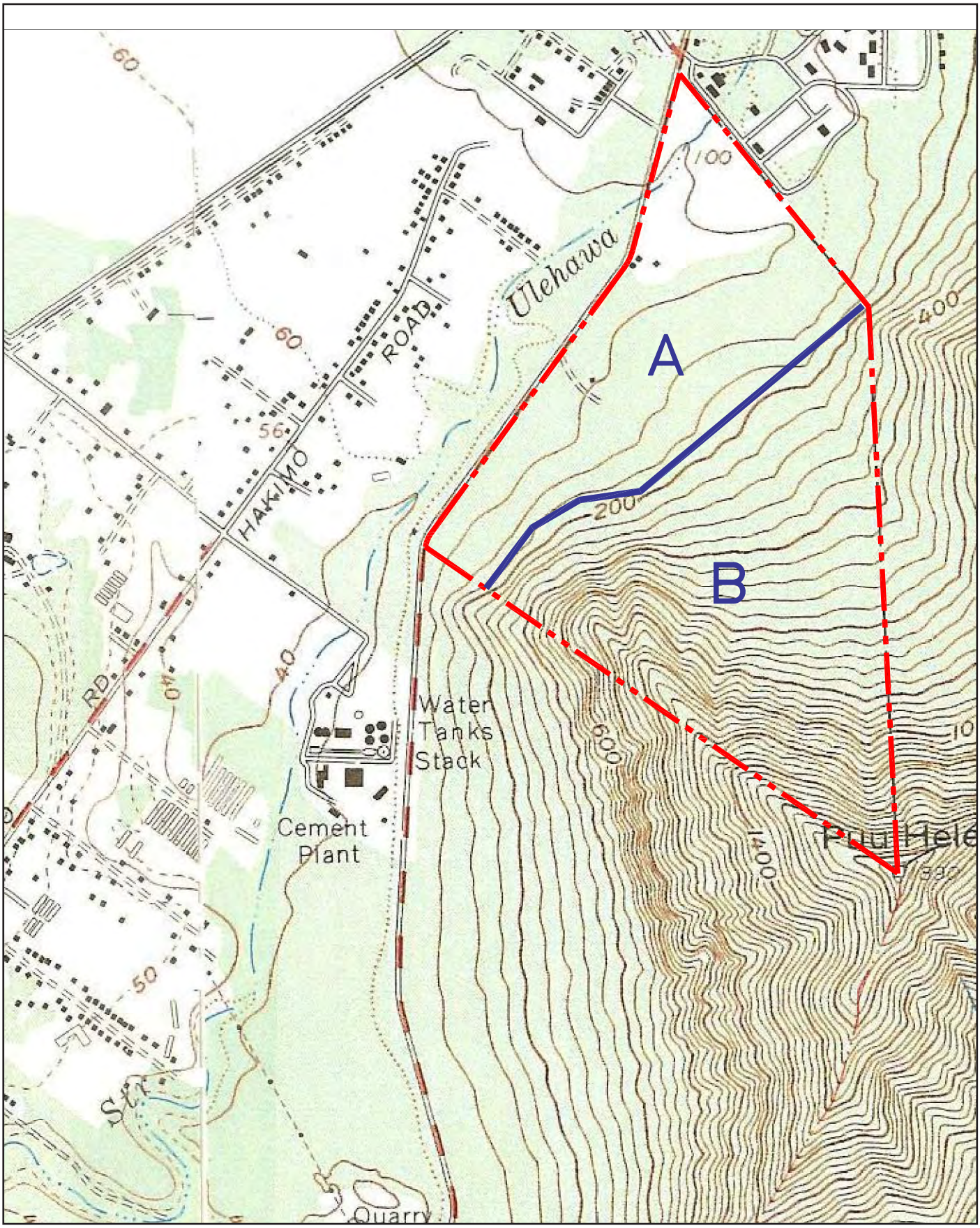
The project site was divided into two subareas for the purpose of calculating soil erosion potential (Figure 11). These subareas represent sites within the project area that vary in soil erosion potential characteristics, such as terrain and/or drainage network.

Subarea A, part of the Ulehawa Stream drainage basin, directly abuts Lualualei Access Road and covers the flatter portion of the project site. Subarea A occupies the approximate limits of the project area and is bounded to the north by the Naval installation, south by the ridge line of Pu‘u Heleakala, west by Lualualei Naval Access Road, and east by the approximate 190-foot contour. The entire area of Subarea A will be graded for the proposed industrial park.

Subarea B is located south of subarea A and is bounded on the south and east by the ridge line, and north by the approximate 190-foot contour, occupying an area of approximately 140 acres. Subarea B consists of medium-dense and rocky outcroppings with slopes ranging from 25 to 60 percent. No development is planned for Subarea B and it will remain in its existing state.

Soil Erosion Potential under Existing Conditions

As calculated in the *Preliminary Engineering Report* by Hida, Okamoto and Associates (~~October 2009~~ January 2010), see Appendix A) and using the U.S. Department of Agriculture, Universal Soil Loss Equation (USLE), the existing soil erosion potential of Subarea A (project site) is estimated at 403 tons/year. The existing soil erosion potential of Subarea B (the remaining 140 acres of the TMK) is estimated at 5,306 tons/year. Therefore, total existing erosion potential of the entire parcel is estimated at 5,706 tons/year.



Source: Hida, Okamoto & Associates, Inc., January 2010

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Figure 11
Subareas for Calculation of Soil Erosion Potential
March 2010

Soil Erosion Potential after Development

The long-term change in soil erosion potential based on the proposed land use change also was estimated using the USLE. After development, the soil erosion potential of Subarea A (project site) has been estimated at 264 tons/ year. The erosion potential of Subarea B (remainder of the TMK) would be unchanged at 5,306 tons/year. For the entire parcel, the estimated soil erosion potential after development is 5,570 tons/year.

Potential Impacts and Mitigation Measures

Topography

The project site plan consists of a development pattern that is compatible with the topography of the site. The light industrial park is confined to areas with flatter slopes below the 200-foot elevation. As shown in Figure 8 (Chapter 4 of this document), the development footprint is smaller than the golf course previously proposed for the site, and will leave more of the foothills undeveloped.

There is a potential for loose rocks to fall from the slopes behind the proposed development. To mitigate adverse impacts from falling rocks, a 100-foot wide buffer has been set aside along the entire *mauka* boundary of the industrial park. Tropic Land proposes to construct a swale or an unlined channel with possible fencing to catch falling rocks and debris, as well as to serve as a drainage detention basin. Engineering plans will be prepared during the project design phase.

Soil Erosion

Short-term Impacts. Construction of the proposed industrial park will involve land disturbing activities that result in soil erosion. These land disturbing activities include removal of existing vegetation (clearing and grubbing), leveling, removing, and replacing soil. Short-term impacts due to construction are estimated to last 18 months.

Using the USLE, the short-term construction impact was calculated at 36,860 tons of soil erosion for a one-year period. Of this amount, approximate 10% (3,690 tons) could potentially affect Ulehawa Stream.

Mitigation measures will be implemented to reduce short-term soil erosion. These measures include limiting grading to not more than 15 consecutive acres at a time and installing a sedimentation basin at least 12,000 square feet in size at the grading site.

Additional Best Management Practices (BMPs) will be taken to lessen construction impacts further, as listed below.

- Minimize time of construction to the extent possible.
- Retain existing ground cover until the latest date before construction.

- Sod or landscape all cut and fill slopes immediately after grading work has been completed.
- Early construction of drainage control features (i.e., detention/retention basins).
- Use of temporary area sprinklers and spraying in non-active construction areas when ground cover is removed.
- Station water truck on site during construction period to provide for immediate sprinkling, as needed, in active construction zones (weekends and holidays included).
- Use temporary berms and cutoff ditches, where needed, for erosion control.
- Thorough watering of graded areas after construction activity has ceased for the day and on weekends.
- Provide sedimentation basins.
- Use slope stabilization materials where needed.

A Grading and Erosion Control Plan will be prepared in compliance with Chapter ~~23~~ 14, Revised Ordinances of Honolulu. Further, the National Pollutant Discharge Elimination System (NPDES) general permit will be obtained from the Department of Health, Clean Water Branch for: construction activities. The NPDES permit will include site-specific BMPs.

Long-term Impacts. Based on the USLE, the soil erosion potential of the entire parcel (TMK) should decrease after the proposed industrial park is developed. As shown in Table 5, the erosion potential of Subarea A is estimated to decrease by ~~0.55 tons/acre/year (139 tons/year) or 66%~~ 343 tons/year or 85%. Thus sediment transport should decrease after development.

Table 5
Summary of Soil Erosion Potential

Subarea	Existing Conditions (tons/year)	Developed Conditions (tons/year)	Percent Change (%)
A	403	~~264~~ 60	~~-66~~ -85
B	5,306	5,306	0
Total	5,709	~~5,570~~ 5,366	~~-2~~ -6

Source: Hida, Okamoto & Associates. January 2010. Preliminary Engineering Report

5.2 Groundwater Resources

The information contained in this section is based on a 1988 study of groundwater sources within the property and immediately surrounding area conducted by John F. Mink entitled *Groundwater Resources, Maile [sic], Wai‘anae, Pu‘u Haleakala to Ulehawa Stream*, October, 1988, appended to the Final Environmental Impact Statement for the Oban golf course project.

Existing Conditions

Mā‘ili is the driest part of the island of O‘ahu, receiving no more than an average of 25 inches of rain per year. Two-thirds of the total annual rainfall occurs from rainstorms between November and April.

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.

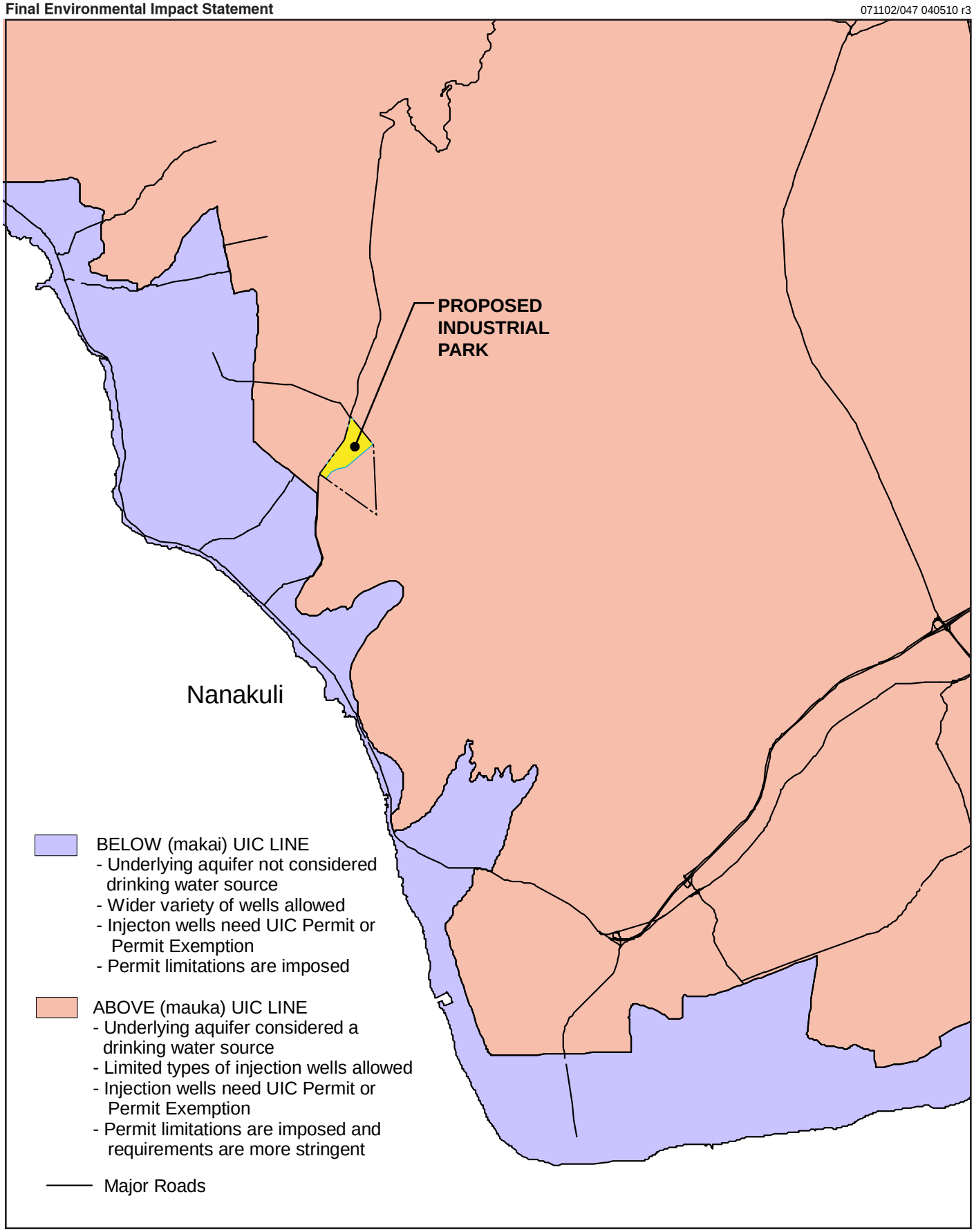
The limestone stratum extends throughout Lualualei Valley below the approximately 100-foot elevation contour, while the basalt constitutes the basement of the entire Wai‘anae district and is exposed as slopes and ridges above the level valley floor. The source of groundwater in the limestone is recharged from rainfall and from mountain runoff reaching the valley; the source in the basalt is rainfall on talus slopes and ridges exposed to bedrock.

Figure 12 shows a map of the Underground Injection Control (UIC) area. The UIC program, in conjunction with federal and State safe drinking water laws, is intended to protect groundwater from contamination. As shown in the map, the project site is located mauka of the UIC line, in an area with restrictions on injection wells.

Potential Impacts and Mitigation Measures

The previous owner, Oban, had drilled two wells with the expectation of tapping groundwater as a source of irrigation water for the proposed golf course and nursery. Groundwater will not be used for the proposed light industrial park and the existing wells will remain capped. Tropic Land is not planning to site, construct, or operate any injection well that could endanger underground sources of drinking water.

No mitigation is necessary.



Source: Department of Health, EGIS 9/99

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Figure 12
Underground Injection Control Area Map
March 2010

5.3 Surface Water Resources

This section discusses surface water conditions at the project site. Information contained in this section is based on the *Preliminary Engineering Report* by Hida, Okamoto & Associates, ~~October 2009~~ January 2010(Appendix A).

Existing Conditions

The Ulehawa Stream drainage basin encompasses approximately 3,178 acres of land and several tributaries which discharge into Ulehawa Stream. A section of Ulehawa Stream, measuring approximately 665 feet, passes through the northwest portion of the project area. In this section, stream flow is intermittent with a normally dry bed. Figure 13 shows the Ulehawa Stream drainage basin. The Ulehawa Stream watershed 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.

At the project site, the ridges to the west and south of the proposed development area are the most significant features of the watershed. Runoff from off site travels down-slope via the gulches and overland flow. Currently, runoff is conveyed across Lualualei Naval Access Road through four culverts beneath the roadway, eventually draining to Ulehawa Stream.

Existing Drainage Conditions

The Ulehawa Stream drainage basin was divided into 3 sub-catchment areas to determine the peak discharge using the County's Storm Drainage Standards (Figure 12). Runoff peak flows were estimated for each sub-catchment area for a 100-year flood event as shown in Table 6.

Table 6
Pre-Development Peak Flows

Area Identification	Area (Acres)	100-Year Flow (cubic feet per second or cfs)
A	1,084	2,800
B-1	370	1,350
B-2	236	840
C	1,488	3,600
Total	3,178	8,590

Source: Hida, Okamoto & Associates. January 2010. Preliminary Engineering Report

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.

As noted above, the project site contains Lualualei Soils 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.

This soil cracks 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.

Modifications After Development

Development will impact the hydrology of the watershed as sections of undeveloped land will be replaced with impervious surfaces (such as roads, buildings, and parking areas) and the vegetative surface cover will be altered. The corresponding impact will result in higher runoff volumes and peak flows. Since large areas in the upper watershed will remain undeveloped, the impact on peak flows downstream of the site should not be significant.

The construction of new roadways and industrial lots will transect across the hillside. Basic drainage patterns and sub-catchment areas are unlikely to change, but have been divided into more discrete areas for analytical purposes (Figure 13). The estimated 10-year, 50-year, and 100-year peak flows through the development area are summarized in Table 7.

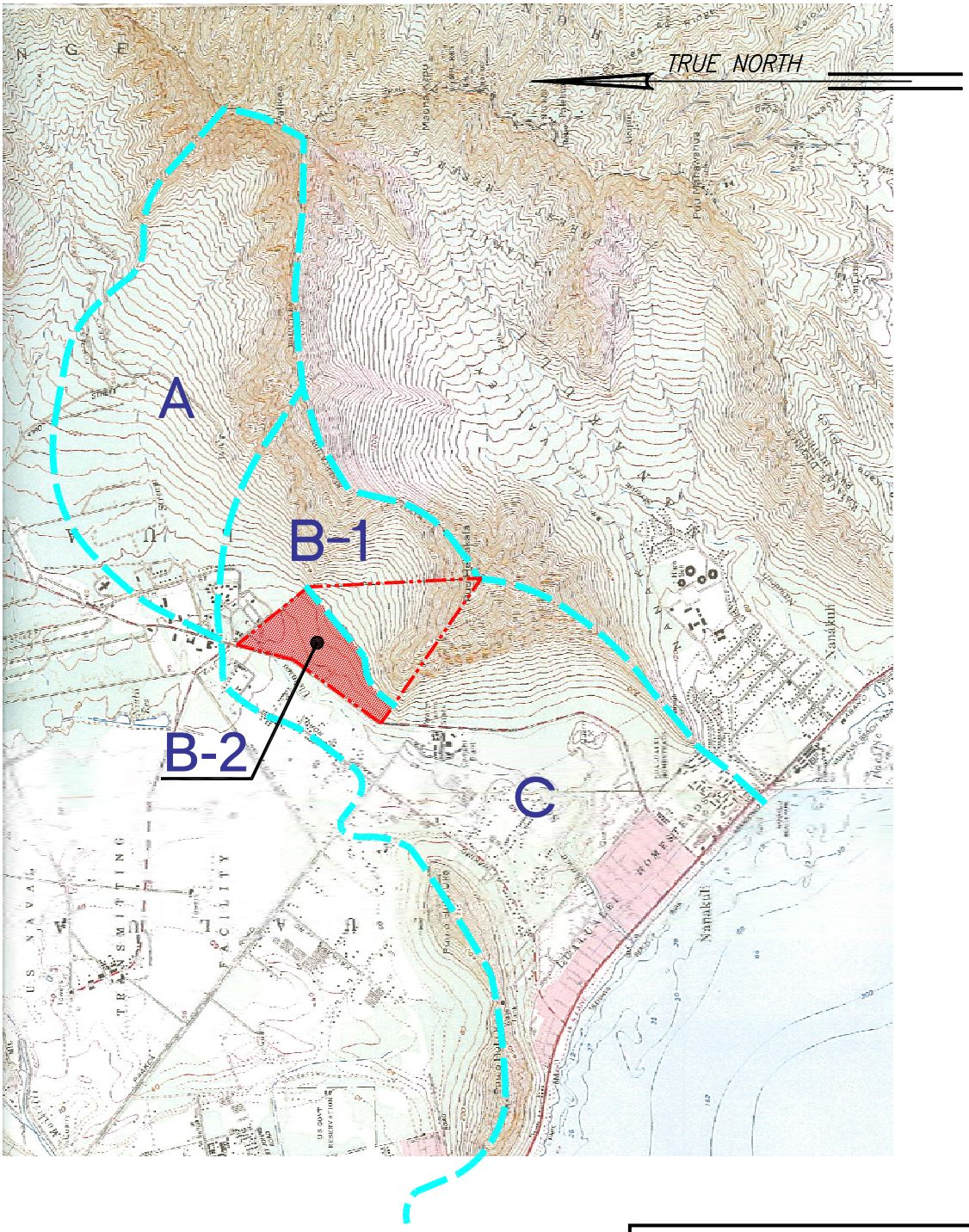
Table 7
Post-Development Peak Flows

Area Identification	Tributary Area (acres)	10-Year Flow (cfs)	50-Year Flow (cfs)	100-Year Flow (cfs)
A	1,084			2,800
B-1	370			1,350
B-2-1	52	72	90	
B-2-2	88	121	152	
B-2-3	52	135	169	
B-2-4	44	115	143	
C	1,488			3,600
Total	3,178			

Source: Hida, Okamoto & Associates. January 2010. Preliminary Engineering Report

Potential Impacts and Mitigation Measures

Retention (or detention) facilities are typically constructed to retain increases in storm runoff that occurs as a result of development. These facilities will include open basins, detention ponds, and/or underground storage facilities. Tropic Land proposes to construct an unlined drainage swale or channel in the 100-feet wide strip of land *mauka* of the industrial lots. This detention basis will be designed to accommodate peak flow runoff from the hillside. By incorporating these elements into the industrial park's design, there will be no net increase in the discharge of peak storm runoff from the project site due to existing conditions.



Source: Hida, Okamoto & Associates, Inc., January 2010

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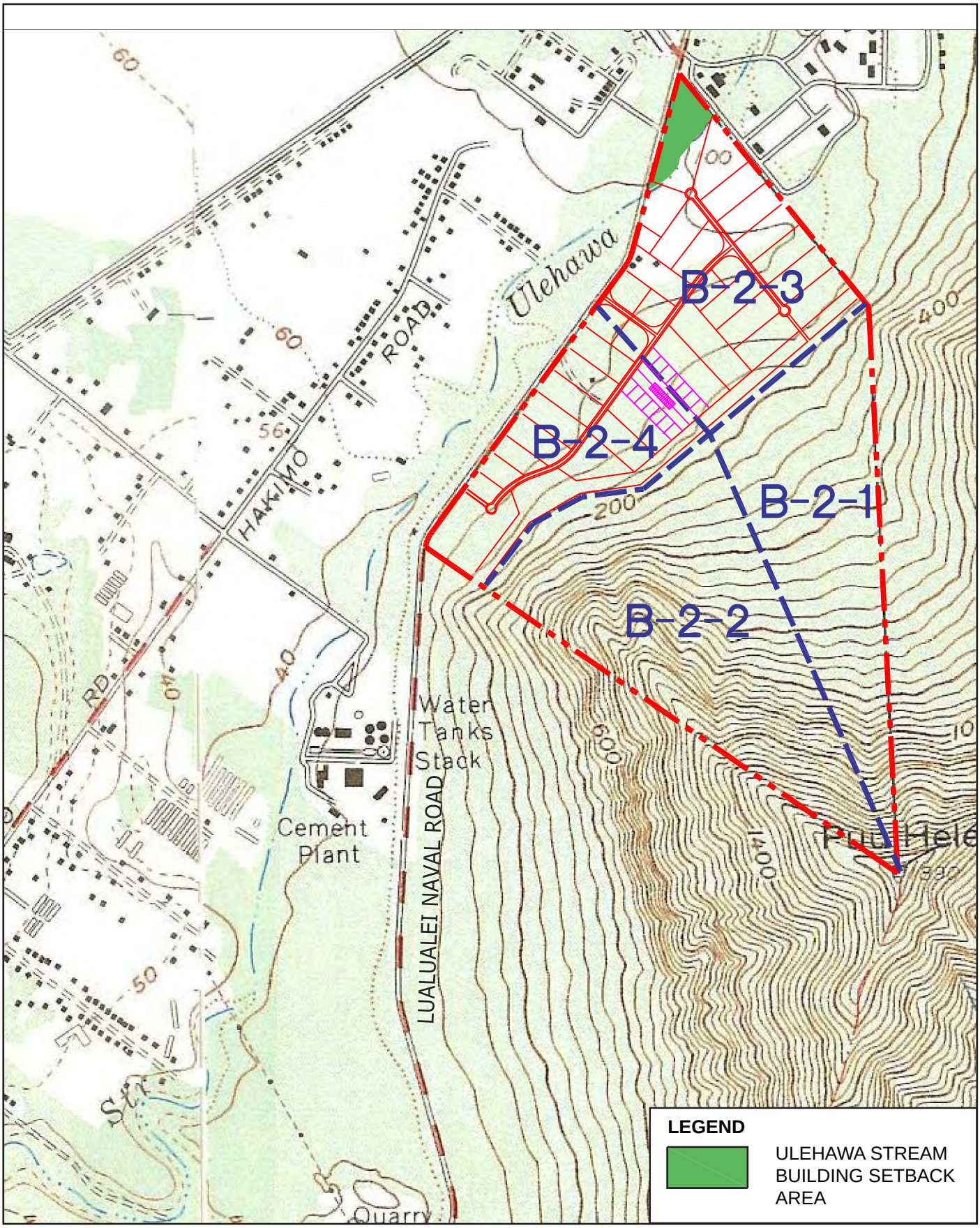
Figure 13
Pre-Development Catchment Areas
March 2010



Source: Hida, Okamoto & Associates, Inc., January 2010

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Figure 14
Development Catchment Areas
March 2010

Stormwater Quality

The project will meet the City and County of Honolulu's stormwater quality requirements as outlined in the Rules Relating to Storm Drainage Standards, dated January 2000.

During the detailed design of infrastructure, the consulting engineer will work with the City to confirm necessary water quality standards and develop an effective set of Best Management Practices (BMPs) for the project. The objective of the water quality BMPs is to mitigate the impact of pollutants (sediment, grit, oil, heavy metals) that could potentially enter the drainage system from frequent, smaller rainfalls. Plants and landscaping will be incorporated into the design to absorb particles and filter heavy metals. Additional water quality BMPs include the construction of infiltration swales along the roadway. These swales collect runoff, filter particles, and provide infiltration to recharge the groundwater.

Ulehawa Stream

Ulehawa Stream, an intermittent and normally dry-bed stream, will not be altered in any manner to accommodate the proposed project. Instead, it will be incorporated in its current natural state in the buffer area fronting Lualualei Naval Access Road. In the proposed site plan, the stream is shown outside the proposed development area.

Off-site Improvements

Runoff from the proposed development will be conveyed across Lualualei Naval Access Road through the existing culverts. On the north side of the road, runoff flows through Ulehawa Stream. The capacity of the culverts will be re-examined during the preliminary design stage to assess their adequacy and whether improvements are needed.

5.4 Natural Hazards

Flooding

Existing Conditions

According the Federal Emergency Management's Flood Insurance Rate Map (FIRM), lands at the project site are designated as Zone D, an area of "undetermined, but possible flood hazards" (see Figure 15).

Potential Impacts and Mitigation Measures

The project area is located in an area of low rainfall activity, but there are occasional storm events. The *mauka* buffer area will serve as a drainage channel that, combined with on-site catch basins, will address potential flood hazards. Buildings will be set back from Ulehawa Stream through the reservation of a buffer area in the northwest corner of the project site.

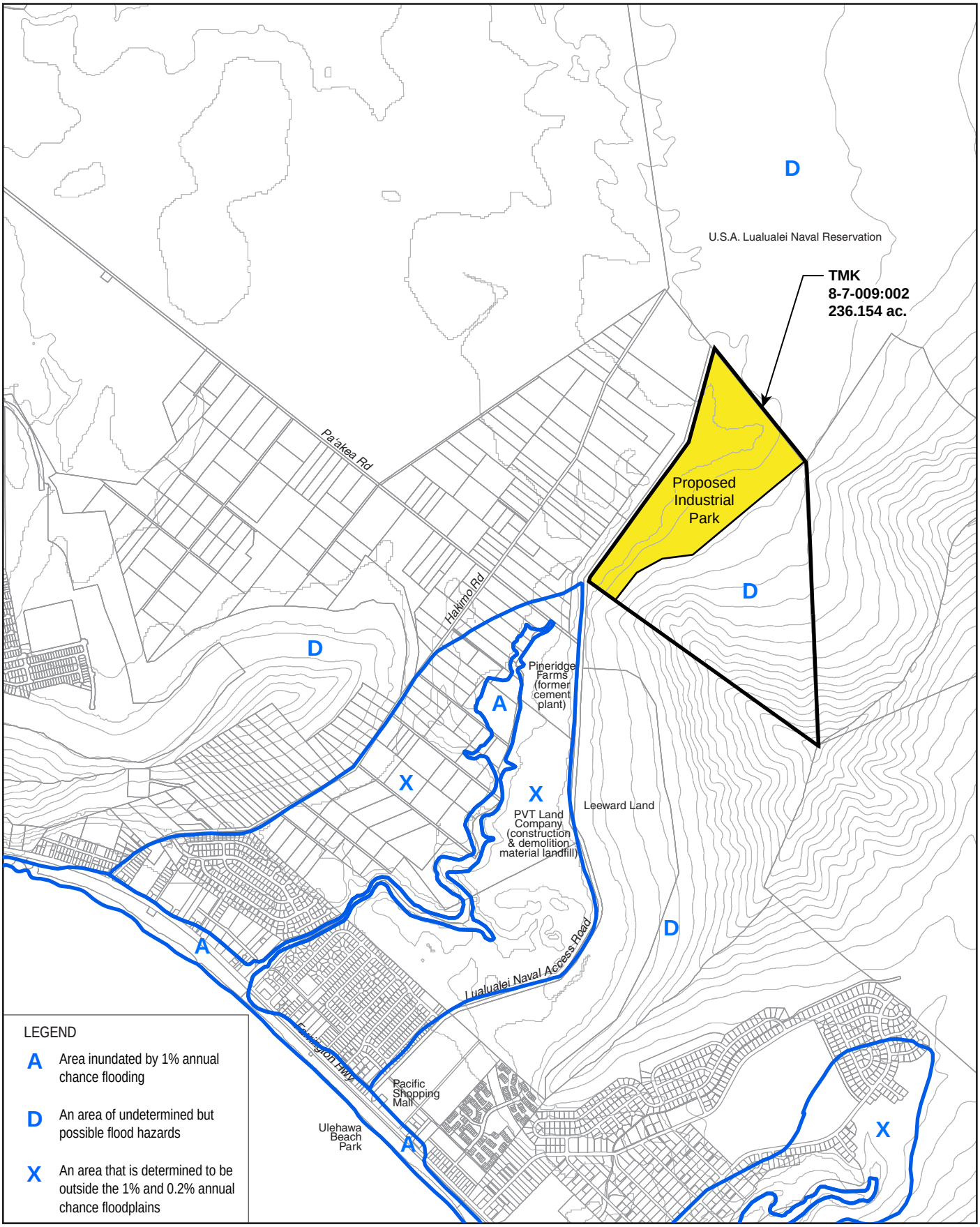

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Figure 15
Flood Insurance Rate Map
March 2010

Outflow from culvert for Ulehawa Stream which runs under Lualualei Naval Access Road from the project site to the west (Mākaha) side of the road. Normally a dry streambed, this photo was taken immediately after the winter storm of December 11-14, 2008.

Rockfall Hazard

Existing Conditions

The proposed development is sited below the 200-foot contour line. Above the 200-foot elevation, the parcel takes on a more abrupt slope. It is estimated that the slope within this "second tier" of the parcel is within the 10-30% range. The rest of the parcel includes the foothills of the Puʻu Heleakala ridge which slopes radically upward towards the peak of the ridge.

Potential Impacts and Mitigation Measures

There is a potential for loose rocks to fall from the slopes behind the proposed development. To mitigate adverse impacts from falling rocks, a 100-foot wide buffer has been set aside along the

entire *mauka* boundary of the proposed industrial park. Tropic Land proposes to construct a swale or an unlined channel with possible fencing to catch falling rocks and debris, as well as to serve as a drainage detention basis. A licensed geotechnical engineer will be retained to prepare a rockfall and slope stability analysis and to design the channel during the project design phase. Tropic Land anticipates complying with the recommendations of the rockfall and slope stability analysis, including other mitigation measures that would be implemented during construction.

Seismic Activity

Existing Conditions

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.

Potential Impacts and Mitigation Measures

All structures and facilities will be designed to current seismic standards.

5.5 Vegetation Resources

A detailed botanical survey of the project site was conducted by AECOS Consultants and is included in the study titled *Biological Surveys Conducted on the Tropic-Land LLC, Nānākuli Light Industrial Park Site, Wai‘anae District, O‘ahu, Hawai‘i*, dated June 2008 (see Appendix D). An earlier botanical study was conducted in September 1990 for the proposed golf course by Char & Associates. The information discussed below is taken from the AECOS study, unless otherwise noted.

The AECOS botanical survey was undertaken on June 25, 2008, following a wandering transect that traversed all parts of the project site up to about the 200-foot elevation. The ~~site~~ survey was conducted early in the dry season and, therefore, a few plants typical of the site, especially annuals, might have completed their lifecycle and been missed or gone dormant.

Existing Conditions

Kiawe forests, which vary from open woodland to closed-canopy stands, form the dominant vegetation type within the project site. Buffel grass is the most common ground cover associated with this forest type. At about the 100-foot elevation contour, the composition of the forest changes with the trees more open 30 to 50% 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 become numerous and *koa haole* shrubs become more commonplace.

Char (1990) developed a longer plant species list with 61 species compared to the 52 species found by AECOS in 2008. However the Char study included a larger area corresponding to the footprint of the proposed golf course. The 24 plant species listed as present in 1990 and not observed in 2008 are mostly common weedy species. At the same time, the AECOS study included 15 species not reported in 1990. A total of 76 species have been identified in the project area, when the results of the 1990 and 2008 survey data are combined. See Table 8 ~~1 in Appendix D~~ for a list of plants for the project site. No plant species classified as endangered or threatened or proposed as a candidate for listing as threatened or endangered by the Federal or State government was found in the project area.

No part of the project site is included in a federally designated plant critical habitat. However, a critical habitat, identified by the U.S. Fish and Wildlife Service as Unit 15, encompasses the adjacent Pu‘u Heleakala and the ridgeline above the project area extending to the northeast (Federal Register 2003). Unit 15 extends all along the Wai‘anae ridge to the upper end of Lualualei Valley. In the project area, the boundary of this unit descends to approximately the 500-foot elevation on the ridges to the northeast and southwest, rising to the 1,000-foot contour in the valley behind the proposed industrial park. The portion of the property containing the area of critical habitat is entirely within the State Conservation District, which will not be included from any development.

The portion of the property in the Agricultural District lacks habitat for valuable native plants. This area has seen various uses and activities over the years and a portion is presently used for property maintenance. The project area has been subjected to more than one wildfire; Char (1990) reported the site as partly burned during her survey.

Table 8 - Listing of Plants (Flora)

Species listed by family	***Common name***	***Status***	***Relative Abundance***	***Notes***
	FLOWERING PLANTS			
	DICOTYLEDONES			
ACANTHACEAE				
Asystasia gangetica (L.) T. Anderson	Chinese violet	Nat.	U1	(2)
AIZOACEAE				
Trianthema portulacastrum L.	---	Nat.	U2	(1)
AMARANTHACEAE				
Achyranthes aspera L.	---	Nat.	---	(2)
Alternanthera pungens Kunth	khaki weed	Nat.	R	(1,2)
Amaranthus spinosus L.	spiny amaranth	Nat.	O	(1,2)
Amaranthus virdis L.	slender amaranth	Nat.	R	(1)
ASTERACEAE (COMPOSITAE)				
Ageratim conyzoides L.	*maile hohono*	Nat.	---	(2)
Bidens pilosa L.	beggar's tick	Nat.	---	(2)
Conyza bonariensis (L.) Cronq.	hairy horseweed	Nat.	U	(2) †
Eclipta prostrata (L.) L.	---	Nat.	R3	
Emilia fosbergii Nicolson	*pualele*	Nat.	R	(2)
Pluchia carolinensis (Jacq.) G. Don	sourbush	Nat.	R1	(2)
Sonchus oleraceus L.	sow thistle	Nat.	R	(2)
Tridax procumbens L.	coat buttons	Nat.	U2	(2)
Verbesina encelioides (Cav.) Benth.	golden crownbeard	Nat.	---	(2)
Xanthium strumarium var. *canadense* (Mill.) Torr. ex A. Gray	cocklebur	Nat.	---	(2)
BIGNONIACEAE				
Spathodea campanulata P. Beauv.	African tulip tree	Orn.	R2	
BORAGINACEAE				
Heliotropium procumbens Mill.	---	Nat.	R2	
BUDDLEIACEAE				
Buddleia asiatica Lour.	dog tail	Nat.	---	(2)

Species listed by family	***Common name***	***Status***	***Relative Abundance***	***Notes***
CACTACEAE				
Opuntia ficus-indica (L.) Mill.	prickly pear	Nat.	---	(2)
CHENOPODIACEAE				
Atriplex semibaccata R. Br.	Australian saltbush	Nat.	R2	
Chenopodium murale L.	*‘aheahea*	Nat.	---	(2)
CONVOLVULACEAE				
Ipomoea indica (J. Burm.) Merr.	*koali ‘awa*	**Ind.**	---	(2)
Ipomoea obscura (L.) Ker-Gawl.	field bindweed	Nat.	U	(2)
Ipomoea triloba L.	little bell	Nat.	U	
Jacquemontia ovalifolia (Choisy) H. Hallier	*pā‘ü-o-Hi‘iaka*	**Ind.**	U2	(2)
Merremia aegyptica (L.) Urb.	hairy merremia	Nat.	---	(2)
CUCURBITACEAE				
Cucumis dipsaceus Ehrenb. ex Spach	teasel goard	Nat.	R	
EUPHORBIACEAE				
Chamaesyce hirta (L.) Millsp.	garden spurge	Nat.	R	(2)
Chamaesyce hypericifolia (L.) Millsp.	graceful spurge	Nat.	U2	(2)
Euphorbia lactea Haworth	mottled-candlestick	Orn.	R	
Ricinus communis L.	castor bean	Nat.	U	(2)
FABACEAE				
Acacia farnesiana (L.) Willd.	*klu*	Nat.	O	(2)
Crotalaria incana L.	fuzzy rattlepod	Nat.	O	(2)
Desmanthus pernambucanus (L.) Thellung	virgate mimosa	Nat.	A	(2)
Erythrina sandwicensis Degener	*wili wili*	**End**	---	(2)
Leucaena leucocephala (Lam.) deWit	*koa haole*	Nat.	C	(2)
Indigofera hendecaphylla Jacq.	creeping indigo	Nat.	R2	
Indigofera suffruticosa Mill.	indigo	Nat.	U	(2)
Macroptilium lathyroides (L.) Urb.	cow pea	Nat.	U	(2)
Pithecelobium dulce (Roxb.) Benth.	*‘opiuma*	Nat.	R	

Species listed by family	***Common name***	***Status***	***Relative Abundance***	***Notes***
Prosopis pallida (Humb. & Bonpl. ex Willd.) Kunth	*kiawe*	Nat.	A	(2)
Samanea saman (Jacq.) Merr.	monkeypod	Nat.	R	(2)
LAMIACEAE				
Hyptis pectinata (L.) Poit.	comb hyptis	Nat.	O3	(2)
Leonotis nepetifolia (L.) R. Br.	lion's ear	Nat.	A	(2)
Ocium gratissimum L.	wild basil	Nat.	R	(2)
MALVACEAE				
Abutilon grandifolium (Willd.) Sweet	hairy abutilon	Nat.	---	(2)
Abutilon incanum (Link) Sweet	hoary abutilon	**Ind.**	R1	(2)
Malvastrum coromandelianum (L.) Garck	false mallow	Nat.	O	(1,2)
Malva parviflora L.	cheeseweed	Nat.	R	(1)
Sida ciliaris L.	---	Nat.	U	(1)
Sida fallax Walp.	*'ilima*	**Ind.**	O3	(2)
Sida rhombifolia L.	Cuba jute	Nat.	---	(2)
Sida spinosa L.	prickly sida	Nat.	U2	(2)
MORACEAE				
Ficus microcarpa L.	Chinese banyan	Nat.	R	(2)
NYCTAGINACEAE				
Boerhavia coccinea Mill.	false alena	Nat.	---	(2)
PASSIFLORACEAE				
Passiflora foetida L.	love-in-a-mist	Nat.	---	(2)
PORTULACACEAE				
Portulaca oleracea L.	pigweed	Nat.	R	
SOLANACEAE				
Nicandra physalodes (L.) Gaertn.	apple-of-Peru	Nat.	R	(2)
Solanum americanum Mill.	pōpolo	**Ind.**	---	(2)
Solanum lycopersicum var. *cerasiforme* (Dunal) Spooner, G. Anderson, & Jansen	wild cherry tomato	Nat.	U	(2)

Species listed by family	***Common name***	***Status***	***Relative Abundance***	***Notes***
STERCULIACEAE				
Waltheria indica L.	*'uhaloa*	**Ind.**	U	(2)
VERBENACEAE				
Lantana camara L.	lantana	Nat.	---	(2)
MONOCOTYLEDONES				
COMMELINACEAE				
Commelina benghalensis L.	hairy *honohono*	Nat.	---	(2)
POACEAE				
Bothriochloa pertusa (L.) A Camus	pitted beardgrass	Nat.	---	(2)
Cenchrus ciliaris L.	buffelgrass	Nat.	AA	(2)
Cenchrus echinatus L.	sand bur	Nat.	R	
Chloris barbata (L.) Sw.	swollen fingergrass	Nat.	O3	(2)
Chloris radiate (L.) Sw.	radiate fingergrass	Nat.	---	(2)
Cynodon dactylon (L.) Pers.	Bermuda grass	Nat.	---	(2)
Digitaria insularis (L.) Mez. ex Ekman	sourgrass	Nat.	---	(2)
Eleusine indica (L.) Gaertn.	wiregrass	Nat.	R	(1,2)
Melinus minutiflora P. Beauv.	molasses grass	Nat.	R	
Melinus repens (Willd.) Zizka	Natal redtop	Nat.	---	(2)
Setaria verticillata (L.) P. Beauv.	bristly foxtail	Nat.	U	(2)
Urochloa maxima (Jacq.) Webster	Guinea grass	Nat.	AA	(2)

Legend for Table 8

STATUS = distributional status for the Hawaiian Islands:

ind. = indigenous; native to Hawaii, but not unique to the Hawaiian Islands.

nat. = naturalized, exotic, plant introduced to the Hawaiian Islands since the arrival of Cook Expedition in 1778, and well-established outside of cultivation.

ABUNDANCE = occurrence ratings for plants by area:

R – Rare	seen in only one or perhaps two locations.
U - Uncommon-	seen at most in several locations
O - Occasional	seen with some regularity
C - Common	observed numerous times during the survey
A - Abundant	found in large numbers; may be locally dominant.
AA - Very abundant	abundant and dominant; defining vegetation type.

Numbers following an occurrence rating indicate clusters within the survey area. The ratings above provide an estimate of the likelihood of encountering a species within the specified survey area; numbers modify this where abundance, where encountered, tends to be greater than the occurrence rating:

1 – several plants present
2 - many plants present
3 – locally abundant

NOTES: (1) – Generally associated with unimproved roads and other recently disturbed sites.
(2) – Previously reported by Char (1990) from the property. .
(3) – Plant lacking key diagnostic characteristics (flower, fruit).
† -- Seen only as dead plant matter.

Potential Impacts and Mitigation Measures

Modifications to the site from clearing and development are not expected to result in any deleterious impacts to native botanical species. Since the plant species within the project site are common throughout the Hawaiian Islands and elsewhere, no special mitigation measures are proposed by the Petitioner with respect to existing vegetation. In response to concerns from the Navy regarding invasive plant species, Tropic Land will limit landscaping of common areas to non-invasive and/or native plants. CC&Rs will identify acceptable planting material.

The biological surveys (Rana Productions and AECOS 2008) noted that human activity could increase the potential for fires that could spread upslope. On the other hand, human presence and a secure facility increases vigilance and reduces opportunities for arson and malicious activities. A fire contingency plan will be formulated prior to project construction with the *mauka* buffer area also serving as a fire break. Firefighting resources in the project area will be improved because the facility will be outfitted with a water system that complies fully with the Honolulu Fire Department's requirements. Engineering plans will be submitted to the Fire Department for review and approval.

5.6 Wildlife Resources

A faunal survey was conducted by Rana Productions and is included in a report titled *Biological Surveys Conducted on the Tropic Land LLC, Nānākuli Light Industrial Park Site, Wai'anae District, O'ahu, Hawai'i*, dated June 2008 (Appendix D). The 2008 survey updates a report by Andrew Berger entitled *Terrestrial Vertebrae Animals of the Proposed Lualualei Golf Course*, August, 1990, that was prepared for the golf course project. The information below is taken from the more recent Rana study, unless otherwise noted.

An avian and mammalian survey was conducted by Rana Productions on June 25, 2008. Eight avian count stations were evenly spaced across the approximately 100-acre proposed development area. Each station was counted once. Field observations were made with the aid of binoculars and by listening for vocalizations. Counts were concentrated in the early morning hours. Time not spent counting was used to search the site and the surrounding area for species and habitats not detected during count sessions. Areas upslope of the project site were covered as well to look for additional habitats or species beyond the proposed disturbance area.

Existing Conditions

A total of 227 individual birds of 17 species, representing 12 separate families, were recorded during station counts. All of the 17 species detected are considered to be alien to the Hawaiian Islands. No avian species currently listed as threatened or endangered, or proposed as a candidate for listing as threatened or endangered, and no critical habitat for any such species under either the Federal or State endangered species programs was detected during the course of this survey (DLNR 1998, Federal Register 2005, USFWS 2005, 2008).

Avian diversity and densities were in keeping with the location and xeric habitat present on the site. Four exotic species: House Sparrow (*Passer domesticus*), Spotted Dove (*Streptopelia chinesis*), Common Waxbill (*Estrilda astrild*), and Zebra Dove (*Geopelia striata*), accounted for slightly more than 54% of the total number of all birds recorded during station counts. The most common recorded species was House Sparrow, which accounted for approximately 17% of the total number of individual birds recorded. An average of 28 birds were detected per station count. Table 9 shows the list of avian species detected on the project site. ~~may be found in Table 2 in Appendix D.~~

The Rana survey in 2008 detected three mammalian species within the project site: domestic dog (*Canis f. familiaris*), small Indian mongoose (*Herpestes a. auropunctatus*), and cat (*Felis catus*). Although undetected during the 2008 survey, it is likely that four rodent species use various resources in the project area: Roof rat (*Rattus r. rattus*), Norway rat (*Rattus norvegicus*), European house mouse (*Mus musculus domesticus*), and possibly Polynesian rat (*Rattus exulans*).

Anthropods. A comprehensive study of anthropods or insects was not conducted for this EIS. However, biologist, Reginald David, was consulted on the possibility of that any protected insect species might be endangered by the proposed action. According to Mr. David, the only listed species that could be affected is the Blackburn's Hawk Moth *(Manduca blackburni)*, which has not been seen on the island Oʻahu since the early 1930s. Because the project site has been disturbed by wildfires so many times, impact on threatened or endangered anthropods is not a concern.

Potential Impacts and Mitigation Measures

The findings made by Rana Productions in 2008 are consistent with the findings of a previous study conducted on the subject property (Berger 1990), and with at least three other avian surveys conducted in 2004, 2005, and 2007 on lands immediately adjacent to the site (David 2007). Given the highly disturbed nature of the site and the almost completely alien-dominated vegetation present, all avian species detected were common lowland alien species. Berger reached similar conclusions in 1990—that there is no suitable native forest habitat for any of the Hawaiian forest birds anywhere on or near the project site and there is no suitable wetland habitat for any of the endangered Hawaiian waterbirds on or anywhere near the project site.

Although not detected during the course of the 2008 survey, the 1990 survey or recent surveys of the adjacent property, it is possible that the Hawaiian endemic sub-species of the Short-eared Owl (*Asio flammeus sandwichensis*) or *pueo* forages within the project site upon occasion (Berger 1990, David 2007). The Oʻahu population of this species is listed as endangered under State of Hawaiʻi endangered species statutes, but it is not listed under the Federal Endangered Species Act. Because the habitat on site changes on a regular basis due to man-made alterations and fire, the site likely does not contain suitable nesting habitat for this species. From the *pueo*'s

perspective, there is nothing unique about the habitat present on the project site. There are larger areas of better foraging and nesting habitat within the military installation located in close proximity to the project site. Clearing of the project site may temporarily disturb foraging *pueo*, although such activity is unlikely to result in adverse impact to this species.

~~Since the project will not have any adverse effect on any endemic ecosystem or on any endangered or threatened animal species in the area, no mitigation measure is proposed by the Petitioner with respect to the project's impacts on wildlife within or near the project site~~.

The project will not have any adverse effect on any endemic ecosystem or on any endangered or threatened animal species in the area. In support of wildlife habitats maintained within the JBPHH Lualualei Annex, Tropic Land and occupants of the industrial park will not be permitted to feed or promote the expansion of feral or stray cat populations that could have detrimental effects on avian species.

Table 9. Avian Species Detected on the Park Site

Common Name	Scientific Name	ST	RA
	GALLIFORMES		
	PHASIANIDAE - Pheasants & Partridges		
	Phasianinae - Pheasants & Allies		
Erckel's Francolin	*Francolinus erckelii*	A	1.38
	COLUMBIFORMES		
	COLUMBIDAE - Pigeons & Doves		
Rock Pigeon	*Columba livia*	A	0.13
Spotted Dove	*Streptopelia chinensis*	A	4.13
Zebra Dove	*Geopelia striata*	A	2.88
	STRIGIFORMES		
	TYTONIDAE - Barn Owls		
Barn Owl	*Tyto alba*	A	0.13
	PASSERIFORMES		
	PYCNONOTIDAE – Bulbuls		
Red-vented Bulbul	*Pycnonotus cafer*	A	1.63
	ZOSTEROPIDAE - White-eyes		
Japanese White-eye	*Zosterops japonicus*	A	1.38
	MIMIDAE - Mockingbirds & Thrashers		
Northern Mockingbird	*Mimus polyglottos*	A	1.13
	STURNIDAE – Starlings		
Common Myna	*Acridotheres tristis*	A	0.63
	EMBERIZIDAE - Emberizids		
Red-crested Cardinal	*Paroaria coronata*	A	0.25
	CARDINALIDAE - Cardinals Saltators & Allies		
Northern Cardinal	*Cardinalis cardinalis*	A	1.50
	FRINGILLIDAE - Fringilline and Carduline Finches & Allies		
	Carduelinae - Carduline Finches		
House Finch	*Carpodacus mexicanus*	A	1.63
	PASSERIDAE - Old World Sparrows		
House Sparrow	*Passer domesticus*	A	4.75
	ESTRILDIDAE - Estrildid Finches		
	Estrildinae - Estrildine Finches		
Common Waxbill	*Estrilda astrild*	A	3.63
Nutmeg Mannikin	*Lonchura punctulata*	A	2.75
Chestnut Munia	*Lonchura atricapilla*	A	0.25
Java Sparrow	*Padda oryzivora*	A	0.25

Key to Table 9.

ST	Status
A	Alien species – introduced to Hawai‘i by humans
RA	Relative Abundance: Number of birds detected divided by the number of count stations (8)

5.7 Agricultural Resources

The information in this section is based on an Agricultural Feasibility Report prepared by John J. McHugh, Jr. Ph.D. of Crop Care Hawai‘i, LLC dated May 2008 (Appendix C).

Existing Conditions

The property is undeveloped and is not used currently for agriculture. It is overgrown with non-native trees, shrubs, and grasses. Much of the property is heavily sloped with a gradient rise of over 70% in some sections. The lowest sections of the property contain slopes of greater than 10%. Rainfall in the area is less than 20 inches annually which makes it difficult to graze animals without the use of expensive irrigation water.

Soil Analysis

Half of the property is Lualualei extremely stony clay soil (LPE) which is characterized by slopes of 3 to 35%. The LPE soil has a Capability Classification of VIIs which has very severe limitations rendering it unsuitable for cultivation because of unfavorable texture as well as being extremely stony and rocky.

The remainder of the soil is composed of Lualualei clay (LuB) which has a slope of 2 to 6%, Lualualei clay of 0% slope (LuA), and Pulehu very stony clay loam (PvC) with slopes of 0 to 12%.

LuA and LuB soils, if not irrigated, have a Capability Classification of VIs which has extreme limitations that make them generally unsuited to cultivation and have a stony or rocky texture. If irrigated, the Capability Classification improves to IIIs for the LuA soil and IIIe for the LuB. Class III soils can have severe limitations that reduce the choice of crop plants. IIIs soils are challenged because of stoniness and/or unfavorable texture, resulting in poor water holding capacity, while IIIe soils are subject to severe erosion if cultivated and not protected.

A band of soils indentified as Pulehu very stony clay loam (PvC) can be found in the northwest section of the site. PvC soils have a Capability Classification of IVs which indicates very severe limitations that also can reduce the choice of crop plans and require careful management. These soils are stony, shallow with unfavorable texture, and have low water holding capacity coupled with severe shrink/swell characteristics. Irrigation does not improve the Capability Classification of PvC soils.

Land Classification and Crop Productivity Ratings by the Land Study Bureau, University of Hawai‘i

Approximately 80% of the project site has an overall agricultural productivity rating of E—as determined by the University of Hawai‘i Land Study Bureau. Lands rated in this low category are characterized by soils in their native state having serious limitations relative to agricultural

productivity. Because much of the parcel is stony, agricultural options for the project site, without amendment or modification, are considered to be minimal. A small portion of the site is accorded an overall agricultural productivity rating of B if it is irrigated (Figure 16).

Ratings under the ALISH System

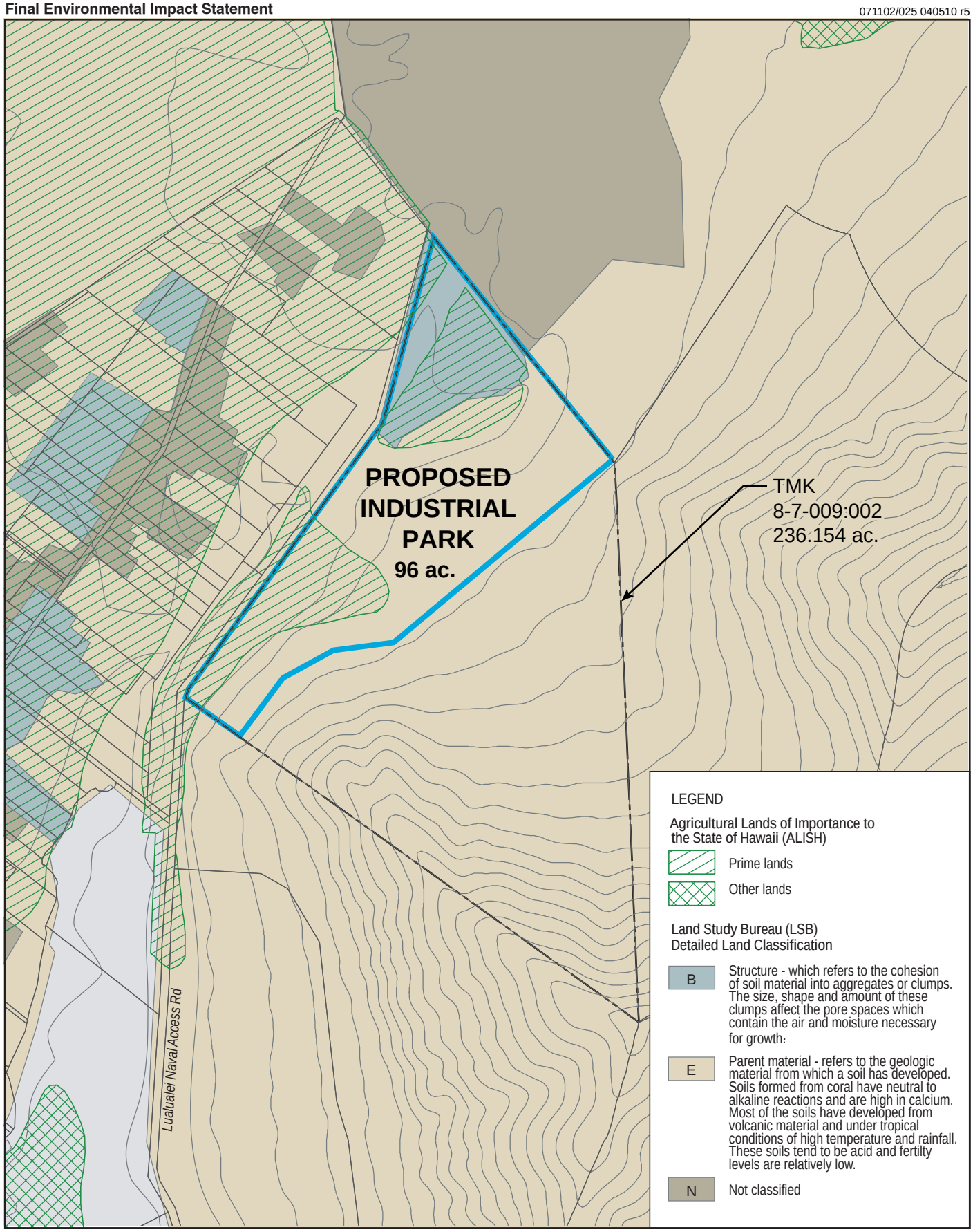
Maps detailing Agricultural Lands of Importance to the State of Hawai‘i (ALISH) were first created in 1977 as a joint effort between the U.S. Department of Agriculture, Soil Conservation Service (now known as the Natural Resource Conservation Service) and the University of Hawai‘i, College of Tropical Agriculture and Human Resources. Lands were broken down into four categories: 0 = Unclassified, 1 = Prime Agricultural Lands, 2 = Unique Lands, 3 = Other Lands. The LuA, LuB, and PvC soils combine to form that portion of the property considered to be Prime Agricultural Lands under the ALISH system (Figure 16).

Potential Impacts and Mitigation Measures

To bring the more agricultural suitable areas of the property into agricultural use would require water sources that are not readily available to new agricultural operations on the Wai‘anae Coast of O‘ahu. For the approximately 40 acres of farmable land, the water requirement in the hot and dry climate of Nānākuli, would be 5,400 gallons per acre per day using drip irrigation technology. This amounts to a water demand for crops grown on those acres of 216,000 gallons per day. This type of water consumption would be difficult to provide which further renders the property unsuitable for agricultural production. The combination of poor soil conditions and high water requirement makes it unlikely that any prospective farming operator would consider this property for active agriculture.

The difficulties experienced by farmers who worked the property, as described in Section 4.3, confirms that agricultural activity on the property is not sustainable.

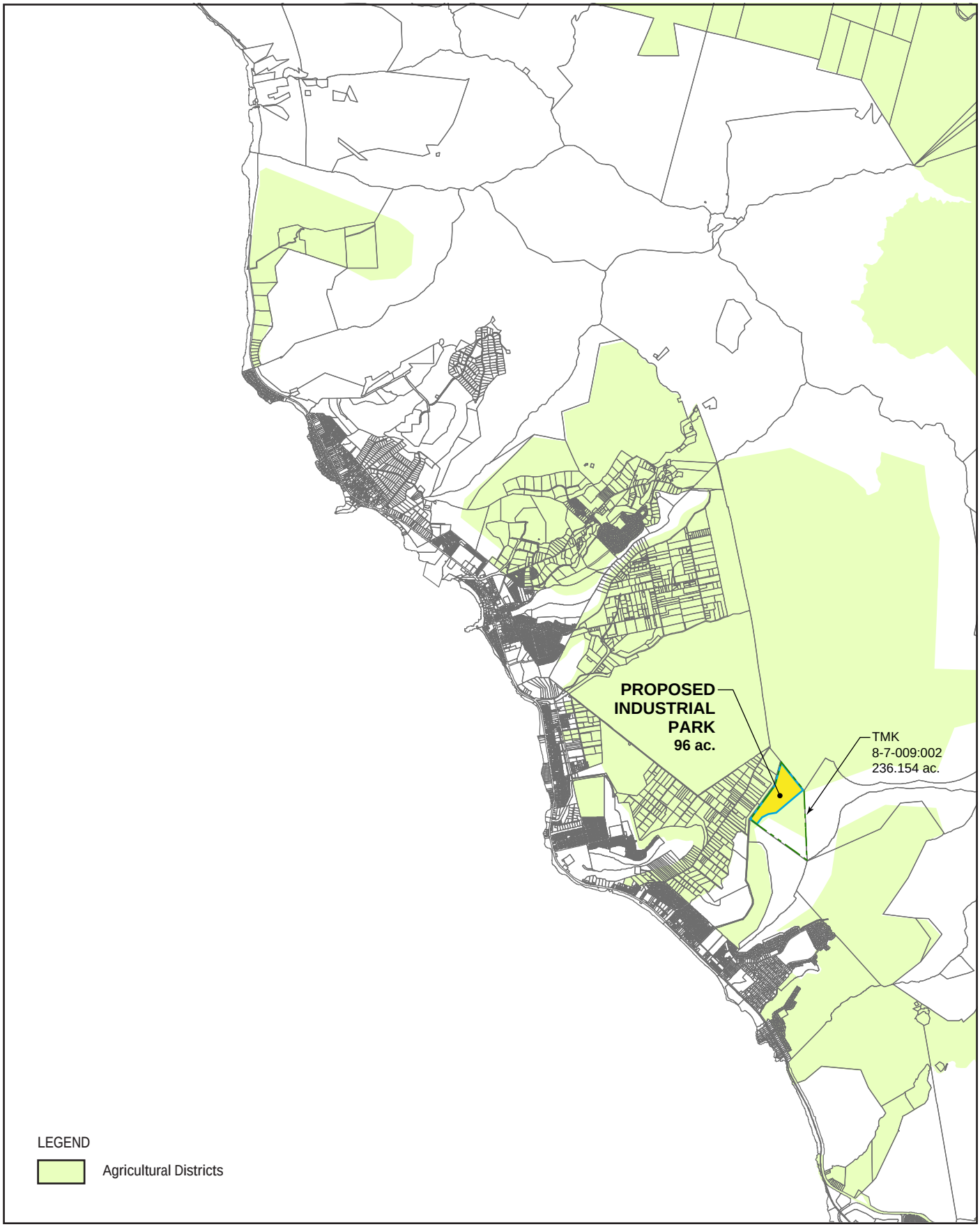
Statistics for the amount of agricultural land at the sub-county level are unavailable. However, the extent of lands in the State Agricultural District along the Wai‘anae Coast is shown in Figure 17. Of course, all lands are not currently undeveloped and available for agriculture. With the availability of more favorable options, including several thousand acres of Campbell land in Kunia, Dole land in Wahiawā and Waialua, and Galbraith Estate land in Wahiawā, there are more affordable options with better access to irrigation water resources than are present on the Wai‘anae Coast.



N
0 250 500 1,000 Feet

Figure 16
ALISH-LSB Map
March 2010

071102/048 033010 r2



N
0 4000 8,000 Feet

Figure 17
Agricultural Districts, Waianae Coast
March 2010

5.8 Archaeological, Historic, and Cultural Resources

An archaeological survey of the project site was conducted in November, 1990 by Cultural Surveys Hawai‘i and the findings and conclusions of that survey are contained in *An Archaeological Inventory Survey for the Proposed Lualualei Golf Course, Lualualei, Wai‘anae, O‘ahu*, January, 1991 (Appendix F). Information in this section is based on that report.

Archaeological and Historic Resources

Existing Conditions

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

Figure 18 shows cultural resources in the larger region and Figure 19 shows cultural resources that have been identified within TMK 8-7-09: 02. A total of seven archaeological sites have been identified in the vicinity of 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 is the only site in the petition area that may be prehistoric.

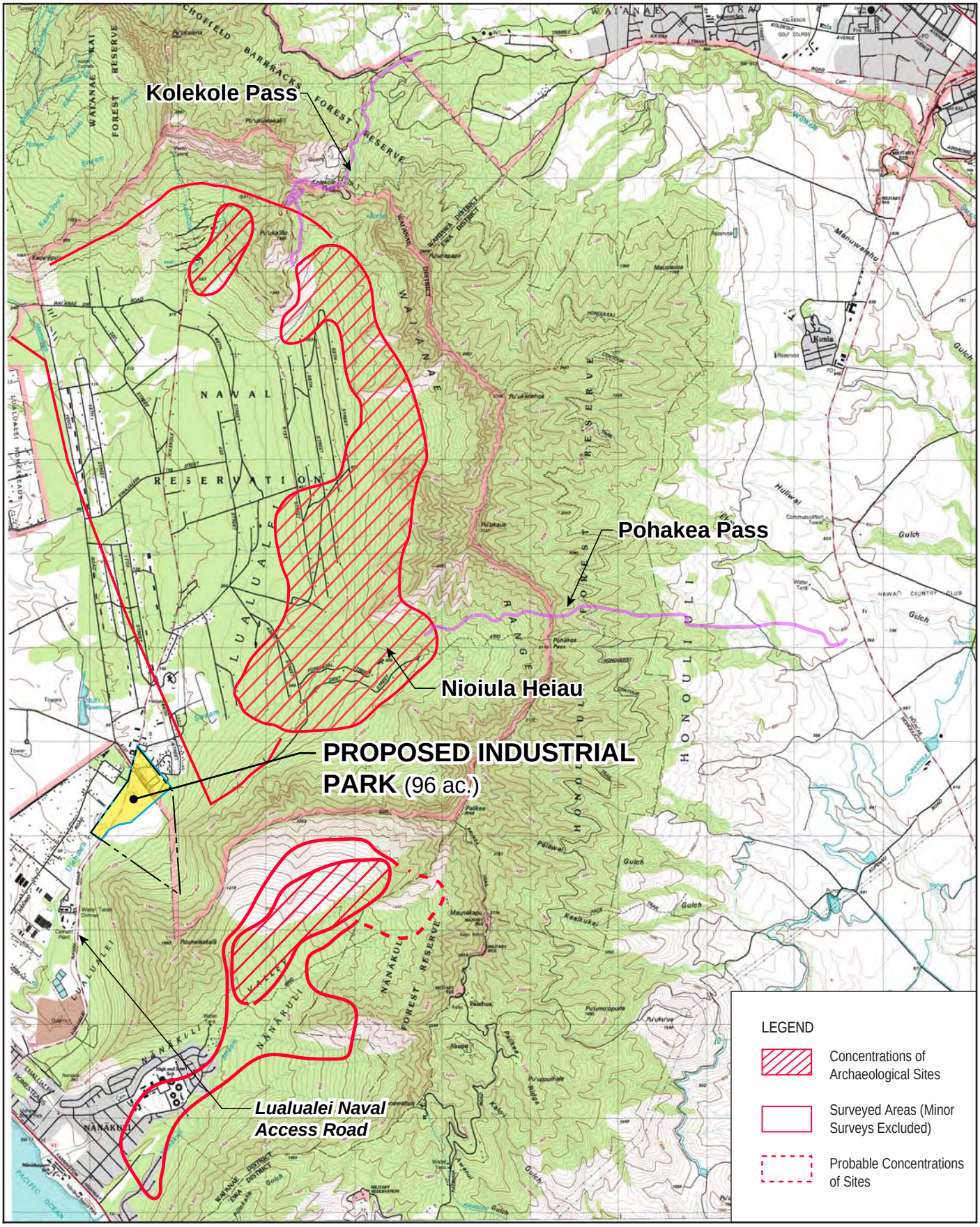
The five remaining sites identified within the project area are attributable to historic land usage. Four sites (50-80-08-4364, -4370, -4372, and -4373) are associated with cattle ranching and include cattle walls, an historic house lot, and various other ranching infrastructure. One site (50-80-08-4365) represents a military shelter evidenced by 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. One 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. Table 10 summarizes the archaeological and historical sites and their significance.

Table 10
Archaeological Sites Summary and Significance, TMK 8-7-09: 02

State Site #	Site Type	Function	Significance	Recommendation
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

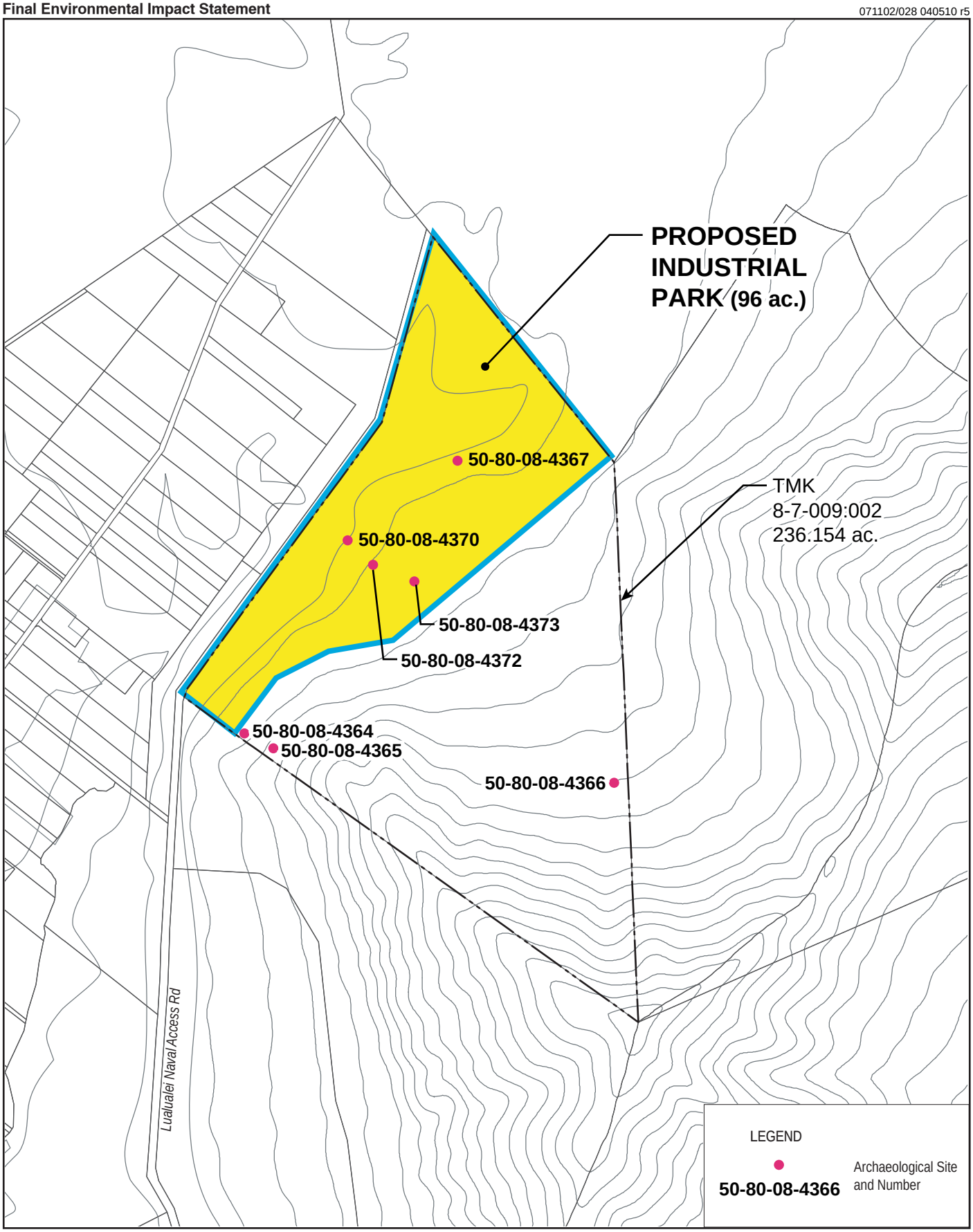
NSL: No longer significant
D: Significance criteria "D" per National Historic Preservation Act, wherein the site may be likely to yield information important to prehistory or history
Source: Cultural Surveys Hawai‘i. January 1991. *An Archaeological Inventory Survey for the Proposed Lualualei Golf Course, Lualualei, Wai‘anae, O‘ahu*.



Source: Waianae Sustainable Communities Plan, City and County of Honolulu, 2000.

N
0 5000 10,000 Feet

Figure 18
Cultural Resources Map (Regional)
March 2010



N
0 250 500 1,000 Feet

Figure 19
Cultural Resources Map (Site)
March 2010

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 from SHPD in Appendix H). 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. However, should any archaeological resource be encountered during construction, all work in the immediate vicinity will cease and the appropriate authorities will be contacted promptly. The contractor(s) for this project will be required to follow all procedures specified in Section 6E-46.6, Hawai‘i Revised Statutes and Chapter 13-300, Hawai‘i Administrative Rules in the event that inadvertent discoveries are made.

Cultural Resources

Existing Conditions

The information in this section is based on the *Cultural Impact Assessment-Final Report*, July 2009, prepared by Jannel L. Kaohu (JLK Management, LLC) and Angelita S. Aipoalani and Hanalei Y. Aipoalani (Mother Earth Foundation).

Areas within the Lualualei *ahupua‘a* are believed to have been used for cultivation of the warrior art of *Lua*, a Native Hawaiian form of martial arts. However, there is no evidence that the project area was or is currently being used for traditional practices, such as gathering of native materials or for any cultural or religious purpose. No burials are believed to exist within the project area. There were no commoner land claims within the project area. Although some Native Hawaiian activity may have occurred on the project area, the patterns of land use are relatively clear that the Native Hawaiians did not use this land nearly as intensively as the coastal areas, well-watered areas, and forest zones.

Recorded Hawaiian legends, *mo‘olelo*, describe a location within the Lualualei *ahupua‘a* as the birth place of Maui, son of Mauiakalana and Hina‘akealoha. None of the physical locations associated with Maui or any other legend are on the property. According to literature, Maui’s birthing place is located on the south side of Wai‘anae at Ulehawa and Kaolae (west-southwest of the project site).

> **Maui Rock.** In the 1930’s, McAllister recorded Site 148 in his work. McAllister described a large rock referred to as “Maui” located about 1.1 miles from Nānākuli station toward Pu‘u O Hulu (McAllister 1933: 110). This rock represents the place where Maui first landed in the Hawaiian Islands from the south. The stone was surrounded by water and is where he reposed and sunned himself. The rock is memorialized at Garden

> Groves, a private condominium development off of Farrington Highway in Lualualei. (p. 7)

Hawaiian mythology also accounts for Maui venturing the Wai‘anae Coast of O‘ahu. Kaneana, cave of Kane, commonly known as Mākua cave, is said to have been frequented by demigod Maui and the home of Nanue, the shark man. The cave is located at the base of a 200-foot outcropping of rock along Farrington Highway in Mākua (near Ka‘ena Point), approximately 9 miles west-northwest of the project site.

There are no registered historic sites within the project site. However, according to the National and State Register of historic Places, Nioiula Heiau, a registered historic site is located several miles from the Tropic Land parcel within the JBPHH Lualualei Annex.

> **Nioiula.** Roy Kakulu Alameida, author of *Na Mo‘olelo Hawai‘i o ka Wa Kahiko*, refers to Nioiula Heiau in his story about Kawelo. Alameida writes, “Kawelo then picked up the man. He took him to the *ali‘i nui* of O‘ahu to offer as a sacrifice to the gods at Nioiula Heiau at Lualualei.
>
> Thos G. Thrum’s compilation of data, recorded in the Hawaiian Almanac and Annual from 1907 states that Nioiula Heiau (Halona, Lualualei), a paved and walled *heiau* of *pookanaka* class, about 50 feet square in two sections; [was] recently destroyed.
>
> According to Kahu Kamaki Kanahele, a long-time resident of Nānākuli and respected cultural practitioner, “Nioiula is located on Halona ridge in Lualualei next to the forest reserve. Part of the *heiau* has been complete destroyed with the stones being used by the McCandless ohana (1930’s-1940’s) of the Silva family. It was *kapu* when we were little because *kupuna*(s) told us that people were sacrificed there to the ancient gods. It belonged to the O‘ahu god—King Kākuihewa.” (p. 8)

Research into the *heiau*’s location using the Geographic Information System (GIS) supported by the City and County of Honolulu and State Department of Land and Natural Resources indicate that Nioiula Heiau is situated within the JBPHH Lualualei Annex. (TMK: 8-8-01: 01). The Tropic Land property extends to the ridgeline, but the proposed industrial park is located at the base of the cliffs at or below the 200-foot elevation.

Potential Impacts and Mitigation Measures

The Cultural Impact Assessment concluded that the project site does not have a direct or indirect adverse impact on culturally significant sites. Nor does it obstruct access to culturally significant sites. Effects stemming from the development of the project on Hawaiian culture would be minimal due to its geographic location and lack of surface water, burial sites, and commoner land claims. If Native Hawaiian activity occurred within the project area, it would not have been nearly as intensively utilized as coastal areas, well-watered areas, and forest zones.

5.9 Roadways and Traffic

The information in this section is based on a *Traffic Impact Analysis Report* prepared by the Traffic Management Consultant dated ~~September 2008~~ January 2010 (Appendix E).

Existing Conditions

Farrington Highway is the primary arterial highway on the Leeward coast of O‘ahu, carrying over 48,000 vehicles per day in both directions. Farrington Highway is a four-lane highway, which is generally oriented in a north-south direction. Farrington Highway is signalized at Lualualei Naval Access Road. A left-turn lane is not provided on southbound Farrington Highway at this intersection. The posted speed limit is 35 miles per hour (mph).

Lualualei Naval Access Road is a two-lane, two-way roadway which provides access to the JBPHH Lualualei Annex. The posted speed limit on this road varies between 25 mph and 45 mph.

Tropic Land LLC has reached an agreement with the U.S. Navy for the use of the Lualualei Naval Access Road. The Navy has agreed to grant a long term easement to Lualualei Naval Access Road to an association to be organized by the adjoining property owners, including Tropic Land LLC, who would be required to maintain the road. Tropic Land LLC is currently discussing the form of a definitive easement agreement with the Navy. Correspondence with the Navy regarding Lualualei Naval Access Road may be found in Appendix K.

Field Investigation and Data Collection

Manual traffic count surveys were conducted at the intersection Farrington Highway and Lualualei Naval Access Road on May 1-2, 2008 during the peak periods of traffic from 5:30 AM to 8:00 AM and from 2:30 PM to 5:00 PM. Additional surveys were conducted on Lualualei Naval Access Road at an existing baseyard on the project site on July 21-22, 2008.

Existing AM Peak Hour Traffic

The AM peak hour of traffic on Farrington Highway varies between 5:00 AM and 7:00 AM. The AM peak hour selected for the analysis—5:45 AM to 6:45 AM—was based on the observed AM peak hour of traffic on Lualualei Naval Access Road. During this period, Farrington Highway carries about 2,800 vehicles per hour (vph) total for both directions. Lualualei Naval Access Road carried a total of 430 vph at Farrington Highway during the AM peak hour of traffic. At the project site, the traffic volume on Lualualei Naval Road was about 120 vph.

The intersection of Farrington Highway and Lualualei Naval Access Road operated at an overall Level of Service “D” with a v/c ratio of 1.12 during the AM peak hour. Southbound Farrington Highway operated at LOS “E.” The left-turn movement from Lualualei Naval Access Road on Farrington Highway operated at LOS “F.”

Existing PM Peak Hour Traffic

The PM peak hour of traffic was defined as 3:15 PM to 4:15 PM when Farrington Highway carries about 3,500 vph total for both directions. Lualualei Naval Access Road carried a total of of over 500 vph during the PM peak hour. At the project site, traffic volume on Lualualei Naval Access Road was about 100 vph.

During the PM peak hour, the shared through/left-turn lane on southbound Farrington Highway at Lualualei Naval Access Road operated as a de facto left-turn lane. The intersection of Farrington Highway and Lualualei Naval Access Road operated on at an overall LOS "C" with a v/c ration of 094. The left-turn movement from Lualualei Naval Access Road onto Farrington Highway operated at LOS "D."

Capacity Analysis Methodology

The highway capacity analysis used in the analysis is based on procedures described in the Highway Capacity Manual (HCM) published by the Transportation Research Board, 2000. HCM defines Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream." Several factors may be included in determining LOS, such as speed, travel time, freedom to maneuver, traffic interruptions, driver comfort and convenience. LOS "A," "B," and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desired minimum" operating level of service. LOS "E" is an undesirable condition, and LOS "F" is an unacceptable condition. Intersection LOS is based primarily on average delay, which is measured in seconds per vehicle (sec/veh).

Table 11
Level of Service Criteria (Highway Capacity Manual)

LOS	Signalized Intersections	Unsignalized Intersections
	Control Delay (sec/veh)	**Control Delay (sec/veh)**
A	≤10	≤10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

Source: *Highway Capacity Manual*, 2000
Note: sec/veh = seconds per vehicle

Volume-to-capacity (v/c) ratio is a measure comparing the relative traffic demand to the roadway's capacity. HCM defines capacity as "the maximum number of vehicles that can pass a given point during a specified period under prevailing roadway, traffic flow, and traffic control conditions." A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50% of the roadway's capacity. A v/c ratio in excess of 1.0 indicates that the traffic demand exceeds the carrying capacity of the highway facility.

Future Traffic Conditions

Background Growth in Traffic. The Oʻahu Transportation Regional Plan 2030 (ORTP) was prepared for the Oʻahu Metropolitan Planning Organization (OMPO) in April 2006 and amended in May 2007. The Year 2030 socio-economic forecasts indicated about a 0.5% annual increase in population and employment on the Waiʻanae Coast. Based on the ORTP socio-economic forecast, an annual growth of 0.55% was applied uniformly to the existing peak hour traffic to estimate the Year 2020 peak hour traffic demands without the proposed project.

Year 2020 AM Peak Hour Traffic Without Project. During the AM peak hour without the project, traffic demands at the intersection of Farrington Highway and Lualualei Naval Access Road are expected to exceed the carrying capacity of the existing intersection, operating at an overall LOS "F" with a v/c ratio of 1.23. The southbound approach of Farrington Highway and the left-turn movement from Lualualei Naval Access Road are expected to operate at LOS "F."

Year 2020 PM Peak Hour Traffic Analysis Without Project. The PM peak hour demand without the project is expected to exceed the existing carrying capacity of the intersection of Farrington Highway and Lualualei Naval Access Road, operating at LOS "D" with a v/c ratio of 1.01. Southbound Farrington Highway and the left-turn movement from Lualualei Naval Access Road are expected to operate at LOS "D."

Potential Impacts

Project-related Trip Generation Characteristics and Trip Distribution

During the AM peak hour, the project is expected to generate a total of 522 vph—433 vph entering the site and 98 vph exiting the site. The proposed project is expected to generate a total of 518 vph—109 vph entering the site and 409 vph exiting the site during the PM peak hour.

The trip distribution is based on the projected growth in the ʻEwa and Waiʻanae regions. By 2020, the population of the ʻEwa region is expected to exceed the Waiʻanae region by a ratio of 3 to 1. Similarly, employment in the ʻEwa region is expected to be 6.7 times that of the Waiʻanae Coast. Table 12 summarizes the traffic assignment splits during the peak hours of traffic.

Table12
Traffic Assignment

Peak Hour	Direction	Northbound	Southbound
AM	Enter	75%	25%
	Exit	15%	85%
PM	Enter	85%	15%
	Exit	~~75%~~ 25%	~~25%~~ 75%

Source: Traffic Management Consultant. *Traffic Impact Analysis Report*, September 2008.

AM Peak Hour Traffic Impact With Project

With project implementation, the intersection of Farrington Highway and Lualualei Naval Access Road is expected to operate at an overall LOS "F" and a v/c ratio of 1.86 during the AM peak hour. Southbound Farrington Highway and Lualualei Naval Access Road approaches are expected to operate at LOS "F."

PM Peak Hour Traffic Impact With Project

With project implementation, the intersection of Farrington Highway and Lualualei Naval Access Road is expected to operate at LOS "F" with a v/c ratio of 1.39. Both Farrington Highway approaches and Lualualei Naval Access Road are expected to operate at LOS "F."

Mitigation Measures

To mitigate the impacts of project-generated traffic, Tropic Land will discuss traffic mitigation measures with the State and City, and is willing to participate in a fair share arrangement with the State of Hawaii and other users of Lualualei Naval Access Road to improve the intersection of Farrington Highway and Lualualei Naval Access Road.

Improvements recommended by the Traffic Impact Analysis Report (TIAR) and the project engineer include:

- Widening of southbound Farrington Highway to provide an exclusive left-turn lane (350 feet in length and 11 feet in width)
- A tapered median area (300 feet in length) along northbound Farrington Highway to align with the southbound left-turn lane
- Widening Lualualei Naval Access Road to provide double left-turn lanes (350 feet in length; 11 feet in width) and an exclusive right-turn lane
- Relocation of existing traffic signals, utility poles, and drainage structures affected by the widening

Table 13 summarizes projected traffic impacts under scenarios with and without the proposed development, and with mitigation measures.

AM peak hour traffic in 2020 is projected to be virtually the same "with" or "without" the project. In either case, the intersection of Farrington Highway and Lualualei Naval Access Road performs at LOS "F" in the southbound and westbound directions. Minimal delays are experienced in the northbound direction (toward Mākaha) during the AM peak hour with LOS "A" conditions. With construction of the industrial park and intersection improvements (as described above), the TIAR calculates that intersection performance will improve from LOS "F" to LOS "E" in the southbound through and westbound left-turn directions. The addition of an exclusive left-turn lane from Farrington Highway onto Lualualei Naval Access Road will improve LOS in this direction from "F" to "A." However, northbound traffic on Farrington will experience a decrease in LOS from "A" to "C" with changes in the traffic signal phase shortening "green time" to accommodate left-turning vehicles in the southbound direction. Nevertheless, the recommended improvements would raise LOS to "C" from LOS "F" for 2020 AM peak hour traffic under "without project" or "with project" scenarios.

Without the project, the intersection of Farrington Highway and Lualualei Naval Access Road is expected to perform at LOS "C" and "D" levels during the PM peak hour in 2020. If the proposed industrial park is constructed without intersection improvements, level of service is expected to decrease to unacceptable levels. However, with improvements LOS "D" and "E" conditions are expected, with the intersection as a whole performing at LOS "D."

Improvements to Lualualei Naval Access Road itself will be determined in consultation with the U.S. Navy as part of the negotiations for an easement to use, operate and maintain the road.

Table 13
Capacity Analysis: Farrington Highway and Lualualei Naval Access Road

Scenario			SB Thru	SB Left	NB Thru	NB Right	WB Left	WB Right	Int.
Existing AM Peak Hour Traffic		LOS	E		A		F	B	D
		v/c	1.12		0.37		0.79	0.23	1.12
		Delay*	76.0		3.4		94.6	18.7	52.8
Existing PM Peak Hour Traffic		LOS	C	C	C		D	C	C
		v/c	0.67	0.95	0.92		0.73	0.59	0.95
		Delay	29.7	27.3	23.9		50.4	24.5	26.7
2020 AM Peak Hour Traffic Without Project		LOS	F		A		F	B	F
		v/c	1.23		0.40		0.82	0.24	1.23
		Delay	125.6		3.6		98.3	18.3	84.0
2020 PM Peak Hour Traffic Without Project		LOS	D	D	C		D	C	C
		v/c	0.81	1.01	0.95		0.76	0.66	1.01
		Delay	48.2	41.1	28.1		53.5	31.3	34.7
2020 AM Peak Hour Traffic With Project	Without Improvements	LOS	F		A		F	C	F
		v/c	1.86		0.63		1.06	0.27	1.86
		Delay	408.1		6.3		136.8	21.9	237.3
	With Improvements	LOS	E	A	C		E	A	C
		v/c	0.88	0.71	0.84		0.61	0.10	0.88
		Delay	73.0	7.2	26.1		59.6	6.4	22.0
2020 PM Peak Hour Traffic With Project	Without Improvements	LOS	F	F	F		F	D	F
		v/c	1.39	1.14	1.09		1.16	0.64	1.39
		Delay	245.7	100.4	82.4		136.6	43.1	97.2
	With Improvements	LOS	E	A	D		E	D	D
		v/c	0.82	0.52	1.00		0.95	0.70	1.00
		Delay	60.4	7.9	43.4		75.9	46.6	38.0

Source: Traffic Management Consultant. *Traffic Impact Analysis Report*, September 2008.

SB = Southbound Farrington Highway (to Honolulu)
NB = Northbound Farrington Highway (to Mākaha)
WB = Westbound Lualualei Naval Access Road (*makai*)
Int. = Intersection
* Delay measured in seconds

5.10 Air Quality

Existing Conditions

Climate

Lualualei Valley is relatively arid. Mean annual rainfall is approximately 20 to 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 to 80 inches annually and varies from over 8 inches in July and August to about 4 inches in December and January. There is an evaporation deficit of approximately 50 inches annually and there are no months when rainfall equals pan evaporation.

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

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.

Air Quality

In August 2009, HECO made available a website for the West O‘ahu Air Quality Monitoring Program, part of its overall plan to develop the Campbell Industrial Park Generating Plant. Posted on the website are readings from four air quality monitoring stations, including the Lualualei Monitoring Station, located at the Nānākuli Civil Defense Site. This station collects data on 12 parameters of air quality: sulfur dioxide (24-hour average), ozone (8-hour average), carbon monoxide (8-hour average), nitrogen dioxide (1-hour average), nitric oxide (1-hour average), oxides of nitrogen (1-hour average), sulfur dioxide (1-hour average), sulfur dioxide (3-hour average), ozone (1-hour average), carbon monoxide (1-hur average), and particulates (PM10, 1-hour average). Data is available in real time via the Internet. In addition to the specific parameter, the Air Quality Index reports daily air quality.

Given the recentness of the air quality station, long-term data are not available. However, available data indicate that local air quality is in compliance with State and Federal standards. The project area is rural and lightly developed. The nearest major stationary sources, the PVT Landfill and Pineridge Farms operations, are located downwind of the site 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 Access Road is so low that such activity has minimal air quality impact.

Impacts and Mitigation Measures

Short-term Air Quality Impacts

Construction activities will result in temporary and localized impacts on air quality in areas adjacent to the construction site. Equipment used during the construction phase will emit exhaust and airborne particulates, and construction work will produce dust. Due to the low background levels of pollutants in the area and favorable climatic conditions, increased vehicular emissions are not expected to be significant. The contractor will be required to use vehicles that are properly maintained.

To control dust during the construction phase, BMPs will be specified in construction plans, including the following:

- Water active work areas and temporary unpaved work roads
- Use wind screens and/or limit the area that is disturbed at any given time
- Mulch or use chemical soil stabilizers on inactive areas of the project site
- Cover transported or stored soils
- Implement a tire washing program to reduce dust emissions from trucks tracking dirt onto paved roadways in the project area
- Establish landscaping early in the construction schedule

Construction activities will employ fugitive dust emission control measures in compliance with provisions of the State Department of Health Rules and Regulations (Chapter 43, Section 10), and Hawai‘i Administrative Rules (HAR), Chapter 11-60.1, “Air Pollution Control,” Section 11-60.1-33 on Fugitive Dust.

Long-term Air Quality Impacts

Long-term air quality impacts from project operation are not expected to be significant. This conclusion is based, in part, on the findings of an air quality study conducted for an industrial park project known as Kapolei Harborside Center.[1] This project involves approximately 345 acres and is anticipated to provide 3,800 permanent jobs at full buildout and occupancy. The project area is surrounded by major roads, including Kalaeloa Boulevard and Kapolei Parkway and is situated adjacent to Campbell Industrial Park in Ewa, where “several large industrial

[1] B. D. Neal & Associates. 2006. “Air Quality Study for the Proposed Kapolei Harborside Center Project, Kapolei, Oahu, Hawaii.” Reproduced as Appendix I, Air Quality Assessment in *Kapolei Harborside Center Final Environmental Impact Statement*, Prepared by Group 70 International, Inc. for Kapolei Property Development, LLC, November 2006.

sources of air pollution are located" (B. D. Neal and Associates, 2006: 26). Computerized emission and atmospheric dispersion models were used to estimate ambient carbon monoxide concentrations along roadways leading to and from the project. Carbon monoxide was selected for modeling because it is the most stable and most abundant of pollutants generated by motor vehicles, and considered a pollutant that can be addressed locally. The models estimated worst-case 1-hour and 8-hour concentrations. All of the predicted concentrations were within State and federal air quality standards.

In comparison, Nānākuli Community Baseyard is approximately one-fourth the size of Kapolei Harborside Center. Nānākuli Community Baseyard occupies an area that is 27% of Harborside's acreage, and its high-end employment projection is 22% of Harborside's projection. Given the significantly smaller scale of Nānākuli Community Baseyard, and ambient conditions that are no worse than on the Ewa Plain, Harborside's air quality study serves as an appropriate reference.

No specific mitigation measures are proposed to reduce vehicle-generated carbon monoxide levels at the Farrington Highway/Lualualei Access Road intersection or any other portion of the route to the site due to the insignificant increase in expected air emissions in these areas. Worse-case projected levels of emissions at these areas will be well within the State of Hawai‘i and federal ambient air quality standards because of the low current traffic volumes along the route and insignificant increases to such volumes which would be attributable to the project.

5.11 Noise

Existing Conditions

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels (dB). Another common measure is the Day-Night Average Level (Ldn), which is a weighted average of the intensity of a sound with corrections for time of day, and is averaged over 24 hours. Of particular significance are sensitive receptors—activities or land uses that may be subject to the stress of interference from noise. Land uses associated with sensitive receptors often include residential dwellings, hotels, hospitals, nursing homes, education facilities, churches, and libraries.

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

For residences in the vicinity of the project site, which are removed from Lualualei Access Road, existing average background ambient noise levels range from 45 to 55 Ldn, which is in the "minimal exposure, unconditionally acceptable" noise exposure category. Existing noise levels in the residential areas further to the west of the proposed development are low. During quiet periods between local traffic, background ambient noise levels along the roadway are dominated by the sounds of dogs, birds, wind, and distant traffic.

With the exception of a single residence, located on Lualualei Naval Access Road opposite the southern tip of the project site, there are no known land uses generally defined as noise sensitive. Figure 20 shows land uses within a 300-foot radius of the project site. The 300-foot distance demarcates the area typically required for notification of major land-use actions because of potential impacts. The map also shows several structures within the JBPHH Lualualei Annex that are within 300 feet of the project boundary. Although specific uses are unknown, these buildings are likely to be air-conditioned and, therefore, more insulated from external environmental conditions.

Existing traffic noise levels along Lualualei Naval Access Road are moderate (approximately 61 to 62 Ldn) at 50 feet 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.

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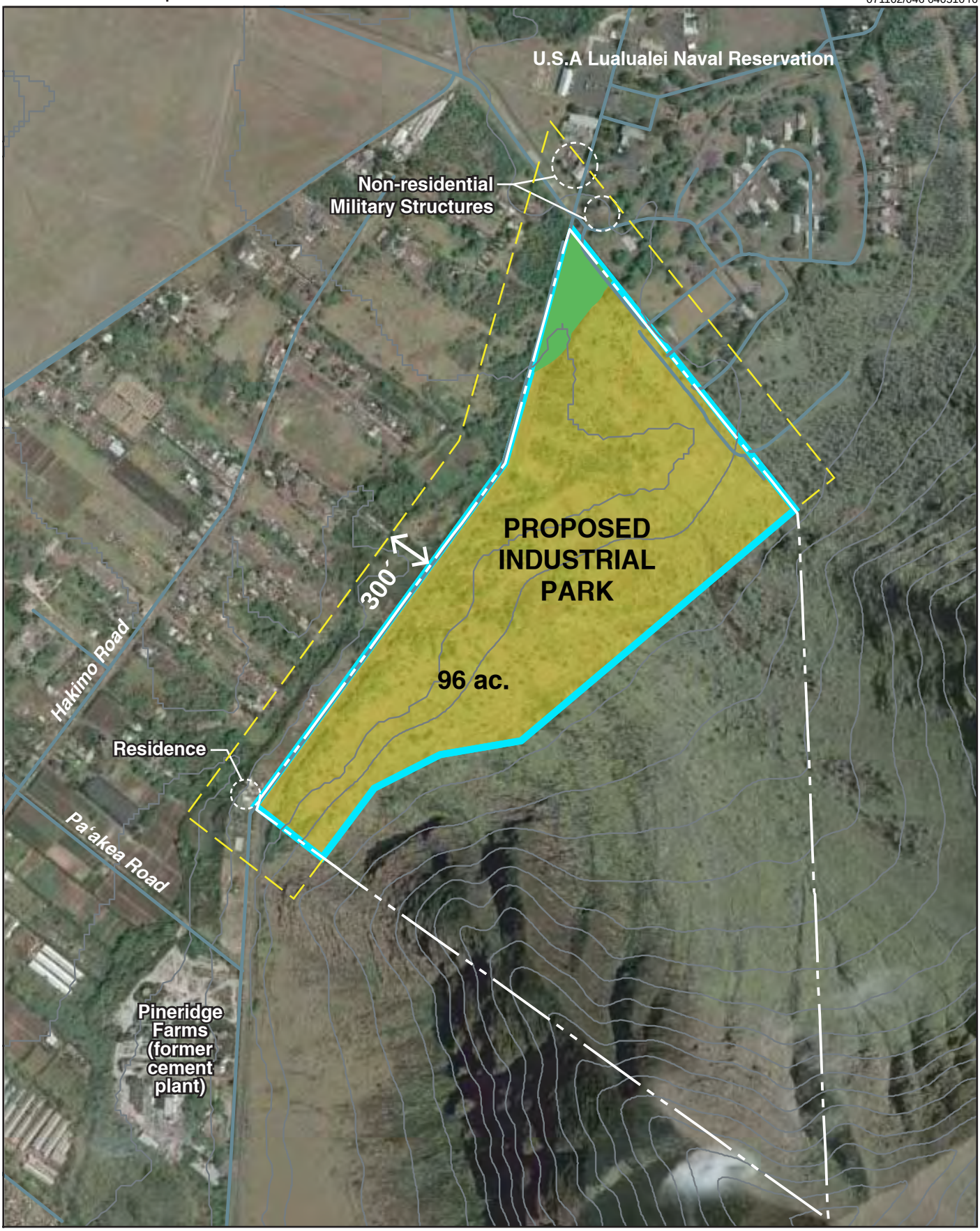

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0 200 400 800 Feet

Figure 20
Land Uses within 300' of Project Site
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Potential Impacts and Mitigation Measures

Short-term, Construction Noise

Audible construction noise will be unavoidable during project construction. Short-term noise impacts associated with project construction will occur. Actual noise levels produced during construction will be a function of the methods employed during each stage of construction. Equipment likely to be used include excavator, backhoe, front-end loader, grader, forklift, semi-trucks, dump trucks, concrete trucks, compactors, paving equipment, and compressors. Typical ranges of construction equipment noise vary between 70 and 95 dBA, which exceeds permissible levels. Earthmoving equipment, e.g., backhoes, front loaders, bulldozers, and diesel-powered trucks, will probably be the loudest equipment used during construction. The contractor will be required to maintain and properly muffle construction equipment and on-site vehicles that exhaust gas or air.

In cases where construction noise exceeds, or is expected to exceed the State's "maximum permissible" property line noise levels, a permit will be obtained from the State Department of Health under Hawai‘i Administrative Rules Chapter 11-46, Rules on Community Noise. In order for the DOH to issue a construction noise permit, the contractor must submit a noise permit application to the DOH which describes the construction activities for the project. Before issuing the permit, the DOH may require the contractor to incorporate noise mitigation into the construction plan. The DOH may also require the contractor to conduct a noise monitoring or community meeting inviting the neighboring residences and businesses to discuss construction noise.

The contractor should use reasonable and standard practices to mitigate noise, such as using mufflers on machines with diesel and gasoline engines, using property tuned and balanced machines, and so forth. The DOH may require additional noise mitigation treatments, such as a temporary barrier around a generator.

Specific permit restrictions required for construction projects by the DOH are:

- No permit shall allow construction activities creating excessive noise before 7:00 am and after 6:00 pm of the same day
- No permit shall allow construction activities which emit noise in excess of 95 dBA except between 9:00 am and 5:30 pm of the same day
- No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on certain holidays. Pile driving and other activities exceeding 95 dBA will be prohibited on Saturdays.

The DOH noise permit does not limit the noise level generated at the construction site, but rather the *times* at which noisy construction can take place. Therefore, noise mitigation for construction activities will be addressed using project management to ensure compliance with time constraints.

Properly muffled and maintained construction equipment will be required on the job site. The incorporation of State Health Department construction noise limits and curfews will also be applied to project construction.

Future Traffic Noise Environment

Moderate noises increases generated by project-related traffic and non-project-related traffic are predicted to occur along Lualualei Naval Access Road. Intermittent vehicular noise along this roadway from project-generated traffic would represent a minimal increase in noise. For most sources, a doubling of distance results in a dBA fall in noise level. The closest noise sensitive receptor in the project area is a single residence set back from Lualualei Naval Access Road. Therefore, traffic noise impacts associated with the project are not considered to be significant. Along Farrington Highway where traffic volumes, speeds, and noise levels are significantly high, the added noise contributions from project-generated traffic should not be significant when compared to non-project traffic noise contributions. Project traffic noise impacts along the highway are not anticipated because of the dominating influence of non-project traffic noise over project-generated traffic noise.

These conclusions are consistent with the findings of an acoustical study conducted for an industrial development project known as Kapolei Harborside Center.[2] Although Kapolei Harborside Center is almost three times larger in scale than Nanakuli Community Baseyard, the noise models predicted vehicular traffic noise impacts on the surrounding community that are not considered to be significant.

5.12 Visual Resources

Existing Conditions

The Wai‘anae Sustainable Communities Plan (2000) shows Farrington Highway as a beautification area. This main thoroughfare along the Wai‘anae Coast provides scenic views of both the coastline and the Wai‘anae Mountain Range. The project site, located approximately 1.5 mile inland, is not visible from Farrington Highway.

Cultural Significance of Visual Resources

During scoping meetings with the community and in response to the EISPN, concerns were raised about the significance of the Waianae mountain range silhouette framing Lualualei Valley; in particular, the mountainous silhouette of the demigod Maui. The area in question lies to the

[2] D.L.Adams Associates. Ltd. 2006. “Environmental Noise Assessment Report, Kapolei Harborside Center, Kapolei, Oahu, Hawaii.” Reproduced as Appendix J, Acoustic Study in *Kapolei Harborside Center Final Environmental Impact Statement*, Prepared by Group 70 International, Inc. for Kapolei Property Development, LLC, November 2006.

north and east of the project site, lying within the JBPHH Lualualei Annex. The Wai‘anae Sustainable Communities Plan (reference Open Space Map) also shows that area with a concentration of archaeological sites. The project site is outside the view plane to that area, and does not adversely impact any view of a silhouette of Maui.

Potential Impacts and Mitigation Measures

The proposed industrial park is located off the main highway, where it will not detract from either the scenic views of the coast, the Waianae mountain range, or the ambiance of small commercial villages in nearby Nānākuli and Mā‘ili.

Development of the light industrial park will alter the physical appearance of the site. The existing landscape of various grasses and isolated *kiawe* trees will be replaced by buildings and roads. Figure 21 provides simulations that indicate how the light industrial park might appear when fully developed. With an I-1 zoning designation, the maximum building height would be 40 feet.

The view at street level will be buffered by trees and fencing along the entire Lualualei Naval Road frontage. Aesthetic treatment at the front gate, including signage and accent landscaping will provide an attractive entry to the project. Within the industrial park, sidewalks, street trees, and street lights will provide a uniform appearance to the overall project. Covenants, Conditions, and Restrictions (CC&Rs) will be developed and implemented for the purpose of regulating standards of appearance and orderliness on individual lots for the benefit of all owners and the community in general.

Visual Simulation - Industrial Park

Visual Simulation - Front Gate

Figure 21
Visual Simulations
March 2010

5.13 Social and Economic Characteristics

Existing Conditions

Demographics

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 22). 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. For purposes of the EIS analysis, the Wai‘anae Coast is 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-Mākaha
- CT 96.01 Wai‘anae Kai
- CT 98.01 Mākaha
- CT 98.02 Mākaha Valley-Mākua

Table 14
Resident Population by Census Tract, Subareas, Region, County, and State
1990 and 2000

Geographic Area	1990	2000	Net Change	Percent Change
Census Tracts				
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%
Subareas				
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%
% of O‘ahu	*4%*	*5%*	*12%*	
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

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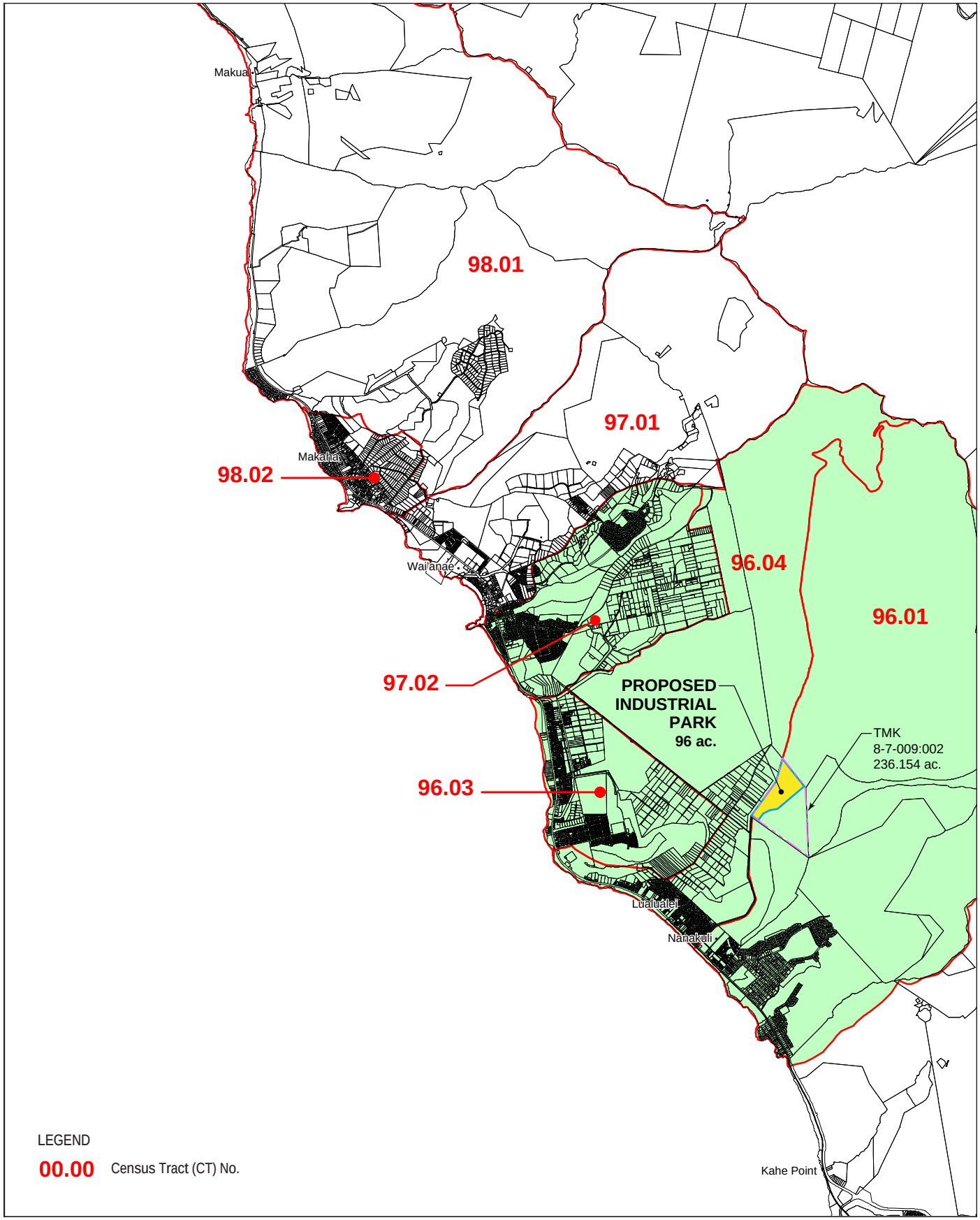

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Figure 22
2000 Census Tracts
March 2010

In 2000, there were 6,854 residents in CT 96.01 (Nānākuli-Lualualei). The larger community of Nānākuli-Lualualei-Māʻili had a residential population of 28,549. Together with the Waiʻanae-Mākaha community, the Waiʻanae Coast had a population of 42,258. Relative to the island as a whole, approximately 5% of Oʻahu's population lived on the Waiʻanae Coast.

Although the Waiʻanae Coast has a relatively small share of the islandwide population, population *growth* was relatively high through the 1990s. The Waiʻanae Coast experienced a net increase of 4,847 people or a growth rate of 13.0%. In comparison, the island of Oʻahu had a growth rate of only 4.8%. All of the net increase in population along the Waiʻanae Coast occurred in the Nānākuli-Lualualei-Māʻili area. The upper portion of the Waiʻanae Coast, Waiʻanae-Mākaha, experienced a small net decrease in population between 1990 and 2000.

Employment and Income

The Waiʻanae Coast accounts for almost 5.0 percent of total population on Oʻahu, 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 Oʻahu*. The *Annual Report for Fiscal Year 2006* indicates that population in the Waiʻanae 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 15 shows the occupational profile of the Waiʻanae Coast labor market. Compared to the island as a whole, Waiʻanae residents are less likely to hold jobs in management positions. On the other hand, they are concentrated in blue-collar occupations, including construction, extraction, and maintenance, as well as production, transportation, and material moving.

Table 15
Occupational Profile for Waiʻanae Coast and Oʻahu, 2000

Occupational Category	Waiʻanae Coast		Oʻahu	
	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

Potential Impacts and Mitigation Measures

Demographics. ~~The proposed development is not expected to affect the number of residents or the demographic characteristics of people who live in the area.~~ When companies move into the new industrial park, there is a possibility that workers who do not live in the region currently will relocate to reside closer to their workplace. However, the influx of new residents is not expected to be significant nor expected to create adverse impacts on the local housing market.

Employment and Income. The proposed development is expected to have a beneficial impact on the region as a job-producing and economy sustaining land use. Historically, the Wai‘anae Coast has experienced disproportionately high rates of unemployment and underemployment. 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. The employment forecast is based on an analysis by Hastings, Conboy, Braig & Associates, Ltd dated March 2008 (see Appendix B).

Short-term Employment. During the 15-month period for construction of project infrastructure, the on-site job requirement is estimated to range from 80 to 100 workers. The daily on-site job count will probably vary depending on factors such as phasing and scheduling of construction work and availability of work crews. In addition to on-site jobs, there is a reasonable expectation of related off-site job creation. Off-site jobs potentially include construction material suppliers and transportation services. The potential off-site job requirement is estimated at 20 percent of the on-site job requirement or between 15 to 20 workers. Construction of buildings and improvements on the 41 condominium units is estimated to have a similar impact.

Long-term Employment. The long-term employment impact ranges from 840 to 1,260 jobs. This number includes direct, indirect, and induced job creation effects. Direct job creation includes employment generated by businesses operating or based at the proposed light industrial park. Indirect job creation refers to a secondary level of employment generation because of goods and services purchased by businesses operating at the light industrial park. Induced job creation is a tertiary level of employment generation because of goods and services purchased from the incomes of people with jobs directly or indirectly related to industrial park businesses. In this way, employment impacts have a ripple effect throughout the larger economy. The number of direct jobs created by the proposed development is forecast at 560 to 840 full-time jobs. The direct job forecast is based on the estimated amount of developed industrial land multiplied by a factor of 8 to 12 employees per acre.

The creation of indirect and induced jobs was forecast using employment multipliers in the *2002 State Input-Output Study* published by the State Department of Business and Economic Development and Tourism, June 2006. Using a comparatively low employment multiplier factor of 1.5, the total long-term employment forecast—combining direct, indirect, and induced employment—is estimated at 840 to 1,260 jobs.

Fiscal Impacts. An analysis of fiscal impacts was conducted by Hastings Conboy Braig & Associates, February 2010 (see Appendix J). Table 16 summarizes costs and revenues to both State and City and County governments. The short to mid range revenues will be generated during the period of development to full build out, while the long range revenues will be generated during the period of long-term operations. In either time frame, revenues derived from various taxes and fees are expected to exceed public costs.

Table 16
Fiscal Impacts

	Short to Mid Range (1 to 10 Years) Cumulative Amount		Long Range (Beyond 10 Years) Annual Amount	
	Revenues	Costs	Revenues	Costs
State Government	$1,565,000	None	$1,820,000	$1,024,000
City and County Government	$305,000	None	$1,240,000	$320,000

Mitigation. No mitigation is necessary.

5.14 Land Use

Existing Conditions

The project site is vacant and covered mostly with grasses, *koa haole* bushes, and isolated *kiawe* trees. ~~Level portions of the site were used for sugar cane production, but production ceased in the early 1900s. A truck farm operated on 15 acres for a brief period in the 1980s, closing voluntarily in 1988.~~ Tadashi Araki and his brother farmed approximately 17 acres on the project site for approximately 25 years, ending in the early 1980s. Subsequently, the Higa family operated a truck farm on 15 acres for several years, closing voluntarily in 1988. Since then, the property has remained largely vacant and unused.

There is limited use of the property at the present time. Grasses are mowed periodically for fire control purpose and used for silage. The entire site is subject to an existing Unilateral Agreement (UA) related to the development of a golf course. In compliance with a UA condition to provide a 30-foot wide landscaped buffer on the east side of Lualualei Naval Access Road, trees were planted in a linear strip fronting the roadway in the summer of 2007.

Surrounding Land 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 JBPHH Lualualei Annex which connects over the ridge to Schofield Barracks in central Oʻahu.

The western zone is dominated by numerous lots that are arrayed along the *mauka-makai* oriented Hakimo Road. Lualualei Naval Access Road is the *mauka-makai* transportation spine 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 Pineridge Farms. The project site lies *mauka* of Pineridge Farms, and abuts the Naval installation. The foothills of Puʻu Heleakala Ridge form the site's eastern and southern boundaries.

Regional Industrial Land Use

According to 2007 data compiled by commercial real estate brokers Colliers Monroe Friedlander, the total supply of existing industrial space on the island of Oʻahu was estimated to be approximately 36.4 million square feet of floor area. The overall vacancy rate within Oʻahu's industrial marketplace was estimated at 3%. Existing industrial development on Oʻahu is overwhelmingly concentrated within three designated Development Plan Areas, namely, the Primary Urban Center, ʻEwa, and Central Oʻahu. Based on the Colliers data, the combined inventory of industrial space within the remaining Development Plan Areas totaled less than 1.0 million square feet, or 2.7% of the islandwide total.

Figure 23 shows the existing distribution of industrially zoned land on the Waiʻanae Coast. The industrial acreages are mainly occupied by public and quasi-public entities, such as the HECO power generation plant at Kahe, Waiʻanae Wastewater Treatment Plant, and Waiʻanae Transit Center. The only privately-owned sites are 25 acres in the Lualualei Valley occupied by West Oʻahu Aggregates and Pineridge Farms, and 4.76 acres in Waiʻanae. Small businesses in the Waiʻanae Coast looking for industrial space to lease or own have virtually no options but to locate outside their community.

Potential Impacts and Mitigation Measures

Tropic Land intends to 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 Waiʻanae 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.

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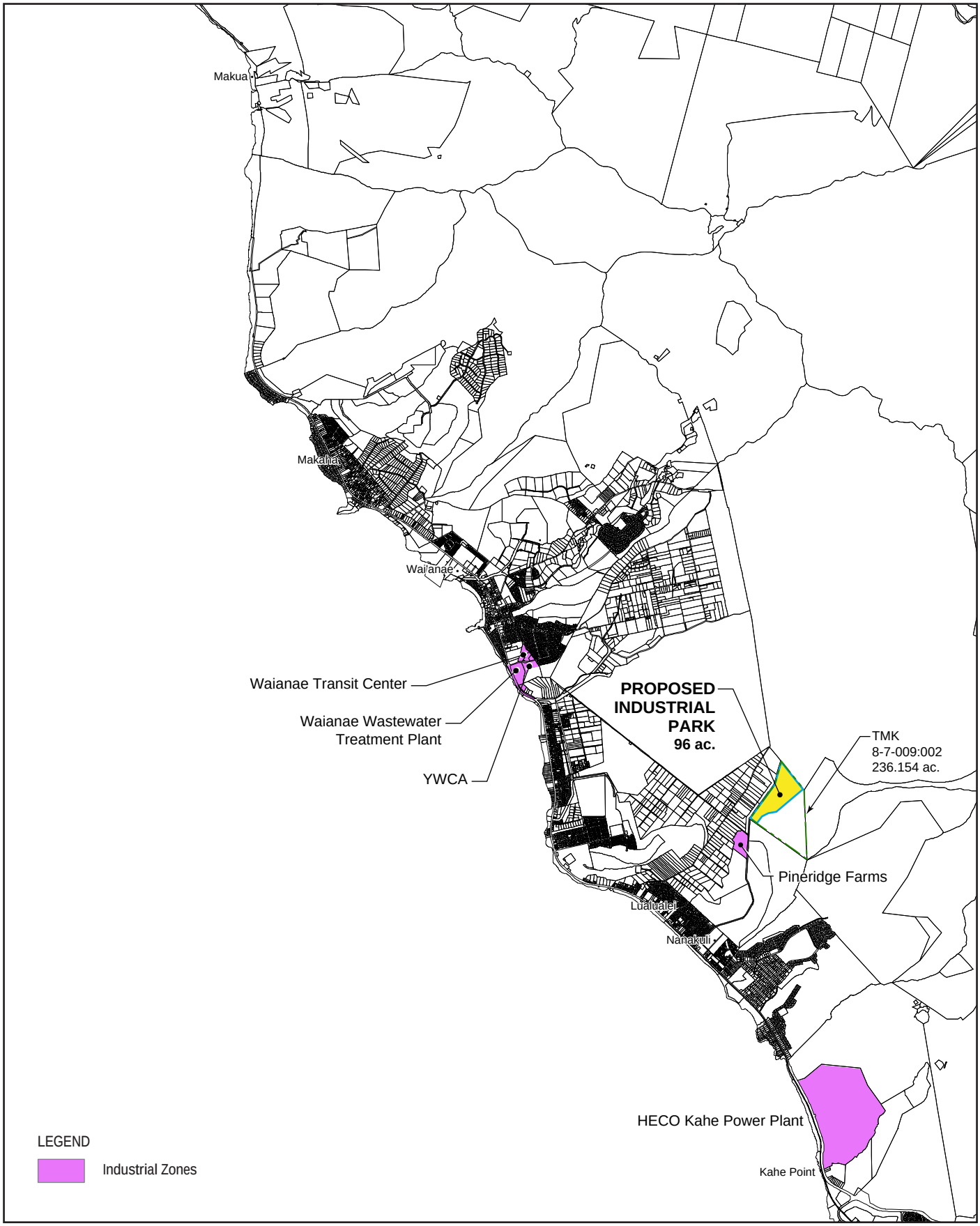

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Figure 23
Existing Industrial Zones, Waianae Coast
March 2010

5.15 Infrastructure

5.15.1 Water

Existing Conditions

The Board of Water Supply (BWS) Pu‘u-o-Hulu system services properties along Hakimo Road (Figure 24). The water storage facility located closest to the project site is Pu‘u-o-Hulu Reservoir, with a 1.5 million gallon (MG) capacity and spillway elevation at 241.75 feet. The reservoir provides water services through a 20-inch transmission line and an 8-inch distribution main along Hakimo Road. Currently the Lualaulei Booster Station has limited capacity of 25,000 gallons per day (GPD). The existing water system provides a flow of approximately 2,200 gallons per minute (GPM) to a fire hydrant at the intersection of Pa‘akea Road and Hakimo Road.

Project Water Demand

Based on development information shown in Table 17, the average daily demand for the development is estimated to be 22,550 GPD. The maximum daily demand is estimated to be 45,100 GPD with a Peak Hour Demand of 67,650 GPD.

Since the proposed light industrial park will be developed as a condominium, the Covenants, Conditions, and Restrictions (CC&Rs) will define the types of business permitted and impose any restrictions on quantity of water used. The Association of Owners will implement and enforce the CC&Rs.

The projected water demand for fire protection is 4,000 GPM over a three-hour duration for the industrial park with a fire hydrant to be located within 125 linear feet of each lot. This demand is based on the BWS Standards, Table 100-19, Fire Flow Requirement.

Table 17
Estimated Drinking Water Use Demand

Land Use	No. of Lots	Average De Facto Population*	GPD/Capita	Other Usage (GPD/Lot)	Average Daily Demand (GPD)
Industrial	41	10	25	300	22,550

* De facto population is based on a percentage of employment to estimate employees on site throughout the work day.

Source: Hida, Okamoto & Associates, Inc. *Preliminary Engineering Report*, January 2010

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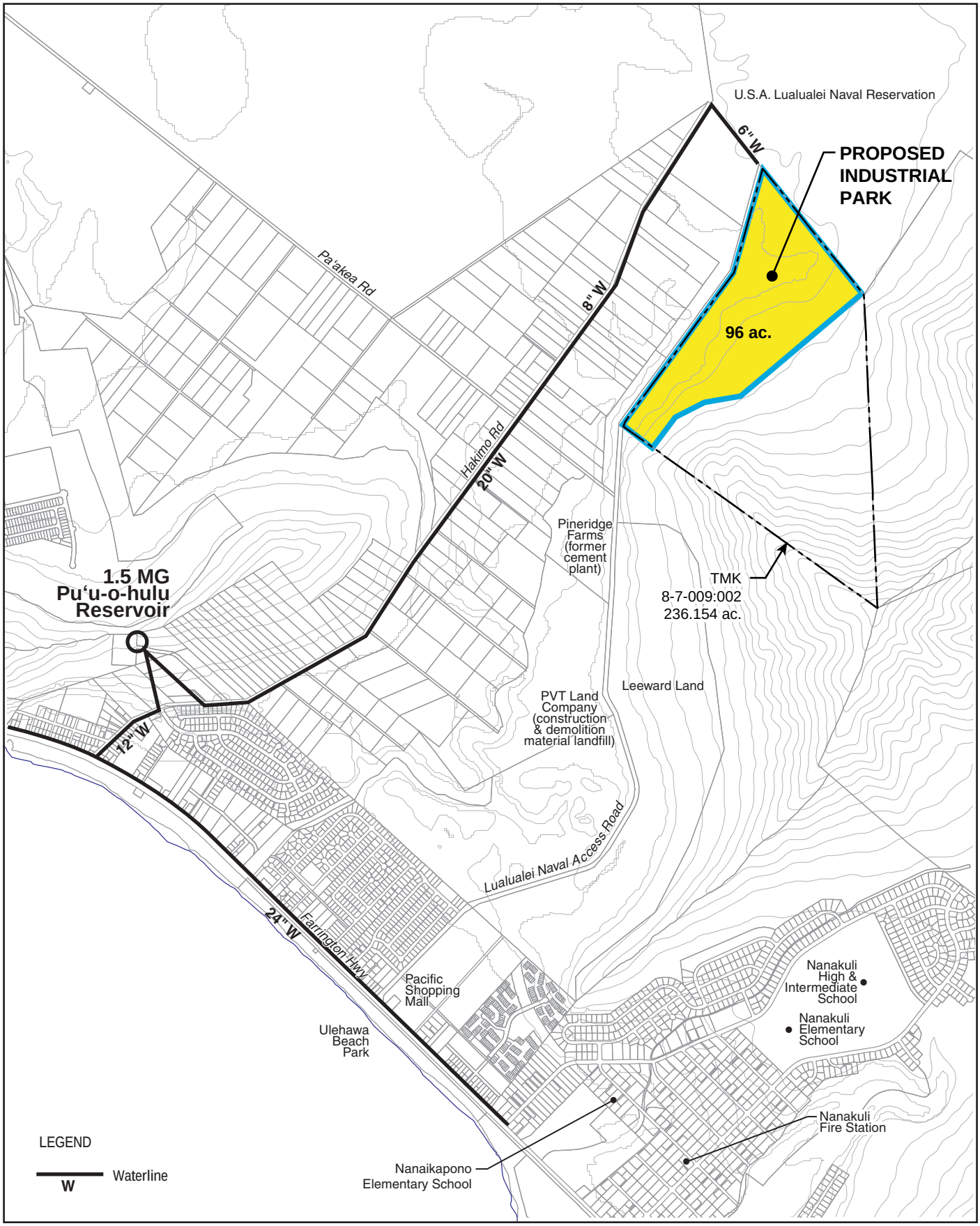

Figure 24
Existing Public Infrastructure
March 2010

Proposed Water Supply System

The proposed drinking water system will be connected to the existing 20-inch BWS water main at the intersection of Pa‘akea Road and Hakimo Road. A new 16-inch transmission line will be located along Pa‘akea Road and Lualualei Naval Access Road, entering into the project site. An easement from the Navy will be needed for a portion of the water line to be constructed under Pa‘akea Road and Lualualei Naval Access Road.

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

Impacts and Mitigation Measures

The proposed Nānākuli Community Baseyard will impact the Wai‘anae regional water system by increasing the demand for drinking water. The industrial park’s water system will upgrade fire protection resources in the vicinity.

To reduce the demand for drinking water, non-drinking water—treated wastewater effluent—will be used for irrigation. Another water-saving measure is the requirement that industrial park businesses that wash fleet vehicles on-site install systems that recycle wash water. This requirement would also be administered through the CC&Rs.

5.15.2 Wastewater Facilities

Existing Conditions

Presently, the property 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 Street and Hakimo Road are mainly serviced by cesspools. Wastewater disposal by cesspools is a major issue within the Wai‘anae planning area. The City has no plans to serve the Agricultural District surrounding the project area with public sewers.

The municipal sewer main nearest to the project site is an 8-inch gravity sewer at Mohihi Street, approximately two miles south of the project site along Lualualei Naval Access Road.

Project Wastewater Facilities Demand

Wastewater will be generated from the various facilities within the proposed Nānākuli Community Baseyard at an estimated average rate of 22,550 GPD or 0.23 MGD and will be typical of domestic wastewater in composition. Projected wastewater flows are based on a de facto population of 410 with 25 GPD/capita and 300 GPD/lot. Since the project will be

developed as a condominium, CC&Rs will regulate permitted types of businesses, as well as the composition and quantity of wastewater discharges from each lot. The Association of Owners will implement and enforce the CC&Rs.

Proposed Wastewater System

The major components of the proposed wastewater system are: (1) the gravity wastewater collection system, (2) the wastewater treatment unit, and (3) the wastewater effluent disposal system. The proposed wastewater infrastructure will serve only the Nānākuli Community Baseyard project.

Collection System. The proposed on-site wastewater collection system is illustrated in Figure 5 (Chapter 3). Gravity sewers will be located within sewer easements. Preliminary pipe line sizes range from 8 to 10 inches in diameter. Design and construction of the system will be in accordance with standards established by the City and County and State Department of Health. The on-site wastewater system will be privately operated and maintained.

Wastewater Treatment Unit. The proposed wastewater treatment unit will be sited in a relatively central location and at a lower elevation fronting Lualualei Naval Access Road, as shown in Figure 5 (Chapter 3). The unit will use a cyclic biological treatment (CBT) technology consisting of a single basin reactor with continuous activated sludge system. The self-contained treatment unit processes all steps of flow equalization, biological oxidation, nitrification, de-nitrification, and solids-liquids separation in the same basin. A microprocessor automatically coordinates all the equipment and phases of each cycle.

In addition to the CBT unit, filtration and chlorination units, pumps, piping, and appurtenances will be required—all housed within a building. A total fenced area of approximately 10,000 square feet is expected to be sufficient for the entire wastewater treatment facility.

Effluent Disposal. The treated wastewater effluent will be chlorinated, disinfected, and pumped to a non-drinking water irrigation system. In the early stages of development, when wastewater levels are relatively low, effluent may be diluted with drinking water for irrigation purpose. Ultimately, 100% of the estimated irrigation water requirement can be supplied by the treated effluent. Sludge will be removed and disposed of in accordance with applicable State laws.

Impacts and Mitigation Measures

With proper operation, the wastewater system will provide for safe and reliable treatment and disposal of project-generated wastewater. Objectionable odors will not be generated by the wastewater treatment facility. Pumps and blowers normally associated with wastewater processing will be enclosed within a control building to reduce the impact of operating noises.

Placement of the treatment unit below ground level and landscaping around the perimeter fence will reduce the visual impact on motorists passing on Lualualei Naval Access Road.

5.15.3 Non-Drinking Water

Existing Conditions

The project area is located entirely within the No Pass zone, which means that untreated effluent cannot be injected underground. The project proposes to use treated effluent for surface discharge which is a permitted method of disposal. The State of Hawai‘i, Department of Health, Wastewater Branch regulates the application of recycled water under Hawai‘i Administrative Rules Section 11-62-27. According to the Guidelines for Treatment and Use of Recycled Water, allowable R-1 irrigation uses include golf courses, parks, playgrounds, schoolyards, athletic fields, residential property managed by an irrigation supervisor, and roadsides and medians. The project site currently has no R-1 distribution system.

Proposed Non-Drinking Water System

In the long-term, treated effluent from the wastewater treatment unit is expected to supply the entire estimated demand for irrigation water on the project site. The non-drinking water system will consist of a pump system and non-drinking water distribution main to dispense non-drinking water for irrigation. Pipes and pumps will be sized to accommodate the maximum daily irrigation flow with a residual pressure of 20 pounds per square inch (PSI) at the critical location.

Project Demand

The potential non-drinking water uses for this project include irrigation of the buffer area, commercial landscaping, and roadway medians. The non-drinking water demand is estimated to be 0.023 MGD (Table 18). To accommodate the irrigation flow requirement for one day, the minimum irrigation water storage tank will be 0.03 MG.

Table 18
Estimated Non-Drinking Water Use Demand

Land Use	Acre	GPD/Acre	Daily Demand (GPD)
Landscaped Setback Area (Front, Sides)	3.5	1,440	5,040
Roadway Median, Commercial Landscaped Area	5.0	1,440	7,200
Rockfall Hazard Mitigation Area	7.3	1,440	10,512
Total			22,750
Rounded			0.023 MGD

Source: Hida, Okamoto & Associates, Inc. *Preliminary Engineering Report*, January 2010

Impacts and Mitigation Measures

The proposed non-drinking water system will have beneficial impacts by reducing the demand for drinking water and providing a safe and efficient means of disposing project-generated effluent.

A water reuse plan will be developed for effluent water from the wastewater treatment plant. The plan will include additional information about irrigation practices, management, public education, and other required information per the DOH Recycled Water Guidelines.

5.15.4 Solid Waste Disposal Facilities

Existing Conditions

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 Hawai‘i for management and operation. Opened in 1989, the landfill is located in the Kahe Valley. This facility is permitted to operate until July 31, 2012. 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.

Because the project site is vacant and unused land, it is not serviced by the City refuse collection program or any comparable private refuse collection service.

<u>Projected Solid Waste Generation and Characteristics</u>

The proposed light industrial park will generate solid waste during construction and after development. Construction wastes primarily will consist of vegetation and debris when clearing the site prior to grading. Most of these wastes will be combustible.

When the project is fully built out, solid waste generation is expected to be approximately 1 ton per day based on average generation of 5.0 pounds per capita per day and a de facto population of 410. The composition of solid waste is expected to be typical for a municipal source.

Certain industrial uses may have the potential to generate hazardous or regulated waste. Quantities have not been estimated because the precise nature of future occupants is unknown. However, the intent of the light industrial park is to limit occupants to those who would generate, use, and handle only incidental volumes of hazardous and regulated materials.

Impacts and Mitigation Measures

Refuse generated by the industrial park will be collected by a private refuse collection company for disposal at the H-POWER Plant or Waimanalo Gulch landfill. To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. As appropriate, the plan will include a collection system for plastics, glass, paper and cardboard, cans, recyclable construction material, and green waste. Source separated material will be diverted to recovery facilities.

Where possible and appropriate, the project will specify or use products with recycled content, such as pavement material, concrete aggregate fill, and steel. In other cases, products produced locally will be used where possible and appropriate, including soil amendment and hydro-mulch. Individual unit owners will also be encouraged to develop and implement their own recycling plans.

All unit owners will be required to comply with State and federal regulations for the handling, storage, treatment, transport, and disposal of hazardous wastes. The State Department of Health oversees the reporting of inadvertent releases or spills. Once specific businesses are established at the site, facility operators will be encouraged to contact the State of Hawai‘i Department of Health Compliance Assistance Office (CAO) to ensure that the proper State and federal environmental regulations are followed.

5.15.5 Electricity and Telecommunications Services

Existing Conditions

There is an existing wood joint pole line along the Honolulu side of the Lualualei Naval Access Road right-of-way that abuts the project site. All of the poles contain Hawaiian Electric Co. (HECO) 3-phase, 11.5 kV, Hawaiian Telcom, and Oceanic Time Warner Cable lines. Power to this primary line is supplied by the ~~Mikiloa~~ Mikilua Substation Feeder No. 3 on Pa‘akea Road which has available capacity to serve the proposed development.

Modifications After Development

It is anticipated that HECO, Hawaiian Telcom and Oceanic will provide the necessary electrical, telephone, cable TV, and high-speed Internet services to the project site. The total diversified electrical demand for the entire development is estimated to be 1.05 MVA. Power is planned to be supplied to the site via the existing ~~Mikiloa~~ Mikilua Substation. The project site will not require its own substation.

Impacts and Mitigation Measures

The proposed Nānākuli Community Baseyard will place additional demands on the electrical and telecommunication utilities. Tropic Land will work with each utility for timely design and construction of utility infrastructure and delivery of required services. Utility lines within the project area will be placed underground to mitigate visual impacts.

Energy efficiency design guidelines will be incorporated into the project's Covenants, Conditions, and Restrictions (CC&Rs) to promote energy conservation. Among the guidelines that will be considered for inclusion in the CC&Rs are:

- Use of heat pumps, solar heating systems, and photovoltaic systems.
- Use of high-efficiency appliances and air conditioners.
- Use of timer or motion-sensing light and air condition controls.
- Promotion of energy saving opportunities through green building design, including building orientation and insulation.
- Use of landscaping to minimize heat islands, with preference for native, drought-tolerant plant species.

5.16 Public Facilities and Services

5.16.1 Police and Fire Protection

Existing Conditions

Police: The amendment area falls within the service area of District 8 which stretches from ʻEwa Beach to Kaʻena Point. The District 8 headquarters are located in Kapolei. There is a substation in Waiʻanae which serves as a base for personnel patrolling the Waiʻanae Coast.

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, as well as emergency medical services (EMS) unit. Back-up fire and EMS services are provided from the Waiʻanae Fire Station, approximately 8 miles away.

Impacts and Mitigation Measures

By letter dated June 2, 20009, the Honolulu Police Department indicated that the project will have no significant impact on its facilities or operations. As security measures, the light industrial park will be fenced along the Lualualei Naval Road frontage and side boundaries. The main entry is via a front gate manned by a security guard or electronic security system after normal business hours.

New water lines, fire hydrants, and emergency access will be constructed by Tropic Land as prescribed by the Honolulu Fire Department and Board of Water Supply. The 100-foot buffer along the *mauka* boundary of the proposed development is intended to serve as a fire break. These improvements will accommodate the fire protection needs of the proposed industrial park. No short- or long-term adverse impacts to fire protection capability are anticipated.

5.16.2 Health Care Facilities

Existing Conditions

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 round the clock emergency health services are provided by Hawai‘i Medical Center West, located in ‘Ewa Beach, with 102 beds for acute and critical care. Ambulance services to the site would come from the Wai‘anae Fire Station where ambulance services are available round the clock.

Impacts and Mitigation Measures

Existing health care facilities should be adequate to accommodate the needs of the proposed development. These facilities, including the Wai‘anae Coast Comprehensive Health Center and St. Francis-West Medical Center, have the general and emergency medical capabilities to treat injuries that might arise from light industrial uses. No short- or long-term adverse impacts are expected.

5.16.3 Schools

Existing Conditions

The campuses of Nānākuli Elementary School and Nānākuli Intermediate and High School are located in the valley to the east of the project site. The Lualualei and Nānākuli valleys are separated by a ridge of the Wai‘anae mountain range and connected by Farrington Highway

Impacts and Mitigation Measures

The proposed development is not expected to add additional students to the current public school enrollment.

5.16.4 Park and Recreational Facilities

Existing Conditions

There are no existing parks and recreational facilities in the immediate environs of the project site. According to the *Wai‘anae Sustainable Communities Plan* (2000), City parks in the vicinity are located on the coast, including Nānākuli Beach Park, Ulehawa Beach Park, and Lualualei Beach Park, encompassing an area of almost 137 acres.

Impacts and Mitigation Measures

There would be no short- or long-term impact on park or recreational resources.

5.16.5 Civil Defense Facilities

There is no civil defense facility on the project site. However, Tropic Land LLC has provided an access road through its property across the street—on the west side of Lualualei Naval Access Road—that is part of the City and County of Honolulu’s network “back roads” that, together, comprise an emergency access route for Wai‘anae Coast communities.

Impacts and Mitigation Measures

If required by the State Land Use Commission as a condition of reclassification Tropic Land LLC will fund on a fair share basis and construct adequate solar powered civil defense measures to serve the petition area as determined by the State of Hawai‘i Department of Defense and City and County of Honolulu Department of Emergency Management.

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6. RELATIONSHIP TO EXISTING LAND USE PLANS, POLICIES, AND CONTROLS

This chapter discusses the relationship of the project to the objectives and policies of the Hawai‘i State Plan and Functional Plans, the State Land Use Commission Rules, the Coastal Zone Management Program, the City and County of Honolulu General Plan, and the Wai‘anae Sustainable Communities Plan.

6.1. Hawai‘i State Plan

The Hawai‘i State Plan, Chapter 226 Hawai‘i Revised Statutes (HRS), established a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The purpose of the Hawai‘i State Plan is to "…serve as a guide for the future long-range development of the State; provide a basis for determining priorities and human resources, land, energy, water and other resources; improve coordination of federal, state and county plans, policies, programs, projects and regulatory activities; and to establish a system for plan formulation and program coordination to provide for an integration of all major state and county activities" (Chapter 226-1: Findings and Purpose, HRS).

The project's compatibility with applicable elements of the State Plan are described below.

Section 226-6, Objective and policies for the economy—in general.

Objectives: (a) Planning for the State's economy shall be directed toward achievement of the following objectives:
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai‘i's people.
(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.

Policies:
(7) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai‘i's small scale producers, manufacturers and distributors.
(1) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.

Discussion: The intent of the proposed light industrial park is to increase opportunities for new and small businesses along the Leeward Coast and West O‘ahu. The Leeward coast is an area with historically high unemployment rates, and is especially vulnerable to disruptions in overseas transportation because of its distance and geographic isolation from urban Honolulu. The project is intended to support small local businesses and enhance the economic self-sufficiency of these communities.

6.2 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.

There are twelve State Functional Plans that serve as the primary implementing vehicle for the goals, objectives and policies of the State Plan. The following discusses the State Functional Plans that are applicable to the project.

Employment Functional Plan

The State Employment Functional Plan, completed in 1989, identified five major objectives:

- Improve the qualification of entry-level workers and their transition to employment
- Develop and deliver education, training, and related services to ensure and maintain a quality and competitive workforce
- Improve labor exchange
- Improve the quality of life for workers and families
- Improve planning of economic development, employment, and training activities.

The following objectives and policies apply to the project:

Objective: (I.B) Develop and deliver education, training and related service to ensure and maintain a quality and competitive workforce.

Problem 1: There are insufficient opportunities for occupational skill training, upgrading skills, retraining, entrepreneurial and customized training.

Discussion: This section of the Employment Functional Plan identifies the need for entry-level training services, upgrading the skills of the existing work force, and supporting small businesses. Specifically the plan states, “Nurturing existing small businesses and new entrepreneurs will provide opportunities for new ownership which may help retain, expand and diversify managerial and technological expertise in Hawai‘i.” (State Employment Functional Plan, p. 19).

A major purpose of the proposed light industrial park is to encourage local entrepreneurship, and establish a setting where small, local businesses can develop, thrive, and reach their full potential. The proposed incubator facility can also develop into an employment and training center for the Leeward Coast, which historically has experienced disproportionate rates of unemployment.

State Agriculture Functional Plan

Objective: (H) Achievement of productive agricultural use of lands most suitable and needed for agriculture.
Policy: (H.2) Conserve and protect important agricultural lands in accordance with the Hawai‘i State Constitution.

Discussion: The proposed industrial park site is located within the State Agricultural District. The Applicant’s petition to the State Land Use Commission is requesting that 96 acres be reclassified from the Agriculture to the Urban District. Portions of the site are classified as “prime lands” under the Agricultural Lands of Importance to the State of Hawai‘i (ALISH) and an isolated section is rated “B” Under the Land Study Bureau (LSB) Detailed Land Classification System.

Notwithstanding their classification, these lands are not desirable agricultural lands. The project area’s clayey and rocky soils are poorly suited for diversified agriculture. The project site is situated between industrial uses and the military installation in a location that has not experienced economically viable agricultural activity for decades.

State Transportation Functional Plan

The 1991 State Transportation Functional Plan identified the four most critical issues of transportation: congestion, economic development, funding and education. Objectives, policies and implementing actions were identified for each issue. The following objectives and policies apply to the project:

Objective: (I.B) Reduction of travel demand through zoning and decentralization initiatives.
Policies: (I.B.1) Close the gap between where people live and work through decentralization, mixed zoning, and related initiatives.

Discussion: The proposed light industrial park will provide business and employment opportunities to residents of the Wai‘anae Coast, an area that presently lacks commercial and industrial centers. The proposed development will reduce the need for local residents to commute to jobs outside the community, reducing commuter traffic along the narrow and chronically congested Farrington Highway corridor.

Energy Functional Plan

The priority of the 1991 State Energy Functional Plan was to lessen the State's reliance on petroleum and other fossil fuels. The plan noted that the State depends on fossil fuels for about 90 percent of our total energy needs, and emphasized the need to develop alternate and renewable energy sources, energy conservation, and an integrated approach for more effective energy development and management.

Issue Area: Overdependence upon oil and other fossil fuels for energy needs.

Objective: (A) Moderate the growth in energy demand through conservation and energy efficiency.
Policy: (A.2.1) Stimulate and promote greater energy efficiency and conservation in the transportation sector.

Discussion: As discussed under the Transportation Functional Plan above, the proposed project will expand business and employment opportunities closer to where people live, reducing the need to commute to other areas of the island for work, or to buy appropriate goods and services.

6.3 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 25 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 (Table 19).

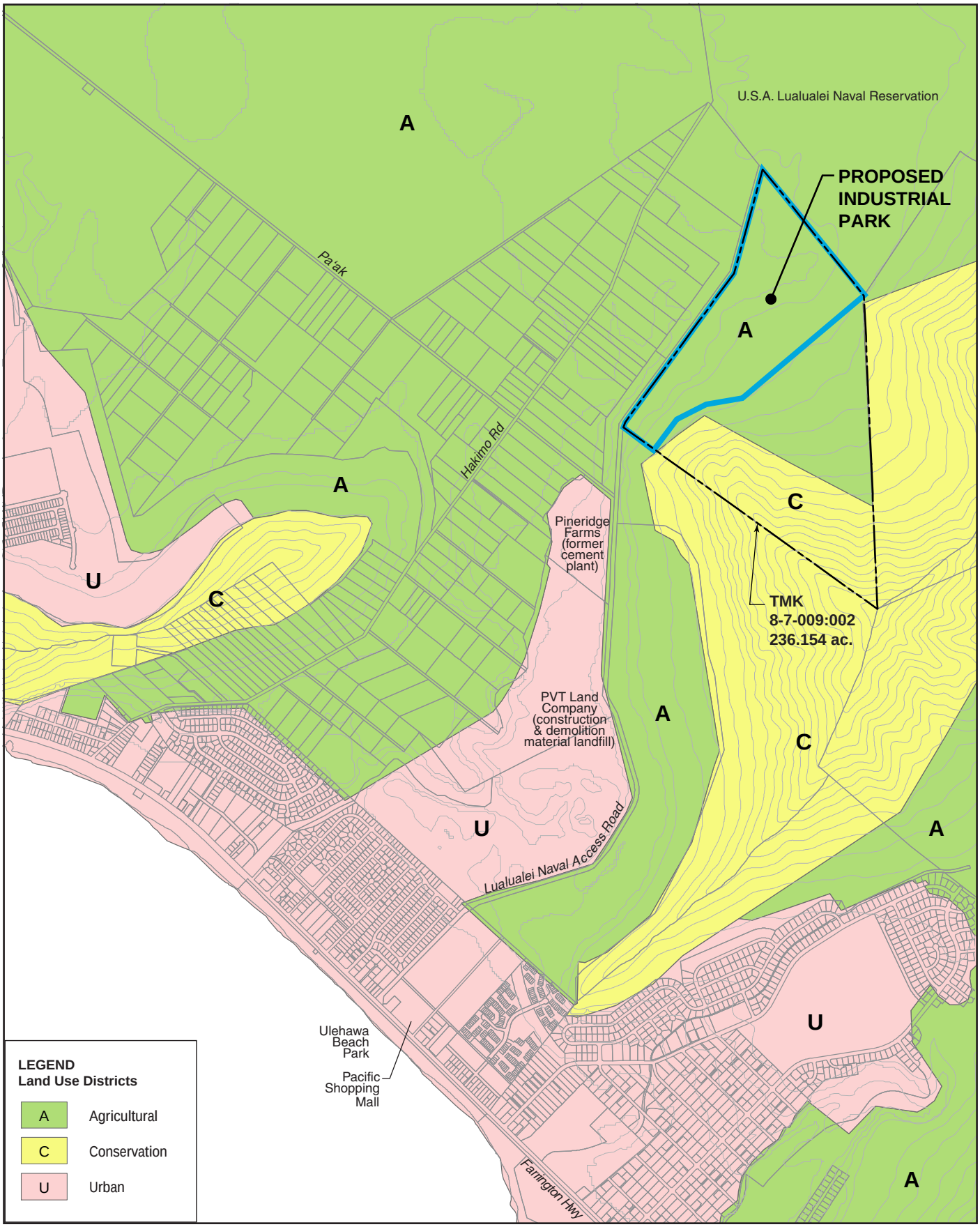

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Figure 25
State Land Use Map
March 2010

Table 19
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

The State Land Use Commission Rules require that an application for a boundary amendment show that it is "reasonable, not violative of Section 205-2, HRS, and consistent with the policies and criteria established pursuant to Sections 205-16, 205-17, and 205A-2, HRS." (Hawai‘i Land Use Commission Rules, Section 15-15-77). In reviewing petitions for reclassification of district boundaries, the Commission must specifically consider the following:

(1) The extent to which the proposed reclassification conforms to the applicable goals, objectives and policies of the Hawai‘i State Plan and relates to the applicable priority guidelines of the Hawai‘i State Plan and the adopted functional plans.

***Discussion*:** As discussed in Sections 5.1 and 5.2 above, the project conforms to the most applicable goals, objectives and policies and the guidelines of the Hawai‘i State Plan and State Functional Plans.

(2) The extent to which the proposed reclassification conforms to the applicable district standards.

Discussion: The applicable standards for the Urban District are found in HAR Section 15-15-18 of the Land Use Commission Rules. The eight (8) standards are discussed below:

(1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services and other related land uses
(2) It shall take into consideration the following specific factors:
(A) Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;
(B) Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, pubic utilities, and police and fire protection; and

(C) Sufficient reserve areas for foreseeable urban growth;

The project is consistent with the urban standards, including the proposed ~~"city like"~~ concentration of people, structures, streets, and urban level of services ~~and other related land uses and proximity~~ appropriate to employment centers. Services such as water, sanitation, and police and fire protection are or will be available to serve the project.

(3) It shall include lands with satisfactory topography, drainage, and reasonably free from the danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects;

The project area includes lands with satisfactory topography, drainage, which are reasonably free from danger of flood, tsunami, unstable soil condition, and other adverse environmental effects.

(4) Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans;

(5) It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the state and county general plans;

The project site is contiguous to ~~the Naval Munitions Center (NMC) Lualualei~~ JBPHH Lualualei Annex, a military ordnance storage and communications facility, which although not in the Urban District, ~~is an urban type activity~~ has elements of techno-industrial urban type activity. It is also very close to industrial lands owned by Pineridge Farms and the PVT Land Company, which are in the Urban District. The WSCP was in the process of being updated when this ~~DEIS~~ FEIS was prepared, and an application is pending to change the Rural Community Boundary to incorporate the proposed industrial park site. The Department of Planning and Permitting's Draft Wai'anae Sustainable Communities Plan Revision for 2009 identifies "industrial" as an alternative land use for this site. The project directly supports the Wai'anae Sustainable Communities Plan's stated Community Values to provide economic choices in Wai'anae, including jobs in Wai'anae which will allow families to spend less time commuting.

(6) It may be include lands which do not conform to the standards in paragraphs (1) to (5):

(A) When surrounded by or adjacent to existing urban development; and

(B) Only when those lands represent a minor portion of this district;

As indicated above, the project site is adjacent to the Naval Munitions Center (NMC) Lualualei, Pineridge Farms, and the PVT Land Company landfill, which can all be characterized as urban and industrial uses. Although the site and surrounding areas are within the Agricultural land use district, the University of Hawai'i Land Study Bureau

has rated 80% of the site as Class E, or "marginally" suitable for agricultural use. Much of the parcel is stony, and agricultural use would require soil amendment and modification. The remainder of the site is rated Class B, "prime" or "good" agricultural land if it is irrigated. This would require water sources that are not readily available to new agricultural operations on the Wai‘anae coast.

The site is only a minor portion of the Agricultural designated lands on O‘ahu. With the availability of more favorable options, including several thousand acres of Campbell land in Kunia, Dole land in Wahiawa and Waialua, and Galbraith Estate land in Wahiawa, there are more affordable options with better access to irrigation water resources than the subject property or other areas along the Leeward coast.

(7) It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services; and

As indicated above, the project site is adjacent to the Naval Munitions Center (NMC) Lualualei, Pineridge Farms, and the PVT Land Company landfill, which are considered urban and industrial uses. Petitioner proposes to construct utilities necessary to support the project.

(8) It may include lands with a general slope of twenty percent or more if the commission finds that those lands are desirable and suitable for urban purposes…

Not applicable. The project site is relatively flat, sloping at a 12% rate from Lualualei Access Road upward to the foothills of Pu‘u Heleakala ridge.

(3) Impact on the following areas of Statewide concern:

- **Preservation or maintenance of important natural systems and habitats;**
- **Maintenance of valued cultural, historical, or natural resources;**
- **Maintenance of other natural resources relevant to Hawai‘i's economy, including but not limited to agricultural resources;**
- **Commitment of state funds and resources;**
- **Provision of employment opportunities and economic development; and**
- **Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups.**

Discussion: There are no threatened or endangered species or significant historic or archaeological resources within the project area. The State Historic Preservation Division has concurred that the project will have "no effect" on historic sites. Although the site is on agricultural land, the UH Land Study Bureau has found that 14% of the 96-

acre project site is classified as containing Class B (prime or good) agricultural lands, while 86% of the site contains Class E lands, which are only marginally suitable for agricultural use according to the LSB soils rating system. It is believed that in the early 1900s, the site was used primarily for pasturage rather than agriculture. ~~Other than a small truck farm that ceased operation~~ Two truck farms (Araki and Higa) operated on a small 17-acre portion of the project site for 25-30 years, ending in 1988, but no other crop production has occurred on the site since that time. .

The project will not require a commitment of state funds or resources. The proposed industrial park will support local start up businesses, resulting in a positive impact on employment opportunities and economic development for the Wai‘anae Coast. The project will not directly affect housing opportunities. It will, however, provide needed jobs and economic opportunities for small businesses, enhancing the ability of local families to remain adequately housed.

(4) In establishing the boundaries of the districts in each county, the commission shall give consideration to the general plan of the county in which the land is located.

Discussion: The City and County of Honolulu General Plan is discussed in Section 5.6 below. The project is consistent with the General Plan objectives and policies in the areas of Economic Activity, Natural Environment, and Physical and Urban Design.

(5) The representations and commitments made by the petitioner in securing a boundary change, including a finding that the petitioner has the necessary economic ability to carry out the representations and commitments relating to the proposed use or development.

Discussion: The petitioner, Tropic Land LLC, has reported that it has the financial ability to implement the project.

(6) Lands in intensive agricultural use for two years prior to the date of filing of a petition or lands with a high capacity of intensive agricultural use shall not be taken out of the agricultural district unless the commission finds either that the action:
(A) will not substantially impair actual or potential agricultural production in the vicinity of the subject property or in the county or State; or
(B) is reasonably necessary for urban growth.

Discussion: Not applicable. As noted above, the property has not been used for agriculture for more than twenty years, since a succession of two small truck farms on the site ceased operation in 1988.

6.4 Coastal Zone Management Act (CZMA)

Objectives and policies of the Coastal Zone Management Program are described in Chapter 205A-2, Hawai‘i Revised Statutes, Part I. The site is within the State’s Coastal Zone Management Area, which includes all lands with the exception of forest reserves.

Special Management Area guidelines are found in Part II of the same chapter. The site lies approximately two miles from the coastline, and is outside the City and County of Honolulu’s Special Management Area (see Section 5.9). The project’s conformance with the policies and objectives of the Coastal Zone Management Program is discussed below:

Recreational Resources

CZM Objective: Provide coastal recreational opportunities accessible to the public.

Discussion*:* The project will not affect existing fishing, surfing or other nearby recreational opportunities accessible to the public. The site is located approximately two miles from the coastline.

Historic Resources

CZM Objective: Protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Discussion**:** The project will not have an adverse effect on natural or man-made historic or prehistoric resources in the CZM area. An archaeological survey of the project site was conducted in 1990 for the formerly proposed golf course development. A total of eight archaeological sites were identified in and around what is now the proposed industrial park. Only two of the sites were interpreted as attributable to traditional Hawaiian activity; a remnant of an agricultural wall and a probable hearth feature. The six other sites are attributable to historic land usage, primarily cattle ranching. The DLNR State Historic Preservation Division was consulted during the environmental review for the previously proposed golf course. At that time, the SHPD determined that the golf course project would have no adverse impact on significant historical resources. The currently proposed industrial park is within the boundaries of the proposed golf course, and is not expected to adversely affect historic resources.

Scenic and Open Space Resources

CZM Objective: Protect, preserve, and where desirable, restore and improve the quality of coastal scenic and open space resources.

Discussion: The project site is currently open space. The project area is not visible from any public highway or the coastal area, and is not located within any designated scenic corridor.

Coastal Ecosystems

CZM Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Discussion: The project will not adversely impact coastal ecosystems or water quality. The site is located two miles from the coastline. During construction, erosion control measures will be required to eliminate any potential for storm water runoff to reach near shore areas.

Economic Uses

CZM Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Discussion: The development of a light industrial park with business incubator space will be an asset to the rural economy of the Leeward Coast. The project location is appropriate, as it is tucked away on Lualualei Naval Access Road, away from the scenic coastline and near the JPBHH Lualualei Annex and other light industrial uses.

Coastal Hazards

CZM Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

Discussion: The project site is located outside the tsunami inundation zone, and is located within the area designated as Zone D, areas of undetermined flood hazard, on the Flood Insurance Rate Map (FIRM). The proposed industrial park will not will not affect the occurrence or likelihood of damage from various natural disasters on adjacent properties.

Managing Development

CZM Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

***Discussion*:** The roject has no impact on this CZM objective.

Public Participation

CZM Objective: Stimulate public awareness, education, and participation in coastal management.

***Discussion*:** The project has no impact on this CZM objective. However, the proposal for a light industrial park was developed through consultation with the Nānākuli/Mā‘ili and Wai‘anae Neighborhood Boards and various community groups, who were asked for recommendations on an appropriate use for the property. Several suggestions were made, but the community consensus was for development of a light industrial park.

Beach Protection

CZM Objective: Protect beaches for public use and recreation.

***Discussion*:** The project has no impact on the use or protection of public beaches.

6.5 Hawai‘i Enterprise Zone (EZ) Partnership Program

The Hawai‘i Enterprise Zone (EZ) Partnership Program was established by the State Legislature to help stimulate business activity and employment in areas where they are most needed or most appropriate. Each county can select up to six zones that satisfy statutory income or unemployment criteria, and each zone designation is valid for a period of 20 years. Qualified businesses that locate within a designated enterprise zone can receive tax and other incentives. Since 1994, 21 zones have been created statewide, including one on the Leeward Coast. On O‘ahu, 132 firms were enrolled in the EZ program in 2006, the last year for which data have been reported. On the Leeward Coast, however, there were zero participants.[1]

The economic development impact of the EZ program has been significant. In 2006 alone, participating firms produced a combined total of 830 new jobs. Since job creation occurred in areas targeted by unemployment or income criteria, the benefits of the EZ program are all the more noteworthy.

The enterprise zones on O‘ahu are typically oriented around new or established employment centers. For example, Zone 1 includes the former O‘ahu Sugar Mill site in Waipahu, Campbell Industrial Park, and all of Kapolei. Zone 2 includes the Mililani Tech Park and parts of Wahiawā. Zone 3 includes the former Waialua Sugar Mill site. Zone 4 is in urban Honolulu from the airport through Kalihi to the Kaka‘ako redevelopment area. Zone 5 is the Leeward Coast, but in contrast to the other zones, does not have a well-defined place to incubate and grow new businesses, provide training activities, and promote other types of economic development activities.

The western portion of the amendment area (23 acres) is already located within the existing Leeward Coast Enterprise Zone. The eastern portion of the amendment area, including the area proposed for the light industrial park, is in a census tract that is eligible for EZ designation. As the proposed industrial park site moves forward in the entitlement process, Tropic Land will seek to expand the EZ boundary to encompass the industrial park.

[1] State of Hawai‘i, Department of Business, Economic Development & Tourism. 2006. “Enterprise Zones Partnership, Report to the Governor for Calendar Years, 2003-2006.” See Appendix B: Firms Enrolled by County, Zone, and Type.

6.6 City and County of Honolulu 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.

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 petition area has clayey and rocky soils that are poorly suited for diversified agricultural. It is situated between industrial uses and a military installation in a location that has never experienced economically viable agricultural activity.

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 supported 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.

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 preliminary site plan (see Figure 3 in Chapter 3) shows a development pattern that is compatible with the topography of the site. The light industrial park is confined to areas with flatter 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 assessment.

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.

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, but demand is expected to be lower than the previous plan for a golf course and clubhouse. City water lines are provided to the property's boundaries. An independent wastewater system will be developed on site. Safety systems will be provided on site and complement ongoing security provided by the adjacent military installation and 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*:** As an employment center, the proposed industrial park is appropriate for this location for the following reasons: ~~The proposed industrial park~~ It 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 was designed and constructed for truck transport. 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 the location near the gateway to the Wai'anae district would minimize truck traffic farther up the coast.

6.7 Wai‘anae Sustainable Communities Plan

The Wai‘anae Sustainable Communities Plan (WSCP), is one of eight City and County of Honolulu Development Plans that were revised to reflect a 1992 City Charter amendment that called for conceptual, visionary plans to replace the parcel-specific, map oriented Development Plans adopted in the 1980s.

The WSCP was in the process of being updated when this ~~DEIS~~ FEIS was prepared. As part of the WSCP update, Tropic Land submitted an application to amend language in the plan and change the Rural Community Boundary to include the proposed industrial park site. A public review draft of the updated WSCP has been released, but not yet adopted by City Council.

The following sections, based on Tropic Land’s WSCP amendment application, describe the proposed project’s consistency with various chapters of the WSCP (2000). Figures 26 and 27, which describe alternative proposed uses for the amendment area, are from the Draft WSCP (2009) released for public review. The land use map in Figure 26 is essentially unchanged from the 2000 WSCP. Figure 27 shows the industrial park as an option.

Chapter 2, The Vision for Wai‘anae’s Future

Chapter 2 of the WSCP presents a community-based vision statement for the Wai‘anae District. The basis for this vision covers the areas of *Community Values, Rural Values and Qualities, the Community Participation Process, the Ahupua`a/Ecosystem Concept, and Environmental Criteria for Land Use Planning.*

Vision Statement

> *The vision for the future of Wai‘anae 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‘anae traditions of independence, country living, and aloha. (p. 2-1)*

***Discussion*:** The proposed amendment seeks to establish an employment center in the Wai‘anae 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‘anae 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‘anae 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.

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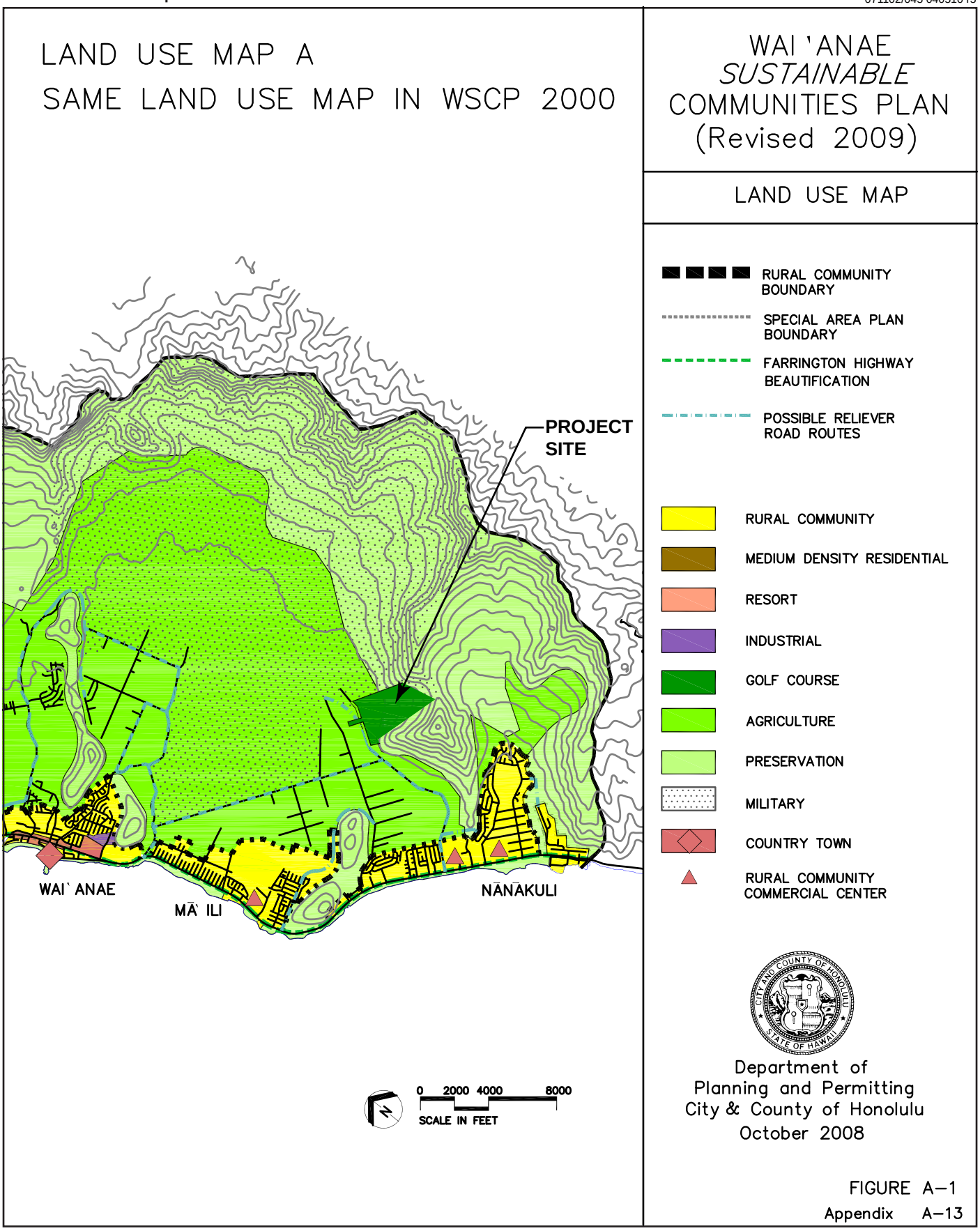

Figure 26
Waianae Sustainable Communities Plan Map (A)
March 2010

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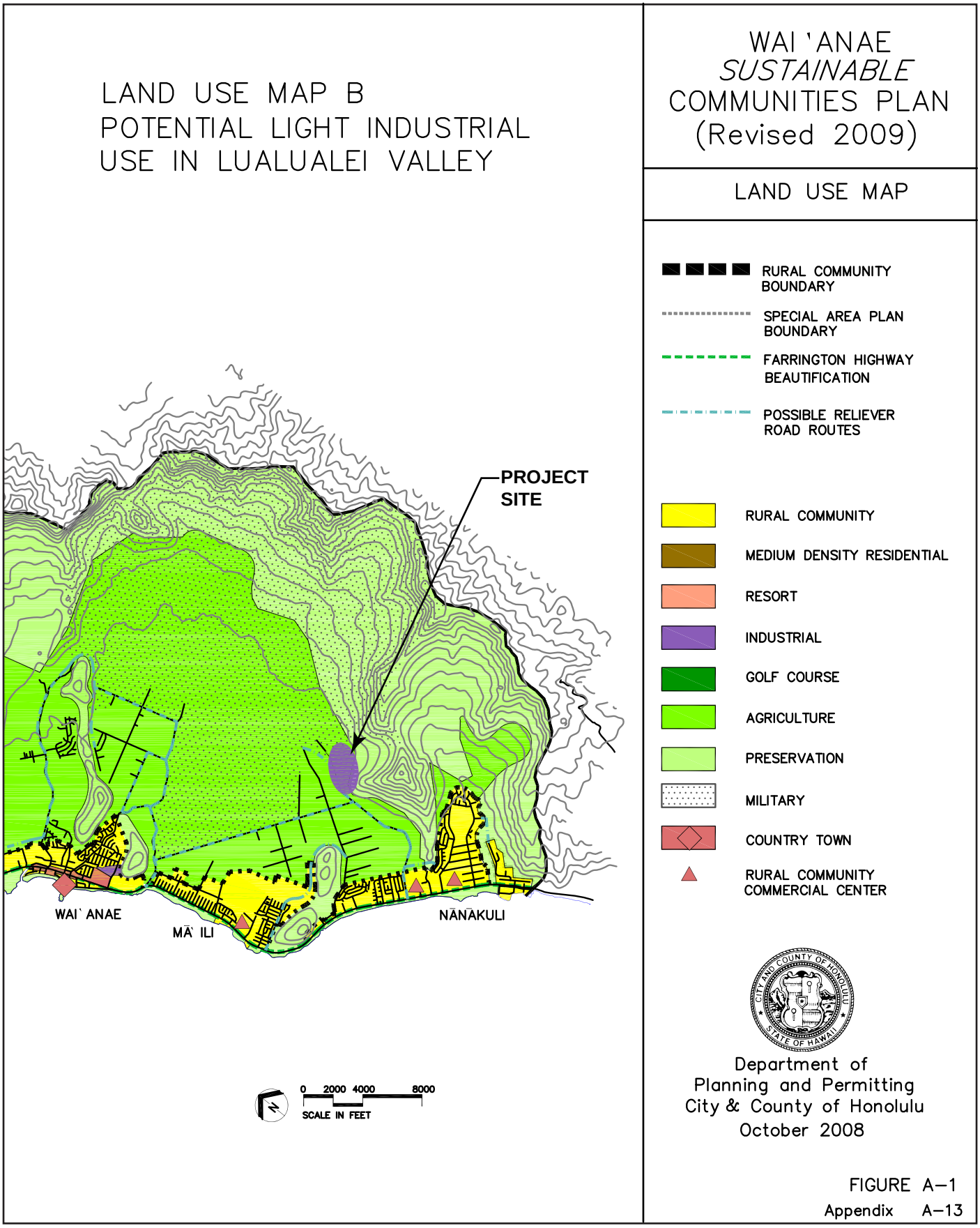

Figure 27
Waianae Sustainable Communities Plan Map (B)
March 2010

Community Values

The WSCP vision statement was developed through an understanding of important community values. Although the community is diverse, the WSCP states that these seven values were frequently referred to or expressly stated during preparation of the plan, and embody the spirit of the community.

- Ours is a living culture of the land and the sea.
- Relationships are fundamental to our values and identity
- We are a rural community.
- We are a community with small town values.
- **We value economic choices in Wai‘anae.**
- Our elderly have much to teach us.
- We value our children.

“We value economic choices in Wai‘anae.”
For Wai‘anae, economic choices within the region are vital to the community’s well-being. Having jobs in Wai‘anae 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. (WSCP, p. 2-3)

Discussion: The proposed light industrial park and baseyard is directly applicable to this stated WSCP value. The proposed action 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, and will ultimately provide greater economic choice to families living in the WSCP area.

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. (WSCP, p. 2-5)

***Discussion*:** Although the amendment area is undeveloped, it is not suitable for commercial agriculture. Previous attempts to farm the amendment area have been unsuccessful. 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 Wai‘anae 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 Hālawa, 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.

Consistency with Chapter 3, Land Use Policies and Guidelines

Chapter 3 of the WSCP presents policies and planning guidelines for the types of land uses that should be provided in the Wai‘anae district. This chapter identifies several types of land use "boundaries" that have been established by the WSCP to guide land use, future development, redevelopment or resource management. The boundaries include a "rural community," "agriculture," and "preservation" boundary, with the intent of confining urban development and preserving open space and other natural resources.

The following discusses the proposed amendment's consistency with various sections of Chapter 3 of the WSCP:

Section 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 presently 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 included within the developed areas. Tropic Land's proposed amendment to the Rural Community boundary would extend the boundary into Lualualei Valley to include both the proposed industrial park as well as other urban type land uses such as the PVT construction and demolition landfill and the Pineridge Farms recycling facility.

Section 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.* (WSCP, 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 SCP 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 SCP 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 is not appropriate.

The problem encountered is that the SCP requires non-agricultural development to occur within the rural community boundary. This stricture creates a situation in which industrial development is limited to inappropriate locations with inadequate separation from incompatible uses.

Section 3.9, Commercial and Industrial Uses

> ***Section 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 ʻEwa 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 Waiʻanae'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)

Section 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 Waiʻanae Small Boat Harbor may provide opportunities for ocean-related light industrial and research uses. (p. 3-40)

Section 3.9.2.4, No Heavy Industry
Heavy industrial uses should not be permitted in the Waiʻanae District. Such uses should be sited in the Campbell Industrial Park in ʻEwa. (p. 3-41)

Section 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 LLC has consulted informally with members of the Waiʻanae community and with the Waiʻanae Neighborhood Board. 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 Waiʻanae 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.

It is the landowner's intent to 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 Waiʻanae 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.

Section 3.11, Parks and Recreational Areas

> ***Section 3.9.3, 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.* (WSCP, p. 3-52)

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

6.8 Land Use Ordinance (Zoning)

Chapter 21, Revised Ordinances of Honolulu (ROH) is the Land Use Ordinance (LUO), the City and County of Honolulu's Zoning Code. Figure 28 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. This zoning designation was obtained in ~~1999~~ 1996 by the previous landowner, who proposed a golf course on the site and surrounding areas. At that time, portions of the subject parcel and two other parcels were rezoned from AG-1 Restricted Agricultural and AG-2 General Agricultural to General Preservation with a 25-foot height limit. A Unilateral Agreement and Declaration for Conditional Zoning was recorded as Document No. 2337653 on September 24, 1996.

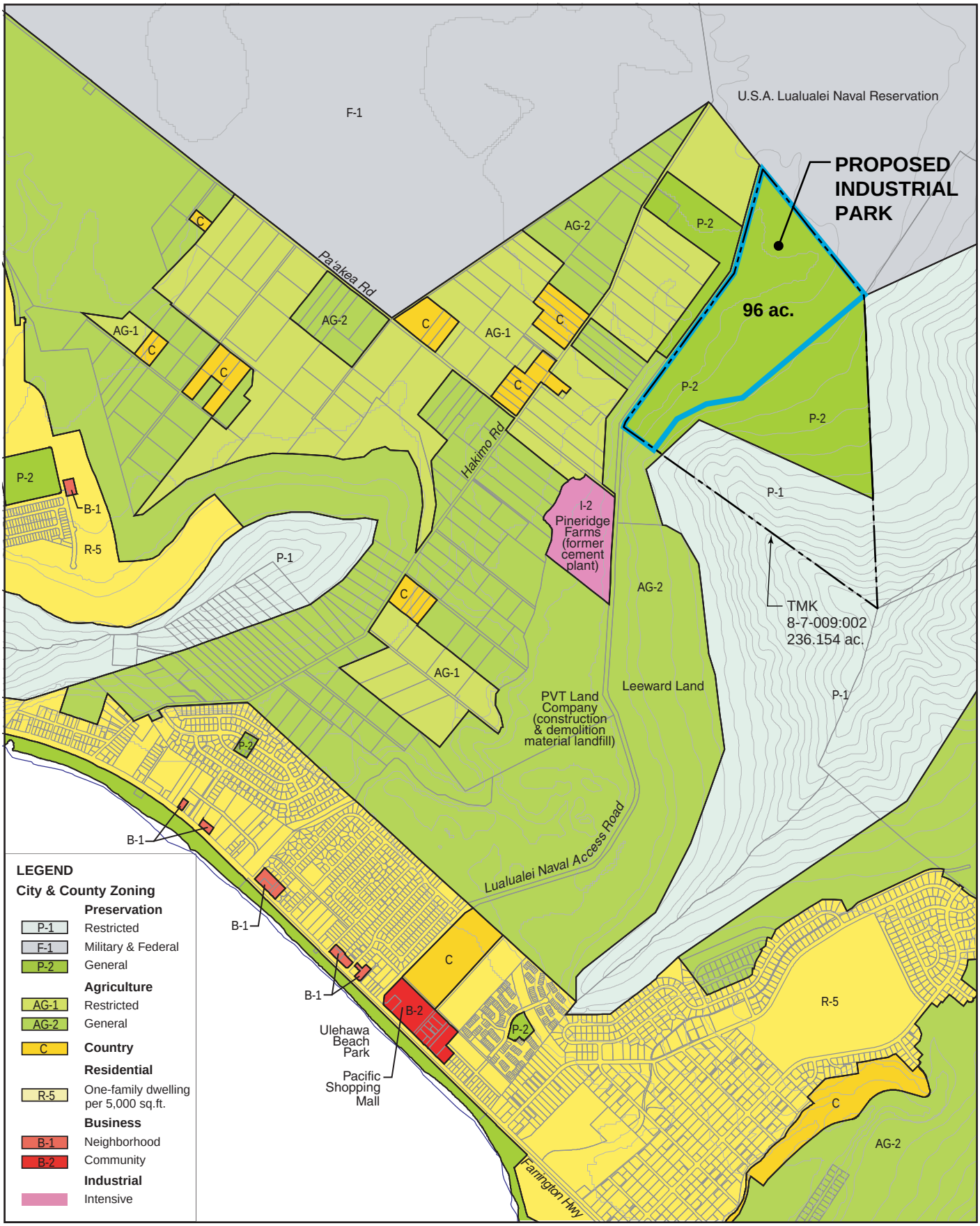

Figure 28
Zoning Map
March 2010

The proposed light industrial park requires rezoning of 96 acres of TMK 8-7-09:02 to I-1, Limited Industrial (Table 20).

Table 20
Current and Proposed Zoning
TMK: 8-7-09: 02

Zones	Current Acres	Proposed Acres
Preservation P-1	71.0	71.0
Preservation P-2	165.154 ~~236.154~~	69.154 ~~140.154~~
Industrial I-1	0	96.0
Total	236.154	236.154

According to ROH Chapter 21, Land Use Ordinance, the purpose and intent of the City's I-1 limited industrial district:

> *"is to provide areas for some of the industrial employment and service needs of rural and suburban communities. It is intended to accommodate light manufacturing, including handcrafted goods as well as "high technology industries" such as telecommunications, computer parts manufacturing, and research and development. Uses in this district are limited to those which have few environmental impacts and those which complement the development scale of communities they would serve." (LUO, ROH Sec. 21-3.130)*

The proposed light industrial park complements and is consistent with the purpose of the I-1 limited industrial district. The site is currently vacant and is located on Lualualei Naval Access Road, which has a distinctly industrial character. Surrounding land uses include a former construction landfill which is now a waste processing facility, and a Navy munitions storage area. Environmental impacts will be minimal, and impacts on circulation and traffic can be mitigated.

The light industrial park will create a new employment center in an area which has historically experienced high levels of unemployment, and where residents endure long daily commutes to workplaces outside the community. The Waiʻanae Sustainable Communities Plan expressly states that greater economic choices are needed. Specifically, the plan mentions the need for jobs in Waiʻanae and more convenience in acquiring necessary goods and services.

6.9 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 CZM goals and objectives were discussed in Section 5.1.4. The project area is located outside of the City and County designated SMA.

7. SUMMARY OF ENVIRONMENTAL ANALYSIS

7.1 Unavoidable Short-term Adverse Impacts

- Soils will be temporarily disturbed by grading and excavating during construction.
- Temporary increases in soil erosion will also result from construction operations and minor amounts of soil will be carried off-site in surface runoff water.
- Vegetation will be removed from 96 acres for industrial development.
- Wildlife utilizing the site and immediate adjacent areas may be displaced by construction activities; construction activities will discourage wildlife from feeding in or migrating through the site.
- Negligible releases of air contaminants will occur from construction equipment. Emissions of fugitive dust may occur during dry periods as a result of construction activities.

7. 2 Unavoidable Long-term Adverse Impacts

- Modification of current topography to accommodate portions of the project.
- Approximately 40 acres of farmable lands will be converted to urban use from their current non-use.
- Approximately 22,550 GPD of drinking water from the Board of Water Supply's Wai‘anae water system will be used.
- Vehicles using Farrington Highway and Lualualei Naval Access Road will have an effect on traffic flow.
- Increased truck traffic along Lualualei Naval Access Road will cause slight increases in noise levels as they approach and leave the industrial park.
- Air quality in the vicinity of area roadways will receive a minor addition of traffic-related emissions.
- The visual character at the base of the mountain range will be affected by the light industrial park.
- There will be an additional 1 ton/day of refuse generated by the project which must be accommodated by solid waste management facilities.

7.3 Proposed Mitigation Measures

Topography and Soils. All grading operations will be conducted in compliance with the dust and erosion control requirements of the County. Specific conditions may be attached to the grading permit when grading plans are reviewed by the Department of Planning and Permitting.

Roadways and Traffic. Tropic Land will discuss appropriate traffic mitigation measures with the State and City, and is willing to participate in a fair-share arrangement to construct off-site roadway improvements to the intersection of Farrington Highway and Lualualei Naval Access Road to accommodate the traffic needs of the built-out development—anticipated within 10 years of project implementation. Possible mitigation measures recommended in the TIAR include:

- Addition of a dedicated left-turn lane from Farrington Highway southbound onto Lualualei Naval Access Road
- Addition of a second left turn lane from Lualualei Naval Access Road onto Farrington Highway

Air Quality. Construction impacts on air quality will be mitigated by complying with State Department of Health dust control measures. Fugitive dust emissions can be controlled by watering active work areas, using wind screens, keeping adjacent paved roads clean, limiting the amount of area that can be disturbed at one time, mulching or stabilizing inactive areas, and covering stockpiled materials and open truckloads. Timely paving and landscaping of project areas early in the construction schedule will also reduce dust emissions.

Noise. Construction activities will meet State Department of Health standards for noise.

Rockfall. To mitigate the rockfall hazard from cliffs near the project area, a 100-foot wide buffer will be implemented along the entire *mauka* boundary. The buffer will be designed to prevent falling rocks from rolling into the developed area. The multi-purpose buffer will be incorporated into the system of drainage improvements and also serve as a fire break.

Drainage. Drainage improvements will be designed to alleviate potential flooding. These improvements include the *mauka* buffer, functioning as a drainage swale, and catch basins. Permeable surfaces will be integrated into project development to minimize runoff. To minimize adverse impacts on Ulehawa Stream, which cuts across the northwest corner of the project area, the stream has been included in the setback fronting Lualualei Naval Access Road. The stream lies outside the development area.

Visual Impacts. To reduce the footprint of the proposed industrial park, no development will occur above the 200-foot elevation. Palm trees that have been planted along the front and sides of the property will continue to mature, thereby softening the view of the project from the street. Planned accent landscaping at the front gate and street trees along the internal streets will convey a quality industrial location.

Water Use. The proposed industrial park will be connected to the Board of Water Supply's transmission system via a new 16-inch water main. The new pipeline will be capable of satisfying the fire flow requirement. To reduce the drinking water demand, recycled effluent will be used for irrigation purpose.

Wastewater. The proposed industrial park will be served by an independent wastewater treatment system that is privately owned and maintained.

Solid Waste. A solid waste management plan will be developed including efforts to minimize waste generated at the proposed industrial park during construction and operation. To the extent practical, the project will encourage recycling and landfill diversion practices by construction contractors and businesses located at Nānākuli Community Baseyard.

Electricity Use. Energy efficiency design guidelines will be incorporated into the Covenants, Conditions, and Restrictions that will apply to development within the proposed industrial park.

Community Benefit. Tropic Land has pledged to establish a $1 million community benefits fund as part of its overall plan to develop Nānākuli Community Baseyard. The objective of the community fund is to enhance the welfare of the surrounding community through education and economic development. Administration of the fund will be determined in consultation with community leaders.

7.4 Secondary and Cumulative Impacts

Based on business owners and community members who expressed interest during the scoping process, 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. Consequently, the proposed development is likely to generate truck traffic that will have adverse cumulative impacts on Farrington Highway and Lualualei Naval Access Road. On the one hand, the increase will add to the existing level of truck traffic on these roadways. On the other hand, the proposed industrial park is consistent with land uses already existing along Lualualei Naval Access Road, thereby limiting impacts to this specific corridor.

Nānākuli Community Baseyard is a self-contained project and is not related to any other project in the region.

Table 20 shows other development projects on the Wai‘anae Coast, as identified through a search of environmental documents filed from 2000 to the present and available through the OEQC Online Library. The projects involve housing or community facilities, making the Nānākuli Community Baseyard distinctive as an employment-oriented development. Because these projects are either completed or already under construction, it is unlikely that the project will conflict with other near-term planned uses for the region's infrastructure and services.

Table 20
Development Projects on the Wai‘anae Coast

Project Name	FEA/SFEA/ FEIS Date	Location	Description (from FEA/FEIS)	Status
Consuelo Subdivision	Feb 2006	3.35 acres, approx. one-quarter mile from Farrington Hwy near Wai‘anae Valley Road	Subdivision into 21 house lots and installation of utilities and road access for construction of affordable single-family homes	Phased project; preliminary phase underway
Nānākuli Community Center	Jan 2006	13.57 acres, portion of DHHL land in Nānākuli, adjacent to Nānāikapono Elem School	Nānākuli Community Center, Boys and Girls Club of Hawai‘i “clubhouse” facility, and commercial center/ *kupuna* housing	Community center completed; other project components not yet completed
Hale Wai Vista	Aug 2007	5.02 acres, adjacent to Wai‘anae Mall	215 affordable rental housing units. Four multi-family buildings (two 7-story and two 2-story buildings) and one multi-purpose building	First phase opened in Mar 2010
Wai‘anae Coast Comprehensive Health Center, Medical Building	Aug 2008	Existing health care campus at the base of Pu‘u Ma‘ili‘ili‘i	Re-design of four-story medical building (requiring height variance)	Building construction ongoing
Wai‘anae District Park, Parking Improvements	Nov 2008	0.5 acre, surrounding existing park parking lot	Addition of 31 standard stalls and 2 ADA stalls	Parking lot expansion completed

Notes:
FEA = Final Environmental Assessment
SFEA = Supplemental Final Environmental Assessment
FEIS = Final Environmental Impact Statement
DHHL = Department of Hawaiian Home Lands
ADA = Americans with Disability Act

In petitioning to amend the Land Use District boundary, Tropic Land recognizes the loss of land from future agricultural production and the cumulative impact of urbanization on the regional agricultural economy. However, the petition area, with clayey and rocky soils, has not experienced economically viable agricultural activity for decades.

7.5 Irreversible and Irretrievable Commitments of Resources

The construction and operation of the industrial park will involve the irretrievable commitment of certain environmental resources. The largest resource commitment will be the 96 acres of land required for the project development. (In comparison, however, the golf course called for the use of 259.5 acres of land). Construction materials, labor, and energy will be expended to construct and operate the facility. The impact of utilizing these resources need to be weighted against the economic benefits to the residents of the region, the City and County of Honolulu, and the state, and the foregone opportunities of not proceeding with the project.

The lands involved in the project will not be available for agricultural use. Yet future agricultural use of the project site is questionable in light of the long-standing undeveloped and unused character of the site. Feasibility of agricultural use is undemonstrated.

There will be a permanent commitment of private funds and resources to plan, design, construct, and operate the industrial park. However, this investment will result in a permanent increase in jobs and other employment-related benefits and resources.

It is expected that increased tax revenues will be generated along with increases in economic activity.

Beyond the on-site and off-site improvements constructed and operated by the developer, there will be the increased usage of certain public facilities, namely drinking water, local roadways, electricity and telecommunications, and greater load on City facilities for solid waste disposal.

To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. As appropriate, the plan will include a collection system for plastics, glass, paper and cardboard, cans, recyclable construction material, and green waste. Source separated material will be diverted to recovery facilities. Where possible and appropriate, the project will specify or use products with recycled content. In other cases, products produced locally will be used where possible and appropriate, including soil amendment and hydro-mulch. Individual unit owners will be encouraged to develop and implement their own recycling plans.

All unit owners will be required to comply with State and federal regulations for the handling, storage, treatment, transport, and disposal of hazardous wastes. The State Department of Health oversees the reporting of inadvertent releases or spills.

The commitment of resources required to accomplish the project includes labor and materials, which are mostly non-renewable and irretrievable. The operation of the project will also include the consumption of drinking water and petroleum-generated electricity which also represents irretrievable commitments of resources.

7.6 Summary of Unresolved Issues

As described above, the Navy is willing to extend access to Tropic Land and its buyers to use Lualualei Naval Access Road. By letter dated July 6, 2009, Tropic Land has received a written offer from Commander, U.S. Navy Region Hawai‘i for an annual license agreement, with possibility of automatic extensions, to use Lualualei Naval Access Road. The letter states that this arrangement is consistent with access rights granted to other adjacent landowners, including PVT Land Company, Pineridge Farms, and Pacific Shopping Mall. These users have been operating satisfactorily under this arrangement for decades. Tropic Land is in the process of obtaining the annual license agreement.

Further, Tropic Land has engaged with the Navy and other road users to establish an association or limited liability corporation for long-term operation and maintenance of Lualualei Naval Access Road (see letter dated December 4, 2009, countersigned by Captain B. J. Muilenberg, U.S. Navy, Regional Engineer dated December 24, 2009, in Appendix K). An unresolved issue is the form of the definitive access agreement, which is under discussion with the Navy.

7.7 Relationship between Local Short-term Uses of Humanity's Environment and the Maintenance and Enhancement of Long-term Productivity

Trade-offs among short-term and long-term gains and losses: The proposed action will have unavoidable short-term and long-term adverse impacts, but will improve land that is presently undeveloped, a result that will have a positive impact on the human environment of the Wai'anae Coast. Unavoidable impacts are discussed in Sections 7.1 and 7.2; however, an archaeological study conducted for an earlier development proposal did not find resources of archaeological or historic significance within the project area. Similarly, a recent cultural impact assessment concluded that the project will not impact culturally significant sites directly or indirectly, nor obstruct access to culturally significant sites.

An updated flora and fauna study found no biologically significant species or critical habitats. 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; however, actual farming experience has shown that on-site growing conditions are not conducive to crop productivity.

While the project is not expected to diminish local resources that are environmentally or culturally significant, it is expected to have long-term beneficial 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.

Short-term impacts associated with construction activities will be offset by Best Management Practices and other proposed mitigation measures.

Extent to which the proposed action forecloses future options or narrows the range of beneficial uses of the environment: Development of the proposed light industrial park will foreclose future agricultural use. Despite this loss, the range of beneficial land uses for the Wai'anae Coast will increase by providing an inventory of land for industrial uses that is not available currently to prospective businesses.

Long-term risks to health or safety: The project is not expected to have adverse impacts on public health or safety. On the contrary, improved job prospects and income levels are positive indicators of community health and well-being. By incorporating sound engineering and design, the proposed development is expected to contribute to the region's economic life for many years.

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9. CONSULTATION AND COORDINATION

9.1 Scoping and Community 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

Presentations to Other Organizations
Leeward Coast Chamber of Commerce
Wai‘anae Rotary Club

9.2 Early Consultation

Prior to preparing the EISPN, the following agencies were contacted:

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

Engineering
- State of Hawai‘i, Department of Health
- City and County of Honolulu, Board of Water Supply

9.2.1 Environmental Impact Statement Preparation Notice (EISPN)

Availability of the EISPN was announced in the May 23, 2009 issue of the OEQC *Environmental Notice*, which initiated a 30-day public comment period that ended on June 23, 2009.

Copies of the EISPN were mailed to the federal, State, and County agencies; elected officials; and other stakeholders listed below. In addition, copies of the EISPN were mailed to the Wai‘anae and Kapolei Public Libraries. All recipients were asked to provide comments.

Federal Agencies

- U.S. Army Corps of Engineers, Honolulu District
- 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 Defense
- Department of Health, Environmental Management Division
- Department of Land and Natural Resources
- DLNR, State Historic Preservation 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 Facility Maintenance
- 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
Senator Colleen Hanabusa, District 21

Community and Business Organizations and Individuals

Nānāikapono Civic Club
Nānākuli/Mā‘ili Neighborhood Board
Wai‘anae Coast Neighborhood Board
Native Hawaiian Legal Corporation
Sierra Club
Wai‘anae Coast Rotary Club
Wai‘anae Coast Coalition
Leeward Coast Chamber of Commerce
Concerned Elders of Wai‘anae
PVT Land Company Ltd.
Pineridge Farms, Inc.
Leeward Land LLC
Mr. Leon Lapina
Ms. Elizabeth Stack

Utility Companies

Hawaiian Electric Co.
Hawaiian Telcom
Oceanic Time Warner Cable

Libraries

Wai‘anae Public Library
Kapolei Public Library

Newspapers

Honolulu Advertiser
Honolulu Star Bulletin

9.2.2 EISPN Comments

A total of 23 agencies, organizations, and individuals responded to the request for pre-assessment consultation. The matrix ~~at the end of this chapter~~ in Appendix M summarizes substantive comments and indicates relevant sections in the DEIS where comments were addressed and/or incorporated into the document. The table is followed by reproductions of correspondence received.

9.3 Draft Environmental Impact Statement (DEIS)

~~This DEIS will be sent to all public agencies designated as "mandatory" or "recommended" on the OEQC distribution list and to public libraries and depositories on the list. Copies also will be sent to parties that expressed interest in the proposed action during the EISPN comment period.~~

The DEIS was published in the November 23, 2009 issue of the OEQC *Environmental Notice*, initiating a 45-day public review period which ended on January 7, 2010. Copies of the DEIS were distributed to government agencies and interested parties.

Federal Agencies

- U.S. Army Corps of Engineers, Honolulu District
- 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 Defense
- Department of Hawaiian Home Lands
- Department of Health
- Department of Human Services
- Department of Labor and Industrial Relations
- Department of Land and Natural Resources
- DLNR, State Historic Preservation Division
- Department of Transportation
- Hawai‘i Housing Finance and Development Corporation
- 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 Facility Maintenance
- 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
Concerned Elders of Wai‘anae
Princess Kahanu Estates Association
PVT Land Company Ltd.
Pineridge Farms, Inc.
Leeward Land LLC
Mr. Leon Lapina
Ms. Elizabeth Stack

Utility Companies

Hawaiian Electric Co.
Hawaiian Telcom
Oceanic Time Warner Cable

Libraries

Wai‘anae Public Library
Kapolei Public Library
Legislative Reference Bureau

Hawai‘i Main Library, State Document Center
University of Hawai‘i, Hamilton Library

Newspapers

Honolulu Advertiser
Honolulu Star Bulletin

The following agencies and organizations submitted letters on the DEIS. Agencies with "no comment" are shown with an asterisk (*). All letters and responses to substantive comments are reproduced at the end of this chapter.

Federal Agencies

* Army Corps of Engineers-Civil Works Branch
Army Corps of Engineers-Regulatory Branch
Dept of the Navy

State Agencies

* Dept. of Accounting and General Services
* Dept of Labor and Industrial Relations
Dept of Land and Natural Resources
Commission on Water Resource Management
Office of Conservation and Coastal Lands
* Division of Forestry and Wildlife
Dept of Transportation
Land Use Commission
* State Historic Preservation Division
University of Hawaii, Environmental Center
West County Farm Bureau

City Agencies

Board of Water Supply
* Dept of Facility Maintenance
* Dept of Parks and Recreation
Dept of Planning and Permitting
Dept of Transportation Services
Fire Dept
* Police Dept

Utility Companies

* Hawaiian Telcom

Community Organizations

Concerned Elders
KAHEA

Letters with Substantive Comments

Federal Agencies

- U.S. Army Corps of Engineers, Regulatory Branch
- Department of the Navy, Naval Facilities Engineering Command

State Agencies

- Commission on Water Resource Management
- Department of Transportation
- Land Use Commission
- Office of Conservation and Coastal Lands
- State Historic Preservation Division
- University of Hawaii, Environmental Center
- West County Farm Bureau

City Agencies

- Board of Water Supply
- Department of Planning and Permitting
- Department of Transportation Services
- Fire Department

Community Organizations

- Concerned Elders of Waianae
- KAHEA

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

January 25, 2010

Regulatory Branch

POH-2009-00191

RECEIVED JAN 26 2010

Glenn T. Kimura
Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura:

This letter is in response to your November 20, 2009 request for comments on the Draft Environmental Impact Statement (DEIS) for the proposed Nanakuli Community Base Yard located at Lualualei, Waianae District, Island of Oahu, Hawaii (TMK: (1) 8-7-009:002(por). We have reviewed your proposal pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). We have determined that a Department of Army (DA) permit is not required for your proposed work as described in the DEIS.

Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Because the Ulehawa Stream is not considered a navigable water, a Section 10 permit is not required. Section 404 requires that a DA permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including wetlands and navigable waters of the U.S, prior to conducting the work (33 U.S.C. 1344). Although the Ulehawa Stream is considered a water of the U.S, a Section 404 permit is not required for your proposed work as the DEIS indicates that no work will be done in the stream nor will any work be done which will result in secondary impacts to the stream.

This letter contains an approved JD for the property in question. If you object to this determination, you may request an Administrative Appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. We have enclosed a Notification of Appeal Process and Request For Appeal (NAP/RFA) form. If you request to appeal this determination you must submit a completed RFA form to the Corps' Pacific Ocean Division office at following address:

Thom Lichte, Appeals Review Officer
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

This jurisdiction determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Mr. Robert Deroche of this office at the above address or telephone 808-438-2039 (FAX: 808-438-4060) or by E-Mail at robert.d.deroche2@usace.army.mil. Please refer to File No. POH-2009-00191 in all future communications with this office regarding this or other projects at this location.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Enclosures

Flowchart
RFA Document
Approved JD

Copy Furnished (w/o Encl.)

Dan Davidson, Executive Officer, Land Use Commission, 235 S. Beretania Street, Room 406
Honolulu, Hawaii 96813

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. George P. Young, Chief
Regulatory Branch
U.S. Army Corps of Engineers, Honolulu District
Fort Shafter, HI 96858-5440

Dear Mr. Young:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 25, 2010 [Ref: POH-2009-00191]. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and comments.

We acknowledge that your letter constitutes an approved jurisdictional determination (JD) for the property and is valid for a period of five years from the date of the letter.

Further, we note that a Department of Army (DA) permit is not required under Section 10 of the Rivers and Harbors Act of 1899 because Ulehawa Stream is not considered navigable water. And that a DA permit is not required under Section 404 of the Clean Water Act because the proposed work will not occur in Ulehawa Stream nor will the proposed action result in secondary impacts to the stream.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, HAWAII
400 MARSHALL ROAD
PEARL HARBOR, HAWAII 96860-3139

IN REPLY REFER TO:

5090
Ser OPHE2/ 00120
03 FEB 2010

Kimura International INC.
1600 Kapiolani Blvd, Suite 1610
Honolulu, HI 96814

RECEIVED FEB 09 2010

Dear Mr. Glenn T. Kimura:

SUBJECT: NANAKULI COMMUNITY BASEYARD DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Naval Facilities Engineering Command, Hawaii (NAVFAC HI) has reviewed the draft Environmental Impact Statement (DEIS) regarding Tropic Land LLC's proposed development in Lualualei Valley. We offer two house-keeping comments, followed by a series of important concerns regarding the use of Lualualei Naval Access Road and other encroachment issues:

1. When referring to the Navy's installation at Lualualei, please refer to its proper name: Joint Base Pearl Harbor Hickam (JBPHH) Lualualei Annex (LLL Annex). Commands within this area are: Navy Munitions Command, East Asia Division, Pearl Harbor Detachment (NMC EAD PH) and Naval Computer and Telecommunications Area Master Station Pacific (NCTAMS PAC). Please provide correct location and/or command references throughout the document.

2. NAVSTA PH, LLL Annex is developed with ordnance storage facilities and receiver towers. This land use is inaccurately noted on page 5-7, section 5.3 paragraphs 2 and 5, as an "urban type activity" (concentration of people, structures, etc.). The nature of the type of activities at LLL Annex necessitates a low concentration of people and properly constructed and sited ammunition storage facilities and antenna. Please revise this description and analysis accordingly.

3. The DEIS declares Lualualei Naval Access Road, a military roadway, as the primary access for the project. The project will generate vehicular traffic (primarily trucks) on Lualualei Naval Access Road. This increased usage, over time, will require increased roadway maintenance and repair, with costs borne by the Navy. Civilian use of this roadway also increases the Navy's exposure to liability.

4. This project will require an amendment to the State Land Use District from "Agricultural" to "Urban" and a change in zoning from Preservation (P-2) to Limited Industrial (I-1). Approval of these amendments may set a precedent for similar land use

conversions on the remaining undeveloped land along Lualualei Naval Access Road, increasing requirements for roadway maintenance.

5. Tropic Land LLC doesn't have legal use of Lualualei Naval Access Road. Currently, their legal access is via Hakimo Road with only an easement to cross Lualualei Naval Access Road. Navy has offered Tropic Land LLC an annual license agreement, like the Navy has with other private businesses that use the road, but Tropic Land LLC has yet to agree to the license.

6. Traffic mitigation measures seem to only address the Farrington Highway and Lualualei Naval Access Road intersection. The document needs to address any required mitigation measures along Lualualei Naval Access Road to accommodate increased traffic proposed by this project; i.e., would road lighting be required for night use of Lualualei Naval Access Road?

7. Report identifies mitigation measures to widen Lualualei Naval Access Road to provide double left-turn lanes and exclusive right-turn lane, but doesn't address how such a project would be accomplished. Also, unsure of comment that Tropic Land LLC would provide a "fair share" arrangement to construct improvements to accommodate project build-out.

8. The Draft EIS discusses compatibility with various land use plans, but does not address encroachment issues with the Naval Magazine Ammo Storage Facilities. The Navy strongly encourages Tropic Land LLC to consider the encroachment effects on NAVSTA PH, LLL Annex. Specifically, development at the site will increase the risk of security breaches, fire, and spread of invasive species. We recommend that Tropic Land LLC mitigate the risk of security breaches by providing its tenants with clear objectives to keep their employees and associates from violating security restrictions.

9. The proposed firebreak has the potential to reduce the risk of spread of small fires. However, in high winds or other high-fire risk environmental conditions, a fire can breach the firebreak and spread onto Navy lands. Fire can damage Navy structures adjacent to Tropic Land LLC property, and also spread into higher elevations, putting at risk populations and critical habitat of rare, threatened, and endangered plant and animal species. We recommend installation and maintenance of a much wider firebreak, and also request establishing protocols if a fire generated on Tropic Land LLC property burns Navy facilities and/or sensitive habitat on Navy lands.

5090
Ser OPHE2/ 00120
03 FEB 2010

10. Landscaping at the new development has not been discussed in the DEIS. Invasive plants have the potential of crossing boundaries and affecting sensitive habitat on Navy lands. We recommend that only non-invasive and/or native plants are used for landscaping.

11. Feral and/or stray cats have been shown to have detrimental effects on Hawaii's unique birdlife. NAVSTA PH, LLL Annex actively maintains wildlife habitat, in-part through trapping of feral cats, for five Endangered Hawaiian birds: the Hawaiian Stilt, Hawaiian Moorhen, Hawaiian Coot, Hawaiian Duck, and the Oahu Elepaio. We request that the DEIS state requirements that Tropic Land LLC tenants/buyers will not feed or in anyway promote the expansion of feral/stray cat numbers adjacent to Navy lands.

Thank you for providing us the opportunity to comment on the Draft EIS. Please contact Mr. Steve Johnston at (808) 471-1171 extension 270 for questions regarding real-estate negotiations for road use, Ms. Janice Fukawa at (808) 473-4137 extension 232 for other issues regarding encroachment, and Ms. Patricia Colemon at (808)473-4137 extension 224 for any environmental issues.

Sincerely,

D. R. BUSTAMANTE
Acting

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. D. R. Bustamante
Department of the Navy
Naval Facilities Engineering Command, Hawaii
400 Marshall Road
Pearl Harbor, HI 96860-3139

Dear Mr. Bustamante:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated February 3, 2010 [5090 Ser OPHE2/00120]. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. When referring to the Navy's installation at Lualualei, please refer to its proper name: Joint Base Pearl Harbor Hickam (JBPH) Lualualei Annex (LLL Annex). Commands within this area are: Navy Munitions Command, East Asia Division, Pearl Harbor Detachment (NMC EAD PH) and Naval Computer and Telecommunications Area Master Station Pacific (NCTAMS PAC). Please provide correct location and/or command references throughout the document.

Response: Comment noted and appropriate sections of the FEIS have been changed.

1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

2. NAVSTA PH, LLL Annex[1] is developed with ordnance storage facilities and receiver towers. This land use is inaccurately noted on page 5-7, section 5.3 paragraphs 2 and 5, as an "urban type activity" (concentration of people, structures, etc.). The nature of the type of activities at LLL Annex necessitates a low concentration of people and properly constructed and sited ammunition storage facilities and antenna. Please revise this description and analysis accordingly.

> ***Response***: The land use description (on pages 6-7 in the FEIS) has been revised to clarify that JBPHH, Lualualei Annex is not in the State Urban District and the reference to "urban type activity" has been deleted.
>
> ***Text from the FEIS (p. 6-7)***:
>
> The project site is contiguous to ~~the Naval Munitions Center (NMC) Lualualei~~ JBPHH Lualualei Annex, a military ordnance storage and communications facility, which although not in the Urban District, ~~is an urban type activity~~ has elements of techno-industrial urban type activity. It is also very close to industrial lands owned by Pineridge Farms and the PVT Land Company, which are in the Urban District. The WSCP was in the process of being updated when this ~~DEIS~~ FEIS was prepared, and an application is pending to change the Rural Community Boundary to incorporate the proposed industrial park site. The Department of Planning and Permitting's Draft Wai'anae Sustainable Communities Plan Revision for 2009 identifies "industrial" as an alternative land use for this site. The project directly supports the Wai'anae Sustainable Communities Plan's stated Community Values to provide economic choices in Wai'anae, including jobs in Wai'anae which will allow families to spend less time commuting.

3. The DEIS declares Lualualei Naval Access Road, a military roadway, as the primary access for the project. The project will generate vehicular traffic (primarily trucks) on Lualualei Naval Access Road. This increased usage, over time, will require increased roadway maintenance and repair, with costs borne by the Navy. Civilian use of this roadway also increases the Navy's exposure to liability.

> ***Response***: The US Navy has agreed to grant an association of adjoining property owners, including Tropic Land, a long-term easement to use Lualualei Naval Access Road. The easement agreement would require the private users to maintain Lualualei Naval Access Road and to insure the Navy against liability.

---

[1] Although the February 3, 2010 letter refers to "NAVSTA Ph, LLL Annex," NAVFAC planner Aaron Hebshi has confirmed that the correct reference is "JBPH, LLL Annex" as indicated in Item 1. Telephone conversation, April 5, 2010.

Text from the FEIS (p. 1-2):

Tropic Land is currently discussing the form of a definitive access agreement with the Navy. The Navy has agreed to grant a long term easement to use Lualualei Naval Access Road to an association to be organized by the adjoining property owners, including Tropic Land LLC, who would be required to maintain the road.

4. This project will require an amendment to the State's Land Use District from "Agricultural" to "Urban" and a change in zoning from Preservation (P-2) to Limited (I-1). Approval of these amendments may set a precedent for similar land use conversions on the remaining undeveloped land along Lualualei Naval Access Road, increasing requirements for roadway maintenance.

Response: The project owner recognizes that the proposed light industrial park will affect roadway conditions and is committed to mitigating project impacts.

5. Tropic Land LLC doesn't have legal use of Lualualei Naval Access Road. Currently, their legal access is via Hakimo Road with only an easement to cross Lualualei Naval Access Road. Navy has offered Tropic Land LLC an annual license agreement, like the Navy has with other private businesses that use the road, but Tropic Land LLC has yet to agree to the license.

Response: In addition to offering a long-term easement agreement, NAVFAC staff has offered Tropic Land the same annual license agreement that the Navy has extended to other adjoining property owners.

Text from the FEIS: See Appendix K for correspondence between Tropic Land and the U.S. Navy regarding Lualualei Naval Access Road.

6. Traffic mitigation measures seem to only address the Farrington Highway and Lualualei Naval Access Road intersection. The document needs to address any required mitigation measures along Lualualei Naval Access Road to accommodate increased traffic proposed by the project; i.e., would road lighting be required for night use of Lualualei Naval Access Road?

Response: Specific improvement measures for Lualualei Naval Access Road will be determined in consultation with the Navy.

Text from the FEIS (p. 5-42):

<u>Improvements to Lualualei Naval Access Road itself will be determined in consultation with the U.S. Navy as part of the negotiations for an easement to use, operate and maintain the road.</u>

7. Report identifies mitigation measures to widen Lualualei Naval Access Road to provide double left-turn lanes and exclusive right-turn lane, but doesn't address how such a project would be accomplished. Also, unsure of comment that Tropic Land LLC would provide a "fair share" arrangement to construct improvements to accommodate project build-out.

> ***Response***: Detailed plans for roadway improvements and implementation will be determined in consultation with the Navy and other adjoining property owners. Tropic Land is committed to mitigation measures that may be required of the project.
>
> ***Text from the FEIS (p. 5-41)***:
>
> To mitigate the impacts of project-generated traffic, Tropic Land will discuss traffic mitigation measures with the State and City, and is willing to participate in a fair share arrangement with the State of Hawaii and other users of Lualualei Naval Access Road to improve the intersection of Farrington Highway and Lualualei Naval Access Road.

8. The Draft EIS discusses compatibility with various land use plans, but does not address encroachment issues with the Naval Magazine Ammo Storage Facilities. The Navy strongly encourages Tropic Land LLC to consider the encroachment effects on NAVSTA PH, LLL Annex. Specifically, development at the site will increase the risk of security breaches, fire, and spread of invasive species. We recommend that Tropic Land LLC mitigate the risk of security breaches by providing its tenants with clear objectives to keep their employees and associates from violating security restrictions.

> ***Response***: Tropic Land and the condominium owners association will have rules and regulations concerning security breaches of the neighboring Navy property, fire prevention, and invasive species.
>
> ***Text from the FEIS (p. 5-24)***:
>
> <u>In response to concerns from the Navy regarding invasive plant species, Tropic Land will limit landscaping of common areas to non-invasive and/or native plants. CC&Rs will identify acceptable planting material.</u>

9. The proposed firebreak has the potential to reduce the risk of spread of small fires. However, in high winds or other high-fire risk environmental conditions, a fire can breach the firebreak and spread onto Navy lands. Fire can damage Navy structures adjacent to Tropic Land LLC property, and also spread into higher elevations, putting at risk populations and critical habitat of rare, threatened, and endangered plant and animal species. We recommend installation and maintenance of a much wider firebreak, and also request establishing protocols if a fire generated on Tropic Land LLC property burns Navy facilities and/or sensitive habitat on Navy lands.

Response: In addition to the proposed fire break, Tropic Land will comply with requirements of the Honolulu Fire Department and Board of Water Supply for a water supply that is adequate for fire flow protection, fire hydrants and other apparatus, and fire equipment access routes.

Text from the FEIS (p. 5-62 and 5-68):

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development.

New water lines, fire hydrants, and emergency access will be constructed by Tropic Land as prescribed by the Honolulu Fire Department and Board of Water Supply. The 100-foot buffer along the *mauka* boundary of the proposed development is intended to serve as a fire break. These improvements will accommodate the fire protection needs of the proposed industrial park. No short- or long-term adverse impacts to fire protection capability are anticipated.

10. Landscaping at the new development has not been discussed in the DEIS. Invasive plants have the potential of crossing boundaries and affecting sensitive habitat on Navy lands. We recommend that only non-invasive and/or native plants are used for landscaping.

Response: The FEIS states that non-invasive and/or native plants be used for project landscaping to mitigate potential adverse effects on sensitive habitats.

Text from the FEIS (p. 5-25):

<u>In response to concerns from the Navy regarding invasive plant species, Tropic Land will limit landscaping of common areas to non-invasive and/or native plants. CC&Rs will identify acceptable planting material.</u>

11. Feral and/or stray cats have been shown to have detrimental effects on Hawaii's unique birdlife. NAVSTA PH, LLL Annex actively maintains wildlife habitat, in part through trapping of feral cats, for five Endangered Hawaiian birds: the Hawaiian Stilt, Hawaiian Moorhen, Hawaiian Coot, Hawaiian Duck, and the Oahu Elepaio. We request that the DEIS state requirements that Tropic Land LLC tenants/buyers will not feed and in any way promote the expansion of feral/stray cat numbers adjacent to Navy lands.

Response: A prohibition against feeding or promoting stray/feral cats has been included in the FEIS as a measure to mitigate potential adverse effects on sensitive habitats.

Text from the FEIS (p. 5-26):

The project will not have any adverse effect on any endemic ecosystem or on any endangered or threatened animal species in the area. In support of wildlife habitats maintained within the JBPHH Lualualei Annex, Tropic Land and occupants of the industrial park will not be permitted to feed or promote the expansion of feral or stray cat populations that could have detrimental effects on avian species.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION

2010 JAN -4 A 10: 20

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

LAURA H. THIELEN
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
SUMNER ERDMAN
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

December 30, 2009

REF: Nanakuli community baseyard DEIS.dr

TO: Morris Atta, Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Draft Environmental Impact Statement for Nanakuli community Baseyard, Oahu

FILE NO.: NA
TMK NO.: 8-7-9:02

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://www.hawaii.gov/dlnr/cwrm.

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/pp/index.htm.

☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☒ 6. We recommend the use of alternative water sources, wherever practicable.

☒ 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/resources_permits.htm.

☐ 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.

☐ 9. A Well Construction Permit(s) is (are) required any well construction work begins.

☐ 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☒ 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ OTHER:

If there are any questions, please contact Lenore Ohye at 587-0216.

LO:sd

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Ken C. Kawahara
Deputy Director
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Kawahara:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by memorandum dated December 30, 2009. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify the comments made.

Comments are numbered according to checked items from your list.

1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

> ***Response***: The civil engineer for this project has consulted with the Honolulu Board of Water Supply and will continue to coordinate with the agency through final design and the acquisition of applicable permits.
>
> ***Text from the FEIS (p. 5-62)***: By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards.

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4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit toward Leadership in Energy and Environmental Design (LEED) certification.

> ***Response***: As master developer, Tropic Land will incorporate water-saving technologies to the facilities it is directly responsible for, such as the wastewater treatment facility and irrigation system.
>
> ***Text from the FEIS (p. 5-62)***: To reduce the demand for drinking water, non-drinking water—treated wastewater effluent—will be used for irrigation. Another water-saving measure is the requirement that industrial park businesses that wash fleet vehicles on-site install systems that recycle wash water. This requirement would also be administered through the CC&Rs.

5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification.

> ***Response***: BMPs for stormwater management will be studied in detail during the design phase of the project. Appropriate measures will be incorporated into the construction plans.
>
> ***Text from the FEIS (p. 5-14)***: During the detailed design of infrastructure, the consulting engineer will work with the City to confirm necessary water quality standards and develop an effective set of Best Management Practices (BMPs) for the project. The objective of the water quality BMPs is to mitigate the impact of pollutants (sediment, grit, oil, heavy metals) that could potentially enter the drainage system from frequent, smaller rainfalls. Plants and landscaping will be incorporated into the design to absorb particles and filter heavy metals. Additional water quality BMPs include the construction of infiltration swales along the roadway. These swales collect runoff, filter particles, and provide infiltration to recharge the groundwater.

6. We recommend the use of alternative water sources, wherever practicable.

> ***Response***: Preliminary engineering plans provide for the use of properly treated recycled water for irrigation purposes.
>
> ***Text from the FEIS (p. 5-62)***: To reduce the demand for drinking water, non-drinking water—treated wastewater effluent—will be used for irrigation.

7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

> ***Response***: Construction and operation of the on-site wastewater treatment facility will be conducted with approval from and in accordance to the standards of the Hawaii State Department of Health. Tropic Land will comply with all requirements related to water quality.
>
> ***Text from the FEIS (p. 5-63)***: The proposed on-site wastewater collection system is illustrated in Figure 5 (Chapter 3). Gravity sewers will be located within sewer easements. Preliminary pipe line sizes range from 8 to 10 inches in diameter. Design and construction of the system will be in accordance with standards established by the City and County and State Department of Health.

11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

> ***Response***: There are no plans to use the existing on-site wells, which are capped.
>
> ***Text from the FEIS (p. 5-7)***: The previous owner, Oban, had drilled two wells with the expectation of tapping groundwater as a source of irrigation water for the proposed golf course and nursery. Groundwater will not be used for the proposed light industrial park and the existing wells will remain capped.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI
JIRO A. SUMADA

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

IN REPLY REFER TO:

STP 8.3488

December 23, 2009

RECEIVED
DEC 30 2009

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura:

Subject: Nanakuli Community Baseyard
Draft Environmental Impact Statement (DEIS)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project.

DOT understands the subject project's developer, Tropic Land LLC, proposes to construct a 96-acre industrial park on a 236-acre parcel consisting of approximately 41 lots, averaging two acres each. The proposed industrial park would be located on the east side of the U.S. Navy's Lualualei Naval Access Road (LNAR), approximately two miles mauka of the State highway, Farrington Highway. Further, the developer has been negotiating with the Navy to use LNAR for the park's access to Farrington Highway in lieu of the existing access via Hakimo Road with a currently held easement to cross LNAR at the park entrance. The subject project proposes to have a single, secured entry on LNAR and a secondary access for fire and emergency purposes.

DOT previously commented on this project in its letter, STP 8.3296 dated June 17, 2009 (attached), to the State Land Use Commission (LUC) during the preparation notice period. DOT had requested that a Traffic Impact Analysis Report (TIAR) be prepared and notes that it is included in the subject project as Appendix E.

DOT Highways Division finds that the TIAR is inadequate. The TIAR should be revised to address the following concerns and resubmitted to the DOT for review.

1. The TIAR fails to mention that the Farrington Highway and LNAR intersection is signalized and that it will serve as the project access. This should be described in more detail.

2. While the TIAR mentions the Institute of Transportation Engineers (ITE) Trip Generation Manual, it does not provide a table or information showing what the assumed uses were or what trips they would generate. This should be corrected.

3. The information contained in Table 2. Trip Assignment, is not consistent with that in Figure 7. PM Vehicle Peak Hour (VPH) Traffic Assignment. This should be corrected.

4. While the TIAR recommended improvements in Chapter 4 that would mitigate project generated traffic impacts, there was no discussion of the proposed improvements.

5. The information contained in Table 3. Capacity Analysis - Farrington Highway and Lualualei Naval Access Road, shows an unintuitive result. The Northbound Through/Northbound Right (NBT/NBR) PM Peak (with project) without improvements is shown as Level of Service (LOS) F, yet with improvements will result in LOS D. The recommended improvements have little to do with the NB movement, yet it states that they will cause such a reduction. This should be explained. In addition, LOS using only delays yields incongruous results. For instance, V/C=1.00 is nominally LOS E, if not incipient F, and not D even if delays were in the 43 second (LOS D) range.

DOT appreciates the opportunity to provide comments. If there are any other questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

Attach.

c: Theodore E. Liu, Department of Business, Economic Development and Tourism
Abbey Seth Mayer, Office of Planning, DBEDT
Katherine Kealoha, Office of Environmental Quality Control
Dan Davidson, Land Use Commission

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Brennon T. Morioka
Director
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Dear Mr. Morioka:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated December 23, 2009. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify the comments made.

Comments are numbered according to checked items from your list. Revisions to the DEIS are shown by strikethrough and underlined text.

1. The TIAR [Traffic Impact Assessment Report] fails to mention that the Farrington Highway and LNAR [Lualualei Naval Access Road] intersection is signalized and that it will serve as the project access.

> ***Response***: The description of Farrington Highway and Lualualei Naval Access Road has been revised. See TIAR dated January 29, 2010 (enclosed), p. 4; also, Appendix E of the FEIS.
>
> ***Text from FEIS (p. 5-38)***: Farrington Highway is signalized at Lualualei Naval Access Road.

2. While the TIAR mentions the Institute of Transportation Engineers (ITE) Trip Generation Manual, it does not provide a table or information showing what the presumed uses were or what trips they would generate.

> ***Response***: This information has been added to Table 2, Trip Generation Characteristics. See TIAR, p. 10.

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Table from Appendix E, TIAR (p. 10):

Trip Generation Characteristics

Land Use (ITE Code)	Peak Hour	Direction	Vehicle Trips/Hour
Industrial Use (130)	AM	Enter	433
		Exit	89
		Total	522
	PM	Enter	109
		Exit	409
		Total	518

3. The information contained in Table 2. Trip Assignment, is not consistent with that in Figure 7. PM Vehicle Peak Hour (VPH) Traffic Assignment.

Response: The revised TIAR clarifies the Traffic Assignment information. See Table 3 on p. 10.

Table 12 from FEIS (p. 5-41) and Table 3 from TIAR (p. 10):

Traffic Assignment

Peak Hour	Direction	Northbound	Southbound
AM	Enter	75%	25%
	Exit	15%	85%
PM	Enter	85%	15%
	Exit	25%	75%

4. While the TIAR recommended improvements in Chapter 4 that would mitigate project generated traffic impacts, there was no discussion of the proposed improvements.

Response: Section 4.9 of the Final EIS describes the proposed mitigation measures.

Text from FEIS (p. 5-41):

Improvements recommended by the Traffic Impact Analysis Report (TIAR) and the project engineer include:

- Widening of southbound Farrington Highway to provide an exclusive left-turn lane (350 feet in length and 11 feet in width)
- A tapered median area (300 feet in length) along northbound Farrington Highway to align with the southbound left-turn lane
- Widening Lualualei Naval Access Road to provide double left-turn lanes (350 feet in length; 11 feet in width) and an exclusive right-turn lane
- Relocation of existing traffic signals, utility poles, and drainage structures affected by the widening

5. The information contained in Table 3. Capacity Analysis—Farrington Highway and Lualualei Naval Access Road, shows an unintuitive result. The Northbound Through/Northbound Right (NBT/NBR) PM Peak (with project) without improvements is shown as Level of Service (LOS) F, yet with improvements will result in LOS D. The recommended improvements have little to do with the NB movement, yet it states that they will cause such a reduction. This should be explained. In addition, LOS using only delays yields incongruous results. For instance, V/C=1.00 is nominally LOS E, if not incipient F, and not D even if delays were in the 43 second (LOS D) range.

Response: Worksheets showing the capacity analysis for the proposed improvements have been appended to the TIAR.

Text from TIAR: Please see TIAR (attached).

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Attachment

Cc: Arick Yanagihara, Tropic Land LLC (without attachment)
Dan Davidson, Land Use Commission (without attachment)

LINDA LINGLE
Governor

ORLANDO "DAN" DAVIDSON
Executive Officer

LAND USE COMMISSION
Department of Business, Economic Development & Tourism
State of Hawai`i

January 5, 2010

RECEIVED JAN 06 2010

Mr. Glenn T. Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Docket No. A09-782
Draft Environmental Impact Statement (DEIS)
Nanakuli Community Baseyard
Lualualei, Oahu, Hawaii
Tax Map Key: 8-7-09: por. 2

We have reviewed the subject DEIS for the proposed development and have the following comments:

1) In accordance with §11-200-17(f), Hawaii Administrative Rules ("HAR"), alternatives to the proposed action should be described in a separate and distinct section. We acknowledge that section 3.2 of the DEIS addresses various alternatives; however, this discussion does not appear to be an objective evaluation in that the alternatives presented are primarily discussed in a negative context relative to the proposed development. Please also include a discussion of the potential benefits of the alternatives, including the extent to which the alternatives could avoid some or all of the short and long-term adverse environmental effects. We also request that the discussion be supplemented to specifically address alternative locations for the proposed development with an appropriate summary included in the Summary Sheet.

2) In accordance with §11-200-17(g), HAR, a description of the environmental setting should be provided. We note that a truck farming operation existed on the property in the 1980s, voluntarily closing in 1988. Clarification should be provided on the uses, if any, that existed on the property prior to this timeframe. We also note that a 100-foot-wide buffer is proposed to be constructed along the mauka boundary of the property to address potential

rockfalls from the slopes behind the proposed development. Given that the buffer has yet to be engineered and will not be until the project design phase, clarification should be provided as to why it was chosen over other mitigative measures, such as the use of nets or chains to secure existing boulders, the removal of the boulders themselves, and the installation of fencing uphill from the proposed improvements. Was a formal rockfall hazard and slope stability analysis prepared to accurately quantify the risk of hazard that exists and to determine the efficacy of the proposed buffer?

3) In accordance with §11-200-17(h), HAR, the status of each identified approval should be described. Therefore, we request that to the extent possible the *projected* submittal dates (i.e., by month/year) of the applications and plans for approval to the various agencies be provided.

4) In accordance with §11-200-17(i), HAR, the probable impact of the proposed action on the environment shall be included. We note that both the biological surveys and traffic impact analysis report are identified as *Draft* documents. Please clarify when the respective final reports will be available for review. Review of the DEIS also indicates that no inventory and assessment of arthropods on the property was conducted. Although the location of the property may not require that a comprehensive arthropod study be conducted, we request that this matter be addressed in the interest of full environmental disclosure.

We further note that the DEIS contains statements relative to the proposed development's impacts upon the air quality and ambient noise levels of the area; however, there are no studies in the DEIS on which these conclusions are based. Given the technical and scientific nature of these issues, it has been customary to assess existing conditions and potential impacts and mitigation measures based on studies conducted by experts in the respective fields. As such, we request that, at a minimum, the statements be affirmed by acknowledged experts in the fields in question. In the alternative, the statements should be comprehensively supported by published studies that have addressed the impacts upon air quality and ambient noise levels from projects on Oahu that are similar to the proposed development.

A discussion on the existing civil defense facilities and potential impacts and proposed mitigation measures also should be included.

Additionally, we believe that the proposed development would generate revenues to the State and the City and County of Honolulu as well as require governmental operating expenditures to support it. However, there is no

economic and fiscal analysis of the proposed development in the DEIS. Accordingly, we request that an analysis that addresses the projected revenues and expenses of the development be provided. The analysis should include a discussion on the various revenues, including personal income, general excise, and real property taxes, that would be generated. Similarly, the analysis on governmental expenditures should include, but not be limited to, the following areas: roadways (improvements and maintenance), public safety, health and sanitation; human services; recreation; debt service; and government employee benefits.

Finally, §11-200-17(i), HAR, requires that the interrelationships and cumulative environmental impacts (both direct and indirect) of the proposed action and other related projects be discussed, including the potential secondary effects. Although the proposed development is represented to be self-contained and not related to any other project, we believe that the discussion in section 6.4, *Secondary and Cumulative Impacts*, in the DEIS (p. 6-3) is inadequate as it does not examine the potential impacts of the proposed development in conjunction with existing and planned uses in the area that do or will utilize the region's infrastructure and services regardless of their relationship with the proposed development.

5) In accordance with §11-200-17(k), HAR, a description of all irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented should be provided. This description should address the possibility of environmental accidents resulting from any phase of the action. While we acknowledge that the issue of hazardous wastes (including their handling, storage, treatment, transport, and disposal), their potential impact on the environment, and measures to mitigate such impact are addressed in section 4.15.4, *Solid Waste Disposal Facilities*, we request that such discussion also be included in section 6.5, *Irreversible and Irretrievable Commitments of Resources*.

6) In accordance with §11-200-17(n), HAR, a separate and distinct section that summarizes unresolved issues, including a discussion of how such issues will be resolved prior to commencement of the action or of the overriding reasons to proceed without resolution of the issue, should be provided. We note that the U. S. Navy's authorization to extend access to Petitioner and its buyers to use the Lualualei Naval Access Road remains an outstanding issue to the extent that the form of the definitive access agreement has not been agreed upon. A timeframe of when such agreement is anticipated to be reached in relation to the development schedule of the proposed action should be provided. We suggest that the July 6, 2009, letter from the U. S.

Navy Region Hawaii Commander to Petitioner transmitting a written offer for an annual license agreement, with the possibility of automatic extensions to use the access road, be provided in the interest of full disclosure.

7) In accordance with §11-200-17(p), HAR, the DEIS should include a separate and distinct section that contains reproductions of all substantive comments and responses made during the EISPN consultation process. Review of the DEIS indicates that while Chapter 8 includes comments on the EISPN, the individual responses to each comment are not included. Please ensure that the Final EIS includes these responses.

8) In the DEIS, there are numerous references to the terms *potable water* and *non-potable water*. We request that it be replaced by the term *drinking water* and *non-drinking water*, respectively. We have been advised that although potable water has generally been used to mean drinking water, the Department of Health (DOH) uses the latter term specifically to indicate water for human consumption that is derived from surface water and/or groundwater and is regulated by the DOH pursuant to chapter 11-20, HAR.

We have no further comments to offer at this time. Thank you for the opportunity to comment on the subject DEIS.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ORLANDO DAVIDSON
Executive Officer

c: Arick Yanagihara, Tropic Land LLC

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Orlando Davidson
Executive Officer
Land Use Commission
235 South Beretania Street, Suite 406
Honolulu, HI 96813

Dear Mr. Davidson:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 5, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify the comments made.

Comments are numbered according to the items in your letter.

1. In accordance with §11-200-17(f), Hawaii Administrative Rules ("HAR"), alternatives to the proposed action should be described in a separate and distinct section. We acknowledge that section 3.2 of the DEIS addresses various alternatives; however, this discussion does not appear to be an objective evaluation in that the alternatives presented are primarily discussed in a negative context relative to the proposed development. Please also include a discussion of the potential benefits of the alternatives, including the extent to which the alternatives could avoid some or all of the short and long-term adverse environmental effects.

We also request that the discussion be supplemented to specifically address alternative locations for the proposed development with an appropriate summary included in the Summary Sheet.

> ***Response***: Discussions of the proposed action and alternatives to the proposed action have been split into separate chapters in the FEIS. Chapter 3 focuses on the proposed action, while Chapter 4 reviews other alternatives considered during the planning process. As explained in the Preface, some chapters have been re-numbered in the FEIS to accommodate the separation, but the contents of those chapters remain substantially unchanged.

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There is no other site on the Waianae Coast that is zoned for the development of a light industrial park.

Text from the FEIS (p. Summary-1 and 4-5):

The possibility of a light industrial park was raised through consultation with community members, who noted the Wai‘anae Coast’s growing residential population and labor force, yet limited employment and economic opportunities. There is no other site on the Wai‘anae Coast that is zoned for the development of a light industrial park.

4.4 Alternative Locations for the Light Industrial Park

Private, undeveloped land zoned for industrial use is unavailable on the Wai‘anae Coast (see Figure 23). Except for less than 5 acres in Wai‘anae Town, all other industrial land is used for public or quasi-public purpose, or supports an ongoing business. Therefore, implementing Tropic Land’s concept of industrial space for the “employment and service needs of rural and suburban communities”—as the I-1, Limited Industrial District is defined in the City and County of Honolulu’s Land Use Ordinance—is not possible without rezoning and, likely, redistricting.

2. In accordance with §11-200-17(g), HAR, a description of the environmental setting should be provided. We note that a truck farming operation existed on the property in the 1980s, voluntarily closing in 1988. Clarification should be provided on the uses, if any that existed on the property prior to this timeframe.

Response: Interviews were conducted with three people who have first-hand knowledge of and/or experience with farming activities on the project site. Their statements have been appended to the FEIS (Appendix L). The historical information dates back approximately 60 years, during which the site accommodated two small truck farms. The Araki farm lasted approximately 25 years on 17 acres, followed by the brief tenure of the Higa farm which ceased operations in 1988. The truck farms experimented with corn, watermelon, round onions, bell peppers, cucumber, tomatoes, and green onions. The Arakis tried a variety of intensive farming methods and diversified by herding goats and keeping beehives. No crop was successful due to adverse growing conditions. Although the Arakis operated successful farms in Makaha—both before and after their Lualualei experience—farming on the project site was unprofitable.

Text from the FEIS (p. 4-4):

Farm Lots. Agricultural land use, either as a single operation or multiple farm lots was suggested initially by members of the Waianae Neighborhood Board and mentioned in some of the DEIS comments. Long-term use for agricultural purposes was dismissed as

an alternative based on the agricultural consultant's report and information obtained from individuals who previously farmed the project site. Following publication of the DEIS, Tropic Land further investigated the history of farming on the project site. Interviews were conducted with three men who have first-hand experience in farming the property. Appendix L contains oral histories provided by:

- Tadashi Araki, who, with his brother, farmed the site for approximately 25 years, ending in the early 1980s
- Sonny Bradley, who helped to install the irrigation system on the Araki farm, and whose relatives worked for the Arakis
- Albert Silva, whose *ohana* previously owned the property, who has been on the property since childhood, who raised cattle on a portion of the property, and who was employed at the Naval reservation, now known as JBPHH Lualualei Annex

A common theme of the interviews was the inability of the stony, adobe soil to support productive farm activity. Mr. Araki's account details the intensive practices used to achieve a viable farm, including soil conditioning and amendments, pest control, experiments with different types of crops and auxiliary agricultural products, and advice from technical experts.

The poor outcomes obtained by the Araki brothers are consistent with Tropic Land's own experience with on-site horticultural production. Since 2007, Tropic Land has cultivated a variety of palm trees in an attempt to landscape the setback areas. Despite soil amendments, fertilization, and irrigation, tree growth is stunted. There is no evidence that farming would be a sustainable enterprise given the particular conditions of this site. Therefore, agriculture is not considered a viable alternative.

We also note that a 100-foot-wide buffer is proposed to be constructed along the mauka boundary of the property to address potential rockfalls from the slopes behind the proposed development. Given that the buffer has yet to be engineered and will not be until the project design phase, clarification should be provided as to why it was chosen over other mitigative measures, such as the use of nets or chains to secure existing boulders, the removal of the boulders themselves, and the installation of fencing uphill from the proposed improvements. Was a formal rockfall hazard and slope stability analysis prepared to accurately quantify the risk of hazard that exists and to determine the efficacy of the proposed buffer?

Response: A geotechnical study by a licensed engineer will be conducted during the design phase of the project. The project owner expects to implement the recommendations of the study.

Text from the FEIS (p. 5-17):

A licensed geotechnical engineer will be retained to prepare a rockfall and slope stability analysis and to design the channel during the project design phase. Tropic Land anticipates complying with the recommendations of the rockfall and slope stability analysis, including other mitigation measures that would be implemented during construction.

3. In accordance with §11-200-17(h), HAR, the status of each identified approval should be described. Therefore, we request that to the extent possible the *projected* submittal dates (i.e., by month/year) of the applications and plans for approval to the various agencies be provided.

Response: The list of possible permits, approvals, and requirements for regulatory compliance in Section 1.6 has been revised to include projected submittal dates.

Text from the FEIS (p. 1-9):

	Anticipated Date for Application Submittal
Federal	
• U.S. Army Corps of Engineers, Jurisdictional Determination (Ulehawa Stream)	Completed
• Lualualei Naval Access Road Lease of Easement	2010
State of Hawai‘i	
• State Land Use Commission, State Land Use District Boundary Amendment	2010
• Department of Health, Section 402, Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Permit	2011
City and County of Honolulu	
• Wai‘anae Sustainable Communities Plan, Amendment	2010
• Zoning Change (from P-2 Preservation to I-1 Industrial)	2011
• Grading Permit	2011
• Building Permit	2011

4. In accordance with §11-200-17(i), HAR, the probable impact of the proposed action on the environment shall be included. We note that both the biological surveys and traffic impact analysis report are identified as *Draft* documents. Please clarify when the respective final reports will be available for review. Review of the DEIS also indicates that no inventory and assessment of anthropods on the property was conducted. Although the location of the property may not require that a comprehensive study be conducted, we request that this matter be addressed in the interest of full environmental disclosure.

> ***Response***: Final versions of the biological surveys (Appendix D) and traffic study (Appendix E) are included in the FEIS. A discussion of anthropods has been added to the FEIS in Section 5.6 on wildlife resources.
>
> ***Text from the FEIS (p. 5-25)***:
>
> **Anthropods.** A comprehensive study of anthropods or insects was not conducted for this EIS. However, biologist, Reginald David, was consulted on the possibility of that any protected insect species might be endangered by the proposed action. According to Mr. David, the only listed species that could be affected is the Blackburn's Hawk Moth *(Manduca blackburni)*, which has not been seen on the island O‘ahu since the early 1930s. Because the project site has been disturbed by wildfires so many times, impact on threatened or endangered anthropods is not a concern.

We further note that the DEIS contains statements relative to the proposed development’s impact upon the air quality and ambient noise levels of the area; however, there are no studies in the DEIS on which these conclusions are based. Given the technical and scientific nature of these issues, it has been customary to assess existing conditions and potential impacts and mitigation measures based on studies conducted by experts in the respective fields. As such, we request that, at a minimum, the statements be affirmed by acknowledged experts in the fields in question. In the alternative, the statements should be comprehensively supported by published studies that have addressed the impacts upon air quality and ambient noise levels from projects on Oahu that are similar to the proposed development.

> ***Response***: Section 5.10 on air quality and Section 5.11 on noise have been expanded. The new material references previously published air quality and noise studies that support the conclusions reached in the EIS.
>
> ***Text from the FEIS (p. 5-45 and 5-50)***:
>
> Long-term Air Quality Impacts [p. 5-45]
>
> Long-term air quality impacts from project operation are not expected to be significant. This conclusion is based, in part, on the findings of an air quality study conducted for an

industrial park project known as Kapolei Harborside Center.[1] This project involves approximately 345 acres and is anticipated to provide 3,800 permanent jobs at full buildout and occupancy. The project area is surrounded by major roads, including Kalaeloa Boulevard and Kapolei Parkway and is situated adjacent to Campbell Industrial Park in Ewa, where "several large industrial sources of air pollution are located" (B. D. Neal and Associates, 2006: 26). Computerized emission and atmospheric dispersion models were used to estimate ambient carbon monoxide concentrations along roadways leading to and from the project. Carbon monoxide was selected for modeling because it is the most stable and most abundant of pollutants generated by motor vehicles, and considered a pollutant that can be addressed locally. The models estimated worst-case 1-hour and 8-hour concentrations. All of the predicted concentrations were within State and federal air quality standards.

In comparison, Nānākuli Community Baseyard is approximately one-fourth the size of Kapolei Harborside Center. Nānākuli Community Baseyard occupies an area that is 27% of Harborside's acreage, and its high-end employment projection is 22% of Harborside's projection. Given the significantly smaller scale of Nānākuli Community Baseyard, and ambient conditions that are no worse than on the Ewa Plain, Harborside's air quality study serves as an appropriate reference.

Future Traffic Noise Environment [p. 5-50]

Moderate noises increases generated by project-related traffic and non-project-related traffic are predicted to occur along Lualualei Naval Access Road. Intermittent vehicular noise along this roadway from project-generated traffic would represent a minimal increase in noise. For most sources, a doubling of distance results in a dBA fall in noise level. The closest noise sensitive receptor in the project area is a single residence set back from Lualualei Naval Access Road. Therefore, traffic noise impacts associated with the project are not considered to be significant.

Along Farrington Highway where traffic volumes, speeds, and noise levels are significantly high, the added noise contributions from project-generated traffic should not be significant when compared to non-project traffic noise contributions. Project traffic noise impacts along the highway are not anticipated because of the dominating influence of non-project traffic noise over project-generated traffic noise.

---

[1] B. D. Neal & Associates. 2006. "Air Quality Study for the Proposed Kapolei Harborside Center Project, Kapolei, Oahu, Hawaii." Reproduced as Appendix I, Air Quality Assessment in *Kapolei Harborside Center Final Environmental Impact Statement*, Prepared by Group 70 International, Inc. for Kapolei Property Development, LLC, November 2006.

> These conclusions are consistent with the findings of an acoustical study conducted for an industrial development project known as Kapolei Harborside Center.[2] Although Kapolei Harborside Center is almost three times larger in scale than Nanakuli Community Baseyard, the noise models predicted vehicular traffic noise impacts on the surrounding community that are not considered to be significant.

A discussion on the existing civil defense facilities and potential impacts and proposed mitigation measures also should be included.

> ***Response***: Section 5.16.5 on civil defense facilities has been added to the FEIS.
>
> ***Text from FEIS (p. 5-69)***:
>
> **5.16.5 Civil Defense Facilities**
>
> There is no civil defense facility on the project site. However, Tropic Land LLC has provided an access road through its property across the street—on the west side of Lualualei Naval Access Road—that is part of the City and County of Honolulu's network "back roads" that, together, comprise an emergency access route for Wai'anae Coast communities.
>
> **Impacts and Mitigation Measures**
>
> If required by the State Land Use Commission as a condition of reclassification Tropic Land LLC will fund on a fair share basis and construct adequate solar powered civil defense measures to serve the petition area as determined by the State of Hawai'i Department of Defense and City and County of Honolulu Department of Emergency Management.

Additionally, we believe that the proposed development would generate revenues to the State and the City and County o Honolulu as well as require governmental operating expenditures to support it. However, there is no economic and fiscal analysis of the proposed development in the DEIS. Accordingly, we request that an analysis that addresses the projected revenues and expenses of the development be provided. The analysis should include a discussion on the various revenues, including personal income, general excise, and real property taxes, that would

---

[2] D.L.Adams Associates. Ltd. 2006. "Environmental Noise Assessment Report, Kapolei Harborside Center, Kapolei, Oahu, Hawaii." Reproduced as Appendix J, Acoustic Study in *Kapolei Harborside Center Final Environmental Impact Statement*, Prepared by Group 70 International, Inc. for Kapolei Property Development, LLC, November 2006.

be generated Similarly, the analysis on governmental expenditures should include, but not be limited to, the following areas: roadways (improvements and maintenance), public safety, health and sanitation; human services; recreation; debt service; and government employee benefits.

Response: A discussion of fiscal impacts has been added to the FEIS; the full study is included as Appendix J. At the State and City levels, revenues derived from various taxes and fees are expected to exceed public costs.

Text from FEIS (p. 5-56):

Fiscal Impacts. An analysis of fiscal impacts was conducted by Hastings Conboy Braig & Associates, February 2010 (see Appendix J). Table 16 summarizes costs and revenues to both State and City and County governments. The short to mid range revenues will be generated during the period of development to full build out, while the long range revenues will be generated during the period of long-term operations. In either time frame, revenues derived from various taxes and fees are expected to exceed public costs.

Table 16
Fiscal Impacts

	Short to Mid Range (1 to 10 Years) Cumulative Amount		**Long Range (Beyond 10 Years) Annual Amount**	
	Revenues	Costs	Revenues	Costs
State Government	$1,565,000	None	$1,820,000	$1,024,000
City and County Government	$305,000	None	$1,240,000	$320,000

Finally §11-200-17(i), HAR, requires that the interrelationships and cumulative environmental impacts (both direct and indirect) of the proposed action and other related projects be discussed, including the potential secondary effects. Although the proposed development is represented to be self-contained and not related to any other project, we believe that the discussion in section 6.4, *Secondary and Cumulative Impacts*, in the DEIS (p. 6-3) is inadequate as it does not examine the potential impacts of the proposed development in conjunction with existing and planned uses in the are that do or will utilize the region's infrastructure and services regardless of their relationship with the proposed development.

Response: Section 7.4, Secondary and Cumulative Impacts has been expanded to include a discussion of other development projects on the Waianae Coast (see also, Table 20).

The other projects involve housing or community facilities, making the Nanakuli Community Baseyard distinctive as an employment-oriented development. Further, because these projects are either completed or already under construction, it is unlikely that the proposed action will conflict with other near-term uses for the region's infrastructure and services.

Text from FEIS (p. 7-3):

Table 20 shows other development projects on the Wai'anae Coast, as identified through a search of environmental documents filed from 2000 to the present and available through the OEQC Online Library. The projects involve housing or community facilities, making the Nānākuli Community Baseyard distinctive as an employment-oriented development. Because these projects are either completed or already under construction, it is unlikely that the project will conflict with other planned, near-term uses for the region's infrastructure and services.

Table 20
Development Projects on the Wai‘anae Coast

Project Name	FEA/SFEA/ FEIS Date	Location	Description (from FEA/FEIS)	Status
Consuelo Subdivision	Feb 2006	3.35 acres, approx. one-quarter mile from Farrington Hwy near Wai‘anae Valley Road	Subdivision into 21 house lots and installation of utilities and road access for construction of affordable single-family homes	Phased project; preliminary phase underway
Nānākuli Community Center	Jan 2006	13.57 acres, portion of DHHL land in Nānākuli, adjacent to Nānāikapono Elem School	Nānākuli Community Center, Boys and Girls Club of Hawai‘i “clubhouse” facility, and commercial center/ *kupuna* housing	Community center completed; other project components not yet completed
Hale Wai Vista	Aug 2007	5.02 acres, adjacent to Wai‘anae Mall	215 affordable rental housing units. Four multi-family buildings (two 7-story and two 2-story buildings) and one multi-purpose building	First phase opened in Mar 2010
Wai‘anae Coast Comprehensive Health Center, Medical Building	Aug 2008	Existing health care campus at the base of Pu‘u Ma‘ili‘ili‘i	Re-design of four-story medical building (requiring height variance)	Building construction ongoing
Wai‘anae District Park, Parking Improvements	Nov 2008	0.5 acre, surrounding existing park parking lot	Addition of 31 standard stalls and 2 ADA stalls	Parking lot expansion completed

Notes:
FEA = Final Environmental Assessment
SFEA = Supplemental Final Environmental Assessment
FEIS = Final Environmental Impact Statement
DHHL = Department of Hawaiian Home Lands
ADA = Americans with Disability Act

5. In accordance with §11-200-17(k), HAR, a description of all irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented should be provided. This description should address the possibility of environmental accidents resulting from any phase of the action. While we acknowledge that the issue of hazardous wastes (including their handling, storage, treatment, transport, and disposal), their potential impact on the environment, and measures to mitigate such impact are addressed in section 4.15.4, *Solid Waste Disposal Facilities*, we request that such discussion also be included in section 6.5, *Irreversible and Irretrievable Commitments of Resources*.

> ***Response***: Discussion of hazardous wastes has been added to Section 7.5, Irreversible and Irretrievable Commitments of Resources.
>
> ***Text from the FEIS (p. 7-5)***:
>
> To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. As appropriate, the plan will include a collection system for plastics, glass, paper and cardboard, cans, recyclable construction material, and green waste. Source separated material will be diverted to recovery facilities. Where possible and appropriate, the project will specify or use products with recycled content. In other cases, products produced locally will be used where possible and appropriate, including soil amendment and hydro-mulch. Individual unit owners will be encouraged to develop and implement their own recycling plans.
>
> All unit owners will be required to comply with State and federal regulations for the handling, storage, treatment, transport, and disposal of hazardous wastes. The State Department of Health oversees the reporting of inadvertent releases or spills.

6. In accordance with §11-200-17(n), HAR, a separate and distinct section that summarizes unresolved issues, including a discussion of how such issues will be resolved prior to commencement of the action or of the overriding reasons to proceed without resolution of the issue, should be provided. We note that the U.S. Navy's authorization to extend access to Petitioner and its buyers to use the Lualualei Naval Access Road remains an outstanding issue to the extent that the form of the definitive access agreement has not been agreed upon. A timeframe of when such agreement is anticipated to be reached in relation to the development schedule of the proposed action should be provided. We suggest that the July 6, 2009 letter from the U.S. Navy Region Hawaii Commander to Petitioner transmitting a written offer for an annual license agreement, with the possibility of automatic extensions to use the access road, be provided in the interest of full disclosure.

> ***Response***: Correspondence related to use of Lualualei Naval Access Road between the Navy and Tropic Land is included in Appendix K.

7. In accordance with §11-200-17(p), HAR, the DEIS should include a separate and distinct section that contains reproductions of all substantive comments and responses made during the EISPN consultation process. Review of the DEIS indicates that while Chapter 8 includes comments on the EISPN, the individual responses to each comment are not included. Please ensure that the Final EIS includes these responses.

> ***Response***: Chapter 8 of the FEIS includes reproductions of letters commenting on the DEIS and responses. EISPN responses may be found in Appendix M.

8. In the DEIS, there are numerous references to the terms potable water and non-potable water. We request that it be replaced by the term drinking water and non-drinking water, respectively. We have been advised that although potable water has generally been used to mean drinking water, the Department of Health (DOH) uses the latter term specifically to indicate water for human consumption that is derived from surface water and/or groundwater and is regulated by the DOH pursuant to chapter 11-20, HAR.

> ***Response***: The term "potable water" has been replaced by "drinking water," and the term "non-potable water" has been replaced by "non-drinking water." These changes have been made throughout the FEIS.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC

LINDA LINGLE
GOVERNOR OF HAWAII

AB
DA-10-121

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 25, 2009

MEMORANDUM

RECEIVED
OFFICE OF CONSERVATION
& COASTAL LANDS
2009 NOV 25 P 3:21
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

FROM:

DLNR Agencies:
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
__Land Division –

TO: FROM: Morris M. Atta
SUBJECT: Draft Environmental Impact Statement for Nanakuli Community Baseyard
LOCATION: Island of Oahu
APPLICANT: Kimura International, Inc. on behalf of Tropic Land LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 3, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed: _____
Date: 12-3-09

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF:OCCL:AB

Correspondence: OA 10-121

MEMORANDUM

TO: Morris M. Atta, Administrator
Land Division

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: Draft Environmental Impact Statement for Nānākuli Community Baseyard
LOCATION: Nānākuli, O'ahu, TMK: (1) 8-7-009:002
APPLICANT: Kimura International, Inc., on behalf of Tropic Land LLC

The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) has reviewed the Draft Environmental Impact Statement (DEIS) for the Nānākuli Community Baseyard project, located in Nānākuli, O'ahu, TMK: (1) 8-7-009:002.

The OCCL notes that a portion of the subject property appears to be located in the Conservation District, Limited subzone, subject to Hawai'i Administrative Rules (HAR), Chapter 13-5 Conservation District.

According to the applicant's information, the proposed industrial park will not be located in the State Conservation District portion of the property. However, on page 4-5 of the DEIS, the applicant states: "To mitigate adverse impacts from falling rocks, a 100-foot wide buffer has been set aside along the entire mauka boundary of the industrial park. This buffer has not been designed at this point, but is conceived as an unlined channel with possible fencing to catch falling rocks and debris." OCCL asks that the applicant clarifies whether this buffer extends into the State Conservation District portion of the property or not. If the proposed buffer area is located in the State Conservation District, the applicant should contact OCCL to determine whether approval or permit will be required for the proposed use.

Should you have any questions, contact Audrey Barker of our office at (808) 587-0316 or audrey.t.barker@hawaii.gov.

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Samuel J. Lemmo
Administrator
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Lemmo:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by memorandum [Ref: OA 10-121]. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify the comments made.

> ***Question***: OCCL asks that the applicant clarifies whether this buffer (for rockfall mitigation) extends into the State Conservation District portion of the property or not.
>
> ***Response***: All proposed development, including the 100-foot wide mauka buffer strip, will occur outside the State Conservation District. No part of the project area extends into the Conservation District.
>
> ***Text from the FEIS (p. 6-4)***:
>
> Figure 25 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 (Table 19).

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Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

Table 19
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

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

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

LAURA H. THIELEN
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COMMISSION ON WATER RESOURCE MANAGEMENT

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AQUATIC RESOURCES
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 3, 2009

Dan Davidson, Executive Officer
Land Use Commission
235 S Beretania Street, Room 406
Honolulu, Hawai'i 96813

LOG NO: 2009.4589
DOC NO: 0912NM07
Archaeology

Dear Mr. Davidson:

SUBJECT: Chapter 6E-42 Historic Preservation Review –
Nanakuli Community Baseyard
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 November 23, 2009. We apologize for the long delay in response. The proposed undertaking involves a 96-acre potential industrial park.

Cultural Surveys Hawaii surveyed a 170-acre project area surveyed (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 four archaeological sites within the 96 acre project area. These are: site -4370, remnants of a historic ranching house lot, site -4367, a historic wall segment, site -4373., an incinerator belonging to the ranching and military period and site -4372, a foundation belonging to the ranching era. 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.

Aloha,

Nancy A. McMahon

Nancy McMahon, Deputy SHPO/State Archaeologist and
Historic Preservation Manager
State Historic Preservation Division

Cc; Abbey Meyer, Office of State Planning Room 600
Glenn Kimura, Kimura International Inc 1600 Kapiolani Blvd, room 600 Honolulu, HI 96813

KIMURA INTERNATIONAL INC.

April 26, 2010

Dr. Pua Aiu, Administrator
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, HI 96707

Dear Dr. Aiu:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated December 3, 2009.

As planning consultant to the project owner, Tropic Land LLC, we acknowledge your finding that the proposed light industrial park—the current undertaking—will have "no effect" on historically significant resources.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

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Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

Water Resources Research Center
Environmental Center

UNIVERSITY of HAWAI'I
MĀNOA

January 8, 2010
RE: 0796

Mr. Arick Yanagihara
Tropic Land LLC
1001 Bishop Street, Suite 2690
Honolulu, HI 96813

Dear Mr. Yanagihara:

Draft Environmental Impact Statement
Nanakuli Community Baseyard
Lualualei, Oahu

Tropic Land LLC proposes to develop an industrial baseyard on 96 acres of land off of Lualualei Naval Access Road near Nanakuli. The proposed industrial baseyard will be comprised of approximately 41 lots averaging two acres each. The proposed plan also calls for 30-foot wide buffers along Lualualei Naval Access Road, 2.4 acres of green space surrounding Ulehawa Stream, 15-foot setbacks along the northern and southern borders of the project site, and a rockfall and drainage buffer of 100 feet along the mauka edge of the project site. The applicant is seeking a change in zoning for the 96 acres – from P-2 Preservation to I-1 Industrial. The industrial baseyard will be developed under a condominium form of ownership with individual lots and common ownership of internal roads and infrastructure.

This review was conducted with the assistance of Mark Merlin, Botany Department; and Ryan Riddle, Environmental Center.

General Comments

We laud the preparer of the draft environmental impact statement (DEIS) for the number and clarity of the maps included in the document. We found them easy to read and good visual adjuncts to the text. We did, however, find the text to be very repetitive. The readability of this DEIS could be improved if some of the repetition could be eliminated. An example of the repetition occurs on page 4-21. The paragraph after the section heading, "4.8 Archaeological ....." is identical to the very next paragraph under the section heading "Existing Conditions" Another example is on page 2-2. The paragraph beginning with "Among the notable aspects...." contains much of the same information that is listed in the third paragraph on the previous page. The first paragraph under the section heading "Employment and Income" on page 4-41 contains the same information stated on page 2-1 and 2-2.

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Telephone: (808) 956-7361 Fax: (808) 956-3980
An Equal Opportunity/Affirmative Action Institution

In addition to our general comments we also have several specific comments.

Agriculture (p. Summary-2)

In this section the DEIS mentions that the project lands have not been cultivated since the 1980s. Later in the document however, the DEIS mentions, in section 4.14 (p. 4-43) that the cessation of sugar cane production occurred in the early 1900s then states that "Since then, the property has remained largely vacant and unused." What agricultural uses took place at or in the immediate vicinity of the project site between 1900 and 1980?

Steps in the Environmental Review and Implementation Process (p. 1-7)

In paragraph two of Section 1.5 "DES" should be *DEIS*.

Industrial Market Analysis (pp. 2-1 – 2-2)

In the second to the last paragraph on page 2-2 the DEIS discusses Oahu's industrial marketplace. In the next to the last sentence of that paragraph the DEIS says, "Typically, normal equilibrium between supply and demand is reflected by an overall vacancy rate of, say 5%." Is the 5% figure an estimate or is it in fact considered an industry guideline? The use of the word "say" would seem to indicate that this is just an estimate of the normal equilibrium figure, making the comparison with the 3% figure for Oahu, mentioned in the next sentence less precise.

Industrial Land Use Demand Forecasts (pp. 2-6 – 2-7)

At the bottom of page 2-6 and the top of page 2-7 the DEIS discusses three forecasts for industrial land use demand within the Waianae planning area and the ability of the region to absorb the introduction of 70 acres of additional industrial land. It would be helpful if the DEIS discussed other possible industrial projects in development in the region. This information would allow for a more complete evaluation of the ability of the region to absorb this type of land use.

Soil Erosion (pp. 4-5 - 4-6)

Waianae is a very dry area with pronounced wet and dry cycles, as the DEIS points out. The dry cycle corresponds to the summer months, while the wet weather occurs during the winter. Could one of the Best Management Practices (BMPs) listed on pages 4-5 and 4-6 be to schedule most of the grading in the dry summer months? Grading during dry times will greatly reduce the chance of large scale sedimentation occurring after a rain storm.

Vegetation Resources (p. 4-15 – 4-16)

It is customary to include the scientific name for a species in addition to the common name in order to reduce confusion stemming from a species holding multiple common/regional names. We would find it helpful if the authors would reproduce the table of listed plant species (Table 1 in appendix report D) here in this part of the DEIS and the table of avian species on page 4-17 (Table 2 in appendix report D). Tables are a great way to summarize results. Having them here in the text would negate the need for the reader to go to another section of the document to find the results of the flora and fauna surveys.

It is not clear from the text of the DEIS in the second to the last paragraph in this section what Unit 15 is. What endangered species habitat does Unit 15 refer to?

Also, the word "site" in the second paragraph of this section should either be "survey" or "transect."

Potential Impacts and Mitigation Measures (p. 4-18)

There is a misprint in the second paragraph of this section: "changes on changes."

Potential Impacts and Mitigation Measures (p. 4-21)

In this section the DEIS discusses agricultural lands and the availability of "more affordable options with better access to irrigation water resources than are present on the Waianae Coast". What is the extent of available agricultural land on the Waianae Coast?

Visual Simulations – Figure 18 (p. 4-38)

The overhead and street-level visual simulations should include symbology to mark geographic orientation with regard to due north.

Demographics (p. 4-42)

In this section the DEIS states "The proposed development is not expected to affect the number of residents or the demographic characteristics of people who live in the area." While the possible demographic change may not be significant, there is the possibility that companies may relocate from other parts of the island to the Nanakuli facility bringing with them workers already employed who could move to the Waianae coast.

Long-term Employment (p. 4-42)

What types of companies are likely to locate at the industrial park? Will they be new companies or existing companies relocating from other parts of the island to Nanakuli for some competitive or fiscal reason? What are the different impacts on long-term employment and demographics if the tenants are

mostly transplanted companies from other parts of Oahu as opposed to new companies starting in the proposed baseyard?

Surrounding Land Uses (p. 4-43)

This section should mention the number and placement of residential dwellings in the immediate vicinity of the project area. While there may not be many residential structures nearby, it would help in evaluating such things as noise and visual impacts.

Community Values (p. 5-19)

In several sections of the DEIS, most notably here and on page 4-42, the documents state that the project will be an employment center offering well paid jobs. What types of jobs do the project's proposers foresee being created by the proposed project?

EIS Preparers (Section 9-1)

We could not find section 9-1, "EIS Preparers," in the copy of the DEIS that we were given. Perhaps we missed it in our review. If this is our mistake then we apologize for bringing it to your attention. If this section is missing, please place it in the final EIS.

Thank you for the opportunity to review and comment on this DEIS.

Sincerely,

Peter Rappa
Environmental Review Coordinator

cc: OEQC
Dan Davidson, LUC
Glenn Kimura, Kimura International
Chittaranjan Ray, WRRC
Mark Merlin
Ryan Riddle

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Peter Rappa
Environmental Review Coordinator
University of Hawaii at Manoa
2500 Dole Street, Krauss Annex 19
Honolulu, HI 96822

Dear Mr. Rappa:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 8, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify the substantive comments.

Agriculture

What agricultural uses took place at or in the immediate vicinity of the project site between 1900 and 1980?

> ***Response***: Interviews were conducted with three people who have first-hand knowledge of and/or experience with farming activities on the project site. Their statements have been appended to the FEIS (Appendix L). The historical information dates back approximately 60 years, during which the site accommodated two small truck farms. The Araki farm lasted for approximately 25 years on 17 acres, followed by the brief tenure of the Higa farm which ceased operations in 1988. The truck farms experimented with corn, watermelon, round onions, bell peppers, cucumber, tomatoes, and green onions. The Arakis tried a variety of intensive farming methods and diversified by herding goats and keeping beehives. No crop was successful due to adverse growing conditions. Although the Arakis operated successful farms in Makaha—both before and after their Lualualei experience—farming on the project site was unprofitable.

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***Text from the FEIS (p. 4-4)*:**

Farm Lots. Agricultural land use, either as a single operation or multiple farm lots was suggested initially by members of the Waianae Neighborhood Board and mentioned in some of the DEIS comments. Long-term use for agricultural purposes was dismissed as an alternative based on the agricultural consultant's report and information obtained from individuals who previously farmed the project site. Following publication of the DEIS, Tropic Land further investigated the history of farming on the project site. Interviews were conducted with three men who have first-hand experience in farming the property. Appendix L contains oral histories provided by:

- Tadashi Araki, who, with his brother, farmed the site for approximately 25 years, ending in the early 1980s
- Sonny Bradley, who helped to install the irrigation system on the Araki farm, and whose relatives worked for the Arakis
- Albert Silva, whose *ohana* previously owned the property, who has been on the property since childhood, who raised cattle on a portion of the property, and who was employed at the Naval reservation, now known as JBPHH Lualualei Annex

A common theme of the interviews was the inability of the stony, adobe soil to support productive farm activity. Mr. Araki's account details the intensive practices used to achieve a viable farm, including soil conditioning and amendments, pest control, experiments with different types of crops and auxiliary agricultural products, and advice from technical experts.

The poor outcomes obtained by the Araki brothers are consistent with Tropic Land's own experience with on-site horticultural production. Since 2007, Tropic Land has cultivated a variety of palm trees in an attempt to landscape the setback areas. Despite soil amendments, fertilization, and irrigation, tree growth is stunted. There is no evidence that farming would be a sustainable enterprise given the particular conditions of this site. Therefore, agriculture is not considered a viable alternative.

Industrial Market Analysis

In the second to the last paragraph on page 2-2, the DEIS discuses Oahu's industrial marketplace. In the next to the last sentence of that paragraph, the DEIS says, "Typically, normal equilibrium between supply and demand is reflected by an overall vacancy rate of, say, 5%." Is the 5% figure an estimate or is it in fact considered an industry guideline? The use of the word "say" would seem to indicate that this is just an estimate of the normal equilibrium figure, making the comparison with the 3% figure for Oahu, mentioned in the next sentence less precise.

Response: A 5% vacancy factor is considered a general "rule of thumb" or "industry guideline." Because it is a guideline (as opposed to a proven fact), the term "say" has been inserted so as not to mislead the reader as to the absolute certainty of the number. At an overall vacancy rate of 5%, the marketplace is considered to provide sufficient opportunity for supply and demand to interact normally in order to satisfy near-term movements or changes in the marketplace without unduly impacting the market pricing point.

Industrial Land Use Demand Forecasts

At the bottom of page 2-6 and top of page 2-7, the DEIS discusses three forecasts or industrial land use demand within the Waianae planning area and the ability of the region to absorb the introduction of 70 acres of additional industrial land. It would be helpful if the DEIS discussed other possible industrial project in development in the region.

Response: A more direct indication of the region's ability to absorb industrial land is provided by the 21 businesses that have expressed interest in acquiring one or more units in Nānākuli Community Baseyard. Because Tropic Land intends to offer units in the industrial park for sale on a condominium basis, Tropic Land cannot offer units for sale until the Real Estate Commission has issued a Condominium Public Report for the project. Nevertheless, these businesses have already expressed serious interest in the project and provided contact information should the project proceed.

Text from the FEIS (p. 2-7):

Interest from the Business Community

Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development that offers industrial space for less intensive activities.

Soil Erosion

Waianae is a very dry area with pronounced wet and dry cycles, as the DEIS points out. The dry cycle corresponds to the summer moths, while the wet weather occurs during the winter. Could one of the Best Management Practices (BMPs) listed on pages 4-5 and 4-6 be to schedule most of the grading in the dry summer months?

Response: Given the possibility of dry conditions throughout the year, one of the BMPs is to provide for water sprinkling in the construction zone, as needed.

Text from the FEIS (p. 5-5):

Mitigation measures will be implemented to reduce short-term soil erosion. These measures include limiting grading to not more than 15 consecutive acres at a time and installing a sedimentation basin at least 12,000 square feet in size at the grading site.

Additional Best Management Practices (BMPs) will be taken to lessen construction impacts further, as listed below.

- Minimize time of construction to the extent possible.
- Retain existing ground cover until the latest date before construction.
- Sod or landscape all cut and fill slopes immediately after grading work has been completed.
- Early construction of drainage control features (i.e., detention/retention basins).
- Use of temporary area sprinklers and spraying in non-active construction areas when ground cover is removed.
- Station water truck on site during construction period to provide for immediate sprinkling, as needed, in active construction zones (weekends and holidays included).
- Use temporary berms and cutoff ditches, where needed, for erosion control.
- Thorough watering of graded areas after construction activity has ceased for the day and on weekends.
- Provide sedimentation basins.
- Use slope stabilization materials where needed.

A Grading and Erosion Control Plan will be prepared in compliance with Chapter ~~23~~ 14, Revised Ordinances of Honolulu. Further, the National Pollutant Discharge Elimination System (NPDES) general permit will be obtained from the Department of Health, Clean Water Branch for: construction activities. The NPDES permit will include site-specific BMPs.

Vegetation Resources

It is customary to include the scientific name for a species in addition to the common name in order to reduce confusion stemming from a species holding multiple common/regional names. We would find it helpful if the authors would reproduce the table of listed plant species Table 1 in appendix report D) here in this part of the DEIS and the table of avian species on pages 4-17 (Table 2 in appendix report D).

Response: Tables 1 (plant species list) and 2 (avian species list) from the biological surveys (Appendix D) have been incorporated into the EIS report.

Text from the FEIS (p. 5-19 and 5-27): Given the size of the tables, they are reproduced in this letter, but may be found on the pages indicated.

It is not clear from the text of the DEIS in the second to the last paragraph in this section what Unit 15 is. What endangered species habitat does Unit 15 refer to?

Response: Unit 15 refers to the U.S. Fish and Wildlife Service's designation of critical habitat for endangered and threatened plant species, as reported in the *Federal Register*, Vol. 68, No. 116, June 17, 2003.

Text from the FEIS (p. 5-18):

No part of the project site is included in a federally designated plant critical habitat. However, <u>a critical habitat, identified by the U.S. Fish and Wildlife Service as</u> Unit 15, encompasses the adjacent Pu'u Heleakala and the ridgeline above the project area extending to the northeast (Federal Register 2003).

Citation: *Federal Register*. 2003. Part II. Department of the Interior, Fish and Wildlife Service. 50 CFR Part 17. Endangered and Threatened Wildlife and Plants; Final Designations or Nondesignations of Critical Habitat for 101 Plant Species from the Island of Oahu, HI; Final Rule 68 (116; Tuesday, June 17, 2003): 35950-36406.

The word "site" in the second paragraph in this section should either be "survey" or "transect."

Response: The word "site" has been replaced with "survey."

Text from FEIS (p. 5-17):

The AECOS botanical survey was undertaken on June 25, 2008, following a wandering transect that traversed all parts of the project site up to about the 200-foot elevation. The ~~site~~ <u>survey</u> was conducted early in the dry season and, therefore, a few plants typical of the site, especially annuals, might have completed their lifecycle and been missed or gone dormant.

Potential Impacts and Mitigation Measures

In this section the DEIS discusses agricultural lands and the availability of "more affordable options with better access to irrigation water resources than are present on the Waianae Coast." What is the extent of available agricultural land on the Waianae Coast?

Response: Statistical data on available agricultural land at the sub-county level are not readily available. However, a new map has been added to the FEIS showing the amount and distribution of lands in the State Agricultural District.

Text from FEIS (p. 5-29):

Statistics for the amount of agricultural land at the sub-county level are unavailable. However, the extent of lands in the State Agricultural District along the Wai‘anae Coast is shown in Figure 17. Of course, all lands are not currently undeveloped and available for agriculture. With the availability of more favorable options, including several thousand acres of Campbell land in Kunia, Dole land in Wahiawā and Waialua, and Galbraith Estate land in Wahiawā, there are more affordable options with better access to irrigation water resources than are present on the Wai‘anae Coast.

Demographics

In this section the DEIS states "The proposed development is not expected to affect the number of residents or the demographic characteristics of people who live in the area." While the possible demographic change may not be significant, there is the possibility that companies may relocate from other parts of the island to the Nanakuli facility bringing with them workers already employed who could move to the Waianae coast.

Response: When companies move into the new industrial park, there is a possibility that workers who do not currently live in the region will relocate to live closer to their workplace. However, the influx of new residents is not expected to be significant or cause adverse impacts on the local housing market.

Text from the FEIS (p. 5-56):

Demographics. ~~The proposed development is not expected to affect the number of residents or the demographic characteristics of people who live in the area.~~ When companies move into the new industrial park, there is a possibility that workers who do not live in the region currently will relocate to reside closer to their workplace. However, the influx of new residents is not expected to be significant nor expected to create adverse impacts on the local housing market.

Long-term Employment

What types of companies are likely to locate at the industrial park? Will they be new companies or existing companies relocating from other parts of the island to Nanakuli for some competitive or fiscal reason? What are the different impacts on long-term employment and demographics if the tenants are mostly transplanted companies from other parts of Oahu as opposed to new companies starting in the proposed baseyard?

> ***Response***: Among the 21 businesses that have expressed interest in the proposed industrial park are companies involved in trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). All businesses within the industrial park would need to conform to land use restrictions imposed by the proposed I-1, Limited Industrial District zoning classification.
>
> Tropic Land expects that a mix of relocated and new businesses will locate in the light industrial park. Fifteen of the 21 businesses reported current addresses in Waianae. Six businesses are currently located in Honolulu, Aiea, Pearl City, Ewa Beach, and Kapolei. In addition to these businesses, the Waianae Coast Coalition, a non-profit organization, is supporting the business incubator component of the project for the purpose of encouraging start-up enterprises.
>
> ***Text from the FEIS (p. 2-7)***:
>
> **Interest from the Business Community**
>
> Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development that offers industrial space for less intensive activities.
>
> Fifteen of the 21 businesses reported current addresses in Wa‘ianae. The remaining six businesses are currently located in Honolulu, ‘Aiea, Pearl City, ‘Ewa Beach, and Kapolei.
>
> The business incubator is proposed to afford a home for start up businesses. The Wai‘anae Coast Coalition, a non-profit organization, is leading the planning effort for the business incubator component of the project.

Surrounding Land Uses

This section should mention the number and placement of residential dwellings in the immediate vicinity of the project area. While there may not be many residential structures nearby, it would help in evaluating such things as noise and visual impacts.

> ***Response***: A new map has been added to the FEIS (Table 20) which shows land uses within 300 feet of the project area boundary. One private residence and several military structures are located within the 300-foot area.
>
> ***Text from the FEIS (p. 5-47)***:
>
> With the exception of a single residence, located on Lualualei Naval Access Road opposite the southern tip of the project site, there are no known land uses generally defined as noise sensitive. Figure 20 shows land uses within a 300-foot radius of the project site. The 300-foot distance demarcates the area typically required for notification of major land-use actions because of potential impacts. The map also shows several structures within the JBPHH Lualualei Annex that are within 300 feet of the project boundary. Although specific uses are unknown, these buildings are likely to be air-conditioned and, therefore, more insulated from external environmental conditions.

Community Values

In several sections of the DEIS, most notably here [p. 5-19] and on page 4-42, the document states that the project will be an employment center offering well paid jobs. What types of jobs do the project's proposers foresee being created by the proposed project?

> ***Response***: The types of jobs foreseen are related to the types of businesses that have already expressed interest in locating at the proposed industrial park. The following table lists representative occupational titles with corresponding median hourly wages, based on statistics for the Honolulu Metropolitan Statistical Area (MSA) compiled by the State of Hawaii, Department of Labor and Industrial Relations (*Occupational Employment and Wages in Hawaii, 2008*).

Occupational Title	**Hourly Median ($)**
Stonemasons	27.19
Cement masons and concrete finishers	27.75
Construction laborers	23.38
Paving, surfacing, tamping equipment operators	34.78
Electricians	28.79
Painters, construction and maintenance	24.40
Landscaping, grounds maintenance workers	13.05
Truck drivers, heavy and tractor-trailer	18.38
Industrial truck and tractor operators	16.32
Material moving workers, all others	22.04
Total, all occupations	**16.38**

Text from FEIS: None. Information in response provided for clarification.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

West County
Oahu Farm Bureau

87-1550 Kanahele Road Waianae, Hawaii 96792

RECEIVED JAN 08 2010

January 7, 2010

Mr. Dan Davidson, Executive Officer
Land Use Commission
235 . Beretania Street, Room 406
Honolulu, Hawaii 96813

Dear Mr. Davidson:

Re: Nanakuli Community Baseyard; Docket No. A09-782; TMK: (1)8-7-09:02 (por.)

West County of Oahu Farm Bureau has reviewed the Draft EIS and submits the following comments:

LAND USE POILICIES AND CONTROLS

We oppose Tropic Land LLC (applicant)'s request to seek an I-1 land use district amendment. We believe that the location and proximity of the project contributes to urbanization and undesirable encroachment pressures on important agricultural production of fresh leafy vegetables, herbs, pork and eggs in our valley. We believe this is a typical case of "spot zoning" where an interested party purchases vacant agricultural land solely for the purpose of development and not for farming. This request will definitely endanger the farming character of our community by further intrusion of industrial activity in addition to the conditional land uses of Pacific Aggregate and the PVT Landfill. Our farms will be surrounded from the Northeast, South and West.

The applicant has emphasized the soil quality of the property as a reason for the land to be undesirable for farming. We believe their intent to develop and not farm demonstrates their lack of interest to invest in irrigation and soil remediation. Many of our members own land with similar soil characteristics, yet our members have farmed this land since the 1940s and converted this community into a productive agricultural area.

One of the main threats to the viability of diversified agriculture is urban encroachment by incompatible land uses. We believe this application is contrary to the State Constitution to conserve and protect agricultural land. We believe that two values of the Waianae Sustainable Communities Plan: rural character and small town values are higher priorities than the applicant's emphasis on economic choices. Page 103 of the DEIS states the project has sufficient reserve areas for foreseeable urban growth and proposes "city like" concentration of people, structure, and services.

TRAFFIC

The Waianae Community has suffered transportation bottlenecks due to the "one way in, one way out" access of Farrington Highway. During natural disasters such as hurricanes and wind storms that close our highway from down electrical poles; traffic fatalities; or road construction, commuting is chaotic. Transporting our perishable products and livestock takes 30-45 minute more during these commuting catastrophies. Until Waianae receives a second highway, increasing traffic especially at the intersection of Lualualei Naval Road and Farrington Highway should be avoided. The DEIS states that traffic will increase at that intersection and the baseyard will accommodate heavy trucks and trailers.

We strongly oppose this request because this is no definite agreement with the Navy and the applicant to access Lualualei Naval Road. Hakimo Road is the primary access for the project and we strongly oppose any increase in industrial heavy trucks and trailers on Hakimo and Paakea Roads. Hakimo Road is a paved country road that is narrow with many bends and poor drainage. Many farmers use

January 7, 2010

these roads for transporting tractors and farm equipment between various farm lots. There are no sidewalks for children to wait for the school buses. Introducing industrial traffic levels will endanger children and farming residents.

FOOD SAFETY AND QUALITY

Our federal government and Hawaii Farm Bureau Federation have made food safety a priority. Our farmers are subject to food safety audits and inspections to do business with major wholesalers and retailers. The presence of this industrial park will impact the quality of the fresh produce we grown and the farmer's risk assessment for food safety audits.

Air Quality. The applicant's DEIS states: on page 75, its construction will emit fugitive dust and exhaust to adjacent areas. These pollutants can cause yellowing of vegetable and result in lower production and rejection of produce.

Solid Waste. The applicant's DEIS states certain industrial uses may have potential to generate hazardous or regulated waste. The quantities are not estimated because the precise nature of future occupants is unknown. The uncertainty of the solid waste from the baseyard is a serious concern to food safety.

Waste Water Effluent. The applicant proposes to use the effluent from its waste water system for irrigation. We are concern of the contamination of vegetable fields during the rainy season from effluent runoff. Who will be guarantee that requirements to use waste water effluent for irrigation are fulfilled and the practice safe?

PURPOSE AND NEED FOR THE PROPOSED ACTION

The applicant raises the need to create employment in the Waianae Coast. Previous zone change applications have also stress the fulfillment of job creation by taking agricultural land for urban and industrial use. The emotion of job creation is high for the Waianae Community. Will this project attain that purpose without creating harm to agriculture, transportation and safety? The DEIS states the Waianae community is less likely to hold jobs in management position. Will the baseyard project attract the new entrepreneurs and others to create jobs, relocate to Waianae despite the traffic problems?

We respectfully ask the constitutional protection of agricultural land be applied to our community. Many of us were evicted from leased land by Estate land owners and relocated to Waianae 60 years ago. The suggestion that going back to lease agricultural land in the Ewa plains is naive. Former plantation lands have superior soil quality but lack the infrastructure of roads, water and electricity. Many leases are month to month or one year and restrict the farmer's ability for financing. The availability of ditch water is a serious issue. Waianae's farm lots have better infrastructure and desirable lot size for new immigrant farmers. Please oppose the land use district boundary amendment for Nanakuli Community Baseyard.

Sincerely,

Harry Choy

Harry Choy
Director

Cc: Mr. Abbey Seth Mayer
Cc: Mr. Glenn Kimura

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Harry Choy, Director
West County Oahu Farm Bureau
87-1550 Kanahale Road
Waianae, HI 96792

Dear Mr. Choy:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 7, 2010.

We note your concerns related to land use policies, traffic, food safety and quality, and the purpose of and need for the project. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to your questions

Who will guarantee that requirements to use waste water effluent for irrigation are fulfilled and the practice safe?

> ***Response***: New on-site wastewater system plans must be approved by the State of Hawaii, Department of Health (DOH), Wastewater Branch. Permits are tied to the City and County's building permit process. Permits for new construction require the DOH to review and sign permit applications.
>
> The DOH also regulates the use of recycled water (*Guidelines for the Treatment and Use of Recycled Water*, Hawaii State Department of Health, Wastewater Branch, May 15, 2002). Requirements include DOH approval of an irrigation plan, engineering design report for the water reuse project, construction plans for the water reuse project, and employee training plan.

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Text from the FEIS (p. 5-63 and 5-65):

The proposed on-site wastewater collection system is illustrated in Figure 5 (Chapter 3). Gravity sewers will be located within sewer easements. Preliminary pipe line sizes range from 8 to 10 inches in diameter. Design and construction of the system will be in accordance with standards established by the City and County and State Department of Health.

A water reuse plan will be developed for effluent water from the wastewater treatment plant. The plan will include additional information about irrigation practices, management, public education, and other required information per the DOH Recycled Water Guidelines.

The emotion of job creation is high for the Waianae Community. Will this project attain that purpose without creating harm to agriculture, transportation and safety? The DEIS states the Waianae community is less likely to hold jobs in management position. Will the baseyard project attract the new entrepreneurs and others to create jobs, relocate to Waianae despite the traffic problems?

Response: Twenty-one businesses have expressed interest in acquiring one or more units in the proposed light industrial park. Because Tropic Land intends to offer units in the industrial park for sale on a condominium basis, Tropic Land cannot offer units for sale until the Real Estate commission has issued a Condominium Public Report for the project. Nevertheless, these businesses have expressed serious interest in the project and provided contact information to receive a public report. Fifteen of the 21 businesses reported current addresses in Waianae. Six businesses are currently located in other regions, such as Honolulu, Aiea, Pearl City, Ewa Beach, and Kapolei.

In addition to these businesses, the Waianae Coast Coalition, a non-profit organization, is supporting business incubator component of the project that would encourage start-up companies.

Text from the FEIS (p. 2-7):

Interest from the Business Community

Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling,

general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development that offers industrial space for less intensive activities.

Fifteen of the 21 businesses reported current addresses in Wa'ianae. The remaining six businesses are currently located in Honolulu, 'Aiea, Pearl City, 'Ewa Beach, and Kapolei.

The business incubator is proposed to afford a home for start up businesses. The Wai'anae Coast Coalition, a non-profit organization, is leading the planning effort for the business incubator component of the project.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

BOARD OF WATER SUPPLY

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

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF
WILLIAM K. MAHOE

JEOFFREY S. CUDIAMAT, Ex-Officio
BRENNON T. MORIOKA, Ex-Officio

WAYNE M. HASHIRO, P.E.
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

December 14, 2009

RECEIVED DEC 18 2009

Mr. Dan Davidson, Executive Officer
Department of Business Economic Development & Tourism
State of Hawaii
Land Use Commission
235 South Beretania Street, Room 406
Honolulu, Hawaii 96813

Dear Mr. Davidson:

Subject: Letter Dated November 20, 2009 on the Draft Environmental Impact Statement (DEIS) for the Nanakuli Community Baseyard, Lualualei, Waianae, TMK 8-7-009:002

Thank you for the opportunity to comment on the proposed project.

The existing water system cannot provide adequate fire protection to the proposed industrial development. Our Water System Standards require an offsite fire hydrant to be located within 125 linear feet of industrial developments and provide a flow of 4,000 gallons per minute (gpm). The existing water system can only provide a flow of approximately 2,200 gpm to fire hydrant L-945 at the intersection of Paakea Road and Hakimo Road. Therefore, the developer will be required to install approximately 7,000 linear feet of 16-inch water main from the 20-inch main at the intersection of Paakea and Hakimo Road to the site to upgrade the fire protection in accordance with our water system standards. The construction drawings should be submitted for our review and approval.

Please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves its right to change any position or information stated herein up until the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions please contact Robert Chun at 527-6123.

Very truly yours,

KEITH S. SHIDA
Program Administrator
Customer Care Division

cc: Mr. Glen Kimura, Kimura International, Incorporated
Mr. Abbey Seth Mayer, DBEDT-Office of Planning

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Keith S. Shida, Program Administrator
Customer Care Division
Board of Water Supply
630 South Beretania Street
Honolulu, HI 96843

Dear Mr. Shida:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated December 14, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. The existing water system cannot provide adequate fire protection to the proposed industrial development. Our Water System Standards require an offsite fire hydrant to be located within 125 linear feet of industrial developments and provide a flow of 4,000 gallons per minute (gpm). The existing water system can only provide a flow of approximately 2,200 gpm to fire hydrant L-945 at the intersection of Paakea Road and Hakimo Road. Therefore, the developer will be required to install approximately 7,000 linear feet of 16-inch water main from the 20-inch main at the intersection of Paakea and Hakimo Road to the site to upgrade the fire protection in accordance with our water system standards. The construction drawings should be submitted for our review and approval.

> ***Response***: As described in the EIS, the project owner intends to construct a 16-inch water main that connects to the existing 20-inch main at the intersection of Paakea and Hakimo Roads. This facility will be designed and constructed to the Board of Water Supply's standards. Construction drawings, to be prepared during the project design phase, will be submitted for your review and approval.

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The project owner is aware that availability of water is yet to be confirmed, and that confirmation will be made when the building permit application is submitted for approval. Furthermore, when water is made available, the project owner will be required to pay Water System Facility Charges for resource development, transmission, and daily storage.

On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Fire Department.

Text from the FEIS (p. 5-62): The proposed drinking water system will be connected to the existing 20-inch BWS water main at the intersection of Pa‘akea Road and Hakimo Road. A new 16-inch transmission line will be located along Pa‘akea Road and Lualualei Naval Access Road, entering into the project site. An easement from the Navy will be needed for a portion of the water line to be constructed under Pa‘akea Road and Lualualei Naval Access Road.

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
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MUFI HANNEMANN
MAYOR

DAVID K. TANOUE
DIRECTOR

ROBERT M. SUMITOMO
DEPUTY DIRECTOR

2009/ELOG-2772 (mw)

January 20, 2010

RECEIVED JAN 21 2010

Mr. Orlando Davidson, Executive Officer
Land Use Commission
State of Hawaii
P. O. Box 2359
Honolulu, Hawaii 96804-2359

Dear Mr. Davidson:

Subject: Draft Environmental Impact Statement (EIS) for the Nanakuli Community Base Yard, Lualualei, Waianae, Oahu, TMK 8-7-9: por. 2

We have the following comments on this Draft EIS for Tropic Land's proposed 96-acre industrial park next to the Lualualei Navy facility:

1. In Chapter 2, the project's market analysis needs to provide more information that there is indeed a potential demand for additional industrial land in the Waianae district. The EIS should discuss the development of the 15-acre industrial park at Village Pokai Bay in Waianae Town. Other useful information includes: (1) the growth history of other new leeward industrial parks (such as Mill Town Center in Waipahu), (2) statements by realtors that there have been inquiries about land for light industrial use in the leeward area's west end, and (3) actual relocations of industries in the direction of Waianae. In addition, Chapter 2 needs to defend two underlying assumptions behind the market analysis: (1) that the enormous proportional disparity of jobs between major employment centers and outlying bedroom communities can actually be solved by making more land available for business growth in purely residential areas, and (2) the conversion factor of "5,000 square feet of land area per employee/job", which the market analysis uses to calculate the future demand for industrial land in the Waianae district.

2. The EIS is erroneously characterizing the lands along Lualualei Naval Access Road as urban and industrial, when much of it is open space and rural. The EIS should discuss nearby land uses in terms of their location beyond the Waianae Sustainable Communities Plan's (SCP) Rural Community Boundary.

3. Chapter 4 needs to discuss all the potential impacts of the planned industrial uses themselves. Potential impacts from industrial operations include internal traffic circulation of large trucks, potential groundwater contamination, and potential noise and air quality impacts.

4. Consistency is needed with regard to existing wells and water use. Section 4.2 states that the existing wells will remain capped, whereas Section 3.1 states that the wastewater effluent may be diluted with non-potable water from these wells, and Section 4.15.2 states that potable water may be used for this purpose.

5. Section 4-9 needs to discuss the need for sidewalks, bike paths, and street light improvements, both along Lualualei Naval Access Road and within the project. These types of travel improvements are recommended by the Waianae SCP along major valley roads, and would be required within the project if subdivision of the land were being requested.

6. Section 4.15 needs to discuss the Underground Injection Control line as well as the No Pass Zone, and to map both.

7. In Section 5.6 on the General Plan, the Physical Development and Urban Design subsection should: (1) explain why a new employment center is appropriate to this location, and (2) remove Objective D, Policy 1, since it applies only to urban-fringe areas, and the General Plan considers the entire Waianae district to be a rural area.

8. A fuller discussion is also needed on the Waianae SCP's vision for the future of the region (Section 5.7). First, when discussing how the project relates to that vision, it is important to bring up the associated community value on the need for economic choices. Second, the discussion of the second vision element, Rural Values and Qualities, needs to: (1) explain how adding an industrial park in an outlying area fits in with this vision element, and (2) describe the project site as having easy access to the freeway, but not as being "close to the freeway". Third, all six vision elements need to be listed and briefly discussed, especially the limited availability of potable water in the Waianae district.

9. Section 5.8 misstates the project area's zoning and zoning history. First, Table 17 should indicate that an estimated 71 acres are zoned P-1 Restricted Preservation (the area within the State Conservation District). Second, the rezoning of the property for golf course use occurred in 1996, not in 1999, and changed only part of the parcel from the AG-1 and AG-2 agricultural districts to the P-2 General Preservation district.

10. A licensed geotechnical engineer needs to be retained to investigate the potential rockfall hazards and to recommend mitigation measures. Also, the developer is expected to construct all improvements recommended by the geotechnical engineer in order to ensure that the site is suitable for development.

11. On page 4-6, the City grading ordinance should be listed as Chapter 14 of the Revised Ordinances of Honolulu, not as Chapter 23.

12. The preliminary engineering report prepared by Hida, Okamoto and Associates and included in the Final EIS must be stamped and signed by a licensed civil engineer, with the authentication statement placed below the engineer's stamp.

13. Why are soil loss calculations provided to reflect the long-term change in soil erosion potential? They may not be accurate, for two reasons: (1) the proposed and future LS values may not be the same, and (2) the existing and future C values should be based on the Universal Soil Loss Equation's Tables 20 and 22, respectively.

14. The discussion on flooding in Section 4.4 should be expanded to cover the need to set back buildings from Ulehawa Stream. It should mention that the site plan includes a landscaped setback encompassing Ulehawa Stream (see pages 3-2 and 3-4). It should also note that the drainage basin covers over 1,000 acres and that the Q100 is about 2,800 cfs.

15. With regard to the drainage catchment areas, Figure 12 (page 4-10) has two areas labeled "B-1", and the size of drainage catchment area A is correctly listed in Table 6 (page 4-8) as 1,084 acres, but incorrectly as 1.08 acres in Tables 3 and 4 of the Preliminary Engineering Report.

16. The entire report needs to be carefully proofread. Be especially careful on compass directions, figure numbers, etc. One particularly misleading statement on page 6-1 should be edited as follows: "Increased vehicular travel along Farrington Highway and Lualualei Naval Access Road will have an effect on traffic flow." Also, two paragraphs on page 4-19 on soil types and crop productivity ratings are especially hard to follow.

Should you have any questions, please contact Mike Watkins of our staff at 768-8044.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:js

cc: OEQC
Kimura International, Inc.
Office of Planning

Tropic Land DEIS

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. David K. Tanoue, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Dear Mr. Tanoue:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 20, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. In Chapter 2, the project's market analysis needs to provide more information that there is indeed a potential demand for additional industrial land in the Waianae district. The EIS should discuss the development of the 15-acre industrial park at Village Pokai Bay in Waianae Town… In addition, Chapter 2 needs to defend two underlying assumptions behind the market analysis: (1) that the enormous proportional disparity of jobs between major employment centers and outlying bedroom communities can actually be solved by making more land available for business growth in purely residential areas, and (2) the conversion factor of "5,000 square feet of land area per employee/job," which the market analysis uses to calculate the future demand for industrial land in the Waianae district.

> ***Response***: Twenty-one businesses have expressed interest in acquiring one or more units in the proposed light industrial park. Because Tropic Land intends to offer units in the industrial park for sale on a condominium basis, Tropic Land cannot offer units for sale until the Real Estate Commission has issued a Condominium Public Report for the project. Nevertheless, these businesses have expressed serious interest in the project and provided contact information to receive a Public Report. The 21 businesses engage in the following types of business activity: trucking and hauling, equipment handling, general

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contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development, offering industrial space for less intensive land uses.

All uses would conform to the proposed zoning classification of I-1, Limited Industrial District. Fifteen of the 21 businesses reported current addresses in Waianae. Six businesses are currently located in other regions, such as Honolulu, Aiea, Pearl City, Ewa Beach, and Kapolei.

In addition to these businesses, the Waianae Coast Coalition, a non-profit organization, is supporting the business incubator component of the project.

The Village Pokai Bay Industrial Park has not been developed. Although it was proposed a number of years ago, the site is little more than a vacant lot.

Text from FEIS (p. 2-7):

Interest from the Business Community

Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development that offers industrial space for less intensive activities.

Fifteen of the 21 businesses reported current addresses in Wa‘ianae. The remaining six businesses are currently located in Honolulu, ‘Aiea, Pearl City, ‘Ewa Beach, and Kapolei.

The business incubator is proposed to afford a home for start up businesses. The Wai‘anae Coast Coalition, a non-profit organization, is leading the planning effort for the business incubator component of the project.

2. The EIS is erroneously characterizing the lands along Lualualei Naval Access Road as urban and industrial, when much of it is open space and rural. The EIS should discuss nearby land uses in terms of their location beyond the Waianae Sustainable Communities Plan's (SCP) Rural Community Boundary.

Response: In the existing Waianae SCP, the Rural Community Boundary runs *mauka* along Lualualei Naval Access Road to the Paakea Road intersection, then along the length of Paakea Road through Ma‘ili. The project site is located approximately 0.25 mile outside the Rural Community Boundary, from a point at the intersection of Lualualei Naval Access Road and Paakea Road. This intersection also marks the *mauka* extent of the State Urban District, with the PVT Landfill and Pineridge Farms (formerly a cement manufacturing plant and presently a recycling facility), located within lands classified as Urban.

Text from the FEIS: None. Response provided for clarification purpose.

3. Chapter 4 needs to discuss all the potential impacts of the planned industrial uses themselves. Potential impacts from industrial operations include internal traffic circulation of large trucks, potential groundwater contamination, and potential noise and air quality impacts.

Response: Potential short-term (construction phase) and long-term (operational phase) impacts are discussed in Chapter 3, which describes the project and Chapter 5, which describes potential impacts and mitigations for each resource area. Chapter 7 identifies unavoidable short- and long-term adverse impacts, as well as secondary and cumulative impacts. The summary sheet at the front of the document provides an overview.

Text from the FEIS: Text is distributed throughout the FEIS, as indicated in the response, and, therefore, not duplicated in this letter.

4. Consistency is needed with regard to existing wells and water use. Section 4.2 states that the existing wells will remain capped, whereas Section 3.1 states that the wastewater effluent may be diluted with non-potable water from these wells, and Section 4.15.2 states that potable water may be used for this purpose.

Response: Existing wells will remain capped. Relevant sections of the FEIS have been revised accordingly.

Text from the FEIS (p. 3-3 and 5-7):

Effluent may be supplemented with ~~non-drinking water from the existing wells~~ <u>potable or drinking water</u> for irrigation purpose

The previous owner, Oban, had drilled two wells with the expectation of tapping groundwater as a source of irrigation water for the proposed golf course and nursery. Groundwater will not be used for the proposed light industrial park and the existing wells will remain capped.

5. Section 4.9 needs to discuss the need for sidewalks, bike paths, and street light improvements, both along Lualualei Naval Access Road and within the project. These types of travel improvements are recommended by the Waianae SCP along major valley roads, and would be required within the project if subdivision of the land were being requested.

> ***Response***: Because Tropic Land intends to submit the project to a Condominium Property Regime, Tropic Land may not be required to obtain final subdivision approval for the project. If subdivision approval is not required, specific roadway improvements will be addressed during the design phase of the project and in consultation with the U.S. Navy and City agencies.
>
> ***Text from the FEIS (p. 3-2 and 5-42)***:
>
> 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 may be installed. Street lights and street trees will be installed for safety and aesthetic purposes.
>
> <u>Improvements to Lualualei Naval Access Road itself will be determined in consultation with the U.S. Navy as part of the negotiations for an easement to use, operate and maintain the road.</u>

6. Section 4.15 needs to discuss both the Underground Injection Control line as well as the No Pass Zone, and to map both.

> ***Response***: The Underground Injection Control area is discussed in Section 5.2 of the FEIS and illustrated in Figure 12.
>
> ***Text from the FEIS (p. 5-7)***
>
> :
>
> <u>Figure 12 shows a map of the Underground Injection Control (UIC) area. The UIC program, in conjunction with federal and State safe drinking water laws, is intended to protect groundwater from contamination. As shown in the map, the project site is located mauka of the UIC line, in an area with restrictions on injection wells.</u>

7. In Section 5.6 on the General Plan, the Physical Development and Urban Design subsection should (1) explain why a new employment center is appropriate to this location and (2) remove Objective D, Policy 1, since it applies only to urban-fringe areas, and the General Plan considers the entire Waianae district to be a rural area.

Response: The appropriateness of Lualualei Valley for a light industrial park is described on page 6-15. Reference to Objective D, Policy 1 has been deleted.

Text from FEIS (p. 6-15):

***Discussion*:** As an employment center, the proposed industrial park is appropriate for this location for the following reasons: ~~The proposed industrial park~~ It 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 was designed and constructed for truck transport. 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 the location near the gateway to the Wai‘anae district would minimize truck traffic farther up the coast.

8. A fuller discussion is also needed on the Waianae SCP's vision for the future of the region (Section 5.7). First, when discussing how the project relates to that vision, it is important to bring up the associated community value on the need for economic choices. Second, the discussion of the second vision element, Rural Values and Qualities, needs to (1) explain how adding an industrial park in an outlying area fits in with this vision element, and (2) describe the project site as having easy access to the freeway, but not as being "close to the freeway." Third, all six vision elements need to be listed and briefly discussed, especially the limited availability of potable water in the Waianae district.

Response: The discussion of the relationship of the project to the Waianae SCP's vision and community values may be found starting on page 6-16.

Text from the FEIS (p. 6-16 and 6-19):

***Discussion*:** The proposed amendment seeks to establish an employment center in the Wai‘anae 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‘anae 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‘anae 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.

***Discussion*:** Although the amendment area is undeveloped, it is not suitable for commercial agriculture. Previous attempts to farm the amendment area have been unsuccessful. 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 Waiʻanae 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 Waiʻanae District will not have to commute to more distant locations, such as Hālawa, Kalihi, or Airport/Māpunapuna.

9. Section 5.8 misstates the project area's zoning and zoning history. First, Table 17 should indicate that an estimated 71 acres are zoned P-1 Restricted Preservation (the area within the State Conservation District). Second, the rezoning of the property for the golf course occurred in 1996, not in 1999, and changed only part of the parcel from the AG-1 and AG-2 agricultural districts to the P-2 General Preservation district.

Response: Acreages in the table showing "Current and Proposed Zoning" (Table 20 in the FEIS) have been revised. The rezoning date for the golf course has been changed to 1996.

Text from FEIS (Table 20, p 6-25):

Table 20
Current and Proposed Zoning
TMK: 8-7-09: 02

Zones	**Current Acres**	**Proposed Acres**
Preservation P-1	71.0	71.0
Preservation P-2	165.154 ~~236.154~~	69.154 ~~140.154~~
Industrial I-1	0	96.0
Total	236.154	236.154

10. A licensed geotechnical engineer needs to be retained to investigate the potential rockfall hazards and to recommend mitigation measures. Also, the developer is expected to construct all improvements recommended by the geotechnical engineer in order to ensure that the site is suitable for development.

> ***Response***: A geotechnical study by a licensed engineer will be conducted during the design phase of the project. The project owner expects to implement the recommendations of the study.
>
> ***Text from FEIS (p. 5-17)***:
>
> A licensed geotechnical engineer will be retained to prepare a rockfall and slope stability analysis and to design the channel during the project design phase. Tropic Land anticipates complying with the recommendations of the rockfall and slope stability analysis, including other mitigation measures that would be implemented during construction.

11. On page 4-6, the City grading ordinance should be listed as Chapter 14 of the Revised Ordinances of Honolulu, not as Chapter 23.

> ***Response***: Correction made.
>
> ***Text from the FEIS (p. 5-6)***:
>
> A Grading and Erosion Control Plan will be prepared in compliance with Chapter ~~23~~ 14, Revised Ordinances of Honolulu.

12. The preliminary engineering report prepared by Hida, Okamoto and Associates and included in the Final EIS must be stamped and signed by a licensed civil engineer, with the authentication statement placed below the engineer's stamp.

> ***Response***: The preliminary engineering report (Appendix A) has been stamped and signed by a licensed civil engineer.

13. Why are soil loss calculations provided to reflect the long-term change in soil erosion potential? They may not be accurate, for two reasons: (1) the proposed and future LS values may not be the same, and (2) the existing and future C values should be based on the Universal Soil Loss Equation's Tables 20 and 22, respectively.

> ***Response***: The soil loss calculations have been modified, as shown in Table 5.

Text from the FEIS (Table 5, p. 5-6):

Table 5
Summary of Soil Erosion Potential

Subarea	Existing Conditions (tons/year)	Developed Conditions (tons/year)	Percent Change (%)
A	403	~~264~~ 60	~~-66~~ -85
B	5,306	5,306	0
Total	5,709	~~5,570~~ 5,366	~~-2~~ -6

Source: Hida, Okamoto & Associates. January 2010. Preliminary Engineering Report

14. The discussion on flooding in Section 4.4 should be expanded to cover the need to set back buildings from Ulehawa Stream. It should mention that the site plan includes a landscaped setback encompassing Ulehawa Stream (see pages 3-2 and 3-4). It should also note that the drainage basin covers over 1,000 acres and that the Q100 is about 2,800 cfs.

Response: The discussion on flooding (Section 5.4 in the FEIS) notes that the buffer area surrounding Ulehawa Stream serves as a building setback.

Text from the FEIS (p. 5-14):

Buildings will be set back from Ulehawa Stream through the reservation of a buffer area in the northwest corner of the project site.

15. With regard to the drainage catchment areas, Figure 12 (page 4-10) has two areas labeled "B-1," and the size of drainage catchment area A is correctly listed in Table 6 (page 4-8) as 1,084 acres, but incorrectly as 1.08 acres in Tables 3 and 4 of the Preliminary Engineering Report.

Response: Corrections have been made to Figure 13 in the FEIS and the Preliminary Engineering Report tables.

16. The entire report needs to be carefully proofread. Be especially careful on compass directions, figure numbers, etc. One particularly misleading statement on page 6-1 should be edited as follows: "Increased vehicular travel along Farrington Highway and Lualualei Naval Access Road will have an effect on traffic flow." Also, two paragraphs on page 4-19 on soil types and crop productivity ratings are especially hard to follow.

Response: Typographical errors corrected.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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MUFI HANNEMANN
MAYOR

WAYNE YOSHIOKA
DIRECTOR

SHARON ANN THOM
DEPUTY DIRECTOR

TP11/09-342653R

January 7, 2010

RECEIVED JAN 08 2010

Mr. Glenn Kimura
Kimura International Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura:

Subject: Draft Environmental Impact Statement for Nanakuli Community Baseyard Project, Nanakuli, Oahu

This responds to the Draft Environmental Impact Statement (DEIS) study for the subject project. We are offering the following comments:

- We believe that the project title should be renamed to reflect the project intent and purpose. The City commonly uses the title "baseyard" for its various facilities that provide maintenance, repair, and other related services for its vehicles. The project, as described in the "proposed action" is a condominium type "industrial park." Therefore, in order to prevent confusion on the proposed project, we strongly suggest that the project title be renamed as an "industrial park" and not a "baseyard;"

- The Traffic Impact Assessment Report should include an assessment of impacts on local roads;

- Lualualei Naval Access Road, as noted in the document, is currently controlled by the U.S. Navy. The final Environmental Impact Statement (FEIS) should include formal documentation (i.e. letter of agreement) of the agreement between the Navy and the property owner to utilize the Access Road to gain access to the property. We would be very concerned about potential traffic impacts if access to the property were to utilize Hakimo Road which currently does not meet City roadway standards;

- The document should clarify the term "fair share agreement." This term is mentioned in regards to an agreement between the State, City, and the property owner. As part of rezoning, it has been City policy to require developers to construct and/or implement any necessary transportation related mitigation measures that may be required of a project. The City, to date, has not entered into any verbal or formal agreement to participate in any "fair share agreement" for transportation related improvements in the area; and

- The DEIS should document any pre-consultation, correspondence or meetings the developer may have had with the State Department of Transportation (HDOT) since the proposed project impacts Farrington Highway. The results of any meetings or correspondence with HDOT and their concerns should have been included in Section 4.9. of the DEIS that discusses "Roadways and Traffic."

Should you have any questions, you may contact Mr. Brian Suzuki of my staff at 768-8349.

Very truly yours,

Wayne Y. Yoshioka
Director

cc: Mr. Dan Davidson
Land Use Commission

Ms. Abbey Seth Mayer
Office of Planning

Office of Environmental Quality Control

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Wayne Y. Yoshioka, Director
Department of Transportation Services
650 South King Street, 3rd Floor
Honolulu, HI 96813

Dear Mr. Yoshioka:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 7, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. We believe that the project title should be renamed to reflect the project intent and purpose. The City commonly uses the title "baseyard" for its various facilities that provide maintenance, repair, and other related services for its vehicles. The project, as described in the "proposed action" is a condominium type "industrial park." Therefore, in order to prevent confusion on the proposed project, we strongly suggest that the project title be renamed as an "industrial park" and not a baseyard.

> ***Response***: The term "baseyard" reflects early interest in the project from businesses that would use the location as a base of operations, including companies involved in trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Nevertheless, Tropic Land is considering a name change in the future. Any change would be made with input from the local community.
>
> ***Text from the FEIS (Preface)***: Tropic Land LLC has received several suggestions to change the name of the project, the Nānākuli Community Baseyard. Because the project's name was selected at the suggestion of and with the approval of the Nānākuli/Mā'ili Neighborhood Board, and in order to avoid confusion in the review of the FEIS, Tropic Land has decided to defer any change to the name of the project until after consulting the Nānākuli/Mā'ili Neighborhood Board.

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2. The Transportation Impact Assessment Report should include an assessment of impacts on local roads.

> ***Response***: The TIAR focuses on impacts to Farrington Highway, the public roadway closest to the project site. Impacts to Lualualei Naval Access Road and appropriate mitigation measures will be determined in consultation with the Navy as part of the ongoing process of reaching a long-term easement agreement to use the road.
>
> ***Text from the FEIS (p. 5-42)***: Improvements to Lualualei Naval Access Road itself will be determined in consultation with the U.S. Navy as part of the negotiations for an easement to use, operate and maintain the road.

3. Lualualei Naval Access Road, as noted in the document, is currently controlled by the U.S. Navy. The final Environmental Impact Statement (FEIS) should include formal documentation (i.e., letter of agreement) of the agreement between the Navy and the property owner to utilize the Access Road to gain access to the property. We would be very concerned about potential traffic impacts if access to the property were to utilize Hakimo Road which currently does not meet City roadway standards.

> ***Response***: Correspondence related to Lualualei Naval Access Road between Tropic Land and the Navy is included in Appendix K of the FEIS. As noted in the correspondence the Navy had agreed to leasing a long term easement to use Lualualei Naval Access Road to the adjoining property owners who are presently the primary non-Navy users of the road. Tropic Land and the Navy are presently discussing the terms of the easement.
>
> ***Text from the FEIS (p. 5-38)***: Correspondence with the Navy regarding Lualualei Naval Access Road may be found in Appendix K.

4. The document should clarify the term "fair share agreement." This term is mentioned in regards to an agreement between the State, City, and the property owner. As part of rezoning, it has been City policy to require developers to construct and/or implement any necessary transportation related mitigation measures that may be required of a project. The City, to date, has not entered into any verbal or formal agreement to participate in any "fair share agreement" for transportation related improvements in the area.

> ***Response***: Detailed plans for roadway improvements and how they will be implemented will be determined in consultation with the Navy and other stakeholders. Tropic Land is committed to implementing mitigation measures that may be required of the project.
>
> ***Text from the FEIS (p. 5-41)***: To mitigate the impacts of project-generated traffic, Tropic Land will discuss traffic mitigation measures with the State and City, and is willing to participate in a fair share arrangement with the State of Hawaii and other users

of Lualualei Naval Access Road to improve the intersection of Farrington Highway and Lualualei Naval Access Road.

5. The DEIS should document any pre-consultation, correspondence or meetings the developer may have had with the State Department of Transportation (HDOT) since the proposed project impacts Farrington Highway. The results of any meetings or correspondence with HDOT and their concerns should have been included in Section 4.9 of the DEIS that discusses "Roadways and Traffic."

Response: Letters from HDOT were received during the EISPN and DEIS comment periods. These letters are included in Chapter 9 and Appendix M of the FEIS.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

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MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

December 15, 2009

RECEIVED DEC 19 2009

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Draft Environmental Impact Statement
Nanakuli Community Baseyard
Lualualei, Waianae District, Oahu
Tax Map Key: 8-7-009: 002 (Portion)

In response to your letter of November 20, 2009, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from a fire apparatus access road as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

   On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire

apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/KN:bh

KIMURA INTERNATIONAL INC.

April 26, 2010

Mr. Kenneth G. Silva, Fire Chief
Honolulu Fire Department
636 South Street
Honolulu, HI 96813

Dear Chief Silva:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated December 15, 2009. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet from a fire apparatus access road as measured by an approved route around the exterior of the building or road.

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

On-site fire hydrants and mains capable of supplying the require fire flow shall be provided when any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building.

3. Submit civil drawings to the HFD for review and approval.

1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

Response: The project's water system will be connected to the existing 20-inch Board of Water Supply water main at the intersection of Paakea Road and Hakimo Road. By letter dated July 2, 2009, the BWS has indicated that installation of a new 16-inch water main will provide adequate fire flow for the proposed industrial park. On-site fire hydrants and fire apparatus access routes will be provided as required by the 1997 Uniform Fire Code.

Detailed construction drawings will be prepared during the design phase of the project. Civil drawings will be submitted to the HFD for review and approval.

Text from the FEIS (p. 5-62 and 5-68):

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

New water lines, fire hydrants, and emergency access will be constructed by Tropic Land as prescribed by the Honolulu Fire Department and Board of Water Supply.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

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

RECEIVED JAN 08 2010

Alice Greenwood
Concerned Elders of Waianae
87-576 Kula'aupuni Street C-101
Waianae, HI 96792

January 7, 2010

Dear Mr. Kimura,

The Concerned Elders of Waianae is very concerned about the proposal to establish an industrial park on agricultural land in Ulehawa in Nanakuli. We have reviewed the Draft Environmental Impact Statement dated November 2009 and have the following comments. Because many of the concerns we have already raised have not been addressed, we have reiterated those as well.

Concern for the Environment of Nanakuli

Industrial parks pose an unacceptably high risk to the health and well-being of neighboring communities.

Please explain how a golf course is like an industrial park? It is not obvious why the document compares the previous proposed land use with this future proposed land use, when the two uses are dissimilar.

Endangered Species
What is the state of the endangered Nehe? How much land does the Nehe need to recover and be removed from the endangered species list? What impact will construction of this industrial park have on the survival and recovery of this endangered plant species?

What impact will construction on this site have on the ecology downhill? Sacred designations for land usually have practical implications. This area was set aside as sacred, which may indicate that disturbing the soil here might have detrimental consequences on the land and ocean below it.

Air Pollution
We have concerns about the increase to annual average for particulate, sulfur dioxide and increased annual averages of daily maximum one-hour values recorded for ozone and carbon monoxide, especially because the air quality along Farrington Highway of Lualualei Naval Road is already highly impacted by heavy vehicle emission of diesel particulates.

If this project proceeds, then an air quality monitoring station must be established. Quarterly reports of air quality in the area must also be released to the public on a quarterly basis.

Please assess the exposure that residents, especially children and the elderly, will suffer from due to the environmental impact of truck emission and exhaust.

Waste Water

Increased lot coverage by large buildings and more extensive paving can increase the volume and rate of storm water discharge. Over the long-term, the cumulative impact of greater lot coverage threatens to erode the natural stream banks downstream, requiring the expensive and aesthetically and ecologically undesirable structural hardening of the drainage channel, or consequently resulting in the exceeding of the capacity of the drainage system resulting in flood conditions.

What is the general drainage pattern of the project site? Where is the nearest storm drain connection? What are your plans for the municipal storm drain facility?

Will the project be allowed to increase surface runoff onto adjoining properties or rights-of-way? When the project increases, the amount of paving the runoff concerns are real. Where will the surface waters be directed?

Currently the Lualualei Booster Station has a limited capacity of 25,000 GPD whereas the project water demand is estimated at a peak demand of 67,650 GPD. Is there a requirement for the Lualualei Booster Station to be upgraded to handle the additional demand?

Will the proposed wastewater system be sized for the peak-hour demand of 67,650 GPD? If not, how will anything greater than 22,250 GPD be handled?

The existing water system provides a 2200 GPM flow to a fire hydrant at Paakea Road and Hakimo Road. If the project requires 4000 GPM over a three-hour duration for fire, how can the proposed 16-inch line being proposed provide more water than what is available without impact to the Board of Water Supply? Who will pay for improvements to provide 4000 GPM at the point where the project will pick up the water line?

How did the developer determine the size of the waste treatment facility? Is it based on the anticipated square footage of the park? Is it based on flow? There is insufficient information about the design and what types of waste will be produced and flushed into the waste plant--human and non-human. This document does not disclose sufficiently the environmental effects of the proposed waste plant in this early stage of the approval process.

What is the reduction to potable water need by using non-potable water from the treated wastewater effluent?

Has the State Department of Health approved CBT systems for other private developments? Can you give valid working examples?

Most sludge from the City and County managed wastewater treatment facilities are "dried" for a period of time prior to disposal. Will this facility do the same? If so, is there sufficient area allowed for this process?

Who will own and operate this facility?

Why is the wastewater treatment plant located directly across from properties used for farming?

Will there be secondary treatment of the effluent proposed by the proposed project?

Can the non-potable water be used for other purposes separate from irrigation? For example, should there be contingencies made so that it may be used for toilet purposes or other industrial water purposes, i.e. washing of vehicles?

How will the community be protected from hazardous material used at the proposed project site? Will the project owner and/or operator prevent businesses in this industrial park from generating hazardous waste, especially since the community may not know what hazardous waste is being generated unless they go through every business permit for all the businesses located at the baseyard?

Will the project owner and/or operator also prohibit medical wastes from being produced or stored on the proposed site? Other industrial park locations in Hawaii have had incidents of medical waste being stored improperly for prolonged periods of time.

There is no mention that any waste generated could be sent to PVT. What if there is C&D waste generated by a specific business, e.g. recycling construction materials? Will this be handled by individual businesses?

In section 4-15.5, please correct: It is not the Mikiloa Substation but should be Mikilua.

When will they have commitments from HECO, Hawaiian Telcom and Oceanic Time Warner to provide connections? They say it is anticipated that they will provide service.

There should be a requirement for green construction of facilities. If it is not required, it will not be done because it is not necessarily seen as cost effective in the short term.

What is being done to reduce the normal carbon footprint of a light industrial park?

Stormwater management: How will storm water management be managed for each lot and then subsequently for the entire property? Who will be responsible in the long term? Where will the storm water go?

There is discussion regarding a detention area of an approximately 100-foot wide strip of land mauka of the industrial lots to accommodate peak runoff from the hillside. While this may handle the amount of flow that will occur based on the undeveloped hillside and the developed lots, this should be a retention basin considering the pollutants that may (probably will) occur

based on the businesses that can be anticipated to be located within the baseyard. This becomes important, especially if it possible that hazardous waste may be generated on site (see section 4-15.4).

Will collection/separation systems be established to separate and collect contaminants from impermeable surfaces in the industrial park so that they do not go down the drain with the storm water runoff.

Ground & Soil

Does Tropic Land have plans to remove the soil?

For slab-on-grade construction, what plans do you have for altering the topography (excavating, filing, and grading)?

How many acres does Tropic Land plan for soil disturbance? If it's greater than one acre, Tropic Land will need NPDES permit.

Development on unstable soils could result in adverse hazardous conditions. Where locations have deposits of unstable soils, slow-moving landslides can cause property damage.

Please conduct a soil study. The soil on this lot is not adequate for safely constructing warehouses, as Tropic Land proposes to do.

Concern for the Quality of Life in Nanakuli

The proposed industrial park is out of sync with the rural, agricultural lifestyle of Lualualei Valley residents.

The few noxious commercial activities allowed on properties abutting Lualualei Naval Road have, over the short-term, compromised the quality of life for residents along Farrington Highway and on Hakimo Road. Despite this, many residents continue to perpetuate their farming traditions, growing food and raising animals on their agricultural plots. The addition of one more "urban-like" usage next to working agricultural farms and residential communities without addressing the reduction, elimination or prevention of serious public health issues is immoral.

Allowing this industrial park to be established in the middle of this longstanding rural residential and agricultural community will further compromise the public health for citizens in the Lualualei ahupuaa.

Noise

The project is not in a highly developed area. Existing ambient noise levels are relatively low. The noise sources will increase from traffic noise due to large volumes of traffic and heavy vehicles that will use Hakimo Road, the primary traffic access to the project.

What are your hours of operation?

Please estimate the number of trucks that will access the proposed project.

Water Supply

The project is not served by the existing water lines and water meters. How will buildings be served if there are no existing laterals for water lines?

Are the existing water lines for agricultural lots of sufficient size and adequate to serve the urban needs of the new buildings to be constructed and the changed uses of the new users who occupy them?

Tropic Land will use sub-standard quality water to irrigate the project which will require better management practices and a plan for managing the use of R-water. Food safety concerns are real because the properties downstream are farm lands. Food safety certifications may be jeopardized by potential contamination from R-water runoffs.

Does Tropic Land plan to have an automated irrigation system? If yes, then will Tropic Land use waste plan water to irrigate? Tropic Land must install a backflow preventer to eliminate cross contamination of the municipal water system if an automatic irrigation system is installed to irrigate the landscape.

Is the water supply to the proposed site adequate to meet needs and fire insurance requirements? If not, what plan does the BWS have to expand capacity or extend service?

Why does the project require 90% of all the available water to be used?

Will raw water for industrial use be drawn from wells on site?

Why does the document say wastewater from the industrial park will be typical of domestic wastewater? How is industrial wastewater like domestic wastewater?

How will the promises made in the second paragraph of section 4.46 be enforced?

Are there specific, funded plans for the expansion of the water supply to the project site?

Traffic Congestion

Please complete a traffic study for the anticipated increased traffic on H-1, Farrington Highway, Hakimo Road, and any other access ways.

Please disclose the understanding with the Navy for the use of the naval road. Can Tropic Land guarantee that the Hakimo Road will not be used?

The existing Hakimo roadway and the intersection of Farrington Highway are not adequate to serve the traffic to the proposed park, which will result in increased traffic flow through the residential community at the Princess Kahanu Estates.

The existing roadway is non-standard as it contains no drainage, no sidewalks, curbs, or gutters. Access to the PROPOSED project is via an existing NON-CITY-LIKE standard road. More discussion is warranted regarding the roadway and roadway improvements with Hakimo residents.

The number of employees, customers and suppliers associated with the park using the Hakimo Road access to the proposed project will inevitably increase.

Is the proposed site served adequately by access roads? Are there additional access roads planned?

Is traffic congestion a problem on the access road to the project? On state highways? In supplier areas? In market areas?

What are the road limits?

Sense of Community

Ulehawa is subject to multiple threats to health originating from increased heavy truck traffic adversely impacting the quality of life for residents. How does the project strive for a reduction in residents' exposure to air pollution from diesel particulate emissions?

Please demonstrate there is demand for industrial space at the back of a valley in Waianae. What is the economic feasibility of the park?

Industrial parks often offer desirable site characteristics to companies, such as proximity to existing industrial centers and easy access to transportation. The proposed project does not offer easy access for businesses, so why is the project sited here? If the proposed project proposes to link to regional businesses, which ones?

What is the demand to locating in a region far from the centers of commerce and with traffic access challenges?

Does our state general plan to regional development plan support urban development and industrial commercial growth moving into rural Waianae? Is there a plan in effect? Is there a plan proposed?

What is the non-market value of the open space that would be lost if the industrial park were built?

What impact will the loss of this agricultural land have on Hawaii's effort to improve food security? Please conduct a study on how many acres of agricultural land are necessary to provide for all of Hawaii's food needs.

Does the proposed economic development project have a plan to reduce waste and increase resource efficiency? Does the project have a mindset to reach zero waste?

Is there a plan to coordinate the activities of the firms to increase efficient use of raw materials, reduce waste outputs, conserve energy and water resources, and reduce transportation requirements?

Companies co-locate so that water, energy sharing and recycling of low-value by-products become physically and economically feasible by closely coordinating their production processes and infrastructure to maximize efficiency.

Does the park have as its goal the elimination of wastes?

Does the change from agricultural to urban have lower environmental impact than traditional business ventures allowed on agricultural lands?

How does the park address factors contributing substantially to problems in recruitment of labor, access for outbound and inbound shipments, accessibility to business and professional services, access to an interstate highway, proximity to suppliers and/or distribution of products, etc.?

There are major environmental problems facing residents in Ulehawa. Where is the discussion on the management, the proposed industrial park policies and procedures, and technology transfer options for addressing these problems?.

Where is the discussion on the ratio of payoffs and risks and of unacceptable risk sharing and outcomes?

Where is the discourse and evaluation concerning whether the outcomes will lead to results that people expected and that the petitioner promised would result from the creation of a light industrial park in Ulehawa?

Where is the discussion on the "state of the art" in assessing outcomes and consequences and exploring their distributional effects?

Do all affected parties have equal access to the benefits and risks? Should there be equitable loss or gain compared to other parties is that distribution as a result of chance or to outcomes or both?

Where is the discussion to justify the risks to residents, the relative share of their risk compared to other parties, including the privilege of one party and the surplus risk of other parties?

The community benefit package provision is justification for and evidence that the developer recognizes that the developer benefits more from the project than any other party and asks the other parties to take a larger share of the risk than any other party. This arrangement can only be sustained if the inequitable additional benefits coming from an inequitable solution overcompensates the disadvantages associated with the inequalities stemming from this proposed

project for Ulehawa. Where is the discussion on the risk and benefits for farmers across and downwind from the development?

Where is the discussion of their participation and involvement in the decision-making process, design and agreement to the provisions for the community benefit package?

Where is the discussion that describes how the community benefit package system of delivery of benefits and services ensures that the unit making the key decision of having the most authority corresponds to the unit bearing the primary costs for the benefit?

Where is the assurance to prevent, minimize or eliminate mismatch and benefit spillover?

Because all humans are created equal and should have an equal share of the earth's resources in the absence of good reasons, the reliance on a community benefits package provision alone cannot legitimatize inequitable solutions. Beyond voluntary agreements, is the situation in which the agreement is prepared free of coercion and unrelated to the status quo?

The developer needs to involve the community in the identification and development of models for compensating the community for its inequitable risk and benefits. Resolving the issue by paying monetary compensation to a community is regarded as distributing bribes. Where is the discussion for a model of joint ownership of the facility by developer and the community?

Where is the discussion about variability of options? This option provides two major benefits for the community: sharing the revenues and sharing control.

Where is the discussion about the set of criteria suitable for evaluating future industrial parks, such as easy access to transportation corridors, proximity to suppliers and/or markets, etc.? There is no discussion about the equity of exposure. Are all groups of the community or the respective constituency exposed in some way to the potential disadvantages of the proposed project? What means has the developer taken to avoid a distinction between more or less affected citizens? Shouldn't members of the more affected groups enjoy a higher probability of benefits?

Where is the discussion about quantifying and qualifying the market and nonmarket cost for the loss of the traditional and unique significance of the open space environmental amentias associated with the Maui accounts and its value to the emerging visitor market in Ko Olina?

Where is the discussion about the permissibility of a waste plant in an agricultural valley?

Where is the discussion about the "smart growth" and transit-oriented dependent development and its relevance to building our way out of congestion?

Please document the history of farming in Nanakuli. In recent history, the parcel of land proposed for development was used to raise crops of all kinds. In fact, throughout Hawaii's history, Nanakuli was recognized as a famed agricultural community with lush farms that helped

to feed the people of Oahu. With proper planning, Nanakuli can manage its economic development to provide jobs while re-embracing its farming history.

Why is this industrial park proposed for a property at the back of a valley in the middle of a rural residential and agricultural community? Please confirm that most industrial parks are located along major access routes – like highways – and near supply hubs.

The two alternative uses discussed in this document are golf course and industrial park. Why was farming not analyzed? Please compare the potential environmental risks and benefits of farming on this parcel of land with the consequences of establishing an industrial park.

Does the change from Agricultural to Urban have lower environmental impact than traditional business ventures allowed on Agricultural lands?

What impact will the loss of this agricultural land have on Hawaii's effort to improve food security? Please conduct a study on how many acres of agricultural land are necessary to provide for all of Hawaii's food needs.

What is the non-market value of the open space that would lost if the industrial park were built?

Produce a study to capture the observed historical economic development trends to forecast the vocational behavior of the individual households and firms in a construct consistent with economic theory to determine that the industrial park will create jobs accessory to the economic activities in the Waianae region?

Concern for the Cultural Resources of the Area

The consultant limits his/her historical cultural review to the human-built environment and fails to include, especially when dealing with ancient culture, those cultural aspects that persists in traditional stories beyond the physical man-made remnants, such as gods, natural phenomena, spirituality, etc. Because of this narrow evidence cited by the consultant the cultural significance of the area is ignored and diminished.

Bulldozing the hillsides of Lualualei for an industrial park will irreparably undermine the immense cultural significance of this region. The parcel Tropic Land seeks to urbanize, Lot 205A, is in the center of one of the most important viewpoints on the Waianae Coast.

The demigod Maui is a central figure in the cosmology of Native Hawaiians. He is the man that made the Hawaiian way of life possible, by snaring the sun in order to slow its path across the sky and lengthen the day for the benefit of all a Hawaiians. It is said that he was born along the hillsides of Lualualei.

Please document the extensive cultural history and traditional practices of the region affected by Tropic Land proposal.

Would the proposed industrial park block access to the Nioiula Heiau? What will be the access path to the Heiau if the project is allowed?

Where is the stone that Maui sunned himself on? What impact would the proposed project have on this sacred pohaku?

Where is the cave that Maui used as a child? What affect would the proposed project have on this cultural significant site?

What will Tropic Land do to protect Ulehawa stream if the proposed project is allowed?

What will Tropic Land do to preserve the many lo'i terraces documented in the area of the proposed project site?

KIMURA INTERNATIONAL INC.

April 26, 2010

Ms. Alice Greenwood
Concerned Elders of Waianae
87-576 Kula‘aupuni Street, C-101
Waianae, HI 96792

Dear Ms. Greenwood:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 7, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Questions are reviewed under the headings and in the order presented in your letter.

Concern for the Environment of Nanakuli

Please explain how a golf course is like an industrial park? It is not obvious why the document compares the previous proposed land use with this future proposed land use, when the two uses are dissimilar.

> ***Response 1***: The golf course is discussed as an alternative land use because the landowner has received entitlements to build such a project. *Section 4.2*
>
> ***Text from the FEIS (p. 4-1):***
>
> The golf course alternative is based on an earlier master plan involving 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 includes 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.

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Endangered Species

What is the state of the endangered Nehe? How much land does the Nehe need to recover and be removed from the endangered species list? What impact will construction of this industrial park have on the survival and recovery of this endangered plant species?

What impact will construction on this site have on the ecology downhill? Sacred designations for land usually have practical implications. This land was set aside as sacred, which may indicate that disturbing the soil here might have detrimental consequences on the land and ocean below it.

> ***Response 2***: There are no threatened or endangered species in the project area. The proposed industrial park will not adversely affect any threatened or endangered species or critical habitat. *Section 5.5*
>
> ***Text from the FEIS (p. 5-18)***:
>
> No plant species classified as endangered or threatened or proposed as a candidate for listing as threatened or endangered by the Federal or State government was found in the project area.
>
> No part of the project site is included in a federally designated plant critical habitat.

Air Pollution

We have concerns about the increase to annual average for particulate, sulfur dioxide and increased annual averages of daily maximum one-hour values recorded for ozone and carbon monoxide, especially because the air quality along Farrington Highway of [sic] Lualualei Naval Road is already highly impacted by heavy vehicle emissions of diesel particulates.

If this project proceeds, then an air quality monitoring station must be established.

Please assess the exposure that residents, especially children and the elderly, will suffer from due to the environmental impact of truck emission and exhaust.

> ***Response 3***: Operations of the proposed light industrial park, including increased truck emission and exhaust, are not expected to generate long-term adverse effects on air quality. *Section 5.10*

Text from FEIS (p. 5-45):

Long-term air quality impacts from project operation are not expected to be significant. This conclusion is based, in part, on the findings of an air quality study conducted for an industrial park project known as Kapolei Harborside Center.[1] This project involves approximately 345 acres and is anticipated to provide 3,800 permanent jobs at full buildout and occupancy. The project area is surrounded by major roads, including Kalaeloa Boulevard and Kapolei Parkway and is situated adjacent to Campbell Industrial Park in Ewa, where "several large industrial sources of air pollution are located" (B. D. Neal and Associates, 2006: 26). Computerized emission and atmospheric dispersion models were used to estimate ambient carbon monoxide concentrations along roadways leading to and from the project. Carbon monoxide was selected for modeling because it is the most stable and most abundant of pollutants generated by motor vehicles, and considered a pollutant that can be addressed locally. The models estimated worst-case 1-hour and 8-hour concentrations. All of the predicted concentrations were within State and federal air quality standards.

In comparison, Nānākuli Community Baseyard is approximately one-fourth the size of Kapolei Harborside Center. Nānākuli Community Baseyard occupies an area that is 27% of Harborside's acreage, and its high-end employment projection is 22% of Harborside's projection. Given the significantly smaller scale of Nānākuli Community Baseyard, and ambient conditions that are no worse than on the Ewa Plain, Harborside's air quality study serves as an appropriate reference.

Waste Water

What is the general drainage pattern of the project site? Where is the nearest storm drain connection? What are your plans for the municipal storm drain?

Will the project be allowed to increase surface runoff onto adjoining properties or rights-of-way? When the property increases the amount of paving the runoff concerns are real. Where will the surface waters be directed?

Response 4: Drainage facilities constructed for the project will not be connected to the municipal storm drain system. Retention facilities will be constructed to retain increases in storm drainage runoff that occur as a result of the proposed project (i.e., to preclude a net increase in runoff). Under existing conditions, runoff from the property is conveyed

[1] B. D. Neal & Associates. 2006. "Air Quality Study for the Proposed Kapolei Harborside Center Project, Kapolei, Oahu, Hawaii." Reproduced as Appendix I, Air Quality Assessment in *Kapolei Harborside Center Final Environmental Impact Statement*, Prepared by Group 70 International, Inc. for Kapolei Property Development, LLC, November 2006.

> across Lualualei Naval Access Road through culverts. On the north side of the road, runoff flows through Ulehawa Stream, the natural drainage way. *Sections 3.1 and 5.3*
>
> ***Text from the FEIS (p. 5-11)***:
>
> Retention (or detention) facilities are typically constructed to retain increases in storm runoff that occurs as a result of development. These facilities will include open basins, detention ponds, and/or underground storage facilities. Tropic Land proposes to construct an unlined drainage swale or channel in the 100-feet wide strip of land *mauka* of the industrial lots. This detention basis will be designed to accommodate peak flow runoff from the hillside. By incorporating these elements into the industrial park's design, there will be no net increase in the discharge of peak storm runoff from the project site due to existing conditions.

Currently the Lualualei Booster Station has a limited capacity of 25,000 GPD whereas the project water demand is estimated at a peak demand of 67,650 GPD. Is there a requirement for the Lualualei Booster Station to be upgraded to handle the additional demand?

Will the proposed wastewater system be sized for the peak-hour demand of 67,650 GPD? If not, how will anything greater than 22,250 GPD be handled?

> ***Response 5***: All wastewater generated by the proposed development will be processed by an on-site wastewater treatment facility. There will be no impact on the municipal wastewater system. *Sections 3.1 and 5.15.2*
>
> ***Text from FEIS (p. 3-3)***:
>
> **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 existing water system provides a 2200 GPM flow to a fire hydrant at Paakea Road and Hakimo Road. If the project requires 4000 GPM over a three-hour duration for fire, how can the proposed 16-inch line be proposed provide more water than what is available without impact to the Board of Water Supply? Who will pay for improvements to provide 4000 GPM at the point where the project will pick up the water line?

> ***Response 6***: The developer will construct the 16-inch water line to be connected to the existing 20-inch water main at the intersection of Paakea Road and Hakimo Road.

Text from the FEIS (p. 5-62):

The proposed drinking water system will be connected to the existing 20-inch BWS water main at the intersection of Pa‘akea Road and Hakimo Road. A new 16-inch transmission line will be located along Pa‘akea Road and Lualualei Naval Access Road, entering into the project site. An easement from the Navy will be needed for a portion of the water line to be constructed under Pa‘akea Road and Lualualei Naval Access Road.

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

How did the developer determine the size of the waste treatment facility? Is it based on the anticipated square footage of the park? Is it based on flow? There is insufficient information about the design and what types of waste will be produced and flushed into the waste plant—human and non-human.

Response 7: The preliminary size of the wastewater treatment facility was calculated by a licensed civil engineer based on a projected *de facto* population. *Appendix A, Preliminary Engineering Report*

Text from the FEIS (p. 5-60):

Based on development information shown in Table 17, the average daily demand for the development is estimated to be 22,550 GPD. The maximum daily demand is estimated to be 45,100 GPD with a Peak Hour Demand of 67,650 GPD.

Table 17
Estimated Drinking Water Use Demand

Land Use	No. of Lots	Average De Facto Population*	GPD/Capita	Other Usage (GPD/Lot)	Average Daily Demand (GPD)
Industrial	41	10	25	300	22,550

* De facto population is based on a percentage of employment to estimate employees on site throughout the work day.

Source: Hida, Okamoto & Associates, Inc. *Preliminary Engineering Report*, January 2010

What is the reduction to potable water need by using non-potable water from the treated wastewater effluent?

> ***Response 8***: Non-potable water will replace the use of potable water for irrigation.
>
> ***Text from the FEIS (p. 5-64)***:
>
> In the long-term, treated effluent from the wastewater treatment unit is expected to supply the entire estimated demand for irrigation water on the project site.

Has the State Department of Health approved CBT systems for other private developments? Can you give valid working examples?

> ***Response 9***: Use of the cyclic biological treatment (CBT) process for wastewater treatment is not uncommon in Hawaii. Among other locations, this process is being used at Sea Life Park, Makaha East Country Club, Waialua Ocean Villas, and the Ponds at Punaluu.

Most sludge from the City and County managed wastewater treatment facilities are "dried" for a period of time prior to disposal. Will this facility do the same? If so, is there sufficient area allowed for this process?

> ***Response 10***: If sludge needs to be removed from the treatment plant, the process will be in compliance with applicable regulations.
>
> ***Text from the FEIS (p. 5-63)***:
>
> <u>Effluent Disposal</u>. The treated wastewater effluent will be chlorinated, disinfected, and pumped to a non-drinking water irrigation system. In the early stages of development, when wastewater levels are relatively low, effluent may be diluted with drinking water for irrigation purpose. Ultimately, 100% of the estimated irrigation water requirement can be supplied by the treated effluent. Sludge will be removed and disposed of in accordance with applicable State laws.

Who will own and operate this facility?

> ***Response 11***: The facility will be owned and operated by the condominium owners association. *Sections 3.1 and 5.15.2*

Text from the FEIS (p. 3-3):

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.

Why is the wastewater treatment plant located directly across from properties used for farming?

Response 12: The wastewater system will be designed as a gravity flow system; therefore, the treatment plant is located where ground elevation is lowest. The underground tank will watertight and mechanical equipment enclosed in a structure. *Sections 3.1 and 5.15.2*

Will there be secondary treatment of the effluent proposed by the proposed project?

Can the non-potable water be used for other purposes separate from irrigation? For example, should there be contingencies made so that it may be used for toilet purposes or other industrial purposes, i.e., washing of vehicles?

Response 13: Other uses of treated effluent, in addition to irrigation, will be explored.

How will the community be protected from hazardous material used at the proposed project site? Will the project owner and/or operator prevent businesses in this industrial park from generating hazardous waste, especially since the community may not know what hazardous waste is being generated unless they go through every business permit for all the businesses located at the baseyard?

Will the project owner and/or operator also prohibit medical wastes from being produced or stored on the proposed site? Other industrial park locations in Hawaii have had incidents of medical waste being stored improperly for prolonged periods of time.

Response 14: All unit owners will be required to comply with State and federal regulations for the handling, storage, treatment, transport, and disposal of hazardous wastes and medical wastes. *Section 5.15.4*

Text from the FEIS (p. 5-66):

All unit owners will be required to comply with State and federal regulations for the handling, storage, treatment, transport, and disposal of hazardous wastes. The State Department of Health oversees the reporting of inadvertent releases or spills. <u>Once specific businesses are established at the site, facility operators will be encouraged to contact the State of Hawai‘i Department of Health Compliance Assistance Office (CAO) to ensure that the proper State and federal environmental regulations are followed.</u>

There is no mention of any waste generated could be sent to PVT. What if there is C&D waste generated by a specific business, e.g., recycling construction materials? Will this be handled by individual businesses?

> ***Response 15***: Construction and demolition debris will be disposed of at PVT, the only facility for these types of waste on the island.

In section 4-15.5, please correct: It is not the Mikiloa Substation but should be Mikilua.

> ***Response 16***: Correction has been made.
>
> ***Text from the FEIS (p. 5-66)***:
>
> There is an existing wood joint pole line along the Honolulu side of the Lualualei Naval Access Road right-of-way that abuts the project site. All of the poles contain Hawaiian Electric Co. (HECO) 3-phase, 11.5 kV, Hawaiian Telcom, and Oceanic Time Warner Cable lines. Power to this primary line is supplied by the ~~Mikiloa~~ Mikilua Substation Feeder No. 3 on Pa‘akea Road which has available capacity to serve the proposed development.

When will they have commitments from HECO, Hawaiian Telcom and Oceanic Time Warner to provide connections?

> ***Response 17***: Coordination with utility companies for provision of electrical and telecommunication services will occur during the detailed design and engineering phase of the project.

There should be a requirement for green construction of facilities. If it is not required, it will not be done because it is not necessarily seen as cost effective in the short term.

What is being done to reduce the normal carbon footprint of a light industrial park?

> ***Response 18***: To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. Where possible and appropriate, the project will specify or use products with recycled content, such as pavement material, concrete aggregate fill, and steel. *Sections 5.15.4 and 5.15.5*
>
> ***Text from the FEIS (p. 5-66)***:
>
> Refuse generated by the industrial park will be collected by a private refuse collection company for disposal at the H-POWER Plant or Waimanalo Gulch landfill. To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. As appropriate, the plan will include a collection

system for plastics, glass, paper and cardboard, cans, recyclable construction material, and green waste. Source separated material will be diverted to recovery facilities.

Where possible and appropriate, the project will specify or use products with recycled content, such as pavement material, concrete aggregate fill, and steel. In other cases, products produced locally will be used where possible and appropriate, including soil amendment and hydro-mulch. Individual unit owners will also be encouraged to develop and implement their own recycling plans.

Text from the FEIS (p. 5-67):

The proposed Nānākuli Community Baseyard will place additional demands on the electrical and telecommunication utilities. Tropic Land will work with each utility for timely design and construction of utility infrastructure and delivery of required services. Utility lines within the project area will be placed underground to mitigate visual impacts.

Energy efficiency design guidelines will be incorporated into the project's Covenants, Conditions, and Restrictions (CC&Rs) to promote energy conservation. Among the guidelines that will be considered for inclusion in the CC&Rs are:

- Use of heat pumps, solar heating systems, and photovoltaic systems.
- Use of high-efficiency appliances and air conditioners.
- Use of timer or motion-sensing light and air condition controls.
- Promotion of energy saving opportunities through green building design, including building orientation and insulation.
- Use of landscaping to minimize heat islands, with preference for native, drought-tolerant plant species.

Stormwater management: How will storm water management be managed for each lot and then subsequently for the entire property? Who will be responsible in the long term? Where will the storm water go?

Response 19: An integrated system of drainage facilities will be developed for the overall project. The condominium owners association will be responsible for long-term management of drainage facilities.

Text from the FEIS (p. 5-11):

Retention (or detention) facilities are typically constructed to retain increases in storm runoff that occurs as a result of development. These facilities will include open basins, detention ponds, and/or underground storage facilities. Tropic Land proposes to construct an unlined drainage swale or channel in the 100-feet wide strip of land *mauka* of the industrial lots. This detention basis will be designed to accommodate peak flow runoff from the hillside. By incorporating these elements into the industrial park's

design, there will be no net increase in the discharge of peak storm runoff from the project site due to existing conditions.

There is discussion regarding a detention area of an approximately 100-foot wide strip of land mauka of the industrial lots to accommodate peak runoff from the hillside. While this may handle the amount of flow that will occur based on the undeveloped hillside and the developed lots, this should be a retention basin considering the pollutants that may (probably will) occur based on the businesses that can be anticipated to be located within the baseyard. This becomes important; especially if it is possible that hazardous waste may be generated on site (see section 4-15.4).

Will collection/separation systems be established to separate and collect contaminants from impermeable surfaces in the industrial park so they do not go down the drain with the storm water runoff.

Response 20: The drainage system will handle storm water flows in accordance with City regulations and professional engineering standards. There will be no connection to municipal storm drains. *Sections 3.1 and 5.3*

Text from the FEIS: See Response 19

Ground & Soil

Does Tropic Land have plans to remove the soil?

For slab-on-grade construction, what plans do you have for altering the topography (excavating, filing [*sic*], and grading)?

How many acres does Tropic Land plan for soil disturbance? If it's greater than one acre, Tropic Land will need NPDES permit

Please conduct a soil study. The soil on this lot is not adequate for safely constructing warehouses, as Tropic Land proposes to do.

Response 21: According to preliminary estimates, grading will involve approximately 450,000 cubic yards. *Section 5.1*
Tropic Land anticipates the need for a NPDES permit. *Section 1.6*
A geotechnical study will be conducted during the project design phase. *Section 5.4*

Text from the FEIS (p. 5-3):

The grading concept is to provide relatively level lots. Total earthwork quantities of cut and fill for the development is estimated to be approximately 450,000 cubic yards (CY). An effort to balance earthwork quantities is expected to minimize the cost of purchasing off-site borrow material and/or disposing of excess excavated material at an off-site location. Grading operations will be in conformance with the applicable ordinances of the City and County of Honolulu.

Text from the FEIS (p. 5-17):

A licensed geotechnical engineer will be retained to prepare a rockfall and slope stability analysis and to design the channel during the project design phase. Tropic Land anticipates complying with the recommendations of the rockfall and slope stability analysis, including other mitigation measures that would be implemented during construction.

Concern for the Quality of Life in Nanakuli

The proposed industrial park is out of sync with the rural, agriculture lifestyle of Lualualei Valley residents.

Response 22: Comment noted.

Noise

The project is not in a highly developed area. Existing ambient noise levels are relatively low. The noise sources will increase from traffic noise due to large volumes of traffic and heavy vehicles that will use Hakimo Road, the primary traffic access to the project.

What are your hours of operation?

Please estimate the number of trucks that will access the proposed project.

Response 23: According to the Traffic Impact Assessment Report, the project is expected to generate 522 vehicles during the peak morning period and 518 vehicles during the peak afternoon period. Tropic Land intends to use Lualualei Naval Access Road as the primary access for the project. The U.S. Navy has agreed to grant an association of adjoining property owners, including Tropic Land, a long term easement to use Lualualei Naval Access Road. Therefore, Hakimo Road is not expected to experience large volumes of traffic and noise from heavy trucks. Companies located at the light industrial park are anticipated to keep normal business hours. *Section 5.11*

Text from the FEIS (p. 5-38):

Tropic Land LLC has reached an agreement with the U.S. Navy for the use of the Lualualei Naval Access Road. The Navy has agreed to grant a long term easement to Lualualei Naval Access Road to an association to be organized by the adjoining property owners, including Tropic Land LLC, who would be required to maintain the road. Tropic Land LLC is currently discussing the form of a definitive easement agreement with the Navy.

Water Supply

The project is not served by the existing water lines and water meters. How will buildings be served if there are no existing laterals for water lines?

Are the existing water lines for agricultural lots of sufficient size and adequate to serve the urban needs of the new buildings to be constructed and the changed uses of the new users who occupy them?

Response 24: Tropic Land will construct laterals off the new 16-inch water main that, in turn, will connect to the existing 20-inch water main at the intersection of Paakea Road and Hakimo Road.

Text from the FEIS: See Response 6

Tropic land will use sub-standard quality water to irrigate the project which will require better management practices and a plan for managing the use of R-water. Food safety concerns are real because the properties are downstream from farm lands. Food safety certifications may be jeopardized by potential contamination from R-water runoffs.

Does Tropic Land plan to have an automated irrigation system? If yes, then will Tropic Land use waste plan water to irrigate? Tropic Land must install a backflow preventer to eliminate cross contamination of the municipal water system if an automatic irrigation system is installed to irrigate the landscape.

Response 25: Tropic Land will comply with the requirements for safe and proper use of recycled water, as regulated by the Hawaii State Department of Health under Title 11, Chapter 62, Hawaii Administrative Rules.

Text from the FEIS (p. 5-64):

The project area is located entirely within the No Pass zone, which means that untreated effluent cannot be injected underground. The project proposes to use treated effluent for surface discharge which is a permitted method of disposal. The State of Hawai‘i, Department of Health, Wastewater Branch regulates the application of recycled water

under Hawai‘i Administrative Rules Section 11-62-27. According to the Guidelines for Treatment and Use of Recycled Water, allowable R-1 irrigation uses include golf courses, parks, playgrounds, schoolyards, athletic fields, residential property managed by an irrigation supervisor, and roadsides and medians. The project site currently has no R-1 distribution system.

Is the water supply to the proposed site adequate to meet needs and fire insurance requirements? If not, what plan does the BWS have to expand capacity or extend service?

Why does the project require 90% of all the available water to be used?

Response 26: The water system will be designed to meet fire flow capacity. Construction plans for the project's water system must be reviewed and approved by the Honolulu Fire Department and Board of Water Supply.

Text from the FEIS (p. 5-62):

By letter dated July 2, 2009, BWS indicated that installation of a new 16-inch water main will provide adequate fire flow to the proposed industrial development. Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

Will raw water for industrial use be drawn from wells on site?

Response 27: Existing wells on site are capped and will remain capped.

Text from the FEIS (p. 5-7):

Groundwater will not be used for the proposed light industrial park and the existing wells will remain capped.

Why does the document say wastewater from the industrial park will be typical of domestic wastewater? How is industrial wastewater like domestic wastewater?

Response 28: It is expected that wastewater will be generated primarily by employees (rather than industrial processes) and, therefore, is characterized as domestic.

Text from the FEIS: Information in the response provided for clarification.

How will the promises made in the second paragraph of section 4.46 be enforced?

Response 29: The DEIS did not have a Section 4.46, but we are assuming this question relates to Section 4.16 regarding placement of the treatment unit below ground and landscaping around the perimeter fence. An underground treatment tank is standard

design for the proposed cyclic biological treatment technology. Landscaping is planned for the entire length of the Lualualei Naval Access Road frontage—not only the wastewater treatment area—and will incorporate palm trees that are already planted.

Text from the FEIS (p. 3-2):

Buffers and Setbacks. The existing line of palm trees will remain as a 30-foot landscaped setback along the Lualualei Naval Access Road frontage.

Are there specific, funded plans for the expansion of the water supply to the project site?

Response 30: Extension of water service to the project site will be funded solely by Tropic Land.

Text from the FEIS (p. 5-62):

Design and construction of the drinking water distribution system will be in accordance with BWS Standards. The easement and water systems will be dedicated to the BWS.

Traffic Congestion

Please complete a traffic study for the anticipated increased traffic in H-1, Farrington Highway, Hakimo Road, and any other access ways.

Response 31: A traffic impact assessment report has been completed (The Traffic Management Consultant, January 2010, *Appendix E*) and included in the FEIS.

Text from the FEIS: Refer to Appendix E

Please disclose the understanding with the Navy for the use of the naval road. Can Tropic Land guarantee that the Hakimo Road will not be used?

The existing Hakimo roadway and the intersection of Farrington Highway are not adequate to serve the traffic to the proposed park, which will result in increased traffic flow through the residential community at the Princess Kahanu Estates.

The existing roadway is non-standard as it contains non drainage, no sidewalks, curbs, or gutters. Access to the PROPOSED project is via an existing NON-CITY-LIKE standard road [*emphasis in original*]. More discussion is warranted regarding the roadway and roadway improvements with Hakimo residents.

The number of employees, customers and suppliers associated with the park using the Hakimo Road access to the proposed project will inevitably increase.

Is the proposed site served adequately by access roads? Are there additional access roads planned?

Is traffic congestion a problem on the access road to the project? On state highways? In supplier areas? In market areas?

What are the road limits?

> ***Response 32***: Tropic Land intends use Lualualei Naval Access Road as the primary access road for the project. Correspondence related to the use of Lualualei Naval Access Road between the Navy and Tropic Land is included in *Appendix K* of the FEIS. Specific improvements to Farrington Highway and Lualualei Naval Access Road will be determined in consultation with the Navy, Hawaii State Department of Transportation, and other stakeholders.
>
> ***Text from the FEIS (p. 5-38)***:
>
> Tropic Land LLC has reached an agreement with the U.S. Navy for the use of the Lualualei Naval Access Road. The Navy has agreed to grant a long term easement to Lualualei Naval Access Road to an association to be organized by the adjoining property owners, including Tropic Land LLC, who would be required to maintain the road. Tropic Land LLC is currently discussing the form of a definitive easement agreement with the Navy. Correspondence with the Navy regarding Lualualei Naval Access Road may be found in Appendix K.

Sense of Community

Ulehawa is subject to multiple threats to health originated from increased heavy truck traffic adversely impacting the quality of life for residents. How does the project strive for a reduction in residents' exposure to air pollution from diesel particulate emissions?

> ***Response 33***: The FEIS concludes that project-related air quality impacts will not be significant, and that emission concentrations will be within State and federal air quality standards. *Section 5.10*
>
> ***Text from the FEIS***: See Response 3

Please demonstrate there is demand for industrial space at the back of a valley in Waianae. What is the economic feasibility of the park?

Industrial parks often offer desirable site characteristics to companies, such as proximity to existing industrial centers and easy access to transportation. The proposed project does not offer easy access for businesses, so why is the project sited here? If the proposed project proposes to link to regional businesses, which ones?

What is the demand to locating in a region far from the centers of commerce and with traffic access challenges?

> ***Response 34***: Twenty-one businesses have expressed interest in acquiring one or more units in the proposed light industrial park. Because Tropic Land intends to offer units in the industrial park for sale on a condominium basis, Tropic Land cannot offer units for sale until the Real Estate Commission has issued a Condominium Public Report for the project. Nonetheless these businesses have serious interest and provided contact information to receive a Public Report. They are in the following types of business: trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). All uses would conform to the proposed zoning classification of I-1, Limited Industrial District. Fifteen of the 21 businesses reported current addresses in Waianae. Six businesses are currently located in other regions, such as Honolulu, Aiea, Pearl City, Ewa Beach, and Kapolei. *Chapter 2*
>
> ***Text from the FEIS (p. 2-7)***:
>
> **Interest from the Business Community**
>
> Twenty-one businesses have expressed interest in acquiring or leasing one or more units in the proposed light industrial park. Tropic Land LLC cannot presently offer condominium units for sale, but these businesses have tendered serious interest in the project and provided contact information to receive a condominium public report. Types of businesses expressing interest include trucking and hauling, equipment handling, general contracting, and trades (painting, welding, electrical, masonry, landscaping). Twelve of the 21 businesses are involved with trucking services, which is consistent with a "baseyard"-type development that offers industrial space for less intensive activities.
>
> Fifteen of the 21 businesses reported current addresses in Wa‘ianae. The remaining six businesses are currently located in Honolulu, ‘Aiea, Pearl City, ‘Ewa Beach, and Kapolei.
>
> The business incubator is proposed to afford a home for start up businesses. The Wai‘anae Coast Coalition, a non-profit organization, is leading the planning effort for the business incubator component of the project.

Does our state general plan to regional development plan support urban development and industrial commercial growth moving into rural Waianae? Is there a plan in effect? Is there a plan proposed?

> ***Response 35***: Conformance with the Hawaii State Plan, Oahu General Plan, and Waianae Sustainable Communities Plan is discussed in *Chapter 6* of the FEIS. Tropic Land's application to amend the Rural Community Boundary in the Waianae Sustainable Communities Plan is being considered as part of the ongoing five-year review process.

Text from the FEIS: See Chapter 6 for comprehensive discussion of the project's relationship the existing land use plans, policies, and controls. This material is not duplicated in this letter due to its length.

What is the non-market value of the open space that would be lost if the industrial park were built?

What impact will the loss of this agricultural land have on Hawaii's effort to improve food security? Please conduct a study on how many acres of agricultural land are necessary to provide for all of Hawaii's food needs?

Response 36: Food security is an issue of statewide importance. However, first-hand accounts of farming experience on the project indicate that only 15-17 acres were cultivated, though unprofitably. Given the availability of farmland with higher quality soils and irrigation water elsewhere on Oahu and throughout the state, the small amount of agricultural land on the project site will not resolve larger food concerns. *Appendix L, Statements on Past Farming Activity*

Text from the FEIS (p. 4-4):

Farm Lots. Agricultural land use, either as a single operation or multiple farm lots was suggested initially by members of the Waianae Neighborhood Board and mentioned in some of the DEIS comments. Long-term use for agricultural purposes was dismissed as an alternative based on the agricultural consultant's report and information obtained from individuals who previously farmed the project site. Following publication of the DEIS, Tropic Land further investigated the history of farming on the project site. Interviews were conducted with three men who have first-hand experience in farming the property. Appendix L contains oral histories provided by:

- Tadashi Araki, who, with his brother, farmed the site for approximately 25 years, ending in the early 1980s
- Sonny Bradley, who helped to install the irrigation system on the Araki farm, and whose relatives worked for the Arakis
- Albert Silva, whose *ohana* previously owned the property, who has been on the property since childhood, who raised cattle on a portion of the property, and who was employed at the Naval reservation, now known as JBPHH Lualualei Annex

A common theme of the interviews was the inability of the stony, adobe soil to support productive farm activity. Mr. Araki's account details the intensive practices used to achieve a viable farm, including soil conditioning and amendments, pest control, experiments with different types of crops and auxiliary agricultural products, and advice from technical experts.

> The poor outcomes obtained by the Araki brothers are consistent with Tropic Land's own experience with on-site horticultural production. Since 2007, Tropic Land has cultivated a variety of palm trees in an attempt to landscape the setback areas. Despite soil amendments, fertilization, and irrigation, tree growth is stunted. There is no evidence that farming would be a sustainable enterprise given the particular conditions of this site. Therefore, agriculture is not considered a viable alternative.

Does the proposed economic development project have a plan to reduce waste and increase resource efficiency? Does the project have a mindset to reach zero waste?

Is there a plan to coordinate the activities of the firms to increase efficient use of raw materials, reduce waste outputs, conserve energy and water resources, and reduce transportation requirements?

Does the park have as its goal the elimination of wastes?

> ***Response 37***: To reduce the waste stream, Tropic Land will develop a recycling plan for the construction and operational phases of the project. Where possible and appropriate, Tropic Land will specify or use products with recycled content, such as pavement material, concrete aggregate fill, and steel. *Section 5.15.4*
>
> Text from the FEIS: See Response 18

Does the change from agricultural to urban have lower environmental impact than traditional business ventures allowed on agricultural lands?

> ***Response 38***: Impacts and benefits would differ between light industrial businesses and agricultural businesses. *Section 4.3*
>
> ***Text from the FEIS***: See Response 36

How does the park address factors contributing substantially to problems in recruitment of labor, access for outbound and inbound shipments, accessibility to business and professional services, access to an interstate highway, proximity to suppliers and/or distribution of products, etc?

There are major environmental problems facing residents in Ulehawa. Where is the discussion on the management, the proposed industrial park policies and procedures, and technology transfer options for addressing these problems?
Where is the discussion on the ratio of payoffs and risks and of unacceptable risk sharing and outcomes?

Where is the discourse and evaluation concerning whether the outcomes will lead to results that people expected and that the petitioner promised would result from the creation of a light industrial park in Ulehawa?

Where is the discussion on the "state of the art" in assessing outcomes and consequences and exploring their distributional effects?

Do all affected parties have equal access to the benefits and risks? Should there be equitable loss or gain compared to other parties is that distribution as a result of chance or to outcomes or both?

Where is the discussion to justify the risks to residents, the relative share of their risk compared to other parties, including the privilege of one party and the surplus risk to other parties?

> ***Response 39***: Economic and income benefits are discussed in *Section 5.13*
>
> ***Text from the FEIS***: Short- and long-term impacts on private employment and income, and on public (fiscal) resources are described in Section 5.13 (pages 5-56 and 5-57). This material is not duplicated in this letter due to its length.

The community benefit package provision is justification for and evidence that the developer recognizes that the developer benefits more from the project than any other party and asks the other parties to take a larger share of the risk than any other party. This arrangement can only be sustained if the inequitable additional benefits coming from an inequitable solution overcompensates the disadvantages associated with the inequalities stemming from this proposed project for Ulehawa. Where is the discussion on the risk and benefits for farmers across and downwind from the development?

Where is the discussion of their participation and involvement in the decision-making process, design and agreement to the provisions for the community benefit package?

Where is the discussion that describes how the community benefit package system of delivery of benefits and services ensures that the unit making the key decision of having the most authority corresponds to the unit bearing the primary costs for the benefit?

Where is the assurance to prevent, minimize or eliminate mismatch and benefit spillover?

Because all humans are created equal and should have an equal share of the earth's resources in the absence of good reasons, the reliance on a community benefits package provision alone cannot legitimize inequitable solutions. Beyond voluntary agreements, is the situation in which the agreement is prepared free of coercion and unrelated to the status quo?

The developer needs to involve the community in the identification and development of models for compensating the community for its inequitable risk and benefits. Resolving the issue by paying monetary compensation to a community is regarded as distributing bribes. Where is the discussion for a model of joint ownership of the facility by developer and the community?

Where is the discussion about variability of options? This option provides two major benefits for the community: sharing the revenues and sharing control.

Where is the discussion about the set of criteria suitable for evaluating future industrial parks, such as easy access to transportation corridors, proximity to suppliers and/or markets, etc? There is no discussion about the equity of exposure. Are all groups of the community or the respective constituency exposed in some way to the potential disadvantages of the proposed project? What means has the developer taken to avoid a distinction between more or less affected citizens? Shouldn't members of the more affected groups enjoy a higher probability of benefits?

> ***Response 40***: The community benefits package represents Tropic Land's efforts to support and enhance the life of the community of which it is a part. Although the specific structure of the fund has not been determined yet, Tropic Land expects that local residents will participate in its management.
>
> ***Text from the FEIS (p. 7-3)***:
>
> **Community Benefit.** Tropic Land has pledged to establish a $1 million community benefits fund as part of its overall plan to develop Nānākuli Community Baseyard. The objective of the community fund is to enhance the welfare of the surrounding community through education and economic development. Administration of the fund will be determined in consultation with community leaders.

Where is the discussion about quantifying and qualifying the market and nonmarket cost for the loss of the traditional and unique significance of the open space environmental amentias [sic] associated with the Maui accounts and its values to the emerging visitor market in Ko Olina?

> ***Response 41***: Non-market values are discussed in *Section 5.8* on archaeological, historical, and cultural resources and in *Section 5.12* on visual resources.
>
> ***Text from the FEIS (p. 5-37)***:
>
> The Cultural Impact Assessment concluded that the project site does not have a direct or indirect adverse impact on culturally significant sites. Nor does it obstruct access to culturally significant sites. Effects stemming from the development of the project on Hawaiian culture would be minimal due to its geographic location and lack of surface water, burial sites, and commoner land claims. If Native Hawaiian activity occurred within the project area, it would not have been nearly as intensively utilized as coastal areas, well-watered areas, and forest zones.
>
> ***Text from the FEIS (p. 5-50)***:
>
> During scoping meetings with the community and in response to the EISPN, concerns were raised about the significance of the Waianae mountain range silhouette framing

Lualualei Valley; in particular, the mountainous silhouette of the demigod Maui. The area in question lies to the north and east of the project site, lying within the JBPHH Lualualei Annex. The Waiʻanae Sustainable Communities Plan (reference Open Space Map) also shows that area with a concentration of archaeological sites. The project site is outside the view plane to that area, and does not adversely impact any view of a silhouette of Maui.

Where is the discussion about the permissibility of a waste plant in an agricultural valley?

Response 42: Uses in the proposed light industrial park will be governed by the I-1, Limited Industrial zoning classification being sought by Tropic Land. A "waste plant" with significant environment impacts is not acceptable in the I-1 zone nor is it desired by Tropic Land.

Text from the FEIS (p. 6-25):

According to ROH Chapter 21, Land Use Ordinance, the purpose and intent of the City's I-1 limited industrial district:

> *"is to provide areas for some of the industrial employment and service needs of rural and suburban communities. It is intended to accommodate light manufacturing, including handcrafted goods as well as "high technology industries" such as telecommunications, computer parts manufacturing, and research and development. Uses in this district are limited to those which have few environmental impacts and those which complement the development scale of communities they would serve." (LUO, ROH Sec. 21-3.130)*

Where is the discussion about the "smart growth" and transit-oriented dependent development and its relevance to building our way out of congestion?

Response 43: "Smart growth" and transit-oriented development concepts are typically applied to residential projects. However, to the extent that smart growth encourages a more diverse mix and integration of land uses, and proximity between residences and workplaces to reduce commute distances, the proposed action is consistent with smart growth objectives.

Text from the FEIS (p. 2-1):

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 Oʻahu is overwhelmingly concentrated within three Development Plan Areas, namely the Primary Urban Center, ʻEwa, and Central Oʻahu. The combined inventory of industrial space within the remaining Development Plan Areas of East Honolulu, Koʻolaupoko,

> Koʻolauloa, North Shore, and Waiʻanae totals less than 1.0 million square feet, or only 2.7 percent of the islandwide total. This means that a large proportion of Waiʻanae 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.

Please document the history of farming in Nanakuli. In recent history, the parcel of land proposed for development was used to raise crops of all kinds. In fact, throughout Hawaii's history, Nanakuli was recognized as a famed agricultural community with lush farms that that helped to feed the people of Oahu. With proper planning, Nanakuli can manage its economic development to provide jobs while re-embracing its farming history.

Why is this industrial park proposed for a property at the back of a valley in the middle of a rural residential and agricultural community? Please confirm that most industrial parks are located along major access routes—like highways—and near supply hubs.

The two alternative uses discussed in this document are golf course and industrial park. Why was farming not analyzed? Please compare the potential environmental risks and benefits of farming on this parcel of land with the consequences of establishing an industrial park.

Does the change from Agricultural to Urban have lower environmental impact than traditional business ventures allowed on Agricultural lands?

> ***Response 44***: Alternatives to the proposed action are discussed in an expanded Chapter 4, including a discussion of the project area's agricultural history and potential. Interviews were conducted with three people who have first-hand knowledge of and/or experience with on-site farming activities. Their statements have been appended to the FEIS (*Appendix L*). The historical information dates back approximately 60 years, during which the site accommodated two small truck farms. The Araki farm lasted for approximately 25 years on 17 acres, followed by the brief tenure of the Higa farm which ceased operations in 1988. The truck farms experimented with corn, watermelon, round onions, bell peppers, cucumber, tomatoes, and green onions. The Arakis tried a variety of intensive farming methods and diversified by herding goats and keeping beehives. Although the Arakis operated successful farms in Makaha—both before and after their Lualualei experience—farming on the project site was unprofitable.
>
> ***Text from the FEIS***: See Response 36

What impact will the loss of this agricultural land have on Hawaii's effort to improve food security? Please conduct a study on how many acres of agricultural land are necessary to provide for all of Hawaii's food needs.

> ***Response 45***: See Response 36

What is the non-market value of the open space that would be lost if the industrial park were built?

Response 46: See Response 41

Produce a study to capture the observed historical economic development trends to forecast the vocational behavior of the individual households and firms in a construct consistent with economic theory to determine that the industrial park will create jobs accessory to the economic activities in the Waianae region?

Response 47: The types of jobs foreseen are related to the types of businesses that have already expressed interest in locating at the proposed industrial park. The following table lists representative occupational titles with corresponding median hourly wages, based on statistics for the Honolulu Metropolitan Statistical Area (MSA) compiled by the State of Hawaii, Department of Labor and Industrial Relations (*Occupational Employment and Wages in Hawaii, 2008*).

Occupational Title	**Hourly Median Wage ($)**
Stonemasons	27.19
Cement masons and concrete finishers	27.75
Construction laborers	23.38
Paving, surfacing, tamping equipment operators	34.78
Electricians	28.79
Painters, construction and maintenance	24.40
Landscaping, grounds maintenance workers	13.05
Truck drivers, heavy and tractor-trailer	18.38
Industrial truck and tractor operators	16.32
Material moving workers, all others	22.04
Total, all occupations	**16.38**

Concern for the Cultural Resources of the Area

Please document the extensive cultural history and traditional practices of the region affected by the Tropic Land proposal.

Would the proposed industrial park block access to the Nioiula Heiau? What will be the access path to the Heiau if the project is allowed?

Where is the stone that Maui sunned himself on? What impact would the proposed project have on this sacred pohaku?

Where is the cave that Maui used as a child? What affect would the proposed project have on this cultural significant site?

> ***Response 48***: Cultural resources are documented in the cultural impact assessment (JLK Management, LLC and Mother Earth Foundation, July 2009 in *Appendix G*). The stone that Maui sunned himself on and the cave that Maui used as a child are not within, nor in proximity to, the project area. The project site does not provide traditional access to Nioiula Heiau.
>
> ***Text from FEIS***: Refer to Appendix G

What will Tropic Land do to protect Ulehawa stream if the proposed project is allowed?

> ***Response 49***: A buffer area has been established around Ulehawa Stream which provides a setback for future development.
>
> ***Text from the FEIS (p. 5-14)***:
>
> <u>Buildings will be set back from Ulehawa Stream through the reservation of a buffer area in the northwest corner of the project site.</u>

What will Tropic Land do to preserve the many loʻi terraces documented in the area of the proposed project site?

> ***Response 50***: Based on a comprehensive archaeological study (Cultural Surveys Hawaii, January 1991 in *Appendix F*), there is no evidence of loʻi being located on the project site. The State Historic Preservation Division has concluded that the proposed action will not adversely impact significant historical resources.
>
> ***Text from the FEIS (p. 5-36)***:
>
> 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 from SHPD in Appendix H).

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

KAHEA

THE HAWAIIAN-ENVIRONMENTAL ALLIANCE

PROTECTING

NATIVE HAWAIIAN

CUSTOMARY &

TRADITIONAL RIGHTS

AND OUR FRAGILE

ENVIRONMENT

Office
1149 Bethel Street, Ste. 415
Honolulu, HI 96813

Mailing Address
P.O. Box 37368
Honolulu, HI 96837

toll-free phone/fax
888.528.6288

www.KAHEA.org
kahea-alliance@hawaii.rr.com

KAHEA: the Hawaiian-Environmental Alliance is a non-profit 501(c)3 working to protect the unique natural and cultural resources of the Hawaiian islands. KAHEA translates to english as "the call."

January 7, 2010

Mr. Glenn Kimura
1600 Kapiolani Boulevard, Suite 1610
Honolulu, HI 96814

Aloha Mr. Kimura,

Happy Holidays! Mahalo for providing this opportunity to comment on the Draft Environmental Impact Statement your company drafted for Tropic Land, LLC's proposed industrial park in Waiʻanae. Over the holidays, we reviewed this document, consulted with residents, kupuna, and cultural practitioners. We heard many concerns about this proposal – from poor wastewater management plans to health threats posed to nearby residents. We hope that you and Tropic Land, LLC will fully address these concerns before proceeding with any activities on this parcel. To aid this effort, we contribute the following comments.

I. Proposed Industrial Park Inconsistent with the Waiʻanae Community Sustainability Plan

The industrial park proposed by Tropic Land, LLC cannot be built – without violating the law – because it is inconsistent with the current Waiʻanae Community Sustainability Plan. This plan, developed by the residents, determines the general planning for the entire Waiʻanae Coast community. All decisions made about how land use designations are changed or implemented are determined by this plan, including boundary amendments by the Land Use Commission.

The parcel at issue in this DEIS, parcel 205A, is currently zoned for agricultural uses, like farming. It cannot be used for activities meant only for urban areas, such as industrial parks and landfills. The permits necessary to operate a legal industrial park require that the industrial park be located on properly zoned land.

While Tropic Land, LLC has petitioned for a "boundary amendment" to change the zoning for this parcel from agricultural to urban, the Land Use Commission cannot grant this request because the current Waiʻanae Community Sustainability Plan set parcel 205A aside for agricultural use only. Tropic Land, LLC should either find a more appropriate parcel for the proposed industrial park or find more suitable uses for parcel 205A.

II. Inadequate Cultural Impact Assessment

The 11-page Cultural Impact Assessment conducted for this proposed project does not adequately document the extensive and rich cultural history of Lualualei Valley. There are many moʻolelo and mele about the importance of the Waiʻanae Coast. The assessment included in this document, however, only briefly mentions the demigod Maui. In fact, Lualualei played a very important role in Maui's life. There are known cultural sites on and around the parcel at issue in this document that were not assessed. This serious oversight must be addressed before this document can be considered adequate.

III. Inadequate Alternative Analysis

The Hawaiʻi Environmental Policy Act requires that the project proponent consider alternatives when assessing the environmental and cultural consequences of a proposal. From our review of the DEIS, only two possibilities were considered: 1) a golf course, 2) an industrial park. The golf course alternative was immediately dismissed based on the previous landowner's failure establish a golf course. While it is wise to not repeat the mistakes of one's predecessors, that alone does not satisfy the legal requirements for a thorough analysis of alternatives to the preferred action.

Considering this parcel was used extensively for agricultural activities since ancient times to the 1980's, why was farming not considered as an alternative in the DEIS? Given the renaissance of farming in Hawaiʻi, agricultural sublots can provide the same economic benefits of an industrial park without the detrimental consequences.

A far more deliberative and useful analysis of alternative uses for parcel 205A must be conducted before this DEIS can be considered adequate.

We look forward to your responses to these questions and the many others that have been raised by the residents of Ulehawa and all of Waiʻanae.

Mahalo,

M. Townsend.

Marti Townsend
Program Director

KIMURA INTERNATIONAL INC.

April 26, 2010

Ms. Marti Townsend, Program Director
KAHEA
P.O. Box 37368
Honolulu, HI 96837

Dear Ms. Townsend:

Comments on the Draft Environmental Impact Statement
Nanakuli Community Baseyard, Oahu, Hawaii
Portion of TMK: (1) 8-7-009: 002

Thank you for your comments on the Draft Environmental Impact Statement submitted by letter dated January 8, 2010. As planning consultant to the project owner, Tropic Land LLC, we have been asked to respond to questions and, where appropriate, summarize and clarify comments.

Comments are numbered according to the items in your letter.

1. The industrial park proposed by Tropic Land, LLC cannot be built—without violating the law—because it is inconsistent with the current Waianae Community Sustainability Plan.

   Response: Tropic Land recognizes that the Waianae Sustainable Communities Plan (WSCP) must be amended to proceed with the project, and has submitted an application to the Honolulu Department of Planning and Permitting to amend the WSCP. DPP's Public Review Draft Amendments to the WSCP (2009) shows an industrial park as an optional land use for the site.

   Text from the FEIS (p. 6-16):

   The WSCP was in the process of being updated when this ~~DEIS~~ FEIS was prepared. As part of the WSCP update, Tropic Land submitted an application to amend language in the plan and change the Rural Community Boundary to include the proposed industrial park site. A public review draft of the updated WSCP has been released, but not yet adopted by City Council.

1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814
Tel: 808 944-8848 ● Fax: 808 941-8999

The following sections, based on Tropic Land's WSCP amendment application, describe the proposed project's consistency with various chapters of the WSCP (2000). Figures 26 and 27, which describe alternative proposed uses for the amendment area, are from the Draft WSCP (2009) released for public review. The land use map in Figure 26 is essentially unchanged from the 2000 WSCP. Figure 27 shows the industrial park as an option.

2. The 11-page Cultural Impact Assessment conducted for this proposed project does not adequately document the extensive and rich cultural history of Lualualei Valley.

Response: Determining the value of cultural significance is a subjective undertaking. There can be discrepancies between concrete evidence of historical use and mythology (*mo'olelo*). Based on Tropic Land's proposed design and use for the property, the authors of the Cultural Impact Assessment affirm their conclusion that the project will have no adverse effect on cultural resources. The State Historic Preservation Division has concluded that the proposed action will not adversely impact significant historical resources.

Text from the FEIS (p. 5-36):

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 from SHPD in Appendix H). 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. Considering this parcel was used extensively for agricultural activities since ancient times to the 1980's, why was farming not considered as an alternative in the DEIS? A far more deliberative and useful analysis of alternative uses for parcel 205A must be conducted before this DEIS can be considered adequate.

Response: In an effort to investigate agricultural feasibility, interviews were conducted with three people who have first-hand knowledge of and/or experience with farming activities on the project site. Their statements have been appended to the FEIS (Appendix L). The historical information dates back approximately 60 years, reflecting contemporary market and technological conditions. Over this time period, the site has accommodated two small truck farms. The Araki farm lasted for approximately 25 years on 17 acres, followed by the brief tenure of the Higa farm which ceased operations in 1988. The truck farms experimented with corn, watermelon, round onions, bell peppers, cucumber, tomatoes, and green onions. No crop was successful due to adverse

conditions. The Arakis tried a variety of intensive farming methods and diversified by herding goats and keeping beehives. Although the Arakis operated successful farms in Makaha—both before and after their Lualualei experience—farming on the project site was unprofitable.

Text from the FEIS (p. 4-4):

Farm Lots. Agricultural land use, either as a single operation or multiple farm lots was suggested initially by members of the Waianae Neighborhood Board and mentioned in some of the DEIS comments. Long-term use for agricultural purposes was dismissed as an alternative based on the agricultural consultant's report and information obtained from individuals who previously farmed the project site. Following publication of the DEIS, Tropic Land further investigated the history of farming on the project site. Interviews were conducted with three men who have first-hand experience in farming the property. Appendix L contains oral histories provided by:

- Tadashi Araki, who, with his brother, farmed the site for approximately 25 years, ending in the early 1980s
- Sonny Bradley, who helped to install the irrigation system on the Araki farm, and whose relatives worked for the Arakis
- Albert Silva, whose *ohana* previously owned the property, who has been on the property since childhood, who raised cattle on a portion of the property, and who was employed at the Naval reservation, now known as JBPHH Lualualei Annex

A common theme of the interviews was the inability of the stony, adobe soil to support productive farm activity. Mr. Araki's account details the intensive practices used to achieve a viable farm, including soil conditioning and amendments, pest control, experiments with different types of crops and auxiliary agricultural products, and advice from technical experts.

The poor outcomes obtained by the Araki brothers are consistent with Tropic Land's own experience with on-site horticultural production. Since 2007, Tropic Land has cultivated a variety of palm trees in an attempt to landscape the setback areas. Despite soil amendments, fertilization, and irrigation, tree growth is stunted. There is no evidence that farming would be a sustainable enterprise given the particular conditions of this site. Therefore, agriculture is not considered a viable alternative.

We appreciate your participation in the environmental review process.

Sincerely,
KIMURA INTERNATIONAL, INC.

Glenn T. Kimura
President

Cc: Arick Yanagihara, Tropic Land LLC
Dan Davidson, Land Use Commission

Letters with No Substantive Comments

Federal Agencies

- U.S. Army Corps of Engineers, Civil Works Branch

State Agencies

- Department of Accounting and General Services
- Department of Labor and Industrial Relations
- Division of Forestry and Wildlife

City Agencies

- Department of Design and Construction
- Design of Facility Maintenance
- Department of Parks and Recreation
- Police Department

Utility Companies

- Hawaiian Telcom

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF: **CEPOH-EC-T**

December 2, 2009

RECEIVED DEC 02 2009

Civil Works Technical Branch

Mr. Glenn T. Kimura, President
Kimura International
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Thank you for your letter dated November 20, 2009 regarding the Draft Environmental Impact Statement for the Nanakuli Community Baseyard Project, Lualualei, Oahu (TMK 8-7-9: 2). We do not have any additional comments to offer beyond those previously submitted on May 27, 2009.

Should you require additional information, please call Ms. Jessie Dobinchick of my staff at 438-8876.

Sincerely,

Steven H. Yamamoto, P.E.
Chief, Civil Works Technical Branch

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
COMPTROLLER

SANDRA L. YAHIRO
DEPUTY COMPTROLLER

(P)1320.9

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

DEC - 8 2009

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura:

Subject: Draft Environmental Impact Statement (DEIS)
Nanakuli Community Baseyard
Lualualei, Waianae District, Oahu
TMK: (1) 8-7-09:02 (portion)

Thank you for the opportunity to comment on this DEIS. The Department of Accounting and General Services' has no projects or facilities in this area, and we have no comments at this time.

If you have any questions, please call me at 586-0400 or have your staff call Mr. Bruce Bennett of the Public Works Division at 586-0491.

Sincerely,

RUSS K. SAITO
State Comptroller

c: Ms. Katherine Kealoha, DOH-OEQC
Mr. Dan Davidson, Land Use Commission
Mr. Abbey Seth Meyer, Office of Planning

LINDA LINGLE
GOVERNOR

DARWIN L.D. CHING
DIRECTOR

COLLEEN Y. LaCLAIR
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813
www.hawaii.gov/labor
Phone: (808) 586-8842 / Fax: (808) 586-9099
Email: dlir.director@hawaii.gov

December 17, 2009

RECEIVED DEC 19 2009

Mr. Glenn T. Kimura
Kimura International, Inc
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura

In accordance with your request dated November 20, 2009, the Department of Labor and Industrial Relations has no comments or recommendation regarding the "draft environmental impact statement for the Nanakuli Community Baseyard".

Should you or staff have questions, please contact me 586-8844, or Mr. Patrick Fukuki, our Business Management Officer, at 586-8888.

Sincerely,

Darwin L.D. Ching

DARWIN L.D. CHING

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 25, 2009

RECEIVED
LAND DIVISION
2009 NOV 31 P 1:33
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
__Land Division –

FROM: for Morris M. Atta Charlene
SUBJECT: Draft Environmental Impact Statement for Nanakuli Community Baseyard
LOCATION: Island of Oahu
APPLICANT: Kimura International, Inc. on behalf of Tropic Land LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 3, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(X) We have no comments.
( ) Comments are attached.

Signed: Paul J Conn
Date: 11/30/09

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

CRAIG I. NISHIMURA, P.E.
DIRECTOR

COLLINS D. LAM, P.E.
DEPUTY DIRECTOR

January 29, 2010

RECEIVED FEB 04 2010

Mr. Glenn T. Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Draft Environmental Impact statement (DEIS)
Nanakuli Community Baseyard
Lualualei, Waianae District, Oahu
TMK: (1) 8-7- 09: 02 (por.)

Thank you for inviting us to review the above Draft Environmental Assessment. The Department of Design and Construction does not have any comments to offer at this time.

Should you have any questions, please contact me at 768-8480.

Very truly yours,

Craig I. Nishimura, P.E.
Director

CN:pg(342670)

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR

JEOFFREY S. CUDIAMAT, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 09-1178

RECEIVED
DEC 31 2009

December 30, 2009

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96813

Subject: Draft Environmental Impact Statement (DEIS)
Nanakuli Community Baseyard, Lualualei, Oahu, Hawaii
Tax Map Key: (1) 8-7-09: 02 (por.)

Thank you for the opportunity to review and comment on the DEIS dated November 2009 for the proposed Nanakuli Community Baseyard project.

We have no comments to offer as the proposed improvements will be located within privately-owned property and will have negligible impact on our facilities and operations. It is our understanding the proposed on-site project roadways, parking areas, drainage system, and other roadway improvements will be privately-owned and maintained and will not be dedicated to the City.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Sincerely,

for Jeoffrey S. Cudiamat, P.E.
Director and Chief Engineer

c: Land Use Commision
Office of Planning

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3003 • FAX: (808) 768-3053 • CITY WEB SITE: www.honolulu.gov

MUFI HANNEMANN
MAYOR

LESTER K. C. CHANG
DIRECTOR

RICHARD HARU
DEPUTY DIRECTOR

November 27, 2009

RECEIVED DEC 03 2009

Mr. Dan Davidson, Executive Officer
Land Use Commission
235 Beretania Street, Room 406
Honolulu, Hawaii 96813

Dear Mr. Davidson:

Subject: Draft Environmental Impact Statement
Nanakuli Community Baseyard
Lualualei, Waianae District, Oahu

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for the Nanakuli Community Baseyard.

The Department of Parks and Recreation has no comment as the proposed project will not impact any program or facility of the department. You may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

Sincerely,

LESTER K. C. CHANG
Director

LKCC:jr
(342742)

cc: Mr. Glenn Kimura, Kimura International, Inc.
Mr. Abbey Seth Mayer, Office of Planning

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

MUFI HANNEMANN
MAYOR

LOUIS M. KEALOHA
CHIEF

PAUL D. PUTZULU
KARL A. GODSEY
DEPUTY CHIEFS

OUR REFERENCE BS-DK

November 25, 2009

RECEIVED NOV 30 2009

Mr. Dan Davidson, Executive Director
Land Use Commission
235 South Beretania Street, Room 406
Honolulu, Hawaii 96813

Dear Mr. Davidson:

This is in response to a letter from Kimura International, Inc., requesting comments on a Draft Environmental Impact Statement for the Nānākuli Community Baseyard project.

The Honolulu Police Department has no comments to offer at this time.

If there are any questions, please call Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By
DEBORA A. TANDAL
Assistant Chief of Police
Support Services Bureau

cc: Mr. Glenn T. Kimura
Kimura International, Inc.

Mr. Abbey Seth Mayer
Department of Business, Economic
Development, and Tourism

Hawaiian Telcom

December 3, 2009

RECEIVED DEC 05 2009

Land Use Commission
235 S. Beretania Street, Room 406
Honolulu, HI 96813
Attention: Mr. Dan Davidson, Executive Officer

Dear Mr. Davidson:

Subject: **Nanakuli Community Base Yard**
Draft Environmental Impact Statement

Thank you for the opportunity to review and comment on the subject project.

Hawaiian Telcom does not have any comments to offer at this time. Please continue to include us during the design stages of the project.

If you have any questions or require assistance in the future on this project, please call Les Loo at 546-7761.

Sincerely,

Lynette Yoshida
Senior Manager - OSP Engineering
Network Engineering & Planning

cc: G. Kimura - Kimura International, Inc.
A. S. Mayer - Office of Planning
File [Nanakuli]

10. PREPARERS OF THE FEIS

The FEIS was prepared for the Petitioner, Tropic Land LLC, by Kimura International, Inc. The individuals and organizations involved in preparing this report and their contributions are listed below.

Kimura International, Inc.

Glenn Kimura	Principal in Charge/Planner
Nancy Nishikawa	Writer
Leslie Kurisaki	Writer
Amy Yamakawa	Graphics/GIS

Technical Consultants

AECOS Consultants, Eric Guinther	Botanical Resources
Crop Care Hawaii, LLC, John J. McHugh, Jr.	Agricultural Resources
Hastings, Conboy, Braig & Assoc, Ltd, Robert Braig and Ricky Minn	Market Study and Employment Forecast Fiscal Impact Analysis
Hida, Okamoto & Associates, Harvey Hida	Preliminary Engineering
JLK Management, LLC, Janelle L. Kaohu	Cultural Impacts
Mother Earth Foundation, Angelita S. Aipoalani and Hanalei Y. Aipoalani	Cultural Impacts
Rana Production Ltd., Reginald E. David	Avian and Mammalian Resources
Traffic Management Consultant, Randy Okaneku	Traffic Impacts

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