HONUA'ULA

Environmental Assessment / Environmental Impact Statement Preparation Notice

Prepared for:

Accepting Authority

Maui Planning Department/Planning Commission

Applicant,

Honua'ula Partners, LLC

Prepared by:

PBR HAWAII & ASSOCIATES, INC.

February 2009

TABLE OF CONTENTS

1 INTRODUCTION AND SUMMARY 1
1.1 PROFILE 1
1.2 APPLICANT 2
1.3 ENVIRONMENTAL CONSULTANT 2
1.4 ACCEPTING AUTHORITY 2
1.5 COMPLIANCE WITH STATE OF HAWAI'I AND COUNTY OF MAUI ENVIRONMENTAL LAWS 2
1.6 STUDIES CONTRIBUTING TO THIS EIS 3
2 HONUA'ULA COMMUNITY DESCRIPTION 5
2.1 BACKGROUND INFORMATION 5
2.1.1 Location and Property Description 5
2.1.2 Surrounding Land Uses 6
2.1.3 Regional Land Use History 6
2.1.4 Project History 7
2.2 HONUA'ULA NEED 8
2.3 HONUA'ULA DESCRIPTION 8
2.3.1 Single and Multi-family Residential Sub-districts 9
2.3.2 Village Mixed Use Sub-district 10
2.3.3 Recreation and Open Space/Utility Sub-district 10
2.3.4 Golf Course and Clubhouse 10
2.3.5 Circulation and Roadways 11
2.3.6 Water System 11
2.3.7 Wastewater Treatment Plant 11
2.3.8 Off-Site Infrastructure Improvements 11
2.4 PROJECT SCHEDULE 12
2.5 ENVIRONMENTALLY-RESPONSIBLE PLANNING AND DESIGN 12
2.5.1 OEQC's Sustainable Building Design Guidelines 12
2.5.2 EPA Energy Star Program 14
3 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES 15
3.1 CLIMATE 15
3.2 GEOLOGY AND TOPOGRAPHY 15
3.3 SOILS 16
3.3.1 USDA Soil Conservation Service Soil Survey 16
3.3.2 LSB Detailed Land Classification 17
3.3.3 Agricultural Lands of Importance to the State of Hawai'i 17
3.4 NATURAL HAZARDS 18
3.4.1 Flood 18
3.4.2 Tsunami 18
3.4.3 Hurricane 18
3.4.4 Earthquake 18
3.5 GROUNDWATER RESOURCES AND WATER QUALITY 19
3.5.1 Groundwater 19
3.5.2 Water Quality 19

3.6 FLORA 22
3.7 FAUNA 24

4 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES 27

4.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES 27
4.2 CULTURAL RESOURCES 29
4.3 ROADWAYS AND TRAFFIC 31
4.4 NOISE 33
4.5 AIR QUALITY 34
4.6 VISUAL RESOURCES 35
4.7 INFRASTRUCTURE AND UTILITIES 36
4.7.1 Water System 36
4.7.2 Wastewater System 37
4.7.3 Drainage System 38
4.7.4 Solid Waste 39
4.7.5 Electrical System 39
4.7.6 Communications Facilities 41
4.8 SOCIO-ECONOMIC CHARACTERISTICS 41
4.8.1 Community Character 41
4.8.2 Population 41
4.8.3 Housing 41
4.8.4 Economy 42
4.9 PUBLIC SERVICES AND FACILITIES 43
4.9.1 Schools 43
4.9.2 Police 44
4.9.3 Fire 44
4.9.4 Medical 44
4.9.5 Recreational Facilities 45

5 LAND USE CONFORMANCE 47

5.1 STATE OF HAWAIʻI 47
5.1.1 Chapter 343, Hawaiʻi Revised Statutes 47
5.1.2 State Land Use Law, Chapter 205, Hawaiʻi Revised Statutes 47
5.1.3 Coastal Zone Management Act, Chapter 205A, Hawaiʻi Revised Statutes 47
5.1.4 Hawaiʻi State Plan, Chapter 226, Hawaiʻi Revised Statutes 47
5.1.5 State Functional Plans 47
5.2 COUNTY OF MAUI 48
5.2.1 County of Maui General Plan 48
5.2.2 Kīhei-Mākena Community Plan 48
5.2.3 County of Maui Zoning 48
5.2.4 Special Management Area 56
5.3 APPROVALS AND PERMITS 56

6 ALTERNATIVES TO THE PROPOSED ACTION 57

7 FINDINGS AND DETERMINATION 59

7.1 SIGNIFICANCE CRITERIA 59
7.2 DETERMINATION 59

8 CONSULTATION 61

8.1 INDIVIDUALS AND ORGANIZATIONS CONSULTED WITH PRIOR TO THE EIS PROCESS 61
8.2 INDIVIDUALS AND ORGANIZATIONS TO BE CONSULTED DURING THE EIS PROCESS 65

9 REFERENCES 67

LIST OF TABLES

Table **Page**
1. Capacity and Enrollment for Public Schools serving Kīhei-Mākena 43
2. Anticipated Approvals and Permits 56

LIST OF FIGURES

Figure **Follows Page**
1. Conceptual Master Plan vi
2. Regional Location Map 6
3. Tax Map Key 6
4. Site Photographs 6
5. State Land Use District 6
6. Community Plan Map 6
7. Special Management Area 6
8. Soil Survey 16
9. Land Study Bureau Land Classification 18
10. Agricultural Lands of Importance to the State of Hawaiʻi (ALISH) 18
11. Flood Insurance Rate Map 18

LIST OF ACRONYMS AND ABBREVIATIONS

ALISH	Agricultural Lands of Importance to the State of Hawaiʻi
BMP	Best Management Practices
CWRM	Commission on Water Resource Management
CZM	Coastal Zone Management
DBEDT	Department of Business, Economic Development, and Tourism
DLNR	Department of Land and Natural Resources
DOE	Department of Education
DOH	Department of Health
DOT	Department of Transportation
DWS	Department of Water Supply
EIS	Environmental Impact Statement
EA/EISPN	Environmental Assessment/Environmental Impact Statement Preparation Notice
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map

gpd	Gallons per day
HAR	Hawaiʻi Administrative Rules
HRS	Hawaiʻi Revised Statutes
LSB	Land Study Bureau
LUC	Land Use Commission
MGD	Million gallons per day
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination Systems
NRCS	Natural Resources Conservation Service
OEQC	Office of Environmental Quality Control
ROW	Right-of-way
SCS	Soil Conservation Service
SHPD	State Historic Preservation Division
SMA	Special Management Area
TMK	Tax map key
UBC	Uniform Building Code
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WWTP	Wastewater treatment plant

Overview

Honua'ula, located in the Kīhei-Mākena region of Maui, on the slopes of Haleakalā and adjacent to Wailea Resort, will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, commercial mixed uses, on-site recreational amenities, integrated bicycle and pedestrian networks, open space, parks, and conservation areas (Figure 1).

Honua'ula will contain homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). Honua'ula will also contain village mixed use retail and commercial uses, and an 18-hole homeowner's golf course and related facilities, including a driving range and clubhouse facility.

Honua'ula will reflect community values and feature distinctive architecture to create an interesting, unique community in context with the Kīhei-Mākena region and the neighboring Wailea Resort. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community.

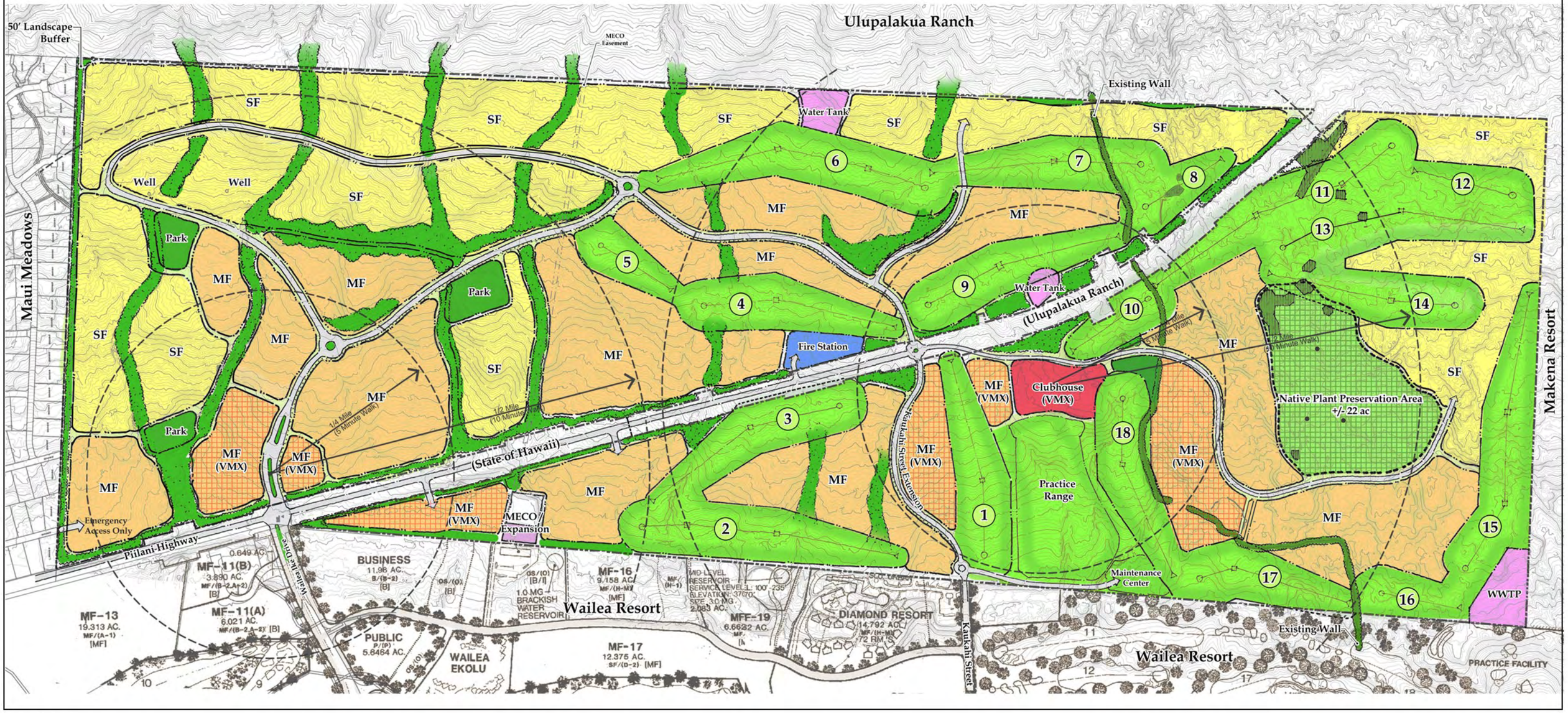
Honua'ula's integration of mixed land uses is a critical component of creating a true community. By locating commercial and retail establishments within a five minute walk of residential areas, alternatives to driving, such as walking or biking, once again become viable. The mixed uses and economic diversity will foster neighborly interaction, greater local economic activity, and increased quality of life.

Honua'ula's open space, parks, conservation areas, bicycle and pedestrian network, and golf course will provide for significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.

The Honua'ula Property is comprised of two parcels totaling 670 acres designated as Project District 9 in the *Kīhei-Mākena Community Plan*. The Honua'ula Property is also zoned Project District 9 under Chapter 19.90A of the Maui County Code (MCC).

In compliance with the *Kīhei-Mākena Community Plan* and Chapter 19.90A, MCC, Honua'ula will:

- Offer a mix of single-family and multi-family housing types for a range of consumer groups;
- Emphasize community development with single-family and multifamily units complemented with village mixed uses primarily serving the residents of the community;
- Incorporate a golf course and recreational amenities with the different uses within Honua'ula;
- Integrate community-oriented parks with pedestrian and bicycle recreation ways;
- Incorporate buffer zones between residential areas and the Pi'ilani Highway extension corridor; and
- Provide a site for future public use in anticipation of need.



LEGEND

Honua'ula

Maximum Dwelling Units: 1,150

Conceptual Master Plan Classification

- SF / MF — Residential
- MF (VMX) — VMX - Village Mixed Use
- (VMX) — Clubhouse (Village Mixed Use)
- Golf Course
- Fire Station
- Water Tank — Water Tank
- WWTP — Waste Water Treatment Plant
- Roadways
- Bikeways / Walkways
- Park — Parks
- Parks / Open Space / Landscape Buffers
- Archaeological Preserves
- Native Plant Preservation Area

Figure 1

Conceptual Master Plan

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET) 0 300 600 1,200

PBR HAWAII & ASSOCIATES, INC.

1 INTRODUCTION AND SUMMARY

This Environmental Assessment/Environmental Impact Statement Preparation Notice (EA/EISPN) is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Department of Health, State of Hawai'i. Proposed is an applicant action by Honua'ula Partners, LLC, for the creation of Honua'ula, a master-planned community located in the Kīhei-Mākena region, Island of Maui.

1.1 PROFILE

Project Name:	Honua'ula
Location:	Wailea, Kīhei-Mākena, Maui
Judicial District:	Makawao
Tax Map Key (TMK):	TMKs (2) 2-1-008:056 and 71; 2-1-008: 999 (portion)
Landowners:	Honua'ula Partners, LLC; State of Hawai'i
Land Area:	670 acres
Existing Use:	Vacant, open land with scrub vegetation and lava rock.
Proposed Use:	A master-planned residential community composed of single and multi-family homes and village mixed-use areas that integrate dwellings with supporting commercial, open space and recreational opportunities, including an 18-hole golf course and club.
Current Land Use Designations:	State Land Use: Urban Community Plan: Project District 9 County Zoning: Project District 9 Special Management Area (SMA): Not in SMA
Major Approvals/Permits Required:	Compliance with Chapter 343, HRS Project District Development Phase II and III NPDES Permit Subdivision Approval Grading/Building Permits
Accepting Authority:	Maui Planning Department/Maui Planning Commission

1.2 APPLICANT

The applicant is Honua'ula Partners, LLC.

Contact: Charles Jencks
c/o Goodfellow Brothers, Inc.
P.O. Box 220
Kīhei, Hawai'i 96753
Telephone: (808) 879-5205
Fax: (808) 879-2557

1.3 ENVIRONMENTAL CONSULTANT

The environmental planning consultant is PBR HAWAII.

Contact: Tom Schnell, AICP
Senior Associate
PBR HAWAII
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawai'i 96813
Telephone: (808) 521-5631
Fax: (808) 523-1402

1.4 ACCEPTING AUTHORITY

In accordance with Chapter 343, HRS, the EIS must be accepted by the government agency empowered to approve permits for a project. In this instance, the Maui Planning Department/Maui Planning Commission is the accepting authority.

Contact: Jeff Hunt
County of Maui
Planning Department
250 South High Street
Wailuku, Hawai'i 96793
Telephone: (808) 270-7735
Fax: (808) 270-7634

1.5 COMPLIANCE WITH STATE OF HAWAI'I AND COUNTY OF MAUI ENVIRONMENTAL LAWS

This document has been prepared in accordance with the provisions of Chapter 343, HRS, (Environmental Impact Statement Law) and Title 11, Chapter 200, HAR, Environmental Impact Statement Rules.

Section 343-5, HRS, establishes nine "triggers" that require the preparation of an environmental assessment or environmental impact statement. The triggers for Honua'ula include, without limitation, the following:

- Proposed highway intersection improvements on Pi'ilani Highway (a State highway) and other nearby intersections.
- Possible development of a wastewater treatment plant.

In addition, creation of Honua'ula may involve or impact State and/or County lands or funds relating to infrastructure improvements for public facilities, roadways, water, sewer, utility, drainage, or other facilities. While the specific nature of each improvement is not known at this time, this EIS is intended to address all current and future instances involving the use of State and/or County lands and funds relating to Honua'ula.

1.6 STUDIES CONTRIBUTING TO THE EIS

A number of specific technical studies have been or will be prepared for Honua'ula, and the full reports will be included as appendices to the Draft EIS. These studies include:

- Marine Water Quality Assessment
- Botanical Survey
- Avifaunal and Feral Mammal Survey
- Archaeological Inventory Survey
- Cultural Impact Assessment
- Traffic Impact Assessment Report
- Acoustic Study
- Air Quality Study
- Preliminary Civil Engineering and Drainage Assessment
- Market Assessment
- Economic and Fiscal Impact Assessment

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2 HONUA'ULA COMMUNITY DESCRIPTION

2.1 BACKGROUND INFORMATION

2.1.1 Location and Property Description

The Honua'ula Property is located in Wailea, Kīhei-Mākena, Maui on the relatively gentle lower slopes of Haleakalā with Wailea Resort to the west (makai), Mākena Resort to the south, 'Ulupalakua Ranch to the east (mauka), and the Maui Meadows subdivision to the north (Figure 2). The 670-acre property, identified as TMKs 2-1-008: 056 and 071 (Figure 3), is bisected by a portion of the Pi'ilani Highway right-of-way previously reserved for a planned extension of Pi'ilani Highway to the Upcountry area; however, the State Department of Transportation is no longer planning to use the right of way for the extension of Pi'ilani Highway. Approximately 370 acres of the site are mauka of the right of way and 300 acres are makai.

Historically the Honua'ula Property has been used for cattle grazing on a limited scale since the late 1800s. It was also used by the U.S. Army as a training area during World War II. The Property is presently vacant except for two existing brackish, non-potable irrigation wells, and a 1.0 million gallon water tank. The Property is secured by fences and gates.

A Maui Electric Company (MECO) substation is located on a separate parcel near the western boundary within the makai portion. Overhead transmission lines lead eastward (mauka) from the substation across the Property.

Primary access to the Property is from the intersection of Pi'ilani Highway and Wailea Ike Drive. A secondary access is provided from Kaukahi Street.

Elevations across the site range from approximately 300 to 680 feet above mean sea level. The Property is characterized by generally even slopes of 10 to 12 percent with some variation on some of the knolls and gullies in excess of 14 to 16 percent. Ocean views are available from almost all areas of the Property.

The northern 75 percent of the Property is characterized as a kiawe/buffel grass pastureland. The southern 25 percent of the parcel is ā'a land dissected by numerous gullies. The southern area contains scattered remnants of a native Hawaiian dry forest ecosystem that is characterized by mixed non-native kiawe trees (*Prosopis pallid*), native wiliwili trees (*Erythrina sandwicensis*), and a dense understory of native 'ilima shrubs (*Sida fallax*). Figure 4 contains site photographs.

Current land use designations for the Honua'ula Property are:

- State Land Use: Urban (Figure 5)
- Community Plan: Project District 9 (Figure 6)
- County Zoning: Project District 9
- Special Management Area (SMA): Not in SMA (Figure 7)

2.1.2 Surrounding Land Uses

Wailea Resort, west and makai of Honua'ula, is a master-planned resort-residential community consisting of hotels, multi-family and single-family residences, a shopping center, a tennis center, golf courses, parks, and open space areas.

Mākena Resort, to the south, comprises over 1,800 acres and includes the 310-room beachfront Maui Prince Hotel, two golf courses, and 1,300 acres of undeveloped land, master-planned to be the site of a large residential community.

'Ulupalakua Ranch, east and mauka of Honua'ula, is Maui's second largest cattle ranch, sprawling across 20,000 acres of land that begins at the ocean and rises to 6,000 feet elevation. 'Ulupalakua Ranch has Maui's only winery, and provides activities on its property, such as horseback riding and sporting clay shooting (http://www.ulupalakuaranch.com/index.htm).

Maui Meadows subdivision, directly north of Honua'ula, was built in the 1960s and has over 600 home sites. Maui Meadows is largely built out, but new home construction and renovations are ongoing, and a handful of undeveloped lots remain. Homes at Maui Meadows are priced in the $1.4 to $2 million range for a completed home (http://www.4mauimeadows.com/faqs/).

2.1.3 Regional Land Use History

The Makawao District (previously known as the old district of Honua'ula), is located in the Kīhei-Mākena Community Plan region. There are 20 ahupua'a in this district, mostly narrow except the two at both ends, Paeahu and Kanaio.

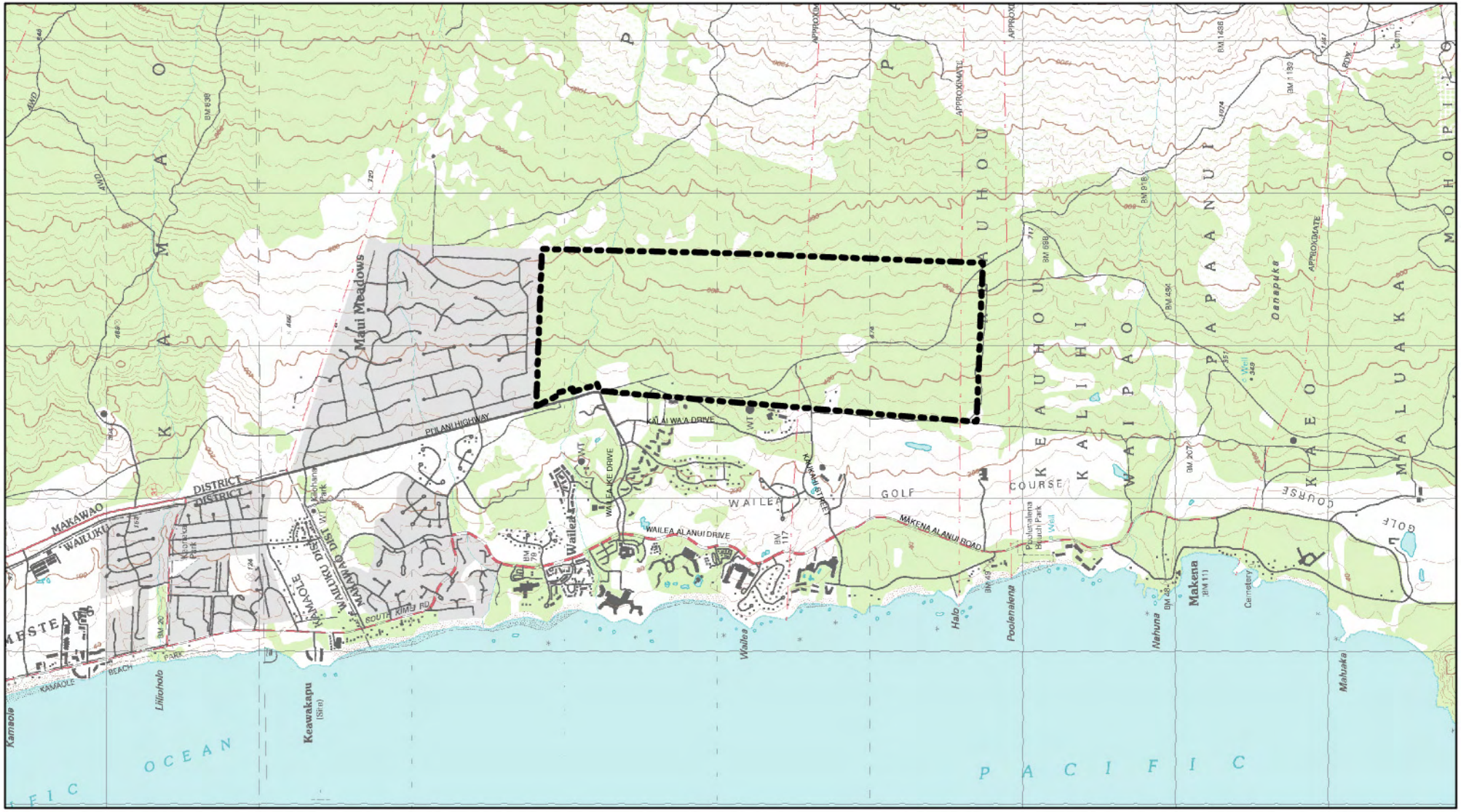
During the early historic period, the district was well populated. When La Perouse landed at Keone'ō'io, south of Kīhei, in 1786, he was given 300 pigs, large quantities of sweet potatoes, taro, and bananas, reflecting the productivity of the land. Between 1840 and 1860, large expanses of land were acquired by foreigners, and native Hawaiians were displaced.

Once a forest, the mountains above Wailea became grazing land for cattle from 'Ulupalakua Ranch in the 1800s. By the mid-1800s, Kalepolepo (now a tiny park) was a busy trading post, and there were docks at Mā'alaea and Mākena. Ranchers on the slopes of Haleakalā drove their cattle down to the shoreline to be loaded onto boats.

By 1841, sugar was being produced at 'Ulupalakua for Kamehameha III, and was shipped out from a government landing at Mākena. Kalepolepo was a busy trading post, and there were docks at Mā'alaea and Mākena. Ranchers on the slopes of Haleakalā drove their cattle down to the shoreline to be loaded onto boats. (County of Maui Kīhei-Mākena Community Plan, 1998)

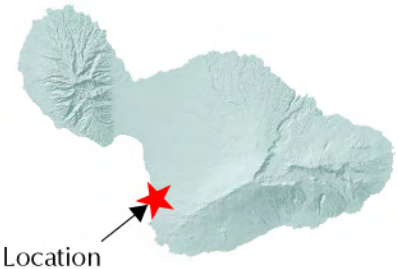
During World War II, the U.S. military lined the beaches with barbed wire and practiced invasions on Kīhei's shore.

Water piped in from Central Maui in the 1970s made it possible for developers to turn the dry and sunny coastline into a lush resort. Modern development of Kīhei began in the 1970s and has become of one of the State's fastest-growing communities.



LEGEND

Honua'ula



Source: U.S. Geological Survey
Disclaimer: This graphic has been prepared for general planning purposes only.

Figure 2

Regional Location

Honua'ula

Honua'ula Partners, LLC

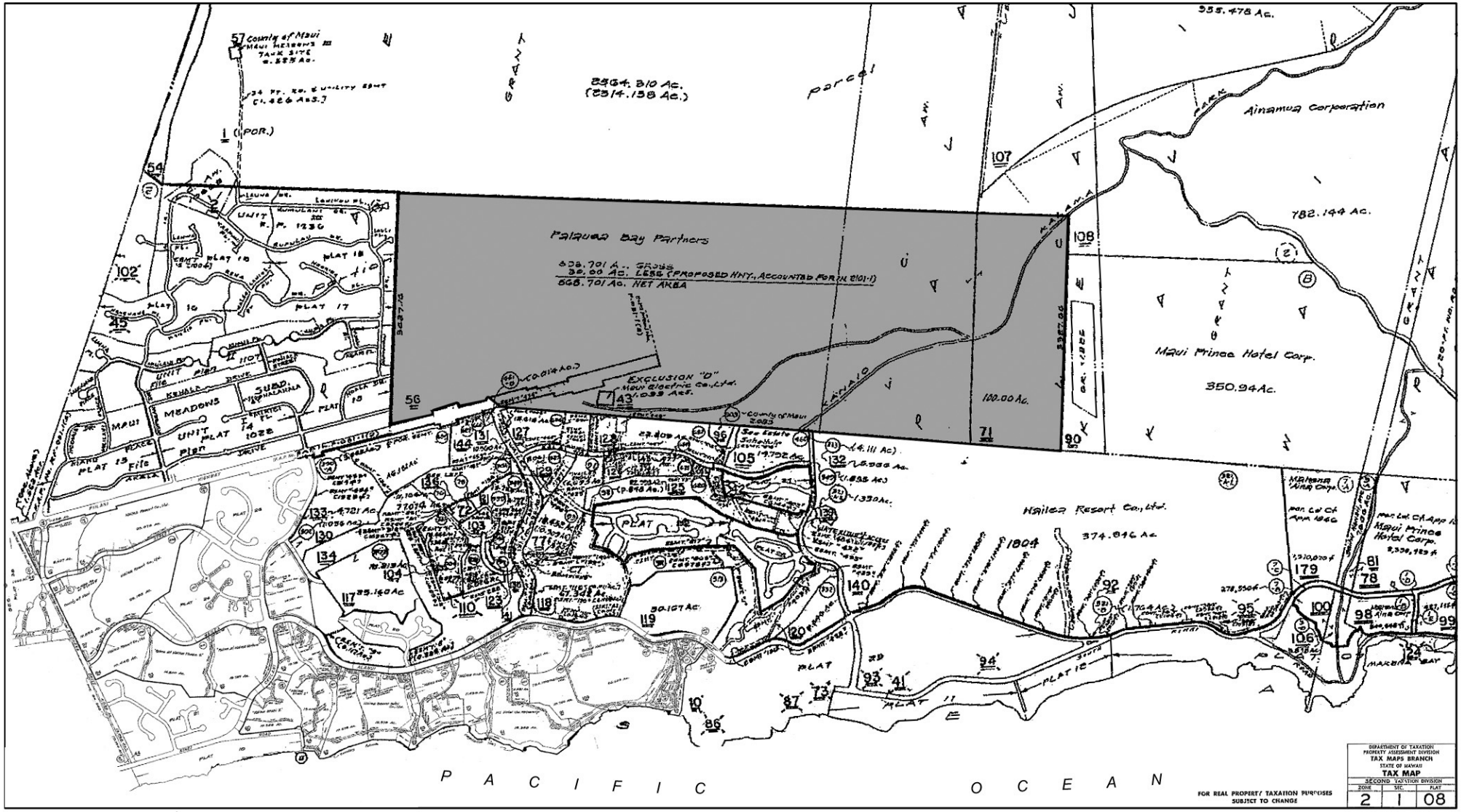
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.



LEGEND

Honua'ula

Figure 3

Tax Map Key

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

1. A view toward the ocean from the Honua'ula property.

2. Non-native Kiawe trees in the northern part of the property.

3. A buffel grass pasture area toward the southern end of the property.

4. Numerous dirt roads transverse the property.

5. A view toward Haleakalā.

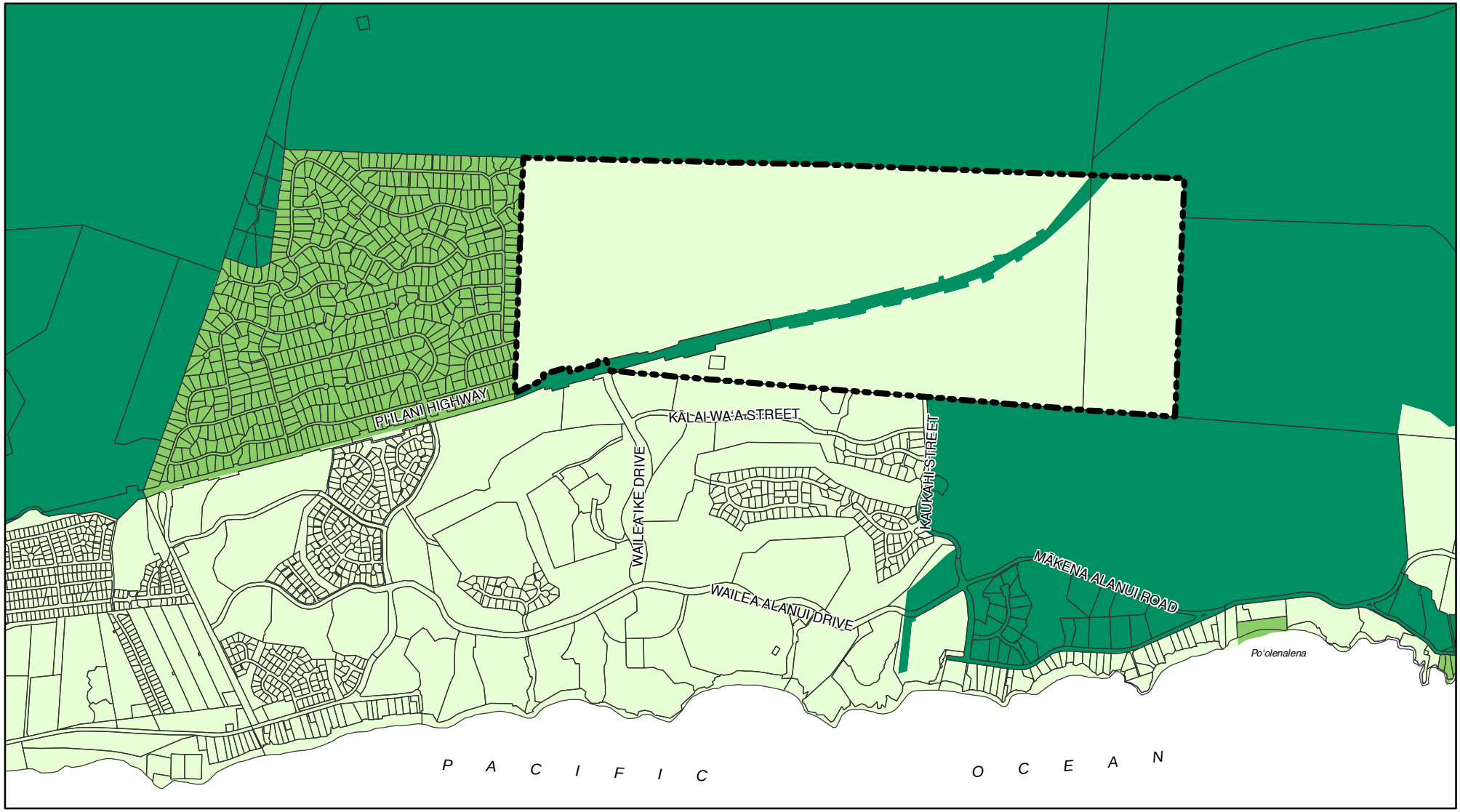
Figure 4
Site Photographs
Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

Photographs taken June 2007

PBR HAWAII & ASSOCIATES, INC.



LEGEND

Honua'ula

State Land Use District

- Agricultural
- Rural
- Urban

Figure 5

State Land Use District

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: State Land Use Commission (2008)
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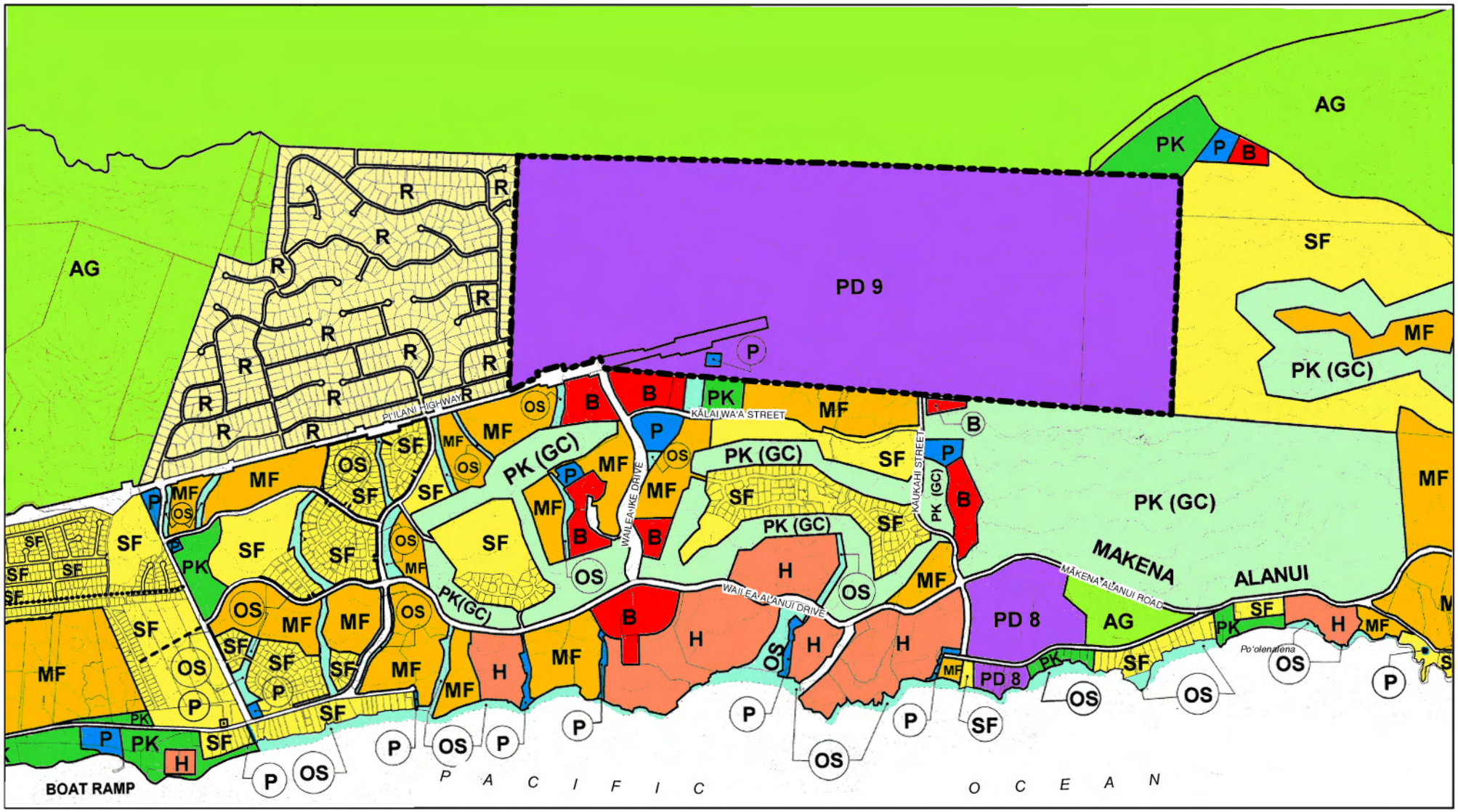


LEGEND

Honua'ula

Designation

R	Rural	OS	Open Space
SF	Single Family	AG	Agriculture
MF	Multi-family	P	Public/Quasi-public
H	Hotel	PK	Park
B	Commercial	PK (GC)	Park/Golf Course
PD	Project District		

Source: Maui Community Plans (1998)
Disclaimer: This map was made for general planning purposes only

Figure 6

Kīhei-Mākena Community Plan Map

Honua'ula

Honua'ula Partners, LLC

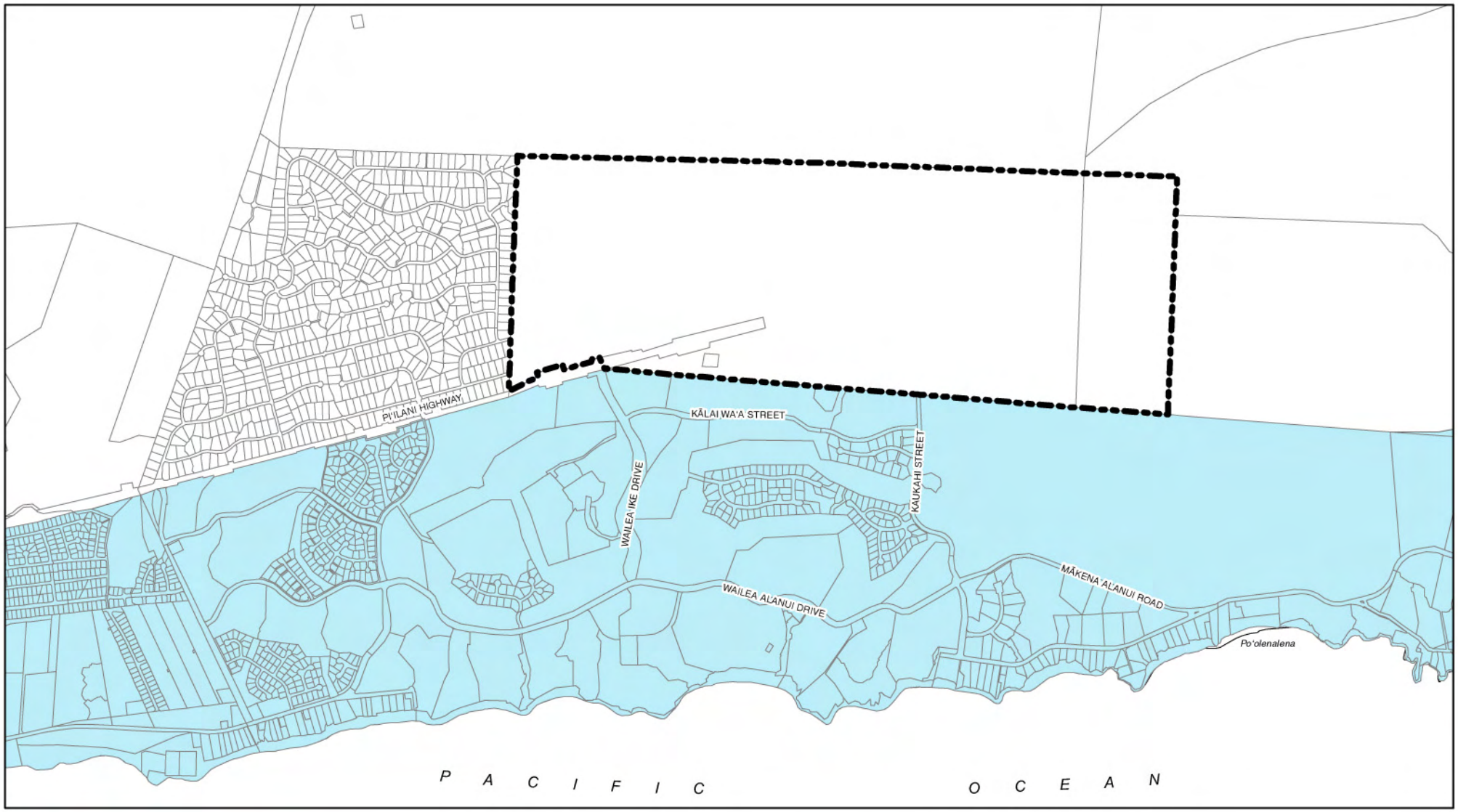
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.



LEGEND

Honua'ula

Special Management Area

Within a Special Management Area

Figure 7

Special Management Area

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: City & County of Honolulu GIS database (2008)
Disclaimer: This graphic has been prepared for general planning purposes only.

2.1.4 Project History

In 1988, the Property's former owner proposed a residential/resort community of more than 2,100 residential units, two 18-hole golf courses, a resort lodge, and six acres of commercial property. To implement this proposal, the former landowner obtained several land use entitlements for the Property, including:

- A Community Plan Amendment of the Kihei-Makena Community Plan pertaining to Project district 9 (Ordinance No. 2094, effective on April 3, 1992).
- Establishment of Chapter 19.90, Kihei-Makena Project District 9 (Wailea 670 Project District) in Title 19, Maui County Code by (Ordinance No. 2172, effective on October 5, 1992). Initially Chapter 19.90 established standards for Project District 9 that were limited to golf courses and recreational uses.
- Project District 9 Zoning (Conditional Zoning) for 402.35 acres of the Property (Ordinance No. 2171, effective on October 5, 1992). This conditional zoning allowed for two golf courses and related facilities on the Property, but no residential uses.
- Project District Phase II and Project Master Plan approval for 402 acres for two 18-hole golf courses, a driving range, a clubhouse, golf maintenance facilities, a park and related improvements (Maui Planning Commission approval on May 3, 1993)
- Project District Phase 3 approval for the golf courses, clubhouse, maintenance facility, park facilities, and related improvements. (Maui Planning Department approval dated July 15, 1993)
- A State Land Use District Boundary Amendment to reclassify the Property from the State Agricultural District to the State Urban District (September 8, 1994)

In the mid-1990s the Kīhei-Mākena Community Plan was subject to an extensive community-based revision and update. The County Council and the Mayor adopted the plan (Ordinance No. 2641) which became effective on March 6, 1998. The updated Kīhei-Mākena Community Plan maintained the Project District 9 designation for the Property. It also reaffirmed the vision—through a community-based process—that Project District 9 should be a residential community complemented with commercial uses and integrated with golf courses and other recreational amenities.

In January of 2000, WCPT/GW Land Associates (which subsequently changed their name to Honua'ula Partners, LLC) acquired the Property. The new owner proposed a revised plan from what earlier landowners had proposed. The revised plan envisioned a master-planned community with no more than 1,400 homes, one golf course, open space and recreational trails, and village mixed use areas. The revised master plan retains the vision for Project District 9 as envisioned in the Kīhei-Mākena Community Plan, but is smaller in scale than the previously accepted 1988 Wailea 670 plan which proposed 2,100 housing units, two 18-hole golf courses, a 480-room resort and lodge, and six acres of commercial property.

In June 2000, applications were submitted to the County for a Change in Zoning and Project District Phase I Approval for the revised master plan. Subsequently, the proposed community name was changed from Wailea 670 to Honua'ula, after the old Honua'ula District (now known as Makawao District) on which the Property lies.

In April 2008, the Maui County Council approved Honua'ula's Change in Zoning and Project District Phase I Approval requests in favor of the revised plan. As approved by the Council, Project District 9 now includes provisions for 1,400 homes (including affordable workforce homes in conformance with the County's Residential Workforce Housing Policy (Chapter 2.96, MCC, 250 of which will be provided off-site, thus reducing the total number of homes on-site to 1,150), village mixed uses, a single homeowners golf course, and other recreational amenities (Ordinance No. 3553 and No. 3554, approved April 8, 2008). Specific conditions of the approval are provided in Section 5.2.3.

2.2 HONUA'ULA NEED

The Honua'ula Property has been identified for urban uses in State and County planning policies for over 20 years. It is stated in the *Kīhei-Mākena Community Plan* (1998) that Project District 9 should:

> *…provide a mix of single-family and multi-family housing types for a range of consumer groups with an emphasis on community development consisting of single-family, zero lot line, and multi-family units, complemented with village mix uses and commercial uses primarily serving the residents of the community, all integrated with two 18-hole golf courses and other recreational amenities. Public amenities should include community-oriented parks integrated with pedestrian bicycle recreation ways and buffer zones between residential areas and the proposed Pi'ilani Highway extension. A site for future public use should be provided in anticipation of need.* (County of Maui, 1998: p. 44)

Honua'ula's master plan is consistent with the *Kīhei-Mākena Community Plan*.

In addition, urban uses at Honua'ula are reinforced by the draft Maui Island Plan/General Plan 2030 (see Section 5.2.1). The Land Use Policy Map for Kīhei-Mākena (Map 11 in the Maui Island Plan) identifies Honua'ula to be within the "urban growth boundary."

Honua'ula will also provide employment and affordable housing for Maui residents. Creation of Honua'ula will result in significant expenditures that will favorably impact the Maui economy on both a direct and indirect basis, increasing the level of capital investment and capital flow in the region, which will in turn create employment and widen the tax base. Honua'ula will also contain homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy).

2.3 HONUA'ULA DESCRIPTION

Honua'ula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, commercial mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks. Honua'ula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

Honua'ula will reflect community values and feature distinctive architecture to create an interesting, unique community in context with the Kīhei-Mākena region and the neighboring Wailea Resort. This cohesive approach will integrate natural and human-made boundaries and

landmarks to craft a sense of place within a defined community. Incorporation of unique elements and natural and cultural resources will provide Honua'ula residents with a distinctive home for future generations.

Honua'ula's integration of mixed land uses is a critical component of creating a true community. By locating commercial and retail establishments within a quarter-mile of residential areas, alternatives to driving, such as walking or biking, once again become viable. This also provides a concentrated population base to support public transit alternatives and stations in the future. The mixed uses and economic diversity will foster neighborly interaction, greater local economic activity, and increased quality of life.

Honua'ula's open space, parks, conservation areas, bicycle and pedestrian network, and golf course will provide for significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.

Located in the Kīhei-Mākena region of Maui, on the slopes of Haleakalā and adjacent to Wailea Resort, the Honua'ula Property is comprised of two parcels totaling 670 acres designated as Project District 9 in the *Kīhei-Mākena Community Plan*. The Property is also zoned Project District 9 under Chapter 19.90A of the Maui County Code (MCC).

In compliance with the *Kīhei-Mākena Community Plan* and Chapter 19.90A, MCC, Honua'ula will:

- Offer a mix of single-family and multi-family housing types for a range of consumer groups;
- Emphasize community development with single-family and multifamily units complemented with village mixed uses primarily serving the residents of the community;
- Incorporate a golf course and recreational amenities with the different uses within Honua'ula;
- Integrate community-oriented parks with pedestrian bicycle recreation ways;
- Incorporate buffer zones between residential areas and the Pi'ilani Highway extension corridor; and
- Provide a site for future public use in anticipation of need.

In compliance with Chapter 19.90A, MCC, Honua'ula will contain Single- and Multi- Family Residential, Village Mixed Use, and Recreation and Open Space/Utility sub-districts.

2.3.1 Single and Multi-family Residential Sub-districts

The Single- and Multi- Family Residential sub-districts will contain Honua'ula's residential neighborhoods. Honua'ula will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). The number of residences that may be constructed in Honua'ula, together with any associated off-site residential workforce housing units, will not exceed 1,400. As required by County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 5), 250 of the required workforce affordable homes will be provided off-site at the Ka'ono'ulu Light Industrial Subdivision.

Because of the Property's elevations and topography, many homes will have golf course and/or ocean views.

Approximately 40 percent of homes will be single-family. The average density of the Single-Family Residential sub-district will be 2.5 units per acre or less, and the minimum lot area will be 7,500 square feet.

Approximately 60 percent of the homes will be multi-family. The average density of the Multi-Family Residential sub-district will be 2.5 units per acre or less, and the minimum lot area will be 10,000 square feet.

2.3.2 Village Mixed Use Sub-district

The Village Mixed Use sub-district is envisioned as a community center comprised of a mix of residential, commercial, and recreational and community facilities serving the needs of Honua'ula residents and guests.

The intent of the Village Mixed Use sub-district is to create community identity and character with landmark buildings and grouping of services within a central core that includes a mix of uses. Permitted uses in the village mixed use district include: retail food and beverage establishments; grocery stores; retail shops; offices; business services; minor medical offices; religious institutions; and public facilities.

The total floor area of all structures commercial and retail structures within the village mixed use district will not exceed 100,000 square feet. The total land area of the Village Mixed Use sub-district will not exceed 53 acres.

2.3.3 Recreation and Open Space/Utility Sub-district

The Recreation and Open Space/Utility sub-district may include: the golf course and golf driving range; community and recreation centers; parks and playgrounds; native plant conservation areas; landscaped common or open space areas; trails and bike-pedestrian ways; drainage, utility, and erosion control systems; wells and reservoirs; and greenhouses and nurseries for the propagation of plants. The total land area of the Recreation and Open Space/Utility sub-district will not exceed 350 acres, including the golf course.

Open space in the Recreation and Open Space/Utility sub-district will include landscaped buffers, drainage ways, and steep topographic features. One of the major buffer zones is located between Maui Meadows and Honua'ula. This buffer area will be at least 100 feet wide consisting of a 50-foot wide landscape buffer and a landscaped roadway. Other major buffer areas will include areas bordering Pi'ilani Highway.

2.3.4 Golf Course and Clubhouse

The 18-hole homeowner's golf course will include: a driving range; clubhouse facility with a restaurant; pro-shop; spa; and indoor and outdoor recreational amenities. The golf course and

driving range will be part of the Recreation and Open Space/Utility sub-district, while the clubhouse and related facilities will be within the Village Mixed Use sub-district. Major portions of the golf course will be designed as an integral part of the community's drainage system.

2.3.5 Circulation and Roadways

Pi'ilani Highway will provide primary access to Honua'ula from the intersection of Pi'ilani Highway/Wailea Ike Drive, which Honua'ula Partners, LLC will improve to establish a road extending mauka into Honua'ula. Honua'ula Partners, LLC is also responsible for extending Pi'ilani Highway south with two lanes from Wailea Ike Drive to connect with Kaukahi Street at or before the completion of 50 percent of Honua'ula.

Honua'ula will integrate a system of pedestrian and bike paths along the community's roadways. This secondary circulation system of linked pedestrian/bike trails will provide another option for traveling through the community. The community trail system will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas.

2.3.6 Water System

Honua'ula Partners, LLC will develop, maintain, and operate private potable (safe drinking) and non-potable (non-drinking) water sources, storage facilities, and transmission lines for Honua'ula. Non-potable water, such as re-use of treated effluent from wastewater, will be utilized for all irrigation purposes.

2.3.7 Wastewater Treatment Plant

Options for wastewater treatment include the development of an on-site treatment plant or connection to the Mākena wastewater treatment plant (WWTP), which is located approximately one mile south of Honua'ula.

2.3.8 Off-Site Infrastructure Improvements

As a condition of the County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 2), Honua'ula Partners, LLC will contribute to off-site infrastructure improvements in the vicinity of Honua'ula. These off-site infrastructure improvements include:

- Upgrade Pi'ilani Highway, from Kilohana Drive to Wailea Ike Drive, to four lanes of traffic. The improvements will be completed prior to the commencement of any construction on the site, with the exception of grading.
- Extend Pi'ilani Highway for two lanes of traffic from Wailea Ike Drive to Kaukahi Street. The improvement will be constructed at or prior to the completion for 50 percent of Honua'ula and will be maintained by Honua'ula Partners, LLC, its successors and permitted assigns.
- Signalize the Pi'ilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).

- Modify the Pi'ilani Highway/Wailea Ike Drive intersection into a signalized intersection and provide a free right-turn lane from Pi'ilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Pi'ilani Highway prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
- Modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement from northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
- Modify the Pi'ilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Pi'ilani Highway approach to provide an exclusive right-turn lane into Mapu Place prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
- Signalize the Wailea Ike Drive/Kālai Wa'a Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.
- Signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.

2.4 PROJECT SCHEDULE

Creation of Honua'ula is expected to commence after Project District Phase II and III applications are approved.

2.5 ENVIRONMENTALLY-RESPONSIBLE PLANNING AND DESIGN

2.5.1 OEQC's Sustainable Building Design Guidelines

The Office of Environmental Quality Control (OEQC) issued *Guidelines for Sustainable Building Design in Hawai'i: A Planner's Checklist* (OEQC 1999) and has requested that consideration be made in applying sustainable building techniques to projects. The OEQC Guidelines state:

> *A sustainable building is built to minimize energy use, expense, waste and impact on the environment. It seeks to improve the region's sustainability by meeting the needs of Hawai'i's residents and visitors today without compromising the needs of future generations. Compared to conventional projects, a resource-efficient building project will:*
>
> 1. *Use less energy for operation and maintenance.*
> 2. *Contain less embodied energy (e.g. locally produced building products often contain less embodied energy than imported products because they require less energy-consuming transportation.)*
> 3. *Protect the environment by preserving/conserving water and other natural resources and by minimizing impact on the site and ecosystems.*
> 4. *Minimize health risks to those who construct, maintain, and occupy the building.*
> 5. *Minimize construction waste.*
> 6. *Recycle and reuse generated construction wastes.*
> 7. *Use resource-efficient building materials (e.g. materials with recycled content and low embodied energy, and materials that are recyclable, renewable, environmentally benign, non-toxic, low VOC (Volatile Organic Compound) emitting, durable, and that give high life cycle value for the cost.)*

8. *Provide the highest quality product practical at competitive (affordable) first and life cycle costs.*

Where appropriate, Honua'ula will include sustainable design features described in the *Guidelines for Sustainable Building Design in Hawai'i.* These may include:

- Identification of eco-efficient goals and ensuring goals are met.
- A community design that includes a mix of residential, commercial, public uses, parks, open space, a neighborhood school, biking and walking paths combining to form a community that encourages residents to build relationships with each other, rely less on cars for transportation, walk and bicycle more often, enjoy outdoor surroundings, and actively engage in civic life.
- The existing resources and natural features of the Property will be preserved.
- Buildings will be sited to take advantage of natural features and maximize their beneficial effects where practical.
- Bike racks will be provided for bicycle commuters in commercial areas and other suitable locations.
- The streets within the community will be designed to maximize pedestrian use. Building types will allow flexibility to accommodate changing needs of the occupants.
- Natural cooling such as street trees that shade buildings and paved areas will be included within the community.
- Use renewable energy. Use solar water heaters and consider the use of photovoltaics and Building Integrated Photovoltaics.
- Energy consumption will be minimized through the use of solar design features such as solar water heaters.
- Where feasible landscaping will include:
    - Use of locally made soil amendments and compost for plant nourishment, improved water absorption and holding capacity.
    - Use of drought tolerant and/or slow growing hardy grasses, native and indigenous plants, shrubs, ground covers, trees, appropriate for local conditions, to minimize the need for irrigation.
    - Use of mulches to minimize evaporation, reduce weed growth, and retard erosion.
    - Use of non-potable water or reclaimed water for common areas, fire system, and recreational fields.
- Recycling and waste diversion strategies will be employed during construction and during occupancy.
- Homes will include water conserving, low flow fixtures as required by Uniform Plumbing Code.
- Provide an Integrated Pest Management approach. The use of products such as Termi-mesh, Basaltic Termite Barrier and the Sentricon "bait" system can provide long term protection from termite damage and reduce environmental pollution.
- For termite protection, use non-toxic alternatives to pesticides and herbicides, such as Borate treated lumber, Basaltic Termite Barrier, stainless steel termite barrier mesh, and termite resistant materials.
- Specifications for building materials will encourage use of products with high recycled content, low or non-toxic materials, which are locally produced.

2.5.2 EPA Energy Star Program

Honua'ula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the United States Environmental Protection Agency (EPA) in effect at the time of construction. The ENERGY STAR program was established in 1992 for energy-efficient computers. Now a joint program under the EPA and the U.S. Department of Energy, the ENERGY STAR program has grown to encompass more than 35 energy-efficient product categories for homes and workplace.

Homes that earn the ENERGY STAR designation must meet guidelines for energy efficiency set by the EPA. ENERGY STAR qualified homes can include a variety of energy-efficient features, such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment, and ENERGY STAR qualified lighting and appliances.

These EPA standards for the ENERGY STAR program can be found at the following website: http://www.energystar.gov.

3 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes existing conditions of the physical or natural environment, preliminary potential impacts of Honua'ula, and preliminary mitigation measures to minimize any impacts. The Draft EIS will include additional information on existing conditions, potential impacts, and mitigation measures,

3.1 CLIMATE

Honua'ula is located in one of the drier areas of Maui. The Kīhei-Mākena coast is generally, sunny, warm, and dry year-round. Annual temperatures in the region average in the mid to high 70s. Average annual rainfall for the region varies from 16 to 20 inches (Maui County Data Book, 2007).

3.2 GEOLOGY AND TOPOGRAPHY

The general geology of the Property is dominated by the Hāna Volcanic lava flows of the Kula Volcanic Series. More recent lava flows overlie the southern (approximately 170 acres) portion of the site. The Kula Volcanic Series is early Pleistocene in age. Hāna Volcanic lavas are late Pleistocene to recent lava flows, the last of which near the Property (La Perouse Bay) occurred around 1750. The lava flows are predominantly a'a basaltic lavas inter-layered with clinker gravel.

Because of the relatively dry climatic conditions, weathering and erosion of the surface clinker and basalt on the Kula lava flows have resulted in the formation of only a thin layer of residual clayey and sandy gravelly silts. The residual soils normally overlie less weathered clinker and massive a'a basalt. The clinkery material is generally unconsolidated and loose to medium dense in its natural condition. Exposures of massive a'a basalt lava inter-bedded with clinker zones are visible along the side walls of several of the major gullies found in the upper portions of the site.

Because the Hāna lava flows are derived from younger volcanic eruptions than the Kula Series, less weathering and erosion of the surface clinker has taken place in areas with Hāna flows. Little to no soil cover is present over a major portion of the southern part of the Property.

The Property is periodically divided by steeply sloping gullies, which define ridges. Ridges and gullies define drainage areas that convey on-site and off-site storm water run-off during storms. Modifications to gullies are constrained by flood hazards and drainage improvements previously installed downstream within Wailea.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Grading will be necessary to accommodate Honua'ula. To the extent possible, improvements will conform to the contours of the land, limiting the need for extensive grading of the Property. Appropriate engineering, design, and construction measures will be undertaken to minimize potential erosion of soils during construction. Best Management Practices (BMPs) will be

utilized to meet State and County grading requirements and to minimize off-site impacts. The Draft EIS will provide further discussion.

3.3 SOILS

There are three soil suitability studies prepared for lands in Hawai'i whose principal focus has been to describe the physical attributes of land and the relative productivity of different land types for agricultural production; these are: 1) the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey; 2) the University of Hawai'i Land Study Bureau (LSB) Detailed Land Classification; and 3) the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH).

3.3.1 USDA Soil Conservation Service Soil Survey

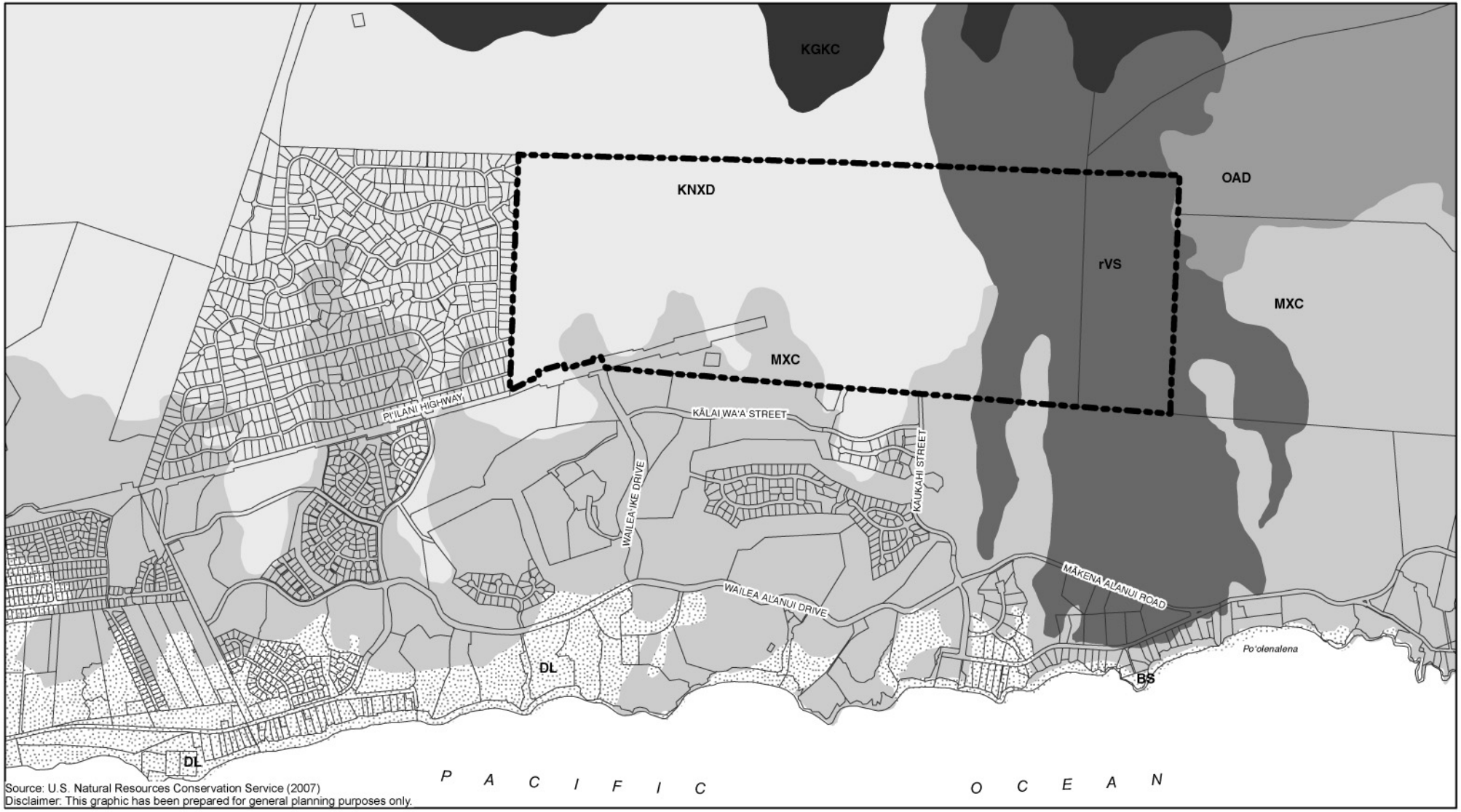
The US Department of Agriculture Soil Conservation Service (USDA-SCS) rated the on-site soils as generally unsuited for agricultural purposes, with low shrink/swell potential, low erodibility, good permeability, shallow depths to bedrock and fair to good suitability for road fill and other structural work. The USDA-SCS *Natural Resources Conservation Service, Soil Survey of the Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lāna'i* classifies the soils at the Property area into four soil types of two soils associations: Keawakapu-Mākena association and Kama'ole-Oanapuka association. The USDA-SCS designates the four on-site soil types as Oanapuka, very stony loam (OAD); Very Stony Land (rVS); Mākena Loam, stony complex (MXC); and Keawakapu, extremely stony silty clay loam (KNXD) (Figure 8).

Mākena loam, stony complex, 3 to 15 percent slopes (MXC) occurs on the lower leeward slopes of Haleakalā, between Mākena and Kama'ole. It consists of Mākena loam and Stony land. Stony land occurs on low ridges and makes up 30 to 60 percent of the complex. Mākena loam occurs as gently sloping areas between the low ridges of Stony land. On the Mākena part of the complex, permeability is moderately slow, runoff is slow to medium, and the erosion hazard is slight to moderate. The available water capacity is about 1.8 inches per foot of soil. On the Stony land part, permeability is very rapid and there is no erosion hazard. Mākena part is in capability classification VIs, nonirrigated; stony land part is in capability classification VIIs, nonirrigated.

Keawakapu, extremely stony silty clay loam (KNXD) occurs on low uplands. This soil series consists of well-drained, extremely stony soils. These soils developed in volcanic ash. Permeability is moderate. Runoff is slow to medium, and the erosion hazard is slight to moderate. Capability classification is VIs, nonirrigated.

Oanapuka very stony silt loam, 7 to 25 percent slopes (OAD) occurs on the lower uplands. This soil series consists of well-drained, very stony soils. These soils developed in volcanic ash and material derived from cinders. Permeability is moderately rapid. Runoff is slow, and the erosion hazard is slight to moderate. Capability classification is VIs, nonirrigated.

Very Stony Land (rVS) consists of young a'a lava that has a thin covering of volcanic ash that locally extends deed into cracks and depressions. The slope ranges from 7 to 30 percent and occurs in very steep gulches. Capability classification is VIIs, nonirrigated.



Source: U.S. Natural Resources Conservation Service (2007)
Disclaimer: This graphic has been prepared for general planning purposes only.

LEGEND

Honua'ula

Soil Classification

- rVS: Very stony land
- KGKC: Kamaole extremely stony silt loam 3-15 % slopes
- KNXD: Keawakapu extremely stony silty clay loam, 3-25% slopes
- OAD: Oanapuka very stony silt loam, 7-25 % slopes
- MXC: Makena loam, stony complex 3-15% slopes
- BS; DL: Sandy soils

Figure 8

Soil Classification

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

3.3.2 LSB Detailed Land Classification

The University of Hawai'i Land Study Bureau (LSB)'s *Detailed Land Classification, Island of Hawai'i* (1965) classifies non-urban land by a five-class productivity rating system, using the letters A, B, C, D and E, where "A" represents the highest class of productivity and "E" the lowest.

The Detailed Land Classification, Island of Maui, prepared by the University of Hawai'i Land Study Bureau, classifies the lands as "E" (Figure 9). The "E" classification signifies land that is very poorly suited for agriculture; it is the lowest productivity rating used by the Land Study Bureau system.

3.3.3 Agricultural Lands of Importance to the State of Hawai'i

The site is not classified under the State of Hawai'i Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH) system (Figure 10). This means that soils at the site are not considered "prime agricultural land," "unique agricultural land," or "other important agricultural land."

POTENTIAL IMPACTS AND MITIGATION MEASURES

Honua'ula will not reduce the inventory of agriculturally significant lands. The Property has a SCS Land Capability classification of VIs and VIIs, meaning it has very severe limitations because of stoniness or unfavorable texture. The soils are very stony, very rocky, extremely stony, or extremely rocky, and therefore, would not be suitable for commercial plant growth or agriculture. The Property is rated "E" and unclassified on the LSB classification, and not classified under the ALISH system, indicating that the Property is not agriculturally significant.

The creation of Honua'ula will cause land disturbance, including removal of existing vegetation (clearing and grubbing) and mass grading. Impacts to the soils include the potential for soil erosion and the generation of dust during construction.

Grading plans will attempt to achieve a balanced excavation and embankment quantities to minimize disturbance to the Property's topography and soils as much as practicable. As typically required for projects on land greater than one acre in size, a National Pollutant Discharge Elimination System (NPDES) Notice of General Permit Coverage (NGPC) for Storm Water Associated with Construction Activity will be necessary.

During site grading and all other construction activities, Best Management Practices (BMPs), which may include use of silt fences, sediment traps, and diversion swales, will be utilized to minimize erosion and the discharge of other pollutants, associated with development. After construction, landscaping will provide long-term erosion control.

3.4 NATURAL HAZARDS

Maui is susceptible to potential natural hazards, such as flooding, tsunami inundation, hurricanes, and earthquakes. This section provides an analysis of site vulnerability to such hazards.

3.4.1 Flood

According to the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), National Flood Insurance Program, a majority of the Property is located in Zone C, which is outside of the 500-year flood plain, in an area of minimal flooding (Figure 11).

3.4.2 Tsunami

Honua'ula is located outside of the tsunami inundation zone.

3.4.3 Hurricane

Since 1980, two hurricanes have had a devastating effect on Hawai'i. They were Hurricane 'Iwa in 1982 and Hurricane 'Iniki in 1992. Recently in 2007, Hurricane Flossie threatened to reach Hawai'i, putting Hawai'i on a hurricane watch. The hurricane, however, was downgraded from a hurricane to a tropical storm after passing Hawai'i Island, 95 miles south of South Point (AP 2007).

3.4.4 Earthquake

In Hawai'i, most earthquakes are linked to volcanic activity, unlike other areas where a shift in tectonic plates is the cause of an earthquake. Each year, thousands of earthquakes occur in Hawai'i, the vast majority of which are so small they are detectable only with highly sensitive instruments. However, moderate and disastrous earthquakes have occurred in the islands.

A recent series of earthquakes, with magnitudes of 6.7 and 6.0, occurred at Kīholo Bay (Hawai'i Island) on October 15, 2006. The earthquakes caused a closure of the Pa'ihi Bridge between Kīpahulu and Hāna, as well as a rockslide over the highway between Kīpahulu and Kaupō, cutting utility lines and undermining sections of the narrow roadway. The road between Kīpahulu and Kaupō was shut down in December 2006 and not re-opened until October 2008.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The occurrence of a natural disaster cannot be predicted, and should one occur, it could pose a risk of life and property within the proposed Honua'ula community. Honua'ula, however, will not exacerbate any natural hazard conditions.

Due to its location and elevation, the probability of the Property being affected by flooding or tsunami are minimal. However, to protect against natural hazards, all structures at Honua'ula will be constructed in compliance with requirements of the Uniform Building Code, and other County, State, and Federal standards. Honua'ula Partners, LLC will also fund and construct

LEGEND

Honua'ula

Land Use Classification

- D: Poor
- E: Very Poor
- N: Not Classified

Figure 9

Detailed Land Use Classification

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

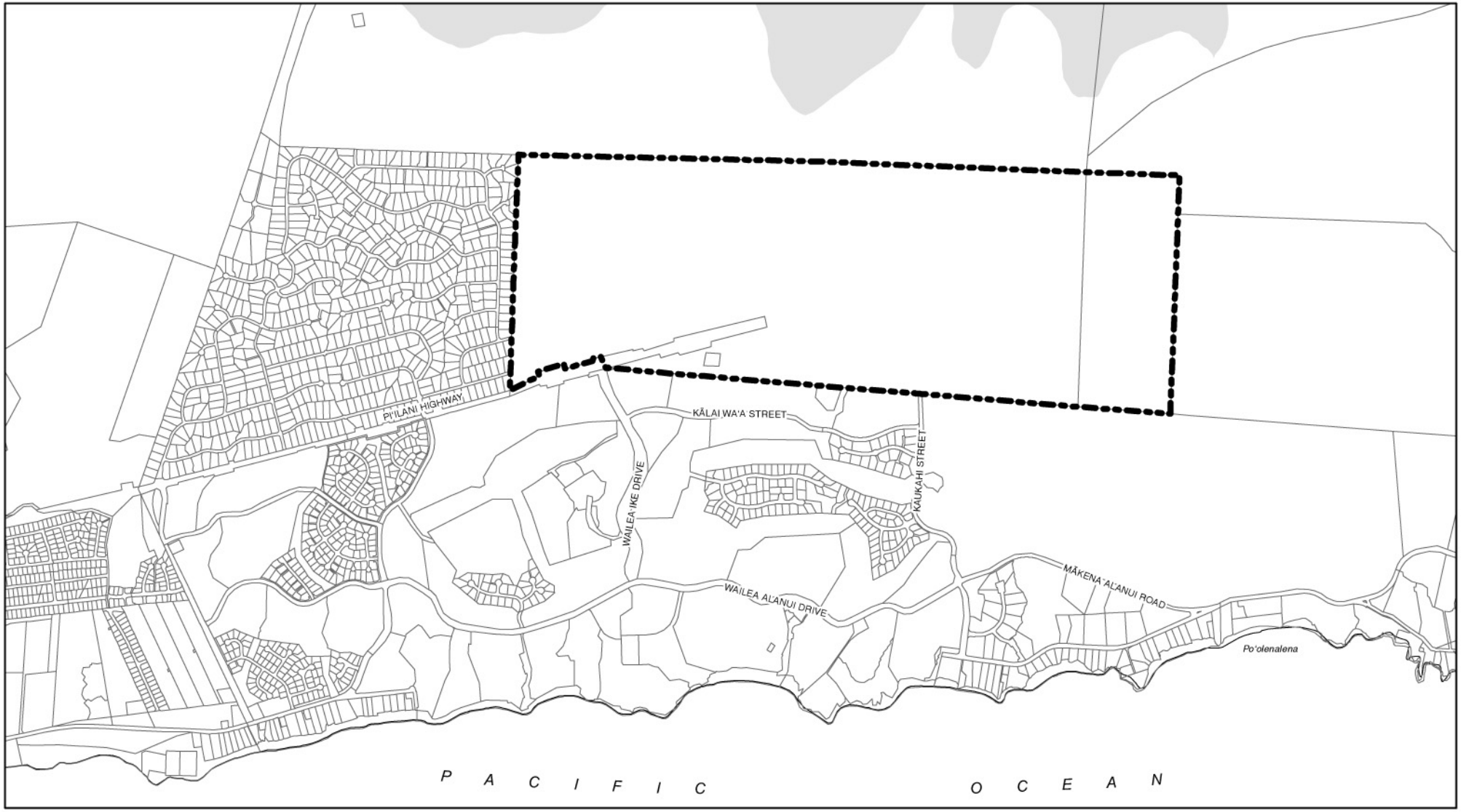
NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: Land Study Bureau (1967)
Disclaimer: This graphic has been prepared for general planning purposes only.



LEGEND

Honua'ula Boundary

ALISH Classification

- Prime ALISH Land
- Unique ALISH Land
- Other ALISH Land
- Unclassified Land

Figure 10
Agricultural Lands of Importance to the State of Hawai'i (ALISH)

Honua'ula

Honua'ula Partners, LLC

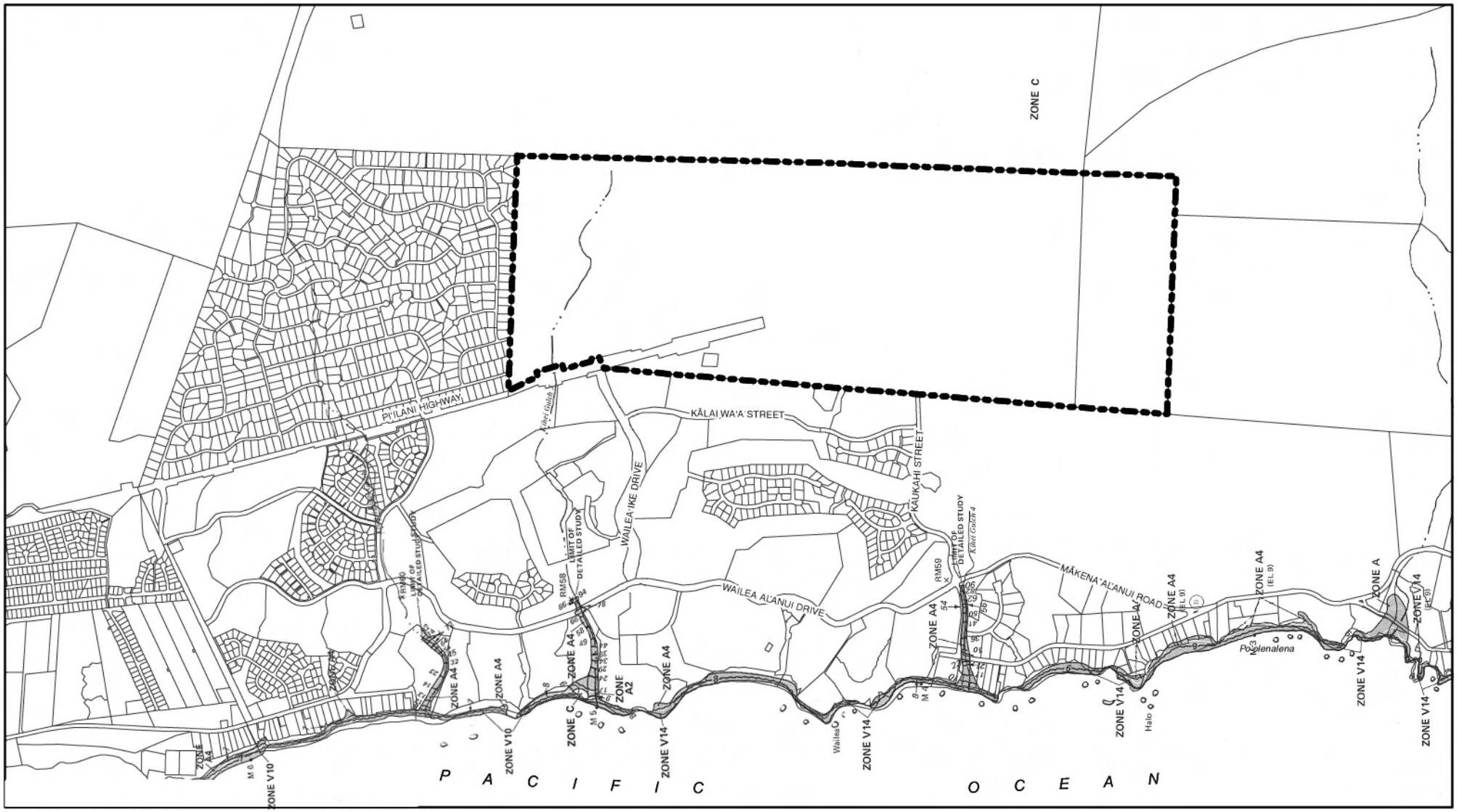
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)
0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: State of Hawaii Dept of Agriculture (1977)
Disclaimer: This graphic has been prepared for general planning purposes only.



LEGEND

Honua'ula

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
C	Areas of minimal flooding. (No shading)
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

Source: Federal Emergency Management Agency Panel 150003 0330 B Effective Date June 1,1981
Disclaimer: This map was prepared for general planning purposes only.

Figure 11

Flood Insurance Rate Map

Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

adequate civil defense measures as determined by the State and County of Maui civil defense agencies.

3.5 GROUNDWATER RESOURCES AND WATER QUALITY

3.5.1 Groundwater

The Property is located in the coastal part of the Kama'ole Aquifer System. The system comprises a triangular-shaped area of approximately 90 square miles, bounded on the south by the Southwest Rift Zone from the coast near La Perouse Bay to the top of Haleakalā Crater and from there, back to the coast just north of Kīhei. Although the Kama'ole System embraces a large area, this area has an annual average rainfall of only 28 inches.

The State Commission on Water Resource Management (CWRM) estimates the sustainable yield for the Kama'ole Aquifer to be 11 MGD. The water from existing wells in the Kama'ole Aquifer, which are located primarily near the coast, is brackish. The water is non-potable and used primarily for the irrigation of golf courses and landscaping within a mile of the coast, stretching from Kīhei to Mākena (CWRM/Wilson Okamoto, 2008).

The Underground Injection Control Line, as established by the State Department of Health (DOH), is located approximately along the 600-foot elevation contour, above the majority of the Property.

The availability of non-potable groundwater within the Property has been proven by two wells drilled and tested in 1991. The two wells combined will yield approximately one MGD of irrigation water, an amount sufficient for the 18-hole golf course (Mink, 2000). The wells are located approximately 1.3 miles inland from the coast.

3.5.2 Water Quality

Since 1990 Marine Research Consultants, Inc., conducted 15 nearshore water quality monitoring studies along the coastline downstream from the Honua'ula property to assess the impacts of the Wailea Resort golf courses (which are makai of Honua'ula) on near shore water quality.

Although Honua'ula is not located along the shoreline, Marine Research Consultants, Inc., has also conducted two nearshore water quality monitoring studies (Marine Research Consultants, Inc., 2005 and 2007) specifically regarding Honua'ula to obtain pre-construction baseline data. The first water chemistry sampling specifically regarding Honua'ula was conducted on June 19, 2005. The second was carried out on June 25, 2006.

For the Honua'ula studies, sixty ocean water samples were collected in accordance with DOH water quality standards on four transects spaced along the ocean frontage downstream from Honua'ula and one transect located outside of the downstream area as a control, as follows:

- Site 1 - Southern boundary of Wailea Resort
- Site 2 - Southern end of Palauea Beach downstream from the southern boundary of the Property
- Site 3 - Off the southern end of Wailea Beach downstream from the center of the Property

- Site 4- Northern end of Ulua Beach downstream from the northern Property boundary
- Site 5 - Off the 'Āhihi-Kīna'u Natural Area Reserve approximately two miles south of the Property

In addition, water samples were collected from eight irrigation wells and a golf course reservoir in the Wailea area upslope of the sampling area.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Comparison of survey results from the 17 near shore water quality monitoring (beginning in 1990 to the most recent survey in June 2006) reveals that there is no consistent increase in the concentrations of nutrients in the nearshore zone that could result from the existing Wailea Resort golf courses.

Comparing water chemistry parameters to DOH standards revealed numerous measurements of nitrogen that exceeded the DOH "not to exceed more than 10 percent of the time" criteria for both wet and dry conditions of open coastal waters. Numerous values of other chemical compounds exceeded specified limits for geometric means.

However, natural groundwater discharge can cause water chemistry characteristics to exceed DOH standards. Exceedances recorded during the surveys occurred at all survey sites, including the control site, which is not influenced by the existing golf courses or other near land uses. Such results indicate that the exceedances are not associated with golf course operation.

According to the Water Chemistry report, "[t]here is no *a priori* reason to suspect that responsible construction and operation of the Honua'ula/Wailea 670 project will cause any detrimental changes to the marine environment." Current plans for Honua'ula include retention of surface drainage on the golf course, and a private wastewater system will treat effluent to R-1 level, which is suitable for irrigation re-use.

An updated Environmental Risk Assessment and Integrated Golf Course Management Plan (IGCMP) prepared for golf course use on the Honua'ula site will be submitted to DOH for approval. The IGCMP concludes that a golf course can be operated in a manner that would not impact the basal aquifer, nearshore organisms, or residents within the community.

IGCMP provides for implementation of DOH's "Twelve Conditions Applicable to All New Golf Course Development" ("12 Conditions") (as may be amended by DOH), and will establish a groundwater monitoring plan in compliance with these conditions.

In accordance with the IGCMP and in compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Comply with Condition 1 of DOH's "12 Conditions" (as may be amended by DOH) relating to an approved sampling plan, establishment of the baseline groundwater/vadose zone water quality, and if appropriate, nearshore water quality, has been met to the satisfaction of the Director of Health (Unilateral Agreement, Condition 18a);

- Comply with Conditions 2 and 3 of DOH's "12 Conditions" (as may be amended by DOH) relating to groundwater monitoring have been satisfied by the Director of Health (Unilateral Agreement, Condition 18b);

- Comply with Condition 6 of the DOH's "12 Conditions" (as may be amended by DOH) relating to golf carts and storage of petroleum has been addressed and incorporated in the design and layout of the buildings (Unilateral Agreement, Condition 18e);

- Comply with Conditions 7, 8, and 11 of the DOH's "12 Conditions" (as may be amended by DOH) relating to fertilizers, biocides, and pesticides and the Integrated Golf Course Management Plan have been reviewed, and comments from the Department of Agriculture and the Department of Health have been incorporated in the design and layout of the golf courses (Unilateral Agreement, Condition 18f);

- Conduct marine monitoring programs, which include monitoring and assessment of coastal water resources (groundwater and surface water) that receive surface water or groundwater discharges from the hydrologic unit where the project is located. Monitoring programs will also include both water quality and ecological monitoring.

  Water quality monitoring will provide water quality data adequate to assess compliance with applicable State water quality standards of Hawai'i Administrative Rules (HAR) Chapter 11-54. Assessment procedures will be in accordance with the current DOH methodology for Clean Water Act Section 305(b) water quality assessment, including use of approved analytical methods and quality control/quality assurance measures. The water quality data will be submitted annually to DOH for use in the State's Integrated Report of Assessed Waters prepared under Clean Water Act Sections 303(d) and 305(b). If this report lists the receiving waters as impaired and requiring a Total Maximum Daily Load ("TMDL") study, then the monitoring program will be amended to evaluate land-based pollutants, including: 1) monitoring of surface water and groundwater quality for the pollutants identified as the source of the impairment; and 2) providing estimates of total mass discharge of those pollutants on a daily and annual basis from all sources, including infiltration, injection, and runoff. The results of the land-based pollution water quality monitoring and loading estimate will be submitted to the DOH Environmental Planning Office, TMDL Program.

  The ecological monitoring will include ecological assessment in accordance with the Coral Reef Assessment and Monitoring Program protocols used by the Department of Land and Natural Resources (DLNR). The initial assessment will use the full protocol. Subsequent annual assessments can use the Rapid Assessment Techniques. Results will be reported annually to the DLNR, Division of Aquatic Resources (Unilateral Agreement Condition 20).

The Draft EIS will contain the most recent nearshore water quality report as well as an assessment of the potential impact on groundwater resources.

3.6 FLORA

Numerous botanical and wildlife surveys have been conducted for the Property since 1988; these include Char and Linney (1988), Char (1993 and 2004), Bruner (1988, 1993, and 2004), and SWCA (2005 and 2006).

The northern 75 percent of the Property is characterized as a kiawe/buffel grass pastureland of little botanical interest. The southern 25 percent of the parcel is ā'a land dissected by numerous gullies. The southern area contains scattered remnants of a native Hawaiian dry forest ecosystem that is characterized by mixed non-native kiawe trees (*Prosopis pallid*), native wiliwili trees (*Erythrina sandwicensis*), and a dense understory of native 'ilima shrubs (*Sida fallax*). Many of the wiliwili trees on the Property have been infested by the invasive parasitic gall wasp (*Quadratichus erythrinae*). Axis deer (*Axis axis*) and feral goats (*Capra hircus hircus*) have also posed a threat to native plant species on the Property.

None of the biological surveys conducted for the Property revealed the presence of listed endangered or threatened species. However, two clumps of awikiwiki (*Canavalia pubescens*), a Candidate Endangered Species, were found in the southwestern corner of the Property in 1998 (Char, 1988). Other uncommon native species were also found in the same area including the nehe (*Lipochaeta rockii*), 'anunu vine (*Sicyos hispidus*), puapilo (*Capparis sandwichiana*), and uhiuhi (*Senna gaudichaudii*). Today, individual plants of nehe and other native dry forest species such as naio (*Myoporum sandwicense*), a'ali'i (*Dodonaea viscose*), mauna loa vine (*Canavalia cathartica*), and koali awahi'a (*Ipomoea indica* and *Ipomoea tuboides*) are scattered throughout the southern portion of the Property.

Presently, no endangered plants are known to exist within the Property, and the Property itself is not located within or immediately adjacent to critical habitat or recovery management units designated by the U.S. Fish and Wildlife Service.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Based on recent survey results and input from concerned citizens, Honua'ula Partners, LLC has voluntarily decided to conserve portions of Honua'ula and attempt propagation of selected remnant native dry forest plants located onsite. A Conservation Easement, entitled "Native Plant Preservation Area" of approximately 22 acres will be located in the southern portion of the Property, bordered by the golf course holes 13 and 14, and single-family and multi-family residential areas (see Figure 1).

The Honua'ula/Wailea 670 Conservation and Stewardship Plan (2006) will recommend proactive stewardship actions to manage the conservation area. The Conservation and Stewardship Plan will be coordinated with Federal and State regulatory agencies to ensure full compliance with environmental statutes, and provide for regular reporting to the Maui County Planning Department on progress.

In addition, in alignment with the Honua'ula/Wailea 670 Conservation and Stewardship Plan (2006) and in compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Provide the report "Remnant Wiliwili Forest Habitat at Wailea 670, Maui, Hawaii by Lee Altenberg, Ph.D.," along with a preservation/mitigation plan, to DLNR, the U.S. Fish and Wildlife Service, and the U.S. Corps of Engineers for review and recommendations prior to Project District Phase II approval. The Maui Planning Commission shall consider adoption of the plan prior to Project District Phase II approval.

  The plan will include a minimum preservation standard as follows: That Honua'ula Partners, LLC, its successors and permitted assigns, shall establish in perpetuity a Conservation Easement (the "Easement"), entitled "Native Plant Preservation Area," for the conservation of native Hawaiian plants and significant cultural sites in Honua'ula (Kīhei-Mākena Project District 9). The Easement will comprise the portion of the property south of latitude 20º40'15.00"N, excluding any portions that do not merit preservation, but will not be less than 18 acres and will not exceed 130 acres. (Unilateral Agreement, Condition 27)

  The scope of the Easement between Honua'ula Partners, LLC and the County will include:

  a. A commitment to protect and preserve the Easement for the protection of native Hawaiian plants and significant cultural sites worthy of preservation, restoration, and interpretation for public education and enrichment consistent with a Conservation Plan for the Easement; and with a Cultural Resource Preservation Plan, which includes the management and maintenance of the Easement (collectively, the "Conservation/Preservation Plans"). (Unilateral Agreement, Condition 27a)
  b. Agree to confine use of the Easement to activities consistent with the purpose and intent of the Easement. (Unilateral Agreement, Condition 27b)
  c. Prohibition of development in the Easement other than erecting fences, enhancing trails, and constructing structures for the maintenance needed for the area, in accordance with the Conservation/Preservation Plans. (Unilateral Agreement, Condition 27c)
  d. That title to the Easement will be held by Honua'ula Partners, LLC, its successors and permitted assigns, or conveyed to a land trust that holds other conservation easements. Access to the Easement will be permitted pursuant to an established schedule specified in the Conservation/Preservation Plans to organizations on Maui dedicated to the preservation of native plants, to help restore and perpetuate native species and to engage in needed research activities. These organizations may enter the Easement at reasonable times for cultural and education purposes only. (Unilateral Agreement, Condition 27d)
  e. Allowance for Honua'ula Partners, LLC, its successors and permitted assigns to receive all tax benefits under tax laws applicable to the Easement at the time that the Easement is established in Honua'ula (Kīhei-Mākena Project District 9), which will be evidenced by the recordation of the Easement in the Bureau of Conveyances, State of Hawai'i. (Unilateral Agreement, Condition 27e)

3.7 FAUNA

Phillip Bruner has conducted three faunal surveys (1988, 1993, and 2004) on the site. No rare, endangered, or threatened avifauna and feral mammal species were found during the surveys. No native birds were observed on any of the surveys either. The lack of native birds and mammals was not unexpected due to the elevation and type of available habitats. The Hawaiian Owl or Pueo (*Asio flaaammeus sandwichensis*), though not observed during any of the surveys, might on occasion forage or nest on the Property because they are commonly seen in pasture lands above the Property. No other native birds would be expected on the Property due to its elevation and lack of suitable habitats (Bruner, 2004).

Pacific Golden-Plover or Kolea (Pluvialis fulva) was the only migratory bird observed during surveys (1988 and 2004), and no other species of migratory birds would be expected to occur on the Property given the present habitats.

An array of alien (introduced) birds were recorded during surveys and included: Gray Francolin (*Francolinus pondicerianus*), Black Francolin (*Francolinus francolinus*), Ring-necked pheasant (*Phasianus colchicus*), Wild Turkey (*Meleagris gallopavo*), Spotted Dove (*Streptopelia chinensis*), Zebra Dove (*Geopelia striata*), Barn Owl (*Tyto alba*), Japanese White-eye (*Zosterops japonicus*), Northern Mockingbird (*Mimus polyglottos*), Common Myna (*Acridotheres tristis*), Red-crested Cardinal (*Paroaria coronate*), Northern Cardinal (*Cardinalis cardinalis*), House Finch (*Carpodacus mexicanus*), House Sparrow (*Passer domesticus*), African Silverbill (*Lonchura cantans*), and Nutmeg Mannikin (*Lonchura punctulata*).

Mammals likely to occur on the Property include: mongoose (*Herpestes auropunctatus*), feral cats (*Felis catus*), rats (*Rattus spp.*), mice (*Mus musculus*), and Axis deer. Although the Hawaiian Hoary Bat was not observed during any surveys, they could occasionally forage or roost on the Property. The Hawaiian Hoary Bat, which can be found from sea level to 10,000-foot elevation on Maui, forages for flying insects in a wide variety of habitats including native forests, agricultural lands, and urban settings (Bruner, 2004).

POTENTIAL IMPACTS AND MITIGATION MEASURES

Honua'ula is not expected to impact any rare, endangered, or threatened avifauna and feral mammal species as none were found within the Property (Bruner, 1988, 1993, and 2004).

The Axis deer population in the area presents challenges to plant communities, particularly native plants (Tomich, 1986). The most proven effective control of Axis deer is to fence them out which is costly and requires constant maintenance of a fence high enough to restrict their access. This may result in the deer moving into unfenced lands greater in numbers.

Because the Hawaiian Hoary Bat are not restricted from using altered landscapes, even urban habitats, development of Honua'ula would not restrict them from using this area.

As stated in the Honua'ula/Wailea 670 Conservation and Stewardship Plan (2006), Honua'ula Partners, LLC will enter into a Safe Harbor Agreement with the State Department of Land and Natural Resources and the U.S. Fish and Wildlife Service to protect endangered Hawaiian waterbirds that might be attracted to water features of the proposed golf course; and other species

that might transit the community including the Blackburn Sphinx moth and possibly other species.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Prepare and implement an animal management plan that will include procedures for the management of animal intrusions including, but not limited to, construction of boundary or perimeter fencing, wildlife control permits, and rodent and feral cat control. (Unilateral Agreement, Condition 7)

- Inform owners within Honua'ula (Kīhei-Mākena Project District 9) that the area is subject to the intrusion of mammals such as axis deer, pigs, rodents, and the impacts and management plan associated with such intrusions. (Unilateral Agreement, Condition 8)

- Will prepare an assessment of the owl (Pueo or Hawaiian Short-eared Owl) and the Hawaiian Hoary Bat in coordination with DLNR, and, if appropriate, mitigative measures will be incorporated into Honua'ula (Kīhei-Mākena Project District 9). (Unilateral Agreement, Condition 9)

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4 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes the existing conditions of the human environment, preliminary potential impacts of Honua'ula, and preliminary mitigation measures to minimize any impacts. The Draft EIS will include additional information on existing conditions, potential impacts, and mitigation measures,

4.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Six archaeological surveys have been conducted within the Property; one for the proposed Honoapi'ilani Highway extension project (Walton, 1972); two for the previously proposed Wailea 670 development (Hammatt, 1979; Kennedy, 1988), one for a cinder haul road paralleling the southern boundary (Sinoto & Pantaleo, 1993), one for the 190-acre southern portion of the Property (Sinoto and Pantaleo, 2000); and one of the northern two-thirds of the Property (Sinoto and Pantaleo, 2001). During the ensuing period from 2001 to 2008, a number of field procedures, including GPS point survey of recorded sites, were undertaken on separate occasions.

The earliest survey covered the segment of the right-of-way corridor for the proposed Honoapi'ilani Highway extension within portions of the Property (Walton, 1972). Seven sites were recorded within the extension area. Site 200 is a freestanding wall that forms the northern boundary. Site 201 is a complex of structural features. Site 202 is a complex of deteriorated walls near the northern boundary. Site 203 is a deteriorated C-shaped enclosure. Site 204 is two small platforms built against a bedrock ledge. Site 205 is an enclosed overhang shelter. Site 211 is a single alignment of a'a boulders constructed along the base of a rocky ridge. All of these sites were recommended for avoidance with no further work. Data recovery was recommended for Site 201 if avoidance was unfeasible and Sites 204 and 205 were recommended for public interpretation.

Two subsequent surveys (Hammatt, 1979; Kennedy, 1988) did not record any new sites, and no further work was recommended. An additional survey of a cinder haul road (Sinoto & Pantaleo, 1993) within a corridor paralleling the southern boundary of the Property found three new sites, a C-shaped enclosure (Site 3156) and two free-standing walls (Sites 3157 and 3158), were recorded. Subsurface testing of the floor deposit of the C-shaped enclosure produced negative results. No further work and avoidance of these sites were recommended with limited breaching of the walls for the cinder haul road.

In April 2000, Sinoto and Pantaleo conducted an archaeological inventory within the 190-acre southern portion of the Property (Sinoto & Pantaleo, 2000). Subsequently, Sinoto & Pantaleo conducted an additional inventory survey of the northern two-thirds of the Property (Sinoto & Pantaleo, 2001).

A total of 40 archaeological sites comprised of 60 component features have been recorded within the total 670-acre Property. The site types include: small enclosures, modified overhang shelters, modified outcrop platforms and terraces, steppingstone trail segments, long walls, and multiple

feature complexes. With the exception of the two complexes of multiple features (Sites 201 and 4957) that contain relatively prominent structural features for this intermediate inland area, the majority of the sites correlate well with the expected site types for the area.

The majority of the sites/features appear to primarily represent prehistoric-period semi-permanent and temporary habitation functions associated with marginal intermediate inland-zone agricultural pursuits and/or mauka-makai transits between the coastal and inland permanent habitation zones. A few sites, such as the complex of meandering free-standing walls, may represent historic period activities, most likely associated with ranching.

All of the sites are considered to be significant based on at least one Hawai'i Register criterion, the potential to yield information. Several of the sites; such as the multiple feature complexes, steppingstone trail segments, and the long walls; are considered significant based on multiple criteria.

The Draft EIS will contain a draft Archaeological Preservation Plan, summarizing the previous surveys conducted for the Property and setting forth recommendations for the preservation of selected sites.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Of the sites found on the Property, no further work is recommended for eight sites. A combination of data recovery procedures and *in situ* preservation are recommended for the 32 sites: data recovery is recommended for 19 sites and permanent *in situ* preservation is provisionally recommended for 13 within the southern 190 acres of the Property. For data recovery procedures, a formal data recovery plan will be prepared and submitted for review and approval by the SHPD.

The process of defining the protocols for in situ preservation, establishing buffer zones, and selection of sites to be preserved is currently ongoing thorough input from various interested and concerned parties. To date, with input from the in-house cultural committee, Na Kupuna O Maui, Maui County Cultural Resources Commission, Maui and Lāna'i Islands Burial Council, and various knowledgeable individuals, a series of preservation precincts and corridors have been conceptualized around specific sites within the southern 190-acres of the Property. Distances and sizes for buffer zones, etc., have not yet been finalized. Additional pertinent data from the results of the data recovery procedures that will be undertaken may also influence the final disposition of some of the sites currently slated for provisional preservation. Upon completion of the consultation and recovery procedures, the Archaeological Preservation Plan will be submitted for review to Na Kupuna O Maui and the Maui County Cultural Resources Commission. The plan will require approval by SHPD prior to implementation.

In addition, Honua'ula Partners, LLC and its contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Should historic remains such as artifacts, burials, concentrations of shell or charcoal be encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected from further damage. The contractor shall immediately contact the State Historic Preservation Division, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC, will provide the Archaeological Preservation Plan, pursuant to Chapter 6E, HRS, to SHPD and the Office of Hawaiian Affairs for approval, prior to Project District Phase II approval (Unilateral Agreement, Condition 26).

4.2 CULTURAL RESOURCES

A cultural impact assessment is being conducted to identify traditional customary practices associated with the Honua'ula Property. The cultural assessment will include archival research and interviews of people knowledgeable of the area to obtain information relating to practices and beliefs of indigenous Hawaiians, as well as other ethnic groups, within and surrounding the subject area.

As a whole, the traditional district of Honua'ula District (now subsumed into the Makawao District) was a fishing and farming region from the beginning of its occupancy in early Hawai'i. Its shores were rich with an abundance of marine life, which included deep and shoreline fishing of squid, octopus, crab, and shell fish, and an abundance of various seaweeds. In post-contact times Mākena Landing became the second busiest port after Lahaina since cattle and agricultural products from the *mauka* lands were brought here to load as well as receiving goods for residents throughout Central Maui.

During the time of Kamehameha the Great, large quantities of sandalwood were harvested from *mauka* areas (Kula, Makawao, and Haleakalā) and loaded at Mākena. His invasion of Maui occupied all the shores of Honua'ula to defeat the Maui king Kalanikupule (Sterling 1998: 254). Afterwards, the fishponds of Kalepolepo and Ko'ie'ie were rebuilt. Since Honua'ula did not possess rich waterways from mountain to ocean, sweet potato, sugar cane, and ranching were key activities of the region. The *maka'ainana* (common people) worked the land under the direction of the *konohiki* and occasionally the *ali'i* would drop by enroute to Kaupō where most of the activities of the chiefs took place.

Following the overthrow of the Hawaiian monarchy, E.S. Craighill Handy reported the following ecological changes of the area due to cattle ranching:

> *In Honou'ula as in Kahikinui and Kaupō, the forest zone was much lower and rain more abundant before the introduction of cattle. The usual forest zone plants were cultivated in the lower uplands above the inhabited area. Despite two recent lava flows, which erupted in about 1750, the eastern and coastal portions of Honnua'ula were thickly populated by Hawaiian planters until recent years. A number of families whose men are employed at 'Ulupalakua Ranch have homes near the ranch house. Close by these native homes are little dry land taro cultivated.* (p. 508)

Ranching has been blamed for many of the district's environmental problems. Cattle and goats stripped the land of its native flora while destroying ancient Hawaiian temples and gravesites. Ranching operations took over land previously owned by Hawaiian families. Some Hawaiians left the area and were not aware of it when the ranchers took their lands through the process of "quiet title" or adverse possession.

In the various *ahupua'a* of Honua'ula, there are many heiau and little alters of stones where people prayed to Lono and to Hina for rain and ample crops since the area was primarily used for planting and farming. Other ceremonial sites include many fishing shrines (*ko'a*), a hula platform, and a place of refuge (*pu'uhonua*).

The greatest number of heiau in the Honua'ula were from Kaupō to Kahikinui; the second largest heiau was Loaloa of Kaupō. This area possessed a number of *luakini* heiau to serve Maui's warriors with the psychology and spirituality associated with Hawaiian warfare between the warring soldiers of Hawai'i Island. Further north, fewer luakini heiau are found in Nu'u, Kahikinui, Kanaio, and Mākena, and markedly absent in the heart of Honua'ula. For the most part, the heiau in the Honua'ula District were dedicated to agriculture, rain, and/or fishing.

The Draft EIS will contain the complete cultural impact assessment report.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The preliminary cultural impact assessment report recommends that representative extant cultural sites be incorporated into Honua'ula, and native plants be kept intact as much as possible to retain unique identity of the area. The preliminary cultural report also recommends that the *ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands) will be recognized as part of the law decreeing that one should respect Hawai'i's gathering rights (passage to fishing at the ocean and streams or gathering native plants in the mountain).

In compliance with County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 13), Honua'ula Partners, LLC will prepare a Cultural Resources Preservation Plan ("CRPP"), in consultation with: Na Kupuna O Maui; lineal descendents of the area; other Native Hawaiian groups; Maui County Cultural Resources Commission (CRC); Maui/Lāna'i Island Burial Council; Office of Hawaiian Affairs (OHA); SHPD; Maui County Council; Na Ala Hele; and all other interested parties.

The CRPP will incorporate the findings of the cultural assessment report and the Archaeological Preservation Plan (discussed in Section 4.1), and provide recommendations regarding access to specific sites to be preserved, the manner and method of preservation of sites, the appropriate protocol for visitation to cultural sites, and recognition of public access in accordance with the Constitution of the State of Hawai'i, the Hawai'i Revised Statutes, and other laws.

The elements of the CRPP, for which community input, especially from Native Hawaiian groups, is being sought, include:

- The nature of access to religious, ceremonial, and confirmed burial sites;
- The mode of preservation, passive or active, recommended for specific sites;
- Whether signs are appropriate and if so, the type, design, and content of the sign;
- The size and types of buffer zones;
- The need for any stabilization or restoration; and
- The types of native flora to be used for landscaping or barriers.

The CRPP will be submitted to SHPD and OHA for review and approval and subsequently submitted to the Maui CRC for adoption.

4.3 ROADWAYS AND TRAFFIC

Access to the Property is from the Kīhei southern terminus of Pi'ilani Highway which is a two-lane State highway. There are several unimproved roads on the Property that provide limited access within the site. The following are descriptions of roadways in the vicinity of the Property.

Pi'ilani Highway - This State highway links the Wailea and Mākena areas to the Kahului-Wailuku area of central Maui and to the areas of eastern and western Maui. Access to the roadway is provided only at cross streets. Left-turn storage lanes are provided along Pi'ilani Highway at the cross streets, with deceleration lanes provided for vehicles turning right at most intersections. The Kīhei portion of Pi'ilani Highway ends at Wailea Ike Drive, with the channelization and lane striping at the junction creating one through lane in each direction.

Wailea Ike Drive - This entry roadway to Wailea Resort has two through lanes in each direction, with a broad median with a waterway and landscape area separating the two travel directions. Left-turn lanes are provided in the median area. The broad median also provides a refuge area for vehicles turning left from the cross streets.

Wailea Alanui Drive - This street connects the Kīhei, Wailea, and Mākena areas. Between Okolani Drive and Kaukahi Street, Wailea Alanui Drive provides two travel lanes in each direction, with a landscaped median divider area. North and south of this section, the street is a two-lane roadway.

Okolani Drive - Okolani Drive is the southern extension of South Kīhei Road, the main street paralleling the shoreline and serving the commercial areas in Kīhei. The section between Pi'ilani Highway and Wailea Alanui Drive is a two-lane street. Makai of Wailea Alanui Drive, the street has two lanes in each direction with a landscaped median. At the intersection with Pi'ilani Highway, Mikioi Place provides the mauka leg of the intersection. Mikioi Place, a two-lane roadway, is the southern access road for the Maui Meadows residential area.

Kilohana Drive - This two-lane roadway connects the southern portion of the Kīhei area to Pi'ilani Highway. At the intersection with Pi'ilani Highway, Māpu Place provides the mauka leg of the intersection. Māpu Place, a two-lane roadway, is the northern access road for the Maui Meadows residential area.

Kaukahi Street - This private, two-lane street currently ends at the Property boundary, with the driveway to the Diamond Resort located at the present terminus. The street also provides access to the Wailea Golf Course and clubhouse, located south of the street, and to several residential neighborhoods along the northern side of the street.

Kālai Wa'a Street - This privately-owned, two-lane street provides access between Kaukahi Street and Wailea Ike Drive as well as access to residential complexes fronting the street.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Pi'ilani Highway will provide primary access to Honua'ula from the intersection of Pi'ilani Highway/Wailea Ike Drive, which Honua'ula Partners, LLC will improve to establish a road extending mauka into Honua'ula. Honua'ula Partners, LLC will also extend Pi'ilani Highway south with two lanes from Wailea Ike Drive to connect with Kaukahi Street at or before the completion of 50 percent of Honua'ula.

A Traffic Impact Analysis Report (TIAR) is being prepared and findings will be included in the Draft EIS, along with a copy of the report. The TIAR will include: 1) an analysis of traffic counts for existing, ambient, and future conditions associated with Honua'ula; and 2) cumulative traffic impacts associated with the creation Honua'ula and other regional projects; 3) recommended mitigation measures to reduce or eliminate adverse traffic impacts

In addition, in compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Implement the following traffic improvements (Unilateral Agreement, Condition 2):
    a. Upgrade Pi'ilani Highway, from Kilohana Drive to Wailea Ike Drive, to four lanes of traffic. The improvements will be completed prior to the commencement of any construction on the site, with the exception of grading.
    b. Extend Pi'ilani Highway for two lanes of traffic from Wailea Ike Drive to Kaukahi Street. The improvement will be constructed at or prior to the completion for 50 percent of Honua'ula and will be maintained by Honua'ula Partners, LLC, its successors and permitted assigns.
    c. Signalize the Pi'ilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
    d. Modify the Pi'ilani Highway/Wailea Ike Drive intersection into a signalized intersection and provide a free right-turn lane from Pi'ilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Pi'ilani Highway prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
    e. Modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement from northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
    f. Modify the Pi'ilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Pi'ilani Highway approach to provide an exclusive right-turn lane into Mapu Place prior to occupancy of the first unit in Honua'ula (Kīhei-Mākena Project District 9).
    g. Signalize the Wailea Ike Drive/Kālai Wa'a Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.
    h. Signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.

- Make a contribution to the County for traffic improvements in an amount equal to $5,000 per unit. The contribution will be paid to the County prior to issuance of a building permit. Upon adoption of a traffic impact fee ordinance, Honua'ula Partners, LLC, its successors and permitted assigns, will comply with the ordinance in lieu of this voluntary contribution. Should a traffic impact fee ordinance be adopted prior to the collection of this contribution, the applicable amount will be the greater of the two. Such contributions or fees shall not be a substitute for any other traffic infrastructure requirements related to the Change in Zoning. (Unilateral Agreement, Condition 3)

- Address in the Project District Phase II application roadway improvements to the satisfaction of the State Department of Transportation and the County Department of Public Works. Proposed agreements will be incorporated in the application and site plan and finalized as part of Project District Phase II approval. (Unilateral Agreement, Condition 18k)

- Develop and submit a Transportation Management Plan ("TMP") prior to the commencement of any construction activity. The TMP will be reviewed and approved by the State Department of Transportation, the County Department of Public Works, and the County Department of Transportation. The purpose of the TMP shall be to reduce traffic generated by construction activity related to the Ka'ono'ulu Light Industrial Subdivision and Honua'ula (Kīhei-Mākena Project District 9), including traffic generated by the improvements to Pi'ilani Highway between Kilohana Drive and Wailea Ike Drive. The TMP shall provide for programs such as park and ride, shuttles, and/or restrictions on worker access to ongoing construction activity during peak hour traffic. Upon approval, project contractors shall implement the TMP during construction activities. Honua'ula Partners, LLC, its successors and permitted assigns, shall submit an annual report to the State Department of Transportation, the County Department of Public Works, the County Department of Transportation, and the Maui County Council to document the success of the TMP in meeting its benchmarks of reducing traffic during project construction.

  In addition Honua'ula Partners, will submit a TMP to reduce dependency on individual vehicular transportation modes. The TMP will be reviewed and approved by the State Department of Transportation, the County Department of Public Works, and the County Department of Transportation prior to Project District Phase II approval. (Unilateral Agreement, Condition 28)

4.4 NOISE

Sources of noise in the vicinity of the Property stem from traffic traveling along Pi'ilani Highway and other surrounding roads, and natural sources, such as wind, rain, and the ocean.

Y. Ebisu & Associates is preparing a noise assessment study for Honua'ula to: 1) describe the existing and future noise environment in the environs of Honua'ula; and 2) provide recommendations for minimizing noise impacts. The Draft EIS will contain conclusions from the study and the complete assessment will be included as an appendix.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Potential impacts on the ambient quality of the site and surrounding area due to the creation of Honua'ula are primarily limited to short-term construction activity and, in the long-term, human activity within the community and increases in traffic.

During construction, there will likely be noise impacts associated with operation of heavy construction machinery, paving equipment, and material transport vehicles. Proper mitigating measures will be employed to minimize construction-related noise impacts and comply with all Federal and State noise control regulations. Increased noise activity due to construction will be limited to daytime hours and persist only during the construction period. Noise from construction activities will be short-term and will comply with DOH noise regulations (HAR, Chapter 11-46, Community Noise Control). When construction noise exceeds, or is expected to exceed the DOH's allowable limits, a permit must be obtained from the DOH. Specific permit restrictions for construction activities are:

- No permit shall allow any construction activities that emit noise in excess of the maximum permissible sound levels before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday.
- No permit shall allow any construction activities that emit noise in excess of the maximum permissible sound levels before 9:00 a.m. and after 6:00 p.m. on Saturday.
- No permit shall allow any construction activities that would emit noise in excess of the maximum permissible sound levels on Sundays and holidays.

In addition, compliance with County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 18g), Honua'ula Partners, LLC will comply with Condition 9 of the DOH's "12 Conditions" relating to noise from maintenance facilities through the location and design of maintenance activities and facilities.

4.5 AIR QUALITY

Regional and local climate together with the amount and type of human activity generally dictate the air quality of a given location. The climate in the vicinity of Property is very much affected by its near coastal situation and mountains. Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural conditions (i.e., dust from wind erosion) and emissions from a variety of pollution sources (i.e., automobiles, power generating facilities). In general, the air quality of Kīhei-Mākena is relatively good, which can be attributed to the region's exposure to wind, which quickly disperses concentration of emissions.

B.D. Neal & Associates is preparing an air quality study to: 1) describe existing air quality in the area; 2) assess the potential short- and long-term direct and indirect air quality impacts that could result from Honua'ula; and 3) recommend measures to mitigate possible impacts where possible and appropriate. The Draft EIS will contain conclusions from the study and the complete study will be included as an appendix.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Construction of Honua'ula may result in short-term impacts on air quality either directly or indirectly as a consequence of construction and use (i.e., clearing and grading). However, these potential air quality impacts will be short term, and it is anticipated that no State or Federal air quality standards will be violated during or after the construction. After build-out, air quality in the vicinity of Honua'ula will primarily be affected by vehicular emissions associated with additional traffic.

Short-term impacts from fugitive dust will likely occur during construction. Construction will include earthmoving activity, excavating, trenching, and filling. To a lesser extent, exhaust emissions from stationary and mobile construction equipment, from disruption of traffic, and from workers' vehicles may also affect air quality during the period of construction.

A dust control plan will be implemented during all construction phases. All construction activities will comply with the provisions of Chapter 11-60.1-33, HAR on fugitive dust. Measures to control dust during may include:

- Planning phases of construction to minimize the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of least impact.
- Watering active work areas and any temporary unpaved work roads daily.
- Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase.
- Minimizing dust from shoulders and access roads.
- Providing adequate dust control measures during weekends, after hours and before daily start-up of construction activities.
- Controlling dust from debris being hauled away.
- Using wind screens and/or limiting the area of disturbance at any given time.
- Covering dirt-hauling trucks traveling on roadways.
- Preventing trucks from tracking dirt onto paved roadway by routine road cleaning and/or tire washing.
- Establishing landscaping early in the construction schedule.
- Monitoring dust at the Property boundary during the construction period as a means to evaluate the effectiveness of the dust control program, and adjusting the program if necessary.

4.6 VISUAL RESOURCES

The Property is characterized by moderately sloping, rough, rocky terrain that is interspersed by several large dry gulches and expansive open, ā'a fields in the southern area. The flora consists of kiawe (*Prosopis pallida*) as the dominant high cover vegetation, and dry grasses as dominant ground cover in certain areas.

Panoramic views of shoreline, upland areas of Haleakalā, West Maui Mountains, and the offshore islands of Molokini, Kaho'olawe, and Lāna'i are available from selected areas of the Property. Views of the ocean are available from almost all areas of the site.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Creation of Honua'ula will change the visual appearance of the Property from vacant land to a built environment. This change will be visible from Pi'ilani Highway looking mauka across the Property.

Honua'ula will be in character with surrounding uses and will complement the pattern of in-fill development in the region in a way that is envisioned and consistent with the Maui Island Plan/General Plan 2030, *Kīhei-Mākena Community Plan,* and existing County zoning.

In compliance with County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 21), Honua'ula Partners, LLC will shield all exterior lighting from adjacent residential properties and near shore waters. Lighting requirements in force at the time of building permit application shall be applied.

4.7 INFRASTRUCTURE AND UTILITIES

Wilson Okamoto Corporation is preparing preliminary engineering and drainage reports for Honua'ula. Conclusions and recommendations of the reports will be included in the Draft EIS. The reports will be attached as appendices to the Draft EIS.

4.7.1 Water System

The County of Maui does not have any service lines to the Property. However, existing water systems in the vicinity of the Property include the Maui Meadows System to the north and the Wailea Resort System to the west. The Maui Meadows System consists of a 0.5 million gallon (MG) high-level tank and a 1.0 MG mid-level tank. The Wailea Resort System consists of a low-level 2.0 MG tank north of Wailea Ike Drive and a 3.0 MG mid-level tank at the 374-foot elevation. The Wailea 3.0 MG tank is located on the west side of the Honua'ula makai boundary and serves most of the Wailea Resort.

Potable water for the Kīhei-Wailea region is presently supplied by the 'Īao and Waihe'e Aquifers, which also supply the Wailuku-Kahului region. A 36-inch and an 18-inch transmission main convey water from 'Īao to the Kīhei-Wailea area.

As of July 21, 2003, the 'Īao aquifer was designated as a groundwater management area by the State Commission on Water Resources Management (CWRM). The sustainable yield of the 'Īao aquifer is 20.0 million gallons per day (MGD), and existing water use is 18.940 MGD. The sustainable yield of the Waihe'e aquifer is 8.0 MGD, and existing water use is 4.282 MGD (Wilson Okamoto/CWRM, 2008: Table 6-7).

New source development includes the Hamakuapoko wells completed in 2006 but not in service, and the Kūpa'a well and 'Īao Treatment Plant expansion in 2007. The 'Īao Treatment Plant draws water from the 'Īao-Waikapū Ditch; treats the water with micro filtration and chlorination and blends the product with groundwater for distribution through the Central Maui System. The plant is located next to the 'Īao Storage Tank on West Main Street.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Draft EIS will provide discussion of Honua'ula's water demands and sources.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Develop, maintain, and operate, or cause to be developed, maintained, and operated, a private water source, storage facilities, and transmission lines for Honua'ula in accordance with DWS standards and all applicable community plans. Honua'ula Partners, LLC will comply with all reporting requirements of the State CWRM.

  Comply with applicable water ordinances that pertain to the supply and transmission of water from the island of Maui when such ordinances are enacted.

  Offer to the County the right to purchase the project water system (when completed) at the cost of development of the system.

  The water rates for the residential workforce housing units will be no higher than the general water consumer rates set by the County in its annual budget, for as long as the units are subject to Chapter 2.96, Maui County Code. (Unilateral Agreement, Condition 1)

- Utilize a nonpotable water supply system for all irrigation purposes. (Unilateral Agreement, Condition 14)

- Utilize nonpotable water or effluent, from the Kīhei Wastewater Reclamation Facility when available, for all dust control during construction. Unilateral Agreement, Condition 15)

4.7.2 Wastewater System

The Wailea area is serviced by the Kīhei Wastewater Reclamation facility located approximately three miles northeast from the Honua'ula site. The Property is currently unsewered.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Draft EIS will provide discussion of wastewater options for Honua'ula. Options include the development of an on-site treatment plant or connection to the Mākena wastewater treatment plant (WWTP), which is located approximately one mile south of Honua'ula.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Provide a sewage disposal analysis. (Unilateral Agreement, Condition 16)

- Construct, maintain, and/or participate in the operation of a private wastewater treatment facility and system that accommodates the needs of Honua'ula (Kīhei-Mākena Project District 9). All reclaimed water from the private wastewater treatment facility will be

utilized for irrigation, dust control, or other nonpotable purposes, and none of the reclaimed water will be placed into injection wells.

The sewer rates for the residential workforce housing units will be no higher than the residential sewer rates set by the County in its annual budget, for as long as the units are subject to Chapter 2.96, Maui County Code. (Unilateral Agreement, Condition 17)

- Address Condition 4 of the DOH's "12 Conditions" (as may be amended by DOH) relating to ensuring the preliminary proposal of the individual treatment system meets the requirements of the Department of Health; and final design shall be approved at the time of Project District Phase III. (Unilateral Agreement, Condition 18c)

- Address Condition 5 of the DOH's "12 Conditions" (as may be amended by DOH) relating to use of effluent. (Unilateral Agreement, Condition 18d)

4.7.3 Drainage System

The Property lies on the lower southwestern slope of Mount Haleakalā. Site elevations range from 310 feet to 720 feet with slopes of generally 3 to 17 percent. The community site and areas immediately mauka are undeveloped.

Currently, surface runoff mauka of the Property sheet flows toward the ocean or toward natural drainage paths. The Property is generally semi-arid, with rainfall averaging about 15 inches per year. Drainage characteristics impacting the site are typical of the western slope of Haleakalā.

There are approximately 15 natural drainage ways in which runoff flows through the site. Considering the relatively low rainfall, these drainage ways are generally dry throughout the year. There are no existing drainage improvements mauka of the Property. The entire property is designated on the FIRM as Zone C, an area of minimal flooding (Figure 11).

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Draft EIS will provide discussion of the drainage system. In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Submit a Drainage Master Plan and Phasing Plan of improvements for review and approval during Project District Phase II processing. The plan will include the recommended drainage improvements as represented in the Preliminary Drainage Report. The County may require periodic updates of the Drainage Master Plan and Phasing Plan. (Unilateral Agreement, Condition 6)

- Address Condition 12 of DOH's "12 Conditions" (as may be amended by DOH) relating to soil runoff during construction. (Unilateral Agreement, Condition 18i)

4.7.4 Solid Waste

Solid waste generated in the Kīhei-Mākena region is transported to the Central Maui Landfill in Pu'unēnē. Green waste is collected by Eko Compost, which is also located at the Central Maui Landfill. Demolition and construction waste is accepted at the Maui Demolition and Construction Landfill (privately operated) near Mā'alaea.

Plastic, glass, metal, cardboard, and newspaper can be recycled when left at various drop-boxes throughout the County. Green waste recycling is also provided by several private organizations.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Draft EIS will contain information regarding the projected waste generated from Honua'ula and proposed mitigation measures.

In the Public Facilities Assessment Update County of Maui (2002), R.M. Towill Corporation projected that the Central Maui Landfill will have adequate capacity to accommodate residential and commercial waste through the year 2020, with a surplus of approximately one million cubic yards of landfill space. This projection was arrived at by multiplying the Maui County's de facto population projections by an estimated number of pounds per person per day of waste generated and assumes that solid waste generated by commercial and industrial growth will be captured by a corresponding trend in projected population growth.

Waste generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. During the short term, construction activities will require the disposal of the existing on-site waste, as well as cleared vegetation and construction-related solid waste.

A solid waste management plan will be coordinated with the County's Solid Waste Division for the disposal of onsite and construction-related waste material. Honua'ula Partners, LLC will work with contractors to minimize the amount of solid waste generated during the construction.

Provisions for recycling, such as collection systems and bin spaces will be incorporated into Honua'ula. After the community is occupied by residents, to the extent practical, wastes such as aluminum, paper, newspaper, glass, and plastic containers will be recycled. Waste that cannot be recycled will be disposed of in the County's Central Maui Landfill in Pu'unēnē.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will address Condition 10 of DOH's "12 Conditions" (as may be amended by DOH) and the County Department of Environmental Management's concerns and recommendations relating to identification and design of solid waste disposal management activities and facilities. (Unilateral Agreement, Condition 18h)

4.7.5 Electrical System

The Kīhei-Mākena region is serviced by a 69 KVA power line that runs from the 'Ulupalakua Ranch, mauka of the Property, to the Maui Electric Company (MECO) substation located within

the Property. The substation converts the 69 KVA power to 12.47 KVA for distribution to the Wailea area. The converted 12.47 KVA lines run within a 12-foot wide easement along the makai boundary of the Property.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Draft EIS will include information regarding electrical service to Honua'ula. Within Honua'ula electrical lines will be underground throughout the community.

Energy-saving concepts and devices will be encouraged in the design of Honua'ula. Design standards will specify low-impact lighting and will encourage energy-efficient building design and site development practices.

The following additional energy saving methods and technologies will also be considered during the design phase of Honua'ula:

- Use of site shading, orientation, and naturally ventilated areas to reduce cooling load;
- Maximum use of day lighting;
- Use of high-efficiency compact fluorescent lighting;
- Exceeding Model Energy Code requirements;
- Roof and wall insulation, radiant barriers, and energy efficient windows;
- Use of solar parking lot lighting;
- Use of light color or "green" roofs;
- Use of roof and gutters to divert rainwater for landscaping;
- Use of landscaping for dust control and to minimize heat gain to area; and
- Use of photovoltaics, fuel cells and other renewable energy sources.

Public street lighting will meet or exceed the requirements of County of Maui laws to minimize light pollution and interference with observatories at the summit of Haleakalā.

In addition, in compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Confirm from Maui Electric Company, Ltd. ("MECO") that the proposal to relocate and/or landscape MECO facilities is incorporated in the Project District Phase II application and site plan. (Unilateral Agreement, Condition 18j)

- Design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the Climate Protection Division of the United States Environmental Protection Agency in effect at the time of construction. Energy systems include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems (Unilateral Agreement, Condition 30).

- Equip all residential units with a primary hot water system at least as energy efficient as a conventional solar panel hot water system, sized to meet at least 80 percent of the hot water demand for the residential units (Unilateral Agreement, Condition 30).\

- Ensure that all air cooling systems and all heating systems for laundry facilities, swimming pools, and spa areas will make maximum use of energy-efficient construction and technology. (Unilateral Agreement, Condition 30).

4.7.6 Communications Facilities

Hawaiian Telcom provides telephone service in the Kīhei-Mākena region, and Oceanic Time Warner Cable provides cable service. The telephone system servicing the area consists of overhead and underground facilities.

POTENTIAL IMPACTS AND MITIGATION MEASURES

It is anticipated that Hawaiian Telcom will provide telephone service to Honua'ula and Oceanic Time Warner Cable will provide cable service.

4.8 SOCIO-ECONOMIC CHARACTERISTICS

4.8.1 Community Character

Honua'ula is located within the Kīhei-Mākena Community Plan region, which stretches from Ma'alaea in the north to La Perouse Bay in the south. The region contains a diverse range of physical and socio-economic environments. The dry and mild climate coupled with proximity to recreation-oriented shoreline resources has fueled the visitor-based economy of the region.

The town of Kīhei serves as the commercial and residential center of the region, with Wailea and Mākena serving as the focal point for the majority of visitor activities. Many luxury hotels and several golf courses are located in Wailea and Mākena.

4.8.2 Population

The resident population of Maui County was 141,440 in 2006, which is a ten percent increase from the 2000 population of 128,241 (Maui County Data Book, 2007: Table 1.3.1). The resident population is projected to increase to 151,300 in 2010, to 174,450 in 2020, and to 199,550 in 2030 (Maui County Data Book, 2007: Table 1.3.14).

The resident population of the Kīhei-Mākena area was 22,870 in 2000. The Kīhei-Mākena resident population is projected to increase to 28,114 in 2010, to 33,227 in 2020, and to 38,757 in 2030 (Maui County Planning Department, 2006: Exhibit R-1).

4.8.3 Housing

The amount of housing units in Maui County increased by 13 percent from 56,377 units in 2000 to 63,610 units in 2006. Of this 2006 total, 75 percent (47,540) were occupied units (Maui County Data Book, 2007: Table 8.2.2). Although median home sales prices on Maui were lower in 2008 ($577,867) from the previous year 2007 ($630,069), the median home sales price was still 31 percent higher than five years ago 2003 ($440,000). Median condo prices increased more

significantly at 127 percent, from $241,622 in 2003 to $549,500 in 2008 (Realtors Association of Maui, http://www.ramaui.com).

Kīhei-Makena had 9,417 occupied housing units in 2000, and the resident housing demand is projected to increase to 11,880 in 2010, to 14,217 in 2020, an 16,734 in 2030 (Maui County Planning Department, 2006: Exhibit R-11). Median home and condo sales prices in Kīhei and Wailea/Mākena also increased significantly from 2003 to 2008. In Kīhei, median sales price for single-family homes went from $410,000 in 2003 to $718,909 in 2008, and in Wailea/Mākena, median prices went from $1,287,500 in 2003 to $2,300,000 in 2008. Median sales price for condos in Kīhei went from $190,000 in 2003 to $395,000 in 2008, and in Wailea/Mākena from $560,000 to $2,200,000 (Realtors Association of Maui, http://www.ramaui.com).

4.8.4 Economy

The Maui economy is heavily dependent on the visitor industry. This is especially evident in the Kīhei-Mākena region, which is a major resort destination area with many available vacation rentals, world-class resorts, and recreational facilities.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Hallstrom Group is preparing a market study and economic impact analysis for Honua'ula. The Draft EIS will include the findings and conclusions of the study and the complete study will be included as an appendix.

Honua'ula will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). The number of residences that may be constructed in Honua'ula, together with any associated off-site residential workforce housing units, will not exceed 1,400. As required by County of Maui Ordinance No. 3554 (Unilateral Agreement, Condition 5), 250 of the required workforce affordable homes will be provided off-site at the Ka'ono'ulu Light Industrial Subdivision.
Creation of Honua'ula will result in job creation associated with site improvements, home construction, and on-going operations. It will also generate revenue associated with property taxes and business operations. The economic impact analysis will address the impact of the Honua'ula to the local economy.

The Draft EIS will also include information regarding projected Honua'ula population.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will:

- Provide workforce housing in accordance with Chapter 2.96, Maui County Code (the "Residential Workforce Housing Policy"); provided that, 250 of the required workforce housing units shall be located at the Ka'ono'ulu Light Industrial Subdivision and completed prior to any market-rate unit, that 125 of those workforce housing units will be ownership units, and that 125 of those units shall be rental units. In addition, construction of those workforce housing units will be commenced within two years, provided all necessary permits can be obtained within that timeframe. Honua'ula Partners, LLC will provide a minimum two-acre park at Ka'ono'ulu Light Industrial

Subdivision, which shall be credited toward the requirements of Section 18.16.320, Maui County Code, for that subdivision. (Unilateral Agreement, Condition 5)

- Not allow transient vacation rentals or time shares within Honua'ula (Kīhei-Mākena Project District 9); and further, no special use permit or conditional permit for such accommodations will be accepted by the Department of Planning. (Unilateral Agreement, Condition 25)

4.9 PUBLIC SERVICES AND FACILITIES

4.9.1 Schools

The Kīhei-Mākena region is served by Kīhei Elementary (grades K-5), Kamali'i Elementary (grades K-5), Lokelani Intermediate (graded 6-8), and Kīhei Charter School (K-12). Maui High School (grades 9-12), the designated public high school for Kīhei residents, is located in Kahului. Table 1 provides the enrollment data.

Table 1. Capacity and Enrollment for Public Schools serving Kīhei-Mākena

School	Capacity	Enrollment in 2007-2008 School Year	Projected Enrollment 2012-2013
Kīhei Elementary	923	799	781
Kamali'i Elementary	797	650	603
Lokelani Intermediate	697	651	561
Kīhei Charter School	-	277	-
Maui High	1,526	1,732	1,665

Source: State of Hawai'i Department of Education, 2008 (http://doe.k12.hi.us/reports/enrollment.htm).

POTENTIAL IMPACTS AND MITIGATION MEASURES

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will pay the Department of Education $3,000 per dwelling unit upon issuance of each building permit to be used, to the extent possible, for schools serving the Kīhei-Mākena Community Plan area; provided that, should the State pass legislation imposing school impact fees that apply to Kīhei-Mākena Project District 9, Honua'ula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater. (Unilateral Agreement, Condition 22).

In 2007, the State Legislature passed a law establishing school impact fees (See HRS Section 302A-1601 et. seq). It has not been determined if the school impact fees to be implemented under the 2007 school impact fee law will cause Honua'ula school impact fees to be greater than $3,000 per dwelling unit. However, Honua'ula Partners, LLC will comply with all applicable laws regarding school impact fees.

4.9.2 Police

The Maui Police Department is located at the Wailuku Police Station on Mahalani Road. A Kīhei Substation is located at Kīhei Town Center. Two small offices are located at Wailea Point between Kama'ole Beach Parks II and III and at the old Kīhei Community Center.

POTENTIAL IMPACTS AND MITIGATION MEASURES

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will contribute $550,000 to the County for the development of a police station in South Maui, to be paid at the time a contract is entered into for the construction of that police station. (Unilateral Agreement, Condition 24).

4.9.3 Fire

The fire station nearest Honua'ula the Wailea Fire Station located on Kilohana Drive, approximately one half mile from the Property. The Wailea Station services the area from Kama'ole Beach Park II to Mākena.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Fire apparatus access roads and water supply for fire protection will comply with the Uniform Fire Code.

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will provide the County two acres of land with direct access to Pi'ilani Highway extension for the development of fire control facilities within the village mixed-use sub-district at the time 50 percent of the total unit/lot count has received either a certificate of occupancy or final subdivision approval. The acreage provided will have roadway and full utility services provided to the parcel. (Unilateral Agreement, Condition 24)

4.9.4 Medical

The major hospital serving Maui is Maui Memorial Hospital located in Wailuku. This 231-bed facility provides acute, general, and emergency care services. There are medical clinics and offices throughout Kīhei and Wailea; however, these offer limited medical services. Medical clinics and offices include: Kīhei Clinic and Wailea Medical Service, Kīhei Pediatric Clinic, Kīhei Physicians, the Kīhei-Wailea Medical Center, Maui Medical Group, and Kaiser Permanente.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Honua'ula is not anticipated to affect the service capabilities of emergency medical or general care operations. Medical services are available in the region to accommodate Honua'ula residents.

4.9.5 Recreational Facilities

There are several parks in the Kīhei region that provide recreational opportunities to the community. The nearest County park facility to Honua'ula is Kilohana Park located on Kilohana Drive. However, Wailea Resort contains several recreational facilities, including the 11-court Wailea Tennis and white sand beaches with public accesses and amenities within the Wailea Resort.

POTENTIAL IMPACTS AND MITIGATION MEASURES

In compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will develop six acres of private parks and 84 acres of open space within Honua'ula. The private parks will be open to the public and privately maintained. Furthermore, the private parks and open space will not be used to satisfy the park assessment requirements under Section 18.16.320, Maui County Code, or for future credits under the subdivision ordinance. The Director of Parks and Recreation and Honua'ula Partners, LLC agree that the park assessment will be satisfied with an in-lieu cash contribution for the entire project. The amounts and timing of payment of the in-lieu fees shall be subject to the provisions of Section 18.16.320, Maui County Code (Unilateral Agreement, Condition 11).

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5 LAND USE CONFORMANCE

State of Hawai'i and Hawai'i County land use plans, policies, and ordinances relevant to Honua'ula are described below.

5.1 STATE OF HAWAI'I

5.1.1 Chapter 343, Hawai'i Revised Statutes

Compliance with Chapter 343, HRS is required as described in Section 1.5.

5.1.2 State Land Use Law, Chapter 205, Hawai'i Revised Statutes

The State Land Use Law (Chapter 205, HRS), establishes the State Land Use Commission (LUC) and authorizes this body to designate all lands in the State into one of four Districts: Urban, Rural, Agricultural, or Conservation.

The Property is in the State Urban District. The proposed uses are consistent with the Urban designation of the Property.

5.1.3 Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes

The Coastal Zone Management Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the proposed Honua'ula lies within the Coastal Zone Management Area.

The relevant objectives and policies of the Hawai'i Coastal Zone Management (CZM) Program, along with a detailed discussion of how the Honua'ula conforms with these objectives and policies, will be discussed in the Draft EIS.

5.1.4 Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes

The Hawai'i State Plan (Chapter 226, HRS), establishes a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The sections of the Hawai'i State Plan directly applicable to Honua'ula, along with a discussion of how the project conforms to the State Plan will be included in the Draft EIS.

5.1.5 State Functional Plans

The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 14 state functional plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai'i State Plan. The functional plans applicable to Honua'ula, along with each plan's applicable objectives, policies, and actions, will be discussed in the Draft EIS.

5.2 COUNTY OF MAUI

County-specific land use plans and ordinances pertaining to the Honua'ula include the General Plan of the County of Maui 1990 Update, the Kīhei-Mākena Community Plan, and the Maui County Code.

5.2.1 County of Maui General Plan

The County of Maui Charter requires that the Maui General Plan address the development-related needs and concerns of the citizens of Maui County. In doing so, it must set forth the desired patterns and characteristics of future growth, and assess the social, economic, and environmental effects of such change. Various objectives and policies have been established in the plan to satisfy these goals. The General Plan objectives and policies relevant to the Honua'ula will be discussed in the Draft EIS.

The County has been in the process of updating their General Plan since 2006. A draft of the 2030 General Plan Update Countywide Policy Plan was released January 2008. The timing of the completion and approval of the final plan is uncertain.

5.2.2 Kīhei-Mākena Community Plan

The Kīhei-Mākena Community Plan is one of nine community plans developed to address both the general policies of the Maui County General Plan and the unique aspects of each region. According to the Kīhei-Mākena Community Plan Land Use Map, the Property is designated Project District 9 (Figure 6). The community plan objectives and policies relevant to the Honua'ula will be discussed in the Draft EIS.

5.2.3 County of Maui Zoning

On March 10, 2008, the County of Maui passed Ordinance No. 3554 "A Bill for an Ordinance to Repeal Ordinance No. 2171 (1992) and to Establish Kīhei-Mākena Project District 9 (Wailea 670) Zoning (Conditional Zoning), for Approximately 670 Acres Situated at Paeahu, Palauea, Keauhou, Maui, Hawai'i." Pursuant to Section 19.510.050, Maui County Code, the zoning granted to the Kīhei-Mākena Project District 9 (Wailea 670) is subject to the following conditions (Exhibit "B" of Ordinance No. 3554):

1. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall, at their own cost and expense, develop, maintain, and operate, or cause to be developed, maintained, and operated, a private water source, storage facilities, and transmission lines for the Wailea 670 (Honua'ula) project in accordance with Department of Water Supply standards and all applicable community plans. Honua'ula Partners, LLC, its successors and permitted assigns, shall comply with all reporting requirements of the State Commission on Water Resource Management.*

   In addition, Honua'ula Partners, LLC, its successors and permitted assigns, shall comply with applicable water ordinances that pertain to the supply and transmission of water from the island of Maui when such ordinances are enacted.

At the time the project water system is completed, Honua'ula Partners, LLC, its successors and permitted assigns, shall offer to the County the right to purchase the project water system at the cost of development of such system.

The water rates for the residential workforce housing units shall be no higher than the general water consumer rates set by the County in its annual budget, for as long as the units are subject to Chapter 2.96, Maui County Code.

2. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall implement the following traffic improvements:*
    a. *Upgrade Pi'ilani Highway, from Kilohana Drive to Wailea Ike Drive, to four lanes of traffic. The improvements shall be completed prior to the commencement of any construction on the site, with the exception of grading. (Impacts of this will be discussed in separate EIS.)*
    b. *Extend Pi'ilani Highway for two lanes of traffic from Wailea Ike Drive to Kaukahi Street. The improvement shall be constructed at or prior to the completion for 50 percent of the project. Said improvement shall be maintained by Honua'ula Partners, LLC, its successors and permitted assigns.*
    c. *Signalize the Pi'ilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive prior to occupancy of the first unit in Kīhei-Mākena Project District 9.*
    d. *Modify the Pi'ilani Highway/Wailea Ike Drive intersection into a signalized intersection and provide a free right-turn lane from Pi'ilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Pi'ilani Highway prior to occupancy of the first unit in Kīhei-Mākena Project District 9.*
    e. *Modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement from northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive prior to occupancy of the first unit in Kīhei-Mākena Project District 9.*
    f. *Modify the Pi'ilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Pi'ilani Highway approach to provide an exclusive right-turn lane into Mapu Place prior to occupancy of the first unit in Kīhei-Mākena Project District 9. (Impacts of this will be discussed in separate EIS.)*
    g. *Signalize the Wailea Ike Drive/Kālai Wa'a Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.*
    h. *Signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.*

3. *That, as represented, Honua'ula Partners, LLC, its successors and permitted assigns, shall make a contribution to the County for traffic improvements in an amount equal to $5,000 per unit. The contribution shall be paid to the County prior to issuance of a building permit. Upon adoption of a traffic impact fee ordinance, Honua'ula Partners, LLC, its successors and permitted assigns, shall comply with the ordinance in lieu of this voluntary contribution. Should a traffic impact fee ordinance be adopted prior to the collection of this contribution, the applicable amount shall be the greater of the two. Such contributions or fees shall not be a substitute for any other traffic infrastructure requirements related to the Change in Zoning.*

4. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall be responsible for all required infrastructural improvements for the project, including water source and system improvements for potable and nonpotable use and fire protection, drainage improvements, traffic-related improvements, wastewater system improvements and utility upgrades, as determined by the appropriate governmental agencies and public utility companies. Except as otherwise provided by more specific conditions of zoning, said improvements shall be constructed*

and implemented concurrently with the development of each phase of Kīhei-Mākena Project District 9, and shall be completed prior to issuance of any certificate of occupancy of final subdivision approval, unless improvements are bonded by Honua'ula Partners, LLC, its successors and permitted assigns. Honua'ula Partners, LLC shall execute appropriate agreements with governmental agencies regarding participation in improvements of infrastructure and public facilities as determined by the agencies.

5. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide workforce housing in accordance with Chapter 2.96, Maui County Code (the "Residential Workforce Housing Policy"); provided that, 250 of the required workforce housing units shall be located at the Kaonoulu Light Industrial Subdivision and completed prior to any market-rate unit, that 125 of those workforce housing units shall be ownership units, and that 125 of those units shall be rental units. In addition, construction of those workforce housing units shall be commenced within two years, provided all necessary permits can be obtained within that timeframe. Honua'ula Partners, LLC, its successors and permitted assigns, shall provide a minimum two-acre park at Kaonoulu Light Industrial Subdivision, which shall be credited toward the requirements of Section 18.16.320, Maui County Code, for that subdivision.*

6. *That a Drainage Master Plan and Phasing Plan of improvements shall be submitted for review and approval during Project District Phase II processing. Said plan shall include the recommended drainage improvements as represented in the Preliminary Drainage Report. The County may require periodic updates of the Drainage Master Plan and Phasing Plan.*

7. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall prepare an animal management plan that shall be submitted during Project District Phase II processing and approved by the Department of Land and Natural Resources prior to submittal of Project District Phase III processing. Said plan shall include procedures for the management of animal intrusions including, but not limited to, construction of boundary or perimeter fencing, wildlife control permits, and rodent and feral cat control. Honua'ula Partners, LLC, its successors and permitted assigns, shall implement the approved animal management plan. The Department of Land and Natural Resources may require periodic updates of the plan.*

8. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall inform owners within Kīhei-Mākena Project District 9 that the area is subject to the intrusion of mammals such as axis deer, pigs, rodents, and the impacts and management plan associated with such intrusions.*

9. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall prepare an assessment of the owl (Pueo or Hawaiian Short-eared Owl) and the Hawaiian Hoary Bat in coordination with the Department of Land and Natural Resources, and, if appropriate, mitigative measures shall be incorporated into Kīhei-Mākena Project District 9. Said assessment shall be prepared prior to submittal of Project District Phase II processing.*

10. *That, in lieu of the dedication of a Little League Field and related amenities as originally specified in Ordinance No. 2171 (1992), Exhibit "B," Condition No. 8, and based on current land and construction cost estimates for the Little League Field, not less than $5,000,000 shall be paid to the County upon Project District Phase II approval for the development of the South Maui Community Park. Said amount shall not be credited against future park assessments.*

11. *That Honua'ula Partners, LLC is proposing to develop 6 acres of private parks and 84 acres of open space within the development. Said private parks shall be open to the public and privately maintained. Furthermore, said private parks and open space shall not be used to satisfy the park assessment requirements under Section 18.16.320, Maui County Code, or for future credits under said subdivision ordinance. The Director of Parks and Recreation and Honua'ula Partners, LLC*

agree that the park assessment shall be satisfied with an in-lieu cash contribution for the entire project. The amounts and timing of payment of said in-lieu fees shall be subject to the provisions of Section 18.16.320, Maui County Code.

12. *That, as represented by Honua'ula Partners, LLC, the golf course shall be subject to the following conditions:*

    a. *Honua'ula Partners, LLC, its successors and permitted assigns, shall permit one nonprofit organizations per quarter of the calendar year, other than Maui Junior Golf Association ("Maui Junior Golf"), the use of the golf course and the clubhouse for a fund-raising activity upon terms mutually agreed upon with said nonprofit organization.*

    b. *Honua'ula Partners, LLC, its successors and permitted assigns, shall: (1) develop an organized instructional program for junior golfers at its facility from September to January each year; (2) permit Maui Junior Golf the use of the golf course in accordance with Honua'ula Partners, LLC's instructional program; and (3) sponsor one Maui Junior Golf fund-raising tournament per year. The terms of the Junior Golf Program by Honua'ula Partners, LLC shall be as follows:*

    The instructional program will be developed to teach youngsters ages 12 to 18 years of age the fundamentals of golf and how to play the game, while also providing quality instruction/training three days a week from September 1 through January 31, with some blackout dates. This program will support the overall efforts of Maui Junior Golf.

    Private lessons will also be available at a discounted rate of 50 percent of the regular rate based on two lessons per junior golfer for a maximum of 50 lessons per month from February through August on a space-available basis.

    For the annual fund-raising event for the Maui Junior Golf, the rate per player shall be 50 percent of the regular rate with the number of golfers limited to no more than 144 players per event.

    c. *Honua'ula Partners, LLC, its successors and permitted assigns, shall permit the Maui Interscholastic League ("MIL") and the Hawai'i High School Athletic Association ("HHSAA") to each use the golf course once per year for an official MIL golf tournament or an official HHSAA golf tournament if requested by the MIL or the HHSAA, or for regular season play-offs if requested by the MIL.*

    d. *Honua'ula Partners, LLC, its successors and permitted assigns, shall permit Maui residents to play at the golf course on Tuesday of each week. The charge for Maui residents for green fees, including golf cart rental fees, shall not exceed 40 percent of the average market rate for green fees and golf cart rental fees in South Maui, and shall exclude all membership fees.*

13. *The Honua'ula Partners, LLC, its successors and permitted assigns, shall prepare a Cultural Resources Preservation Plan ("CRPP"), in consultation with: Na Kupuna O Maui; lineal descendents of the area; other Native Hawaiian groups; the Maui County Cultural Resources Commission; the Maui/Lāna'i Island Burial Council; the Office of Hawaiian Affairs; the State Historic Preservation Division, Department of Land and Natural Resources; the Maui County Council; Na Ala Hele; and all other interested parties. Prior to initiating this consultation process, Honua'ula Partners, LLC, its successors and permitted assigns, shall publish a single public notice in a Maui newspaper and a State-wide newspaper that are published weekly. The CRPP shall consider access to specific sites to be preserved, the manner and method of*

preservation of sites, the appropriate protocol for visitation to cultural sites, and recognition of public access in accordance with the Constitution of the State of Hawai'i, the Hawai'i Revised Statutes, and other laws, in Kīhei-Mākena Project District 9.

Upon completion of the CRPP, Honua'ula Partners, LLC, its successors and permitted assigns, shall submit the plan to the State Historic Preservation Division, Department of Land and Natural Resources, and the Office of Hawaiian Affairs for review and recommendations prior to Project District Phase II approval. Upon receipt of the above agencies' comments and recommendations, the CRPP shall be forwarded to the Maui County Cultural Resources Commission for its review and adoption prior to Project District Phase II approval.

14. *That a nonpotable water supply system shall be utilized for all irrigation purposes.*

15. *That, during construction, all dust control shall utilize nonpotable water or effluent, which may be obtained from the Kīhei Wastewater Reclamation Facility when available.*

16. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide a Sewage Disposal Analysis that has been reviewed and commented on by the State Department of Health, the State Department of Land and Natural Resources, the County Department of Environmental Management, and the County Department of Water Supply prior to Project District Phase II approval. The Sewage Disposal Analysis, along with reviews and comments, shall be submitted to the Maui County Council for review and the project shall be subject to additional conditions or amendments by the Maui County Council if warranted by the Sewage Disposal Analysis.*

17. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall construct, maintain, and/or participate in the operation of a private wastewater treatment facility and system that accommodate the needs of the entire Kīhei-Mākena Project District 9. All reclaimed water from the private wastewater treatment facility shall be utilized for irrigation, dust control, or other nonpotable purposes, and none of the reclaimed water shall be placed into injection wells.*

    The sewer rated for the residential workforce housing units shall be no higher than the residential sewer rates set by the County in its annual budget, for as long as the units are subject to Chapter 2.96, Maui County Code.

18. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall address in their Project District Phase II application the following:*
    a. *Condition 1 of the Department of Health's "Twelve Conditions Applicable To All New Golf Course Development" ("12 Conditions") relating to an approved sampling plan, establishment of the baseline groundwater/vadose zone water quality, and if appropriate, nearshore water quality, has been met to the satisfaction of the Director of Health;*
    b. *Conditions 2 and 3 of the Department of Health's "12 Conditions" relating to groundwater monitoring have been satisfied by the Director of Health;*
    c. *Condition 4 relating to the preliminary proposal of the individual treatment system meets the requirements of the Department of Health, and final design shall be approved at the time of Project District Phase III;*
    d. *Condition 5 of the Department of Health's "12 Conditions" relating to use of effluent has been satisfied;*
    e. *Condition 6 of the Department of Health's "12 Conditions" relating to golf carts and storage of petroleum has been addressed and incorporated in the design and layout of the buildings;*
    f. *Conditions 7, 8, and 11 of the Department of Health's "12 Conditions" relating to fertilizers, biocides, and pesticides and the Integrated Golf Course Management Plan have been reviewed, and comments from the Department of Agriculture and the*

Department of Health have been incorporated in the design and layout of the golf courses;

g. *Condition 9 of the Department of Health's '12 Conditions" relating to noise form maintenance facilities has been addressed through the location and design of the maintenance activities and facilities;*
h. *Condition 10 of the Department of Health's "12 Conditions" and the County Department of Environmental Management's concerns and recommendations relating to solid waste disposal management activities and facilities are identified and designed;*
i. *Condition 12 of the Department of Health's "12 Conditions" relating to soil runoff during construction and concerns of the State Department of Transportation; the County Department of Public Works; the State Department of Health; and the Natural Resources Conservation Service of the United States Department of Agriculture relating to drainage are addressed and incorporated in the design and layout of the plans, and a preliminary erosion control and drainage report is included in the application;*
j. *Confirmation from Maui Electric Company, Ltd. ("MECO") that the proposal to relocate and/or landscape MECO facilities is incorporated in the application and site plan;*
k. *Roadway improvements to the satisfaction of the State Department of Transportation and the County Department of Public Works and proposed agreements are incorporated in the application and site plan and finalized as part of Project District Phase II approval.*

19. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall execute appropriate agreements with the State of Hawai'i and County of Maui agencies regarding participation in improvements of infrastructure and public facilities where such improvements are reasonably related to Honua'ula Partners, LLC's project.*

20. *That marine monitoring programs shall be conducted which include monitoring and assessment of coastal water resources (groundwater and surface water) that receive surface water or groundwater discharges from the hydrologic unit where the project is located. Monitoring programs shall include both water quality and ecological monitoring.*

    Water Quality Monitoring shall provide water quality data adequate to assess compliance with applicable State water quality standards at Hawai'i Administrative Rules Chapter 11-54. Assessment procedures shall be in accordance with the current Hawai'i Department of Health ("HIDOH") methodology for Clean Water Act Section 305(b) water quality assessment, including use of approved analytical methods and quality control/quality assurance measures. The water quality data shall be submitted annually to HIDOH for use in the State's Integrated Report of Assessed Waters prepared under Clean Water Act Sections 303(d) and 305(b). If this report lists the receiving waters as impaired and requiring a Total Maximum Daily Load ("TMDL") study, then the monitoring program shall be amended to evaluate land-based pollutants, including: (1) monitoring of surface water and groundwater quality for the pollutants identifies as the source of the impairment; and (2) providing estimates of total mass discharge of those pollutants on a daily and annual basis from all sources, including infiltration, injection, and runoff. The results of the land-based pollution water quality monitoring and loading estimate shall be submitted to the HIDOH Environmental Planning Office, TMDL Program.

    The ecological monitoring shall include ecological assessment in accordance with the Coral Reef Assessment and Monitoring Program protocols used by the Department of Land and Natural Resources. The initial assessment shall use the full protocol. Subsequent annual assessments can use the Rapid Assessment Techniques. Results shall be reported annually to the Aquatic Resources Division, Department of Land and Natural Resources.

21. *That all exterior lighting shall be shielded from adjacent residential properties and near shore waters. Lighting requirements in force at the time of building permit application shall be applied.*

22. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall pay the Department of Education $3,000 per dwelling unit upon issuance of each building permit to be used, to the extent possible, for schools serving the Kīhei-Mākena Community Plan area; provided that, should the State pass legislation imposing school impact fees that apply to Kīhei-Mākena Project District 9, Honua'ula Partners, LLC, its successors and permitted assigns, shall from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.*

23. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall fund and construct adequate civil defense measures as determined by the State and County of Maui civil defense agencies.*

24. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide to the County two acres of land with direct access to Pi'ilani Highway extension for the development of fire control facilities within the village mixed-use sub-district at the time 50 percent of the total unit/lot count has received either a certificate of occupancy or final subdivision approval. The acreage provided shall have roadway and full utility services provided to the parcel.*

    That Honua'ula Partners, LLC, its successors and permitted assigns, shall contribute $550,000 to the County for the development of a police station in South Maui, to be paid at the time a contract is entered into for the construction of that police station.

25. *That no transient vacation rentals or time shares shall be allowed within Kīhei-Mākena Project District 9; and further, no special use permit or conditional permit for such accommodations shall be accepted by the Department of Planning.*

26. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide a preservation/mitigation plan pursuant to Chapter 6E, Hawai'i Revised Statutes, that has been approved by the State Historic Preservation Division, Department of Land and Natural Resources, and the Office of Hawaiian Affairs prior to Project District Phase II approval.*

27. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide the report "Remnant Wiliwili Forest Habitat at Wailea 670, Maui, Hawaii by Lee Altenberg, Ph.D.," along with a preservation/mitigation plan, to the State Department of Land and Natural Resources, the United States Fish and Wildlife Service, and the United States Corps of Engineers for review and recommendations prior to Project District Phase II approval. The Maui Planning Commission shall consider adoption of the plan prior to Project District Phase II approval.*

    Such plan shall include a minimum preservation standard as follows: That Honua'ula Partners, LLC, its successors and permitted assigns, shall establish in perpetuity a Conservation Easement (the "Easement"), entitled "Native Plant Preservation Area," for the conservation of native Hawaiian plants and significant cultural sites in Kīhei-Mākena Project District 9 as shown on the attached map. The Easement shall comprise the portion of the property south of latitude 20º40'15.00"N, excluding any portions that the State Department of Land and Natural Resources, the United States Fish and Wildlife Service, and the United States Corps of Engineers find do not merit preservation, but shall not be less than 18 acres and shall not exceed 130 acres.

    The scope of the Easement shall be set forth in an agreement between Honua'ula Partners, LLC and the County that shall include:

a. *A commitment from Honua'ula Partners, LLC, its successors and permitted assigns, to protect and preserve the Easement for the protection of native Hawaiian plants and significant cultural sites worthy of preservation, restoration, and interpretation for public education and enrichment consistent with a Conservation Plan for the Easement developed by Honua'ula Partners, LLC and approved by the State Department of Land and Natural Resources, the United States Geological Survey, and the United States Fish and Wildlife Service; and with a Cultural Resource Preservation Plan, which includes the management and maintenance of the Easement, developed by Honua'ula Partners, LLC and approved by the State Department of Land and Natural Resources (collectively, the "Conservation/Preservation Plans").*
b. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall agree to confine use of the Easement to activities consistent with the purpose and intent of the Easement.*
c. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall be prohibited from development in the Easement other than erecting fences, enhancing trails, and constructing structures for the maintenance needed for the area, in accordance with the Conservation/Preservation Plans.*
d. *That title to the Easement shall be held by Honua'ula Partners, LLC, its successors and permitted assigns, or conveyed to a land trust that holds other conservation easements. Access to the Easement shall be permitted pursuant to an established schedule specified in the Conservation/Preservation Plans to organizations on Maui dedicated to the preservation of native plants, to help restore and perpetuate native species and to engage in needed research activities. These organizations may enter the Easement at reasonable times for cultural and education purposes only.*
e. *Honua'ula Partners, LLC, its successors and permitted assigns, shall be allowed to receive all tax benefits allowable under tax laws applicable to the Easement at the time that said Easement is established in Kīhei-Mākena Project District 9, which will be evidenced by the recordation of the Easement in the Bureau of Conveyances, State of Hawai'i.*

28. *That, prior to the commencement of any construction activity, Honua'ula Partners, LLC, its successors and permitted assigns, shall develop and submit a Transportation Management Plan ("TMP"), to be reviewed and approved by the State Department of Transportation, the County Department of Public Works, and the County Department of Transportation. The purpose of the TMP shall be to reduce traffic generated by construction activity related to the Kaonoulu Light Industrial Subdivision and Kīhei-Mākena Project District 9, including traffic generated by the improvements to Pi'ilani Highway between Kilohana Drive and Wailea Ike Drive. The TMP shall provide for programs such as park and ride, shuttles, and/or restrictions on worker access to ongoing construction activity during peak hour traffic. Upon approval, project contractors shall implement the TMP during construction activities. Honua'ula Partners, LLC, its successors and permitted assigns, shall submit an annual report to the State Department of Transportation, the County Department of Public Works, the County Department of Transportation, and the Maui County Council to document the success of the TMP in meeting its benchmarks of reducing traffic during project construction.*

    That as part of the Project District Phase II application, Honua'ula Partners, LLC, its successors and permitted assigns, shall submit a TMP to reduce the dependency on individual vehicular transportation modes. The TMP shall be reviewed and approved by the State Department of Transportation, the County Department of Public Works, and the County Department of Transportation prior to Project District Phase II approval.

29. *That Honua'ula Partners, LLC, its successors and permitted assigns, shall provide annual compliance reports to the Department of Planning and the Maui County Council on the status of*

the project and progress in complying with the conditions imposed, commencing within one year of the effective date of the ordinance.

30. *All energy systems for all residential units shall be designed and constructed to meet all applicable ENERGY STAR requirements established by the Climate Protection Division of the United States Environmental Protection Agency in effect at the time of construction. For purposed of this condition, energy systems shall include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.*

    All residential units shall be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system, sized to meet at least 80 percent of the hot water demand for the respective units.

    All air cooling systems and all heating systems for laundry facilities, swimming pools, and spa areas shall make maximum use of energy-efficient construction and technology.

Draft EIS will contain a detailed discussion of the status of compliance with the above conditions.

5.2.4 Special Management Area

The Honua'ula site is not located within the Special Management Area (SMA) (Figure 7).

5.3 APPROVALS AND PERMITS

A listing of anticipated permits and approvals required for Honua'ula is presented below:

Table 2. Anticipated Approvals and Permits

Permit/Approval	Responsible Agency
Chapter 343, HRS Compliance	Maui Planning Department/Planning Commission Office of Environmental Quality Control
Project District Phase II	Maui Planning Department/County Council
Project District Phase III	Maui Planning Department
Subdivision Approval	Maui Planning Department
National Pollutant Discharge Elimination System (NPDES) Permit	State Department of Health
Plan Approval	Maui Planning Department
Grading/Building Permits	Maui Department of Public Works
Approval for Wastewater Treatment Facility	State Department of Health
Permit to Perform Work within a State Right-of-Way	State Department of Transportation

6 ALTERNATIVES TO THE PROPOSED ACTION

Under HAR Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 11-200-17(F), a Draft EIS must contain a section discussing alternatives that could attain the project objectives, regardless of cost, in sufficient detail to explain why the specific alternative was rejected. Alternatives to be discussed in the Draft EIS may include:

- No action
- Resort/residential community with two golf courses (original 1988 concept plan)
- Postponing action pending further study

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7 FINDINGS AND DETERMINATION

7.1 SIGNIFICANCE CRITERIA

While this EA/EISPN is preliminary to the Draft EIS, the currently known information presented here has been evaluated according to the significance criteria as specified in Section 11-200-12, HAR (Environmental Impact Statement Rules). As a result of this preliminary information, it is anticipated that the proposed Honua'ula community:

1) Will not likely involve an irrevocable commitment to natural archaeological or cultural resources;

2) Will increase the range of beneficial uses of the environment;

3) Will not conflict with the State and County's long-term environmental policies, goals and guidelines;

4) Will substantially and positively affect the economic or social welfare of the community or State;

5) Will not substantially affect public health;

6) May involve substantial secondary impacts such as population changes or effects on public facilities;

7) Will not involve a substantial degradation of environmental quality;

8) May cumulatively have considerable effect upon the environment and may involve a commitment for larger actions;

9) Will not substantially affect a rare, threatened, or endangered species or its habitat;

10) Will not detrimentally affect to air or water quality or ambient noise levels;

11) Will not likely suffer damage by being located in an environmentally sensitive area.

12) Will not substantially affect scenic vistas and view planes identified in county or state plans or studies; and

13) Will require additional energy consumption.

7.2 DETERMINATION

The proposed Honua'ula community will include highway improvements on a State Highway and the possible development of a wastewater treatment facility. These are triggers for environmental assessments, and in accordance with Chapter 343, HRS and Title 11, Chapter 200, HAR (Environmental Impact Statement Rules), this EA/EISPN has been prepared.

Based on the discussion of significance criteria in Section 7.1 above, Honua'ua Partners, LLC wishes to provide a thorough environmental review of Honua'ula; therefore, the preparation of an environmental impact statement (EIS), is being undertaken rather than a less intensive environmental assessment (EA).

8 CONSULTATION

8.1 INDIVIDUALS AND ORGANIZATIONS CONSULTED WITH PRIOR TO THE EIS PROCESS

In the course of planning Honua'ula, since 2001, Honua'ula representatives have met with concerned individuals, community organizations, private groups, and government agencies, which include (Note: * Title/position at time of meeting):

State of Hawai'i

- Land Use Commission
  - Anthony Ching, Executive Officer*
  - Full Commission

- Department of Education
  - Heidi Meeker

- Department of Health
  - Herbert Matsubayashi

- Department of Land and Natural Resources
  - Betsy Gagne, NARS
  - John Cummings, DOFAW
  - Fern Duvall, DOFAW
  - Charles Ice, CWRM

- Department of Transportation
  - Brian Minai, Director*
  - Jadine Urasaki, Deputy Director*
  - Brennon Morioka, Director

- Office of Hawaiian Affairs
  - Boyd Mossman, Trustee
  - Kai Markell
  - Jerome Yasuhara

Federal

- U.S. Fish and Wildlife Service
  - James Kwon

County of Maui

- Mayor Kimo Apana*
- Mayor Alan Arakawa*
- Mayor Charmaine Tavares

- Department of Planning
  - John Minn, Director*
  - Michael Foley, Director*
  - Jeffrey Hunt, Director
  - Clayton Yoshida, Deputy Director*
  - Colleen Suyama, Deputy Director*
  - Ann Cua, Senior Planner

- Department of Fire Control
  - Carl Kaupololo, Chief*
  - Neal Bal, Deputy Chief*

- Department of Housing and Human Concerns
  - Alice Lee

- Department of Parks and Recreation
  - Tamara Horcajo, Director
  - Floyd Miyazono, Director*
  - Glenn Correa, Director*
  - Pat Matsui, Deputy Director*

- Police Department
  - Tom Phillips, Chief

- Department of Public Works
  - Gilbert Agaran, Director*
  - Milton Arakawa, Director
  - Michael Miyamoto, Deputy Director

- Department of Water Supply
  - Jeffrey Eng, Director
  - George Tengan, Director*

Private Organizations & Individuals

- Maui Electric Company, Ltd.
  - Edward Reinhardt, President
  - Neil Shinyama

- Kīhei Community Association
  - David Fraser, President
  - David Maxwell, President
  - Planning and Development Committee
  - Full membership

- Wailea Community Association
  - William Overton, Director
  - Bud Pikrone, Director

  - Phillip Johnson
  - Board of Directors
  - Full membership

- Diamond Resort
  - Kyoko Kimura, General Manager

- 'Ekolu Homeowners Association
  - Ronald Beckett
  - Board of Directors

- Mākena Homeowners Association
  - Tim Farrington, President
  - Board of Directors
  - Full membership

- Maui Meadows Homeowners Association
  - Ron Sturtz
  - Madge Schafer
  - Board of Directors
  - Full membership

- Maui Meadows Neighborhood Association
  - Dorothy Hughes
  - Board of Directors
  - Full membership

- Maui Tomorrow
  - Ron Sturtz
  - Irene Bowie
  - Board of Directors
  - Membership

- Sierra Club
  - Rob Parsons
  - Membership

- Haleakalā Ranch
  - Buzz Stluka, President
  - Don Young, President
  - Scott Meidell, Manager

- 'Ulupalakua Ranch
  - Pardee Erdman, President
  - Sumner Erdman, VP
  - James Gomes, Manager

- Housing for Local People
  - Mrs. Stan Franco
  - Board members

- Maui Junior Golf
  - Eric Miyajima

- Na Kupuna O Maui,
  - Patty Nishiyama

- Maui Contractors Association
  - Jackie Haraguchi, Executive Director
  - Tom Cook, President
  - Full membership

- Hawai'i Carpenters Union
  - William Kamai
  - Steven Suyat
  - Ivan Lei

- International Longshoreman Workers
  - Willi Kennison
  - Steven West
  - Jason Medeiros

- Community Members

  - Shannie Akau
  - John Armstrong
  - Peggy Aviles
  - Michelle Bruce
  - John Buist
  - Kolyne Cabanas
  - Laverne Carvalho
  - Donna Clayton
  - Danny Collier
  - Steve Cordova
  - Dave Cullup
  - Mike Diaz
  - Dustin Dipersia
  - Joe Evans
  - Ted Fritzen
  - Ken Gift
  - Chad Goodfellow
  - Daniel & Claudia Goodfellow
  - Steve Goodfellow
  - Lucia Gouveia
  - Tia Hanchett
  - Mike Harrell
  - Arline Harris
  - Chris Haynes
  - Fred Hollenbeck
  - Michele Hough
  - Tamio Iwado
  - Mike Jackman
  - Erik Jorgensen
  - Rob Judge
  - Kristi Kapahulehua
  - Howard S. Kihune
  - Karen Kuwashima
  - Blanca Lafolette
  - Mark LaTurner
  - Corie Leal
  - Bob & Kay Lloyd
  - Craig Lohmeyer
  - Adam Lynch
  - Todd MacFarlane

- Todd MacFarlane, Jr.
- Dave Mackwell
- Paul MacLaughlin
- John Maloney
- John Martinsen
- Mary Lou Masko
- Dennis McCarthy
- Bo McKuin
- Jerry McLain
- Jerry McLain III
- Melina Mindoro
- Dayna Morreira
- Mel Nakoa
- Steven Newhouse
- Kelly O'Kief
- Steve Ovendale
- Wilson Padilla
- Larry Paet
- Steve Parker
- Sheryl Paschoal
- Steve Pawlak
- Keoki & Twinkle Perreira
- Doug Peterson
- Ana Peterson
- Greg Peterson
- Heather Peterson
- Scott Pingrey
- James Respicio
- Sam Ribao
- Amy Sands
- Madge Schaefer
- Eric Schaible
- Millie Septimo
- Leif Sjostrand
- Ray Skelton
- John Spasari
- Donna Speed
- Joyce & Jesse Spencer
- Chris Speten
- Gary Swatzel
- Danshiell Thompson
- Travis O. Thompson
- Greg Treese
- Scott Trudell
- Cory Uchima
- John Uhrin
- Cameron Vibbert
- Robin Weeks
- Dave & Karen Williams
- Joseph Williams
- Charmaine Yuen

8.2 INDIVIDUALS AND ORGANIZATIONS TO BE CONSULTED DURING THE EIS PROCESS

Various Federal, State, and County agencies, as well as organizations and members within the community, will be consulted in the preparation and review of the Draft EIS. This EA/EISPN will be distributed to the following agencies, organizations, and individuals. Comment letters that will be received on this EA/EISPN will be included in the Draft EIS.

State of Hawai'i

- Department of Business, Economic Development & Tourism (DBEDT)
- DBEDT – Office of Planning
- DBEDT – Strategic Industries Division
- Department of Education
- Department of Health - Environmental Planning Office
- Office of Environmental Quality Control
- Department of Land and Natural Resources
- State Historic Preservation Division
- Department of Transportation
- Office of Hawaiian Affairs

- University of Hawai'i Environmental Center

Federal

- U.S. Army Engineer Division
- U.S. Fish and Wildlife Service

Maui County

- Department of Planning
- Department of Fire Control
- Department of Housing & Human Concerns
- Department of Parks & Recreation
- Police Department
- Department of Public Works
- Department of Environmental Management
- Department of Water Supply

Private Organizations & Individuals

- Maui Electric Company, Ltd.
- Hawaiian Telcom
- Maui News
- Maui Meadows Community Association
- Wailea Community Association

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