# HONUA'ULA

## FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME 1 OF 4

Prepared for:

Accepting Authority

Maui Planning Department / Maui Planning Commission

Applicant:

Honua'ula Partners, LLC

Prepared by:

PBR HAWAII & ASSOCIATES, INC.

June 2012

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This final environmental impact statement and all ancillary documents were prepared under my direction or supervision and the information submitted, to the best of my knowledge, fully addresses document content requirements as set forth in Section 11-200-17, Hawai'i Administrative Rules

Charles Jencks
Honua'ula Partners, LLC

June 2012

# OVERVIEW

Honuaʻula, located in the Kīhei-Mākena region of Maui adjacent to Wailea Resort, will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, commercial and retail mixed uses, on-site recreational amenities, integrated bicycle and pedestrian networks, parks, and open space (Figure 1). Honuaʻula will also feature an 18-hole homeowner's golf course and related facilities, as well as a Native Plant Preservation Area and other areas dedicated to the preservation of native plants and archaeological features.

Honuaʻula will provide homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). Honuaʻula will reflect community values and feature distinctive architecture to create a unique and compelling community in context with the Kīhei-Mākena region. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community. In addition, a principal design and planning goal is to preserve defining features of Honuaʻula, such as the topography and views, as much as possible.

Honuaʻula's integration of mixed land uses is a critical component of creating a true community. By locating commercial and retail establishments within the community, 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. Likewise, Honuaʻula'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.

Honuaʻula is comprised of two parcels totaling 670 acres (the Property) designated as Project District 9 in the *Kīhei-Mākena Community Plan*. Honuaʻula is also zoned Project District 9 under Chapter 19.90A, MCC. In compliance with the *Kīhei-Mākena Community Plan* and Chapter 19.90A, MCC, Honuaʻula will:

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

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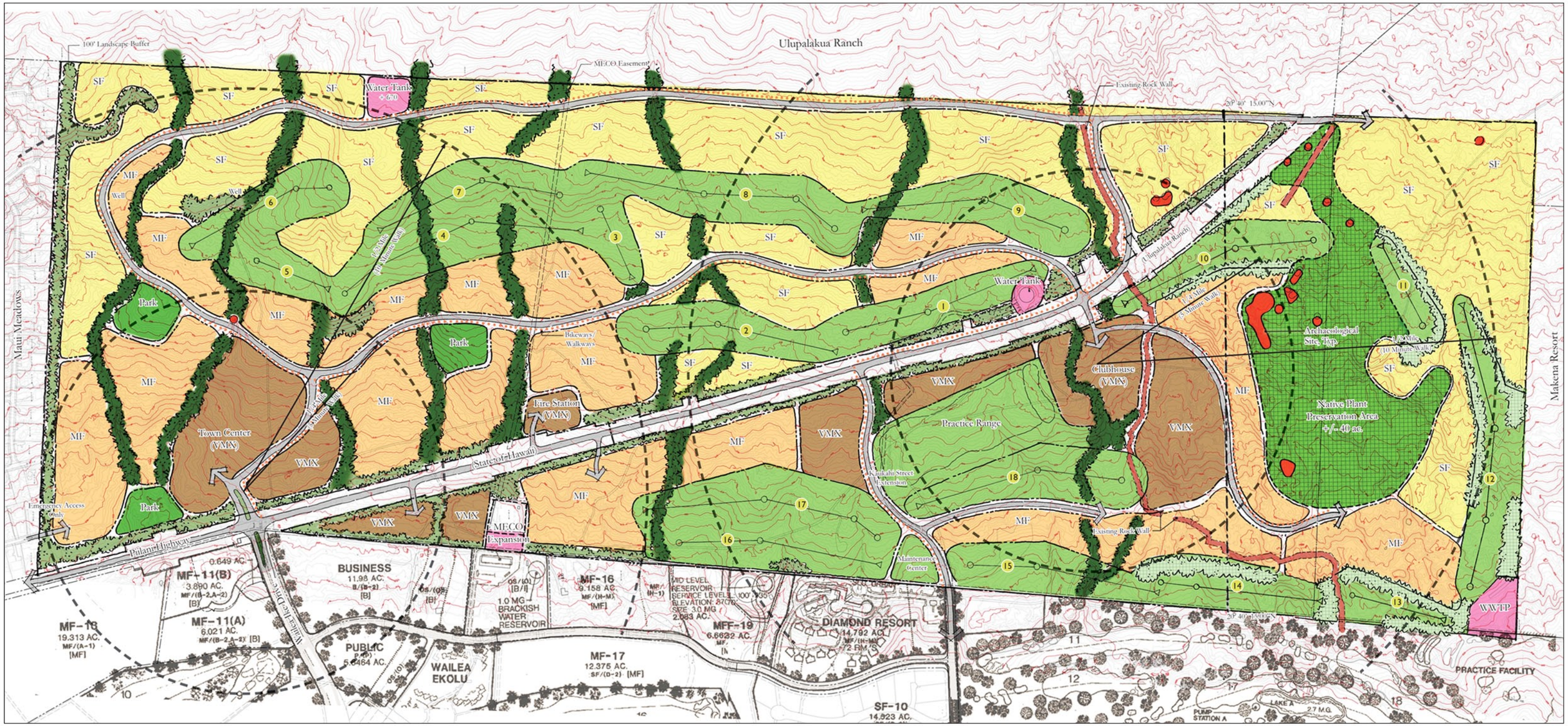


## LEGEND

| Land Use Subdistricts | Acreage | Unit Count SF | Unit Count MF | Densities (Average) |
|---|---|---|---|---|
| Single-Family Residential and Roadways | +/- 177 ac. | +/- 447 | 0 | 2.5 DU/ac. |
| Multi-Family Residential and Roadways | +/- 146 ac. | +/- 57 | +/- 646 | 4.8 DU/ac. |
| VMX - Village - Mixed Use and Roadways | +/- 53 ac. | - | - | - |
| | Unit Totals: | +/- 504 | +/- 646 | |
| | Unit Percentages: | 44% | 56% | |
| Sub-Total Area: | +/- 376 ac. | 1,150 Units | | |

| Recreation, Open Space / Utility Subdistrict | Acreage |
|---|---|
| Golf Course, Parks, and Open Space | +/- 246 ac. |
| Native Plant Preservation Area | +/- 40 ac. |
| Utilities | +/- 8 ac. |
| Sub-Total Area: | +/- 294 ac. |
| Grand Total Area: | 670 acres |

Plan By: VITA
PLANNING & LANDSCAPE ARCHITECTURE

**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.

Disclaimer: This graphic has been prepared for general planning purposes only.

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## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| µM | Micromoles |
| ALISH | Agricultural Lands of Importance to the State of Hawaiʻi |
| BMP | Best Management Practices |
| cfs | cubic feet per second |
| CRPP | Cultural Resources Preservation Plan |
| CWRM | Commission on Water Resource Management |
| CZM | Coastal Zone Management |
| DBEDT | Department of Business, Economic Development, and Tourism |
| DEM | Department of Environmental Management |
| DLNR | Department of Land and Natural Resources |

| | |
|---|---|
| DOE | Department of Education |
| DOFAW | Divison of Forestry and Wildlife |
| DOH | Department of Health |
| DOT | Department of Transportation |
| DPR | Department of Parks and Recreation |
| EA | Environmental Assessment |
| EA/EISPN | Environmental Assessment/Environmental Impact Statement Preparation Notice |
| EIS | Environmental Impact Statement |
| EISPN | Environmental Impact Statement Preparation Notice |
| EPA | Environmental Protection Agency |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Map |
| gpd | Gallons per day |
| HAR | Hawai'i Administrative Rules |
| HCP | Habitat Conservation Plan |
| HRS | Hawai'i Revised Statutes |
| ITP/ITL | Incidental Take Permit/Incidental Take License |
| IPM | Integrated Pest Management |
| LSB | Land Study Bureau |
| LUC | Land Use Commission |
| MCC | Maui County Code |
| MECO | Maui Electric Company |
| MG | Million gallon |
| MGD | Million gallons per day |
| mph | Miles per hour |
| NPDES | National Pollutant Discharge Elimination System |
| OEQC | Office of Environmental Quality Control |
| OHA | Office of Hawaiian Affairs |
| ppt | Parts per thousand |
| RO | Reverse Osmosis |
| ROW | Right-of-way |
| SCS | Soil Conservation Service |
| SHPD | State Historic Preservation Division |
| SMA | Special Management Area |
| TIAR | Traffic Impact Analysis Report |
| TMDL | Total Maximum Daily Load |
| TMK | Tax map key |
| TMP | Transportation Management Plan |
| UBC | Uniform Building Code |
| USDA | United States Department of Agriculture |
| USFWS | United States Fish and Wildlife Service |
| UV | Ultraviolet |
| WWRF | Wastewater reclamation facility |

# Chapter 1

## Introduction and Summary

# 1 INTRODUCTION AND SUMMARY

This Environmental Impact Statement (EIS) is prepared pursuant to Chapter 343, Hawaiʻi Revised Statutes (HRS), and Title 11, Chapter 200, Hawaiʻi Administrative Rules (HAR), Department of Health (DOH), State of Hawaiʻi. Proposed is an applicant action by Honuaʻula Partners, LLC, for the creation of Honuaʻula, a master-planned community located in the Kīhei-Mākena region, Island of Maui.

## 1.1 PROFILE

**Project Name:** Honuaʻula

**Location:** Wailea, Kīhei-Mākena, Maui

**Judicial District:** Makawao

**Tax Map Key (TMK)/ Landowners:**

"The Property"
TMKs (2)2-1-08:056; (2)2-1-08:071 (Honuaʻula Partners, LLC)

Off-Site Improvements
TMK (2)2-1-08: 999 (portion) (State of Hawaiʻi)
TMK (2)2-1-26: 999 (portion) (State of Hawaiʻi)
TMK (2)2-1-13: 999 (portion) (County of Maui)
TMK (2)2-1-08: 043 (Maui Electric Company LTD)
TMK (2)2-1-08: 090 (portion) (ATC Mākena Golf LLC)
TMK (2)2-1-08: 108 (portion) (ATC Mākena Golf LLC)
TMK (2)2-2-02: 001 (portion) (Haleakalā Ranch Co.)
TMK (2)2-2-02: 050 (portion) (Haleakalā Ranch Co.)
TMK (2)2-2-02: 054 (portion) (Haleakalā Ranch Co.)
TMK (2)2-1-08: 054 (portion) (ʻUlupalakua Ranch)
TMK (2)2-1-08: 001 (portion) (ʻUlupalakua Ranch)
TMK (2)2-1-08: 118 (portion) (Wailea Old Blue, LLC)
TMK (2)2-1-08: 134 (portion) (Wailea Old Blue, LLC)
TMK (2)2-1-08: 131 (portion) (Wailea Resort Co. LTD

**Approximate Land Area:**

| | |
|---|---|
| The Property: | 670 acres |
| Off-Site Improvements: | ~~30~~ 220 acres (approximate) |

**Existing Use:** Vacant, open land with 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 homeowner's golf course and golf course clubhouse), and related off-site infrastructure.

**Property 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
National Pollutant Discharge Elimination System Permit
Subdivision Approval
Grading/Building Permits
Incidental Take Permit/Incidental Take License

**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

The accepting authority is the Maui Planning Department/Maui Planning Commission.

**Contact:** ~~Jeff Hunt~~ William Spence, Director
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 EIS 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 (EA) or EIS. The triggers for Honua'ula include, without limitation, the following:

- Extending Pi'ilani Highway from Wailea Ike Drive to Kaukahi Street, a portion of which will be on right-of-way (ROW) owned by the State of Hawaii; and
- Possible development of an on-site wastewater reclamation facility.

~~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.~~

This EIS is also prepared in satification of the Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW) requirements with respect to the issuance of an Incidental Take License (ITL) under Chapter 195D, HRS and the approval of the associated Habitat Conservation Plan for federally listed species potentially impacted by Honua'ula.

This Draft EIS was preceded by the Honua'ula Environmental Impact Statement Preparation Notice (EISPN). The Maui County Planning Department submitted the EISPN to the State of Hawaii Office of Environmental Quality Control (OEQC) on February 23, 2009. Notice of the availability of the EISPN was published in the March 8, 2009 edition of the OEQC's *The Environmental Notice*. Copies of the EISPN were provided to appropriate government agencies and other organizations (See Chapter 8). The public

comment period for the EISPN began March 8, 2009 and ended April, 7, 2009. Comments ~~and responses~~ on the EISPN received during the public comment period and responses to the comments are incorporated in this Final EIS and the letters are provided in ~~Chapter 10~~ Appendix AA.

Following the EISPN public comment period, Honua'ula Partners, LLC consulted with OEQC to ensure that all applicable statutory and regulatory requirements were fulfilled. Regarding the EISPN dated March 2009, notice of which was published in the March 8, 2009 edition of the OEQC's *The Environmental Notice*, the OEQC Director stated: "…the published document fulfills all the requirements and components [of] an environmental assessment." Pursuant to the instructions of the OEQC Director, the Maui County Planning Department subsequently submitted an Environmental Assessment/Environmental Impact Statement Preparation Notice (EA/EISPN) to OEQC on September 18, 2009. Notice of the availability of the EA/EISPN was published in the October 8, 2009 edition of the OEQC's *The Environmental Notice*. The EA/EISPN was available on the OEQC website and copies of the EA/EISPN were provided to all organizations and individuals who had requested to be a consulted party during the March 8, 2009 to April, 7, 2009 public comment period. The public comment period on the EA/EISPN was from October 8, 2009 to November 7, 2009, however comments were accepted up until November 17, 2009 to allow all consulted parties ample time to provide comments. Comments ~~and responses~~ on the EA/EISPN received during the public comment period, as extended to November 17, 2009, and responses to the comments were ~~are~~ incorporated in this Final EIS and the letters are provided in ~~Chapter 10~~ Appendix AA.

Following the EA/EISPN public comment period, Maui County Planning Department submitted the Draft EIS to OEQC on April 13, 2010. Notice of the availability of the Draft EIS was published in the April 23, 2010 edition of OEQC's The Environmental Notice. Copies of the Draft EIS were provided to appropriate government agencies and other organizations and individuals (See Chapter 8). The official 45-day public comment period on the Draft EIS was from April 23, 2010 to June 7, 2010; however as a courtesy to those that requested more time to review the Draft EIS, Honua'ula Partners, LLC voluntarily extended the comment period on the Draft EIS until June 30, 2010. Comments on the Draft EIS received during the public comment period, as extended to June 30, 2010, and responses to the comments are incorporated in this Final EIS and the letters are provided in Appendix AA.

## 1.6 SCOPE OF THIS EIS

This EIS covers potential impacts relating to Honua'ula, "the Property" (TMK (2) 2-1-08:056 and (2) 2-1-08:71) and planned and potential off-site improvements, including:

- Extending Pi'ilani Highway from Wailea Ike Drive to Kaukahi Street. (TMK (2)2-1-08: 999 (portion));
- Widening Pi'ilani Highway from Kilohana Drive to Wailea Ike Drive (TMK (2)2-1-08:999 (portion)); (TMK (2)2-1-26:999); (TMK (2)2-1-13:999 (portion))

- Wailea Ike Drive and Wailea Alanui Drive intersection improvements; (TMK (2)2-1-08:999 (portion)); TMK (2)2-1-08:131 (portion)); TMK (2)2-1-08:118 (portion)); (TMK (2)2-1-08:134 (portion));
- Wastewater transmission line alignment for possible connection to the Mākena Resort Wastewater Reclamation Facility (WWRF), which is located approximately one mile south of Honua'ula (TMK (2)2-1-08: 090 (portion)); (TMK (2)2-1-08: 108 (portion));
- Off-site wells, waterline, and storage tank~~s~~ (TMK (2)2-2-02:001 (portion)); (TMK (2)2-2-02: 050 (portion)); (TMK (2)2-2-02: 054 (portion)) (TMK (2)2-1-08: 054 (portion)); (TMK (2)2-1-08: 001 (portion)); and
- Possible expansion of the Maui Electric Company (MECO) electrical substation located within the Honua'ula property (TMK (2)2-1-08: 043).

## 1.7 STUDIES CONTRIBUTING TO THIS EIS

A number of specific technical studies have been prepared for this EIS, and the full reports are included as appendices. These studies include:

- Ground Water Resources Assessment;
- Marine Water Quality Assessment;
- Marine Environmental Assessment;
- Golf Course Best Management Practices;
- Botanical Surveys;
- Conservation & Stewardship Plan (including an Animal Management Plan);
- Wildlife Surveys;
- Archaeological Inventory Surveys;
- Cultural Impact Assessment;
- Cultural Resources Preservation Plan (including an Archaeological Preservation/ Mitigation Plan);
- Traffic Impact Analysis Report;
- Transportation Management Plans;
- Acoustic Study;
- Air Quality Study;
- Preliminary Engineering Report;
- Market Study;
- Economic Impact Analysis; and
- Public Costs/Benefits Assessment.

In addition, final environmental assessments (EAs) have been prepared for the: 1) widening of Pi'ilani Highway from Kilohana Drive to Wailea Ike Drive; and 2) Wailea Ike Drive and Wailea Alanui Drive intersection improvements. The accepting agenies for these EAs have issued a Finding of No Significant Impact (FONSI) for each of these EAs. Key findings from

the EAs are included in specific subsections of this EIS and the complete EAs are included as appendices to this EIS.

Further, specific technical studies have been prepared for the: 1) wastewater transmission line alignment for possible connection to the Mākena Resort WWRF; and 2) the off-site wells, waterline, and a storage tank. Key findings from these studies are included in specific subsections of this EIS and the complete studies are included as appendices to this EIS along with technical studies specific to the Property.

## 1.8 EXECUTIVE SUMMARY

### 1.8.1 Honuaʻula

Honuaʻula, located in the Kīhei-Mākena region of Maui adjacent to Wailea Resort, will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, commercial and retail mixed uses, on-site recreational amenities, integrated bicycle and pedestrian networks, parks, and open space (Figure 1). Honuaʻula will also feature an 18-hole homeowner's golf course and related facilities, as well as a Native Plant Preservation Area and other areas dedicated to the preservation of native plants and archaeological features.

Honuaʻula will provide homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). Honuaʻula will reflect community values and feature distinctive architecture to create a unique and compelling community in context with the Kīhei-Mākena region. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community. In addition, a principal design and planning goal is to preserve defining features of Honuaʻula, such as the topography and views, as much as possible.

Honuaʻula's integration of mixed land uses is a critical component of creating a true community. By locating commercial and retail establishments within the community, 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. Likewise, Honuaʻula'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.

Honuaʻula is comprised of two parcels totaling 670 acres (the Property) designated as Project District 9 in the *Kīhei-Mākena Community Plan*. Honuaʻula is also zoned Project District 9 under Chapter 19.90A, MCC. In compliance with the *Kīhei-Mākena Community Plan* and Chapter 19.90A, MCC, Honuaʻula will:

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

This EIS also includes discussion of planned and potential off-site improvements, including:

- Extending Piʻilani Highway from Wailea Ike Drive to Kaukahi Street.
- Widening Piʻilani Highway from Kilohana Drive to Wailea Ike Drive;
- Wailea Ike Drive and Wailea Alanui Drive intersection improvements;
- Wastewater transmission line alignment for possible connection to the Mākena Resort WWRF (off-site wastewater infrastructure), which is located approximately one mile south of Honuaʻula;
- Off-site wells, waterline, and a storage tank (off-site water infrastructure); and
- Possible expansion of the MECO electrical substation located within the Honuaʻula property.

### 1.8.2 Summary of Potential Impacts and Proposed Mitigation Measures

The creation of Honuaʻula will transform the vacant open land of the Property into a vibrant, mixed-use community. Appropriate mitigation measures have been incorporated into overall community planning. For areas of particular concern, the following summarizes potential impacts and mitigation measures recommended or planned to minimize or mitigate potential adverse impacts.

**Groundwater Resources** – An assessment of the potential impacts on groundwater resources of Honuaʻula concludes that the creation of Honuaʻula will not impair Wailea Resort's golf course irrigation wells, with the possible exception of a salinity increase in Wailea Resort's Well 2, which is directly downgradient of Honuaʻula's on-site wells. Decreased pumping of Honuaʻula's on-site wells would alleviate this potential impact. With respect to Honuaʻula's off-site wells, an estimated six active downgradient irrigation wells may be impacted by a potential increase in salinity due to reduced flowrate, which current calculations indicate may be on the order of five percent. It is not known if the increase in salinity would materially impair the utility of the wells; however if the utility of the wells is materially impaired, additional wells (pumping the same combined amount of water) in the area north of Maui Meadows would distribute the draft over a greater area

and would alleviate the impact downgradient. All existing on- and off-site wells are fully permitted by the State Commission on Water Resource Management (CWRM). All new wells will be developed in compliance with all requirements of Chapter 174C, HRS (State Water Code) and HAR, Chapters 13-167 to 13-171, as applicable, pertaining to CWRM and administration of the State Water Code. Section 3.5.1 (Groundwater) contains the full discussion.

**Nearshore Marine Environment** – The results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. The assessment concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honua'ula." Section 3.5.2 contains the full discussion.

**Botanical Resources** – No Federal or State of Hawai'i listed threatened or endangered plant species were identified on the: 1) Property; 2) the Pi'ilani Highway widening area; 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvement area; and 4) the areas of the off-site water and wastewater infrastructure. However, a candidate endangered species, *'āwikiwiki* (*Canavalia pubescens*), was identified on the Property. To protect and conserve the area of the Property that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside on-site ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. In addition, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat to provide a net conservation benefit. Further, a *Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Areas. Section 3.6 (Botanical Resources) contains the full discussion.

**Wildlife Resources** – Honua'ula is not expected to significantly impact any endangered species. Several wildlife surveys of the Property have been conducted since 1988, with the most recent completed in 2009. Evidence of the endangered Blackburn's sphinx moth (*Manduca blackburni*) was found within the Property in the most recent survey (although not in previous surveys), and a single endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) was sighted overflying the Property. No other Federal or State of Hawai'i listed threatened or endangered animal species have been identified on the Property. To ~~protect~~ offset the potential impact to the Blackburn's sphinx moth and avoid impacts to the Hawaiian hoary bat ~~(as well as the candidate endangered *'āwikiwiki* plant)~~, a ~~multi-species~~ Habitat Conservation Plan ~~is being prepared under~~ will be finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and ~~in collaboration with DLNR and USFWS~~ Chapter 195D, HRS. The HCP will be in support of an Incidental Take Permit (ITP) and an Incidental Take

License (ITL) for Blackburn's sphinx moth and nēnē (an endangered species that may be attracted to the Property after construction). On- and off-site measures will provide a net conservation benefit to these species. Several other mitigation measures are also proposed for the protection of wildlife resources. No Federal or State of Hawaiʻi listed threatened or endangered bird, mammal, or insect species were observed in the areas of: 1) the Piʻilani Highway widening; 2) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements; 3) the off-site water and wastewater infrastructure. Section 3.7 (Wildlife Resources) contains the full discussion.

**Archaeological and Historic Resources** – A total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites. A Cultural Resources Preservation Plan (CRPP) has been prepared setting forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate, for each site to be preserved. The CRPP was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, SHPD, DLNR Nā Ala Hele, OHA and various knowledgeable individuals. No surface structural remains or any other features indicative of prehistoric period or traditional Hawaiian cultural activities were encountered in the areas of the off-site water and wastewater infrastructure. The State Historic Preservation Division has determined that archaeological inventory surveys of the areas of the Piʻilani Highway widening and the Wailea Ike Drive and Wailea Alanui Drive intersection improvements are not required; however archaeological monitoring plans will be prepared and a qualified archaeological monitor will be present during during all ground altering disturbance. Section 4.1 (Archaeological and Historic Resources) contains the full discussion.

**Cultural Resources** – A cultural impact assessment was prepared for the Honuaʻula Property to identify traditional customary practices within the Property and in the vicinity of the Property. Based on consultation with interviewees, the cultural impact assessment report concludes that there are no known gathering practices or access concerns. However, the cultural impact assessment report recommends that representative existing cultural sites be incorporated into Honuaʻula and native plants be kept intact as much as possible to retain the unique identity of the area. The cultural impact assessment report also recommends that the *ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands) be recognized as part of the law decreeing that one should respect Hawaiʻi's gathering rights (passage to fishing at the ocean and streams or gathering native plants in the mountain). Native plants will be preserved within the Native Plant Areas. Mauka-makai trails will be incorporated throughout the Property following natural mauka-to-makai gulches. The CRPP (discussed above) incorporates the findings of the cultural impact assessment report and the Archaeological Inventory Survey. In addition, there are no known cultural resources, access concerns, or current gathering practices occurring in the areas of: 1) the Piʻilani Highway widening; 2) the Wailea Ike Drive and

Wailea Alanui Drive intersection improvements; 3) the off-site water and wastewater infrastructure. Section 4.2 (Cultural Resources) contains the full discussion.

**Trails and Access** – The creation of Honua'ula will make the Property much more accessible relative to the current limited access. Honua'ula will include over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways. This secondary circulation system of linked pedestrian/bike trails will connect residential areas to the village mixed use areas, neighborhood parks, the golf course clubhouse, and other areas, and will provide residents a meaningful alternative to driving for traveling within the community. A scenic trail along portions of the golf course will link to several other trail segments and is expected to provide sweeping views, both mauka and makai, while a Nature/Cultural trail will border the Native Plant Preservation Area and traverse the adjacent Native Plant Conservation Areas. As recommended by the cultural impact assessment report, traditional native Hawaiian mauka-makai access trails will be incorporated throughout the Property following natural mauka-to-makai gulches. Steppingstone trail segments within the Property, which represent discontinuous remnants of traditional trails, will be preserved *in situ*. Section 4.3 (Trails and Access) contains the full discussion.

**Traffic** – The Traffic Impact Analysis Report (TIAR) prepared for Honua'ula accounted for traffic ~~impacts due~~ related to the creation of Honua'ula, the widening of Pi'ilani Highway, implementation of the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the build-out of additional projects in the Wailea and Mākena region. Traffic on Pi'ilani Highway and other roads is expected to increase even if Honua'ula is not built, and Honua'ula will pay for and build many regional traffic improvements that will address the impacts of general regional traffic growth, as well as impacts specifically related to Honua'ula. Specifically, Honua'ula will be part of the regional traffic solution by (among other improvements): 1) widening Pi'ilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive; 2) modifying 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; 3) signalizing the Pi'ilani Highway/Okolani Drive/Mikioi Place intersection and providing an exclusive left-turn lane on Okolani Drive; 4) modifying 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; and 5) providing a contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements.

In addition, Transportation Management Plans have been prepared for Honua'ula that propose transportation management strategies to reduce both construction-related traffic and post-construction dependency on individual vehicles. These plans have been ~~submitted to~~ reviewed and approved by the State and County Departments of Transportation and the County Department of Public Works ~~for review and approval~~.

Honua'ula is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Pi'ilani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Honua'ula is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

Section 4.4 (Roadways and Traffic) contains the full discussion regarding traffic.

**Noise** – In the short term, construction of: 1) Honua'ula; 2) the widened Pi'ilani Highway; 3) the Wailea Ike Drive/Wailea Alanui Drive intersection improvements; and 4) the off-site water and wastewater infrastructure will generate temporary noise impacts. The dominant noise sources during construction will likely be associated with operation of heavy construction machinery, paving equipment, ~~and~~ material transport vehicles, and possible blasting to break or dislodge rock. As an alternative to blasting, the use of chemical expansion to break or dislodge rock will be considered. However, noise from construction activities will be short-term and will comply with all Federal and State noise control regulations. The acoustic study prepared for Honua'ula concludes that adverse impacts from construction noise (from the widening of Pi'ilani Highway and creation of Honua'ula) are not expected to affect public health and welfare due to the temporary nature of the work and State regulations limiting noise impacts. Public health and welfare are also not exected to be affected due to the the construction of the Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure.

In the long-term, the acoustic study concludes that a substantial change in traffic-generated noise levels (as defined by the State Department of Transporation (DOT)) will not occur due to the creation of Honua'ula and the widening of Pi'ilani Highway, although the number of residences along Pi'ilani Highway subject to noise levels that exceed DOT residential noise standards is projected to increase from two residences to up to 16 residences by the year 2022—with most of this increase due to regional increases in traffic even if Honua'ula is not built. To mitigate impacts to residences along Pi'ilani Highway subject to noise levels that exceed DOT residential noise standards, sound attenuating walls are recommended in accordance with DOT's traffic noise abatement policy. Noise levels from the completed Wailea Ike Drive and Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure are not expected to be significant in the long term.

Section 4.5 (Noise) contains the full discussion regarding noise impacts.

**Air Quality** – No State or Federal air quality standards are anticipated to be violated during or after the construction of: 1) Honua'ula; 2) the widening of Piilani Highway; 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements; and 4) the off-site water and wastewater infrastructure. In the short term, construction ~~of Honua'ula~~ will

likely contribute to air pollutant concentrations due to fugitive dust releases at construction areas. However, mitigation measures, including ~~the~~ implementation of ~~a~~ dust control plans and frequent watering of exposed surfaces, will help to reduce and control such releases, and all construction activities will comply with the provisions of HAR, Chapter 11-60.1, Air Pollution Control, Section 11-60.1-33, "Fugitive Dust."

Over the long-term, the air quality modeling analysises prepared for Honuaʻula and the widening of Piilani Highway conclude~~s~~ that: 1) even during worst-case conditions, predicted concentrations of traffic-related pollutants will remain well below State and Federal standards; and 2) mitigation measures for traffic-related air quality impacts are unnecessary and unwarranted~~; and 3)~~. In addition the air quality modeling analysis prepared for Honuaʻula concludes that significant long-term impacts on air quality are unlikely due to indirect emissions associated with the community's electrical power and solid waste disposal requirements. Long-term impacts due to Wailea Ike Drive and Wailea Alanui Drive intersection improvements are not expected to be significant as the the improvements will accommodate anticipated future traffic while while providing similar vehical flow and queing times at the intersection as compared to exiting conditions. Long-term air quality impacts are not expected to be significant from the off-site water and wastewater infrastructure, as after these facilities are created there will be very little to no vehicle emmissions associated with on-going operations.

Section 4.6 (Air Quality) contains the full discussion regarding air quality.

**Water** – Honuaʻula will not rely upon or burden any County water system. Instead, Honuaʻula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honuaʻula. Non-potable water will be used for all irrigation purposes. Honuaʻula Partners, LLC is committed to aggressive water conservation strategies to reduce consumption, conserve resources and minimize water demands, and it will implement water conservation recommendations of the County of Maui Department of Water Supply. Section 4.8.1 (Water System) contains the full discussion.

**Wastewater** – Honuaʻula will not rely upon or burden any County wastewater system. Instead, Honuaʻula Partners, LLC will either: 1) transport wastewater to the Mākena WWRF for treatment; or 2) develop, maintain, and operate a private on-site WWRF. The preferred alternative is to transport wastewater to the Mākena WWRF, as this provides the benefit of consolidating wastewater services for both Honuaʻula and Mākena and allows for economies of scale in the treatment process and consolidated regulatory compliance. Additionally, sufficient golf course land is available within both Honuaʻula and the Mākena Resort to reuse 100 percent of the recycled water for irrigation. Section 4.8.2 (Wastewater System) contains the full discussion.

**Drainage** – Drainage from: 1) Honuaʻula; 2) the widening of Piilani Highway; 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements; and 4) the off-site water and wastewater infrastructure is not expected to have a significant adverse effect on

groundwater, downstream properties, or marine waters. All drainage improvements for Honua'ula and the widening of Piilani Highway will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. No significant changes to current drainage patterns are expected due to the Wailea Ike Drive and Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure.

Stormwater over Honua'ula will percolate directly into the ground (in natural and landscaped areas), evaporate, or will be collected and managed through a drainage system. The Honua'ula drainage system will include detention basins, drainage pipes, open channels, and roadway culverts. Runoff will be stored in 26 detention basins located throughout the Property. In addition, the use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the Property. Drainage system improvements for the widened Piilani Highway will include grated drain inlets, catch basins, manholes, underground drainlines, surface retention basins and subsurface retention systems, extension of existing culverts, and construction of new inlet and outlet structures. The increased runoff will be retained via the retention systems.

Section 4.8.3 (Drainage System) contains the full discussion.

**Solid Waste** – Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing solid waste. A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and Honua'ula Partners, LLC will work with contractors to minimize the amount of solid waste generated during the construction. After construction, Honua'ula Partners, LLC will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Green waste, particularly from the golf course, may be processed on-site and reused. Section 4.8.5 (Solid Waste) contains the full discussion.

**Electrica**l – Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing energy consumption. All energy systems for all residential units will meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. All homes (single-family and multi-family) with be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system and other energy-saving concepts and devices will be encouraged in the design of Honua'ula. Design standards will also specify low-impact lighting and encourage energy-efficient building design and site development practices. The current plans for the Property include an area for the expansion of the existing MECO substation (Figure 1). Section 4.8.6 (Electrical System) contains the full discussion.

**Housing** – Honuaʻula will help to satisfy the housing demand of a growing population by providing homes in the Kīhei-Mākena region and will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). Honuaʻula's market-rate homes will be comparable with Maui's destination communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The market assessment prepared for Honuaʻula concludes that there is sufficient demand for the range of homes within Honuaʻula, with the workforce affordable homes being fully sold out within an eight year period and the market-priced homes within 12 years. Section 4.9.3 (Housing) contains the full discussion.

**Economy** – The creation of Honuaʻula will contribute substantial positive economic benefits, including approximately:

- $1.2 billion of direct capital investment in the Maui economy during the 13-year build-out period;
- 9,537 "worker years[1]" of direct on-site employment during the 13-year build-out period;
- $480 million in employee wages paid out during the 13-year build-out period;
- 518 jobs (382 directly related to on-site activities and 136 related to indirect off-site activities) after the build-out period;
- $19 million in annual wages from the on and off-site jobs after the build-out period;
- $513.9 million (nearly $40 million annually) in discretionary expenditures into the Maui economy by Honuaʻula residents and guests during the 13-year build-out period;
- $77 million annually in discretionary expenditures into the Maui economy by Honuaʻula residents and guests after the build-out period;
- $41.8 million in net tax revenue benefit (taxes less costs) to the County of Maui during the 13 year build-out period;
- $1.6 million in annual net tax revenue benefit (taxes less costs) to the County of Maui after the build-out period;
- $97 million in net tax revenue benefit (taxes less costs) to the State of Hawaii during the 13 year build-out period; and
- $1.5 million in annual net tax revenue benefit (taxes less costs) to the State of Hawaii after the build-out period.

Section 4.9.5 (Economy) contains the full discussion.

[1] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

**Public Services and Facilities** – Honuaʻula will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and increased income taxes from increased employment. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. Honuaʻula will also contribute significantly to the provision of public services by directly providing:

- $5,000,000 to the County for the development of the South Maui Community Park and a in-lieu cash contribution to satisfy the park assessment requirements under Section 18.16.320, MCC (currently set at $17,240 per residential unit) in addition to providing parks within Honuaʻula that are open to the public but privately maintained;
- $3,000 per dwelling unit (at a minimum) (totaling over $3.45 million) to the Department of Education (DOE) for schools serving the Kīhei-Mākena Community Plan area;
- Two acres of land to the County of Maui for the development of a fire station; and
- $550,000 to the County for the development of a police station in South Maui.

Section 4.10 (Public Services and Facilities) contains the full discussion.

### 1.8.3 Relationship to Land Use Policies

**State Land Use Law, Chapter 205, Hawaiʻi 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.

**Coastal Zone Management Act, Chapter 205A, Hawaiʻi Revised Statutes** – The Coastal Zone Management (CZM) Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the Property is within the CZM Area. Section 5.1.3 (Coastal Zone Management Act, Chapter 205A, HRS) contains a detailed discussion of Honuaʻula compliance with the objectives and policies of the CZM Area

**Hawaiʻi State Plan, Chapter 226, Hawaiʻi Revised Statutes** – The Hawaiʻi 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 creation of Honuaʻula is relevant to many of the goals, objectives, and policies set forth by the Hawaiʻi State Plan. Section 5.1.4 (Hawaiʻi State Plan, Chapter 226, HRS) contains discussion of Honuaʻula's compliance.

**State Functional Plans** – The Hawaiʻi 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 Hawaiʻi State Plan. Section 5.1.5 (State Functional Plans) contains discussion of Honuaʻula's compliance.

**Countywide Policy Plan** – The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the forthcoming Maui Island Plan as well as for updating the nine detailed Community Plans. Section 5.2.1 (Countywide Policy Plan) contains discussion of Honuaʻula's compliance.

**Kīhei-Mākena Community Plan** – The *Kīhei-Mākena Community Plan* is one of nine community plans developed to address the unique aspects of each region. According to the *Kīhei-Mākena Community Plan* Land Use Map, the Property is designated Project District 9. Section 5.2.2 (Kīhei-Mākena Community Plan) contains discussion of Honuaʻula's compliance.

**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, Hawaiʻi." Pursuant to Section 19.510.050, MCC, the zoning granted to the Kīhei-Mākena Project District 9 (Wailea 670) is subject to certain conditions. Section 5.2.3 (County of Maui Zoning) contains discussion of Honuaʻula's compliance.

### 1.8.4 Required Permits and Approvals

| Permit/Approval | Responsible Agency | Status |
|---|---|---|
| Chapter 343, HRS Compliance | Maui Planning Department/Planning Commission OEQC | ~~Pending public comments and~~ Planning Commission acceptance recevied on _____. |
| Project District Phase II | Maui Planning Department | Application submitted to the Planning Department concurrent with the EIS. |
| Project District Phase III | Maui Planning Department | Application(s) to be submitted after Project District Phase II approval. |
| Subdivision Approval | Maui Planning Department | Application(s) to be submitted pending Project District Phase II approval. |
| National Pollutant Discharge Elimination System Permit | State DOH | Application to be submitted prior to Grading/Building Permits. |
| Grading/Building Permits | Maui Department of Public Works | Application to be filed after Project District Phase II approval. |
| Grading and Grubbing | Maui Department of Public Works | Application to be filed after Project District Phase III approval. |
| Drainage Approval | Maui Department of Public Works | Application to be filed after Project District Phase III approval. |
| Approval for Wastewater Reclamation Facility | State DOH | Application to be filed after Project District Phase II approval. |
| Permit to Perform Work within a State ROW | State Department of Transportation | Application to be filed after Project District Phase III approval. |
| Permit to Construct and Operate a Recycled Water Facility | State DOH | Application to be filed after Project District Phase III approval. |
| Incidental Take Permit/Incidental Take License | USFWS/DLNR | Application to be submitted to USFWS/DLNR |

### 1.8.5 Alternatives

The alternatives that have been considered are:

- No Action Alternative
- Residential Lot Subdivision Alternative
- More Workforce Housing Alternative
- Resort/Residential Community with Two Golf Courses Alternative
- Resort Residential Community with One Golf Course Alternative
- Postponing Action Pending Further Study Alternative
- 130-Acre Native Plant Preservation Area

Chapter 6 (Alternatives) contains discussion of the alternatives.

### 1.8.6 Cumulative and Secondary Impacts

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. Cumulative and secondary impacts resulting from Honuaʻula, along with other proposed South Maui development projects, include increased population and greater demands on public infrastructure systems and services. However, the population of the Kīhei-Mākena region is projected to grow and the needs of a growing population relating to traffic, infrastructure, public services, and other issues will need to be addressed regardless if some or all of these projects are built. Section 7.2 discusses cumulative and secondary impacts.

### 1.8.7 Rationale for Proceeding with Honuaʻula Notwithstanding Unavoidable Effects

In light of the above-mentioned potential impacts, Honuaʻula should proceed because adverse impacts can be mitigated and are offset by substantial positive factors, including:

- Compliance with the *Kīhei-Mākena Community Plan*, which designates the Property as "Project District 9" and the Project District 9 ordinance (Chapter 19.90A, MCC) which provides for a residential community consisting of single-family and multi-family dwellings complemented with village mixed uses, all integrated with an eighteen-hole golf course and other recreational amenities;
- Significant long-term community benefits provided by Honuaʻula in compliance with the conditions of zoning under County of Maui Ordinance No. 3554; and
- Significant economic benefits.

Section 7.4.1 (Rationale for Proceeding with Honuaʻula Notwithstanding Unavoidable Effects) elaborates on the rationale for proceeding with Honuaʻula notwithstanding unavoidable effects.

### 1.8.8 Unresolved Issue

**Wastewater –** Honua'ula Partners, LLC, will either transport wastewater to the Mākena WWRF for treatment or provide a WWRF on-site. The preferred alternative is to transport wastewater to the Mākena WWRF. Honua'ula Partners, LLC has had substantive discussions about this alternative with the Mākena WWRF owner, Mākena Wastewater Corporation, and they support the connection; however, formal agreements with Mākena Wastewater Corporation have not yet been finalized. Section 7.5 (Unresolved Issue) contains additional discussion. If formal agreements with Mākena Wastewater Corporation are not finalized, Honua'ula Partners, LLC will construct an on-site WWRF.

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# Chapter 2

## Honua‘ula Description

# 2 HONUAʻULA DESCRIPTION

## 2.1 BACKGROUND INFORMATION

### 2.1.1 Location and Property Description

The Honuaʻula Property is located in Kīhei-Mākena, Maui on the relatively gentle lower slopes of Haleakalā with Wailea Resort to the west (makai), Mākena Resort to the south, ʻUlupalakua 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 Piʻilani Highway ROW previously reserved for a planned extension of Piʻilani Highway to the Upcountry area. However, in their comment letter on the Draft EIS dated June 24, 2010 the State Department of Transportation (DOT) ~~is no longer planning to use the ROW for the extension of~~ stated that they now envision Piʻilani Highway "to possibly extend south past the Wailea Ike intersection toward the Makena area." Approximately 370 acres of the site are mauka of the ROW and 300 acres are makai.

Historically the Honuaʻula Property has been used for cattle grazing on a limited scale since the late 1800s. Limited cultivation of sweet potatoes also occurred on the Property. U.S. Army used the Property and other properties in the area as a training area during World War II. Presently the Property is vacant, except for two existing water wells, a 1.0 million gallon (MG) water tank, and a cellular phone tower in the Southwest corner of the property. The Property is secured by fences and gates.

A 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 and along the makai property line.

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

Elevations across the Property range from approximately 320 to 710 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 two-thirds of the Property are characterized as *kiawe*-buffelgrass grassland with extensive grassland comprised primarily of *kiawe* (*Prosopis pallida*) *and* buffelgrass (*Cenchrus ciliaris*). The southern third of the parcel is ʻaʻā land dissected by numerous gullies. The southern area is characterized mixed as *kiawe-wiliwili* shrubland that contains remnant native vegetation. Scattered groves of large-stature *wiliwili* (*Erythrina sandwicensis*) and *kiawe* trees co-dominate the upper story. Native shrubs, such as *ʻilima* and *maiapilo*, and the native vine *ʻānunu* (*Sicyos pachycarpus*), are represented in the understory. Introduced shrubs (e.g., *koa haole*, lantana, wild basil, and tree tobacco), and

introduced grasses (e.g., guinea grass, red natal) and introduced vines and herbaceous species dominate the ground vegetation. Figure 4 contains site photographs.
Current land use designations for the Honuaʻula Property are:

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

### 2.1.2 Surrounding Land Uses

Wailea Resort, west and makai of Honuaʻula, 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.

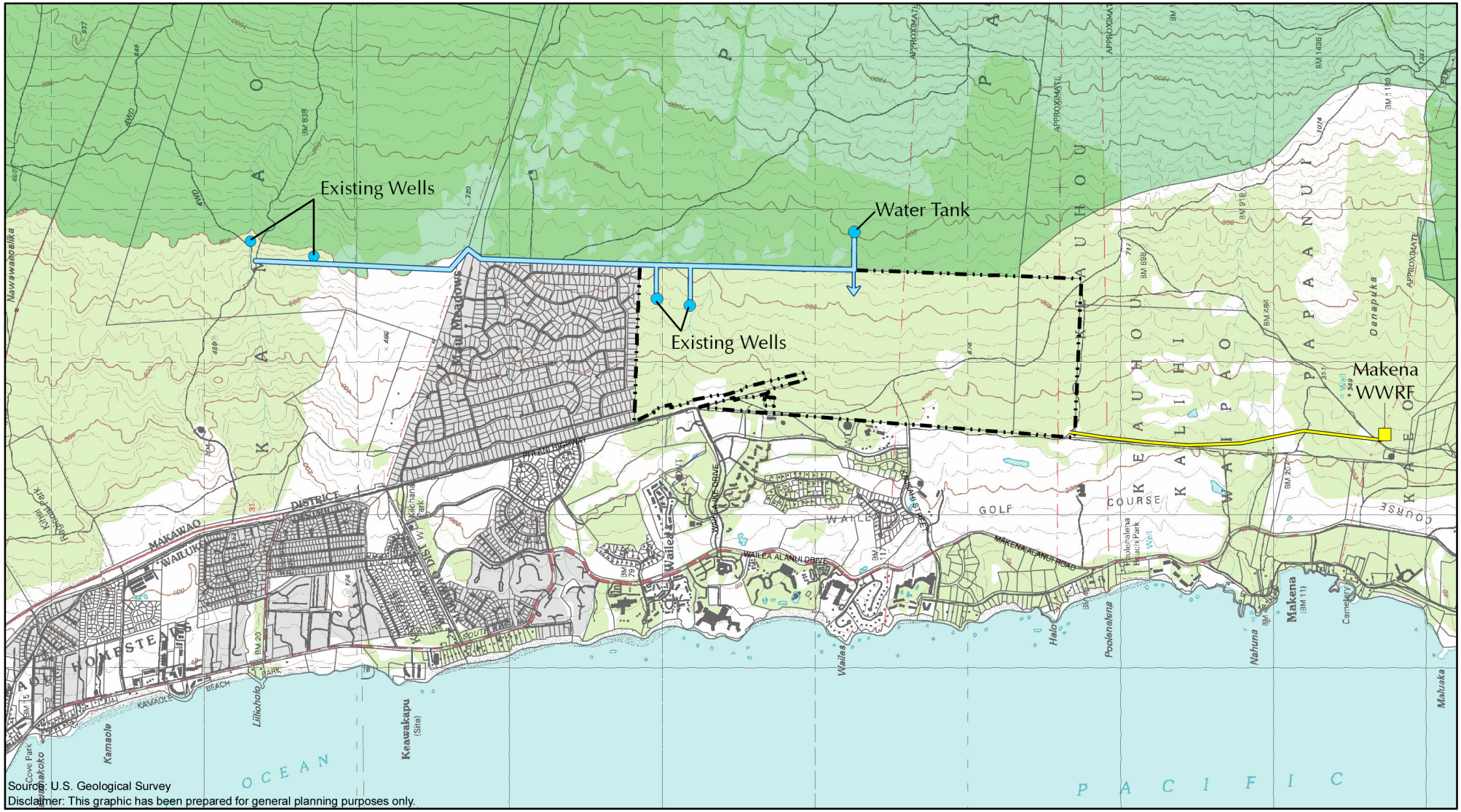
ʻUlupalakua Ranch, east and mauka of Honuaʻula, is Maui's second largest cattle ranch, sprawling across 20,000 acres of land that begins at the ocean and rises to 6,000 feet elevation. ʻUlupalakua Ranch has Maui's only winery and provides activities on its property such as horseback riding and sporting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

Maui Meadows subdivision, directly north of Honuaʻula, 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 (*moku*) of Honuaʻula), is located in the Kīhei-Mākena Community Plan region. There are 19 *ahupuaʻa* (land division) in this district, mostly narrow except the two at both ends, Paeahu and Kanaio.

Human settlement of the Honuaʻula *moku* dates back to pre-historic times and continues today. The Honuaʻula *moku* was a fishing and farming region from the beginning of its occupancy in early Hawaiʻi. A pattern of transience existed between coastal and inland areas (Chapman and Kirch 1979). Upland populations exchanged taro, bananas, and sweet potatoes with the coastal populations for ocean resources (Handy 1940). Trails linked permanent upland habitation areas to coastal areas. Temporary habitation sites, located along the trails were used by travelers from upland residences to the coast to




## LEGEND

- Honua'ula
- Water Well / Tank
- Proposed Water Lines
- Wastewater Reclamation Facility
- Proposed Wastewater Line
- Makawao - Pukalani - Kula Community Plan
- Kīhei - Makena Community Plan

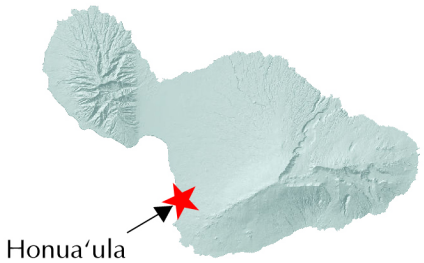



**Figure 2**

Regional Location

# Honua'ula

Honua'ula Partners, LLC

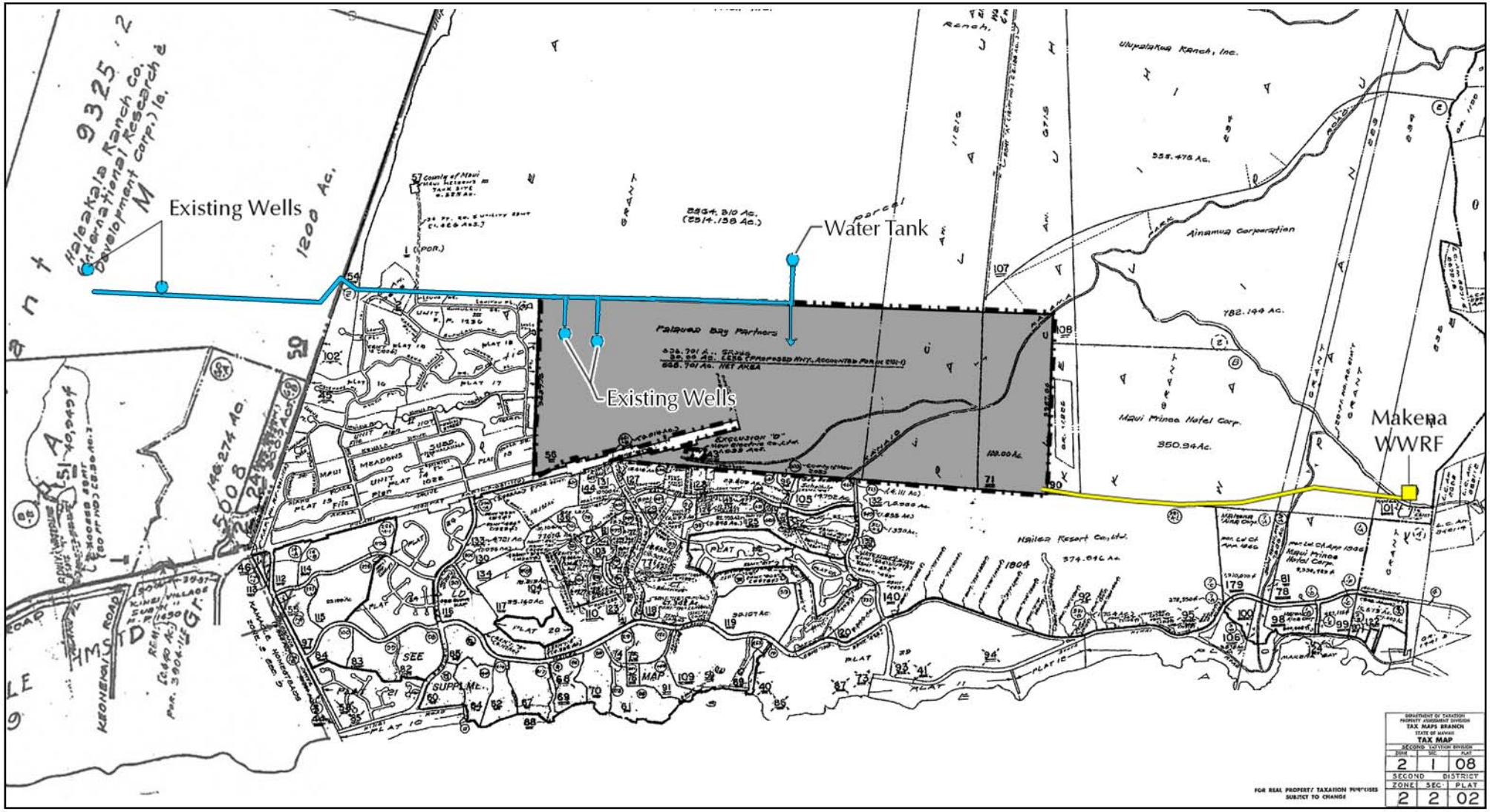
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.




## LEGEND

- Honua'ula
- Water Well
- Proposed Water Line
- Wastewater Reclamation Facility
- Proposed Wastewater Line


Source: Maui County (2009)
Disclaimer: This graphic has been prepared for general planning purposes only.

**Figure 3**

Tax Map Key

# Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

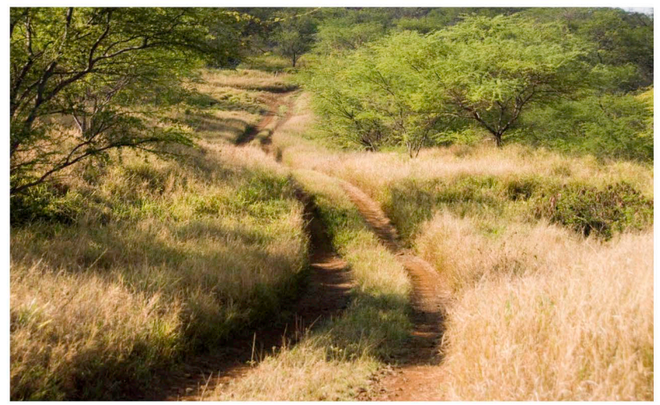
NORTH

NOT TO SCALE

PBR HAWAII & ASSOCIATES, INC.

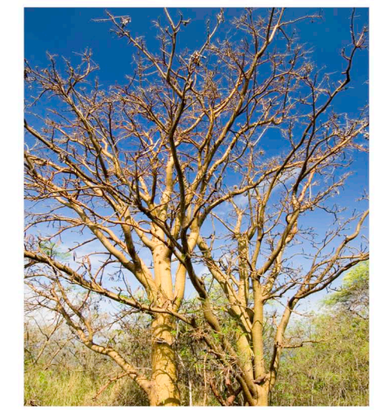
1. A view toward the ocean from the Honua'ula property.

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



3. Numerous jeep trails traverse the property.

4. A view toward Haleakalā.



5. Native Wiliwili trees on the property.

6. A view from the property looking south.

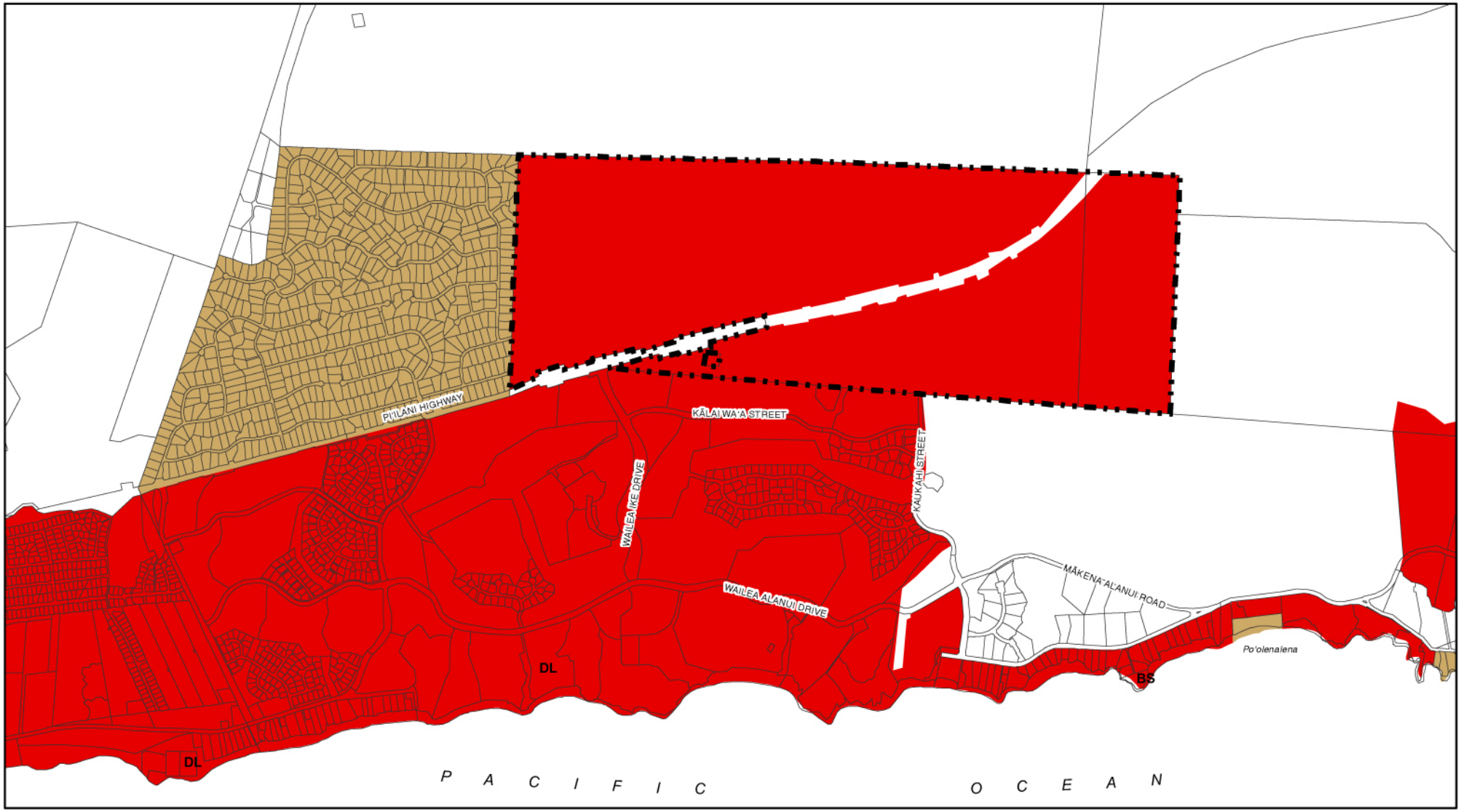
7. A section of the east-west rock wall in the southern portion of the property.

8. A native Maiapilo plant on the property.

**Figure 4**
Site Photographs
Honua'ula
Honua'ula Partners, LLC
Island of Maui

PBR HAWAII & ASSOCIATES, INC.

Photographs taken June 2007




## LEGEND

Honua'ula

**State Land Use District**

- Agriculture
- Rural
- Urban

**Figure 5**

State Land Use Districts

# Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

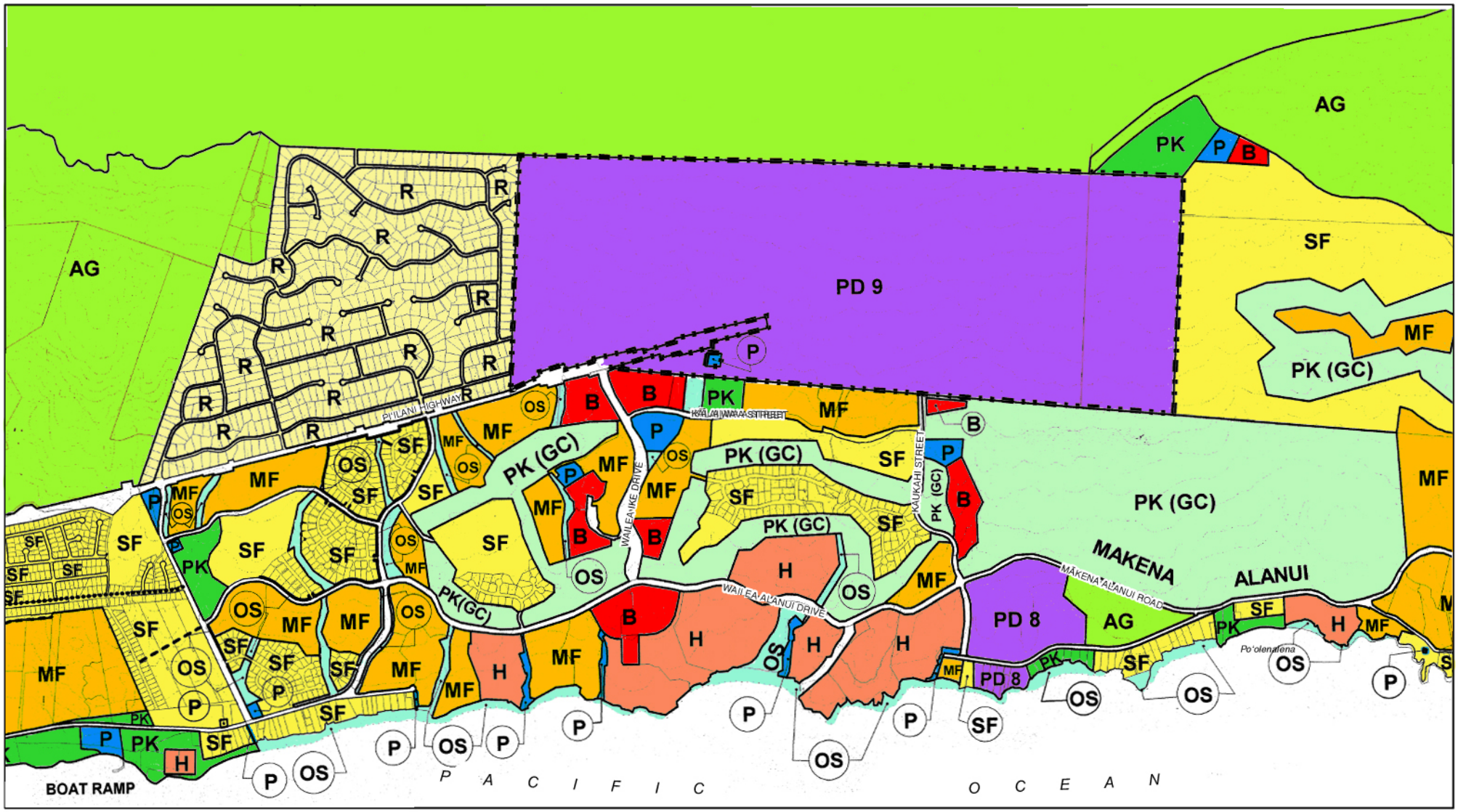
LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: State Land Use Commission (2008)

Disclaimer: This graphic has been prepared for general planning purposes only.




## 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

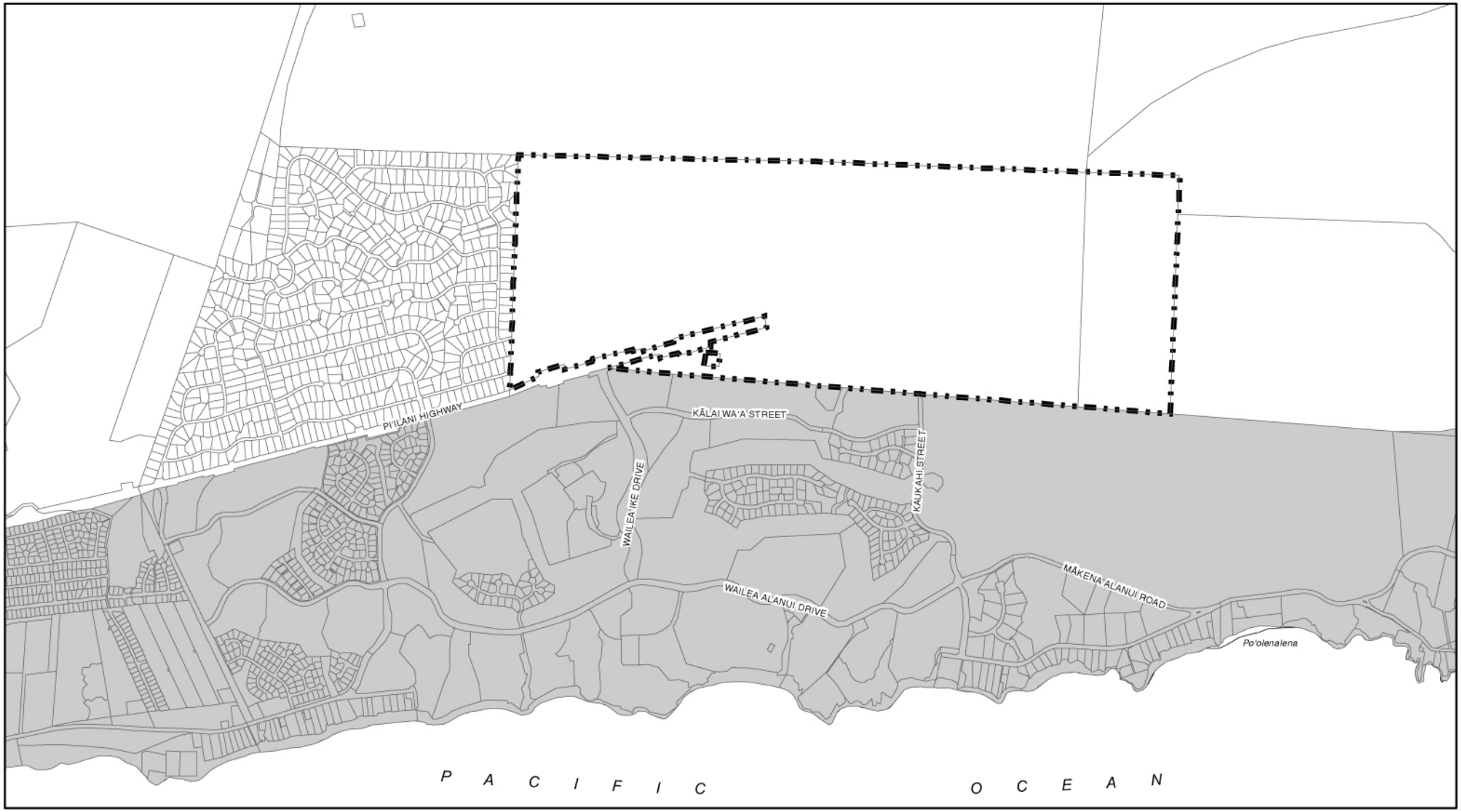
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.




## LEGEND

Honua'ula

**Special Management Area**

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.

gather seasonal marine resources. Recently, the presence of earlier permanent settlements on the coast has been discovered as well (Donham 1986 and Fredericksen 1999).

During the time of Kamehameha the Great, large quantities of sandalwood were harvested from mauka areas (Kula, Makawao, and Haleakalā). The mountains above Wailea then 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. Mākena Landing became the second busiest port after Lahaina as 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.

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 Kīhei coastline into a lush resort. Modern development of Kīhei began in the 1970s, and Kīhei has become one of the State's fastest-growing communities.

### 2.1.4 Honua'ula Property 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 areas. To implement this proposal, the former landowner obtained several State and County land use approvals for the Property, including:

- A Community Plan Amendment of the *Kīhei-Mākena Community Plan* pertaining to Project District 9 (Ordinance No. 2094, effective on April 3, 1992);
- Establishment of Chapter 19.90, Kīhei-Mākena Project District 9 (Wailea 670 Project District) in Title 19, MCC (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); and
- 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 revised 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, LLC acquired the Property, and 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 retained the vision for Project District 9 as envisioned in the *Kīhei-Mākena Community Plan*, but was significantly 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 July 2007, the Property was acquired by Honua'ula Partners, LLC, an entity comprised primarily of the same members as WCPT/GW Land Associates. Honua'ula Partners, LLC did not change the revised master plan and continued to process the applications previously prepared and submitted by WCPT/GW Land Associates.

In April 2008, following Maui County Council approval, the Mayor signed into law Honua'ula's Change in Zoning and Project District Phase I Approval requests in favor of the revised plan. As approved, 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 PURPOSE AND NEED

The purpose and intent of Honua'ula is to implement the Project District 9 ordinance (Chapter 19.90A, MCC) governing the Property, which establishes permissible land uses and appropriate standards of development for a residential community consisting of single-family and multi-family dwellings complemented with village mixed uses, all integrated with an 18-hole homeowner's golf course and other recreational amenities.

Honuaʻula also implements State and County planning policies for the Property that have been thought-out, studied, and advanced for over 20 years. Honuaʻula realizes and supports decisions regarding the use of the Property for residential, recreational, and commercial uses made by the State LUC, the Maui Planning Commission, and the Maui County Council, which were affirmed through a community-based process during the course of the most recent update of the *Kīhei-Mākena Community Plan*. Honuaʻula is also within the "urban growth boundary" of the current Directed Growth Maps of: 1) the Planning Department; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. As such, Honuaʻula realizes the vision for the Property that has been formulated and refined over the course of more than two decades.

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 Piʻilani Highway extension. A site for future public use should be provided in anticipation of need.* (County of Maui 1998)

As planned, Honuaʻula is consistent with the residential, recreational, and commercial uses envisioned in the *Kīhei-Mākena Community Plan* and under Chapter 19.90A, MCC regarding Project District 9.

Honuaʻula is needed to help fulfill the substantial unmet demand for housing, including workforce housing, in the Kīhei-Mākena region over the coming two decades. It is projected that demand for new residential units in the Kīhei-Mākena region will range from 7,000 to over 10,000 units over the next 22 years. Excluding Honuaʻula, a total of approximately 5,160 units are either currently unsold or planned in the region, resulting in a projected regional shortfall of 1,840 to 5,686 units. Therefore, Honuaʻula, with its housing units priced for a range of consumer groups, will serve to satisfy the unmet demand for housing in the Kīhei-Mākena region (Hallstrom 2009).

Honuaʻula is also needed for the significant economic benefits it will provide, which will contribute toward Maui's long-term prosperity. Honuaʻula is expected to infuse more than one billion dollars in capital investment into the Maui economy and create thousands of jobs during the projected 13-year construction and build-out period. After construction, Honuaʻula will provide hundreds of permanent jobs and contribute over seven million dollars in annual property tax revenue to the County of Maui (Hallstrom 2009).

### 2.2.1 Statement of Objectives

The objectives of Honuaʻula are rooted in the desire of Honuaʻula Partners, LLC to implement the *Kīhei-Mākena Community Plan* and create an appealing master-planned community with a variety of housing opportunities, village mixed uses, and abundant recreational amenities. Honuaʻula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

The objectives of Honuaʻula are to:

- Reflect community values to create a unique and compelling community in context with the Kīhei-Mākena region;
- Emphasize community development and create a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community;
- Integrate the golf course and recreational amenities with the different uses comprising the community;
- Preserve the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas, parks, and open space, as well as through excellence in landscaping and design;
- Make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community;
- Include buffer zones between residential areas and Piʻilani Highway;
- Integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community;
- Incorportate and preserve natural and cultural resources to maintain the physical and historic character of the Property, thereby creating a distinctive community for generations;
- Provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship; and
- Incorporate sustainability by design.

## 2.3 HONUAʻULA DESCRIPTION

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

Honuaʻula will reflect community values and feature distinctive architecture to create a unique and compelling community in context with the Kīhei-Mākena region. 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 Honuaʻula residents with a distinctive home for generations. In addition, the topography is a key defining feature of Honuaʻula, and one of the principal design and planning goals is to preserve and utilize this topography as much as possible.

Honuaʻula's integration of mixed land uses is a critical component of creating a true community. By locating commercial and retail establishments convenient to 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. Likewise, Honuaʻula'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 Honuaʻula 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, MCC.

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

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

In compliance with Chapter 19.90A, MCC, Honuaʻula 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 Honuaʻula's residential neighborhoods. Honuaʻula will include homes priced for a wide range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). The number of residences that may be constructed in Honuaʻula, together with any associated off-site residential workforce housing units, will not exceed 1,400. As required by County of Maui Ordinance No. 3554 (Condition 5), 250 of the required workforce affordable homes will be provided off-site at the Kaʻonoʻulu Light Industrial Subdivision, thus reducing the total number of homes on-site to 1,150.

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, with a minimum lot area of 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 10 units per acre or less, with a minimum lot area of 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 Honuaʻula residents and guests.

The intent of the Village Mixed Use sub-district is to create a 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 sub-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 commercial and retail uses within the Village Mixed Use sub-district will not exceed 100,000 square feet. The total land area of the Village Mixed Use sub-district will not exceed 53 acres.

Appendix A includes a conceptual site plan of the proposed VMX Town Center. The Town Center is currently proposed to contain approximately 75,000 square feet of commercial and retail uses. Approximately 25,000 square feet of additional commercial and retail uses are currently proposed within the golf clubhouse complex area (see below), which is also part of the Village Mixed Use sub-district.

### 2.3.3 Recreation and Open Space/Utility Sub-district

The Recreation and Open Space/Utility sub-district will be an integral part of Honua'ula and will include: the golf course and golf driving range; community and recreation centers; parks and playgrounds; a Native Plant Preservation Area and 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 will be 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; provided there will be no roads within the 100-foot buffer area between Maui Meadows and any multi-family units. The total area of the buffer will be at approximately 7.5 acres. Other major buffer areas will include areas bordering Pi'ilani Highway. Minimum twenty-foot wide landscape buffer areas will be provided for single-family and multi-family areas adjoining the Pi'ilani Highway extension corridor. The total area of buffers bordering the Pi'ilani Highway extension adjoining single-family and multi-family areas will be approximately 7.8 acres.

### 2.3.4 Native Plant Preservation Area & Native Plant Conservation Areas

To protect native plants, the Recreation and Open Space/Utility sub-district will include a Native Plant Preservation Area, which contains the highest density of representative native and indigenous plants found within Honua'ula. No development will be allowed within the Native Plant Preservation Area other than erecting fences, enhancing trails, and constructing structures for maintenance of the area. ~~Additional native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside on-site ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. In addition, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit. Section 3.6 (Botanical Resources) provides more details regarding the Native Plant Preservation Area and Native Plant Areas.

### 2.3.5 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 complex will be within the Village Mixed Use sub-district. In addition to housing a golf pro shop, the clubhouse complex will offer dining options and other commercial and retail uses, a full-service spa, and a wide range of recreational

amenities. Appendix A contains a conceptual site plan of the golf clubhouse complex. Approximately 25,000 square feet of commercial and retail uses are currently proposed within this clubhouse complex area.

The defining characteristic of the golf course will be spectacular ocean views from virtually every hole. Occupying approximately 110 acres, the golf course layout is carefully routed to minimize impacts to the land, incorporate existing lava formations, and preserve and provide areas for native plants. Vertical rock walls and lava will provide a backdrop to many of the holes. The golf course turf will be the latest variety of Paspalum, which is drought tolerant, can be irrigated with brackish water, and requires very few pesticides or herbicides.

### 2.3.6 Design Guidelines

To ensure an overall architectural theme as well as other design standards are established for Honua'ula, design guidelines have been prepared. The design guidelines cover various aspects of Honua'ula design with the overall goal of providing a framework so that a consistent character is achieved. Guiding principles and design objectives for Honua'ula within the design guidelines include:

- Adhering to the adopted Project District ordinance (Chapter 19.90A, MCC) and zoning requirements (Ordinance 3554 (2008)) and related development standards;
- Encouraging building forms that respect and maintain both the unique topographic and landscape character of each individual building site;
- Encouraging building designs that de-emphasize the scale and size of the structures where possible, expressed as a grouping of individual "pavilions" linked together by interior or exterior passages;
- Creating buildings that are appropriate to the climate, solar orientation, prevailing winds, and island lifestyle;
- Encouraging buildings that respect the view corridors of the buildings above them;
- Creating buildings composed of materials, textures, and finishes that exist naturally in the environment;
- Encouraging building designs that are simple, timeless, and permanent in execution;
- Encouraging buildings that respect local traditions, history, and culture; and
- Encouraging design sites and buildings that are sustainable and utilize "green" building strategies, where practical.

<u>In addition, Honua'ula Partners, LLC will implement the recommendations of the Urban Design Review Board (UDRB). At its regular meeting on June 1, 2010, the UDRB reviewed the design guidelines, landscaping, architectural plans, and related aspects of Honua'ula and provided the following recommendations:</u>

1. That consideration be given to incorporating sidewalks within project culdesacs and making bike paths and sidewalks more consistent from area to area;
2. That existing rock walls and stepping stone trails within the project site be incorporated in the project's design;
3. That consideration be given to incorporating recreational courts within the project; and
4. That the multi-family area closest to Maui Meadows on the northern boundary [i.e. southern boundary of Maui Meadows] of the site be limited to 30 feet. in height. The Planning Department notes that the allowable height for the Multi-Family subdistrict is four stories or 50 feet.

Appendix A contains the complete Honua'ula Design Guidelines. Appendix A also contains: 1) conceptual site plans of the proposed VMX town center and golf clubhouse facility; and 2) typical architectural renderings and elevations of proposed Honua'ula structures.

### 2.3.7 Circulation and Roadways

Pi'ilani Highway will provide primary access to Honua'ula from the intersection of Pi'ilani Highway/Wailea Ike Drive. At or before the completion of 50 percent of Honua'ula, Pi'ilani Highway will be extended south into the Property with two lanes from Wailea Ike Drive to connect with Kaukahi Street. Section 4.4 (Roadways and Traffic) provides more information on circulation and roadways.

Honua'ula will include a system of pedestrian and bike trails along the community's roadways, gulches, and drainage ways. This secondary circulation system of linked pedestrian/bike trails will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas and will provide residents a meaningful alternative to driving for traveling within the community. Section 4.3 (Trails and Access) provides more information on trail systems.

### 2.3.8 Water System

Honua'ula will not rely upon or burden any County water system or facilities. Instead, Honua'ula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honua'ula. Non-potable water will be used for all irrigation purposes. Figure 2 shows the location of Honua'ula's existing and proposed off-site water infrastructure, which includes wells, a waterline, and a storage tank. The existing off-site wells and any new off-site wells will be connected to Honua'ula by an underground water line running roughly parallel to the upper boundary of Maui Meadows in an unpaved easement approximately 30 feet in width. The 30-foot easement width allows for access and maintenance parallel to the underground transmission line. Section 4.8.1 (Water System) provides more information on the water system.

### 2.3.9 Wastewater Treatment

Honuaʻula will not rely upon or burden any County wastewater system. Instead, Honuaʻula Partners, LLC will either connect to the private Mākena WWRF approximately one mile south of Honuaʻula or build a private on-site WWRF. Figure 2 shows the location of the proposed wastewater alignment for possible connection to the Mākena Resort WWRF. The alignment provides for underground wastewater transmission and R-1 return lines within an unpaved easement approximately 30 feet in width. The 30-foot easement width allows for access and maintenance parallel to the underground lines. Section 4.8.2 (Wastewater System) provides more information on the proposed wastewater system.

### 2.3.10 Off-Site Roadway Improvements

As a condition of the County of Maui Ordinance No. 3554 (Condition 2), Honuaʻula Partners, LLC will contribute to significant off-site roadway improvements in the vicinity of Honuaʻula. These off-site roadway improvements include:

- Upgrade Piʻilani 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 Piʻilani 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 Honuaʻula and will be maintained by Honuaʻula Partners, LLC, its successors and permitted assigns;
- Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive prior to occupancy of the first unit in Honuaʻula (Kīhei-Mākena Project District 9);
- Modify the Piʻilani Highway/Wailea Ike Drive intersection into a signalized intersection and provide a free right-turn lane from Piʻilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway prior to occupancy of the first unit in Honuaʻula (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 Honuaʻula (Kīhei-Mākena Project District 9);
- Modify the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Mapu Place prior to occupancy of the first unit in Honuaʻula (Kīhei-Mākena Project District 9);
- Signalize the Wailea Ike Drive/Kālai Waʻa Street intersection in coordination with Wailea Resort and Mākena Resort when warranted; and
- Signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.

For more information on the widening of Pi'ilani Highway see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Pi'ilani Highway Widening Project Final EA.

For more information on the Wailea Ike Drive and Wailea Alanui Drive intersection improvements see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA.

## 2.4 HONUA'ULA SCHEDULE

The creation of Honua'ula is expected to commence after Project District Phase II and III applications are approved. Full build-out is currently expected within 13 years. Based upon current forecasts, the initial period of building and occupancy of Honua'ula is expected to extend to 2016. By 2018 two-thirds of the community is expected to be built and occupied, and by 2022 Honua'ula is expected to be fully built-out.

## 2.5 ENVIRONMENTALLY-RESPONSIBLE PLANNING AND DESIGN

Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, such as the use of solar energy and solar heating, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council (i.e. the Leadership in Energy and Environmental Design (LEED) rating systems), the Hawaii Commercial Building Guidelines for Energy Star, Green Communities, or other similar programs, into the design and construction of Honua'ula. Honua'ula Partners, LLC will also: 1) encourage lot purchasers to design houses that meet at least the minimum requirements of one of the aforementioned programs; and 2) provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.

### 2.5.1 OEQC's Sustainable Building Design Guidelines

The 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;
- 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; and

  - 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; and
- 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 Energy Efficiency

**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. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.

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.

**Hot Water Systems**

All residential units (single-family and multifamily) will 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 unit.

### Heating and Air Cooling

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.

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# Chapter 3

## Description of the Natural Environment, Potential Impacts & Mitigation Measures

# 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.

## 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 from about 63°F to 86°F. Average rainfall distribution for the region varies from under 10 inches per year along the coastline to more than 20 inches per year in higher elevations. Rainfall in the Kīhei-Mākena region is highly seasonal, with most of the precipitation occurring during winter months (Maui County Data Book, ~~2008~~ 2010).

Northeast tradewinds prevail approximately 80 to 85 percent of the time. Tradewinds originating from the northeast average 10 to 15 miles per hour (mph) during afternoons, with slightly lighter winds during mornings and nights. Between October and April, the southerly winds of Kona storms may be experienced (Maui County Data Book, ~~2008~~ 2010)

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

No significant impacts to the region's climate are anticipated. Modification of the Property's specific microclimate may occur from the planting of shade trees and other landscape elements.

## 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'ā 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'ā basalt. The clinkery material is generally unconsolidated and loose to medium dense in its natural condition. Exposures of massive 'a'ā 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 crossed by numerous small ephemeral dry gulches that define drainage areas and convey on-site and off-site stormwater run-off during storms. Modifications to gulches are constrained by flood hazards and drainage improvements previously installed downstream within Wailea. The gulches are inundated infrequently during periods of unusually heavy and prolonged rainfall. ~~Because of the ephemeral nature of the gulches, Honua'ula Partners, LLC's biological consultant, SWCA Environmental Consultants, concludes that the gulches are not considered traditional navigable waters.~~ The Department of the Army, United States Corps of Engineers has determined that the Property does not contain any navigable waters or other waters of the United States; therefore a Department of Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404) is not required for any proposed or future work.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

Grading will be necessary to accommodate Honua'ula; however adverse impacts to topography and landforms are not anticipated. The topography is a key defining feature of Honua'ula, and one of the principal design and planning goals is to preserve and utilize this topography as much as possible. To the extent practicable, improvements will conform to the contours of the land to retain the existing rolling topography and natural drainageways and limit 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 (see Section 3.4 below). All ground-altering activity will be conducted in accordance with Chapter 20.08, MCC (Soil Erosion and Sedimentation Control). Grading plans will attempt to balance excavation and embankment quantities to the extent practicable.

## 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 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 Kauaʻi, Oʻahu, Maui, Molokaʻi, and Lānaʻi* classifies the soils at the Property area into four soil types of two soils associations: Keawakapu-Mākena association and Kamaʻole-Oanapuka association. The USDA-SCS designates the four on-site soil types as: 1) Oanapuka, very stony loam (OAD); 2) Very Stony Land (rVS); 3) Mākena Loam, stony complex (MXC); and 4) 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 Kamaʻole. 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. The Mākena part is in capability classification VIs, nonirrigated; the 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 ʻaʻā lava that has a thin covering of volcanic ash that locally extends deep into cracks and depressions. The slope ranges from 7 to 30 percent and occurs in very steep gulches. Capability classification is VIIs, nonirrigated.

<u>In their comment letter on the Draft EIS dated June 1, 2010, the USDA Natural Resources Conservation Service stated:</u>

- <u>*In review of this project site location it was found that no Prime or other Important Farmlands exist. With this acknowledged there will not be any farmland conversion impacts to this site or the necessity to complete a Farmland Conversion Impact rating form (AD-1006).*</u>

- *The soil mapping does not identify any hydric soils in this project area. Hydric soils indentify potential areas of wetlands.*
- *The soil reports* [attached with the USDA-SCS Natural Resources Conservation Service letter, see Appendix AA] *provide selected soil properties and interpretations: Dwellings without Basements, Local Roads and Streets, soil layers with USDA textures, and engineering classifications. The limitation ratings for Dwellings W/O Basements range from moderate to severe. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increased costs, and/or continued maintenance.*

### 3.3.2 LSB Detailed Land Classification

The LSB's *Detailed Land Classification, Island of Maui* (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 LSB, 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 LSB system.

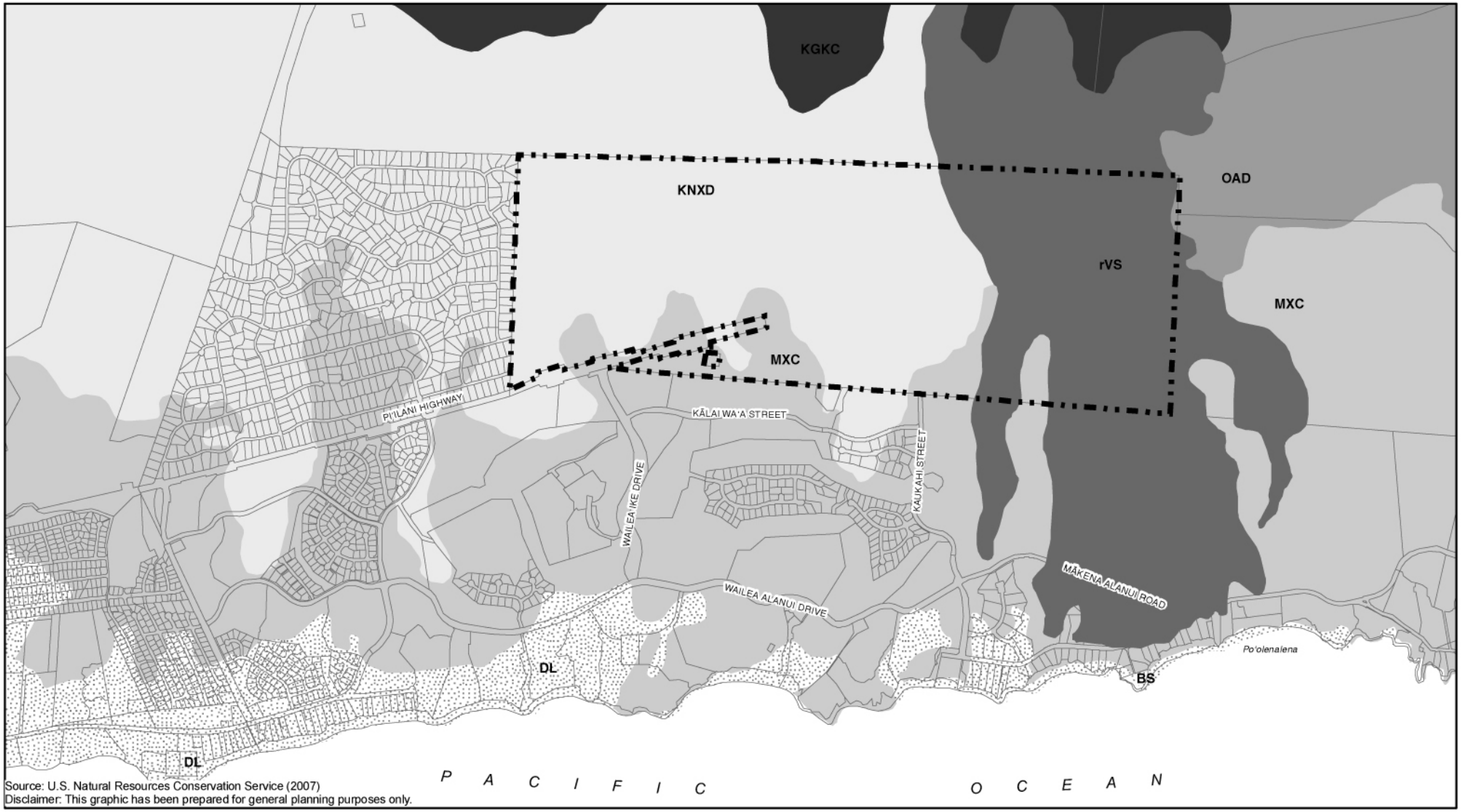
### 3.3.3 Agricultural Lands of Importance to the State of Hawai'i

The site is not classified under the State of Hawai'i Department of Agriculture's 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 classified as: 1) very stony; 2) very rocky; 3) extremely stony; or 4) 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 some land disturbance, including removal of existing vegetation (clearing and grubbing) and grading. Impacts to the soils include the potential for soil erosion and the generation of dust during construction. Clearing and grubbing activities will temporarily disturb the soil retention values of the existing vegetation and expose soils to erosional forces. Some wind erosion of soils could occur without a proper watering and re-grassing program. Heavy rainfall could also cause erosion of soils within disturbed areas of land.




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

## LEGEND

Honua'ula Boundary

**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

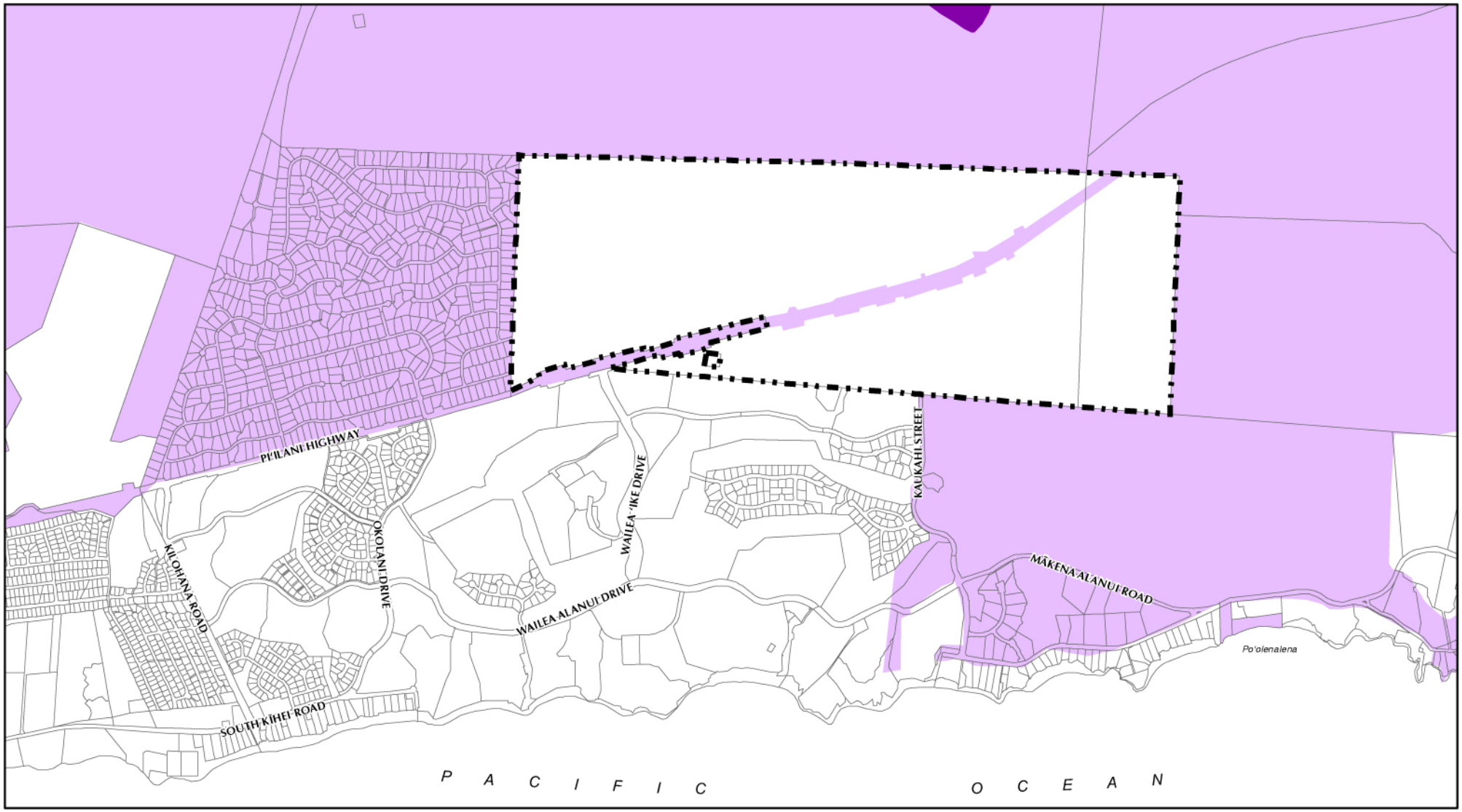
ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.




## LEGEND

Honua'ula

**Classification**

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

**Figure 9**

Detailed Land Classification

# Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

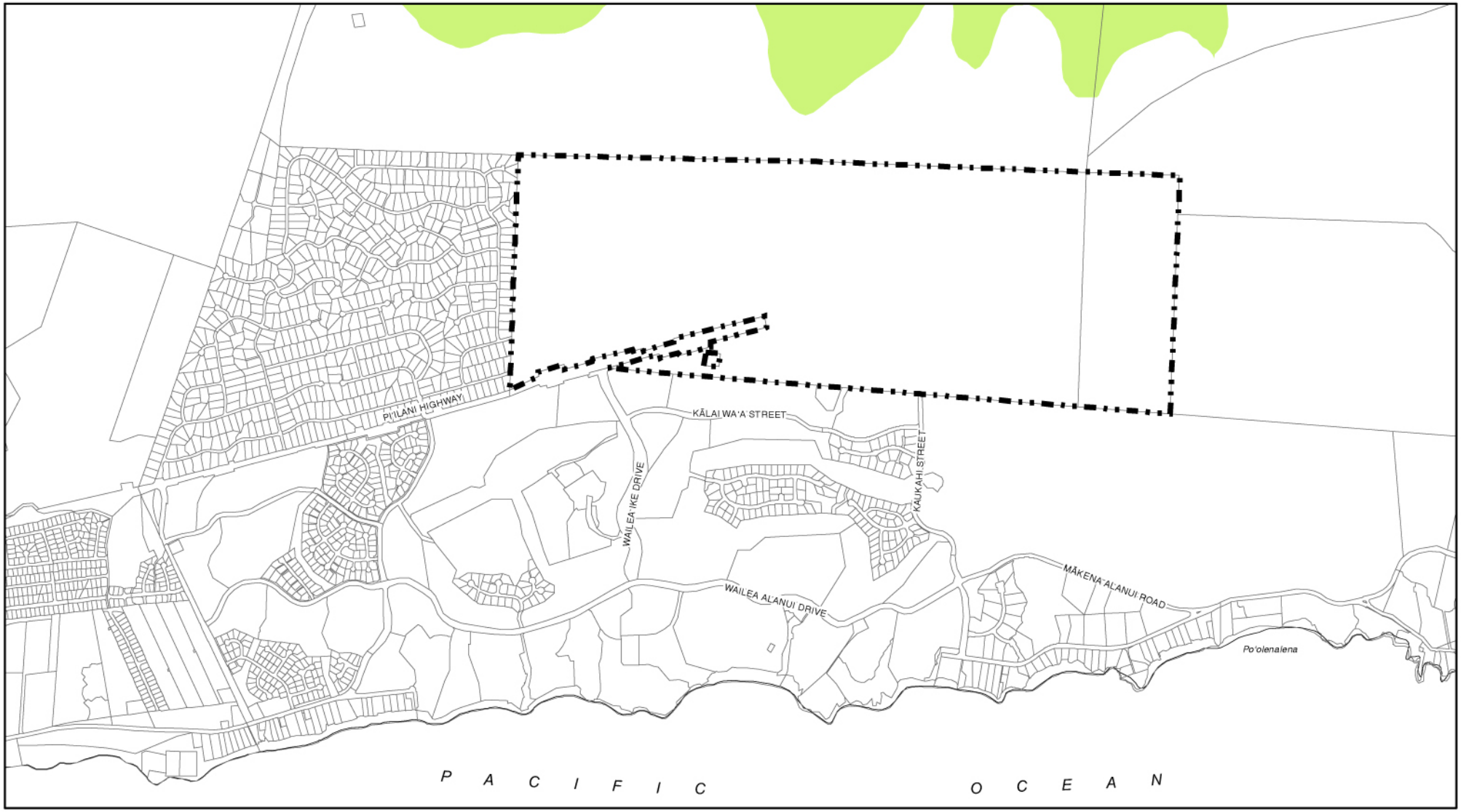
LINEAR SCALE (FEET)

0 1,000 2,000 4,000

PBR HAWAII & ASSOCIATES, INC.

Source: Office of Planning (1998)

Disclaimer: This graphic has been prepared for general planning purposes only.




## LEGEND

Honua'ula

**ALISH Classification**

- 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.

All construction activities will comply with all applicable Federal, State, and County regulations and rules for erosion control. Appropriate engineering, design, and construction measures will be undertaken to minimize potential erosion due to grading of soils during construction. To minimize potential impacts, necessary grading will be segmented and exposed areas will be immediately grassed or landscaped before commencement of grading in the next phase, in compliance with Chapter 20.08, MCC (Soil Erosion and Sedimentation Control). Measures to control erosion during the site development period will include:

- Minimizing the time of construction;
- Retaining existing ground cover as long as possible;
- Constructing drainage control features early;
- Using temporary area sprinklers in non-active construction areas when ground cover is removed;
- Providing a water truck on site during the construction period to provide for immediate sprinkling, as needed;
- Using temporary berms and cut-off ditches, where needed, for control of erosion;
- Watering graded areas when construction activity for each day has ceased;
- Grassing or planting all cut and fill slopes immediately after grading work has been completed; and
- Installing silt screens, where appropriate.

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 for stormwater associated with construction activity will be necessary. Before issuance of a grading permit by the County of Maui, the final erosion control plan and Best Management Practices (BMPs) required for the NPDES permit will be completed and submitted. BMPs to minimize erosion and the discharge of other pollutants may include use of silt fences, sediment traps, and diversion swales. After construction, the establishment of permanent landscaping will provide long-term erosion control.

In complying with Chapter 20.08, MCC (Soil Erosion and Sedimentation Control) and the provisions of the NPDES permit, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554 (Condition 18i) which requires compliance with Condition 12 of the State DOH's "12 Conditions Applicable to All New Golf Course Development" concerning soil runoff during construction, consultation with the USDA-SCS, and obtaining a NPDES permit.

## 3.4 NATURAL HAZARDS

Maui is susceptible to potential natural hazards, such as flooding, tsunami inundation, hurricanes, earthquakes, and wildfires. The State of Hawai'i Department of Defense, Office of Civil Defense operates a system of civil defense sirens throughout the state to

alert the public of emergencies and natural hazards, particularly tsunamis and hurricanes. The closest siren to the Property is to the west and makai of Wailea Alanui Drive next to the Four Seasons Resort. Another existing siren is southwest of the Property on Mākena Road near the Wailea Golf Course. The range of these sirens does not reach to the area of the Property.

### 3.4.1 Flood

According to the revised Flood Insurance Rate Map (FIRM) dated September 25, 2009, prepared by the Federal Emergency Management Agency, National Flood Insurance Program, ~~a majority of~~ the Property is located in Zone ~~C~~ X, which is outside of the 500-year flood plain in an area of minimal flooding (Figure 11). The National Flood Insurance Program does not regulate developments within Zone X.

### 3.4.2 Tsunami

Honuaʻula is located outside of the tsunami inundation zone.

### 3.4.3 Hurricane

Records show that strong wind storms have struck all major islands in the Hawaiian Island chain since the beginning of history. The first officially recognized hurricane in Hawaiian waters was Hurricane Hiki in August of 1950. Since 1980, two hurricanes have had a devastating effect on Hawaiʻi: Hurricane ʻIwa in 1982 and Hurricane ʻIniki in 1992.

### 3.4.4 Earthquake

In Hawaiʻi, 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 Hawaiʻi, 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 (Hawaiʻi Island) on October 15, 2006. On Maui these earthquakes caused a closure of the Paʻihi 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.

### 3.4.5 Wildfires

Currently, vegetation on the Property includes ~~kiawe/buffel grass~~ non-native buffel grass (*Cenchrus ciliaris*), non-native kiawe trees (*Prosopis pallida*), native wiliwili trees (*Erythrina sandwicensis*), and a dense understory of native ʻilima shrubs (*Sida fallax*).


## LEGEND

Honua'ula

**Zone Designations**

**X** Areas determined to be outside the 0.2% annual chance flood (no shading)

**A1-A30** Areas of 100-year flood; base flood elevations and flood hazard factors determined

**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 0676, 0677, 0678, 0679 FIRM Index Date September 25, 2009
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.

~~Kiawe/buffel~~ Buffel grass, which is the most common grass on the Property, can easily carry fire.

Human carelessness is the number one cause of fires in Hawaiʻi. In Maui County the number of wildfires has increased from 118 in 2000 to 271 in 2003. Human error combined with the spread of non-native invasive grasses, shrubs, and trees, has led to an increased susceptibility to wildfires. According to Maui Fire Department data, Kīhei-Mākena's susceptibility of wildfire is high. Between 2005 and 2010 there were 201 wildfires in the Kīhei-Mākena area. The majority of those fires were of undetermined cause, 32 were caused by operating equipment, four were from a type of arch or flame, five were caused by fireworks, and five were from smoking materials. Approximately 2,180 acres were burned during this five-year period.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The occurrence of natural hazards cannot be predicted, and should one occur, it could pose a risk to life and property. Honuaʻula, however, will neither exacerbate any natural hazard conditions nor increase the Property's susceptibility or exposure to any natural hazards.

Due to its location and elevation, the probability of the Property being affected by flooding or tsunami is minimal. However, to protect against natural hazards, including earthquakes and wildfires, all structures at Honuaʻula will be constructed in compliance with requirements of the Uniform Building Code (UBC), and other County, State, and Federal standards. Fire apparatus access roads and water supply for fire protection will be provided in compliance with the Uniform Fire Code.

The creation of Honuaʻula will mitigate the potential for wildfires on the Property through its landscape design and plant palette. In large part, vegetative fuel for fires, such as non-native kiawe trees and buffel grass, will be replaced by buildings and landscaping of the community, thereby decreasing the Property's susceptibility to wildfires. Honuaʻula Partners, LLC will implement a fire control program in coordination with the Maui County Department of Fire and Public Safety and resource agencies, which will include firebreaks to help protect native plant preservation and conservation areas (see Section 3.6, Botanical Resources) to insure the success of plant propagation and conservation efforts. Buffer areas between Honuaʻula and Maui Meadows and along Piʻilani Highway will also act as fire breaks, as will the golf course. Other fire mitigation measures include the use of lava rock and other non-flammable materials in building and landscaping, and creating a trail system, which will act as a fire break.

The USFWS recommends fire suppression resource response by fire engines and heavy equipment be within the first 45 minutes of fire ignition. The Maui Fire Department is responsible for fire suppression in the district. The fire station nearest Honuaʻula is the newly built Wailea Fire Station located at the intersection of Kilohana Drive and Kapili Street between Piʻilani Highway and South Kīhei Road, less than five minutes away. The

Wailea Station is approximately one half mile from the Property and is equipped with a 1,500 gallon per minute apparatus, a 95-foot mid-mount ladder truck and a 3,500 gallon water tanker truck. In addition, an emergency helipad and fuel dispensing station is located mauka of the fire station (see Section 4.10.3 (Fire) for information regarding fire control and response).

To help address the growing need for fire prevention and emergency services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honuaʻula Partners, LLC will provide the County with two acres of land that has direct access to the Piʻilani Highway extension for the development of fire control facilities within the Honuaʻula's Village Mixed-Use sub-district. This land will be donated at the time 50 percent of the total unit/lot count has received either a certificate of occupancy or final subdivision approval. The land provided will have roadway and full utility services provided to the parcel.

Impacts from natural hazards can be further mitigated by adherence to appropriate civil defense evacuation procedures. Honuaʻula will coordinate with the State of Hawaiʻi Department of Defense, Office of Civil Defense and the County of Maui Civil Defense Agency regarding civil defense measures, such as sirens, necessary to serve Honuaʻula.

## 3.5 GROUNDWATER RESOURCES AND WATER QUALITY

### 3.5.1 Groundwater

Tom Nance Water Resource Engineering (TNWRE) conducted an assessment of the potential impact on groundwater resources from the creation of Honuaʻula. Information and conclusions from the assessment are summarized below. The complete assessment report is included in Appendix B. In response to a request from the Maui Planning Commission, TNWRE prepared a supplemental report which contains data for all wells in the Kamaʻole Aquifer available from the CWRM. Information from this supplemental report is summarized below. The complete supplemental report is also included in Appendix B. In their letter commenting on the Draft EIS dated May 20, 2010, CWRM stated that the Draft EIS "thoughtfully discusses groundwater and surface water issues." The complete CWRM letter is included in Appendix AA.

The Property and the wells that will supply the Property are located in the Kamaʻole Aquifer System. The system comprises a triangular-shaped area of approximately 89 square miles, with its apex at the top of Haleakala and its base along the 11-mile length of shoreline from Waiakoa Gulch on the north to Cape Kīnaʻu on the south. The Waiakoa Gulch boundary of the aquifer is coincident with the Wailuku-Makawao district boundary, but is otherwise of no known hydrologic significance. The southern boundary of the aquifer is the southwest rift zone of Haleakala, which is likely to be a barrier to groundwater flow. Groundwater in the Kamaʻole Aquifer exists as a basal lens from the shoreline as far inland as the 1,700-foot contour. The direction of groundwater flow in the basal lens is mauka to makai.

The Property, located toward the western and southern end of the Kama'ole Aquifer, is generally semi-arid, with rainfall averaging about 18 inches per year. Because of the relatively dry conditions on and above the Property, there are no perennial streams on the Property or in the vicinity. Runoff occurs in the mauka-to-makai gulches which cross the Property only during, and for a short time following, intense rainfall events.

In 1990, the CWRM set the sustainable yield of the Kama'ole Aquifer at 11 million gallons per day (MGD). This was based on a computed groundwater recharge of 25 MGD and the assumption that 44 percent of the recharge could be withdrawn by wells without adversely impacting the integrity of aquifer. However, several far more detailed and sophisticated studies on the aquifer's recharge have been completed since then (USGS 1999; Waimea Water Services Inc. 2004; USGS 2007). These studies indicate that the recharge amount on which the CWRM's sustainable yield is based is substantially underestimated; the actual sustainable yield of the aquifer may be as much as 50 percent greater than the 1990 CWRM estimate. The most recent of these studies—which is considered to be the most reliable—estimates the groundwater flowrate to be 3.4 MGD per mile, which is the rate used by TNWRE in analyzing impacts to groundwater (TNWRE 2010a).

According to CWRM records, there are a total of 134 wells within the Kama'ole Aquifer System, many of which are more than 60 years old and no longer in use. Of the 134 wells, 43 are known or presumed to be in use, 47 are no longer in use or do not draw from the basal lens, and 44 are of unknown status relative to their use (TNWRE 2010b). Current actual aquifer pumpage is estimated to be approximately 4.0 MGD (TNWRE 2010a; TNWRE 2010b).

Examination of CWRM data shows that reporting of chlorides and water levels to CWRM is minimal. Only three of the 43 wells in the aquifer that are known or presumed to still be active are presently reporting this information. For wells for which TNWRE has independent data, chloride levels have been stable for a decade of monthly sampling.

No well has been drilled to sufficient depth through the basal lens to define the depth and character of transition zone anywhere in the aquifer. However, what is known or can be reasonably surmised regarding the transition zone is that:

- Groundwater levels along the 1,700-foot contour are approximately six feet above sea level; therefore, the midpoint of the transition zone below the 1,700-foot contour would be approximately 240 feet below sea level;
- Wells along or just below the 600-foot contour have water levels from 2.6 to 3.1 feet above sea level, indicating a midpoint of the transition zone below the 600-foot contour between 100 and 125 feet below sea level; and
- The stability of the transition zone, although not directly measured, can be inferred from the stability of chlorides pumped by wells. The most accurate and complete data of chlorides for the region shows stable chloride levels for a decade.

The Underground Injection Control Line[2], as established by the State DOH, is located approximately along the 600-foot elevation contour, above the majority of the Property.

Currently, Honua'ula has four brackish wells. Two of these are on the Property (Wailea 670 1 and 2). The other two are off-site (Kama'ole 1 and 2) in an area north of Maui Meadows and on land owned by Haleakalā Ranch. The total safe yield of the four wells, with one as standby, is 1.3 MGD (TNWRE 2010a). All of the wells are within the Kama'ole Aquifer System and are fully permitted by CWRM.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

#### Water Resources

Four aspects of Honua'ula have the potential to impact water resources: 1) use of groundwater for potable consumption and landscape irrigation; 2) generation, treatment, and reuse of domestic wastewater; 3) increase in surface water runoff; and 4) percolation of excess landscape irrigation to groundwater. Potential impacts to groundwater may occur in two geographically distinct areas: 1) beneath and downgradient of the Property itself; and 2) downgradient of Honua'ula's off-site wells.

**Use of Groundwater** – Honua'ula's potable and irrigation water supply will be provided by brackish wells. As noted above, four of these wells have already been developed: two are on the Property (Wailea 670 Wells 1 and 2); and the other two are off-site (Kama'ole Wells 1 and 2) in an area north of Maui Meadows. All of the wells are fully permitted by CWRM. Honua'ula's total average groundwater use at full build-out is projected to be approximately 1.7 MGD. To provide for summertime maximum use periods and to have standby capacity, two more wells will be needed. Depending on actual water use rates that materialize, a third new well may or may not be needed as Honua'ula approaches build-out. For more information on Honua'ula's water system, see Section 4.8.1 (Water System).

Honua'ula spans a 1.9-mile length of coastline mauka of the shoreline. Assuming a lateral dispersion on the order of 10 degrees, Honua'ula's potential impacts on groundwater may occur across a 2.3-mile section of the shoreline. The existing groundwater flowrate discharging into the marine environment in this area is estimated to be on the order of 7.8 MGD.

Five of Wailea Resort's nine golf course irrigation wells are within this downgradient and lateral zone. According to CWRM records, the draft of these wells is approximately 1.4 MGD as a year-round average. However, because Wailea Resort's Well 2 (No. 4126-02)

[2] Underground Injection Control Line (UIC) means the line on the DOH Underground Injection Control maps which separates exempted aquifers and underground sources of drinking water (Section 11-23-03, HAR).

is nearly directly downgradient from Honuaʻula's on-site wells, it is the only well in which there may be a potential increase in salinity due to the potential decrease of groundwater flow being taken up by the on-site Honuaʻula wells. Decreased pumping of Honuaʻula's on-site wells would alleviate this potential impact.

Honuaʻula's well system, with on-site and off-site wells, was specifically engineered to minimize impacts to Wailea Resort's golf course irrigation wells. Honuaʻula's two on-site wells are fully permitted by CWRM and have been in place for nearly 20 years; however they cannot supply all water needed for Honuaʻula. Rather than drill additional wells on-site, which could lead to potentially adverse impacts to Wailea Resort's downgradient wells, Honuaʻula's off-site wells will draw from groundwater flows removed from Wailea Resort's wells, in an area north of Maui Meadows that has far less downgradient water withdrawals. The use of this off-site water within Honuaʻula lessens the need for groundwater withdrawals from on-site Honuaʻula wells, thus preserving more groundwater flow to the downgradient Wailea Resort wells.

Honuaʻula's off-site wells, located north of Maui Meadows, and potential new wells in the same area, span an 0.8-mile long length at about the 580-foot elevation and have the potential to impact groundwater flow along an approximate 1.4-mile long shoreline segment. The existing groundwater flow rate discharging into the marine environment in this area is estimated to be on the order of 4.8 MGD. Use of Honuaʻula's off-site wells is calculated to reduce this flow rate by approximately 27 percent.

Based on CWRM records, there are 20 wells in this downgradient and lateral zone. Most of these wells are more than 50 years old and are no longer in use. However, at least six are relatively recent (installed since the 1990s) and were developed to provide brackish landscape irrigation water for condominium parcels. The total draft of these wells is likely to be in the range of 0.12 to 0.30 MGD as a year round average. With the use of Honuaʻula's off-site wells, the active downgradient irrigation wells may be impacted by a potential increase in salinity due to reduced flowrate, which current calculations indicate may be on the order or five percent. If the actual impact materially impairs the utility of the downgradient landscape irrigation wells, additional wells (pumping the same combined amount of water) in the area north of Maui Meadows to distribute the draft over a greater area would alleviate the impact so that the utility of downgradient wells is not materially impaired.

**Wastewater Generation, Treatment, and Reuse** – Two alternatives are being considered for treatment of Honuaʻula's wastewater: 1) develop, maintain, and operate a private on-site WWRF; or 2) transport wastewater to the Mākena WWRF for treatment and return the treated effluent to Honuaʻula for irrigation use. With either alternative, wastewater will be treated to R-1 quality and used for golf course irrigation. Potential impacts related to use of R-1 water for irrigation are discussed in the discussions below regarding percolation to groundwater and summary of impacts. For more information on Honuaʻula's wastewater system see Section 4.8.2 (Wastewater System).

**Collection and Detention of Rainfall Runoff** – Honua'ula will use detention basins so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. Of the 18 inches of average annual rainfall received on the Property, it is assumed that one-third of the rainfall percolates to groundwater and the remaining two-thirds evaporates to the atmosphere or becomes runoff.

Runoff will be stored in 26 detention basins located on the Property in low lying areas, within the golf course, or along the makai Property boundary. Each of the detention basins will have a drainage outlet consisting, in part, of a vertical perforated pipe within a gravel mound which will act as a filter. In addition to reducing the peak runoff rate by detention storage, this configuration will also capture floatables and suspended solids in the basin, thus reducing sediments in the water released from the detention basins. With the use of detention basins, the peak rate of runoff leaving the Property will not increase over current conditions and seepage of water into the ground from the detention basins will actually increase the amount of percolation to groundwater. Potential impacts regarding percolation to groundwater are discussed below. For more information on Honua'ula's drainage system see Section 4.8.3 (Drainage System).

**Percolation to Groundwater** – Irrigation water used within Honua'ula will be a combination of: 1) brackish water from wells; 2) R-1 quality recycled water from the either the on-site WWRF or the Mākena WWRF; and 3) concentrate from reverse osmosis (RO) treatment of the potable supply.[3]

To calculate potential changes to groundwater, the groundwater assessment study made the following assumptions:

- The salinity of water from the brackish well water will be 0.95 parts per thousand (ppt);
- The R-1 water from the on-site WWRF or the Mākena WWRF will have 775 μM (micromoles)(10.85 milligrams per liter (mg/l) nitrogen and 165 μM (2.00 mg/l) phosphorus;
- Essentially all of the nitrogen and phosphorus in the brackish well water that is run through the RO treatment process will be contained in the concentrate that is used for irrigation;
- Rainwater percolating to groundwater will have an increase in nitrogen of 20 μM and an increase in phosphorus of 2.0 μM over existing conditions;
- Fertilizer applications in landscaped areas will be at three pounds per 1,000 square feet per year for nitrogen and at 0.5 pounds per 1,000 square feet per year for

[3] Brackish well water will be treated by RO to produce potable water for Honua'ula. The RO process generates brine concentrate in the course of producing potable water. However, by diluting the brine water with other non-potable water (brackish and R-1), the salt content will be reduced to a degree that it can be used for irrigation, thus avoiding the use of injection wells to dispose of the brine. See Section 4.8.1 (Water System) for more details.

phosphorus; of these applications 10 percent of the applied nitrogen and two percent of the applied phosphorus will be carried in the percolate below the root zone.

- Percolation of excess applied irrigation water will occur from irrigating: 1) the golf course and driving range; 2) landscaping along roadways and in buffer areas; 3) parks and other landscaped public areas; and 4) residential parcels. It is assumed that 10 percent of the applied irrigation water on the golf course percolates to groundwater and 15 percent of applied irrigation water on other irrigated landscaped areas percolates to groundwater. At build-out, the total percolation to groundwater of excess applied irrigation is estimated to be 0.206 MGD.
- For all the irrigation water, it is assumed that the portion percolating through the root zone will have a salinity increase of 10 percent and a 50 percent reduction of nitrogen and phosphorus concentrations as a result of plant uptake and processes in the soil; and
- In the hundreds of feet of travel by the percolate through the vadose zone (the unsaturated lavas between the ground surface and groundwater) and the thousands of feet of travel for groundwater to discharge at the shoreline, natural processes will remove 80 percent of dissolved nitrogen and 95 percent of dissolved phosphorus.

The net potential change is calculated to be: a 2.9 percent reduction in flowrate; a 0.6 percent increase in salinity; a reduction in nitrogen loading of 4.3 percent; and a reduction in phosphorus of 4.8 percent.

The net decrease in nitrogen and phosphorus is due to several compounding reasons; 1) existing groundwater is already high in nitrogen and phosphorus due to naturally occurring processes upgradient of the Honua'ula wells; 2) pumping of the two on-site Honua'ula wells will thus decrease nitrogen and phosphorus in groundwater flowing to the ocean because of the reduced groundwater flow; 3) the total amount of groundwater withdrawn from the Honua'ula wells will not all percolate to groundwater, as some will be absorbed by plants, evaporate, or be captured as runoff in the detention basins; 4) for the water that does percolate to groundwater or flow from detention basins, natural processes will remove 80 percent of dissolved nitrogen and 95 percent of dissolved phosphorus in the hundreds of feet of travel by the percolate through the vadose zone (the unsaturated lavas between the ground surface and groundwater) and the thousands of feet of travel for groundwater to discharge at the shoreline.

**Summary of Potential Impacts** – Table 1 below presents a compilation of potential changes to groundwater in the area downgradient of Honua'ula after full build-out incorporating the assumptions noted in the previous discussions.

**Table 1. Compilation of Potential Changes to Groundwater in the Area Downgradient of Honuaʻula After Full Build-Out**

| Component Flow | Flowrate (MGD) | Salinity (PPT) | Nitrogen (lbs/day) | Phosphorus (lbs/day) |
|---|---|---|---|---|
| Pre-Development Groundwater | 7.8 | 1.00 | 228.3 | 5.217 |
| Withdrawal by On-site Wells (No. 4125-01 and -02) | 0.43 | 0.95 | 12.59 | 0.288 |
| Percolation From the Project Site to Groundwater | | | | |
| • Percolating Rainfall | No Change | No Change | 0.14 | 0.0077 |
| • Percolation From the Golf Course | | | | |
| • RO Concentrate | 0.0203 | 2.651 | 0.170 | 0.0010 |
| • WWRF Effluent | 0.0274 | 0.440 | 0.248 | 0.0114 |
| • Brackish Water | 0.0240 | 1.045 | 0.070 | 0.0004 |
| • Applied Fertilizer Dissolved in Percolate | -- | -- | 0.788 | 0.0066 |
| • Percolation From Other Landscaped Areas | | | | |
| • Brackish Water | 0.1336 | 1.045 | 0.391 | 0.0022 |
| • Applied Fertilizer Dissolved in Percolate | -- | -- | 0.981 | 0.0082 |
| Post-Development Groundwater | | | | |
| • Amounts | 7.5753 | 1.0062 | 218.498 | 4.9665 |
| • Change Compared to Pre-Development Flowrate | -2.9% | +0.62% | -4.3% | -4.8% |

As shown on Table 1 the computed changes to groundwater in the area downgradient of Honuaʻula are: 1) a relatively small 2.9 percent reduction in flow rate discharging into the marine environment; 2) a relatively insignificant 0.6 percent increase in salinity; 3) a reduction in nitrogen loading of 4.3 percent (a positive impact regarding ocean water quality); and 4) a reduction in phosphorus of 4.8 percent (a positive impact regarding ocean water quality). The largest factor contributing to these results is that most of the groundwater supply (about 75 percent) will come from the off-site Kamaʻole wells; the use of this off-site water will: 1) lessen the need for groundwater withdrawals from on-site Honuaʻula wells, thus preserving more groundwater flow to downgradient wells; and 2) contribute to groundwater recharge flowing toward the downgradient wells.

Based on these results, the hydrologic assessment concludes that the creation of Honuaʻula will not impair Wailea Resort's golf course irrigation wells, with the possible exception of a salinity increase in Wailea Resort's Well 2 (No. 4126-02), which is directly downgradient of Honuaʻula's two on-site wells. Decreased pumping of Honuaʻula's on-site wells would alleviate this potential impact.

An estimated six active downgradient wells may be impacted by a potential increase in salinity due to reduced flowrate resulting from Honuaʻula's off-site wells, which current calculations indicate may be on the order of five percent. These downgradient brackish wells were developed to provide landscape irrigation for individual condominium parcels, and the combined draft of all of these wells is relatively small (in the range of 0.12 to 0.30 MGD as a year round average). It is not known if the increase in salinity would materially

impair the utility of the wells; however if the utility of the wells is materially impaired, additional wells (pumping the same combined amount of water) in the area north of Maui Meadows would distribute the draft over a greater area and would alleviate the impact downgradient. Honua'ula Partners, LLC commits to distributing the draft over a greater area if the utility of active downgradient wells is demonstrated to be materially impaired.

In addition, Honua'ula Partners LLC will construct an upgradient golf course monitor well to a depth that will allow the well to also be used to monitor the transition zone below the basal lens; however available data from wells across the entire aquifer, and more specifically in the mauka-makai corridor that may be affected by Honua'ula's wells, does not indicate a monitor well is needed. Nonetheless, the monitor well will be installed prior to the start of use of Honua'ula's production wells and periodic profiling of salinity and temperature through the monitor well's water column will be performed. This data will be used to track salinity in the basal lens and the movement, if any, of the transition zone.

All existing on- and off-site wells are fully permitted by CWRM. All new wells will be developed in compliance with all requirements of Chapter 174C, HRS (State Water Code) and HAR, Chapters 13-167 to 13-171, as applicable, pertaining to CWRM and administration of the State Water Code. The CWRM application process for ~~water use permits entails: 1) the preparation of an extensive application that includes analysis of: a) the public interest; b) the rights of the Department of Hawaiian Home Lands; c) any interference with any existing legal uses; and d) alternatives; 2) a thorough public and agency review process; 3) public hearing(s); and 4) a formal decision from CWRM. Well~~ well construction~~/pump installation~~ permits ~~also have~~ requires an extensive application process ~~that includes~~ with thorough review by the State Department of Health (DOH) for compliance with DOH rules and standards, including the appropriateness of the well location. Therefore, there will be extensive analysis, review, and evaluation of potential impacts of any new wells.

**Cattle Ranching**

Cattle ranching activities upslope of the Property and the off-site Honua'ula wells have very limited potential for contamination of Honua'ula's groundwater sources. The areas used for cattle ranching upslope of the Property are dry, hot, and un-irrigated; therefore cattle grazing in these areas is extensive, not intensive. The two- and 10-year zones of contribution would potentially cover the area from the 500-foot elevation (a short distance down slope from the highest point of the Property) to the 1,600-foot elevation (approximately 10,000 feet upslope of the Property). These elevations are the vertical travel distances for contaminates to reach groundwater. Substantial natural protection is provided by these distances as well as the multiple layers of successive lava flows, and therefore upslope cattle ranching activities are not expected to impact Honua'ula's groundwater sources.

**Golf Course**

To ensure that Honua'ula's golf course is developed and operated in an environmentally responsible manner and potential impacts to water resources are mitigated, Environmental & Turf Services, Inc., prepared a comprehensive Best Management Practices (BMPs) document adhering to the DOH's "Golf Course Best Management Practices" guidelines (DOH 2005). The BMPs also satisfy all previous DOH recommendations regarding golf courses, including, "Guidelines Applicable to Golf Courses in Hawaii" (Version 6, DOH 2002) and "Twelve Conditions Applicable to all New Golf Course Development" ("12 conditions;" Version 4, DOH 1992). The BMPs further satisfy specific conditions of County of Maui Ordinance No. 3554 that require compliance with several of the DOH's "12 Conditions." Sections of the BMP document relative to groundwater protection are summarized below. Appendix C contains the complete BMP document.

The overall goal of the Honua'ula BMPs is to reduce the turf chemical and water inputs required to manage the 18-hole golf course and to minimize waste generation. The most important BMP is the use of Seashore paspalum grass throughout the golf course. Traditionally, Hawaii golf courses have used bermudagrass, which presents an excellent playing surface under typical Hawaii conditions. However, the new varieties of Seashore paspalum rival bermudagrass in turf quality and have many additional environmental attributes, including tolerance of alternative water sources and high sodium and salt levels, the potential to substantially reduce fertilizer requirements (including a two-thirds reduction in nitrogen requirements) and minimal need for herbicides and fungicides.

**Groundwater Monitoring** – Two monitoring wells are tentatively proposed for installation on-site. An existing irrigation well will also be sampled. Baseline sampling and semi-annual operational phase sampling will be done. Analytes will include pesticides and relevant key metabolites, standard field parameters (such as pH and temperature), nitrate, phosphorus, and inorganic substances relevant to the ongoing nearshore monitoring program (see Section 3.5.2 (Nearshore Marine Environment)). A contingency plan is proposed that would trigger pesticide use restrictions or bans if pesticides are detected at predetermined concentrations. The groundwater monitoring program and protocol will be prepared in accordance with the DOH's Golf Course BMPs (DOH 2005) and will continue until DOH certifies that no further monitoring is required based on review of the data.

In providing and executing the groundwater monitoring program, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554:

- Condition 18a, which requires compliance with Condition 1 of DOH's "12 Conditions," which relates to establishing baseline groundwater/vadose zone and nearshore water quality (see Section 3.5.2 (Nearshore Marine Environment)) data and reporting findings to DOH; and
- Condition 18b, which requires compliance with Condition 2 and 3 of DOH's "12 Conditions;" specifically:

- Condition 2 of DOH's "12 Conditions" relates to establishing a groundwater monitoring program; and
- Condition 3 of DOH's "12 Conditions" requires immediate action if data from the monitoring system indicates increased levels of a contaminate that poses, or may pose, a threat to public health and the environment.

**Water Conservation** – Water conservation is central to the functioning of the golf course. While non-potable water will be used for all golf course irrigation, the golf course will also include a modern irrigation system designed to use non-potable water efficiently. The key component of the irrigation system will be a central computer to store information for every sprinkler, including the type of sprinkler, nozzle sizes, location, soil type, slope, infiltration, exposure, etc., so that the exact amount of water needed is applied (i.e., not just turning on sprinklers for a set duration). Cycle/soak features will prevent runoff when heavy irrigation is needed. Flow management features will ensure optimum pressure and amount to every sprinkler.

Records of irrigation procedures will be maintained for each management zone. Each management zone will be treated independently; the highest priority zones (greens, tees, fairways) will receive the highest amounts of water, while lower priority zones (secondary roughs, natural areas) will receive less water. These priority designations will help to efficiently manage overall water use on the golf course, providing the highest level of playability and aesthetics while incorporating water conservation and environmentally sustainable management practices.

In designing and implementing a detailed and efficient irrigation system, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554 Condition 18d, which requires compliance with Condition 5 of DOH's "12 Conditions," which relates to use of treated wastewater for golf course irrigation (see section 4.8.2 (Wastewater System) and the need for an irrigation plan.

**Golf Course Maintenance Center** – The golf course maintenance center is expected to be located near the Kaukahi Street entrance. It will be a modern, carefully designed, fenced and secured, state-of-the-art complex containing offices, a maintenance shop, and equipment and material storage. It will be designed to achieve these objectives: operational efficiency; worker health and safety; environmental protection (i.e., containment and management of chemicals and fuels so that the surrounding environment will not be impacted); and compliance with all Federal, State, and County regulations. The golf maintenance center is located in an area sufficiently distanced from residential uses and will be designed to further lessen noise to surrounding uses.

The maintenance center site will be graded, and curbs will be erected, so that parking lot drainage cannot flow directly into drainage features. Catch basins will capture contaminated stormwater runoff and any spills and will be tied to a drainage system that terminates in a treatment system to remove sediments, floating debris, and petroleum contaminants. The system will be designed with consideration that runoff from the

maintenance facility complex may include soil, sand, grass clippings, petroleum products (small amounts of oil and gasoline), fertilizers, and other typical hard surface runoff substances. There should be minimal to no presence of pesticides in runoff water due to the use of closed-loop recirculating systems and special containment pads.

The maintenance center will include a recycling wash water system for turfgrass equipment. The system will be capable of capturing grass clippings, oil and grease, and trace organics and will include a closed-loop wash/recycle wash-down water system independent of the stormwater drainage system.

Fuel storage will be within a split, above-ground fuel tank. One tank will be used for gasoline, and one for diesel. Both tanks will have double walls with vehicle barriers for accident prevention. The tanks will conform to the Uniform Fire Code and National Fire Protection Association regulations for above-ground tanks and will be designed to meet above-ground regulatory storage requirements in the State of Hawaii.

Pesticide/biocide storage will be in a pre-fabricated building specifically designed for pesticide storage to be ventilated, fire resistant, vapor explosion resistant, vandalism protected, spill self-contained, and climate controlled. The building will be designated and posted as a pesticide storage area (as required by law) with a list of all chemicals contained in storage on file in the superintendent's office. Fertilizer and other dry bulk material typically contained in bag form will be stored in a separate building with masonry walls to prevent corrosion caused by fertilizer salts.

A self-contained concrete mixing/loading pad, enclosed on three sides, will be designed to safely contain any spill, or emergency release of materials and prevent release of any chemicals or spray mix other than proper application to the turf.

Golf course maintenance equipment and vehicles used on-site will be stored in a paved area of the maintenance center. The floor of the equipment storage area will be hard surfaced, allowing easy clean-up of oil leaks, spills, or other fluids that might come from the equipment. Proper absorbent materials throughout the storage area will allow for quick clean up of spills. No fluids will be allowed to escape this area. Floor drains will not be allowed.

In providing a state-of-the-art golf course maintenance center, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554:

- Condition 18e, which requires compliance with Condition 6 of DOH's "12 Conditions," which relates to storage of petroleum products for fueling golf carts, maintenance vehicles, and emergency power generators that pose potential risk to groundwater;
- Condition 18f, which requires compliance with Conditions 7, 8, and 11 of DOH's "12 Conditions;" specifically:

  - Condition 7 of DOH's "12 Conditions" relates to buildings designed to house fertilizers and biocides;
  - Condition 8 of the DOH's "12 Conditions" relates to a golf course maintenance plan and program and is discussed below;
  - Condition 11 of the DOH's "12 Conditions" relates to: 1) fugitive dust during construction, which is addressed in Section 4.6 (Air Quality) and 2) application of pesticides and chemicals, which is discussed below; and
- Condition 18g, which requires compliance with Condition 9 of DOH's "12 Conditions," which relates to minimizing noise from golf course maintenance activities.

**Integrated Pest Management** – Integrated Pest Management (IPM) is an interdisciplinary program that manages pest control tactics in a single system to prevent unacceptable levels of pest damage. IPM uses the least toxic control approach to address pest problems, using chemical controls only when other strategies are not effective. Appropriate control methods are generally not designed to eradicate pest populations but to manage turf grass in the most economical way with the least effect possible on people, property, and the environment.

The use of IPM avoids the conventional spray approach to pest management and is likely to reduce pesticide use by 30 percent or more. This approach ultimately develops hardier turf grass and increases the population of beneficial organisms and natural enemies to pests. Control tactics are implemented based on pest populations and not by spray intervals and calendar dates.

There is no single pest control method that provides complete control of turf grass pathogens (pathogens cause disease), but the multifaceted IPM approach provides the best and most economical control of pests. Golf courses, like other agricultural commodities, are susceptible to occasional attacks from a rather complex list of pests. These pests and causal agents may be observed during various climatic conditions and life cycles. They may be controlled by a variety of methods. With the IPM approach, pest populations are monitored such that an appropriate treatment is implemented when pest pressure exceeds the action tolerance level of damage to turf. A threshold is a level of damage or potential damage such as the number of insects or weeds per square foot of turf. The treatment may be one of a variety of pest control measures (e.g., mechanical removal, biorational products, chemical treatments, etc.). The IPM approach will work on every defined management area but must be tailored for each tee, green, fairway, and rough.

Monitoring control systems will provide the basis for developing thresholds and determining any actions necessary for control. The system should be simple, accurate, and part of the daily regimen for turfgrass management. Pests may be defined as bacteria, plant pathogenic fungi, insects, nematodes, rodents, viruses, weeds, etc. The information obtained through monitoring will provide site specific educational knowledge and limit the levels of predictable loss to turf grass. Pest occupancy is very weather-dependent;

therefore it is necessary to observe pest populations for several years to have a good idea about the range of pest problems.

A fertilizer/nutrient management plan will provide site-specific guidelines and plant requirements to maintain healthy turf grass, avoiding the over-application of nutrients resulting in transportation of dissolved nutrients off-site. Approximately half of the nitrogen fertilizer applied to turf grass is incorporated into the plant; the other half can be found stored in the soil and lost to the atmosphere. Thus there is limited fertilizer nitrogen remaining that can leach into ground water or be transported as runoff into surface water (Petrovic 1990; Cohen 1999). Golf courses can be managed so nitrogen from fertilizers does not contaminate ground water supplies (Petrovic 1990; Cohen 1999).

Biorational/organic products (fungi, bacteria, viruses, nematodes, and non-target insects) will be used whenever it is feasible, and there is a scientific basis to support their use. Biorational products can provide an effective and efficient method of eradicating disease and other pest pressures. Additional methods, such as applying composts containing microorganisms as top dressing and the use of compost teas may also suppress diseases before they harm turfed areas. EKO Compost, located in Pu'unēnē, manufactures and sells compost and compost-based mixtures. When applied as top dressing, EKO compost has been shown to improve yellowing areas on tees and fairways (Burgett 2006; EKO 2006).

Chemical treatments will only be used when a pest is present at significant levels to cause damage and should only be applied when the pest is most vulnerable to the pesticide (i.e., in juvenile stages of development) and when the environment is best suited to manage the application (e.g., not when soil is saturated, or during windy or rainy weather to prevent the amount of potential drift and surface water runoff). If the pest infestation is limited in scope, spot treatments may be possible. When applying chemical controls it is important that equipment is properly calibrated and adequately maintained. Pesticide will be rotated (alternative chemicals, or alternative pest control methods and cultivation controls) to reduce the possibility of pests becoming resistant to the applied chemicals, and also to reduce the frequency of chemical applications.

In implementing an Integrated Pest Management program, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554 Condition 18f, which requires compliance with Conditions 7, 8, and 11 of DOH's "12 Conditions;" specifically:

- Condition 7 of DOH's "12 Conditions" relates to buildings designed to house fertilizers and biocides and was discussed above;
- Condition 8 of DOH's "12 Conditions" relates to a golf course maintenance plan and program in regard to: 1) use of fertilizers and biocides which is discussed above; and 2) irrigation, which was discussed above;
- Condition 11 of DOH's "12 Conditions" relates, to 1) fugitive dust during construction which is addressed in Section 4.6 (Air Quality) and 2) application of pesticides and chemicals, which is discussed above.

### 3.5.2 Nearshore Marine Environment

**Marine Water Quality**

Although Honua'ula is not located along the shoreline, Marine Research Consultants, Inc., (MRC) conducted nearshore water quality monitoring studies in 2005, 2006, 2008, ~~and~~2009, 2010, and 2011 specifically regarding Honua'ula to obtain pre-construction baseline data. The most recent study was conducted in ~~September 2009~~ March 2011. The nearshore water quality assessment ~~report~~ reports from 2010 (MRC 2010a) and 2011 (MRC 2011) ~~includes~~ include data from the previous Honua'ula studies, with particular emphasis on the most recent data. Information and conclusions from the ~~most recent assessment~~ 2010 (MRC 2010a) and 2011 (MRC 2011) reports, as well as other relevant information, are summarized below. Appendix D contains the complete 2010 assessment report included in the Draft EIS (MRC 2010a) and the most recent assessment report (MRC 2011).

The nearshore waters downstream of the Property, as are nearly all the waters along the west-facing shoreline of Maui, are classified as "A" by the State DOH. According to DOH water quality standards, "It is the objective of Class A waters that their use for recreational purposes and aesthetic enjoyment be protected." (HAR §11-54-03(c)(2)).

The *2006 State of Hawaii Water Quality Monitoring and Assessment Report*[4] ("Integrated Report") (DOH 2008) lists two areas of nearshore receiving waters downstream from Honua'ula as "impaired," meaning State ocean water quality standards for specific criteria were not attained; specifically, state ocean water quality standards for open coastal waters were not attained at: 1) Ulua Beach Park for turbidity and chlorophyll a (Chl *a*); and 2) Wailea Beach Park for turbidity. Because these State ocean water quality standards were not attained, the Clean Water Act requires that Total Maximum Daily Loads (TMDLs)[5] be established for the specific critera that do not meet the standards. DOH is the State agency responsible for developing TMDLs; however DOH has not developed any TMDL criteria for any marine areas off the coast of Maui (DOH 2010). In addition, the Integrated Report states that at Ulua Beach Park and Wailea Beach Park there is a "low prority for initiating TMDL development with the current monitoring and assessment cycle (through April 15, 2008), based on the prioritization data established in the Integrated Report and on current and projected resource availability for completing the TMDL development process."

Data for the 2006 Integrated Report was collected in 2006 and before. The current Honua'ula nearshore water quality monitoring study (MRC ~~2010a~~ 2011) included water

[4] The complete title is: *2006 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to Sections §303(D) and §305(B), Clean Water Act (P.L. 97-117)*. The report was prepared by the Hawaii State Department of Health and is dated January 11, 2008.

[5] A Total Maximum Daily Load, or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards (http://www.epa.gov/OWOW/tmdl/).

quality sampling from the same locations downstream from Honua'ula as the 2006 Integrated Report (see below regarding sampling locations). In contrast to the 2006 Integrated Report results, the results of the current nearshore water quality monitoring study do not show turbidity levels that exceed DOH standards at either Ulua Beach Park or Wailea Beach Park (MRC 2010a). Current measured levels of chlorophyll a (Chl *a*) at these locations do exceed DOH standards; however it should be noted that measures of chlorophyll a (Chl *a*) exceeded DOH standards at all sampling sites, including the control site off the 'Āhihi-Kīna'u Natural Area Reserve, indicating that the exceedance of chlorophyll a (Chl *a*) is not the result of input from land. At the time the Draft EIS was prepared (March 2010) DOH ~~anticipates~~ anticapted publishing an update of the 2006 Integrated Report in 2010; however, as of May 2012 an updated report was not published.

Comparison of data from the 2006 Integrated Report and the current Honua'ula nearshore water quality monitoring study (MRC ~~2010a~~ 2011) shows that water quality results can vary over time. It is important to note that Honua'ula is not yet built, so any current exceedances of State water quality standards are not the result of Honua'ula. The purpose of the Honua'ula nearshore water quality monitoring studies is to establish baseline water quality data regarding existing conditions without Honua'ula. Honua'ula water quality monitoring studies will continue during construction and after Honua'ula is built, so that any changes can be compared to the the baseline data to determine if Honua'ula has an impact on water quality. If there is an impact from Honua'ula, corrective actions will be taken.

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

- Site 1 – Off the southern boundary of Wailea Resort Gold Golf Course;
- Site 2 – Off the southern end of Palauea Beach downstream from the southern Property boundary;
- Site 3 – Off the southern end of Wailea Beach downstream from the center of the Property;
- Site 4 – Off the northern end of Ulua Beach downstream from the northern Property boundary; and
- Site 5 (control) – Off the 'Āhihi-Kīna'u Natural Area Reserve approximately two miles south of the Property.

For all transects, ocean water samples were collected at five locations along each transect extending from the highest wash of the waves to approximately 150 meters offshore. This sampling scheme spans the greatest range of salinity with respect to groundwater/surface water flowing out from the shoreline. Sampling was more concentrated in the nearshore zone because this area is most likely to show the effects of shoreline modification. With the exception of the two locations closest to the shoreline, which are in shallow waters,

samples were collected at two depths; a surface sample within approximately 10 centimeters of the ocean surface, and a bottom sample collected within one meter of the ocean floor.

In addition to ocean water samples, water samples were collected from seven irrigation wells and a golf course reservoir in the Wailea area upslope of the ocean water sampling area to provide data on composition of groundwater flowing under the Property. This data has been incorporated into the findings of the study of assessment of the potential impact on groundwater resources (TNWRE 2010a) discussed in Section 3.5.1 (Groundwater).

Ocean water samples were analyzed for water quality criteria specified by DOH water quality standards for Class A open coastal waters (Section 11-54-06, HAR), as well as several additional criteria. These criteria include: total nitrogen (TN), which is defined as inorganic nitrogen plus dissolved organic nitrogen; nitrate + nitrite nitrogen ($NO_3^-$); ammonium ($NH_4^+$); total phosphorus (TN), which is defined as inorganic phosphorus plus dissolved organic phosphorus; chlorophyll a (Chl *a*), turbidity, temperature, pH, and salinity. In addition, orthophosphate phosphorus ($PO_4^{-3}$) (an indicator of biological activity) and silica (Si) (an indicator of the degree of groundwater mixing) were reported.

The results of the 2011 assessment of marine water chemistry (MRC 2011) are summarized below.

- Water chemistry constituents that occur in high concentration in groundwater (silica (Si), nitrate + nitrate nitrogen ($NO_3^-$), and total nitrogen (TN)) ~~typically~~ displayed steeply sloping horizontal gradients with highest concentrations nearest to shore and decreasing concentrations moving seaward; meaning the highest concentrations of these constituents occur near the shore and decrease with distance from the shoreline. Salinity showed the opposite trend, with lowest values closest to shore, and increasing values with distance seaward; meaning salinity increases with distance from the shore. Gradients were steepest within 10 meters of the shoreline, ~~but often continued across the entire length of all transects~~ and generally extended 50 to 100 meters offshore. ~~The steep nearshore gradients had the greatest magnitude of constituents (i.e., highest concentrations at the shoreline) at Sites 1 and 2.~~ The steepest nearshore gradients, indicating the highest input of groundwater at the shoreline, occurred at Site 1, while the weakest gradients occurred at Sites 2 and Site 5. The steep horizontal gradients signify mixing of low salinity/high nutrient groundwater that discharges to the ocean at the shoreline and high salinity/low nutrient ocean water further from shore.
- Vertical stratification (layering) of the water column was clearly evident at all sites for the chemical constituents that occur in high concentrations in groundwater relative to ocean water. Vertical stratification indicates that physical mixing processes generated by wind, waves, and currents were often not sufficient to completely break down the density differences between the buoyant low salinity surface layer and denser underlying water.

- ~~Most water~~ Water chemistry constituents that do not occur in high concentrations in groundwater (ammonium ($NH_4^+$), dissolved organic phosphorus (TOP), dissolved organic nitrogen (TON), chlorophyll a (Chl *a*), turbidity) did not display distinct horizontal or vertical trends.
- Scaling nutrient concentrations to salinity indicates that during the ~~September 2009~~ March 2011 survey there was no apparent subsidy of nitrate + nitrate nitrogen ($NO_3^-$) from human activities on land to the nearshore ocean at any of the sites. During previous surveys, substantial subsidies of nitrate + nitrate nitrogen ($NO_3^-$) at some locations had been evident. The likely cause of the subsidies of nitrate + nitrate nitrogen ($NO_3^-$) in past surveys was either leaching of golf course or landscaping fertilizers to groundwater that flows under the Wailea golf courses, or possibly leakage from old septic systems or cesspools that served residences in the vicinity of Site 1. Such subsidies were not evident in the 2011 monitoring survey.
- Comparing water chemistry parameters to DOH standards revealed numerous measurements of nitrate + nitrate nitrogen ($NO_3^-$) that exceeded the DOH "not to exceed more than 10 percent of the time" criteria for open coastal waters. Numerous values of nitrate + nitrate nitrogen ($NO_3^-$), ammonium ($NH_4^+$), total nitrogen (TN), chlorophyll a (Chl *a*), and to a lesser extent total phosphorus (TP), and turbidity, exceeded specified limits for geometric means. Such exceedances occurred at all survey sites, including the control site (Site 5) which is not influenced by the golf courses or other large-scale land uses. These results indicate that the exceedances of the geometric mean water quality standards are not solely associated with golf course operation or other anthropogenic land uses. Rather, natural groundwater discharge (which contains elevated nutrient concentrations relative to open coastal water) can cause water chemistry characteristics to exceed DOH standards, which do not include consideration of such natural factors.
- Comparison of survey results from the nearshore water quality monitoring assessments from 2005, 2006, 2008, ~~and~~ 2009, 2010, and 2011 reveals that there are no statistically significant increases or decreases in the concentrations of nutrients at any of the survey sites. This indicates that there has been no consistent change in nutrient input from land to groundwater that enters the ocean from 2005 to ~~2009~~ 2011.

### Marine Environment

Although Honua'ula is not located along the shoreline, MRC conducted ~~a preliminary~~ an assessment of the marine community structure of the nearshore waters downstream from the Property (MRC 2010b). The assessment describes the results of a baseline survey of the nearshore marine communities to provide a basis for estimating alteration of community structure as a result of modifying land uses mauka of the shoreline. Information and conclusions from the marine community structure assessment report are summarized below. Appendix D contains the complete report.

Marine community structure can be defined as the abundance, diversity, and distribution of stony and soft corals, motile benthos such as echinoderms, and pelagic species such as reef fish. It is important to note that while no work has been initiated for Honua'ula, the Property is separated from the ocean by the Wailea Resort, which has been in existence for several decades. Hence, marine communities downslope from Honua'ula have been influenced by land uses of the Wailea Resort, and do not represent "pristine" conditions.

For the assessment, the biotic structure of benthic (bottom-dwelling) communities inhabiting the reef environment was evaluated by establishing a descriptive and quantitative baseline between the shoreline and the 20 meter (~60 foot) depth contour. First, qualitative reconnaissance surveys were conducted that covered the area off Wailea from the shoreline out to the limits of coral reef formation. Then, two quantitative transect sites were selected offshore of Wailea: Survey Site 1 was located downstream from the northern Honua'ula boundary between Polo and Palauea Beaches; Survey Site 2 was located between Ulua and Wailea Beaches. At each site, transect surveys were conducted, one in each of the dominant reef zones. Quantitative benthic surveys were then conducted by evaluating reef community composition in accordance with the Coral Reef Assessment and Monitoring Program protocols used by the Department of Land and Natural Resources (DLNR).

The main structural feature of the shoreline and nearshore areas downstream from Honua'ula are a series of crescent shaped white sand beaches separated by basaltic rocky headlands that extend up to several hundred meters offshore. Sand plains extend from the beach shorelines continuously to a depth of approximately 60 feet. The rocky headlands generally consist of extended fingers of exposed rock with sharply angled edges that form the shorelines of these features. Because of the vertical faces, there are essentially no well-defined intertidal platforms or extensive tide pools along the shoreline.

The seaward extensions of the rocky headlands that separate the beaches provide the major habitats for marine biota. The intertidal ranges of the submerged headlands are colonized by bands of the seaweeds *Anhfeltia concinna* and *Ulva fasciata*. Submerged portions of the rock surfaces are lined with various forms of encrusting red algae, and contain numerous urchins of the species *Echinometra matheai, Echinostrephus aciculatus*, and *Colobocentrotus atratus*, as well as numerous juvenile reef fish. As the headlands extend seaward, the top surfaces flatten out into dome-shaped fingers. At the seaward termini, the headlands grade into the sandy bottom, often with a distinct boundary between the rock-rubble platform and the sand bottom, generally at a depth of approximately 25-30 feet.

The coral reef communities that occur on the hard-bottom areas off the Wailea area consist of abundant and diverse assemblages of common Hawaiian marine life. The predominant taxon of macrobenthos (bottom-dwellers) throughout the reef zones are Scleractinian (reef-building) corals. Corals, primarily of the species *Pocillopora meandrina* (cauliflower coral) and *Porites lobata* (lobe coral) were by far the two most abundant forms. Other common corals observed were *Montipora capitata* (rice coral), *M. flabellata*

(blue rice coral), and *M. patula* (sandpaper rice coral), *Porites compressa* (finger coral) and *Pavona varians* (corrugated coral). Of note is that the richest communities in terms of both species number and bottom cover occur on the rocky outcrops that are elevated above the sand bottom. This is likely in response to lessened stress from abrasion from sand scour during periods when wave action is sufficient to re-suspend sand off the bottom.

At Site 1, the basaltic extension the rock headland was relatively narrow and steep-sided. Coral cover was greatest on the sloping sides of the rock finger, with total coral cover in the range of 50-75 percent of bottom cover. In addition to substantial coral cover, the top of the finger was also occupied by abundant slate-pencil sea urchins (*Heterocentrotus mammilatus*). Of particular note is that throughout the rocky finger reefs, there were no observations of any species of frondose macro-algae. This observation is of interest as extensive growth of several species of macro-algae in several shoreline areas of Maui have been the subject of considerable concern, particularly with respect to interactions between algal abundance and human activities.

At the seaward end of the rock-outcrop finger, coral abundance is reduced considerably, with the reef consisting primarily of a rock-rubble surface that ends at the juncture of the sand flats. While no macro-algae were observed in this zone, most of the rock/rubble bottom was covered with a thin veneer of micro-algal turf. Numerous boulders at the base of the finger outcrop were colonized by numerous small colonies of *Pocillopora meandrina* (cauliflower coral). This coral has been recognized as a "pioneering" species, in that it is often the first to colonize newly cleared substrata. In addition, it also has "determinate" growth, in that colonies grow to a certain size, or age, and then die. As a result, colonies of this species never reach a size larger than approximately one foot in diameter. Such a growth form does not occur for the other major genera found on Hawaiian reefs (Porites), which has an "indeterminate" growth form where colony life span is not limited by either size or age. The significance of the abundant small colonies of *Pocillopora meandrina* (cauliflower coral) at the deeper regions of Site 1 may be that it is an indication that a new year class is taking hold, or that re-colonization is beginning in an area where corals were removed by some factor. In either case, the occurrence of abundant recruiting colonies indicates that the present conditions are suitable for coral growth.

The physical structure of the reef at Site 2 is slightly different than at Site 1 in that the top of the outcrop is flatter and wider. Coral cover, consisting of the same common species as Site 1 (*Pocillopora meandrina* and *Porites lobata*), was somewhat greater on the flat reef of Site 2, with nearly complete coverage of the rocky substratum. As at Site 1, there were no observations of frondose macro-algae. The deeper seaward extension of the rocky headland at Site 2 was also different than at Site 1: while a relatively barren rock/rubble shelf occurred at the terminus of the reef at Site 1, corals, particularly mats of the branching finger coral *Porites compressa* (finger coral) extended to the sand floor at Site 2. Numerous large coral-covered boulders also extended onto the sand flats at the seaward end of the reef at Site 2.

Other than corals, the dominant group of macroinvertebrates inhabiting the reef surface off the survey sites are sea urchins. The most common urchins are the small species that bore into the rock surface (*Echinometra matheai*, *Echinostrephus aciculatus*) which occurred in all reef zones. The larger species, including the collector urchin *Tripneustes gratilla* and *Heterocentrotus mammillatus* were also abundant on the tops and sides of the rocky finger reefs. Sea cucumbers (Holothurians) or starfish (Asteroidea) were not commonly observed during the survey. No crown-of-thorns starfish (*Acanthaster planci*) were observed feeding on coral colonies, nor were there observations of recently bleached coral skeletons as a result of Acanthaster predation. The green conical-shaped sponge *Iotrocha protea* was observed on the sandy flats at the seaward ends of the reefs. The only commonly occurring mollusk was the oyster *Pinctata* spp.

While frondose benthic algae were conspicuously absent on the survey reefs, encrusting red calcareous algae (*Porolithon* spp.*, Peysonellia rubra, Hydrolithon* spp.) were abundant on rocky surfaces throughout the study area. These algae were abundant on bared limestone surfaces, and on the nonliving parts of coral colonies.

Reef fish community structure was largely determined by the topography and composition of reef structure. Fish were most abundant on the edges of the rocky outcrops and in areas of highest relief. Fish were abundant, but were small in size. Overall, fish community structure in the waters off Wailea is fairly typical of the assemblages found in undisturbed Hawaiian reef environments. The lack of abundance of food fish indicates that the area has been subjected to moderate amounts of fishing pressure.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

#### Marine Water Quality

The results of the nearshore water quality assessment (MRC 2010a) and further evaluation of the potential changes to groundwater composition (discussed in Section 3.5.1 above) indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. With potable water supplied by RO brackish well water and irrigation water supplied from brackish well water and R-1 recycled water, the nearshore water quality assessment concludes: "there will be no adverse affect to groundwater resources in areas in the vicinity of the project" (MRC 2010a). Regarding runoff, the assessment concludes that the detention basins will: 1) ensure that the peak rate of runoff leaving the Property will not increase over current conditions; and 2) capture floatables and suspended solids in the basins, thus reducing sediment loads discharging to the marine environment at the shoreline (MRC 2010a). Similarly, the assessment concludes that "there is little potential for any significant input of sediment to the marine environment resulting from [construction of] the proposed project" due to permit regulations and the predominant direction of wind (MRC 2010a). The assessment further concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected

impacts to the nearshore marine ecosystem owing to development of Honua'ula" (MRC 2010a). The assessment states that: "All of these considerations indicate that the proposed Honua'ula project will not have any significant negative effect on water quality in the coastal ocean offshore of the property" (MRC 2010a).

In compliance with County of Maui Ordinance No. 3554 Condition 20:

- The Honua'ula nearshore water quality monitoring assessments conducted in 2005, 2006, 2008, ~~and~~ 2009, 2010, and 2011 provide pre-Honua'ula baseline data and an assessment of existing conditions of coastal water resources (groundwater and surface water) that receive surface or groundwater discharges from the hydrological unit where Honua'ula is located; Honua'ula nearshore water quality monitoring assessments will continue during construction and after Honua'ula is built;
- Current and future nearshore water quality monitoring assessments provide, and will provide, water quality data necessary to assess compliance with Section 11-54-06, HAR (Open Coastal Waters of the DOH Water Quality Standards);
- Current and future Honua'ula nearshore water quality monitoring assessments were done, and will continue to be done, in accordance with the current (and as may be amended) DOH methodology for Clean Water Act Section 305(b) water quality assessment, including the use of approved analytical methods and quality control/quality assurance measures; and
- After construction commences water quality data will be submitted annually to DOH for use in future Hawaii Water Quality Monitoring and Assessment Reports prepared under Clean Water Act Sections 303(d) and 305(b) (i.e., Integrated Reports).

In further compliance with County of Maui Ordinance No. 3554 Condition 20, it is noted that the 2006 Integrated Report (DOH 2008) lists two areas of nearshore receiving waters downstream from Honua'ula as "impaired," meaning State ocean water quality standards for specific criteria were not attained based on data collected in 2006 or before. The Clean Water Act requires that TMDLs be established for specific criteria that do not meet the standards; however, DOH, the State agency responsible for developing TMDLs, has not developed any TMDL critera for any marine areas off the coast of Maui (DOH 2010). Honua'ula is not yet built, and thus is not currently contributing to any downstream water quality impacts. Comparison of data from the 2006 Integrated Report and the current Honua'ula nearshore water quality monitoring study (MRC ~~2010a~~ 2011) shows that water quality results can vary over time. At the time the Draft EIS was prepared (March 2010) DOH ~~anticipates~~ anticapted publishing an update of the 2006 Integrated Report in 2010 however, as of May 2012 an updated report was not published.~~, and, in~~ In light of the recent test results from the Honua'ula study, it is possible that ~~the 2010~~ a future update will find a lesser degree of impairment than the 2006 Integrated Report. If the State's Integrated Report lists the receiving waters downstream from Honua'ula as "impaired" after construction of Honua'ula commences, and if by that time, DOH has developed TMDL critera for receiving waters downstream from Honua'ula, then the Honua'ula nearshore water quality monitoring program will be amended to evaluate land-based

pollutants, including: 1) monitoring of surface water and groundwater quality for the pollutants indentified as the source of 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 estimates will be submitted to DOH Environmental Planning Office, TMDL Program.

In preparing the nearshore water quality monitoring assessment (which provides pre-construction baseline data) Honua'ula Partners, LLC is in compliance with County of Maui Ordinance No. 3554 Condition 18a, which requires compliance with Condition 1 of DOH's "12 Conditions," relating to establishing baseline groundwater/vadose zone (see Section 3.5.1 (Groundwater)) and nearshore water quality data and reporting findings to DOH.

**Marine Environment**

Results of the ~~preliminary~~ assessment of the marine community structure of the nearshore waters downstream from Honua'ula (MRC 2010b) do not reveal any substantial effects to marine community structure from human activities along the shoreline (with the possible exception of overfishing). Aggregations of nuisance algae do not occur in the area.

The creation of Honua'ula will not involve alteration of the shoreline or offshore environments, as Honua'ula is separated from the shoreline by the existing Wailea Resort. The marine community structure assessment report (MRC 2010b) concludes:1) potential changes to water chemistry as a result of the alteration of groundwater flow and composition (see Section 3.5.1 (Groundwater)) will not change the existing character of the marine environment to an extent that will alter biotic community structure; 2) Honua'ula does not appear to present the potential for alteration of the offshore environment; and 3) none of the activities necessary for the creation of Honua'ula has the potential to induce large changes in physico-chemical properties that could affect biotic community structure.

In compliance with County of Maui Ordinance No. 3554 Condition 20:

- In addition to water quality monitoring, baseline ecological monitoring (i.e. marine community structure assessment) has been conducted in accordance with the Coral Reef Assessment and Monitoring Program protocols used by DLNR; and
- Marine community structure assessment surveys (i.e. ecological monitoring) will be done annually and the annual results will be reported to the Aquatic Resources Division, DLNR.

## 3.6 BOTANICAL RESOURCES

Several botanical reconnaissance surveys of the Property have been conducted since 1988 (Char and Linney 1988; Char 1993, 2004; SWCA 2006; and Altenberg 2007)~~, and~~ SWCA

conducted a comprehensive botanical survey of the Property in 2008 (SWCA 2010a). In all, 146 plant species have been identified within the Property, 26 of which are native; 14 of these native species are endemic to the ~~Hawai'i~~ Hawaiian Islands. The remaining 120 species are introduced non-native species.

None of the surveys identified any Federal or State of Hawai'i listed threatened or endangered plant species on the Property. However, five individual plants of the candidate endangered species, *'āwikiwiki* (*Canavalia pubescens*), have been documented by SWCA (2010a) within the Property. The Property is not located within or immediately adjacent to critical habitat or recovery management units designated by the U.S. Fish and Wildlife Service (USFWS). ~~There~~ Until recently there have been no efforts by any Federal, State, or local government agency, or non-governmental conservation organizations have been undertaken to acquire ~~and~~ or protect any portion of the Honua'ula Property. ~~The~~ A few non-native tree tobacco (*Nicotiana glauca*) ~~has~~ have been found ~~at various locations~~ widely scattered throughout the Property. ~~and~~ This opportunistic weedy species often appears quickly following grading, mowing, or related land disturbances. ~~While insignificant asan introduced weedy plant species, it~~ The species is a recognized host plant for the Federally-listed endangered Blackburn's sphinx moth (*Manduca blackburni*) (for information on the Blackburn's sphinx moth see Section 3.7 (Wildlife Resources)). However, the plant is not considered as a "primary constituent element" of critical habitat by the US Fish and Wildlife Service for the moth.

SWCA completed the most recent botanical survey of the Honua'ula Property in 2008 (SWCA 2010a), which included the area of the Pi'ilani' Highway extension ROW that traverses the Property (both the portion owned by the State and the portion owned by 'Ulupalakua Ranch), and the area of the Maui Electric substation. To address concerns regarding native plants, SWCA conducted a thorough quantitative assessment of site vegetation to obtain the best possible understanding of vegetation types and plant species present within the Property. Spatially explicit information on the composition and structure of plant communities at Honua'ula was obtained to meet three key study objectives: 1) identify the location(s) of rare plants; 2) develop conservation and management recommendations; and 3) provide support for long-term monitoring and ecological research. Key findings of the SWCA survey are presented below. Appendix E contains the complete survey.

SWCA also completed ~~a~~ botanical surveys of the areas of: 1) the alternative wastewater transmission line alignments for possible connection to the Mākena Resort WWRF, which is located approximately one mile south of Honua'ula; 2) the off-site wells, waterline, and storage tank; 3) the Pi'ilani' Highway widening area which extends from Kilohana Drive to Wailea Ike Drive; and 4) the Wailea Ike Drive and Wailea Alanui Drive intersection improvement area. ~~The survey did not observe any Federal or State of Hawai'i listed threatened, endangered, or candidate plant species on any of the alignments~~

No Federal or State of Hawai'i listed threatened, endangered, or candidate plant species were observed during the survey of the alternative wastewater transmission line

alignments; however the non-native tree tobacco (*Nicotiana glauca*) was ~~also~~ observed (SWCA 2009). Since the botanical survey of the areas of the wastewater transmission line alignments was conducted, a decision has been made regarding which alignment to use based upon potential construction impacts, costs, and permitting considerations. For more information on the selected wastewater alignment for possible connection to the Mākena Resort WWRF see Section 4.8.2 (Wastewater System) and Figure 2. Appendix E contains the complete botanical survey of the alternative wastewater transmission line alignments.

No Federal or State of Hawai'i listed threatened, endangered, or candidate plant species were observed during the survey of the areas of the off-site wells, waterline, and storage tank (SWCA 2010d). Eighty percent of the plant species observed during the survey are introduced to the Hawaiian Islands. Most of the native plants observed during the survey are commonly found throughout Maui and the main Hawaiian Islands. Of the native plants in the survey area, only wiliwili has a limited distribution throughout the Hawaiian Islands. For more information on the off-site wells, storage tank, and waterline see Section 4.8.1 (Water System) and Figure 2. Appendix E contains the complete botanical survey of the areas of the off-site wells, storage tank, and waterline.

No Federal or State of Hawai'i listed threatened, endangered, or candidate plant species were observed during the survey of the Pi'ilani Highway widening area (SWCA 2009c). In addition, no rare native plant species were found. A total of 88 plant species were recorded, of which, three species are native. Two indigenous species, *'ilima* (*Sida fallax*) and *uhaloa* (*Waltheria indica*), were common along both sides of the highway. The third indigenous species, *milo* (*Thespesia populnea*), was only found at one location adjacent to a homeowner's backyard. For more information on the widening of Pi'ilani' Highway see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Pi'ilani Highway Widening Project Final EA. Appendix C of the Final EA contains the complete botanical survey of the Pi'ilani Highway widening area.

No Federal or State of Hawai'i listed threatened, endangered, or candidate species were observed during the survey of the Wailea Ike Drive and Wailea Alanui Drive intersection improvement area (SWCA 2009b). In addition, no rare native plant species were found. A total of 49 plant species were recorded, of which, only glossy nightshade (*Solanum americanum*) is native to, but, common in the Hawaiian Islands. For more information on the Wailea Ike Drive and Wailea Alanui Drive intersection improvements see Section 4.4 (Roadways and Traffic) and Appendix S, which contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA. Appendix B of the Final EA contains the complete botanical survey of the Wailea Ike Drive and Wailea Alanui Drive intersection improvement area.

**Vegetation Types**

Within the Honua'ula Property SWCA (2010a) identified three distinct vegetation types:

**Kiawe-Buffelgrass Grassland** – About 75 percent of the northern portion of the Property consists of *kiawe*-buffelgrass grasslands. There is scattered evidence of *kiawe* logging activities in this area. In addition to buffelgrass, guinea grass (*Panicum maximum*), natal redtop (*Rhynchelytrum repens*), and sour grass (*Digitaria insularis*) are also scattered throughout the northern portion of the Property. Other plants found in this area include the invasive *koa haole* (*Leucaena leucocephala*), lantana (*Lantana camara*), partridge pea (*Chamaecrista nictitans*) and cow pea (*Macroptilium lathyroides*). The area has been disturbed throughout by numerous jeep trails and unrestricted grazing by axis deer (*Axis axis*). Some open areas that appeared to be heavily grazed were devoid of buffelgrass, but contained the native shrubs *'ilima* and hoary abutilon, and the introduced golden crown beard (*Verbesina encelioides*).

**Gulch Vegetation** – The vast expanse of *kiawe*-buffelgrass in the northern three quarters of the Property is bisected from east to west by several gulches. These intermittent gulches vary in depth and are characterized by patches of exposed bedrock. The gulches are shaded by their steep walls providing relatively cool and moist conditions. Three species of ferns including maiden hair fern (*Adiantum raddianum*), sword fern (*Nephrolepis multiflora*), and the endemic *'iwa'iwa* fern (*Doryopteris decipiens*) were found in the shaded rocky outcrops and crevices within the gulches. Native *pili* grass (*Heteropogon contortus*) was found in more open and sunny locations. Other species found within the gulches include tree tobacco (*Nicotiana glauca*), *wiliwili*, lantana, partridge pea, golden crownbeard, *'ilima*, hoary abutilon, *koa haole*, indigo (*Indigofera suffruticosa*), *'uhaloa* (*Waltheria indica*) and lion's ear (*Leonotis nepetifolia*).

**Mixed Kiawe-Wiliwili Shrubland** – The mixed *kiawe-wiliwili* shrubland ~~vegetation area~~ is limited to the southern 'a'ā lava flow in the southern quarter of the Property. This 'a'ā lava flow comprises approximately 170-acres. Scattered groves of large-stature *wiliwili* (*Erythrina sandwicensis*) and *kiawe* trees co-dominated the upper story. Native shrubs, such as *'ilima* and *maiapilo*, and the native vine *'ānunu* (*Sicyos pachycarpus*), were represented in the understory. Introduced shrubs (e.g., *koa haole*, lantana, wild basil, and tree tobacco), and introduced grasses (e.g., guinea grass, natal redtop) and introduced vines and herbaceous species (e.g., bush bean, vining solanum, burbush, and golden crownbeard) dominate the ground vegetation. Lantana found throughout the mixed *kiawe-wiliwili* shrubland showed signs of dieback. Although abundant, the guinea grass found on the site was grazed to stubble, probably by axis deer.

**Native Species**

All of the native plant species reported on the Property (Char and Linney 1988; Char 1993, 2004; SWCA 2006; Altenberg 2007, and SWCA 2010a) are known to occur elsewhere on Maui and the main Hawaiian Islands. Only the unique leaf form of Rock's *nehe* (*Lipochaeta rockii*) appears to be limited to the Property; however, it is not recognized as a separate subspecies or variety (Wagner et al. 1999; Herbst, personal communication). One native species, *'āwikiwiki* (*Canavalia pubescens*), is considered to be a candidate endangered species by USFWS. Five *'āwikiwiki* vines were found within

the Property (SWCA 2010a). Currently, the species appears to be limited to five populations on the Island of Maui, which altogether total ~~a little over 200~~ between 360 and 500 individuals (USFWS 2009, 2010). The USFWS has chosen not to pursue immediate issuance of a proposed listing rule for *'āwikiwiki* in lieu of higher priority listing actions, which include other candidate species with lower listing priority numbers (USFWS 2009, 2010). As of October 2011, the USWFS had not changed the status of *'āwikiwiki* from candidate endangered species (USFWS 2011). Continued status monitoring will be conducted as new information becomes available.

Other native species found on the Property include: *pua kala* (*Argemone glauca*), *alena* (*Boerhavia repens*), *maiapilo* shrubs (*Capparis sandwichiana*), *'a'ali'i* shrubs (*Dodonaea viscosa*), *'iwa'iwa* ferns (*Doryopteris decipiens*), *pili* grass (*Heteropogon contortus*), Hawaiian moon flower vines (*Ipomoea tuboides*), *wiliwili* trees (*Erythrina sandwicensis*), *naio* trees (*Myoporum sandwicense*), *kolomona* ~~trees~~ shrubs (*Senna gaudichaudii*), hoary abutilon shrubs (*Abutilon incanum), koali awahia* vines (*Ipomoea indica*),*'ilima (Sida fallax), popolo* (*Solanum americanum*), *'ilie'e* (*Plumbago zeylanica*), *'uhaloa* (*Waltheria indica*), and *'ānunu* vines (*Sicyos hispidus, S. pachycarpus*).

The highest concentration of native plants occurs in the southern quarter of the Property, which is the area containing the approximately 170-acre *'a'ā* lava flow and the *kiawe-wiliwili* shrubland ~~vegetation type~~. The remnant native vegetation in the mixed *kiawe-wiliwili* shrubland represents a highly degraded lowland dry shrubland in which *wiliwili* trees are a natural component (SWCA 2010a). Far from being pristine, this dry shrubland has been degraded by human activities including unrestricted grazing by feral ungulates, periodic cattle grazing, and invasion by invasive plant species, road cutting, *kiawe* logging, and World War II military training maneuvers (SWCA 2010a). Until surveys by SWCA (2006) and Altenberg (2007), there had been no recognition of the mixed *kiawe-wiliwili* shrubland as an area worthy of special recognition.

*Wiliwili* (*Erythrina sandwicensis*) was the most common native tree species in the southern *'a'ā* lava flow area. SWCA (2010a) mapped 2,476 individual trees distributed throughout the *kiawe-wiliwili* shrubland in groves of various sizes. The largest groves tended to be located in the eastern portion of the *kiawe-wiliwili* shrubland. Most *wiliwili* trees showed some form of damage, primarily from the Erythrina gall wasp (*Quadristichus erythrinae* ~~Kim~~) and the seed eating bruchid beetle (*Specularius impressithorax* ~~Pic~~). Although *wiliwili* is not a Federal or State of Hawaii listed endangered species, severe damage caused by the Erythrina gall wasp has led to uncertainty about the survival of these trees throughout the State. Thus agency resource managers believe it is prudent to protect remaining trees wherever they naturally occur. However, a parasitic wasp species (*Eurytoma erythrinae*) was released in 2008 by the State Department Of Agriculture as a biocontrol. The effort was very successful in mitigating the threat caused by the Erythrina gall wasp.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Honua'ula will not impact any Federal or State of Hawai'i listed threatened or endangered plant species, as none were identified on the Property. In addition, the possible sewer line connection to the Mākena Resort WWRF, the off-site wells, waterline, and storage tank, the widening of Pi'ilani Highway, and the Wailea Ike Drive and Wailea Alanui Drive intersection improvements will not impact any Federal or State of Hawai'i listed threatened or endangered plant species, as none were identified ~~on~~ during any of the ~~alternative transmission line alignments~~ surveys of these areas.

County of Maui Ordinance No. 3554 Condition 27 requires the establishment of a Native Plant Preservation Area on the Property south of latitude 20º40'15.00"N that shall not be less than 18 acres and shall not exceed 130 acres, 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.

In their letter addressed to William Spence, Director of the County of Maui Planning Department dated February 15, 2012, the DLNR stated:

> *With regard to Condition 27, we note that the ordinance refers to "preservation". Statutory provisions for the preservation of natural resources are provided in Chapter 195, Hawaii Revised Statutes, through the establishment of the Natural Area reserve System. At this time, the Subject Area is not designated a Natural Area Reserve. Chapter 195 provides a process by which a natural Area reserve may be established.*

DLNR also stated: "Mitigation for a project as part of an HPC [Habitat Conservation Plan] may, in priniciple, be conducted off site if all other requrements are met and if the HCP is approved."

In their letter commenting on the Honua'ula Draft Environmental Impact Statement (EIS) dated July 2, 2010, the USFWS stated: "…we recommend that the conservation easement or Native Plant Preservation Area include a contiguous area of roughly 130 acres (56 hectares) which would encompass the majority of the mixed use remnant kiawe-wiliwili shrubland." USFWS also stated that the Conservation & Stewardship plan (see below and Appendix F):

> *…has identified numerous proposed mitigation measures and an interest in cooperating with funding off-site conservation projects to offset the loss of habitat within the proposed project footprint. Your Final EIS should also include a description of these off-site conservation projects. In order to fully address this aspect of the project in your Final EIS, we suggest that a 130-acre (56 hectare) Native Plant Preservation Area, located within the southern portion of the property, be incorporated into the preferred alternative. Alternatively, your discussion of the project alternatives (Section 6.0) in your Final EIS should thoroughly address any*

> *reasons conservation of the entire southern area was not included selected* [sic] *as the preferred alternative.*

Based on the presence of the non-native tree tobacco (*Nicotiana glauca*) and native host plants for the endangered Blackburn's sphinx moth, the USFWS also expressed concern that "habitat loss within the project site could adversely impact Blackburn's sphinx moth populations within this region of Maui."

In their letter dated May 10, 2010 the United States Army Corps of Engineers stated:

> *The Corps Regulatory Program does not have the legal authority or expertise to comment or make recommendations as to the appropriateness of areas of a parcel for preservation or for use as mitigation, for a particular project, for Maui Planning Commission use.*

Since June of 2010 Honua'ula Partners, LLC has met with DLNR and USFWS on many occasions to reach agreement regarding satisfaction of Condition 27. As a result of these meetings, Honua'ula Partners, LLC proposes both on- and off-site measures to protect and enhance native plants and habitat for the Blackburn's sphinx moth (*Manduca blackburni*) as discussed below (also see Figure 1, Figure 12, and Figure 12a).

**On-Site Native Plant Preservation Area and Native Plant Conservation Areas**

**Native Plant Preservation Area –** To protect and conserve an area that contains the highest density of representative native plant species within Honua'ula, including the five individual *'āwikiwiki* plants and numerous individual *nehe* plants found on the Property, Honua'ula Partners, LLC will dedicate in perpetuity a conservation easement titled "Native Plant Preservation Area." ~~This~~ In compliance with Condition 27 this area will be dedicated to the conservation of native Hawaiian plants and significant cultural sites (see Section 4.1 (Archaeological and Historical Resources) and Section 4.2 (Cultural Resources) for information on archaeological and cultural resources). The Native Plant Preservation Area will be actively managed in accordance with the Conservation and Stewardship Plan (see below and Appendix F). Management actions will include removal and exclusion of ungulates (deer, cattle, goats, and pigs), removal and control of noxious invasive weeds and plants, and propagation of native plants from seeds collected on the Property.

As shown on Figure 1 and Figure 12, the proposed Native Plant Preservation Area is within the portion of the property south of latitude 20º40'15.00"N as required by Condition 27. It encompasses a contiguous ~~22~~ 40-acre area within the *kiawe-wiliwili* shrubland to protect the portion of the remnant native lowland dry shrubland plant community with the highest densities of selected endemic/native plants having high conservation priority. The proposed size and location of the Native Plant Preservation Area are based, in part, upon a vegetation density analysis employed by SWCA (2010a) to aid in defining areas where preservation could be most effective. The size and location of the Native Plant Preservation Area are also based upon scientific research that suggests

even small restoration efforts consisting of a few hectares can help provide habitat for native species and can subsequently serve as urgently-needed sources of propagules (Cabin et al. 2000b, Cabin, et al. 2002a). This is reinforced by numerous sources of information on successful propagation of native plants specifically for landscaping (e.g., TNC 1997, Tamimi 1999, Friday 2000, Wong 2003, Bornhorst and Rauch 2003, Lilleeng-Rosenberger and Chapin 2005, CTAHR 2006). The research shows that even small preserves consisting of individual trees are being deemed as appropriate and feasible by USFWS and DLNR when managed in combination with regional preserve areas, such as at La'i'opua on Hawai'i Island (Leonard Bisel Associates, LLC and Geometrician Associates 2008.)

In addition, the Native Plant Preservation Area must be considered in the context of the significant conservation efforts already in existence in South Maui. As previously noted, the remnant native vegetation found on the Property represents a highly degraded lowland dry shrubland, and until recently there have been no efforts by any Federal, State, or local government agency, or non-governmental conservation organizations to acquire ~~and~~ or protect any portion of the Property (SWCA 2010b). Instead, government conservation efforts for native dry forest ecosystems on Maui have focused on better examples of relatively intact ecosystems, such as the 'Auwahi 1 restoration area (10 acres) and Pu'u o Kali (236 acres) Forest Reserves and the Kanaio (876 acres) and 'Āhihi-Kīna'u (1,238 acres) Natural Area Reserves (SWCA 2010b). In addition, in 2009 over ~~12,000~~ 11,000 acres in South Maui were ~~recently~~ donated to the Maui Coastal Land Trust—the state's largest conservation easement—representing a significant area of dry forest habitat that will be forever protected. These existing conservation efforts protect ~~substantial~~ habitats that ~~are more intact~~ host higher diversity of known native host plants for the Blackburn's sphinx moth than those found in Honua'ula, and contain a greater diversity of native plant species than Honua'ula.

~~When considered together with the other conservation measures identified for plants and wildlife (SWCA 2010a, 2010c), including an additional 121 36 acres of lands at Honua'ula where existing native plants are to be protected, enhanced, and propagated, the 22 40-acre Native Plant Preservation Area will make an important, valuable, and appropriate contribution to the long-term viability of remnant mixed *kiawe-wiliwili* shrubland associations in southeastern Maui. These conservation measures are subject to concurrence by the State DLNR, the USFWS, and the United States Corps of Engineers. The provision of the Native Plant Preservation Area easement is in conformance with County of Maui Ordinance No. 3554 Condition 27.~~

The scope of the Native Plant Preservation Area easement will be set forth in an agreement between Honua'ula Partners, LLC and the County of Maui (in conformance with County of Maui Ordinance No. 3554 Conditions 27a – 27d) that will include:

- A commitment from Honua'ula Partners, LLC ~~to protect~~ for the perpetual protection and ~~preserve~~ preservation of the Native Plant Preservation Area for ~~the protection of~~ native Hawaiian dry shrubland plants and significant cultural sites worthy of


## LEGEND

| Native Plant Preservation Area | Approximate Acreage |
|---|---|
| Native Plant Preservation Area (Easement) | +/-40ac. |
| **Native Plant Conservation Areas** | |
| Ungraded Areas | +/-8ac. |
| Natural Gulches | +/-28ac. |
| Total : | +/-76ac. |

| Open Space | Approximate Acreage |
|---|---|
| Golf Fairways | +/-110ac. |
| Parks | +/-6ac. |
| Landscape Buffers | +/-24ac. |
| Naturalized Landscape (Existing and/or Enhanced) | +/-53ac. |
| Outplanting Areas for Native Plants | +/-17ac. |
| Total : | +/-210ac. |

**Miscellaneous**

- Lakes
- Drainage/ Detention Basin

**Preserved Archaelolgy**

- Historic Wall
- Archaeological Sites

Plan By: VITA PLANNING & LANDSCAPE ARCHITECTURE

**Figure 12**

Native Plant Plan

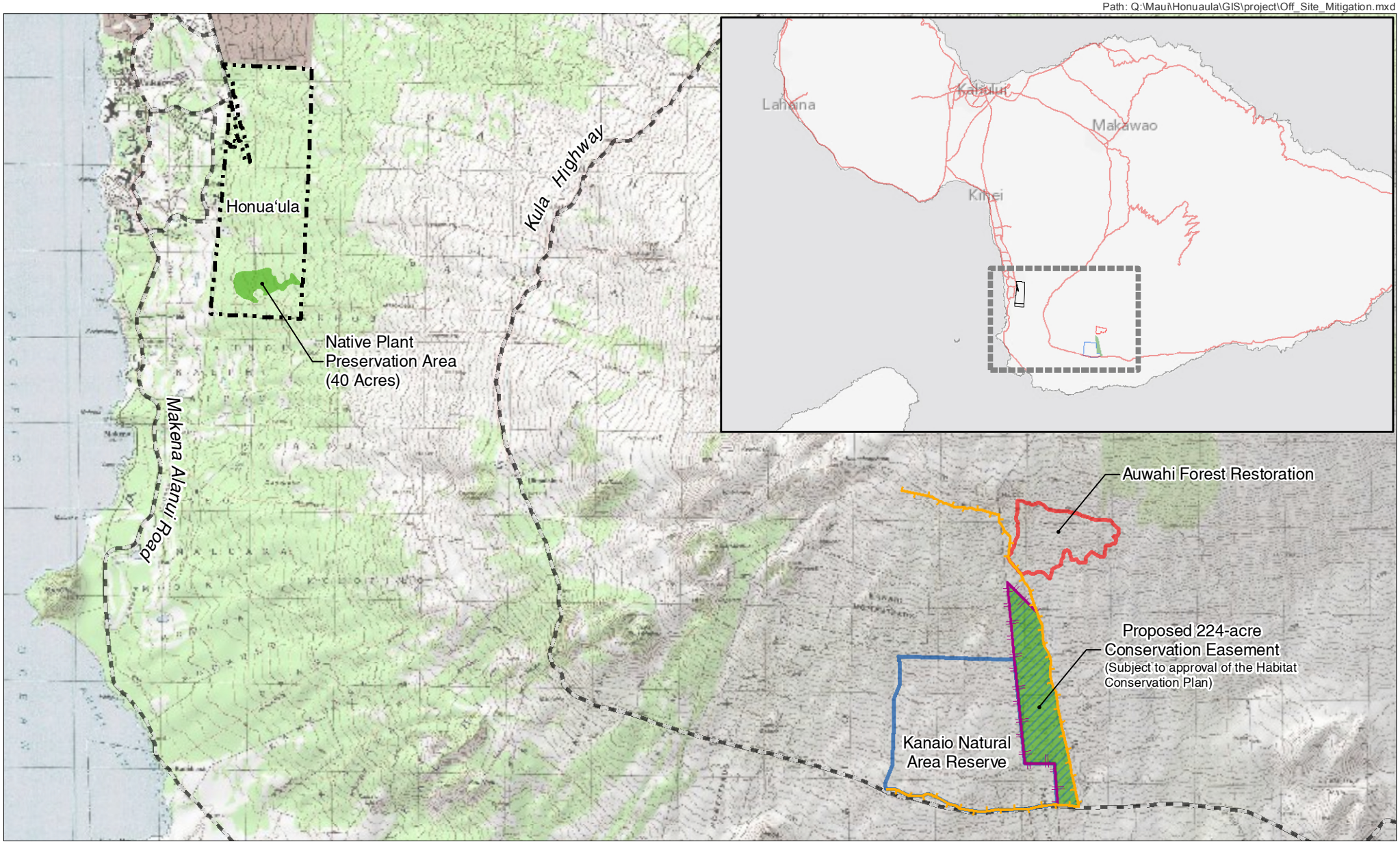
# Honua'ula

Honua'ula Partners, LLC — ISLAND OF MAUI

NORTH — LINEAR SCALE (FEET) 0 300 600 1,200

PBR HAWAII & ASSOCIATES, INC.

Disclaimer: This graphic has been prepared for general planning purposes only.




**LEGEND**

- Honua'ula
- Native Plant Preservation Area (40 Acres)
- Major Roads
- Kanaio Natural Area Reserve
- Auwahi Forest Restoration
- Proposed 224-acre Conservation Easement (Subject to approval of the Habitat Conservation Plan)
- Existing Fence
- Proposed Fence

**Figure 12a**

On- and Off-Site Mitigation Areas

# Honua'ula

Honua'ula Partners, LLC

Island of Maui

North

LINEAR SCALE (FEET)

0 2,500 5,000 10,000

PBR HAWAII & ASSOCIATES, INC.

Source: SWCA

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary Interpretations or other spatial analysis.

preservation, restoration, and interpretation for public education and enrichment consistent with a Conservation Plan (see below) approved by the State DLNR, the United States Geological Survey, and the USFWS and with a Cultural Resource Preservation Plan (see Section 4.1 (Archaeological and Historic Resources) and Section 4.2 (Cultural Resources) for information on archaeological and cultural resources), which includes the management and maintenance of the Native Plant Preservation Area (Condition 27a);

- Confining use of the Native Plant Preservation Area to activities consistent with the purpose and intent of the Native Plant Preservation Area (Condition 27b);
- Prohibiting development in the Native Plant Preservation Area other than ~~erecting~~ fences~~, enhancing~~ and interpretive trails~~, and constructing structures for the maintenance needed for the area,~~ in accordance with the Conservation/ Preservation Plans (Condition 27c). Interpretive trails will be minimal in size, and shall not consist of imported materials or hardened surfaces; care will be taken to minimize impacts to native plants during establishment of trails; and
- That title to the Native Plant Preservation Area 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 Native Plant Preservation Area will be permitted pursuant to an established schedule 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 Native Plant Preservation Area at reasonable times for cultural and education purposes only (Condition 27d).

~~In addition to the Native Plant Preservation Area, Honua'ula Partners, LLC will also provide additional areas for the protection of native plants (Figure 12). Altogether, 143 acres are proposed for the preservation, conservation, propagation, and management of native plant species at Honua'ula. Included in this area is the 22 acre Native Plant Preservation Area, which will contain the highest density of native and indigenous plants found at Honua'ula. The Native Plant Preservation Area and an additional 23 acres of Native Plant Conservation Areas within the *kiawe wiliwili* shrubland will remain ungraded and protected. Further areas specifically designated for native plants include approximately: 1) 53 acres of existing or enhanced natural landscape which may be graded but will be replanted with native dry shrubland species; 2) 28 acres of natural gulch areas; and 3) 17 acres for planting and propagation of native plants. Table 2 identifies conservation sub areas and the elements unique to each. Combined, these areas will: 1) provide protection for native plants; 2) ensure the long term genetic viability and survival of the native dry shrubland species; and 3) enhance long-term population growth.~~

**~~Table 2. Honua'ula Native Plant Areas~~**

| ~~Preservation & Conservation Designation~~ | ~~Approximate Area~~ | ~~Management Objective~~ |
|---|---|---|
| ~~Native Plant Preservation Area~~ | ~~22 acres~~ | ~~Easement protected in perpetuity and managed exclusively for preservation of the existing *kiawe-wiliwili* shrubland association~~ |
| ~~Native Plant Conservation Areas~~ | ~~23 acres~~ | ~~Ungraded conservation areas in which existing native plants will be protected and managed as natural areas~~ |
| ~~Naturalized Landscape (Existing and Enhanced)~~ | ~~53 acres~~ | ~~Areas for conservation of existing native vegetation~~ |
| ~~Natural Gulches~~ | ~~28 acres~~ | ~~Natural drainage gulches will be left undisturbed and existing native vegetation will remain intact~~ |
| ~~Out planting Areas for Native Plants~~ | ~~17 acres~~ | ~~Areas dedicated to the propagation of native plants~~ |
| ~~**TOTAL AREA**~~ | ~~**143 acres**~~ | ~~**Native Plant Areas**~~ |

**Native Plant Conservation Areas** – In addition to the Native Plant Preservation Area, Native Plant Conservation Areas will be located throughout the Property including adjacent to both the golf course and the Native Plant Preservation Area. The areas will include:

- All the existing natural gulches throughout the Property (28 acres);
- Ungraded conservation areas (eight acres) in which existing native plants will be protected and that will be managed as natural areas; and
- Areas containing naturalized landscape in which existing native vegetation will be conserved or enhanced through propagation of native species from seeds collected on the Property.

Combined these areas will add an additional conservation area of at least 36 acres in which existing native plants will be protected. Management strategies employed for these Plant Conservation Areas will be in accordance with the Conservation and Stewardship Plan.

**Additional On-site Mitigation Measures** – To further protect native species on-site, Honua'ula Partners, LLC will:

- Conserve as many of the *wiliwili* trees as possible outside the Native Plant Preservation Area;

- Fence the entire perimeter of the Property, and other areas as appropriate, to exclude feral ungulates from the *kiawe-wiliwili* shrubland. A fence has already been erected, however fencing requirements will be reviewed and updated (for example, to include stronger deer fencing) as establishment of the Native Plant Preservation Area and site construction begins (this is consistent with County of Maui Ordinance No. 3554 Condition 7);
- Implement an ungulate management plan to ensure that goats, deer, pigs, and stray cattle are removed in a humane manner from the Native Plant Preservation Area and the Native Plant Conservation Areas (this is consistent with County of Maui Ordinance No. 3554 Condition 7);
- Employ a Natural Resources Manager to help develop and implement specific conservation programs to ensure the protection of native plants and animals within the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas throughout the Property. The Natural Resources Manager will also be responsible for ensuring the success of the off-site mitigation program;
- Implement a program to control and eradicate invasive grasses, weeds, and other non-native plants from the Native Plant Preservation Area with the exception of the non-native tree tobacco (*Nicotiana glauca*), which is a recognized host plant for the endangered Blackburn's sphinx moth (*Manduca blackburni*) (for information on the Blackburn's sphinx moth see Section 3.7 (Wildlife Resources));
- Implement a native plant propagation program for landscaping with plants and seeds naturally occurring on the Property. All plants native to the geographic area will be considered as potential species for use in landscaping;
- Implement a seed predator control program to control rats, mice, and other seed predators;
- Implement a fire control program to help protect the Native Plant Preservation Area and the Native Plant Conservation Areas and ensure the success of plant propagation and conservation efforts;
- Implement an education and outreach program open to the public and sponsor service groups to assist with implementation of the management programs in the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas;
- Apply for additional program support offered by the State of Hawai'i (Natural Area Partnership Program and Hawaii Forest Stewardship Program) and USFWS to promote sound management of the natural resources within Honua'ula;
- Submit copies of all SWCA reports prepared for Honua'ula, along with the report titled *"Remnant Wiliwili Forest Habitat at Wailea 670, Maui, Hawaii"* (Altenberg 2007), to DLNR, USFWS, U.S. Geological Survey, and U.S. Army Corps of Engineers for review and comment in compliance with County of Maui Ordinance No. 3554 Condition 27. These reports were submitted to the above agencies on March 22, 2010;
- Continue long-term vegetation monitoring during wet and dry seasons to evaluate the health of native plants and to support the development of the Conservation and Stewardship Plan for the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas ~~(see below)~~; and

- ~~Prepare a multi-species~~ Finalize its draft Habitat Conservation Plan (to include the candidate endangered *'āwikiwiki*) ~~under~~ in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and ~~in collaboration with DLNR and USFWS~~ Chapter 195D, HRS. Section 3.7 (Wildlife Resources) below contains additional information regarding the Habitat Conservation Plan.

**Off-Site Mitigation Areas**

For off-site mitigation, Honua'ula Partners, LLC will:

1. Acquire a perpetual conservation easement of approximately 224-acres on a currently unprotected portion of property owned by Ulupalakua Ranch adjacent to the eastern boundary of the State of Hawaii Kanaio Natural Area Reserve; and
2. Fund and implement the continuation and expansion of restoration efforts within the Auwahi Forest Restoration Project area, just north of the Kanaio Natural Area Reserve, including fencing of approximately 130 acres, ungulate removal, and plant restoration activities.

Figure 12a shows the proposed locations of the on- and off-site mitigation areas. The on- and off-site mitigation measures and areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR.

The Kanaio and Auwahi areas have been pinpointed by USFWS, USGS, Medeiros, Loope, and Chimera (1993), VanGelder and Conant (1998), Price et al (2007), and The Nature Conservancy to be of high value for Blackburn's sphinx moth habitat and native dryland forest and shrubland species including wiliwili and a number of threatened and endangered species. While it may be debated that there are additional areas in Southeast Maui with geology, slope, rainfall, and plant species composition similar to the Honua'ula Property, such areas are either already protected or simply not available for acquisition from their owners.

**Kanaio Natural Area Reserve Conservation Easement –** The proposed approximately 224-acre perpetual conservation easement adjacent to the eastern boundary of the Kanaio Natural Area Reserve harbors 171 species of plants, 40 percent of which are native to the Hawaiian Islands (19 indigenous species and 49 endemic species). In comparison, Honua'ula harbors 146 species of plants, of which 27 percent were native (26 indigenous species, and 14 endemic species).

This area, which contains native dry land habitat, is considered to be particularly high quality habitat for the Blackburn's sphinx moth, due in large part to the presence of many native host plants for both adult and juvenile life stages of the Blackburn's sphinx moth.

As part of Honua'ula Partners, LLC's conservation efforts, the eight-foot ungulate fence that currently exists along the eastern and southern border of the approximately 224-acre

area will be extended along the remaining borders of the parcel, and ungulates will be removed from the enclosure. A 10-foot wide fire break will be established along the inside perimeter of the fence to minimize the risk of fires started outside the parcel from entering the mitigation area. In addition, a cross fencing plan for adjacent ranch land is being developed in coordination with Ulupalakua Ranch. Cross fencing will be designed to facilitate cattle grazing in such a pattern to enhance fire control immediately adjacent to the protected area. The fence and fire breaks will be maintained in perpetuity.

**Auwahi Forest Restoration –** At the Auwahi Forest Restoration Project, Honua'ula Partners, LLC will fund and implement a 15-year restoration program covering an area of approximately 130-acres. This will include: a) fencing of, and ungulate removal from, approximately 130 acres of Blackburn's sphinx moth conservation area; and b) dry forest restoration to benefit the Blackburn's sphinx moth, and native dry shrubland plant species. Restoration activities will include removal of invasive weeds and propagation and out-planting of native species, including many native host plants for both adult and juvenile life stages of the Blackburn's sphinx moth.

While an eight foot fence already exists around the entire 184-acre Auwahi Forest Restoration Project, some cattle grazing continues in most of the area within the enclosure. As part of the program funded and implemented by Honua'ula Partners, LLC, cattle fences will be moved or installed and cattle will be removed from restoration areas.

Restoration efforts at the Auwahi Forest Restoration Project started in 1997 have been very successful, with 28 native species naturally reproducing after only 10 years of restoration efforts. The mitigation program implemented by Honua'ula Partners, LLC will build on this success, and will include mechanical and chemical removal of invasive plant species and enhancement of the native vegetation through propagation. A 10-foot wide fire break will be established along the inside perimeter of the fence, and the cross-fencing plan described above will benefit the Auwahi mitigation area as well as the Kanaio conservation easement area. Honuauala Partners, LLC will establish an endowment to ensure that fences, firebreaks, and restored areas will be maintained in perpetuity.

**Net Conservation Benefit**

The proposed on- and off-site measures to protect native plants and Blackburn's sphinx moth habitat proposed by Honua'ula Partners, LLC provide a net conservation benefit (as required under Chapter 195D, HRS) through:

1. The protection and propagation of additional native host plants for both larval and adult Blackburn's sphinx moth (including the native host species 'aiea (*Nothocestrum spp.*) and halapepe (*Pleomele spp.*)); and
2. Creation and protection of a higher number species of native host plants than currently exists on the Property.

The on- and off-site mitigation areas together provide approximately 394 acres of native dry shrublands for the perpetual protection and propagation of native dryland plants, including wiliwili. Through the perpetual protection and enhancement of these areas, a stable core habitat area will be secured for the moth, providing net benefit to this covered species, as well as a large number of additional native dryland species. To implement the on- and off-site mitigation measures Honuaʻula Partners, LLC, will finalize its draft Habitat Conservation Plan (HCP) (See Section 3.7 (Wildlife Resources). The on- and off-site mitigation measures and areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR. Section 3.7 (Wildlife Resources) below contains additional information regarding the Habitat Conservation Plan.

**Honuaʻula Conservation and Stewardship Plan**

To ensure the long-term conservation and stewardship of native plants within Honuaʻula, and in conformance with County of Maui Ordinance No. 3554 Condition 27a, SWCA prepared the *Honuaʻula Conservation and Stewardship Plan* (2010b). The plan incorporates findings, conclusions, and recommendations from previous botanical surveys, wildlife surveys, and biological assessments of the Property and recommends proactive stewardship actions to manage the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas.

The *Honuaʻula Conservation and Stewardship Plan* also includes discussion of Hawaiian dry forest ecosystems and their status, an evaluation of the remnant coastal dry shrubland community at Honuaʻula, an inventory of dry forest restoration efforts underway statewide (reserves and preserves), and an evaluation of lessons learned that are applicable to the Honuaʻula Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas.

In summary, the remnant native vegetation in the Honuaʻula mixed *kiawe-wiliwili* shrubland represents a highly degraded lowland dry shrubland. Current conservation efforts for native dry forest ecosystems have been focused on better examples of relatively intact ecosystems such as the Puʻu o Kali, Auwahi, and Kula Forest Reserves and the Kanaio and ʻĀhihi-Kīnaʻu Natural Area Reserves. These projects and other conservation efforts in Hawaiʻi indicate that even small restoration efforts consisting of a few hectares, and in some cases individual trees, can help provide habitat for rare native dry forest species and can subsequently serve as urgently-needed sources of propagules.

With the lessons learned from other resource protection programs, the overall goal of the *Honuaʻula Conservation and Stewardship Plan* is to ~~conserve the native plant resources of~~ protect native plants and animals within Honuaʻula. The secondary goals are to cooperate with researchers in furthering the science of native plant propagation~~,~~ and provide education and outreach opportunities~~, and enhance the natural beauty of Honuaʻula~~. To achieve these goals the *Honuaʻula Conservation and Stewardship Plan* sets forth management objectives, which are summarized below (SWCA 2010b). Many of these management objectives mirror the recommendations contained in the botanical survey

(SWCA 2010a). Appendix F contains the complete *Honuaʻula Conservation and Stewardship Plan*.

- **Management Objective 2: Fund and Hire a Natural Resources Manager**
  A Natural Resources Manager will implement the goals and objectives of the *Honuaʻula Conservation and Stewardship Plan,* which includes the *Ungulate Management Plan*. The Natural Resources Manager will be responsible for implementing the management objectives, including conducting public outreach, supporting plant propagation efforts and scientific research, and controlling and eradicating invasive plant species. The Natural Resources Manager will also work cooperatively with government and non-governmental conservation agencies including the Maui Invasive Species Council, Leeward Haleakalā Watershed Alliance, DLNR, and other organizations. The Natural Resources Manager will also be responsible for ensuring the success of the off-site mitigation program;

- **Management Objective 3: Eliminate Browsing, Grazing, and Trampling By Feral Ungulates**
  The perimeter of the Property has already been fenced to exclude feral ungulates from the *kiawe-wiliwili* shrubland; however, the fencing is porous. In accordance with DLNR stipulations, the existing fence will be replaced with an ungulate proof fence to exclude non-native deer, goats, and cattle from damaging native plants. The fence is expected to be made of rust resistant, galvanized steel materials and will be approximately eight feet high with a mesh size of no more than six inches. Ungulates trapped within fenced areas will be removed from the Property in a humane manner. A detailed description of the fencing is contained in the *Ungulate Management Plan* which is appended to the *Honuaʻula Conservation and Stewardship Plan;*

- **Management Objective 4: Remove and Manage Noxious Invasive Plants**
  Honuaʻula Partners, LLC will implement a program to control and eradicate invasive grasses, weeds, and other non-native plants from the Native Plant Preservation Area with the exception of the non-native tree tobacco (*Nicotiana glauca*), which is a recognized host plant for the endangered Blackburn's sphinx moth. In addition, the Natural Resources Manager will establish a protocol for avoiding the introduction of new invasive plants or the spread of existing plants. The Natural Resources Manager will also collaborate with the landscape designers for the golf course and the residential areas to ensure that the ornamental plants being used for landscaping are not likely to become invasive within the Native Plant Preservation Area or the Native Plant Conservation Areas;

- **Management Objective 5: Protect and Augment All Native Plants Within the Native Plant Preservation Area**
  In addition to building features or physical barriers (stone walls, fences, etc) to protect the Native Plant Preservation Area, Honuaʻula Partners, LLC will augment

existing native populations by seeding, out-planting nursery grown native plants, or transplanting native plants from un-protected areas on the Property. The Natural Resources Manager will implement a program to relocate scattered rare native plants occurring outside of the Native Plant Preservation Area (e.g. *nehe*) to appropriate areas within the boundaries of the Native Plant Preservation Area. The Natural Resources Manager will be responsible for improving habitat conditions, as needed, to augment the health of plants in the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas;

- **Management Objective 6: Create a Plant Propagation Effort**
  The Natural Resources Manager will work with native plant propagators in the community to facilitate a native plant propagation program. Selective seeds and cuttings will be collected from native plants found within Honua'ula to be stored outside the natural environment (i.e. seed banks) for use in plantings within the Property, as well as at protected areas such as Pu'u O Kali or the off-site mitigation areas. The success of this effort depends largely on the availability of fresh, viable seeds;

- **Management Objective 7: Attempt Propagation and Out-planting of Native Host Plants for the Blackburn Sphinx Moth**
  Despite its importance to the endangered Blackburn's sphinx moth, the non-native tree tobacco (a Blackburn's sphinx moth host plant) is not an ideal species to maintain within the Native Plant Preservation Area because it is a high risk invasive species, due to its prolific seed production, environmental versatility, and toxicity to humans and cattle;

  Because the intent of the Native Plant Preservation Area is to protect valuable native plant species, consideration is being given to propagating *'aiea* (*Nothocestrum latifolium*) (a Blackburn's sphinx moth host native plant) in this area to replace the non-native tree tobacco. The ultimate outcome of this effort is unknown because the Property is at a lower elevation and drier climate than the elevation where native *'aiea* usually grows. If *'aiea* becomes established within the Native Plant Preservation Area and is used by the Blackburn sphinx moth, then non-native tobacco trees ~~will~~ may be removed. Removal of non-native tree tobacco will only occur in the season when Blackburn sphinx moths are underground. Precautions will be taken to ensure pupae are not harmed;

- **Management Objective 8: Protect Native Plants and Animals Against Wild Fires**
  Honua'ula Partners, LLC will implement a fire control program to help protect the Native Plant Preservation Area and Native Plant Conservation Areas to insure the success of plant propagation and conservation efforts. This program will include the creation of a fire break immediately outside of the perimeter of the Native Plant Preservation Area. The golf course, which will abut portions of the Plant Preservation Area and ~~other~~ Native Plant Conservation Areas, will also act as a fire break to protect native plants. In addition, non-native grasses which augment fuel

biomass, will be controlled from inside of the areas. The Natural Resources Manager will develop and finalize the fire control plan in coordination with resource agencies and fire department officials;

- **Management Objective 9: Remove and Manage Non-Native Seed Predators**
  The Natural Resources Manager will design and implement a predator control program for rats, mice, and other predators within the Native Plant Preservation Area and the Native Plant Conservation Areas that prey on native plant seeds and seedlings. This program may include the use of bait stations, as well as traps. The program will be developed through coordination with USDA Animal Damage Control and DLNR staff. State DOH BMPs will be implemented;

- **Management Objective 10: Develop and Implement a Scientific Monitoring Program**
  The Natural Resources Manager will work with the USFWS, DLNR, and others as appropriate to conduct a detailed scientific inventory and monitoring program. The purpose of the monitoring will be to: 1) establish an accurate baseline to evaluate the efficacy of management activities; 2) determine if the goals of the *Honuaʻula Conservation and Stewardship Plan* are being achieved; and 3) identify impending threats to the Native Plant Preservation Area. This program will monitor annual survival rates, natural reproduction, signs of herbivory, abundance of invasive species, and accurately map native species, as appropriate;

- **Management Objective 11: Utilize Appropriate Native Plant Landscaping in Areas Outside the Native Plant Preservation Area and Native Plant Conservation Areas**
  Honuaʻula Partners, LLC will landscape common areas with native plant species to the maximum extent practicable. Preference will be given to xeric species (i.e. plants that require minimal irrigation and are tolerant of dry conditions); however, all plants native to the geographic area should be considered as potential species for use in landscaping. Honuaʻula Partners, LLC will also conserve as many of the *wiliwili* trees as possible outside of the Native Plant Preservation Area and the Native Plant Conservation Areas;

- **Management Objective 12: Manage the Native Plant Preservation Area With the Cooperation of Stakeholders**
  Honuaʻula Partners, LLC will attempt to involve a wide range of stakeholders in the management of the Native Plant Preservation Area. The Natural Resources Manager will work with the University of Hawaiʻi, Maui Invasive Species Council, Leeward Haleakalā Watershed Alliance, State DLNR, and others, as appropriate, to conduct detailed scientific inventories and monitoring programs to develop an accurate baseline and ongoing monitoring to evaluate the efficacy of management activities and identify imminent threats to the Native Plant Preservation Area. Honuaʻula Partners, LLC will make an effort to continually disseminate useful information to all stakeholders;

- **Management Objective 13: Develop a Public Education and Outreach Program**
  Honua'ula Partners, LLC will implement an education and outreach program open to the local community and the general public. This program will be coordinated by the Natural Resources Manager and will involve: 1) sponsoring service trips to assist with management activities; 2) field trips for island students; and 3) developing interpretive signs to encourage public cooperation and discourage trespassing through the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas; and

- **Management Objective 14: Incorporate Adaptive Management Principals**
  To accommodate for uncertainty inherent in natural systems, Honua'ula Partners, LLC will adopt an active adaptive management approach. With this approach, information gathered during the monitoring program will influence and improve future management practices. According to USFWS policy, adaptive management is defined as a formal, structured approach to dealing with uncertainty in natural resources management, using the experience of management and the results of research as an on-going feedback loop for continuous improvement. Adaptive approaches to management recognize that the answers to all management questions are not known and that the information necessary to formulate answers is often unavailable. Adaptive management also includes, by definition, a commitment to change management practices when determined appropriate.

**Honua'ula Landscape Master Plan**

To ensure a cohesive and visually unified landscape throughout Honua'ula, PBR Hawaii and Associates, Inc, prepared the Honua'ula Landscape Master Plan. The Landscape Master Plan establishes an overall landscape concept and establishes principles to guide the design and implementation of landscape planting within Honua'ula. Key concepts and objectives of the Landscape Master Plan are summarized below. Appendix G contains the complete plan.

The design proposals contained in the Honua'ula Landscape Master Plan are driven by the *Honua'ula Conservation and Stewardship Plan* (SWCA 2010b), which recommends proactive stewardship actions to manage and propagate native plants within Honua'ula. Similarly, the Landscape Master Plan strives to create a naturalized landscape palette, using native plants, which require minimal irrigation and will, after establishment, require minimal maintenance. Consistent with the Maui County Planting Plan, the Honua'ula Landscape Master Plan is responsive to the botanical resources of the area and the need to limit the use of water for irrigation.

The goals of the Landscape Master Plan are to:

- Create an informal, naturalistic community-wide landscape that will allow buildings and other improvements to rest graciously upon the land; in this sense, the landscape will dominate the scene;
- Create a memorable experience at Honuaʻula by designing landscapes that respect the site's natural and cultural resources, and embrace this unique Hawaiian landscape;
- Preserve, enhance, and protect native landscape and habitat areas by using native plants, whenever possible, to make seamless transitions between the natural landscape and introduced landscapes;
- Concentrate ornamental landscapes around key amenity areas of the Golf Clubhouse, mixed use village areas, and select higher density residential neighborhoods;
- Rehabilitate existing degraded landscapes and restore all disturbed areas affected by grading and construction for infrastructure and community development; and
- Use plants and irrigation techniques that are sensitive to water conservation.

The Honuaʻula Landscape Master Plan draws inspiration from the geographical characteristics and native vegetation found on-site and in the area:

- **Native Plant Palette** – Honuaʻula's primary plant palette will reflect the area's mixed *kiawe-wiliwili* shrubland vegetation. The vegetation will consist mainly of native drought-tolerant plants, which will be planted in a manner that will mimic how these plants would grow in their natural state. All planting areas will be irrigated using non-potable water.
- **Lava Flows** – Lava stone found on-site will be incorporated into the landscape as a thematic element. On-site rocks and boulders will be used for grade transitions and will also be incorporated as landscape features.
- **Lava Rock Walls** – Dry stack rock walls similar to the existing historic and ranch era walls found on-site will be incorporated into the landscape as both a functional and aesthetic design element. These walls will be incorporated throughout Honuaʻula, becoming an important identity element of the Honuaʻula landscape.
- **Gulches** – As much as possible, gulches will remain natural. Transition areas between gulches and built areas will incorporate boulders found on-site with native plantings.

The Honuaʻula Landscape Master Plan identifies 13 key landscape areas or components that combine to create the framework for the overall landscape concept. Below is a listing of these areas along with the key design features of each:

- **Entries/Gateways** – Define entries and gateways with boulders, rock walls, signs, canopy trees and/or vertical palms, specimen trees, native plants, and subtle lighting;
- **Roadways** – The landscape treatment along roadways and trails will consist primarily of informal clusters of native plants;

- **Pi'ilani Highway Extension** – With the exception of a few strategically located view corridors, most of the Pi'ilani Highway extension within Honua'ula will be planted with informal clusters of native and/or ornamental plants to create a dense buffer between the highway and adjacent uses;
- **Golf Course** – Native vegetation will be planted in informal clusters to transition from golf course landscaping to open spaces;
- **Clubhouse** – A combination of native plants, at the periphery or in low impact areas, and ornamental landscaping, close to the club buildings and in high impact areas, will create a varied yet naturalistic landscape;
- **Native Plant Preservation Area and Native Plant Conservation Areas** – Protection of existing native plants will be the primary objective for these areas;
- **'A'ā Lava Flows** – Lava and rocks will surround native plant clusters propagated from the site;
- **Grass Lands** – Native shrub vegetation will be use to landscape the area;
- **Maui Meadows Landscape Buffer** – A mixture of medium-sized canopy trees, large native shrubs, and small trees will function as a landscape buffer. In addition, portions of the buffer could be utilized for community parks and gardens;
- **Utility Buffers** – Canopy trees and dense understory plantings will surround water tanks and utility features to create a dense visual screen;
- **Gulches** – Re-established native plants will provide natural landscape treatment;
- **Parks** – Landscape will include turf grass, canopy trees, and native shrubs and groundcovers; and
- **Village** – Within the higher density village mixed use areas, a more ornamental landscape is appropriate, using canopy trees and shrub massing to mitigate the visual and micro-climate impacts of buildings.

## 3.7 WILDLIFE RESOURCES

Several wildlife surveys of the Property have been conducted since 1988 (Bruner 1988, 1993, and 2004; SWCA 2010c). SWCA completed the most recent wildlife survey of the Honua'ula Property in 2009 (SWCA 2010c), which included the area of the Pi'ilani Highway extension ROW that traverses the Property (both the portion owned by the State and the portion owned by 'Ulupalakua Ranch), and the area of the Maui Electric substation. Specific objectives of the survey included: 1) documenting the presence and relative abundance of birds and mammals with the Property; and 2) determining the presence and abundance of any protected species within the Property, including migratory shorebirds, waterbirds, Federal and State of Hawaii listed endangered or threatened species, and "species of concern." Key findings of the SWCA survey are presented below. Appendix H contains the complete survey.

SWCA also completed wildlife surveys for the areas of: 1) the alternative wastewater transmission line alignments for possible connection to the Mākena Resort WWRF, which is located approximately one mile south of Honua'ula (Appendix H); 2) the off-site wells, waterline, and storage tank (Appendix E); 3) the widening of Pi'ilani Highway (Appendix

D of the Pi'ilani Highway Widening Project Final EA contained in Appendix R of this EIS); and 4) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements (Appendix B of the Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA contained in Appendix S of this EIS).

Since the wildlife survey of the areas of the wastewater transmission line alignments was conducted, a decision has been made regarding which preferred alignment to use. For more information on the selected wastewater alignment for possible connection to the Mākena Resort WWRF see Section 4.8.2 (Wastewater System) and Figure 2. Appendix H contains the complete wildlife survey of the alternative wastewater transmission line alignments.

**Endangered Species**

Although not detected during previous surveys (Bruner 1988, 1993, and 2004), evidence of endangered Blackburn's sphinx moths (*Manduca blackburni*) was found within the Honua'ula Property during the SWCA (2010c) survey, including frass, cut stems and leaves, and live caterpillars. Evidence was limited to a single species of non-native weed: the tree tobacco (*Nicotiana glauca*). No adult Blackburn's sphinx moths were observed within the Property. Similarly, tree tobacco (*Nicotiana glauca*) plants were found along the Pi'ilani Highway widening corridor and the selected wastewater transmission line alignment for possible connection to the Mākena Resort WWRF. However, only tree tobacco (*Nicotiana glauca*) plants at one point along the selected alignment showed substantial leaf damage that could be possibly attributed to the Blackburn's sphinx moth caterpillar.

A single endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) was sighted flying seaward over the Property near the southern boundary. No other bats were observed during the survey. *Kiawe* trees, which are abundant on the Property, have been documented as roost trees for the Hawaiian hoary bat, thus, while not observed, it is possible that Hawaiian hoary bats roost within the Property.

No Federal or State of Hawai'i listed threatened, endangered, or candidate species were observed in the areas of: 1) the off-site wells, waterline, and storage tank; 2) the widening of Pi'ilani Highway; and 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

**Native Birds**

The endemic *pueo* (*Asio flammeus sandwichensis*) (short-eared owl) was the only native bird species observed within the Property. Six *pueo*, 12 barn owls, and six other unidentified owls were sighted in grassland habitat, but no owl nests were found. Grasslands present on the Property are likely to provide good foraging and nesting habitat for owls; however, ground nesting increases vulnerability to predation by rats (*Rattus* spp.),

cats (*Felis catus*), and the small Indian mongoose (*Herpestes auropunctatus*), all of which are present in the area.

~~Native~~ Indigenous seabirds that may fly over the Honua'ula area during the day include the greater frigate bird or *'iwa* (*Fregata minor palmerstoni*) and tropic birds (*Phaethon* spp.). ~~Native~~ Endemic seabirds that may fly over the site at night include the endangered Hawaiian petrel (*Pterodroma sandwichensis*) and the threatened Newell's shearwater (*Puffinus auricularis newelli*). While seabirds may traverse the area at night during the breeding season (February 1 through December 15), ~~they do not~~ none are known to nest nest ~~on~~ within the Property.

A single *pueo (Asio flammeus sandwichensis)* and a single *'iwa* bird (*Fregata minor*) was observed during the survey of the alternative wastewater transmission line alignments. The *pueo* sighting did not occur on the selected wastewater alignment but in the vicinity. For more information on the selected wastewater alignment for possible connection to the Mākena Resort WWRF see Section 4.8.2 (Wastewater System) and Figure 2.

No native birds were observed in the areas of: 1) the off-site wells, waterline, and storage tank; 2) the widening of Pi'ilani Highway; and 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

**Migratory Birds**

A single non-native Northern harrier (*Circus cyaneus*) was observed flying over *wiliwili* trees in the southern portion of Honua'ula (SWCA 2010c). Pacific Golden-Plover or *Kōlea* (*Pluvialis fulva*) have been observed in the vicinity (Bruner 1988 and 2004); however, they were not seen during the course of the SWCA (2010c) survey.

No migratory birds were observed in the areas of the alternative wastewater transmission line alignments.

The Pacific Golden-Plover was observed in the areas of: 1) the off-site wells, waterline, and storage tank; and 2) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements. While not observed during the survey of the alternative wastewater line alignments, the Pacific Golden Plover is expected to occur in these areas during the migratory season.

**Introduced Birds**

SWCA biologists observed 16 species of introduced birds within the Property. The most abundant were: Japanese white-eye (*Zosterops japonicus*), nutmeg manikin (*Lonchura punctulata*), zebra dove (*Geopelia striata*) and northern cardinal (*Cardinalis cardinalis*). Also common were: African silverbills (*Lonchura cantans*) and red-crested cardinals (*Paroaria coronata*). Another survey (Bruner 2004) identified other common birds: house

finch (*Carpodacus mexicanus*), black francolin (*Francolinus francolinus*), nutmeg mannikin (*Lonchura punctulata*), and northern cardinal (*Cardinalis cardinalis*).

A few cattle egrets (*Bulbulcus ibis*) were observed in the areas of: 1) the widening of Pi'ilani Highway; and 2) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

Various other introduced bird species were observed in the areas of: 1) the alternative wastewater transmission line alignments; 2) the off-site wells, waterline, and storage tank; 3) the widening of Pi'ilani Highway; and 4) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements. The most abundant species common to all areas were the zebra dove (*Geopelia striata*) and common myna (*Acridotheres tristis*).

**Mammals**

The endangered Hawaiian Hoary Bat was the only native mammal observed during the SWCA (2010c) survey of the Property. Small herds of axis deer (*Axis axis*) were commonly seen. The small Indian mongoose (*Herpestes javanicus*) was observed, but was uncommon. Cats (*Felis catus*), rats (*Rattus spp.*) and mice (*Mus musculus*), while not observed, are expected to be present within the Property due to its proximity to the Maui Meadows subdivision and the Wailea Resort. While not present during the survey, domestic cattle (*Bos taurus*) are sometimes grazed in the northern portion of the Property.

No Federal or State of Hawai'i listed threated, endangered, or candidate mammal species were observed in the areas of: 1) the alternative wastewater transmission line alignments; 2) the off-site wells, waterline, and storage tank; 3) the widening of Pi'ilani Highway; and 4) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

Honua'ula is not expected to significantly ~~impact~~ effect any listed or candidate endangered or threatened species insofar as extensive mitigation measures will be implemented to offset, avoid, and minimize impacts, leading to a net benefit as defined in Chapter 195D, HRS. ~~Evidence of the endangered Blackburn's sphinx moth (*Manduca blackburni*) was found within the Honua'ula Property and a single endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) was sighted flying seaward over the Property. No other Federal or State of Hawai'i listed threatened or endangered animal species were identified on the Property. Several mitigation measures will be implemented to protect these endangered species and other animal species.~~

**Endangered Species**

**Blackburn's Sphinx Moth –** ~~While evidence of the~~ Live caterpillars and other sign of Blackburn's sphinx moths (*Manduca blackburni*) ~~was~~ have been found within the

Honua'ula property ~~(frass, cut stems and leaves, and live caterpillars), no adult Blackburn's sphinx moths were observed~~.

Based on the presence of the non-native tree tobacco (*Nicotiana glauca*) and native host plants for the endangered Blackburn's sphinx moth, the USFWS has expressed concern that "habitat loss within the project site could adversely impact Blackburn's sphinx moth populations within this region of Maui."

A discussed above in Section 3.6 (Botanical Resources) and below in the following sections, Honua'ula Partners, LLC proposes both on- and off-site measures to protect and enhance native plants and habitat for the Blackburn's sphinx moth.

To protect Blackburn's sphinx moths on-site, Honua'ula Partners, LLC will:

- ~~Provide~~ Protect habitat for Blackburn's sphinx moths within the 40-acre Native Plant Preservation Area (see Section 3.6, Botanical Resources). While a preserve for native plants, the only non-native species that will be allowed to remain in this area will be the tree tobacco (*Nicotiana glauca*) so as to provide food and habitat for the moths. However, because the intent of the Native Plant Preservation Area is to protect valuable native plant species, consideration is being given to propagating *'aiea* (*Nothocestrum latifolium*) (a native Blackburn's sphinx moth host plant) in this area to replace the non-native tree tobacco. The ultimate outcome of this effort is unknown because the Property is at a lower elevation than the elevation where native *'aiea* usually grows. If *'aiea* becomes established within the Native Plant Preservation Area and is used by the Blackburn sphinx moth, then non-native tobacco trees ~~will~~ may be removed. Removal of non-native tree tobacco will only occur in the season when Blackburn sphinx moths are underground. Precautions will be taken to ensure pupae are not harmed~~;~~
- Remove non-native tree tobacco from the Property outside the Native Plant Preservation Area prior to construction. This will be done in consultation with biologists from DLNR and the USFWS to prevent accidental take of the Blackburn's sphinx moth caterpillar;
- Ensure against accidental take of Blackburn sphinx moths along the ~~alternative~~ selected wastewater transmission line alignment~~s~~ for possible connection to the Mākena Resort WWRF (see Section 4.8.2, Wastewater and Figure 2) by requiring a qualified wildlife biologist to screen any tree tobacco plants along the selected alignment for signs of moths (frass, cut stems or leaves, caterpillars, pupae, or adults). If any evidence of moths is found, trees will be identified and protected against disturbance, and USFWS and the Maui DLNR office will be consulted;
- Monitor construction operations to prevent accidental take of the various Blackburn's sphinx moth life stages. Should moths be found, host plants will be marked for protection and not removed until deemed appropriate by DLNR and USFWS biologists;

- Enact restrictions on landscaping and gardening within the completed Honua'ula community to prevent propagation of any plant in the Solenaceae (Night shade) family that may attract Blackburn's sphinx moths;
- Implement a translocation program in consultation with DLNR and the USFWS for Blackburn's sphinx moth caterpillars, particularly for caterpillars found in landscaped areas of Honua'ula; and
- Continue wildlife surveys from November to May during the Honua'ula construction period to look for signs of endangered Blackburn sphinx moths and protect individual moths from destruction.

For off-site mitigation, Honua'ula Partners, LLC will:

1. Acquire a perpetual conservation easement of approximately 224-acres on a currently unprotected portion of property owned by Ulupalakua Ranch adjacent to the eastern boundary of the State of Hawaii Kanaio Natural Area Reserve; and
2. Fund and implement the continuation and expansion of restoration efforts within the Auwahi Forest Restoration Project area, just north of the Kanaio Natural Area Reserve, including fencing of approximately 130 acres, ungulate removal, and plant restoration activities.

Figure 12a shows the proposed locations of the on- and off-site mitigation areas. The on- and off-site mitigation measures and areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR.

The Kanaio and Auwahi areas have been pinpointed by USFWS, USGS, Medeiros, Loope, and Chimera (1993), VanGelder and Conant (1998), Price et al (2007), and The Nature Conservancy to be of high value for Blackburn's sphinx moth habitat and native dryland forest and shrubland species including wiliwili and a number of threatened and endangered species.

The proposed approximately 224-acre perpetual conservation easement adjacent to the eastern boundary of the Kanaio Natural Area Reserve contains native dry land habitat and is considered to be particularly high quality habitat for the Blackburn's sphinx moth, due in large part to the presence of many native host plants for both adult and juvenile life stages of the Blackburn's sphinx moth.

As part of Honua'ula Partners, LLC's conservation efforts, the eight-foot ungulate fence that currently exists along the eastern and southern border of the approximately 224-acre area will be extended along the remaining borders of the parcel, and ungulates will be removed from the enclosure. A 10-foot wide fire break will be established along the inside perimeter of the fence to minimize the risk of fires started outside the parcel from entering the mitigation area. In addition, a cross fencing plan for adjacent ranch land is being developed in coordination with Ulupalakua Ranch. Cross fencing will be designed to facilitate cattle grazing in such a pattern to enhance fire control immediately adjacent to the protected area. The fence and fire breaks will be maintained in perpetuity.

At the Auwahi Forest Restoration Project, Honua'ula Partners, LLC will fund and implement a 15-year restoration program covering an area of approximately 130-acres. This will include: a) fencing of, and ungulate removal from, approximately 130 acres of Blackburn's sphinx moth conservation area; and b) dry forest restoration to benefit the Blackburn's sphinx moth, and native dry shrubland plant species. Restoration activities will include removal of invasive weeds and propagation and out-planting of native species, including many native host plants for both adult and juvenile life stages of the Blackburn's sphinx moth.

While an eight foot fence already exists around the entire 184-acre Auwahi Forest Restoration Project, some cattle grazing continues in most of the area within the enclosure. As part of the program funded and implemented by Honua'ula Partners, LLC, cattle fences will be moved or installed and cattle will be removed from restoration areas.

Restoration efforts at the Auwahi Forest Restoration Project started in 1997 have been very successful, with 28 native species naturally reproducing after only 10 years of restoration efforts. The mitigation program implemented by Honua'ula Partners, LLC will build on this success, and will include mechanical and chemical removal of invasive plant species and enhancement of the native vegetation through propagation. A 10-foot wide fire break will be established along the inside perimeter of the fence, and the cross-fencing plan described above will benefit the Auwahi mitigation area as well as the Kanaio conservation easement area. Honuauala Partners, LLC will establish an endowment to ensure that fences, firebreaks, and restored areas will be maintained in perpetuity.

The proposed on- and off-site measures to protect native plants and Blackburn's sphinx moth habitat proposed by Honua'ula Partners, LLC provide a net conservation benefit (as required under Chapter 195D, HRS) through:

1. The protection and propagation of additional native host plants for both larval and adult Blackburn's sphinx moth (including the native host species 'aiea (*Nothocestrum spp.*) and halapepe (*Pleomele spp.*)); and
2. Creation and protection of a higher number species of native host plants than currently exists on the Property.

The on- and off-site mitigation areas together provide approximately 394 acres of native dry shrublands for the perpetual protection and propagation of native dryland plants, including wiliwili. Through the perpetual protection and enhancement of these areas, a stable core habitat area will be secured for the moth, providing net benefit to this covered species, as well as a large number of additional native dryland species.

To implement the on- and off-site mitigation measures Honua'ula Partners, LLC, will finalize its draft Habitat Conservation Plan. The on- and off-site mitigation areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR. The purpose of the Habitat Conservation Plan is to:

1. Offset the potential impact of Honuaʻula on two Covered Species (Blackburn's sphinx moth and nēnē) with measures to protect and provide a net benefit to these species; and
2. Provide avoidance and minimization measures expected to avoid any negative impacts on five additional endangered species (the Hawaiian duck, Hawaiian silt, Hawaiian coot, Hawaiian petrel, and Hawaiian Hoary bat), one threatened species (Newell's shearwater), one candidate endangered species (ʻāwikiwiki), and the Hawaiian short-eared owl (pueo).

The Habitat Conservation Plan will be in support of an Incidental Take Permit (ITP) in accordance with Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) of 1973, as amended, and an Incidental Take License (ITL) in accordance with Chapter 195D, HRS. The Habitat Conservation Plan will include: specific avoidance, minimization, and mitigation measures; measures of success, and implementation specifics, including details on administration, monitoring and reporting, and funding.

Honuaʻula Partners, LLC will fund the initial 15-year period covered by the Habitat Conservation Plan and the ITP/ITL. To secure funding in perpetuity for the maintenance of the on- and off-site mitigation areas after the initial 15-year period, Honuaʻula Partners, LLC will establish an endowment, which will be overseen by the Honuaʻula Master Home Owners' Association with financial management provided by a licensed real property management company.

**Hawaiian Hoary Bat –** A single endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) was sighted flying seaward over the Property but no evidence of roosting or foraging was observed; however definitive conclusions about habitat use by bats cannot be made based on existing evidence.

Hawaiian hoary bats are known to roost in native and non-native trees greater than 15 feet tall. During the peak pup rearing season between June 1 and September 15 young Hawaiian hoary bat pups may be incapable of flight and harmed or killed if their roost site is disturbed. The removal of *kiawe* trees during construction may result in the loss of roosting habitat, but many large stature trees suitable for roosting will be preserved and others will be propagated for landscaping. To minimize the potential for harm to juveniles, removal and trimming of trees greater than 15 feet tall will be avoided during the peak pup rearing season between June 1 and September 15. To further protect Hawaiian hoary bats, and in conformance with County of Maui Ordinance No. 3554 Condition 9, Honuaʻula Partners, LLC will:

- Provide a qualified wildlife biologist to monitor for bats during construction. Should bats be found, assistance will be requested from the USFWS;
- Conduct additional bat point count surveys before construction to document any changes in abundance of bats and determine habitat utilization during the wet and dry seasons;

- Monitor clearing of ~~habitat~~ trees 15 feet in height and taller during construction to reduce the potential take of nonvolent juvenile bats; and
- Propagate native tree species for landscaping to provide suitable bat roosting habitat and mitigate for the loss of possible roosting trees during construction.

In addition to the above ~~protection~~ avoidance and ~~mitigation~~ minimization measures, ~~a multi-species~~ the draft Habitat Conservation Plan ~~(to include the candidate endangered *'āwikiwiki*)~~ will be ~~prepared under~~ finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and ~~in collaboration with DLNR and USFWS~~ Chapter 195D, HRS. The final Habitat Conservation Plan will provide: 1) measures to offset the potential impact of Honua'ula on two Covered Species; and 2) avoidance and minimization measures expected to avoid any negative impacts on five additional endangered species (including the Hawaiian hoary bat), one threatened species, one candidate endangered species, and the Hawaiian short-eared owl (pueo). Because avoidance and minimization measures are expected to avoid any impacts to the Hawaiian hoary bat, an ITP/ITL will not be requested for the Hawaiian hoary bat.

**Nēnē –** Nēnē are currently not found at or near the Property (SWCA 2010c); however creation of golf greens and lawns may conceivably attract nēnē. As dicussed below, avoidance and minimization measures will be implemented in regard to native birds; however SWCA estimates that there may be direct or indirect take of nēnē as a result of golf course operations. The final Habitat Conservation Plan will include measures to offset the potential impact of Honua'ula on nēnē and provide a net benefit. In addition the HCP will be in support of an ITP/ITL for Blackburn's sphinx moth and nēnē in accordance with Section 10(a)(1)(B) of the federal Endangered Species Act (ESA) of 1973, as amended, and Chapter 195D, HRS.

**Other Endangered Species –** Avoidance and minimization measures expected to avoid any negative impacts on additional endangered species (the Hawaiian duck, Hawaiian silt, Hawaiian coot, and Hawaiian petrel) are discussed below. Similar to the nēnē these species are not currently found at the Property, but may be attracted to the Property after construction of the golf course. The final Habitat Conservation Plan will include avoidance and minimization measures to avoid any impacts to the Hawaiian duck, Hawaiian silt, Hawaiian coot, and Hawaiian petrel. Because these measures are expected to avoid any impacts to these species, an ITP/ITL for these species will not be requested.

**Native Birds**

The endemic *pueo* (*Asio flammeus sandwichensis*) (short-eared owl) was the only native bird species observed within the Property, although no nests were found. Construction within what is currently grassland may potentially disturb roosting and nesting *pueo*. After construction, *pueo* may be permanently displaced from the Property due to the loss of grassland habitat. To minimize potential impacts to native *pueo*, and in conformance with County of Maui Ordinance No. 3554 Condition 9, Honua'ula Partners, LLC will:

- Conduct additional *pueo* surveys before construction to document any changes in abundance of *pueo* and habitat use during the wet and dry seasons; and
- Conduct nest searches when necessary ahead of construction activities, and ~~Delay~~ delay construction around any areas found to contain *pueo* nests until chicks have fledged.

Several species of ~~native~~ endemic seabirds (including the endangered Hawaiian petrel (*Pterodroma sandwichensis*)) and the threatened Newell's shearwater (*Puffinus auricularis newelli*)) may traverse ~~the area but they do not nest on~~ the Property at night during the breeding season (February 1 through December 15) however, none are known to nest within the Property. Any outdoor lighting could result in seabird disorientation, fallout, injury, and mortality. Young birds (fledglings) traversing the Property between September 15 and December 15, in their first flights from mountain nests to the sea, are particularly vulnerable. Seabirds are attracted to lights and after circling the lights they may collide with nearby wires, buildings, or other structures or they may land on the ground due to exhaustion. Downed seabirds are subject to high mortality caused by collision with automobiles, predation by dogs, cats, and wild animals, and starvation. To minimize potential impacts to native seabirds Honuaʻula Partners, LLC will:

- Shield outdoor lights in compliance with Chapter 20.35 (Outdoor Lighting), MCC~~,~~ ~~avoid~~ and the Seabird Friendly Lighting Solution guide provided by USFWS;
- Avoid night-time construction~~, and provide~~; and
- Provide all staff with information regarding seabird fallout.

After construction of the golf course~~, water features and~~ open fairways may attract a number of endangered bird species that currently are not present. These may include *koloa* (Hawaiian duck) (*Anas wyvilliana*), *aeʻo* (Hawaiian silt) (*Himantopus mexicanus knudseni*), *ʻalae keʻokeʻo* (Hawaiian coot) (*Fulica alai*), ~~*ʻalae ʻula* (*Gallinula chloropus sandvicensis*)~~, and *nēnē* (*Branta sandvicensis*). In addition, there is the potential for lighting to attract threatened ʻaʻo (Newell's shearwater) (*Puffinus auricularis newelli*) and endangered ʻuaʻu (Hawaiian petrel) (*Pterodroma sandwichensis*). The native migratory *kōlea,* which was not seen on the Property at the time of the SWCA (2010c) survey, frequently uses roads and open spaces when wintering in Hawaiʻi and may be displaced if construction occurs during the migratory season. However, it is anticipated that landscaped open spaces, gardens, and lawns and fairways on the Property will provide additional habitat that *kōlea* can use. To minimize potential impacts to other native birds Honuaʻula Partners, LLC will:

- Shield outdoor lights in compliance with Chapter 20.35 (Outdoor Lighting), MCC~~,~~ ~~and avoid~~ and the Seabird Friendly Lighting Solution guide provided by USFWS;
- Avoid night-time construction;
- Implement measures prohibiting the free movement of pets, discouraging the feeding of feral animals, and preventing increases in the populations of house mice, rats, mongoose, and feral cats by:

  - Incorporating these measures into community rules and regulations, such as covenants, conditions, and restrictions; and
  - Developing a public education program to ensure effectiveness; and
- Employ a Natural Resources Manager to help develop and implement specific conservation programs to insure the protection of native plants and animals within the Native Plant Preservation Area and ~~other~~ Native Plant Conservation Areas throughout the Property.

In addition to the above avoidance and minimization measures, the draft Habitat Conservation Plan will be finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and Chapter 195D, HRS. The final Habitat Conservation Plan will provide: 1) measures to offset the potential impact of Honua'ula on two Covered Species (including nēnē); and 2) avoidance and minimization measures expected to avoid any negative impacts on five additional endangered species (including the Hawaiian duck, Hawaiian silt, Hawaiian coot, and Hawaiian petrel), one threatened species (Newell's shearwater), one candidate endangered species, and the Hawaiian short-eared owl (pueo).

**Mammals**

Non-native mammals such as axis deer (*Axis axis*), mongoose (*Herpestes javanicus*), cats (*Felis catus*), rats (*Rattus spp.*) and mice (*Mus musculus*), pose a threat to native plant and animal species within Honua'ula. For example, feral ungulates are known to graze on native plants, degrade and destroy habitat, disrupt topsoil leading to erosion, and facilitate the establishment of non-native plants (SWCA 2010a). To control potential threats from non-native mammals and in conformance with County of Maui Ordinance No. 3554 Conditions 7 and 8, Honua'ula Partners, LLC will:

- Fence the perimeter of the Property, and other areas as appropriate, to exclude feral ungulates from the *kiawe-wiliwili* shrubland. A fence has already been erected, however fencing requirements will be reviewed and updated as the Native Plant Preservation Area and Native Plant Conservation Areas are established and site construction begins;
- Prepare and implement an Animal Management Plan, including an ungulate management plan, to ensure that goats, deer, pigs, and stray cattle are removed in a humane manner from the Native Plant Preservation Area and the Native Plant Conservation Areas. The Animal Management Plan will be prepared in cooperation with DLNR for submittal during Project District Phase II processing and approved by DLNR prior to submittal of Project District Phase Phase III processing;
- Inform owners within Honua'ula 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; and
- Employ a Natural Resources Manager to help develop and implement specific conservation programs to insure the protection of native plants and animals within

the Native Plant Areas and ~~other~~ Native Plant Conservation Areas throughout the Property.

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# Chapter 4

## Description of the Human Environment, Potential Impacts & Mitigation Measures

# 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.

## 4.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Aki Sinoto Consulting, LLC, completed a revised archaeological inventory survey for the Property in 2008. The resulting archaeological inventory survey report, dated March 2010, was included as an appendix to the the Draft EIS (Sinoto 2010). Revisions to the archaeological inventory survey report were completed in 2012 (Sinoto 2012). Findings of the archaeological inventory survey report, as revised in 2012 (Sinoto 2012), are summarized below. Appendix I contains the complete archaeological inventory survey report dated March 2012.

The area surveyed includes the Property, the area of the Pi'ilani Highway extension ROW that traverses the Property (both the portion owned by the State and the portion owned by 'Ulupalakua Ranch), and the area of the Maui Electric substation. The revised archaeological inventory survey report incorporates the results of two previous surveys together with the results of additional fieldwork. In April 2000, Sinoto & Pantaleo conducted an archaeological inventory within the 190-acre southern third of the Property (Sinoto & Pantaleo, 2000). Subsequently, in 2001, Sinoto & Pantaleo conducted an inventory survey of the northern two-thirds of the Property (Sinoto & Pantaleo, 2001). Multiple field sessions were conducted between August 2003 and June 2008 to supplement the two initial surveys. Additional field work was conducted in February 2012. ~~Findings of the survey work are summarized below. Appendix I contains the complete archaeological inventory survey.~~

Previous to the archaeological work commencing in 2000, four other archaeological surveys were conducted within the Property; one for the proposed Pi'ilani Highway extension project (Walton, 1972); two for the previously proposed Wailea 670 development (Hammatt, 1979; Kennedy, 1988), and one for a cinder haul road paralleling the southern boundary (Sinoto & Pantaleo, 1993).

In March 2010 the archaeological inventory survey report incorporating all previous surveys and included as an appendix to the Draft EIS (Sinoto 2010) was submitted to the State Historic Preservation Division (SHPD) for review.

On June 22, 2010 the Maui Planing Commision held a meeting to discuss the Draft EIS. At this meeting Lucienne De Naie, testifying on behalf of Maui Tomorrow, and Clare Apana, testifying on behalf of Maui Cultural Lands, stated that they thought the archaeological inventory survey report in the Draft EIS was inadequate that there are more archaeological

sites on the Property than were recorded in the archaeological inventory survey report. Clare Apana also provided to the Commission a copy of a letter from Daniel Kanahele addressed to SHPD explaining what he considered were the inadequacies of the archeological inventory survey. In their comments on the Draft EIS the Maui Planning Commission directed Honua'ula Partners, LLC's representative Charlie Jencks to: "Work with people that have provided comments regarding the archaeology of the site to clarify findings".

In response to the Maui Planning Commission's directive, on August, 26, 2010 Honua'ula Partners, LLC's representative Charlie Jencks, consultant archaeologist Aki Sinoto, and consultant cultural advisor Kimokeo Kapahulehua participated in a site visit of the Honua'ula Property with several community members and SHPD staff. SHPD staff present were archaeologist Morgan Davis and cultural historian Hinano Rodrigues. Community members present included: Lucienne de Naie, Daniel Kanahele, Janet Six, Elle Cochran, U'ilani Kapu, Ke'eaumoku Kapu, Lee Altenberg, and 'Ekolu Lindsey. Some of the community members had previously: 1) presented testimony, or were present, at the Maui Planning Commission meeting on June 22, 2010 at which the Honua'ula Draft EIS was discussed; 2) submitted information to SHPD claiming that they had found archaeological sites on the Property that had not been included in the archaeological inventory survey dated March 2010 included in the Draft EIS; and 3) submitted written comments on the Draft EIS expressing concerns regarding archaeological sites on the Property.

Subsequent to the site visit, SHPD issued a letter dated September 8, 2010 stating that no significant unrecorded sites were noted at that time (i.e. during the August, 26, 2010 site visit). The letter also provides SHPD's review of the archaeological inventory survey (dated March 2010) and requested revisions, including: 1) editorial changes; 2) that the total number of survey man-hours and the spacing of survey transects be noted; and 3) a large plan map of the survey area with sites and features plotted be included. In addition, the SHPD letter states: "This report presents a comprehensive summary of past archaeological work in this area and nicely incorporates previous surveys in the discussion of current findings."

In response to SHPD's September 8, 2010 letter commenting on the archaeological inventory survey (dated March 2010), archaeologist Aki Sinoto: 1) revised the archaeological inventory survey report to address SHPD's concerns; and 2) submitted the revised archaeological inventory survey report to SHPD in April 2011.

In July and August of 2011, Daniel Kanahele of Maui Cultural Lands submitted letters to Honua'ula Partners, LLC's representative Charlie Jencks and SHPD providing additional comments on the archaeological inventory survey (dated March 2010) that was included in the Draft EIS. Honua'ula Partners, LLC's representative Charlie Jencks, consultant archaeologist Aki Sinoto, and consultant cultural advisor Kimokeo Kapahulehua responded to these letters in writing. In the summer of 2011 Maui Cultural Lands members also made a presentation to SHPD regarding their inspections of the Property.

In response to the concerns Maui Cultural Lands members expressed to SHPD in the summer of 2011, on September 23, 2011 archaeologist Aki Sinoto and cultural advisor Kimokeo Kapahulehua met with SHPD archaeologist Morgan Davis and SHPD cultural historian Hinano Rodrigues at SHPD's Maui office. Subsequently, as recommended by SHPD, Honua'ula Partners, LLC's representative Charlie Jencks, consultant archaeologist Aki Sinoto, and consultant cultural advisor Kimokeo Kapahulehua met with members of Maui Cultural Lands and other community members at Maui Community College on November 17, 2011. Maui Cultural Lands members and other community members present at the November 17, 2011 meeting included: Daniel Kanahele, Janet Six, 'Ekolu Lindsey, Lucienne De Naie, Jocelyn Costa, and Clifford Ornellas. Others present at the meeting included Stanley Solamillo, a cultural resource planner with the Maui Planning Department, and Tanya Lee Greig, the director of Cultural Surveys Hawaii's Maui office.

As a result of the November 17, 2011 meeting, the archaeological inventory survey report was further revised to: 1) recommend preservation of a section of a post-contact agricultural wall documented in the archaeological inventory survey but not previously recommended for preservation; 2) add descriptive narrative information for two post-contact agricultural walls; and 3) revise pertinent map figures in the report. Archaeologist Aki Sinoto submitted the further revised archaeological inventory survey report to SHPD in March 2012. Since the SHPD Maui archaeologist had recently resigned, copies of the revised archaeological inventory survey report were transmitted to SHPD's main office in Kapolei and to Dr. Theresa Donham, the interim SHPD chief of archaeology in Hilo. In April 2012, Dr. Donham notified archaeologist Aki Sinoto that the report was forwarded to the SHPD Maui office for review due to the hiring of replacement personnel. As of May 2012, SHPD has not completed its review of the revised (March 2012) archaeological inventory survey. Appendix I contains the complete archaeological inventory survey report dated March 2012.

In addition to the revised archaeological inventory survey for the Property (Sinoto 2012), Aki Sinoto Consulting, LLC, completed archaeological surveys for the areas of: 1) the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF; and 2) the off-site wells, waterline, and storage tank. Figure 2 shows the locations of these utility areas. Appendix I contains the complete archaeological inventory surveys.

Regarding the Pi'ilani Highway widening area from Kilohana Drive to Wailea Ike Drive and the area of the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, the State Historic Preservation Division has determined that an archaeological inventory survey of these areas is not required given that the work will be within the existing highway right-of-way or adjacent to previously disturbed land; however archaeological monitoring plans will be prepared and a qualified archaeological monitor will be present during all ground altering disturbances. For more information on the widening of Pi'ilani Highway see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Pi'ilani Highway Widening Project Final EA. Appendix G of the Final EA contains the SHPD letter regarding the need for archaeological monitoring plan for the Pi'ilani Highway widening area. For more information on the Wailea Ike Drive and

Wailea Alanui Drive intersection improvements see Section 4.4 (Roadways and Traffic) and Appendix S, which contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA. Appendix G of the Final EA contains the SHPD letter regarding the need for archaeological monitoring plan for the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

**Settlement Patterns**

The earliest prehistoric settlement on Maui is postulated to have occurred between A.D. 300-600 along the windward regions where abundant rainfall and fertile soil supported crop cultivation and human populations (Kirch 1985, Cordy and Athens 1988, Gosser et al. 1997). Population expansion into the drier, leeward areas of Kīhei, Wailea, and Mākena, likely took place by A.D. 1000-1200 (Cordy 1974, Kirch 1985) although localized areas of earlier permanent occupation appear to have been present (Gosser et al. 1997).

The Honuaʻula Property is located along the southwestern slopes of Haleakalā, within the *moku* (traditional district) of Honuaʻula (currently subsumed into the Makawao District) and includes portions of three *ahupuaʻa*: Paeahu in the north, Palauea in the middle, and Keauhou in the south.

The inhabitants of Honuaʻula *moku* subsisted mainly on fish and sweet potatoes, a common diet of those who lived in the dry leeward areas of Maui (Barrere 1975). The early French navigator La Perouse noted, while anchored at Keoneʻōʻio Bay that "This part of the coast was altogether destitute of running water. The inhabitants had no drinking water but a brackish water obtained from shallow wells" (La Perouse 1798). Due to the lack of running water, agricultural production in leeward Maui was limited to dryland taro in the upland areas in pockets of moist soil where rainfall was greater, while sweet potatoes were grown at the lower elevations (Handy 1940).

The general pattern of occupation within the Honuaʻula *moku* suggested by previous archaeological research consists of seasonal settlements occurring along the coastal areas to exploit marine resources, while permanent settlements occupied the upland areas to utilize forest products and cultivate agricultural resources. Between these settlements was an arid area used for cultivating sweet potatoes and for transit on mauka-makai trails. Upland populations exchanged taro, bananas, and sweet potatoes with the coastal populations for ocean resources (Handy 1940).

Chapman and Kirch (1979) proposed that a pattern of transience existed between coastal and inland areas. Inhabitants of the upland agricultural region may have utilized the coastal shelters as temporary or seasonal bases for expanding the range of resource exploitation. Trails linked these permanent upland habitation areas to coastal areas. Temporary habitation sites, located along trails linking upland and coastal settlements were used by travelers from upland residences to the coast to gather seasonal marine resources.

The late prehistoric/early historic settlement was characterized by permanent habitation along the coast and limited agricultural expansion into harsher, more ecologically marginal regions (Kirch 1977). Sites over a quarter-mile inland were used for temporary habitation and agriculture, although scattered permanent habitation extended as far as a half-mile inland in certain localities (Schilt 1988). The presence of earlier permanent settlements on the coast has been recently discovered as well (Donham 1986 and Fredericksen 1999).

As the archaeological knowledge base has progressively grown, traditionally held perceptions that the region was marginal and sparsely occupied until the latter phases of the prehistoric period have been changing. Similarly, the interpretation that the "intermediate" zone between the coastal areas and the forested upland zones was barren, used only during transit between the two loci, and lacked any consequential occupation, has also recently come into question. Recent studies of the intermediate zone (Gosser et al. 1993 & 1997, Sinoto & Pantaleo 2008) highlight: 1) the importance of the intermediate zone in specific areas of the region; and 2) a range of site types representing various activities in the intermediate zone.

**Identified Sites**

A total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. The recorded site types include: small enclosures, modified overhang shelters, modified outcrop platforms and terraces, steppingstone trail segments, long walls, and multiple feature complexes. 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 coastal and inland permanent habitation zones. A few sites, such as a complex of meandering free-standing walls, may represent historic period activities, most likely associated with ranching.

Only one site was recorded in the northern two-thirds of the Property. Although there is evidence that the area had previously undergone extensive disturbances, the scarcity of archaeological sites is remarkable especially when compared to the southern third of the Property, which contains 97.5 percent of the recorded sites. A large wall, treading east to west, demarks a physical division between the northern two-thirds of the Property and the southern third. The southern portion of the Property consists of large areas of aʻā flows with intermittent pahoehoe flow ridges. Due to the rough terrain, it appears that earlier historic ranching activities attempted to keep cattle out of this southern area and did not encroach south of the large wall until a later phase of ranching activities.

The presence of a steppingstone trail in the aʻā flows (in the southern third of the Property) and small, isolated features support the argument that this mid-elevation zone was primarily used for temporary transit stops during travel between the coast and inland areas. Based on results of previous research in the region, the dispersed, isolated

occurrence of small, crudely constructed, structural features; such as C-shapes, modified outcrops and overhang shelters; can be indicative of temporary habitation. These feature types are well-represented in the neighboring areas and have been interpreted as temporary habitation sites, most with intermediate to late prehistoric period origins. The frequency of platform features as well as two multiple feature complexes—composed of more substantial structural features in terms of variety, size, numbers, and construction—suggest more intensive, if not permanent, occupation in the area. Further work, especially age determinations for specific sites, is needed to clarify the nature of these sites.

Of the 40 total sites recorded, ~~33~~ 34 are considered to be significant based on at least one Hawai'i Register criterion: the potential to yield information. ~~Several of the~~ Six sites—such as the multiple feature complexes, steppingstone trail segments, and the long walls—are considered significant based on multiple criteria. ~~Seven~~ Six sites are considered no longer significant. For resources to be significant they must possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following criteria:

> **Criterion A** – specifies association with events or broad patterns important to the prehistory or history of a region, island, or Hawaii in general;
>
> **Criterion B** – reflects association with persons important to the prehistory or history of a region, island, or Hawaii in general;
>
> **Criterion C** – applies to sites that reflect architectural achievements or are excellent examples of a specific type of site;
>
> **Criterion D** – specifies that the site has yielded or has the potential to yield information significant to the understanding of traditional culture, prehistory, history, and/or foreign influences on traditional culture and history of a region, island, or Hawaii in general; and
>
> **Criterion E** – applies to sites or places perceived by the contemporary community as having traditional cultural value.

**Off-Property Areas**

No surface structural remains or any other features indicative of prehistoric period or traditional Hawaiian cultural activities were encountered in the areas of: 1) the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF; and 2) the off-site wells, waterline, and storage tank.

The Pi'ilani Highway widening area from Kilohana Drive to Wailea Ike Drive is within the existing highway ROW or adjacent to previously disturbed land. The area of the Wailea Ike Drive and Wailea Alanui Drive intersection improvements is also within an area of previously disturbed land. The State Historic Preservation Division has determined that

archaeological inventory surveys of the areas of the Pi'ilani Highway widening and the Wailea Ike Drive and Wailea Alanui Drive intersection improvements are not required; however archaeological monitoring plans will be prepared and a qualified archaeological monitor will be present during all ground altering disturbances.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The archaeological inventory survey recommends placement of the recorded sites on the Property into three categories: *in situ* preservation, data recovery, and no further work. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites which correspond to those sites which were evaluated to be no longer significant (NLS). Table 3 presents a summary of the significance and treatment for all 40 sites.

~~Fourteen~~ Fifteen of the ~~15~~ 16 sites recommended for permanent *in situ* preservation are in the southern portion of the Property. Eleven of these are within the Native Plant Preservation Area ~~(4) and the Native Plant Conservation Areas (7), areas~~ that will ~~not~~ be ~~graded or disturbed so that existing native vegetation can be conserved and protected~~ dedicated in perpetuity to the conservation of native Hawaiian plants and significant cultural sites (see Section 3.6 (Botanical Resources)). The ~~three~~ four remaining sites recommended for permanent *in situ* preservation in the southern portion of the Property that are not in the Native Plant Preservation Area ~~or the Native Plant Conservation Areas~~ will be preserved as isolates in historic preservation easements. The single site in the northern two-thirds of the Property recommended for permanent preservation will be preserved *in situ* within an existing gulch, which will remain as an open area.

In addition to the ~~15~~ 16 sites recommended for permanent *in situ* preservation, there are opportunities to retain additional sites designated for data recovery within the ~~approximately 143 acres of the~~ Native Plant Conservation Areas. There are further opportunities to retain sites within golf course areas not requiring grading. In addition, the Native Plant Conservation Areas will enhance the natural setting in which archaeological and cultural preservation is implemented.

In compliance with County of Maui Ordinance No. 3554 (Condition 26), Honua'ula Partners, LLC, will provide an archaeological preservation/mitigation plan, pursuant to Chapter 6E, HRS, to the State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs (OHA) for approval, prior to Project District Phase II approval. In accordance with SHPD requirements, Honua'ula Partners, LLC, will also provide a data recovery plan to SHPD for review and approval.

**Table 3. Archaeological Sites: Significance and Treatment**

| ~~No.~~ | *SIHP# | Type | Features | Period | Significance | Treatment |
|---|---|---|---|---|---|---|
| ~~1~~ | 200 | wall | 1 | historic? | C,D | Preservation |
| ~~2~~ | 201 | complex | 5 | traditional? | A,D | Preservation |
| ~~3~~ | 204 | platform | 2 | traditional? | D | Preservation |
| ~~4~~ | 205 | mod OH | 1 | traditional? | D | Preservation |
| ~~5~~ | 3156 | C-shape | 1 | traditional? | NLS | No further work |
| ~~6~~ | 3157 | wall | 1 | historic? | NLS | No further work |
| ~~7~~ | 3158 | wall | 1 | historic? | NLS | No further work |
| ~~8~~ | 4945 | U-shape | 1 | traditional? | D | Data Recovery |
| ~~9~~ | 4946 | C-shape | 1 | traditional? | D | Data Recovery |
| ~~10~~ | 4947 | mod OH | 1 | traditional? | D | Data Recovery |
| ~~11~~ | 4948 | open area | 1 | historic? | D | Data Recovery |
| ~~12~~ | 4949 | mod OH | 2 | traditional? | D | Data Recovery |
| ~~13~~ | 4950 | C-shape | 1 | traditional? | D | Data Recovery |
| ~~14~~ | 4951 | SS trail | 1 | traditional? | C,D,E | Preservation |
| ~~15~~ | 4952 | platform | 1 | traditional? | D | Preservation |
| ~~16~~ | 4953 | walls | 3 | historic? | ~~NLS~~ D | ~~No further work~~ Preservation |
| ~~17~~ | 4954 | C-shape | 1 | traditional? | D | Data Recovery |
| ~~18~~ | 4955 | mod OH | 1 | traditional? | D | Data Recovery |
| ~~19~~ | 4956 | mod OH | 2 | traditional? | D | Data Recovery |
| ~~20~~ | 4957 | complex | 6 | traditional? | A,D | Preservation |
| ~~21~~ | 4958 | enclosures | 2 | traditional? | D | Data Recovery |
| ~~22~~ | 4959 | SS trail/pits | 3 | traditional? | C,D,E | Preservation |
| ~~23~~ | 4960 | platform | 1 | traditional? | D | Data Recovery |
| ~~24~~ | 4961 | wall seg. | 1 | historic? | NLS | No further work |
| ~~**29~~ | **5109 | OH | 1 | traditional | D | Preservation |
| ~~25~~ | 5110 | lava blister | 1 | traditional? | D | Data Recovery |
| ~~26~~ | 5111 | platform | 1 | traditional? | D | Preservation |
| ~~27~~ | 5112 | platform | 1 | traditional? | D | Preservation |
| ~~28~~ | 6794 ~~n/a~~ | cluster | 2 | traditional? | D | Data Recovery |
| ~~30~~ | 6795 ~~n/a~~ | C-shape | 1 | traditional? | D | Data Recovery |
| ~~31~~ | 6796 ~~n/a~~ | platform | 1 | traditional? | D | Data Recovery |
| ~~32~~ | 6797 ~~n/a~~ | trail | 1 | traditional? | D | Preservation |
| ~~33~~ | 6798 ~~n/a~~ | cluster | 2 | traditional? | D | Preservation |
| ~~34~~ | 6799 ~~n/a~~ | OH | 1 | traditional? | D | Data Recovery |
| ~~35~~ | 6800 ~~n/a~~ | platform | 1 | traditional? | D | Preservation |
| ~~36~~ | 6801 ~~n/a~~ | lava tube | 1 | traditional? | D | Preservation |
| ~~37~~ | 6802 ~~n/a~~ | wall | 1 | historic? | NLS | No further work |
| ~~38~~ | 6803 ~~n/a~~ | mod outcrop | 1 | traditional? | D | Data Recovery |
| ~~39~~ | 6804 ~~n/a~~ | OH | 1 | traditional? | D | Data Recovery |
| ~~40~~ | 6805 ~~n/a~~ | walls | 2 | historic? | NLS | No further work |

*State Inventory of Historic Places Numbers (Preceded by 50-50-14-)

**Only site in the northern section

Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP (see Section 4.2 Cultural Resources and Appendix J) in compliance with County of Maui Ordinance No. 3554 (Condition 13 and Condition 26). The CRPP also serves as the archaeological preservation/mitigation plan discussed above and sets forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site to be preserved. The CRPP was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals. In compliance with County of Maui Ordinance No. 3554 (Condition 13) the CRPP ~~will be~~ has been submitted to SHPD and OHA on March 18, 2010 for review and recommendations. Upon receipt of comments and recommendations from SHPD and OHA, the CRPP will be provided to the Maui County Cultural Resources Commission for review and adoption before Project District Phase II approval.

The CRPP includes short-term and long-term preservation measures for each of the 15 sites slated for *in situ* preservation. While the CRPP provides specific preservation measures for each site, summaries of general short- and long-term preservation measures are provided below.

**Short-Term Preservation Measures** – The identification and implementation of appropriate short-term or interim site protection measures, including an SHPD approved archaeological monitoring plan, ensure that, during construction, inadvertent damage or other adverse impacts do not befall sites slated to be preserved. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect and the authority of the archaeological monitor to temporarily halt work in the vicinity of any inadvertent findings;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- The installation of protective supports or covers to better protect the integrity of fragile or delicate features, if warranted;
- Regular monitoring of preservation sites and construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

**Long-Term Preservation Measures** – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.

**Off-Property Areas**

The AIS reports for the off-site water and wastewater infrastructure areas recommend that in view of the negative results, no further pre-construction archaeological procedures are warranted. However, archaeological monitoring of construction–related ground disturbing activities is recommended. When water and wastewater system plans are finalized, archaeological monitoring plans will be prepared and submitted to SHPD for review and approval before commencement of any construction activities. The limited width of the water and wastewater transmission line corridors will facilitate avoidance of any inadvertent discoveries that warrant preservation.

The Pi'ilani Highway widening area from Kilohana Drive to Wailea Ike Drive is within the existing highway ROW or adjacent to previously disturbed land. The area of the Wailea Ike Drive and Wailea Alanui Drive intersection improvements is also within an area of previously disturbed land. The State Historic Preservation Division has determined that archaeological inventory surveys of the areas of the Pi'ilani Highway widening and the Wailea Ike Drive and Wailea Alanui Drive intersection improvements are not required; however archaeological monitoring plans will be prepared and a qualified archaeological monitor will be present during all ground altering disturbances. For more information on the widening of Pi'ilani Highway see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Pi'ilani Highway Widening Project Final EA. Appendix G of the Final EA contains the SHPD letter regarding the need for archaeological monitoring plan for the Pi'ilani Highway widening area. For more information on the Wailea Ike Drive and Wailea Alanui Drive intersection improvements see Section 4.4 (Roadways and Traffic) and Appendix S, which contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA. Appendix G of the Final EA contains the SHPD letter regarding the need for archaeological monitoring plan for the Wailea Ike Drive and Wailea Alanui Drive intersection improvements.

**Inadvertent Finds**

In addition to the protections to be instituted through the CRPP, Honuaʻula 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 sites such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentrations of shell or charcoal be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected. The contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

## 4.2 CULTURAL RESOURCES

Hana Pono, LLC prepared a cultural impact assessment for the Honuaʻula Property to identify traditional customary practices within the Property and in the vicinity of the Property. The cultural impact assessment was conducted in accordance with the OEQC Guidelines for Assessing Cultural Impacts and includes archival research and interviews with people knowledgeable of Honuaʻula and the surrounding area. Findings of the cultural impact assessment and other relevant information are summarized below. Appendix K contains the complete cultural impact assessment.

Hana Pono, LLC also prepared a cultural impact assessment specifically for the widening of Piʻilani Highway. The cultural impact assessment concluded that no current gathering practices or access concerns occur within the Piʻilani Highway widening area. For more information on the widening of Piʻilani Highway see Section 4.4 (Roadways and Traffic) and Appendix R, which contains the complete Piʻilani Highway Widening Project Final EA. Appendix H of the Final EA contains the cultural impact assessment specifically for the widening of Piʻilani Highway.

While a specific cultural impact assessment was not prepared for the Wailea Ike Drive and Wailea Alanui Drive intersection improvement area, in a letter dated March 9, 2011 Hana Pono, LLC concluded that the intersection improvements are not expected to impact any cultural resources, access concerns or current gathering practices, as none are known to exist in the area.

In addition, Hana Pono, LLC, completed a review of Honuaʻula's off-site water and wastewater infrastructure areas and determined that there are no known cultural resources, access concerns, or current gathering practices occurring in these areas. Figure 2 shows the locations of these off-site water and wastewater infrastructure areas.

### 4.2.1 Honuaʻula *Moku*

The Honuaʻula *moku* was one of 12 ancient districts of Maui Island. The literal meaning of the name is "red earth" or "red land," which may have been in reference to the distinctive red dust of Haleakalā (Handy et al. 1991). There are a number of alternative explanations

for the name. In the cultural impact assessment, Tauʻa and Kapahulehua (2009) state that the name connotes sacred earth based on the sacredness of the color red. Sterling (1998), in *Sites of Maui*, includes the following account, by Fornander, of the chief, Moʻikeha, who brought back companions from his voyage to Tahiti:

> *His canoes were equipped forthwith under the superintendence of Kamahualele, his astrologer and seer (Kilokilo), and with a goodly company of chiefs, retainers, and relatives, they set sail for Hawaii…The legends differ somewhat to the names of the followers of Moʻikeha, but they all agree that a number of places in the Hawaiian group were named after such or such companions of Moʻikeha, who were permitted to land here and there as the fleet coasted along the island shores, and who succeeded in establishing themselves where they landed. Thus were named the district of Honuaʻula on Maui.*

Two traditional Hawaiian sayings regarding Honuaʻula recorded by Mary Kawena Pūkuʻi (1983) in *ʻŌlelo Noʻeau, Hawaiian Proverbs and Poetical Sayings* speak of the wind of the region and describe the character of the inhabitants as given below:

> *Honuaʻula, e paluku ʻia ana na kihi poʻohiwi e na ʻale o ka Moaʻe*
> Honuaʻula whose shoulders are pummeled by the Moaʻe wind
> (A poetical expression for a person being buffeted by the wind. Honuaʻula, Maui, is a windy place.)
>
> *Honuaʻula kua laʻolaʻo*
> Callous-backed Honuaʻula
> (Said of the people of Honuaʻula, Maui, who were hard workers. The loads they carried often caused callouses on their backs.)

There are many historical accounts that specifically mention Honuaʻula *moku* in story, chant and oral tradition. One of the earliest accounts that describe the first inhabitants of Honuaʻula came from genealogical chant. Between 1100 and 1400 A.D., chants recorded the long voyage of Chief Moʻikeha from Tahiti to Hawaiʻi and describe how his travels gradually appropriated the rule over lands in Hawaiʻi through intermarriage, battles and ritual sacrifices. In his inaugural sail, Chief Moʻikeha first landed on Hawaiʻi Island and then on to Maui, where he sailed around the Kaupō coastline until he arrived at the place known today as Honuaʻula.

In the years following the Mahele in 1848, various configurations of the 12 *moku* (districts) were implemented and revised. In 1901 and 1932, the current district divisions were established, with Honuaʻula incorporated into Makawao. Of these boundary modifications, R. D. King, in Sterling (1998), stated:

> *Since the advent of legislative government, or from about 1846, many modifications have been made of the ancient district boundaries and there*

> *are many instances where other names have been substituted for the old district names. Some of these changes were made for political reasons and others for convenience, but the principal changes in boundaries were caused by movements in population reflecting new uses of the land areas. These new district boundaries did not always conform to the ahupua`a boundary and there are examples today of an ahupuaʻa being situated in more than one district where no such condition existed in ancient times*

The traditional Honuaʻula *moku*, located between Kula to the north and Kahikinui to the east and south, included the following 19 known *ahupuaʻa* from north to east: Paeahu, Palauea, Keauhou, Kalihi, Waipao, Papaʻanui, Kaʻeo, Maluaka, Moʻoiki, Moʻoloa, Moʻomuku, Onau, Kanahena, Kualapa, Kalihi, Papaka-kai, Kaunuahane, Kaloʻi, and Kanaio. The traditional Honuaʻula *moku* crossed several environmental zones that spanned across 18.5 miles of coastline and reached the summit of Haleakalā.

Human settlement of the Honuaʻula *moku* dates back to pre-historic times and continues today. The Honuaʻula *moku* was a fishing and farming region from the beginning of its occupancy in early Hawaiʻi. 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. The sweet potato or *ʻuala* was the important agricultural crop of the Honuaʻula region and together with the marine resources comprised the staple food of its inhabitants. Handy and Handy (1972) describe the Honuaʻula region thus:

> *On the south coast of East Maui, from Kula to ʻUlupalakua, a consistently dry and lava-strewn country, Mākena and Keoneʻōʻio were notable for good fishing; this brought many people to live by the shore and inland. There were some patches of upland taro, not irrigated; but this was a notable area for sweet potato, which, combined with the fishing, must have supported a sizable population although it cannot be counted as one of the chief centers.*

As explained in Section 4.1 above, previous archaeological research suggests a pattern of transience existed between coastal and inland areas (Chapman and Kirch 1979). Inhabitants of the upland agricultural region may have utilized coastal areas as seasonal bases for expanding the range of resource exploitation. Temporary habitation sites, located along trails linking upland and coastal settlements were used by travelers from upland residences to the coast to gather marine resources. Upland populations exchanged taro, bananas, and sweet potatoes with the coastal populations for ocean resources (Handy 1940).

Kiha-Piʻilani who reigned in the last half of the 15$^{th}$ century connected the entire island with a network of trails to aide his people in their travels and give the king quick access to all parts of his kingdom. The original trails still exist today from Keoneʻōʻio to Nuʻu. The trails do not intersect the Honuaʻula Property; however branching trails extend from the Piʻilani trail in the Honuaʻula *moku*.

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

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, and the port received goods for residents throughout Central Maui. By the 1800's, traditional settlement patterns underwent major changes throughout the region and the entire island with: 1) the advent of cattle and commercial agricultural enterprises; 2) the introduction of the western concept of private ownership of land; and 3) the development of cart paths, roadways, and harbors.

Following the overthrow of the Hawaiian monarchy, Handy (1940) reported the following changes in the area due to cattle ranching:

> *In Honuaula, as in Kaupo and Kahikinui, 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 upland above the inhabited area. Despite two recent (geologically speaking) lava flows which erupted from fissures below the crater and only a few miles inland and which covered many square miles of land, the eastern and coastal portion of Honuaula was thickly populated by Hawaiian planters until recent years. A few houses are still standing at Kanaio where the upper road (travelling eastward) ends but only two are now occupied. A number of Hawaiian families whose men are employed at Ulupalakua Ranch have homes near the ranch house. Above these native homes a little dry taro is cultivated. Formerly, there was much dry taro in the forest zone.*

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 other traditional Hawaiian remains

### 4.2.2 *Ahupuaʻa* within the Honuaʻula Property

The Honuaʻula Property includes portions of three *ahupuaʻa*: Paeahu, Palauea, and Keauhou from north to south. Most of the northern two-thirds of the Property is within a section of Paeahu *ahupuaʻa*. Roughly half of the width of Palauea *ahupuaʻa* is within the Honuaʻula Property, with the remainder extending north. The entire width of Palauea *ahupuaʻa* is within the Honuaʻula Property, primarily within the southern third of the

Property. A proportion of the width of Keauhou *ahupuaʻa* extends from within the southern third of the Property and continues further south.

**Paeahu *Ahupuaʻa*** – The Paeahu *ahupuaʻa* is significant for many reasons. Literal translation of the name is a "row of heaps" (Pūkuʻi et al. 1974), the heaps refer to *ahu* (a stone mound). Paeahu holds multiple meanings, all having to do with the concept of *ahu*. The area is significant for its connection to Kealaikahiki, the pathway to Tahiti and the voyaging of Hawaiian ancestors. Paeahu signifies a place of embarking on a journey or disembarking after a journey. To this day, Paeahu *ahupuaʻa* is connected with *waʻa*, the outrigger canoe, and the voyages of Hawaiian people. Traditionally, when fishing or on a sea voyage, but within sight of shore, reference points on land were used to determine the off-shore location or maintain a certain course. This worked much like lining up a set of lights to enter a harbor channel today. Natural landmarks were used, but often, *ahu* or stone mounds were constructed for this purpose. *Ahu* were used to guide travelers on land as well.

The Paeahu *ahupuaʻa* was part of the lands assigned to Moses Kekaiwa, the eldest son of Kekuanaʻoa, a powerful governor of Oʻahu. However, in 1842, it was included with other Honuaʻula *moku* lands that were reclaimed by the government (Barrere 1975). The commutation of lands to the government, in lieu of cash tax payments, was a common practice among the chiefs.

At the time of the Mahele, nine kuleana Land Commission Awards (LCA) in Paeahu ranged in size from 0.22 to 11.68 acres and consisted of shoreline parcels, houselots, and agricultural lands. Banana, dryland taro, and sweet potato were listed as the cultivated crops (Stocker et al. 1992). One of the kuleana awards, LCA 10665 to Piopio, appears to have been located close to, but beyond the northern boundary of the current Property area, probably within the existing Maui Meadows subdivision. The locations of the other LCAs, with the exception of 5220 to Koukaina, located at the coast, are unknown. Most likely, the other parcels were located mauka of the current Property area in the inland agricultural zone. Following 1850, portions of Paeahu *ahupuaʻa* were sold to foreign businessmen and large acreages changed owners often, until in 1864 when 4,445 acres were sold to James McKee, the founder of Rose Ranch in ʻUlupalakua. Much of the lands passed through McKee to ʻUlupalakua Ranch and Alexander and Baldwin, Ltd. (Kleiger et al.1992).

**Palauea *Ahupuaʻa*** – The Palauea *ahupuaʻa* is a large land section. Literally, the name means "lazy" (Pūkuʻi et al. 1974). One of the oral traditions passed down about this area refers to laziness. The *ahupuaʻa*, comprising about 2,130 acres (LCA 11216) was awarded to Chiefess Miriam Kekauonohi during the Mahele of 1854, and the current Property area includes a portion of this LCA. Upon her death in 1851, the land passed to her husband, Haʻalelea. In 1862, most of the *ahupuaʻa* was sold to James McKee through public auction. A total of 14 LCAs and 11 Royal Patent Grants to commoners are listed for Palauea *ahupuaʻa*. Four are described as Irish potato plots and three others as houselots. The remaining awards are not described as to land use. Map locations of kuleana are

unavailable. However, the narrative descriptions of two of the houselots place them at the coast. The others likely consisted of agricultural lots located in the wetter uplands.

**Keauhou *Ahupuaʻa*** – The Keauhou *ahupuaʻa* is a large land division of which only a small section lies within the Property. The name literally means "the new era" or "the new current" (Pūkuʻi et al. 1974). It is connected to the currents that flow around and between the islands, Nā Kai Ewalu, and the channels that carried the ancestors to and from their destinations.

In 1852, LCA 6715 (RP 8213) was awarded to Hoʻomanawanui, a member of the *aliʻi* class whose father, Kaleilei, was a member of King's (Kamehameha III) court, which included the entire *ahupuaʻa* of Keauhou 1. The award covered an area of 853 acres. In 1856, Hoʻomanawanui and her husband Hikiau II sold Keauhou 1 to James McKee for $1,000. Eleven commoner awards are listed for all of Keauhou (1 and 2) *ahupuaʻa*. Although their locations are unknown, based on the descriptions given in the award documents, most appear to be Irish and sweet potato lands or houselots. The potato lands probably were further inland (above the 1200-foot elevation) of the current Property area, while the houselots were most likely located closer to the coast.

### 4.2.3 Oral History Interviews

Informant interviews with eight local residents were conducted in January 2008 by Keliʻi Tauʻa and Kimokeo Kapahulehua of Hana Pono LLC as part of the cultural impact assessment. Kimokeo Kapahulehua conducted an additional interview in March 2009. The complete transcript for each interview is appended to the cultural impact assessment provided in Appendix K.

- Douglas "Butch" Wayne Akina was born in 1943. He is the youngest of eight siblings from the Akina family of Kīhei. He currently resides on Maui and has owned and operated a variety of small businesses including school/tourist bus, fishing, airplane, rooter, cesspool extraction, and fishing net companies. He learned of traditions and practices of the families of the land, and was a fisherman in his youth;
- Marie Doreen "MD" Alborano was born in 1935 in Kīhei. Raised from infancy in Kīhei, she grew up working on the family's 56-acre farm near the existing Welakahao Road. She was a student of renowned hula teacher Aunty Emma Sharpe;
- Edward Quai Ying Chang, Jr. was born in 1982 at Wailuku. He moved to Mākena when he was four or five years old. His ancestors have lived in Mākena since 1883 when his great great grandfather John Kukahiko bought the lands from Mākena Surf to Mākena Landing. Mr. Chang has a degree in Biological Science with a minor in Plant Pathology;

- Stanley Ahana Chock was born at Honolulu in 1933 and moved to Kula shortly after he was born. He was raised by his mother's sister, Hattie Kanoho, in Pulehuʻiki at Kula and also spent most of his childhood in Kahakuloa;
- Eugene C. "Herman" Clark, Sr. is of Hawaiian ancestry and lived on Maui since 1935. He lived in the Kīhei region on what is now known as Kenolio Road. He is knowledgeable of the Honuaʻula area and is currently practicing the art of reflexology;
- Jimmy Gomes was born in Puʻunene in 1948. He has been employed by the ʻUlupalakua Ranch for the last six years and is currently the Operations Manager. Aside from his employment activities, he has visited the lands owned by the Ranch for the past 50 years;
- Kevin Mahealani Kaiʻokamaile was born in Keokea. He was raised in the Honuaʻula region where his family has resided for at least seven generations. He took an interest in botany at a young age and was able to learn from noted local botanists;
- Randsom Arthur Kahawenui Piltz was born at Wailuku in 1939. He was raised on Maui until moving to Dayton, Ohio where he studied Business Management. He returned to Maui in 1993 to start working for his father's business, Piltz Electric. Mr. Piltz is part of the 130-member Kukahiko family which has roots in the Mākena Landing area. He also served on the Maui Planning Commission and is currently serving on the State LUC; and
- Mildred Ann Wietecha is a lifelong resident of Kīhei. Her mother was Violet Thomson of the Thomson Ranch in Kula. She is related to Douglas "Butch" Wayne Akina of Akina Bus Service.

**Summary of the Oral History Interviews**

Each of the individuals interviewed had something to contribute about life in the Honuaʻula District and the surrounding areas. The three most knowledgeable individuals regarding the region were Edward Chang Jr., Kevin Kaiʻokamalie, and Ransom Piltz. These three individuals, all related to the Kukahiko family of Mākena, grew up in different time frames, lived separate lifestyles, but all three speak the same language about the land and the ocean of the Honuaʻula region. Mr. Eugene Clark interestingly spoke of the relationship between the upland farmers and the coastal fishermen, a traditional pattern of life that continued over centuries in the Honuaʻula region.

The concerns raised by the oral interviews were more general in nature, and no cultural concerns were raised that related specifically to the Honuaʻula property. These concerns included impact on coastal fishing, the rising property taxes that make it difficult if not near impossible for Hawaiian families to maintain any coastal property in the region, shoreline access in developed areas, gated communities, the loss of traditional Hawaiian place names, the potential loss of good grazing land for cattle, the desecration of Hawaiian culture, and the desire to keep new development out of the region. None of the

interviewees shared any proprietary knowledge about specific traditional cultural resources or associated practices within the boundaries of the Property.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The cultural impact assessment report recommends that representative existing cultural sites be incorporated into Honuaʻula and native plants be kept intact as much as possible to retain the unique identity of the area. The cultural impact assessment report also recommends that the *ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands) be recognized as part of the law decreeing that one should respect Hawaiʻi's gathering rights (passage to fishing at the ocean and streams or gathering native plants in the mountain). However, based on consultation with interviewees, the cultural impact assessment report concludes that there are no known gathering practices or access concerns.

To preserve cultural resources within Honuaʻula, Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP in compliance with County of Maui Ordinance No. 3554 (Condition 13). The CRPP seeks to:

- Define cultural parameters that will guide the preservation of archaeological remains and the interpretation of archaeological data;
- Document settlement patterns and timelines for the sites;
- Consult with traditional/cultural practitioners with ties to the Honuaʻula region and other interested parties;
- Foster a more traditional and cultural land use perspective for the project site; and
- Ensure long-term consistency and integrity toward preservation efforts within the Property and in the Honuaʻula region.

Appendix J contains the complete CRPP.

The CRPP incorporates the findings of the cultural impact assessment report and the Archaeological Inventory Survey. Recommendations of the CRPP regarding archaeological resources are summarized above in Section 4.1. Although archaeological resources comprise part of cultural resources and are more readily identified, quantified, and evaluated, other aspects of cultural resources are sometimes not as apparent and not as easily identified and evaluated. This is especially true of non-material regional resources, such as place names and specialized protocols, since the expertise is only found in persons with intimate or long-term knowledge of the subject region or particular locality.

During the initial planning stages of Honuaʻula, several on-site tours and discussions involving archaeological and cultural components were held with various members of the community. An informational presentation was given to the Maui Cultural Resources Commission. Specific input was also sought from key individuals and the Native Hawaiian organization, Nā Kūpuna O Maui, and a number of valuable recommendations resulted

from discussions with an in-house cultural group[6]. Public input was also sought prior to preparation of the CRPP through publication of public notices in the *Honolulu Advertiser*, the *Maui News* and OHAs' Newsletter, *Ka Wai Ola*. Nā Kūpuna O Maui, under the leadership of Mrs. Patty Nishiyama and their regional representative Mr. Kimokeo Kapahulehua, retains the primary role in consulting with the landowner and in interacting with other Hawaiian organizations regarding matters related to cultural preservation, protocols, and practices.

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

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

Based on the community input received, the CRPP:

- Includes recommendations regarding the mode of preservation—passive or active—for specific sites;
- Notes that at this time, there are no known or identified religious, ceremonial, or burial sites on the Property; however, conditional access for lineal and cultural descendants will be provided if any such sites are identified later;
- Recommends that Nā Kūpuna O Maui, in consultation with other cultural experts, address appropriate protocols and practices throughout the planning and development periods and thereafter;
- Includes recommendations regarding the size and type of buffer areas for specific archaeological sites;
- Concludes that the long rock wall that demarcates the southern third of the Property (Site 200) requires repair and stabilization where deer have caused damage and where sections have been breached;
- Provides sample text for interpretive signs; the material and method of mounting signs will be finalized during subsequent planning phases;
- Recommends that native plants found on the Property should be used for archaeological buffer areas, and suitable plants include: *'a'ali'i* (*Dodonaea viscose*), *'āwikiwiki* (*Canavalia galeata*), *'ilima* (*Sida fallax*), *kolomana* (*Senna surrattensis*),

[6] The in-house cultural group included: Kimokeo Kapahulehua, Clifford Naeole, Hokulani Holt Padilla, Keli'i Tau'a, members of Nā Kūpuna O Maui, Lisa Rotunno-Hazuka, Aki Sinoto, and Charlie Jencks.

*maiapilo* (*Capparis sandwichiana*), *maʻo* (*Abutilon grandifolum*), and *naio* (*Myoporum sandwicense*); and

- Notes that the nature and implementation of community stewardship and educational programs is currently under consideration by Nā Kūpuna o Maui, Honuaʻula Partners, LLC, and other pertinent parties and will be finalized as additional input is received and planning progresses.

In addition to community input received for the specific points noted above, much information regarding traditional place names, protocols, practices, as well as glimpses of daily life were gained from oral interviews conducted in conjunction with both the CRPP and the cultural impact study. Starting from mythology and legends that include references to places in the region, there are well-known stories and folklore recounted for generations by the inhabitants. The compilation of not only this conventional folklore, but the recording of individual stories and experiences of area *kupuna* are invaluable resources that aid in interpreting the unique aspects of the region. The CRPP contains a compilation of not only texts and translations of several *mele* and *oli*, both traditional and contemporary, but also audio recordings of these on a compact disc.

In compliance with County of Maui Ordinance No. 3554 (Condition 13) the CRPP ~~will be~~ has been submitted to SHPD and OHA on March 18, 2010 for review and recommendations. Upon receipt of comments and recommendations from SHPD and OHA, the CRPP will be provided to the Maui County Cultural Resources Commission for review and adoption before Project District Phase II approval.

## 4.3 TRAILS AND ACCESS

Honuaʻula is accessed directly from the Kīhei southern terminus of Piʻilani Highway, which is a two-lane State highway. There are several unimproved roads on the Property that provide limited access within the Property.

Remnant segments of a road referred to as the Kanaio-Kalama roadway are present along a portion of an existing jeep road which was constructed atop the same alignment. The original alignment is not followed by the current jeep road and only a small modified segment of the Kanaio-Kalama roadway exists. Water-worn cobbles and boulders, representing objects foreign to the environment presumably used in the original construction of the Kanaio-Kalama roadway, can be seen on either side of the jeep road in certain locations. Portions of the roadway may also have been modified for use by the military.

Discontinuous segments of steppingstone trails are present within the southern portion of Honuaʻula. Researchers such as Chapman and Kirch (1979) proposed that a pattern of transience existed between coastal and inland areas. Foot trails linking upland and coastal settlements were used by travelers from upland areas to gain access to the coast and marine resources.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The creation of Honua'ula will make the Property much more accessible relative to the current limited access. Honua'ula will include a system of pedestrian and bike trails along the community's roadways, gulches, and drainage ways (Figure 13). This secondary circulation system of linked pedestrian/bike trails will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas and will provide residents a meaningful alternative to driving within the community.

A connector loop trail that ranges in width from six to eight feet will be suitable for walking and biking throughout the community. This trail will circle the Property from its northern to southern boundary and connect to the Wailea Ike Drive and Pi'ilani Highway intersection. A minor street path from Kaukahi Street will allow connection from Wailea to trail systems throughout Honua'ula. A proposed scenic trail along portions of the golf course will also link to several other trail segments and is expected to provide sweeping views, both mauka and makai.

~~The Native Plant Preservation Area contains known archaeological and cultural sites. Therefore, to protect the integrity of these sites and native plants, the Native Plant Preservation Area will remain undisturbed and development will be prohibited, with the exception of a Nature/Cultural trail that will border the Native Plant Preservation Area and traverse the adjacent Native Plant Conservation Area.~~

As recommended by the Honua'ula cultural impact assessment, Honua'ula will provide traditional native Hawaiian mauka-makai access trails across the Property (*ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands)). These trails will follow the Property's natural gulches from mauka to makai.

The steppingstone trail segments within the Property, which represent discontinuous remnants of traditional trails, will be preserved *in situ*. In their current state they are truncated not only by prior disturbances, but also by private land holdings and existing developments that straddle portions of traditional land divisions. Segments beyond the boundaries of Honua'ula are beyond the jurisdiction of Honua'ula Partners, LLC.

In terms of the Kanaio-Kalama road, only a small modified segment still exists, with major segments of the original alignment altered by an existing jeep road. In addition, the integrity of the roadway has been lost outside of the Property both at the Kalama and Kanaio segments, which are under multiple ownerships. In a letter dated July 31, 2009, Nā Ala Hele of the DLNR Division of Forestry and Wildlife (DOFAW) states that no documentation of the Kanaio-Kalama roadway could be found in the royal grant patents of the Property that were awarded in 1850. Also, no record exists of the road being in existence prior to 1892, when the U.S. Highways Act was passed. Thus, the Kanaio-Kalama roadway is not considered to be a public highway. <u>However, to further enhance mauka-makai access across the Property, the approximate route of the Kanaio-Kalama road will be incorporated into the Honua'ula trail system. This functionally equivalent</u>

route will approximate the alignment shown on the current TMK map (Figure 3), and thus will run diagonally from Kaukahi Street, through the Native Plant Preservation Area, to the southeast corner of the Property.

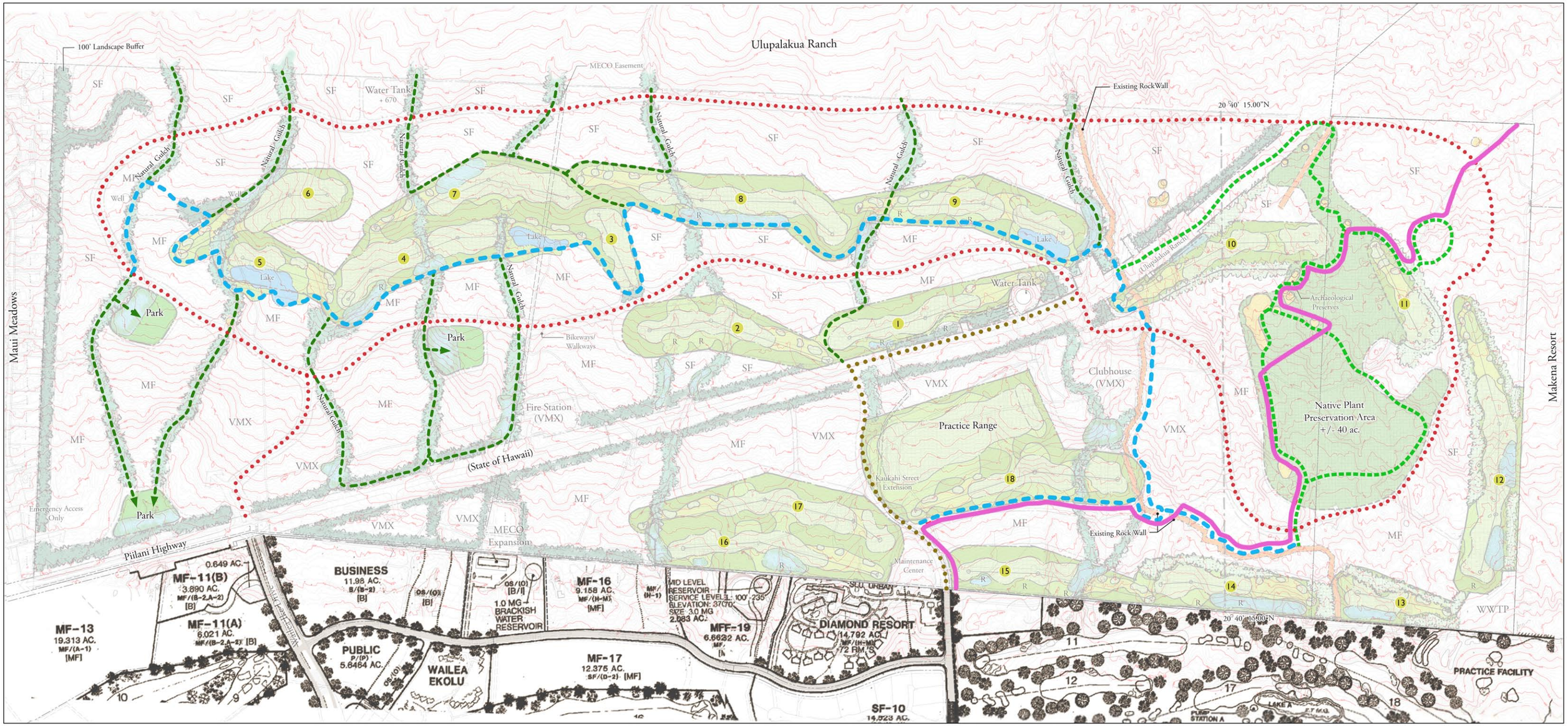
The Native Plant Preservation Area contains known archaeological and cultural sites. Therefore, to protect the integrity of these sites and native plants, the Native Plant Preservation Area will remain undisturbed and development will be prohibited, with the exception of: 1) the Kanaio-Kalama trail, which will transverse through the Native Plant Preservation Area; and 2) a Nature/Cultural trail that will border the Native Plant Preservation Area.

In their July 31, 2009 letter, Nā Ala Hele letter also stated, "The proposed development of walking trails and the preservation of the stepping stone trail will provide recreational opportunities that can highlight the historical and cultural values of the area."

Overall, Honua'ula will not be a gated community; however builders of some individual areas or specific homeowner's associations or residents may choose to gate individual areas. No gated community areas have been proposed, but it has not been determined if any areas would be gated or where these areas would be located within the Property or at what phase they would be built. However, any gated area would not be so restricted to prohibit anyone with a legitimate reason from accessing an area. Specifically, any gated area would not be designed to exclude access to any cultural or archaeological resources.

Typically gated communities evoke images of mini mansions in exclusive enclaves, but restricted access multi-family townhouse and other higher density developments can also be classified as "gated communities." While some upscale gated communities cater to upper income level residents, there are also many gated communities that are geared to average homebuyers. Although gated communities are often criticized as elitist and homogeneous, data suggests that gated communities are not necessarily reserved only for the rich (Nasser 2002). The 2001 American Housing Survey conducted by the U.S. Census Bureau reported that more than seven million households live in a type of gated community. The statistics also show that residents of gated communities belong to many different demographic types, not just the wealthy. Gated communities are popular with young families with children, retirees, second-home buyers, professionals, and many others. The elderly have been attracted to gated communities since the 1970s. Other potential buyers include empty nesters who are away frequently on vacations and young double-income families in which no one is home during the day (Blakely 1999). For second-home buyers, gated communities are especially attractive for the security they provide during long periods of vacancy (Blakely 1999).

Research shows that motivations for living in a gated community reflect, to varying degrees, a range of social values (Blakely & Snyder 1997). Some people are drawn to gated communities for prestige; some are looking for privacy; some want to protect themselves from crime and traffic (Blakely & Snyder 1997). For some, gated communities provide an added measure of security, less traffic, and increased pedestrian safety, a




## LEGEND

- Connector Loop (6′ to 8′ wide)
- Minor Street Path (5′ ro 6′ wide)
- Scenic Trail
- Cultural/Nature Trail
- Gulch Trail - Mauka/Makai Connectors
- Kanaio - Kalama Road Trail

**Figure 13**

Trail Network

# Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 300 600 1,200

Plan By: VITA PLANNING & LANDSCAPE ARCHITECTURE

PBR HAWAII & ASSOCIATES, INC.

Disclaimer: This graphic has been prepared for general planning purposes only.

peaceful and quiet setting, social familiarity with neighbors, a sense of community, and shared ownership of space. Gated communities are attractive for residents as they provide protection and usually offer a high level of residential amenity and recreational value. The sense of community and belonging felt by residents may afford a more valuable notion of 'security' than is provided by gates alone as residents within gated communities tend to know or recognize each other thereby being able to easily identify non-residents (Quintal & Thompson 2007). Through restrictions on design and access, gated communities may help to reduce uncertainty by enabling residents to exert greater control over their living environment (Quintal & Thompson 2007). For some, gated communities provide for both security and a self-directed, democratic community in which all members of the association are active participants in community governance (Blakely 1999). While gated communities may not appeal to all, they do offer features many find attractive for their choice of style and quality of living.

In some municipalities gated communities have been considered "cash cows" for local governments because the developer initially provides all infrastructure (roads, landscaping, parks, community centers, etc) within the community and the residents pay homeowner's fees for the on-going maintenance of these common facilities. Thus, initially the developer, and then the residents pay for services that may typically be borne by government; however the residents in gated communities still pay property taxes to government based on property values, which may be higher in gated communities (Le Goix 2004). Therefore gated communities can be particularly desirable for local governments and in some areas are seen as a public-private partnership rather than an attempt to secede from the public realm (Le Goix 2004).

While research has shown that gated communities provide a sense of community and stability for their residents (Quintal & Thompson 2007), critics of gated communities believe that when people wall themselves from others they are cutting themselves from the mixed, open society that is needed for a social and political democracy (Drew & McGuigan 2005). Rather than being involved in an open society, critics argue that gated communities tend to foster segregation where better-off citizens gradually become less encumbered by collective social burdens (Blakely 1999; Drew & McGuigan 2005). Thus people with the necessary resources can quietly secede from the large and diverse public into homogenous enclaves within which their earnings need not be redistributed to people less fortunate than themselves (Blakely 1999). Others contend that gated communities offer a false sense of security as many nonresidents may have access to the communities, such as delivery people, maintenance workers, and other visitors (Drew & McGuigan 2005). Thieves may also seek out gated communities because of the perception of more valuable goods within the gates (Nasser 2002). Alternatively, others have theorized that gated communities cause crime to be redistributed to areas outside the gated communities (Le Goix 2004).

All neighborhoods, gated and non-gated, have the same ultimate goals: safety and security, no crime, safe streets, slow traffic, and a stable quality of life. To some extent, gated communities attain these goals and in this respect have a positive influence on the

lives of those residents. Honua'ula seeks to achieve these goals through design, with key objectives of reflecting community values, emphasizing vibrant community development, and creating a sense of place.

Building on overall goals of safe and secure neighborhoods, the Maui Police Department recommends incorporating principles of Crime Prevention Through Environmental Design (CPTED) into the design of Honua'ula. The goal of CPTED is to prevent crime by designing a physical environment that positively influences human behavior. The theory is based on four principles: 1) *natural surveillance*, which refers to the placement of physical features that maximize visibility of the neighborhood so residents can observe their surroundings; 2) *access management*, which involves guiding people by using signs, well-marked entrances and exits, and landscaping so visitors can be seen entering and exiting; 3) *territoriality*, which is the clear delineation of space to create pride or ownership and a vested interest of owners in their neighborhood; and 4) *physical maintenance*, which includes repair and general upkeep to maintain a well-kept appearance and neighborhood pride.

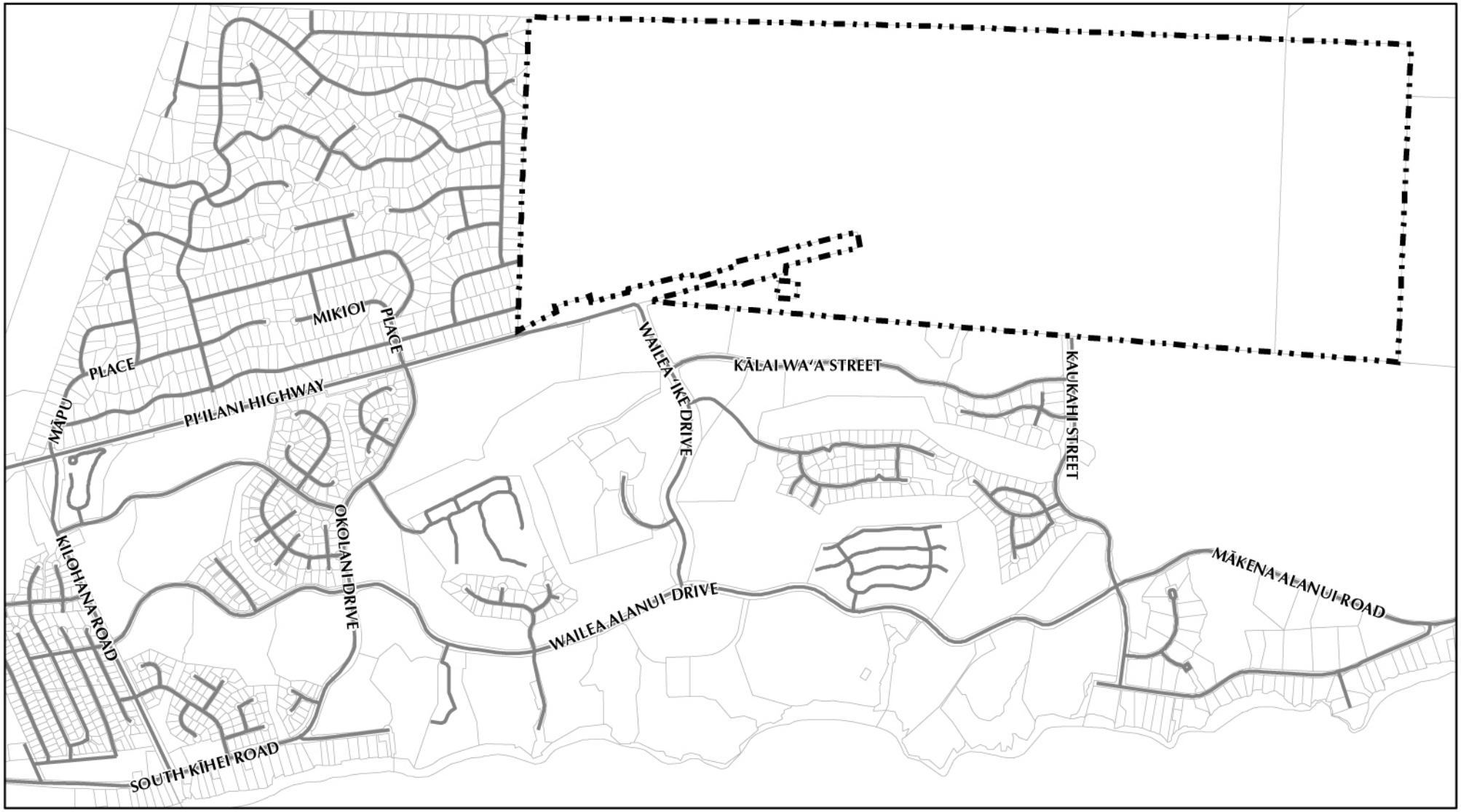
## 4.4 ROADWAYS AND TRAFFIC

Austin, Tsutsumi & Associates, Inc. (ATA) prepared a Traffic Impact Analysis Report (TIAR) to evaluate the potential traffic impacts resulting from the creation of Honua'ula. The TIAR includes an analysis of existing regional traffic conditions and projected future conditions both without and with Honua'ula with the assumption that the widening of Pi'ilani Highway from Kilohana Drive to Wailea Iki Drive would be necessary even if Honua'ula is not built. ATA also prepared transportation management plans (TMPs) for construction and post-construction operations. Key conclusions of the TIAR and TMPs are summarized below. Appendix L contains the complete TIAR. Appendix M contains the TMPs.

ATA further prepared TIARs specifically for the: 1) widening of Pi'ilani Highway from Kilohana Drive to Wailea Ike Drive; and 2) Wailea Alanui Drive intersection improvements. Appendix R contains the complete Pi'ilani Highway Widening Project Final EA. Appendix I of the Final EA contains the complete TIAR for the widening of Pi'ilani Highway. Appendix S contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA. Appendix C of the Final EA contains the complete TIAR for the Wailea Alanui Drive intersection improvements.

### 4.4.1 Existing Roadways

**Access** – Primary access to Honua'ula is from the southern terminus of Pi'ilani Highway. Kaukahi Street, a private two-lane street within Wailea, provides a secondary, controlled access. Within Honua'ula there are several unimproved jeep trails that provide limited access to the interior of the Property. The following are descriptions of roadways in the vicinity of Honua'ula (See Figure 14).




**LEGEND**

Honua'ula

**Figure 14**

Regional Roadways

# Honua'ula

Honua'ula Partners, LLC

ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000

PBR HAWAII & ASSOCIATES, INC.

Source: Maui County GIS Division (2008)

Disclaimer: This graphic has been prepared for general planning purposes only.

**Piʻilani Highway** – This State highway is generally a four-lane, undivided, north/south arterial highway providing access to Kīhei and Wailea from areas north of Kīhei. Piʻilani Highway narrows to a two-lane highway at its intersection with Kilohana Drive/Māpu Place until its terminus at Wailea Ike Drive. Piʻilani Highway begins at its intersection with South/North Kīhei Road and ends at its intersection with Wailea Ike Drive. Left-turn storage lanes are generally provided at major intersections on Piʻilani Highway. The speed limit on Piʻilani Highway is 45 mph in the northbound direction from Wailea Ike Drive to Kilohana Drive; the southbound speed limit on this segment decreases from 45 mph to 25 mph as it approaches Wailea Ike Drive.

**South Kīhei Road** – South Kīhei Road is an undivided north/south County collector roadway that is generally parallel to Piʻilani Highway and provides local access to shopping centers and visitor accommodations along the Kīhei coastline. In the south Kīhei area, South Kīhei Road is a two-lane roadway. The posted speed limit is generally 20 mph.

**Kilohana Drive** – This two-lane, undivided, east/west roadway connects South Kīhei Road with Piʻilani Highway, intersecting Piʻilani Highway across Māpu Place, which provides the north access to the Maui Meadows residential subdivision. The posted speed limit on Kilohana Drive is 25 mph.

**Māpu Place** – This two-lane, undivided, east/west roadway provides one of two access points from Piʻilani Highway to the Maui Meadows residential subdivision. The posted speed limit on Māpu Place is 25 mph.

**Wailea Ike Drive –** Wailea Ike Drive is a four-lane, divided, east/west County collector roadway that narrows to a two-lane roadway just before its connection to Piʻilani Highway. Wailea Ike Drive is the main entrance to the Wailea Resort and connects Piʻilani Highway with Wailea Alanui Drive. Its vertical alignment is a relatively steep grade with a posted speed limit of 30 mph. A broad median with a drainage channel and landscaping separate 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** – Wailea Alanui Drive is a four-lane, divided, north/south collector roadway between Kaukahi Street to the south and Okolani Drive to the north. North of Okolani Drive, Wailea Alanui Drive narrows to a two-lane, undivided, north/south County collector road to its intersection with Kilohana Drive. South of its intersection with Kaukahi Street, Wailea Alanui Drive becomes Mākena Alanui Road. The segment of Wailea Alanui Drive between Wailea Ike Drive and Kaukahi Street has a rolling profile and a meandering alignment. The segment of Wailea Alanui Drive north of Wailea Ike Drive has a less pronounced rolling profile and meandering alignment. The posted speed limit on Wailea Alanui Drive is 30 mph.

**Okolani Drive** – Okolani Drive is the southern extension of South Kīhei Road. The section between Wailea Alanui Drive and Piʻilani Highway is a two-lane roadway. Makai of

Wailea Alanui Drive, the street has two lanes in each direction with a landscaped median. At the intersection with Piʻilani Highway, Mikioi Place provides the mauka leg of the intersection. The posted speed limit of Okolani Drive is 30 mph.

**Mikioi Place** – Mikioi Place is a two-lane, undivided, east/west roadway that provides the southern access point from Piʻilani Highway, across Okolani Drive, to the Maui Meadows residential subdivision. The posted speed limit on Mikioi Place is 25 mph.

**Kālai Waʻa Street** – Kālai Waʻa Street is a privately-owned, two-lane, undivided, north/south roadway between Kaukahi Street and Wailea Ike Drive. Stop signs are provided at its terminus with Wailea Ike Drive and its terminus with Kaukahi Street.

**Kaukahi Street** – Kaukahi Street is a private, two-lane, undivided, east/west roadway between Wailea Alanui Drive/Mākena Alanui Road and Kālai Waʻa Street. Kaukahi Street intersects with Wailea Alanui Drive/Mākena Alanui Road on the west end and terminates at the Honuaʻula property boundary on the east end. Kaukahi Street provides access to the Wailea Golf Course and clubhouse, the Diamond Resort, and several residential neighborhoods.

### 4.4.2 Existing Conditions

#### Level of Service Concept

"Level of Service" is a qualitative measure used to describe the conditions of traffic flow at intersections based on the effect of a number of factors including traffic interruptions, freedom to maneuver, traffic volumes, lane usage, and lane configuration.

There are six levels of service, A through F, which relate to driving conditions from best to worst, respectively. The characteristics of traffic operations for each level of service are summarized in Table 4. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions.

There is a common misconception that LOS designations are like school grades, in which A is the best grade to achieve. In urban areas, a LOS of D is typically considered to be the threshold for adequate conditions during peak hours because roads are very expensive to build, and once built, they must be heavily used to help justify the cost of construction. A road that operates at LOS A at all times is a road that has been over-built for local traffic conditions. Even during peak traffic hours, a road at LOS A carries only a fraction of its capacity, which is a highly inefficient use of transportation funding. Comparatively, a road that operates at LOS C or D carries many trips for its size and represents a more efficient use of transportation funding. Such roads represent a better fit between the desire to travel freely on the road and the expense of building new roads. For this reason, many communities adopt LOS D as their standard LOS for roads and streets; for example Hawaii

County has established LOS D as the acceptable level of service for roads on the Big Island.[7]

**Table 4. Level of Service Definitions for Urban Arterial Segments**

| Level of Service | Interpretation | Unsignalized Delay Time (Seconds) | Signal Delay Time (Seconds) |
|---|---|---|---|
| A | Vehicles completely unimpeded in ability to maneuver w/in traffic stream. Signal delay minimal. | <10.0 | < 10.0 |
| B | Ability to maneuver in traffic stream slightly restricted, signal delays not significant. | 10-15 | 10-20 |
| C | Ability to maneuver and change lanes more restricted than LOS B; longer queues at signals. | 15-25 | 20-35 |
| D | Range at which small increases in flow may cause substantial increases in delay and decreases in travel speed. Signal progression and timing become important factors in maintaining flow. | 25-35 | 35-55 |
| E | Significant delays at critical intersection; ability to maneuver highly restricted. | 35-50 | 55-80 |
| F | Urban street flow at extremely low speeds. Extensive queuing at intersections, long delays, high volumes. | > 50 | > 80.0 |

Source: *Highway Capacity Manual, 2000*

### Study Intersections

The TIAR studied traffic volumes and turning movements at the following intersections in the Wailea-Mākena region (Figure 14):

<u>Intersections Along Piʻilani Highway</u>

- Piʻilani Highway/Kilohana Drive/Māpu Place, currently signalized;
- Piʻilani Highway/Okolani Drive/Mikioi Place, currently un-signalized; and
- Piʻilani Highway/Wailea Ike Drive, currently un-signalized.

Currently, the signalized Piʻilani Highway/Kilohana Drive/Māpu Place) operates at LOS D or better. The un-signalized intersection at Piʻilani Highway/Okolani Drive/Mikioi Place operates at LOS F during the PM peak hour of traffic (4 PM to 5 PM on weekdays). The intersection of Piʻilani Highway/Wailea Ike Drive experiences free flowing conditions because of the "L" configuration of the intersection.

[7] Section 25-2-46, Hawaii County Code defines "acceptable level of service" to mean that the level of service of a transportation facility at the AM and PM peak is "D" or better.

Wailea Ike Drive/Kālai Waʻa Street

- Wailea Ike Drive/Kālai Waʻa Street, currently un-signalized.

Currently, the Wailea Ike Drive/Kālai Waʻa Street intersection operates at LOS C or better.

South Kīhei Road/Kilohana Drive

- South Kīhei Road/Kilohana Drive, currently un-signalized.

Currently, the South Kīhei Road/Kilohana Drive intersection operates at LOS B or better.

Intersections Along Wailea Alanui Drive

- Wailea Alanui Drive/Wailea Ike Drive, currently signalized;
- Wailea Alanui Drive/Okolani Drive/South Kīhei Road, currently un-signalized;
- Wailea Alanui Drive/Grand Wailea Resort, currently signalized; and
- Wailea Alanui Drive/Kaukahi Street, currently un-signalized.

Currently, intersections along Wailea Alanui Drive operate at LOS C or better.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

An important objective of Honuaʻula is to make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community. Therefore, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services, and it is expected that car trips by Honuaʻula residents onto Piʻilani Highway will be reduced accordingly.

Another objective of Honuaʻula is to provide homes near regional employment centers, thereby decreasing commuting time and increasing quality of life and environmental stewardship. Honuaʻula's workforce affordable homes are expected to appeal to many employees working in the nearby Wailea and Mākena resorts. Providing the opportunity for workers to afford a home near their jobs is expected to decrease commuting to and from other parts of Maui, lessen traffic congestion, reduce stress, allow more family and recreation time, lessen pollution, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general. Providing homes near employment also allows workers more transportation options to get to work, such as walking and bicycling, and makes public transportation more feasible by clustering populations and destinations within a defined area along a practical route.

Despite these positive transportation strategies, it is recognized that many of these potential positive impacts are not readily quantifiable or predictable. To gain an understanding of future regional traffic impacts, the Honuaʻula TIAR analyzed traffic conditions both without and with Honuaʻula using standard traffic engineering methods

for three forecasted periods: 2016, 2018, and 2022. These periods correspond generally to: 1) the projected end of the intitial period of building and occupancy of Honuaʻula (2016); 2) the point where two-thirds of the community is expected to be built and occupied (2018); and 3) the period when Honuaʻula is expected to be fully built-out and occupied (2022). To project future regional traffic the Maui Travel Demand Forecasting Model was used to determine a de facto growth rate in the vicinity. Then other known projects in the area were factored into the projected growth in traffic. These projects include:

**Wailea Resort –** Within the Wailea Resort several projects were either underway or proposed at the time the Honuaʻula TIAR was prepared. The Honuaʻula TIAR incorporates the results of the TIARs from these other known projects, which include: Kai Malu (MF-8), Wailea Gateway, the Grand Wailea Resort Renovation, and the 1 Resort and Residences (formerly Renaissance Wailea Resort). The Honuaʻula TIAR also incorporates projected traffic from the remaining undeveloped parcels within the Wailea Resort based on the maximum residential units, hotel rooms, and commercial square feet that could be developed under existing zoning.

**Mākena Resort** – The Honuaʻula TIAR assumes that approximately 850 residential units could be built within Mākena Resort based upon existing zoning, and it incorporates projected traffic from these potential units. However, ~~due to Mākena Resort's current financial situation~~ it is unknown if or when any of these units will be built.

### 4.4.3 Projected Traffic Conditions Without Honuaʻula

In the discussion below of projected traffic impacts without Honuaʻula, the TIAR determined that certain traffic improvements would be necessary by 2016 due to regional traffic growth even if Honuaʻula is not built, and to achieve the projected levels of service the TIAR analysis assumed that these improvements would in fact be implemented. These improvements include:

- **Widen Piʻilani Highway** to four-lanes from Kilohana Drive/Mapu Place to Wailea Ike Drive;
- **Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection** and provide the following lane configurations:
  - Northbound and Southbound Approaches: Provide an exclusive left-turn lane (with a protected left-turn signal phase), an exclusive through lane, and a shared through/right-turn lane.
  - Eastbound Approach: Provide an exclusive left-turn lane and a shared through/right-turn lane (with a permissive signal phase).
  - Westbound Approach: Remain as a shared left-turn/through/right-turn lane (with a permissive signal phase).
- **Modify the Piʻilani Highway/Kilohana Drive/Māpu Place intersection** and provide the following lane configurations:

  - Northbound and Southbound Approaches: Provide an exclusive left-turn lane (with a protected left-turn signal phase), two exclusive through lanes, and an exclusive right-turn lane.
  - Eastbound Approach: Remain as an exclusive left-turn lane and a shared through/right-turn lane (with a permissive signal phase).
  - Westbound Approach: Provide an exclusive left-turn lane, an exclusive through lane and an exclusive right-turn lane (with a permissive signal phase).
- **Modify the Wailea Alanui Drive/Kaukahi Drive intersection** to provide the eastbound and westbound approach with an exclusive left-turn lane and a shared through/right-turn lane in conjunction with the build-out of the Mākena Resort.

The following is the analysis of projected traffic conditions without Honuaʻula based on the assumption that the above improvements are actually implemented. It is important to note, however, that with the exception of adding a signal at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection—which is a condition of approval of the Kai Malu Project (MF-8) project—it is not known if or when any of these improvements would be built without Honuaʻula, or if the State, the County, or others would be willing or able to fund them.

**Intersections Along Piʻilani Highway**

Analysis of projected traffic conditions without Honuaʻula indicates that by 2016 the widening of Piʻilani Highway to four-lanes would be necessary between its intersections with Kilohana Drive/Māpu Place and Wailea Ike Drive. A signal at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection also would be necessary. If these improvements are undertaken, the Piʻilani intersections with Kilohana Drive/Māpu Place and Okolani Drive/Mikioi Place would operate at LOS D or better during both the AM and PM peak hours of traffic. If Piʻilani Highway is not widened but a signal is installed at the Okolani Drive/Mikioi Place intersection, some movements at the Kilohana Drive/Māpu Place intersection and the Okolani Drive/Mikioi Street intersection would operate at LOS F during the AM and PM peak traffic hours.

For periods 2018 and 2022, assuming Piʻilani Highway is widened and a signal is installed at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, traffic conditions at intersections along Piʻilani Highway would operate at LOS D during both the AM and PM peak hours of traffic. Without the widening of Piʻilani Highway, traffic conditions at intersections along Piʻilani Highway would be expected to operate at a worse level of service.

**Wailea Ike Drive/Kālai Waʻa Street**

For all periods (2016, 2018, and 2022), the Honuaʻula TIAR projects that the northbound left-turn movement at the un-signalized intersection of Wailea Ike Drive/Kālai Waʻa Street will operate at LOS F for left turns exiting Kālai Waʻa Street. However, it is not uncommon for a low volume side street such as Kālai Waʻa Street to experience long delays,

especially when trying to cross or execute a left-turn onto a high volume roadway such as Wailea Ike Drive. At the Wailea Ike Drive/Kālai Waʻa Street intersection, it is projected that approximately 10 and 15 vehicles will utilize the northbound left-turn movement during the AM and PM peak hours of traffic, respectively. Due to low traffic volumes on Kālai Waʻa Street, the projected traffic volumes at this intersection will not warrant the installation of a traffic signal according to the Highway Capacity Manual[8].

**South Kīhei Road/Kilohana Drive**

For all periods (2016, 2018, and 2022), the South Kīhei Road/Kilohana Drive intersection will continue to operate at level LOS C or better during both the AM and PM peak hours of traffic.

**Intersections Along Wailea Alanui Drive**

By 2016 all intersections along Wailea Alanui Drive will continue to operate at LOS D or better during both the AM and PM peak hours of traffic, with the exception of the Wailea Alanui Drive/Kaukahi Street intersection, which is projected to operate at LOS E or worse for left turn movements entering Kaukahi Street during the PM peak hour of traffic However, because of the relatively low volumes of traffic entering Kaukahi Street, a traffic signal will not be warranted at this intersection according to the Highway Capacity Manual. The TIAR recommends that the east and west approaches from Wailea Alanui Drive be restriped to provide shared through/right turn lanes and exclusive left-turn lanes to Kaukahi Street; however this restriping is only recommended due to the projected build-out of the Mākena Resort.

By 2018, if the projected build-out of Mākena Resort is realized and the east and west approaches from Wailea Alanui Drive have been restriped to provide shared through/right turn lanes and exclusive left-turn lanes to Kaukahi Street, all intersections along Wailea Alanui Drive will operate at LOS D or better during the AM and PM peak traffic hours except for: 1) the northbound left-turn movement at the all-way stopped controlled intersection of Wailea Alanui Drive/Okolani Drive during the PM peak traffic hour (LOS E); and 2) the eastbound and westbound left turn movement at the un-signalized intersection of Wailea Alanui Drive/Kaukahi Street during the PM peak traffic hour (LOS E or worse). However, because of the relatively low volumes of traffic making left turns from

[8] The Highway Capacity Manual (HCM), a publication of the national Transportation Research Board, is the standard reference for transportation and traffic engineering scholars and practitioners and contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various roadway facilities. Traffic engineering scholars and practitioners use the HCM in conjunction with the Manual on Uniform Traffic Control Devices (MUTCD), a publication of the FHWA, to determine whether a traffic signal will likely be warranted for future conditions. Both the State DOT and the County of Maui DOT use the HCM and the MUTCD as their standard references.

Okolani Drive and to Kaukahi Street, traffic signals will not be warranted at these intersections according to the Highway Capacity Manual.

By 2022, if the projected build-out of Mākena Resort is realized and the east and west approaches from Wailea Alanui Drive have been restriped to provide shared through/right turn lanes and exclusive left-turn lanes to Kaukahi Street, all intersections along Wailea Alanui Drive will operate at LOS D or better during the AM and PM peak traffic hours except for: 1) the northbound left-turn movement at the all-way stopped controlled intersection of Wailea Alanui Drive/Okolani Drive during the PM peak traffic hour (LOS F); and 2) the eastbound and westbound left turn movement at the un-signalized intersection of Wailea Alanui Drive/Kaukahi Street during the PM peak traffic hour (LOS E or worse). However, because of the relatively low volumes of traffic making left turns from Okolani Drive and to Kaukahi Street, a traffic signal most likely will not be warranted at these intersections according to the Highway Capacity Manual.

### 4.4.4 Projected Traffic Conditions With Honuaʻula

As part of creating Honuaʻula, Honuaʻula Partners, LLC will not only provide traffic improvements that are necessary to specifically address traffic generated by Honuaʻula, but it will also pay for and build many regional traffic improvements that would be necessary even if Honuaʻula were not built—regional improvements that would most likely not be undertaken if not for the development of Honuaʻula. Therefore, the improvements provided by Honuaʻula Partners, LLC will address the impacts of general regional traffic growth as well as impacts specifically related to Honuaʻula.

**Regional Traffic Improvements**

In accordance with County of Maui Ordinance No. 3554, Honuaʻula Partners, LLC will provide the following regional traffic improvements before occupancy of any units within Honuaʻula—these improvements mirror and exceed the above traffic improvements that would be necessary by 2016 due to regional traffic growth without Honuaʻula:

- **Widen Piʻilani Highway**, from Kilohana Drive to Wailea Ike Drive, to four lanes of traffic before the commencement of any construction on the Property, with the exception of grading (Condition 2a);
- **Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection** and provide an exclusive left-turn lane on Okolani Drive prior to occupancy of the first unit in Honuaʻula (Condition 2c).[9] To fully implement this condition and in accordance with the recommendations of the TIAR, the following lane configurations will be provided:

[9] This condition is also a condition of the Kai Malu project (MF-8). Honuaʻula Partners LLC and the Kai Malu project (MF-8) developer, A&B Wailea, Inc., will coordinate the installation of the signal as part of widening Piʻilani Highway.

  - Northbound and Southbound Approaches: Provide an exclusive left-turn lane (with a protected left-turn signal phase), and two exclusive through lane, and a shared through/right-turn lane.
  - Eastbound Approach: Provide an exclusive left-turn lane and a shared through/right-turn lane (with a permissive signal phase).
  - Westbound Approach: Remain as a shared left-turn/through/right-turn lane (with a permissive signal phase).
- **Modify the Piʻilani Highway/Kilohana Drive/Māpu Place intersection** to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Māpu Place prior to occupancy of the first unit in Honuaʻula (Condition 2f). To fully implement this condition and in accordance with the recommendations of the TIAR, the following lane configurations will be provided:
  - Northbound and Southbound Approaches: Provide an exclusive left-turn lane (with a protected left-turn signal phase), two exclusive through lanes, and an exclusive right-turn lane.
  - Eastbound Approach: Remain as an exclusive left-turn lane and a shared through/right-turn lane (with a permissive signal phase).
  - Westbound Approach: Provide an exclusive left-turn lane, an exclusive through lane and an exclusive right-turn lane (with a permissive signal phase).
- **Modify the Wailea Alanui/Wailea Ike Drive intersection** to add a signalized double right-turn movement for northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive before occupancy of any units within Honuaʻula (Condition 2e). To fully implement this condition and in accordance with the recommendations of the TIAR, the following lane configurations will be provided:
  - Northbound Approach: Provide an exclusive through lane and two exclusive right-turn lanes. Signalize the two exclusive right-turn lanes.
  - Southbound Approach: Remain as an exclusive left-turn lane and two exclusive through lanes.
  - Westbound Approach: Provide two exclusive left-turn lanes and an exclusive right-turn lane.

~~Planning is already underway for~~ For the widening of Piʻilani Highway to four lanes, along with the required intersection improvements at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, the Piʻilani Highway/Wailea Ike Drive intersection, and the Piʻilani Highway/Kilohana Drive/Māpu Place intersection, ~~. Preliminary~~ design of these improvements has been completed and a draft and final EA ~~is being~~ were prepared. The State DOT ~~is currently reviewing the draft EA before notice of the draft EA is published in the OEQC's *The Environmental Notice* and the public comment period commences~~ has accepted the final EA and issued a Finding of No Significant Impact, which was published in the OEQC's *The Environmental Notice* on May 8, 2012. A SMA Assessment and Determination will be sought. Appendix R contains the complete Piʻilani Highway Widening Project Final EA.

For the Wailea Alanui/Wailea Ike Drive intersection improvements, design has been completed, a draft and final EA were prepared, and the County Department of Public Works has accepted the final EA and issued a Finding of No Significant Impact which was published in the OEQC's *Environmental Notice* on January 23, 2010. Appendix S contains the complete Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA. The Maui Planning Commission has also approved ~~A~~ a Special ~~Area~~ Management Area Use Permit ~~application is also being processed~~ for the intersection improvements on April 13, 2010.

**Honua'ula-Related Traffic Improvements**

In addition to the regional traffic improvements discussed above, and in further compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will also provide the following traffic improvements specifically related to Honua'ula:

- **Signalize the Pi'ilani Highway/Wailea Ike Drive intersection** and provide a 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 (Condition 2d). To fully implement this condition, and in accordance with the recommendations of the TIAR, the following lane configurations will be provided:
    - Southbound approach: Provide an exclusive left-turn lane and an exclusive right-turn lane. Allow the Pi'ilani Highway southbound right-turn to be a free turning movement by providing an exclusive westbound receiving lane on Wailea Ike Drive.
    - Eastbound approach: Provide two exclusive left-turn lanes (with a protected left-turn signal phase) and an exclusive through lane.
    - Westbound Approach: Provide an exclusive through lane, and an exclusive right-turn lane.
- **Extend Pi'ilani Highway south**, into Honua'ula, from Wailea Ike Drive to Kaukahi Street or prior to the completion for 50 percent of Honua'ula (Condition 2b). This will enable Kaukahi Street to provide a second access point into Honua'ula. Since Kaukahi Street is a private street, it is planned to be gated within Wailea Resort to address the concerns of Wailea Community Association. To fully implement this condition, and in accordance with the recommendations of the TIAR, the following lane configurations will be provided at the Pi'ilani Highway/ Wailea Ike Drive intersection:
    - Northbound Approach: Provide an exclusive left-turn lane (with a protected left-turn signal phase), two exclusive through lanes, and an exclusive right-turn lane.
    - Southbound Approaches: Provide two exclusive left-turn lanes (with a protected left-turn signal phase), an exclusive through lane, and an exclusive right-turn lane. Also, it is recommended that the Pi'ilani Highway southbound right-turn to be a free turning movement by providing an exclusive westbound receiving lane on Wailea Ike Drive.

  - Eastbound Approach: Provide two exclusive left-turn lanes (with a protected left-turn signal phase) and a shared through/right-turn lane.
  - Westbound Approach: Provide an exclusive left-turn lane (with a protected left-turn signal phase), an exclusive through lane, and an exclusive right-turn lane.
- **Signalize the Wailea Ike Drive/Kālai Waʻa Street intersection** in coordination with Wailea Resort and Mākena Resort when warranted (Condition 2g); and
- **Signalize the Wailea Alanui/Kaukahi Drive/Kaukahi Street intersection** in coordination with Wailea Resort and Mākena Resort when warranted (Condition 2h).

In addition to all of the above traffic improvements, Honuaʻula Partners, LLC also will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit, in further compliance with County of Maui Ordinance No. 3554 Condition 3. If all Honuaʻula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honuaʻula Partners, LLC will incur for the above regional and Honuaʻula-related traffic improvements.

~~In compliance with County of Maui Ordinance No. 3554, Honuaʻula Partners, LLC will consult with the State DOT and the County Department of Public Works to ensure that the proposed roadway improvements meet with their satisfaction (Condition 18k). Proposed agreements regarding the roadway improvements will be incorporated in the Phase II application and will be finalized as part of Project District Phase II approval. Honuaʻula Partners, LLC has requested verification from the State DOT and County Department of Public Works that the proposed roadway improvements meet with their satisfaction. Honuaʻula Partners, LLC will provide verification when received from State DOT and County Department of Public Works.~~

In compliance with County of Maui Ordinance No. 3554 (Condition 18k), Honuaʻula Partners, LLC has engaged in extensive consultation and correspondence with the DOT and DPW regarding roadway improvements that Honuaʻula Partners, LLC are required to implement. These include the regional traffic improvements noted above under the heading "Regional Traffic Improvements" and the Honuaʻula-related traffic improvements noted above under the heading "Honuaʻula-Related Traffic Improvements." These improvements are all provided in compliance with County of Maui Ordinance No. 3554 Condition 2, which includes multiple sub-conditions as noted above. The consultation involved ensuring that the design of the proposed improvements is to the satisfaction and agreement of: 1) DOT regarding State Highway improvements; and 2) DPW regarding County roadway improvements.

In correspondence from DOT dated March 24, 2010, DOT stated:

> *The improvements to be performed by Honuaula Partners LLC as stated in Condition 2 are consistent with the improvements identified in the Traffic Impact Assessment Report (TIAR)*

*dated 29, 2009[10]. These improvements are understood to be considered the 'fair share' for highway related improvements of the affected area.*

In their March 24, 2010 letter DOT also specifically addressed extending Piilani Highway into Honua'ula from Wailea Ike Drive to Kaukahi Street (Condition 2b), a portion of which will be on State-owned ROW, by specifying their design requirements for the extension. In so specifying it is implicit that DOT is in agreement with extending Piilani Highway over the State-owned ROW. Regarding the widening of Piilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive (Condition 2a), in further correspondence from DOT dated August 23, 2010, DOT concurred with the design of the widening provided by Honua'ula Partners, LLC.

In correspondence from DPW dated February 24, 2010 DPW stated: "We confirm that Honua'ula Partners, LLC is in compliance with and has initiated implementation of Condition Nos. 2e, g and h as defined in the conditions of zoning for the Honua'ula project." Conditions 2e, 2g, and 2h pertain to improvements to County roadways.

The correspondence between Honua'ula Partners, LLC and DOT and DPW indicates the satisfaction of DOT and DPW with the improvements that Honua'ula Partners, LLC will provide and constitutes these agencies' agreement with the improvements as designed thus far. Further satisfaction and agreement with the proposed improvements is evidenced by the environment assessments (EAs) for the widening of Pi'ilani Highway and the Wailea Ike Drive/Wailea Alanui Drive intersection improvements. Specifically the Final EA for the widening of Pi'ilani Highway (Appendix R) contains design details and—as the accepting authority for the EA—DOT has reviewed the draft and final EA, accepted the final EA, and issued a Finding of No Significant Impact. Similarly, the Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA (Appendix S) includes design details and DPW—as the accepting authority for the EA—has reviewed the draft and final EA, accepted the final EA, and issued a Finding of No Significant Impact.

In summary, the consultation and subsequent written correspondence between Honua'ula Partners, LLC and DOT and DPW demonstrates the efforts of all involved to work cooperatively to implement the required roadway improvements. This is further evidenced by DOT's and DPW's review and acceptance of the EAs covering the respective improvements these agencies are responsible for overseeing. These agencies review of, and satisfaction with, the improvements required of, and proposed by, Honua'ula Partners LLC constitutes their agreement with the improvements and the use of the State and County ROWs necessary to implement the improvements. Collectively, DOT's and DPW's satisfaction with, and agreement of, the improvements constitutes Honua'ula Partners,

[10] The TIAR dated October 29, 2009, pertains to the widening of Piilani Highway from Kilohana Drive to Wailea Ike Drive, including improvements at the intersections of: 1) Pi'ilani Highway/Okolani Drive/Mikioi Place; and 2) Pi'ilani Highway/Kilohana Drive/Mapu Place. The TIAR contained in the Draft EIS and this Final EIS is dated March 2, 2010, and identifies the same recommended improvements to these intersections.

LLC's compliance with County of Maui Ordinance No. 3554 Condition 18k, which requires: "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."

Appendix L includes the above referenced correspondence between Honuaʻula Partners, LLC and DOT and DPW. Appendix R contains the Piʻilani Highway Widening Project Final EA. Appendix S contains the Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA.

The following is the analysis of projected traffic conditions in context with regional traffic growth combined with traffic from Honuaʻula, with the understanding that the above regional traffic improvements will be implemented at specified time periods. The TIAR estimates that:

- By 2016, Honuaʻula will generate 168 outbound and 220 inbound trips during the AM peak traffic hour and 433 inbound and 481 outbound trips during the PM peak traffic hour;
- By 2018, Honuaʻula will generate 312 outbound and 279 inbound trips during the AM peak traffic hour and 579 inbound and 564 outbound trips during the PM peak traffic hour; and
- By 2022, Honuaʻula will generate 411 outbound and 339 inbound trips during the AM peak traffic hour and 685 inbound and 634 outbound trips in the PM peak traffic hour.

These trips will be distributed in the region with approximately 70 percent traveling on Piʻilani Highway (north/south) en route to and from Honuaʻula, 25 percent traveling on Wailea Alanui Drive en route to or from the Mākena area, and approximately five percent traveling on Wailea Alanui Drive en route to or from Kīhei.

**Intersections Along Piʻilani Highway**

By 2016, Piʻilani Highway will be widened to four lanes and the main entrance to Honuaʻula will be constructed at the intersection of Piʻilani Highway/Wailea Ike Drive. The intersection will be a "T" intersection (as opposed to an "L" currently) with Piʻilani Highway terminating and Wailea Ike Drive extending to the west and the Honuaʻula entrance extending to the east. Both the Piʻilani Highway/Wailea Ike Drive intersection and the Piʻilani Highway/Okolani Drive/Mikioi Place intersection will be signalized, and lane improvements will have been provided at the signalized intersection of Piʻilani Highway/Kilohana Drive/Mapu Place and the Piʻilani Highway/Okolani Drive/Mikioi Place. With these improvements, all intersections along Piʻilani Highway are projected to operate at LOS D or better.

By 2018 it is assumed that 50 percent of Honuaʻula will be completed and Piʻilani Highway will be extended into Honuaʻula, and thus the "T" intersection at the intersection of Piʻilani Highway/Wailea Ike Drive/Honuaʻula entrance will become a standard four-way "cross" intersection.

For periods 2018 and 2022 all intersections along Piʻilani Highway are projected to operate at LOS D or better; with the exception of the PM peak hour of traffic for the eastbound and southbound left-turn movements at the Piʻilani Highway/Kilohana Drive/Māpu Place intersection, which provides the northern access point to Maui Meadows. However, additional improvements are not recommended for this intersection in the TIAR because: 1) providing additional capacity for the eastbound left-turn movement will not improve the level of service; 2) the projected volume of southbound left-turn traffic does not warrant a double left-turn lane according to the Highway Capacity Manual; and 3) the Piʻilani Highway/Okolani Drive/Mikioi Place intersection will be signalized and also provides access to Maui Meadows, and therefore some drivers may opt to use the southbound left-turn at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection instead of the Piʻilani Highway/Kilohana Drive/Māpu Place intersection.

**Wailea Ike Drive/Kālai Waʻa Street**

For all periods (2016, 2018, and 2022) the northbound left-turn movement at the un-signalized intersection of Wailea Ike Drive/Kālai Waʻa Street is projected to operate at LOS F. By 2018 and continuing on to 2022 the northbound right turn movement is projected to operate at LOS E for left turns exiting Kālai Waʻa Street. However, it is not uncommon for a low volume side street to experience long delays, especially when trying to cross or execute a left-turn onto a high volume roadway such as Wailea Ike Drive. As was the case in the "Without Honuaʻula" analysis, due to low traffic volumes on Kalai Waa Street, the projected traffic volumes at this intersection will not warrant the installation of a traffic signal system according to the Highway Capacity Manual.

**South Kīhei Road/Kilohana Drive**

For all periods (2016, 2018, and 2022) the South Kīhei Road/Kilohana Drive intersection is projected to continue to operate at LOS C or better during both the AM and PM peak hours of traffic.

**Intersections Along Wailea Alanui Drive**

By 2016, all intersections along Wailea Alanui Drive will continue to operate at LOS D or better during both the AM and PM peak hours of traffic, with the exception of the intersection of Wailea Alanui Drive/Kaukahi Street for left turn movements entering Kaukahi Street during the PM peak hour of traffic (LOS F). However, as was the case in the "Without Honuaʻula" analysis, because of the relatively low volumes of traffic entering or exiting Kaukahi Street, a traffic signal will not be warranted at this intersection according

to the Highway Capacity Manual. As was the case in the "Without Honuaʻula" analysis, it is recommended that the east and west approaches from Wailea Alanui Drive be restriped to provide shared through/right turn lanes and exclusive left-turn lanes to Kaukahi Street; however this restriping is only recommended due to the projected build-out of the Mākena Resort.

By 2018, if the projected build-out of Mākena Resort is realized and the east and west approaches from Wailea Alanui Drive have been restriped to provide shared through/right turn lanes and exclusive left-turn lanes to Kaukahi Street, all intersections along Wailea Alanui Drive will operate at LOS D or better during the AM and PM peak traffic hours except for: 1) the northbound left-turn movement at the all-way stopped controled intersection of Wailea Alanui Drive/Okolani Drive during the PM peak traffic hour (LOS F); and 2) the eastbound and westbound left turn movement at the un-signalized intersection of Wailea Alanui Drive/Kaukahi Street during the PM peak traffic hour (LOS F). However, as was the case in the "Without Honuaʻula" analysis, because of the relatively low volumes of traffic making left turns from Okolani Drive and to Kaukahi Street, traffic signals will not be warranted at these intersections according to the Highway Capacity Manual.

By 2022, if the projected build-out of Mākena Resort is realized, a traffic signal may be necessary at the Wailea Alanui Drive/Kaukahi Street intersection, as much of the through traffic on Wailea Alanui Drive at this intersection would be due to build-out of the Mākena Resort. Because of Mākena Resort's current financial situation it is unknown when or if any or all of the proposed units at Mākena Resort will be built. Therefore, the need for a traffic signal will need to be evaluated based on actual traffic conditions at the time. Assuming build-out of the Mākena Resort by 2022, with a signal, this intersection will operate at LOS C. All other intersections along Wailea Alanui Drive will operate at LOS D or better during the AM and PM peak traffic hours except for the northbound left-turn movement at the all-way stopped controled intersection of Wailea Alanui Drive/Okolani Drive during the PM peak traffic hour (LOS F). However, as was the case in the "Without Honuaʻula" analysis, because of the relatively low volumes of traffic making left turns from Okolani Drive, a traffic signal will not be warranted at this intersection according to the Highway Capacity Manual.

In sum, the traffic improvements that will be implemented by Honuaʻula Partners, LLC will have a significant positive impact on traffic conditions in the region. Not only will Honuaʻula Partners, LLC provide improvements that are specifically intended to address traffic impacts generated by the Honuaʻula, they will also complete improvements needed to address traffic impacts caused by general regional traffic growth even without Honuaʻula—improvements that are highly unlikely to be realized without Honuaʻula. Although the TIAR's analysis of the "Without Honuaʻula" scenario assumed that these necessary regional traffic improvements would be completed, it is implicit that if these improvements are not implemented then traffic conditions in the "Without Honuaʻula" scenario would be much worse. Therefore, the creation of Honuaʻula will address regional traffic impacts to the benefit of the entire Kīhei-Mākena region.

### 4.4.5 Transportation Management

In compliance with County of Maui Ordinance No. 3554, ATA prepared TMPs for Honua'ula construction and post-construction operations (Condition 28). The TMPs propose transportation management strategies to reduce: 1) construction-related traffic during the construction of Honua'ula and the widening of Pi'ilani Highway; and 2) dependency on individual vehicles by Honua'ula residents, employees, and visitors after construction.

Key provisions of the TMPs are summarized below. Appendix M contains the complete TMPs. The ~~TMPs have been submitted to the~~ State DOT, the County Department of Public Works, and the County Department of Transportation ~~for review and approval. In a letter dated December 18, 2009 the County Department of Public Works~~ have all reviewed and approved the TMPs for Honua'ula construction and post-construction operations. ~~This~~ The approval letters ~~is~~ are included in Appendix M.

**Construction Operations**

The construction TMP sets forth transportation, parking and construction management policies and practices to reduce peak hour vehicle trips generated by construction of Honua'ula and the widening of Pi'ilani Highway. Pi'ilani Highway is required to be widened before any construction within Honua'ula, with the exception of grading. Therefore the Honua'ula property will be used for construction parking and as a staging area during the widening of Pi'ilani Highway. After Pi'ilani Highway is widened and construction starts within Honua'ula, the additional vehicle capacity of Pi'ilani Highway will lessen impacts of construction-related traffic traveling to Honua'ula.

Construction-related traffic will be from individual construction and trade workers arriving and leaving the construction sites. A small portion of construction-related traffic will be caused by construction improvements along Pi'ilani Highway and delivery trucks arriving and leaving the construction sites.

Specific transportation management strategies to reduce construction worker-related traffic include:

- **Transportation Coordinator –** The Transportation Coordinator will: 1) coordinate with contactors, administrators, employees, officials and the general public to implement transportation management initiatives and programs; 2) coordinate with construction managers and workers to make sure employee work shifts occur during off-peak hours to reduce the impacts to the AM and PM peak traffic hours; and 3) monitor surrounding residential areas to ensure construction workers are not parking in these areas;
- **Off-Peak Arrivals/Departures –** Work days are recommended to be scheduled so workers avoid travelling during peak hours of the day;

- **Ridesharing/Carpooling/Vanpooling Programs –** Ridesharing, carpooling and vanpooling will be encouraged through incentives such as reimbursements of costs for those who provide a rideshare vehicle, preferential parking in the designated employee parking lot for those who provide a rideshare vehicle, and other incentives;
- **Park-and-Ride Facilities** – To facilitate ridesharing/carpooling/vanpooling, park-and-ride facilities will be located outside of the construction work zone. Currently, there are existing park-and-ride facilities in Kahului along Puʻunēnē Avenue near Kuihelani Highway and in the Māʻalaea area along North Kīhei Road near Honoapiʻilani Highway. Construction workers will be encouraged to park their personal vehicles at the park-and-ride lots and either carpool, vanpool or use a shuttle to enter the project site;
- **Guaranteed Ride Home Program** – A Guaranteed Ride Home program will be established to ensure that workers who do not drive to work have a way to get home in case of emergency, an unexpected situation, personal sickness, sickness of a family member, or if the worker must stay late to work unscheduled overtime; and
- **Employee Parking –** The designated construction worker parking area will be managed and regulated to promote ridesharing by limiting the number of employee parking spaces and requiring parking passes to regulate vehicles permitted to park in the parking lot.

Specific transportation management strategies to reduce traffic congestion caused by delivery trucks arriving and leaving the construction site and construction improvements along Piʻilani Highway include:

- **Consolidating Deliveries –** Whenever possible, construction materials, fuel, supplies and equipment will be consolidated and delivered to the site during off-peak hours. Deliveries required during peak hours will be arranged and monitored by the Transportation Coordinator, so that proper coordination, planning and regulation of truck flows can be made prior to the delivery;
- **Reduce Traffic Delays and Reduction in Flow –** Lane or road closures will occur during off-peak hours, unless closures during peak hours are necessary for public safety reasons. All lane or road closures will be conducted in accordance with State DOT regulations; and
- **Public Information and Outreach –** The Transportation Coordinator will implement a public information and outreach program that will include:
    - Publicizing construction schedules, roadway use, alternative routes, and alternative modes of transportation via a website or written notices;
    - Notifying motorists of lane or road closures to give them time to plan ahead and use different routes;
    - Establishing a "hotline" for inquiries, construction activities, and complaints;
    - Conducting regular information meetings with surrounding neighborhoods;

- Coordinating delivery schedules and roadway construction schedules with other projects in the area; and
- Coordinating with unions and construction companies.

**Post-Construction Operations**

The post-construction TMP proposes specific on-going transportation management policies and practices to consolidate and reduce vehicle trips generated by Honuaʻula residents, employees, and visitors.

By design Honuaʻula is expected to reduce vehicle dependency, since it will contain commercial and retail establishments convenient to residential areas and a system of bicycle and pedestrian ways throughout the community. With these elements incorporated within the community, Honuaʻula residents will not need to drive outside of Honuaʻula for all needs and services, and walking and biking can be alternatives to driving.

Honuaʻula is also located nearby the Wailea and Mākena Resorts, and Honuaʻula's workforce affordable homes are expected to appeal to many people who may be resort employees. This close proximity to employment centers provides the opportunity for more transportation options for resort employees to get to work, such as resort shuttles, ridesharing, carpooling, walking, and bicycling.

Specific transportation management strategies to encourage Honuaʻula residents to use alternative modes of transportation include:

- **Encourage Walking and Biking –** Honuaʻula will include safe and accessible walkways and bikeways. To encourage residents to walk and bike, most residential areas will be within approximately a half-mile or less of commercial and recreational facilities;
- **Coordinate Expansion of the Sub-Regional Shuttle System –** For travel within the Kīhei-Mākena region, the Transportation Coordinator will coordinate with the Wailea Resort Shuttle and Mākena Resort Shuttle to identify opportunities for expansion of shuttle service to Honuaʻula. The resort shuttle buses could provide an ideal mode of transportation for Honuaʻula residents who work at Wailea Resort and Mākena Resort to get to work; and
- **Coordinate Expansion of the Maui Bus –** For travel outside of the Kīhei-Mākena region, the Transportation Coordinator will coordinate with the Maui Department of Transportation to identify opportunities for expansion of bus service to Honuaʻula. A bus stop will be provided within Honuaʻula; ideally this bus stop would be located within the Village Mixed Use area VMX Town Center near the intersection of Piʻilani Highway and Wailea Ike Drive. A park and ride facility ~~could~~ will also be located in this area. The park and ride facility is envisioned as an overflow parking area in the VMX Town Center that could be used as a park and

ride facility during normal working hours and either employee or customer overflow parking during weekend and nights.

Specific transportation management strategies to encourage and provide opportunities for employees of Honuaʻula's commercial areas to use alternative modes of transportation include:

- **Active Retail/Commercial Participation –** To reduce individual commuter trips generated by employees of Honuaʻula's commercial space, employers will be encouraged to provide incentives to employees to use alternative modes of transportation to get to work;
- **Schedule Off-Peak Work –** Employers will also be encouraged to offer flexible work schedules so their employees can avoid travel during peak hours of the day;
- **Encourage Ridesharing/Carpooling/Vanpooling/Transit –** Employers will be further encouraged to consider incentives for employees who rideshare, carpool and/or vanpool, such as discounted/free bus passes or cash incentives and subsidies;
- **Coordinate Expansion of the Sub-Regional Shuttle System and the Maui Bus –** As discussed above, the Transportation Coordinator will coordinate with the Wailea and Mākena Resort shuttles and with the Maui Department of Transportation to increase service of shuttles and buses to Honuaʻula. These services can be used by both Honuaʻula residents and employees to travel to and from Honuaʻula;
- **Parking Management –** Commercial parking facilities can be managed and regulated to encourage efficient use of parking and promote ridesharing and alternative modes of transportation. For example, a number of parking stalls at each commercial parking lot could be designated for ridesharing vehicles and ridesharing drivers then could be given parking passes that permit parking in the ridesharing stalls.

## 4.5 NOISE

Y. Ebisu & Associates prepared an acoustic study to: 1) study the existing and future noise environment in the environs of Honuaʻula; ~~and~~ 2) evaluate potential noise impacts associated with Honuaʻula, including the widening of Piʻilani Highway; and 3) provide recommendations for minimizing noise impacts. Appendix N contains the complete acoustic study. Y. Ebisu & Associates also prepared a separate acoustic study specifically for the widening of Piʻilani Highway. Appendix R contains the complete Piʻilani Highway Widening Project Final EA. Appendix F of the Final EA contains the acoustic study specifically for the widening of Piʻilani Highway.

Sources of noise in the vicinity of the Property stem from traffic traveling along Piʻilani Highway and other surrounding roads, distant construction, and natural sources, such as wind, rain, and birds. Sources of noise in the vicinity of the Wailea Alanui Drive intersection include traffic noise from vehicles transversing the intersection. Sources of noise in the vicinities of the off-site wells, waterline, storage tank, and the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF (off site

water and sewer infrastructure) include activity associated with human habitation, and natural sources, such as wind, rain, and birds.

Currently, existing traffic noise levels along Pi'ilani Highway south of Maui Meadows in the immediate vicinity of the Property do not exceed U.S. Federal Highway Administration (FHWA) or State DOT noise standards for residential structures. However, existing traffic noise levels at two residences adjacent to Pi'ilani Highway north of the Pi'ilani Highway/Okalani Drive/Mikioi Place currently exceed State DOT noise standards for residential structures.

Some existing residences makai of Pi'ilani Highway presently benefit from the noise shielding effects of walls which have been constructed along the lot boundary lines. Residences in the Maui Meadows subdivision on the mauka side of the highway benefit from the noise shielding effect of the large highway cuts. In general, if the visual lines of sight between the residences are blocked by the walls or the highway cuts, residences experience lower traffic noise levels due to the sound attenuation effects of the obstructions.

Along Wailea Ike Drive existing traffic noise levels do not exceed the FHWA or DOT noise standards for residential structures at Wailea 'Ekolu Village, which is located on the south side of Wailea Ike Drive. Existing traffic noise levels from Wailea Ike Drive also do not exceed FHWA and DOT noise standards for commercial buildings.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Potential impacts on the ambient quality of the site and surrounding area due to the creation of Honua'ula, the widening of Pi'ilani Highway, the Wailea Alanui Drive intersection improvements, and the off-site water and wastewater infrastructure, are primarily limited to short-term construction activity and, in the long-term, increases in traffic and human activity within the community.

**Short-term Impacts** – During construction of Honua'ula, the widening of Pi'ilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the off-site water and wastewater infrastructure there will likely be noise impacts associated with operation of heavy construction machinery, paving equipment, ~~and~~ material transport vehicles, and possible blasting to break or dislodge rock. As an alternative to blasting, the use of chemical expansion to break or dislodge rock will be considered. Chemical demolition agents are non-toxic and provide environmentally-friendly, safe, controlled demolition. Expansive powers are mixed with water and poured into pre-drilled holes in rock. The non-explosive demolition agent swells and exerts significant expansive thrust on the hole-wall. After a certain period, the pressure induced by the chemical non-explosive demolition agent fractures the wall and splits the rock across the line of the drill holes. These chemicals easily split and fracture mass rock without producing any noise or vibration.

During construction of Honua'ula, the widening of Pi'ilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the off-site water and wastewater infrastructure ~~Proper~~ 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 State 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; and
- No permit shall allow any construction activities that would emit noise in excess of the maximum permissible sound levels on Sundays and holidays.

The acoustic study concludes that adverse impacts from construction noise (from the widening of Pi'ilani Highway and creation of Honua'ula) are not expected to affect public health and welfare due to the temporary nature of the work and the administrative controls regulating noise impacts. Public health and welfare are also not expected to be affected due to the construction of the Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure.

**Long-term Impacts** – The acoustic study concludes that the widening of Pi'ilani Highway and the creation of Honua'ula will not cause increases in traffic noise levels that would exceed DOT's criteria signifying a substantial change, which is defined as an increase of 15 decibels (dB) or more over existing conditions. By the year 2022 maximum increases in traffic noise levels in the vicinity of Honua'ula should not increase more than 10 decibels (dB) along Pi'ilani Highway and 3.6 dB along Wailea Ike Drive as a result of: 1) regional growth in traffic volumes; 2) the widening of Pi'ilani Highway; 3) the creation of Honua'ula; and 4) the planned extension of Pi'ilani Highway into Honua'ula to connect with Kaukahi Street.

While a substantial change in noise levels (as defined by DOT) will not occur, by the year 2022 the number of residences along Pi'ilani Highway subject to noise levels that exceed DOT residential noise standards is projected to increase from two residences under existing conditions to:

- 13 residences due to regional increases in traffic even if Pi'ilani Highway is not widened and Honua'ula is not built;

- 14 residences if Pi'ilani Highway is widened and Honua'ula is not built; and
- 16 residences if Pi'ilani Highway is widened and Honua'ula is built.

In other words, noise levels along Pi'ilani Highway are projected to increase even if Pi'ilani Highway is not widened and Honua'ula is not built. Noise levels at two residences adjacent to Pi'ilani Highway currently exceed State DOT noise standards for residential structures. By 2022 this number will increase to 13 due to regional increases in traffic conditions even if Pi'ilani Highway is not widened and Honua'ula is not built. If Pi'ilani Highway is widened and Honua'ula is built, by 2022 noise levels at three additional residences adjacent to Pi'ilani Highway would exceed State DOT noise standards for residential structures. Thus, the direct impact of widening Pi'ilani Highway and building Honua'ula is that three additional residences adjacent to Pi'ilani Highway would exceed State DOT noise standards for residential structures compared to projected future conditions if Pi'ilani Highway is not widened and Honua'ula is not built. Therefore the primary noise impacts to residences adjacent to Pi'ilani Highway are from regional increases in traffic that are projected to occur even if Pi'ilani Highway is not widened and Honua'ula is not built, and not the direct result of the widening of Pi'ilani Highway and the building of Honua'ula.

Under all of the above scenarios, by the year 2022 future traffic noise levels along Pi'ilani Highway fronting Honua'ula and along Wailea Ike Drive should not exceed FHWA and DOT noise standards for residential or commercial structures. Future traffic noise levels along the Pi'ilani Highway extension into Honua'ula should not exceed FHWA and DOT noise standards for residential or commercial structures, since adequate setback distances from the highway extension's centerline will be provided in accordance with Section 19.90A.030(E)(6), MCC. In addition, DOT's criteria for a substantial change in noise levels will not be exceeded for existing residences at Wailea 'Ekolu Village and Diamond Resort.

To mitigate impacts to residences along Pi'ilani Highway subject to noise levels that exceed FHWA and DOT residential noise standards, sound attenuating walls are recommended in accordance with DOT's traffic noise abatement policy[11]. Walls fronting two lots mauka of Pi'ilani Highway and one lot makai of Pi'ilani Highway have a possibility of being considered as reasonable and feasible under the current DOT traffic noise abatement policy. Landscaping should be considered on the roadway side of sound attenuating walls to mitigate potential visual impacts and the potential for graffiti.

~~An~~ Appendix R contains the Pi'ilani Highway Widening Project Final EA specifically addressing the impacts (including noise impacts) of ~~the~~ widening Pi'ilani Highway ~~is being prepared and and will be submitted to the State OEQC for public and State agency review~~.

[11] "Noise Analysis and Abatement Policy" State of Hawaii Department of Transportation, Highways Division, Materials Testing and Research Branch; June 1997. Under this policy if the cost of the sound attenuating wall does not exceed $35,000 per benefited residence, construction of the walls can be considered to be reasonable and feasible.

The DOT ~~will be the accepting authority for the EA~~ has accepted the final EA and issued a Finding of No Significant Impact which was published in the OEQC's *The Environmental Notice* on May 8, 2012.

While a specific acoustic study was not prepared for the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, long-term impacts are not expected to be significant as the improvements will accommodate anticipated future traffic while providing similar vehicle flow and queuing times at the intersection as compared to exiting conditions.

Long-term noise impacts from the off-site water and wastewater infrastructure are not expected to be significant, as after these facilities are created there will be very little to no noise generating activity associated with on-going operations.

To mitigate potential noise from golf course maintenance activities and facilities, in compliance with County of Maui Ordinance No. 3554 (Condition 18g), the golf maintenance center is located in an area sufficiently distanced from residential uses and will be designed to further lessen noise to surrounding uses. All golf course maintenance will be conducted in a manner so as not to cause a nuisance to residents.

## 4.6 AIR QUALITY

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). B.D. Neal & Associates prepared 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 Honuaʻula; and 3) recommend measures to mitigate potential air quality impacts where possible and appropriate. Key findings and recommendations of air quality study are summarized below. Appendix O contains the full study.

B.D. Neal & Associates also prepared an air quality study specifically for the widening of Piʻilani Highway from Kilohana Drive to Wailea Iki Drive. Appendix R contains the complete Piʻilani Highway Widening Project Final EA. Appendix E of the Final EA contains the complete air quality study for the widening of Piʻilani Highway.

The present air quality in the vicinity of Honuaʻula, the area of the widening of Piʻilani Highway, Wailea Ike Drive and Wailea Alanui Drive intersection, and the off-site wells, waterline, storage tank and the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF (off-site water and wastewater infrastructure) is believed to be relatively good, except for periodic impacts from volcanic emissions (vog) and possibly occasional localized impacts from traffic congestion and local agricultural sources.

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 Honua'ula, the area of the widening of Pi'ilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection, and the areas of the off-site water and wastewater infrastructure is very much affected by ~~its~~ the elevation near sea level and by nearby mountains. Haleakalā shelters the area from the northeast trade winds, and local winds (such as land/sea breezes and upslope/downslope winds) affect the wind flow in the area much of the time. Temperatures in the area are generally very consistent and warm with average daily temperatures ranging from about 63°F to 86°F.

Both Federal and State standards have been established to maintain ambient air quality. At the present time, seven parameters are regulated: 1) particulate matter, 2) sulfur dioxide, 3) hydrogen sulfide, 4) nitrogen dioxide, 5) carbon monoxide, 6) ozone and 7) lead. Hawaii air quality standards are comparable to the national standards except those for nitrogen dioxide and carbon monoxide, which are more stringent than the national standards.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Creation of Honua'ula, the widening of Pi'ilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the areas of the off-site water and wastewater infrastructure may result in short- and long-term impacts on air quality, either directly or indirectly, as a consequence of construction and ~~occupancy~~ use. However, 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~~ vicinities of Honua'ula, the widened Pi'ilani Highway, the Wailea Alanui Drive intersection, and the off-site water and wastewater infrastructure primarily will be affected by vehicular emissions associated with additional traffic.

**Short-term Impacts** – 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 construction.

~~A dust~~ Dust control plans for both Honua'ula and the widening of Pi'ilani Highway will be implemented during all construction phases. All construction activities, including construction of the Wailea Ike Drive and Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure will comply with the provisions of Chapter 11-60.1-33, HAR on fugitive dust. Measures to control dust during construction 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; and
- 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.

In accordance with County of Maui Ordinance No. 3554 (Condition 15), during construction of Honuaʻula all dust control will use non-potable water or effluent, which may be obtained from the Kīhei WWRF when available.

**Long-term Impacts** – After construction, use of Honuaʻula, the widened Piʻilani Highway, and the improved Wailea Ike Drive and Wailea Alanui Drive intersection will result in increased motor vehicles in these areas ~~coming to and from Honuaʻula will result in a long-term increase in air pollution emissions in the area~~. Motor vehicles with gasoline-powered engines are significant sources of carbon monoxide. They also emit nitrogen oxides and other contaminates.

To assess the impact of emissions from ~~these~~ vehicles, ~~a~~ computerized air quality modeling ~~study was~~ studies were undertaken to: 1) provide estimates of air pollution emissions from traffic within the area of the widened Piʻilani Highway from Kilohana Drive to Wailea Iki Drive; and 2) ~~estimate current~~ assess ambient concentrations of carbon monoxide at roadway intersections in the area of the widened Piʻilani Highway and the vicinity of Honuaʻula after build out ~~and to predict future levels both with and without Honuaʻula~~.

Based on the results of the analysis of the potential long-term effects of the widening of Piʻilani Highway, the air quality study concludes that the widening of Piʻilani Highway would likely have an overall positive impact on air quality of the area. This is due to the fact that emissions from vehicles are a function of vehicle speed, and improved traffic flow will also provide for less time queued at intersections and less idle emissions.

While the widening of Piʻilani Highway is expected to have an overall positive impact on air quality of the area, at specific locations, such as at intersections, the widened highway will tend to concentrate more traffic, and thus may cause an increase in carbon monoxide concentrations at specific locations. Therefore, some specific locations may experience

higher carbon monoxide concentrations compared to without the project, but concentrations are expected to remain well within State and Federal standards and overall emissions are expected to decrease for the region as a whole.

Based on the results of the analysis of ambient concentrations of carbon monoxide prepared specifically for Honuaʻula, ~~Even~~ even during worst-case conditions, model results indicated that present one-hour and eight-hour carbon monoxide concentrations at study intersections are well within both State and Federal ambient air quality standards. In the year 2022 without Honuaʻula, worst-case carbon monoxide concentrations were predicted to increase at some ~~locations~~ study intersections in the area, but concentrations should remain well within State and Federal standards. With Honuaʻula in the year 2022, worst-case carbon monoxide concentrations at study intersections were estimated to increase by about 10 to 20 percent compared to the without-Honuaʻula case, but worst-case concentrations should still remain within both State and Federal standards.

The air quality study concludes that implementing mitigation measures for traffic-related air quality impacts are unnecessary and unwarranted.

While a specific air quality study was not prepared for the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, long-term impacts are not expected to be significant as the improvements will accommodate anticipated future traffic while providing similar vehicle flow and queuing times at the intersection as compared to exiting conditions.

Long-term air quality impacts are not expected to be significant from the off-site water and wastewater infrastructure, as after these facilities are created there will be very little to no vehicle emissions associated with on-going operations.

**Electrical Demand and Solid Waste Disposal** – The Honuaʻula air quality study concludes that significant long-term impacts on air quality are unlikely due to indirect emissions associated with the community's electrical power and solid waste disposal requirements. Nevertheless, Honuaʻula will incorporate energy conservation strategies (see Section 4.8.6 (Electrical System)) and recycling programs (see Section 4.8.5 (Solid Waste)) to further reduce any associated impacts and conserve resources.

## 4.7 VISUAL RESOURCES

The Honuaʻula Property is characterized by moderately sloping, rough, rocky terrain that is interspersed by several large dry gulches and an expansive, ʻaʻā lava flow in the southern area. The northern 75 percent of the Property is characterized as a kiawe/buffel grass grassland, with kiawe trees and buffelgrass the most prominent vegetation The southern quarter of the Property is characterized as mixed *kiawe-wiliwili* shrubland with scattered groves of large-stature *wiliwili* and *kiawe* trees the most dominate visual vegetation.

Panoramic views of shoreline, upland areas of Haleakalā, the West Maui Mountains, and the offshore islands of Molokini, Kahoʻolawe, and Lānaʻi are available from select areas of the Property. Views of the ocean are available from almost all areas. Figure 4 contains site photographs.

Wailea Resort, west and makai of Honuaʻula, is an urban, 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. The Maui Meadows subdivision, directly north of Honuaʻula, has over 600 home sites on lots a minimum size of one-half acre; however most properties have both a main house and an ʻohana unit.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The creation of Honuaʻula will change the visual appearance of the Property from vacant land to a built environment. This change will be visible from Piʻilani Highway looking mauka across the Property. However Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. With the creation of Honuaʻula, the ocean will still be visible from public view corridors along Piʻilani Highway as Honuaʻula is mauka of the current alignment of Piʻilani Highway and therefore Honuaʻula will not block any ocean views from the current alignment of Piʻilani Highway. Similarly, Haleakalā will still be visible from public view corridors along Piʻilani Highway, as Haleakalā rises over 9,000 feet above the elevation of Honuaʻula and therefore views of Haleakalā will not be significantly impacted by Honuaʻula.

Honuaʻula will be in character with surrounding uses and will complement the pattern of development as envisioned in the *Kīhei-Mākena Community Plan* and by the County zoning of the Property. Honuaʻula will incorporate appropriate architecture, materials, colors, site design standards, and landscaping to create a community in context with the Kīhei-Mākena region.

To ensure an overall architectural theme as well as other design standards are established for Honuaʻula, design guidelines have been prepared. The design guidelines cover various aspects of Honuaʻula design with the overall goal of providing a framework so that a consistent character is achieved. Guiding principles and design objectives for Honuaʻula within the design guidelines include:

- Adhering to the adopted Project District ordinance (Chapter 19.90A, MCC) and zoning requirements (Ordinance 3554 (2008)) and related development standards;
- Encouraging building forms that respect and maintain both the unique topographic and landscape character of each individual building site;
- Encouraging building designs that de-emphasize the scale and size of the structures;

- Encouraging buildings that respect the view corridors of the buildings above them;
- Creating buildings composed of materials, textures, and finishes that exist naturally in the environment;
- Encouraging building designs that are simple, timeless, and permanent in execution; and
- Encouraging buildings that respect local traditions, history, and culture.

In addition, Honua'ula Partners, LLC will implement the recommendations of the Urban Design Review Board (UDRB). At its regular meeting on June 1, 2010, the UDRB reviewed the design guidelines, landscaping, architectural plans, and related aspects of Honua'ula and recommended: "That the multi-family area closest to Maui Meadows on the northern boundary [i.e. southern boundary of Maui Meadows] of the site be limited to 30 ft. in height." This height limitation is consistent with the height limit for single family homes in Honua'ula and will result in structures not exceeding the maximum single family height originally planned for the area.

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

To mitigate potential impacts to views of existing Maui Meadows properties, a minimum one hundred foot wide fire buffer area, with a minimum fifty-foot wide landscape buffer area within it, will be provided between the southern boundary of Maui Meadows and Honua'ula. No structures, except rear and side boundary walls or fences, will be permitted in the buffer.

## 4.8 INFRASTRUCTURE AND UTILITIES

Wilson Okamoto Corporation prepared a Preliminary Engineering Report for Honua'ula. Key elements of the report are summarized in the following sections. Appendix P contains the complete report.

Austin Tsutsumi & Associates Inc. (ATA) prepared a Preliminary Engineering Report specifically for the widening of Pi'ilani Highway from Kilohana Drive to Wailea Iki Drive. The widening of Pi'ilani Highway is not anticipated adversely impact water, wastewater, solid waste, electrical, or communication infrastructure and therefore the sections below regarding these services pertain only to Honua'ula and not to the widening of Pi'ilani Highway. The widening of Pi'ilani Highway will increase impervious surfaces and effect stormwater runoff rates and therefore drainage impacts from the widening of Pi'ilani Highway are discussed below in Section 4.8.3 (Drainage System) along with drainage impacts from Honua'ula. Appendix R contains the complete Pi'ilani Highway Widening Project Final EA. Appendix I of the Final EA contains the complete Preliminary Engineering Report for the widening of Pi'ilani Highway.

In compliance with County of Maui Ordinance No. 3554 (Condition 4), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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. Improvements will be constructed and implemented concurrently with each phase of Honuaʻula, and will be completed prior to issuance of any certificate of occupancy of final subdivision approval, unless improvements are bonded. Honuaʻula Partners, LLC will execute appropriate agreements with governmental agencies regarding participation in improvements of infrastructure and public facilities as determined by the agencies.

In further compliance with County of Maui Ordinance No. 3554 (Condition 19), Honuaʻula Partners, LLC will execute appropriate agreements with the State of Hawaiʻi and County of Maui agencies regarding participation in improvements of infrastructure and public facilities where such improvements are reasonably related to Honuaʻula.

### 4.8.1 Water System

Potable water for the Kīhei-Wailea region is presently supplied by the ʻĪao Aquifer, which also supplies the Wailuku-Kahului region. A 36-inch and an 18-inch transmission main convey water from the ʻĪao Aquifer to the Kīhei-Wailea area. As of July 21, 2003, the ʻĪao Aquifer was designated as a groundwater management area by the State CWRM. The sustainable yield of the ʻĪao Aquifer is 20.0 MGD, and existing water use is 18.940 MGD (Wilson Okamoto/CWRM, 2008).

The Property, and the wells that will supply the Property, are located in the Kamaʻole Aquifer System. The system comprises a triangular-shaped area of approximately 89 square miles, with its apex at the top of Haleakalā and its base along the 11-mile length of shoreline from Waiakoa Gulch on the north to Cape Kīnaʻu on the south. Groundwater in the Kamaʻole Aquifer exists as a basal lens from the shoreline as far inland as the 1,700-foot contour. In 1990, the CWRM set the sustainable yield of the Kamaʻole Aquifer at 11 MGD. This was based on a computed groundwater recharge of 25 MGD and the assumption that 44 percent of the recharge could be withdrawn by wells without adversely impacting the integrity of aquifer. However, several far more detailed and sophisticated studies on the aquifer's recharge have been completed since then (USGS 1999; Waimea Water Services Inc. 2004; USGS 2007). These studies indicate that the recharge amount on which the CWRM's sustainable yield is based is substantially underestimated; the actual sustainable yield of the aquifer may be as much as 50 percent greater than the 1990 CWRM estimate. Current actual aquifer pumpage is estimated to be approximately 4.0 MGD (TNWRE 2010a).

The County of Maui does not have any water service lines to the Honuaʻula Property. Existing water systems in the vicinity of the Property include the County Maui Meadows System to the north and the County potable Wailea Resort System to the west. The Maui

Meadows System consists of a high-level 0.5 MG tank located at the 799 foot elevation and a mid-level 1.0 MG tank located at the 563 foot elevation. The Wailea Resort System consists of a low-level 2.0 MG tank at the 210 foot elevation south of Wailea Ike Drive and a mid-level 3.0 MG tank at the 374-foot elevation. The potable Wailea 3.0 MG tank is located on the west side of the Honua'ula makai boundary and serves most of the Wailea Resort. The Wailea Resort also operates a private non-potable system for golf course irrigation. There is also an existing 1.0 MG water tank located on the Honua'ula Property above Kaukahi Street that will be dedicated to the County of Maui to provide service to properties below Honua'ula.

Honua'ula has four brackish wells. Two of these are on the Property (Wailea 670 1 and 2). The other two are off-site (Kama'ole 1 and 2) in an area north of Maui Meadows and on land owned by Haleakalā Ranch. The total safe yield of the four wells, with one as standby, is 1.37 MGD (TNWRE ~~2009~~2010a). All of the wells are within the Kama'ole Aquifer System and are fully permitted by CWRM.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Honua'ula will not rely upon or burden any County water system or facilities. Instead, Honua'ula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honua'ula. The complete water system will include a:

1. Non-potable system supplied by brackish wells to provide water for irrigation of common areas and within individual parcels;
2. Potable system supplied by RO treated water, using brackish groundwater as the feedwater supply, to provide drinking water and other potable water needs; and
3. Golf course irrigation system supplied by recycled wastewater (R-1 quality), concentrate from the RO treatment of the potable supply, and brackish groundwater from the non-potable irrigation system.

The average daily potable water use for Honua'ula is estimated to be 0.34 MGD at build-out. Non-potable water will be used for all irrigation within Honua'ula, including single-family and multifamily lots. The average non-potable demand for irrigation excluding the golf course is estimated to be 0.810 MGD at build-out. The non-potable demand for golf course irrigation is estimated to be 0.717 MGD. Brackish well water will be used to supply all Honua'ula water needs. The brackish well water will supply the feedwater for the RO system, thus producing potable water. Concentrate from the RO treatment of the potable supply will also be produced. Much of the potable waste water will be recycled (R-1) then mixed with the RO concentrate and used for golf course irrigation. With this system, the total average withdraw from brackish wells is estimated to be 1.7 MGD.

To provide for summertime maximum use periods and to have standby capacity, two more wells will be needed. Depending on actual water use rates that materialize, a third new well may or may not be needed as Honua'ula approaches build-out. New wells will

be developed within the Haleakalā Ranch source development area north of Maui Meadows where the existing off-site wells are located. Section 3.5.1 (Groundwater) contains the discussion on the potential impact of existing and new wells.

The existing off-site wells and any new off-site wells will be connected to Honua'ula by an approximately 12-inch diameter underground water line running roughly parallel to the upper boundary of Maui Meadows in an unpaved easement approximately12,000 linear feet in length and 30 feet in width. The 30-foot easement width allows for access and maintenance parallel to the underground transmission line.

Honua'ula's private water system will be provided in compliance with County of Maui Ordinance No. 3554 (Condition 1). In further compliance with County of Maui Ordinance No. 3554 (Condition 1), Honua'ula Partners, LLC will: 1) comply with applicable water ordinances that pertain to the supply and transmission of water from the island of Maui when such ordinances are enacted; 2) offer to the County the right to purchase the water system when completed at the cost of development of the system; and 3) ensure that 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, MCC.

In addition, non-potable water will be used for all irrigation purposes in compliance with County of Maui Ordinance No. 3554 (Condition 14)

In developing, maintaining, and operating the water system, Honua'ula Partners, LLC will comply with all requirements of Chapter 174C, HRS (State Water Code) and HAR, Chapters 13-167 to 13-171, as applicable, pertaining to CWRM and administration of the State Water Code. As recommended by CWRM, Honua'ula Partners, LLC will coordinate with the County to incorporate Honua'ula into the County's Water Use and Development Plan. Honua'ula Partners, LLC will also comply with: 1) DOH Engineering and Capacity report requirements; and 2) the County's Water Availability Policy, codified as Chapter 14.12, MCC. The above oversight processes ensure adequacy of the water source and that water source development will not interfere or conflict with County plans for source development. In addition, as stated in Section 3.5.1 (Groundwater), the UIC line[12], as established by the State DOH, is located approximately along the 600-foot elevation contour, above the majority of the Property. Therefore Honua'ula's on- and off-site wells are below the UIC line. Since the wells will provide the source of water for Honua'ula's potable (and non-potable) water system, setbacks will be established which may restrict new and existing injection well construction. Honua'ula Partners, LLC will inform landowners located within the setbacks surrounding the wells of the effect of such setbacks on the injection well development potential of their properties.

[12] Underground Injection Control Line (UIC) means the line on the DOH Underground Injection Control maps which separates exempted aquifers and underground sources of drinking water (Section 11-23-03, HAR).

**Potable System**

**Source and Treatment** – Brackish well water will be treated by RO to produce potable water for Honua'ula. The RO process involves initially passing the brackish water through a filter to remove particulate matter. The filtered water is then forced through a membrane under pressure. The membrane acts as a barrier to salts and other constituents. The water that passes through the membrane may be further chemically treated and disinfected, as necessary, prior to use.

The RO process generates brine in the course of producing potable water. However, by diluting the brine water with other non-potable water (brackish and R-1), the salt content will be reduced to a degree that it can be used for irrigation~~, thus avoiding the use of injection wells to dispose of the brine~~. In periods of extended wet weather when irrigation requirements are minimal, it may be necessary to dispose of the RO concentrate in a disposal well with delivery in the saltwater zone below the basal lens. Such a disposal well will be in compliance with all provisions of HAR Title 11, Chapter 11-23 (Underground Injection Control).

The RO plant will be located at the eastern border of the Property next to a water storage tank. A portion of the brackish water will bypass the RO plant for use as non-potable water for irrigation.

The RO plant and other components of the water system will be subject to regulation as a public water system and will meet requirements of the State DOH, including HAR Chapters 11-20 (Potable Water Systems), 11-21 (Cross-Connection & Backflow Control), and 11-25 (Operating Personnel in Water Treatment Plants). The water treatment facility and other components of the water system (i.e., storage, piping, pumps, and disinfection) are subject to the approval of the DOH Safe Drinking Water Branch before start up. In addition to successfully completing the start up testing process, the water system will be required to satisfy all components of HAR Chapter 11-20 (Potable Water Systems), including:

- Demonstration of capacity requirements and satisfactory technical, managerial, and financial capabilities to enable the system to comply with safe drinking water standards and requirements, including:
  - An adequate water source to serve current and future water users;
  - Adequate system technical performance;
  - An infrastructure replacement plan that includes estimates of the useful life and plans for the eventual replacement of the public water system's infrastructure;
  - An operational plan that includes a preventative and corrective maintenance program;
  - A clear management organization and communication structure;
  - An emergency response plan;

  - Adequate financial capacity and dedicated sources of income, including income and cash reserves to pay annual operating expenses, unexpected significant repairs, and planned major work;
  - Adequate budget controls, including performance reviews of actual expenditures and annual budgets, procedures to safeguard financial assets, and maintenance of detailed financial records that clearly identify sources of income and expenses involved in operating the public water system; and
  - Demonstration of credit worthiness, including: 1) long-term dedicated revenue projections showing sufficient revenue for: a) operating and maintaining the public water system; b) performing anticipated repairs; c) replacement of major equipment; d) future expansion; and e) repayment of loans; and 2) credit reports that indicate that the public water system is financially healthy and credit worthy.
- Approval of the Director of Health prior to use, which is based upon the submission of a satisfactory engineering report meeting requirements of DOH;
- Identification (within the engineering report) of all potential sources of contamination and evaluation of alternative control measures that could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source; water quality analysis for all regulated contaminants, performed by the State Laboratories Division of the State of Hawaii, will be submitted to DOH to demonstrate compliance with all drinking water standards;
- Assessment to delineate a source water protection area and creation of a source water protection plan, including activities to protect the source of drinking water;
- Operation of the system by certified distribution and water treatment plant operators meeting the requirements of DOH;
- Design and operation of the potable system to prevent the cross-connection with the non-potable system and the possibility of backflow of water from the non-potable system to the drinking water system—the two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the drinking water supply and all non-potable spigots and irrigated areas must be clearly labeled with warning signs to prevent the inadvertent consumption of non-potable water
- Addressing the potential of contaminating activities (as identified in the Hawaii Source Water Assessment Plan) within the source water protection area and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

Further, the County's Water Availability Policy, codified as Chapter 14.12, Maui County Code (MCC), requires verification of a long-term, reliable supply of water before subdivisions are approved. In accordance with Section 14.12.050 MCC, in reviewing and commenting on water source engineering reports the DWS Director shall consider (among other things) the following factors:

- Cumulative impacts;
- CWRM's Water Resources Protection Plan;
- The general plan and relevant community plans;
- The adverse impacts on surrounding aquifers and stream systems, including:
    - Water levels,
    - Water quality, including salinity levels,
    - Surface water-groundwater interactions, and
    - Adverse impacts on other existing, future, or planned wells;
- The adverse impacts on the water needs of residents currently being served and projected to be served by DWS;
- The adverse impacts on environmental resources that are rare or unique to the region and the project site (including natural, cultural, or human-made resources of historic, archaeological, or aesthetic significance);
- The adverse impacts on the exercise of traditional and customary Native Hawaiian rights and practices;
- United States Geological Survey studies;
- Whether the applicant is in full compliance with the State water code and County's water reporting laws;
- Whether the affected water source, including groundwater, surface water, or other source of water will exceed:
    - 90 percent of the sustainable yield;
    - Instream flow standards, or
    - Interim instream flow standards;
- The adverse impacts to the water needs of residents currently on a County "wait list" for water meters;

In addition, Honua'ula's private water system will be regulated as a public utility by the State Public Utility Commission (PUC). The PUC: 1) prescribes rates, tariffs, charges and fees; 2) determines the allowable rate of earnings in establishing rates; 3) issues guidelines concerning the general management of public utility businesses; and 4) acts on requests for the acquisition, sale, disposition or other exchange of utility properties, including mergers and consolidations.

**Pressure Zones and Storage** – The elevation of the Property ranges from 320 to 710 feet. To provide service and adequate water pressure over this range of elevation, the Property was divided into two pressure zones, correlating with a high and a low water storage system approximately divided by the 530-foot elevation. Water storage will be required for each pressure zone. A lower 0.5 MG potable water tank (at an approximate 640-foot elevation) will service the lower portion of the Property (below the 530 foot elevation) and will be located on-site along the eastern border adjacent to the RO plant. A higher 0.2 MG potable water tank (at an approximate 810-foot elevation) will be located off-site and east (mauka) of the Property and will service the upper portion of the Property (above the 530 foot elevation).

**Distribution** – The potable water distribution system will largely follow the proposed roadway system providing potable water service to residential lots and other buildings. Pressure-reducing valves will be used to regulate excessive pressures within the pressure zones.

**Non-Potable System**

**Source** – There are three sources of non-potable water: 1) brackish well water; 2) brine water from the RO facility; and 3) R-1 recycled water returned from the WWRF (see Section 4.8.2, Wastewater System).

**Pressure Zones and Storage** – Comparable to the potable water system, the Property is separated into two pressure zones for non-potable water due to the elevation difference across the Property. Storage tanks will be provided for each pressure zone. A lower 1.0 MG non-potable water tank will be located on site at the 640 foot elevation adjacent the RO plant. A higher 0.5 MG non-potable water tank will be located off-site and east (mauka) of the Property at the 810 foot elevation. Golf course irrigation water, supplied primarily from the WWRF, will be stored in lined water features located on the golf course.

**Distribution** – Similar to the potable system, the non-potable water distribution system will largely follow the proposed roadway system providing non-potable water to irrigate individual residential lots, roadway buffers, and other landscaped areas. A separate distribution system will be used to irrigate the golf course. Pressure reducing valves will be used to regulate excessive pressures within the pressure zones.

**Estimated Water Infrastructure Cost and Consumer Rates**

TNWRE prepared estimates of the cost to construct and operate Honua'ula's potable and non-potable water systems (2010c). The estimates are summarized below. Appendix B contains the complete estimate report.

The estimated potable and non-potable water infrastructure cost is $21 million. This includes costs for: construction and testing the required off-site wells, piping from the off-site wells to the on-site storage tank, booster pumps, on- and off site potable and non-potable storage tanks, and the RO plant. It does not include piping for distribution to individual Honua'ula homes and businesses.

Based on infrastructure costs and assumptions such as infrastructure efficiencies, electrical power costs, and costs for operating personnel, administration, and maintenance, the daily operating cost for both potable and non-potable systems would be $3,000 per day. The cost of capital recovery would be $4,950 per day. The cost to consumers, with and without capital recovery would be as follows:

| Estimated Cost in Dollars per Thousand GallonsCost Items Included | Potable Water | Non-Potable Water |
|---|---|---|
| Based on Operation and Maintenance Exclusively (No Capital Recovery) | $4.00 | $2.00 |
| Based on Operation, Maintenance, and Full Capital Recovery | $10.64 | $5.32 |

For fiscal year 2010-2011 the cost for potable water for general water consumers set by the County in its annual budget is $1.70 per 1,000 gallons for users that use up to 10,000 gallons bi-monthly. The price increases for users that use more than 10,000 gallons bi-monthly. In compliance with County of Maui Ordinance No. 3554 (Condition 1) 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, MCC.

**Water Conservation**

Honua'ula Partners, LLC is committed to aggressive water conservation strategies to reduce consumption, conserve resources, and minimize water demands. The goal is to reduce the total water requirements through a combination of water saving equipment and strategies. To conserve water within Honua'ula, Honua'ula Partners, LLC will implement water conservation recommendations of the County of Maui Department of Water Supply, including:

- Using climate-adapted plants for landscaping;
- Preventing over watering by automated systems;
- Not allowing single pass cooling pursuant to Section 14.21.20, MCC;
- Installing low-flow fixtures and devices throughout the community pursuant to Section 16.20A.680, MCC; and
- Maintaining fixtures to prevent leaks.

Water conservation is also central to the functioning of the golf course. While non-potable water will be used for all golf course irrigation, the golf course will also include a modern irrigation system designed to use non-potable water efficiently. The key component of the irrigation system will be a central computer to store information for every sprinkler, including the type of sprinkler, nozzle sizes, location, soil type, slope, infiltration, exposure, etc., so that the exact amount of water needed is applied (i.e., not just turning on sprinklers for a set duration). Cycle/Soak features will prevent runoff when heavy irrigation is needed. Flow management features will ensure optimum pressure and amount to every sprinkler.

Records of irrigation procedures will be maintained for each management zone. Each management zone will be treated independently; the highest priority zones (greens, tees, fairways) will receive the highest amounts of water, while lower priority zones (secondary

roughs, natural areas) will receive less water. These priority designations will help to efficiently manage overall water use on the golf course, providing the highest level of playability and aesthetics while incorporating water conservation and environmentally sustainable management practices.

In designing and implementing a detailed and efficient irrigation system, Honuaʻula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554 Condition 18d, which requires compliance with Condition 5a of DOH's "12 Conditions Applicable to All New Golf Course Development." Specifically Condition 5a of the DOH's conditions relates to providing an irrigation plan.

### 4.8.2 Wastewater System

The Wailea area is serviced by the Kīhei WWRF, located approximately four miles northwest of Honuaʻula. Sewage from the Wailea area is conveyed to the Kīhei WWRF via the South Kīhei Collection System, which consists of trunk sewer mains running along Wailea Alanui Drive and South Kīhei Road. Other Kīhei communities along this route are also served by this system. The Kīhei WWRF currently has unused capacity; however, the collection and transmission system may not be adequate to support Honuaʻula. In addition, the County desires to reserve the unused plant capacity to accommodate other development in the existing service area, rather than extend the service area to Honuaʻula.

The Mākena Wastewater Corporation owns and operates the Mākena WWRF, which is approximately one mile south of Honuaʻula. The Mākena WWRF ~~was~~ is currently designed to handle wastewater flows of 720,000 gallons per day (gpd) and is also designed to be expandable to handle 1.54 million gallons per day (mgd). Currently the facility is only handling ~~391,413~~ 114,440 gpd, leaving an unused capacity of ~~328,587~~ 605,560 gpd.

Currently, the Honuaʻula Property does not contain any wastewater infrastructure and is not served by a wastewater collection system. Honuaʻula is located in the critical wastewater disposal area as determined by the Maui Wastewater Advisory Committee. No new cesspools are allowed in this area.

#### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Wastewater from Honuaʻula will be managed to protect human health and the environment, and Honuaʻula will not rely upon or burden any public facilities. Using County of Maui design standards, ~~Wilson Okamoto Corporation projected~~ the average wastewater flow from Honuaʻula at full build-out is projected to be ~~0.562 MGD~~ 380,000 gpd.

**Wastewater Treatment**

Honua'ula will not rely upon or burden any public wastewater facilities. In compliance with County of Maui Ordinance No. 3554 (Condition 17), Honua'ula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honua'ula (Alternative 1) or provide a WWRF on-site (Alternative 2). No cesspools will be developed within Honua'ula. Connection to the Mākena WWRF would be in conformance with the option of participating in the operation of a private wastewater treatment facility, and therefore is being considered for Honua'ula wastewater treatment.

In further compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC ~~will:~~ 1) provided a sewage disposal analysis to the Maui County Council that has been reviewed and commented on by DOH, DLNR, the County Department of Environmental Management, and DWS before Project District Phase II approval (Condition 16)[13]; and 2) will ensure that 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, MCC (Condition 17). Sewer rates for Honua'ula's market rate residential units have not yet been established; however, the Mākena WWRF is regulated as a public utility by the State Public Utility Commission (PUC), as are all private wastewater companies. If an on-site WWTF is built at Honua'ula, it will also be a private facility. The PUC prescribes rates, tariffs, charges and fees, for public utilities.

Wastewater system design, ~~and~~ construction, and operation will be in accordance with County standards and all wastewater plans and facilities will conform to applicable provisions of: Chapter 11-62, HAR (Wastewater Systems); Section 11-62-27, HAR (Recycled Water Systems); and Chapter 11-21, HAR (Cross-Connection and Backflow Control). Chapter 11-62, HAR (Wastewater Systems) specifically requires that wastewater systems shall not create or contribute to foul or noxious odors.

In complying with the DOH regulations, Honua'ula Partners, LLC will also be in compliance with County of Maui Ordinance No. 3554:

- Condition 18c, which requires compliance with Condition 4 of DOH's "12 Conditions Applicable to All New Golf Course Development" relating to connecting the golf course clubhouse and other golf course facilities to a WWRF; and
- Condition 18d, which requires compliance with Condition 5 of the DOH's "12 Conditions Applicable to All New Golf Course Development" relating to use of treated wastewater for golf course irrigation.

[13] Honua'ula Partners, LLC submitted the sewage disposal analysis to the Maui County Council on May 11, 2010. After receiving the analysis, the Maui County Council accepted the analysis and did not subject Honua'ula to any additional conditions or amendments. As a result, Condition 16 has been fully satisfied.

**Alternative 1 – Mākena WWRF** – The first, and preferred, alternative is to transport wastewater to the Mākena WWRF for treatment. Wastewater from Honua'ula would be conveyed to the Mākena WWRF via a pump station and force main. R-1 recycled water would be pumped back to Honua'ula for golf course irrigation use. Figure 2 shows the proposed wastewater alignment for possible connection to the Mākena Resort WWRF. The alignment provides for underground wastewater transmission and R-1 return lines approximately 12-inches in diameter within an unpaved easement approximately 6,400 linear feet in length and 30 feet in width. The 30-foot easement width allows for access and maintenance parallel to the underground transmission line.

Mākena WWRF (as well as the County Kihei WWRF) uses a process called "extended aeration activated sludge/coagulation/filtration" to treat wastewater. With this process wastewater first passes through bar screens to remove large debris. The screened wastewater then enters aeration lagoons where naturally-occurring micro-organisms (called "activated sludge") consume organic material. The micro-organisms settle to the bottom of a clarifier, and are returned to the aeration lagoon. Flocculants like ferric chloride and/or polymer are added to the clarified water to agglomerate small particles into larger particles that can be removed by a granular media filtration process. The filtered water is then disinfected using UV light prior to reuse.

Transporting wastewater to the Mākena WWRF for treatment provides the benefit of consolidating wastewater services for both Honua'ula and Mākena, allowing economies of scale in the treatment process and consolidated regulatory compliance. Sufficient golf course land is available within both Honua'ula and the Mākena Resort to reuse 100 percent of the recycled water for irrigation.

While there is currently unused capacity at the Mākena WWRF, it may be necessary to expand certain portions of the Mākena WWRF in the future to provide a small amount of additional capacity to accommodate the total projected Honua'ula wastewater flows along with the projected Mākena Resort flows before each project is completely built out.

The Mākena WWRF is currently designed to handle wastewater flows of 720,000 gpd and is also designed to be expandable to 1.54 million gallons per day (mgd). Currently the facility is only handling 114,440 gpd, leaving an unused capacity of 605,560 gpd based on the current capacity of 720,000 gpd. Future development within Mākena Resort is estimated to produce flows of 276,973 gpd. Therefore the total flow from the Mākena Resort is projected to be 391,413 gpd at build-out. See Table 5 below.

After the build-out of Honua'ula, the total Honua'ula wastewater flow is projected to be 380,000 gpd. Combined with the total Mākena Resort flow, the combined flow from both Mākena Resort and Honua'ula would be 771,413 gpd, which is 51,413 gpd more than the current capacity of 720,000 gpd of the Mākena WWRF. See Table 5 below. Preliminary indications are that the headworks, effluent filters, and UV disinfection systems would require modifications to handle the additional capacity. Expansion of the Mākena WWRF

will not be necessary until both Honua'ula and Mākena Resort approach 90 percent of build out, which could be 10 to 20 years from now. As both Honua'ula and Mākena Resort will be built out over a number of years, improvements can be implemented at the appropriate time, when needed.

**Table 5. Current and Projected Mākena WWRF Capacities**

| Description | GPD |
|---|---|
| Current Mākena Resort flow | 114,440 |
| Future Mākena Resort flow | 276,973 |
| Total Mākena Resort flow at build-out | 391,413 |
| Honua'ula flow at build out | 380,000 |
| Total Mākena Resort and Honuaula flow at build-out | 771,413 |
| Current Mākena WWRF Capacity | 720,000 |
| Additional capacity required to accommodate both Mākena Resort and Honua'ula at build-out | 51,413 |

Conveying wastewater from Honua'ula to the Mākena WWRF will require a pump station to receive the flows from Honua'ula. The pump station would be located at the southwest corner of the Property at approximately the same location as an on-site WWRF. The pump station would convey the wastewater via a force main directly to the Mākena WWRF. For recycled water to be returned to Honua'ula, a recycled wastewater pump station located at or near the Mākena WWRF and a force main would be required. See Figure 2 for the location of the wastewater force main route to the Mākena WWRF.

Honua'ula Partners, LLC has had substantive discussions about this alternative with the Mākena WWRF owner, Mākena Wastewater Corporation, and they support the connection; however, formal agreements with Mākena Wastewater Corporation have not yet been finalized.

**Alternative 2 – On-Site Treatment Plant** – The second alternative is to construct an on-site WWRF that is capable of treating all of the Honua'ula wastewater to R-1 standards. The on-site WWRF would be located at the southwest corner of the Property on approximately four acres of land. R-1 water would be delivered to the Honua'ula golf course water features for storage and eventual irrigation of the golf course and other landscaped areas. RO concentrate from the on-site desalination facility (see Section 4.8.1 (Water System)) would be blended with the R-1 water.

A membrane bioreactor (MBR) wastewater treatment system is proposed for the on-site WWRF to produce R-1 quality water for non-potable use. The MBR process is a biological process (activated sludge process) combined with a separation process (membrane system). MBR systems are widely used throughout the world and are considered an industry standard for the production of reliable R-1 recycled water. In addition, MBR

systems have the smallest footprint of the various biological treatment systems available and provide the highest quality recycled water.

In a MBR system the first element of the wastewater treatment process is screening to remove debris. This takes place in an enclosed building to control odors. Air collected from the building is then passed through a biofilter to remove odors. During the MBR process, wastewater is pumped into aeration basins, where a population of naturally-occurring microbes (activated sludge) treats the water by consuming organic matter. The activated sludge is separated from the water using membranes, located in the MBR basins. The activated sludge is pumped back to the head-end of the aeration basin to be used again.

Periodically, excess activated sludge must be removed (wasted) from the treatment system. The activated sludge goes through a thickening process to form dewatered solids. The dewatered solids will be taken to the County landfill for composting by EKO Compost, which operates a composting facility at the landfill. At build-out the on-site WWRF is expected to produce approximately 17 wet tons of dewatered solids per week. EKO Compost has the capacity to accept this amount of dewatered solids for composting.

The treated water will be disinfected using ultraviolet (UV) light. The treated water will flow through concrete channels containing banks of submerged UV light bulbs. The water will be disinfected as it passes by the bulbs and is exposed to the UV light. The UV light penetrates the cells of pathogenic organisms, rendering them unable to replicate. The disinfected water exiting the channel will meet R-1 standards and will be suitable for reuse. A pump station located adjacent to the UV channel will deliver the R-1 water to the Honua'ula golf course.

Another potential approach to treating Honua'ula wastewater in lieu of the MBR is via an extended aeration activated sludge process, followed by addition of coagulant chemicals and granular media or cloth disk filtration. The main difference between MBRs and other R-1 treatment technologies (such as the extended aeration activated sludge/coagulation/filtration process used at the Mākena and County Kihei WWRFs) is the method of separating the suspended solids from the water. MBRs have thin membranes with many thousands of micro-perforations, which are too small for the passage of suspended solids and microorganisms present in the wastewater, but large enough to allow the passage of water molecules. In the extended aeration activated sludge/coagulation/filtration process, combination flocculants like ferric chloride and/or polymer are added to treated water to agglomerate small particles into larger particles that can be removed by a granular media filtration process. When coupled with a suitable disinfection system, both MBR systems and extended aeration activated sludge/coagulation/filtration systems are capable of reliably producing R-1 quality water that meets all DOH R-1 water quality standards. In addition, MBR systems require less land area to treat a given flow than extended aeration activated sludge/coagulation/filtration systems. This is because the MBR membranes perform the equivalent treatment of gravity sedimentation and filtration in one tank. Additional land

area within Honuaʻula would have to be set aside for the WWRF if ~~this approach is taken~~ an extended aeration activated sludge/coagulation/filtration system was used. The extended aeration activated sludge/coagulation/filtration approach is currently used at the Mākena WWRF and the Kīhei WWRF.

**On-Site Collection System**

The on-site wastewater collection system will collect flows from the various areas and uses within Honuaʻula. Sewer lines will essentially follow the proposed roadway system. A network of eight-inch gravity sewer lines will collect wastewater from homes and buildings throughout the site within four service areas. In each of these service areas, the sewer lines will follow the topography and will flow by gravity. Pump stations will be used where the topography requires flows to travel upslope.

All wastewater flows will flow to the southwest corner of Honuaʻula. From there the flows will either enter the on-site WWRF for treatment or will be pumped to the Mākena WWRF for treatment.

**Recycled Water Use**

After treatment—at either the possible on-site WWRF or the existing Mākena WWRF—recycled water will be stored in lined water features located on the golf course. Brine water from the RO facility will be mixed with the recycled water. The mixed recycled/brine water will then be distributed for irrigation purposes. In compliance with County of Maui Ordinance No. 3554 (Condition 17), none of the recycled water will be placed into injection wells.

The Mākena WWRF includes an unlined wet weather storage/disposal back-up basin to handle treated peak wet weather flows in conformance with DOH rules. This basin accommodates treated water when quantities exceed the irrigation requirements, such as in time of wet weather when golf course irrigation may not be necessary or when peak flows enter the wastewater system due to storm water runoff. Treated water discharged into the basin either percolates or evaporates. If an on-site WWRF is built for Honuaʻula, a similar wet weather storage/disposal basin will be provided for management of recycled water during extended wet weather periods after the golf course water features are full. Treated water stored in the wet weather storage/disposal back-up basin will percolate, evaporate, or be pumped back to the treatment plant for additional treatment. The basin will be designed to accommodate the peak recycled water flow rate and will have storage volume of approximately 4.6 million gallons, or the capacity to store approximately 12 days of average dry weather flow and therefore no recycled water will be discharged.

Recycled water (including the mixed recycled/brine water) will be distributed in piping systems that are completely separate from potable water distribution piping systems. The DOH has established requirements for piping systems used to distribute recycled water to the points of use. The DOH requirements are designed to reduce the risk of accidental

cross-connection between potable and non-potable systems. Honuaʻula piping systems will be in full compliance with these requirements.

The use of R-1 irrigation water is not expected to have negative impacts on groundwater or nearshore waters. See Section 3.5 (Groundwater Resources and Water Quality) for complete discussion on potential impacts to groundwater and nearshore waters.

### 4.8.3 Drainage System

**Honuaʻula**

Honuaʻula is on the lower southwestern slope of Haleakalā. Site elevations range from 320 feet to 710 feet with slopes of generally three to 17 percent. The Property and areas immediately mauka are undeveloped. The Wailea Resort, including three golf courses, is located makai of Honuaʻula.

Currently, surface runoff mauka of the Property sheet flows over the Property or through natural drainage paths toward the ocean. 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 drainageways in which runoff flows through the Property. Considering the relatively low rainfall at the Property, 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~~ X, which is outside of the 500-year flood plain in an area of minimal flooding (Figure 11). The Department of the Army, United States Corps of Engineers has determined that the Property does not contain any navigable waters or other waters of the United States; therefore a Department of Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404) is not required for any proposed or future work.

Based on County drainage standards, existing (pre-development) flow (based on a 100 year 24 hour storm) from the Property is calculated to be 2,195 cubic feet per second (cfs).

**Off-Property Areas**

There are nine existing culvert crossings spanning the Piʻilani Highway widening area from Kilohana Drive to Wailea Ike Drive. The highway drainage system consists of concrete swales, curb/gutter, catch basins/grated drain inlets and drain pipes at along the highway. These systems drain to the existing culverts and then to the adjoining gulches. No retention systems currently exist within the highway right-of-way. Mauka offsite flows are currently intercepted by a concrete drainage ditch located along the eastern boundary of the highway and are then conveyed to the existing culverts. Existing flows within highway widening area were calculated to be approximately 65.2 cfs based on a 25-year,

one-hour storm recurrence interval in accordance with DOT Design Criteria for Highway Drainage (*2006*).

Stormwater from the Wailea Alanui/Wailea Ike Drive intersection is collected and disposed of by the existing roadway drainage system. Runoff from the north portion of the intersection flows northward toward an existing catch basin about 300 feet away. Runoff from the south portion of the intersection flows southward to a catch basin about 400 feet away. Existing flows from the north portion of the intersection were calculated to be approximately 1.2 cfs. Existing flows from the south portion of the intersection were calculated to be approximately 1.3 cfs. The calculations are based on a 50-year, one-hour storm recurrence interval in accordance with the County of Maui's "Rules for the Design of Storm Drainage Facilities."

The currently there are no drainage improvements in the areas of the areas of: 1) Honuaʻula's off-site wells, waterline, and storage tank; and 2) the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

#### Honuaʻula

Drainage from Honuaʻula is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. In accordance with the County of Maui's "Rules for the Design of Storm Drainage Facilities," all drainage improvements will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. The post-development runoff from the Property is estimated to be 3,114 cfs, an increase of 919 cfs over calculated existing conditions (pre-development). The discussion below sets forth the means by which Honuaʻula will address this additional runoff in compliance with County of Maui requirements.

Runoff will be collected and managed through a drainage system. Roadways, homes, buildings, and other facilities within Honuaʻula will increase impervious areas within the Property thereby increasing surface runoff flow rates and volumes. However, approximately half of the Property will be open space, including the Native Plant Preservation Area, ~~other~~ Native Plant Conservation Areas, natural gulches, open space buffers along Piʻilani Highway and the border of Maui Meadows, and the golf course. The extensive open space and the golf course are expected to assist drainage control as open space areas will provide pervious areas for percolation of runnoff and golf course greens, fairways, and plants will either absorb runoff or slow drainage flows. Of the 18 inches of average annual rainfall received on the Property, it is assumed that one-third of the rainfall percolates to groundwater and the remaining two-thirds evaporates to the atmosphere or becomes runoff.

To manage drainage within the Property, the drainage system will include detention basins, drainage pipes, open channels, and roadway culverts. This system will be designed to not only manage flood control but also to reduce pollution associated with stormwater. Runoff will be stored in ~~26~~ 27 detention basins located on the Property in low lying areas, within the golf course, or along the makai Property boundary. Each of the detention basins will have a drainage outlet consisting, in part, of a vertical perforated pipe within a gravel mound which will act as a filter. In addition to reducing the peak runoff rate by detention storage, this configuration will also capture floatables and suspended solids in the basin and allow for settling of fine particles and pollutants, thus reducing sediments and pollutants in the water released from the detention basins. All detention basins will be designed with the proper volume to allow adequate draw-down time for water quality treatment. In addition, the detention basins will be maintained so that the capacity is not impaired. As design progresses a maintenance program will be developed. In general, the detention basins will contain markers so that the depth of silt at the bottom can be measured. When the silt reaches a certain level, the silt will be removed and properly disposed of. With the use of detention basins, the peak rate of runoff leaving the Property will not increase over current conditions and seepage of water into the ground from the detention basins will actually increase the amount of percolation to groundwater.
Residential areas will be graded so that runoff flows to drain inlet structures. From the drains, the flow will be piped through a series of drain lines in the roadways to the detention basins. The majority of the drain lines will be 18-inch diameter and the remaining will be 24-inch diameter.

To supplement the detention system Low Impact Development (LID) techniques will be incorporated into the design of Honua'ula where appropriate. LID comprises a set of approaches and practices designed to reduce runoff of water and pollutants from the site at which they are generated. By means of infiltration, evapotranspiration, and rainwater reuse, LID techniques manage water and water pollutants at the source thereby reducing stormwater flows to detention basins. A goal of LID is to maintain or closely replicate predevelopment hydrology of the site with an understanding that rainwater is not merely a waste product to be disposed of, but a resource to be reused.

With LID techniques small-scale practices are employed to control stormwater runoff on-site. The practices are designed to work in concert with other stormwater best management practices, such as detention basins. While LID techniques span a wide range of design considerations, infiltration and filtration are two primary practices. Infiltration practices are engineered structures or landscape features designed to capture and infiltrate runoff. Infiltration can both reduce the volume of water discharged from the site and contribute to groundwater recharge. Examples of infiltration practices include: 1) infiltration basins and trenches which are shallow depressions designed to infiltrate stormwater though permeable soils; 2) rain gardens and other vegetated treatment systems that provide a planted depression to collect rainwater (usually from a single home) and allow absorption on-site; and 3) disconnected down spouts, which are roof gutter downspouts that are not connected to the sewer system to allow roof water to drain to

lawns and gardens (or rainwater storage barrels) and permit plants and soils filter pollutants.

Similar to infiltration practices, filtration practices treat runoff by filtering it through media designed to capture pollutants (such as sand or vegetation). Like infiltration, filtration can both reduce the volume of water discharged from the site and contribute to groundwater recharge, but filtration practices have the added advantage of providing increased pollutant removal. Examples of filtration practices include: 1) bioswales, which are landscaped drainage courses with gently sloped sides filled with vegetation, compost and/or rocks designed to slow down water flows and trap pollutants and silt; 2) vegetated swales which are smaller, broad, shallow, channels with dense vegetation covering the side slopes and bottom to trap pollutants, promote infiltration, and reduce flow velocity; and 3) vegetated filter strips, which are bands of vegetation intended to treat sheet flow from adjacent impervious areas (such as parking lots) by slowing runoff velocities, filtering out sediment and other pollutants, and providing some infiltration into underlying soils.

LID practices can also effectively treat and manage non-point source pollution from drainage by filtering "first flush" runoff volumes. Non-point source pollution typically results from rainwater washing across impermeable surfaces such as roadways, parking lots, and sidewalks and with it picking up pollutants such as oil, detergents, pesticides, fertilizer, and pet wastes. Most surface pollutants are collected during the first one-half inch, or "first flush" of a storm event. LID practices can filter these pollutants before they reach detention basins. Traditional conveyance systems, such as drains and catch basins in parking lots and roadways can also be designed to capture this first flush with installed filtering materials.

Strategically integrated LID practices applied throughout the Property—from individual building sites to larger areas such as parking lots and roadways—can lessen stormwater flows to detention basins and increase the length of time for flows to travel to detention basins. The increased time allows for greater opportunities for groundwater recharge, filtration, and evapotranspiration. LID practices can result in enhanced environmental performance, while at the same time reducing costs compared to traditional stormwater management approaches.

As an application of LID, ~~Natural~~ natural open drainage channels will be provided throughout the site to divert runoff toward the detention basins. Open channels also will be provided at the upper limits of the Property to direct mauka off-site runoff entering the Property to natural drainage ways on-site. These channels will remain natural and unlined with concrete. Roadway culverts will be provided throughout the Property to divert runoff under major streets and prevent flooding. In addition, bioswales, landscape elements designed to remove silt, ~~may~~ will be ~~an option~~ provided along roadways where appropriate.

Section 3.5.1 (Groundwater) contains discussion on potential impacts due to percolation of stormwater and irrigation water to groundwater. In general, reductions in nitrogen and

phosphorus loading are expected, which would result in positive impacts regarding groundwater flowing to the ocean and ocean water quality. Section 3.5.2 (Nearshore Marine Environment) contains discussion on potential impacts to ocean water quality. The nearshore water quality assessment (MRC 2010; Appendix D) concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing conditions. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honua'ula."

All drainage systems and detention basins will be designed in accordance with the "Rules for the Design of Storm Drainage Facilities in the County of Maui." In addition any detention basin with vertical dimensions that exceed its horizontal dimensions will also be in compliance with all provisions of HAR Title 11, Chapter 11-23 (Underground Injection Control). In compliance with County of Maui Ordinance No. 3554 (Condition 6), the Preliminary Engineering Report (Appendix P) includes a Drainage Master Plan and Phasing Plan of improvements.

**Off-Property Areas**

The widening of Pi'ilani Highway from Kilohana Drive to Wailea Ike Drive will increase impervious surfaces by approximately 5.8 acres. The post-development runoff from the highway widening area is estimated to be 76.8 cfs, an increase of 11.6 cfs over calculated existing conditions (pre-development). The additional runoff will be retained in accordance with DOT Design Criteria for Highway Drainage (2006) and DOT Storm Water Permanent Best Management Practices Manual (2007) so that there is no increase in the peak rate of stormwater runoff compared to existing conditions.

Drainage system improvements will include grated drain inlets, catch basins, manholes, underground drainlines, surface retention basins and subsurface retention systems, extension of existing culverts, and construction of new inlet and outlet structures. The increased runoff will be retained via the retention systems. Coordination with the Army Corp of Engineers, Department of Health and Department of Land and Natural Resources will be undertaken during the planning and design of the highway widening to address applicable permitting requirements for culvert modification work. In addition to reducing peak flow rates, the proposed stormwater system will reduce the discharge of pollutants to the maximum extent practicable in accordance with the DOT Storm Water Permanent Best Management Practices Manual (2007).

A National Pollutant Discharge Elimination System (NPDES) permit for discharge of stormwater associated with construction activities will be obtained and the requirements of the approved NPDES permit and Best Management Practices (BMPs) plan will be adhered to during construction. At a minimum silt fences, diversion berms, gravel egress, truck wash down areas and dust screens will be included in the BMP plan.

The post-development runoff from the Wailea Alanui/Wailea Ike Drive intersection improvements is estimated to be 1.0 cfs for the north portion of the intersection and 1.6 cfs from the south portion, an increase over calculated existing conditions (pre-development) of 0.1 cfs for the north portion and 0.3 cfs for the south portion. These increases are nominal and the existing drainage system has the capacity to accommodate this additional runoff. Existing drainage patterns will not be altered and the intersection improvements will have no adverse drainage impacts on the existing drainage facilities or downstream properties.

No significant changes to current drainage patterns are expected in the areas of: 1) Honuaʻula's off-site wells, waterline, and storage tank; and 2) the wastewater transmission line alignment for possible connection to the Mākena Resort WWRF. Figure 2 shows location of this water and wastewater infrastructure.

The waterline alignment provides for an underground waterline within in an unpaved easement approximately12,000 linear feet in length and 30 feet in width. The wastewater alignment provides for underground wastewater transmission and R-1 return lines within an unpaved easement approximately 6,400 linear feet in length and 30 feet in width. The 30-foot easement widths allow for access and maintenance parallel to the underground lines. Because the waterline and wastewater and R-1 return lines will be underground and the easements will not be paved, significant changes to current drainage patterns are not expected.

### 4.8.4 Internal Roadways

Currently access to Honuaʻula is from the southern terminus of Piʻilani Highway at the intersection with Wailea Ike Drive. Kaukahi Street, a private two-lane street within Wailea, provides a second, controlled access.

The creation of Honuaʻula will include a complete internal roadway system and significant improvements to the intersection of Piʻilani Highway and Wailea Ike Drive, which will be the primary entrance to Honuaʻula. Before construction within Honuaʻula, with the exception of grading, Honuaʻula Partners, LLC will widen Piʻilani Highway from Kilohana Drive to Wailea Ike Drive to four lanes of traffic, in accordance with County of Maui Ordinance No. 3554 (Condition 2a). This work will include creating the entrance to Honuaʻula by reconfiguring the intersection of Piʻilani Highway and Wailea Ike Drive. When first constructed, the entrance to Honuaʻula at the Piʻilani Highway/Wailea Ike Drive intersection will be a "T" intersection (as opposed to an "L" currently), with Piʻilani Highway terminating as it currently does, Wailea Ike Drive extending to the west as it currently does, and the Honuaʻula entrance extending to the east. The reconfigured intersection will include a traffic signal, a free right-turn lane from Piʻilani Highway to Wailea Ike Drive, and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway, in accordance with County of Maui Ordinance No. 3554 (Condition 2d).

At or before the completion of 50 percent of Honuaʻula, Honuaʻula Partners, LLC will extend Piʻilani Highway south into Honuaʻula, from Wailea Ike Drive to Kaukahi Street, in accordance with County of Maui Ordinance No. 3554 (Condition 2b). Thus the "T" intersection at Piʻilani Highway/Wailea Ike Drive/Honuaʻula entrance will become a standard four-way "cross" intersection. Connecting Piʻilani Highway with Kaukahi Street will enable Kaukahi Street to provide a second access into Honuaʻula. Since Kaukahi Street is a private street, it is planned to be gated within Wailea Resort to address the concerns of the Wailea Community Association.

Internal roadways within Honuaʻula will include six major types:

1. Parkway: The Honuaʻula entrance will be a parkway consisting of a 102-foot ROW which includes an eight-foot median, two 12-foot travel lanes in the eastbound direction, three 12-foot travel lanes in the westbound direction. There will be curbs and gutters and a six-foot landscape area on each side. There also will be a 10-foot combined sidewalk/bikeway on the westbound direction and a four- to six-foot wide sidewalk on the eastbound direction.

2. Piʻilani Highway Extension: Honuaʻula Partners, LLC will work in coordination with DOT regarding extending Piʻilani Highway into Honuaʻula and any internal access points needed; however preliminarily ~~The~~ the length of the Piʻilani Highway extension into Honuaʻula ~~will~~ is planned to include three configurations:

    a. Wailea Ike Drive Intersection: The first configuration, starting at the Piʻilani Highway/Wailea Ike Drive/Honuaʻula entrance intersection (within the State ROW), will consist of a 105-foot ROW with two 12-foot thru lanes, one 12-foot right turn lane and one 11-foot left turn lane for northbound traffic. There will be a median with one 12-foot southbound lane and curbs, gutters, and a four to six-foot wide meandering sidewalk on the makai side of the street.

    b. South of the Wailea Ike Drive Intersection: This configuration (within the State ROW) will consist of one 12-foot lane in each direction with an 11-foot middle turning lane. There will be curbs, gutters and a four to six-foot wide meandering sidewalk on the makai side of the street. The ROW width varies from 140 to 202 feet.

    c. South of the Wailea Ike Drive Intersection: The last configuration within the Property will consist of a 54-foot ROW with an 11-foot lane with two-foot paved shoulders and an eight-foot bioswale in each direction. A six-foot landscape area and six-foot wide sidewalk will be located on one side of the road. This segment will connect with Kaukahi Street but will not extend to the mauka boundary of the Property.

3. Collector Roads: There will be two alternatives for collector roads within Honuaʻula. Both alternatives will consist of a 60-foot ROW with two 11-foot travel lanes.

a. Alternative 1: The first alternative includes an eight-foot wide bioswale and 10-foot wide meandering sidewalk/bikeway on one side of the road and a 15-foot bioswale/landscape area on the other side.

b. Alternative 2: The second alternative includes a four-foot wide paved bike lane in each direction adjacent to the travel lanes. One side of the road will contain a four to six-foot wide meandering sidewalk with a variable bioswale/landscape area. The other side will contain a 15-foot bioswale/landscape area.

4. Minor Streets: Minor streets within Honua'ula will consist of a 52-foot ROW, widening to 58-feet in areas where a four to six-foot wide sidewalk will be provided. There will be two 11-foot travel lanes and a 15-foot wide bioswale/landscape area on each side. An eight-foot wide paved parking lane will be provided at designated locations.

5. Cul De Sacs: Cul de sacs within Honua'ula will consist of a 52-foot ROW with two 11-foot travel lanes and a 15-foot wide bioswale/landscape area on each side. An eight-foot wide paved parking lane will be provided at designated locations.
6. Village Streets: There will be two alternatives for Village Streets within Honua'ula - one for parking on one side of the street and the other for parking on both sides:

a. Parking on One Side of the Street: This alternative will consist of a 56-foot ROW with two 11-foot travel lanes, curbs, gutters, a six-foot landscape area and a four to six-foot wide sidewalk on both sides of the street. An eight-foot parking lane will be provided on one side of the street.

b. Parking on Two Sides of the Street: This alternative will consist of a 62-foot ROW with two 11-foot travel lanes, curbs, gutters, a six-foot landscape area, and four to six-foot wide sidewalks on both sides of the street. An eight-foot parking lane will be provided on both sides of the street.

### 4.8.5 Solid Waste

The County of Maui Department of Environmental Management (DEM), Solid Waste Division provides residential refuse collection in the Kīhei-Mākena area. Solid waste generated in the Kīhei-Mākena region is transported to the Central Maui Landfill located in Pu'unēnē, four miles southeast of the Kahului Airport on Pūlehu Road. The Central Maui Landfill receives approximately 500 tons of solid waste per day. Since 2000, approximately 30 percent of the solid waste generated annually in Maui County is diverted by means of recycling, reuse, and composting (R.M Towill Corporation 2007). The County is targeting a 50 percent waste diversion rate by 2030 (R.M Towill Corporation 2007).

Green waste is collected by EKO Compost, which is also located at the Central Maui Landfill. Another private company, Maui Earth Compost, operates two facilities on Maui.

One is located on the corner of Hansen Road and Pūlehu Road in Puʻunēnē, and the other is in central Kīhei off of Piʻilani Highway behind the County wastewater treatment facility. Demolition and construction waste is accepted at the Maui Demolition and Construction Landfill (privately operated) near Māʻalaea.

As part of the County's recycling program, plastic, glass, metal, cardboard, and newspaper can be recycled when left at various drop-boxes throughout the County. Drop-boxes are typically located on public property, such as schools or County land. The closest existing County recycling drop-box is located at the corner of Welakahao Road and Piʻilani Highway across from Hope Chapel. A private company, Maui Recycling Services, provides curbside collection on a subscription basis for central Maui. Also, private haulers have piloted curbside recycling in selected communities.

Currently, solid waste is not being generated on the Property.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

#### Construction

Waste generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. Soil and rocks displaced from grading and clearing will be used as fill within the site as needed. Construction waste will consist of waste lumber, concrete, and other building materials.

Honuaʻula Partners, LLC is committed to limiting the environmental impact resulting from construction of Honuaʻula. As much as practical, construction plans will specify the use of products with recycled content (such as steel, concrete aggregate fill, drywall, carpet, and glass tile) and the use of locally produced products (such as plastic lumber, hydromulch, soil amendments, and glass tile).

A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material. Honuaʻula Partners, LLC will work with contractors to minimize the amount of solid waste generated during the construction. A job-site waste management and recycling program will be implemented to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. This recycling program will incorporate the "Three Rs" of effective construction waste management:

- Reduce: by preventing waste before it happens through efficient design;
- Reuse: by using materials removed during demolition (such as rocks and concrete) on-site; and
- Recycling: by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products.

Demolition and construction waste that cannot be recycled will be taken to the Maui Demolition and Construction Landfill (privately operated) near Māʻalaea.

**Post-Construction**

The County's DEM, Solid Waste Division estimates that residential households on Maui generate approximately 2.3 tons of solid waste per household per year. Commercial units on Maui generate approximately 1.58 tons of solid waste per employee per year. Solid waste generation includes all the waste produced in a residence or business, including that which is reused or recycled as well as that which is disposed of in landfills.

Using the above rates, after full build-out and occupancy of all Honuaʻula homes and commercial units, total waste generated within Honuaʻula is estimated to be approximately 3,249 tons per year. Using the County's current waste diversion rate of 30 percent, total waste from Honuaʻula is estimated to be approximately 2,274 tons per year. Achieving the County's target waste diversion rate of 50 percent by 2030 would reduce Honuaʻula's total waste to 1,624 tons per year.

Honuaʻula will support the County's recycling, reuse, and composting activities. The County of Maui Integrated Solid Waste Management Plan (2009) provides strategies for diverting solid waste from landfills to reduce landfill dependency, save landfill capacity and improve operational efficiency. Honuaʻula will implement these strategies by providing options for recycling, such as collection systems and bin spaces, within Honuaʻula, and promoting sound recycling practices among residents and guests. After the community is occupied by residents, to the extent practical, wastes such as aluminum, paper, newspaper, glass, and plastic containers will be recycled.

Green waste, particularly from the golf course, may be processed on-site and reused by:

- Collecting organic waste material for composting;
- Applying the final composted product as topdressing to reduce the dependency on chemical treatments;
- Using mulches and clippings for erosion controls, stabilizers, and/or resurfacing in high utility areas; and
- Not removing grass clippings from fairways, roughs, and other turf areas.

Provisions for recycling golf course green waste will be in compliance with County of Maui Ordinance No. 3554 (Condition 18h), which requires compliance with Condition 10 of DOH's "12 Conditions Applicable to All New Golf Course Development" concerning solid waste disposal, managing waste so that it does not create a nuisance, and composting green waste for subsequent use as a soil conditioner or mulching material.

Waste that cannot be recycled will be disposed of in the County's Central Maui Landfill in Puʻunēnē. In the Public Facilities Assessment Update County of Maui (2007), R.M. Towill

Corporation projected that the Central Maui Landfill will have adequate capacity to accommodate residential and commercial waste through the year 2025. This projection was arrived at by multiplying 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. This estimate does not take into account future increases in source reduction and waste diversion. Increases in waste diversion achieved through education, recycling, composting, and reuse programs are expected to decrease demand for landfill space and extend the life of the Central Maui Landfill beyond the currently projected closure date. The County's DEM Solid Waste Division anticipates that additional phases of the Central Maui Landfill will be developed as needed to accommodate future waste.

### 4.8.6 Electrical System

The Kīhei-Mākena region is serviced by a 69 kV (kilovolt) power line that runs from the 'Ulupalakua Ranch, mauka of Honua'ula, to the MECO substation (Wailea Substation) located on a separate parcel (TMK (2)2-1-08: 043) near the western boundary of the makai portion of the Property. The Wailea Substation is currently being fed by transmission lines from the Maalaea Power Plant, northwest of the Property and from Kealahou Switchyard, mauka of the Property. The substation converts the 69 kV power to 12.47 kV for distribution to the Wailea area. The converted 12.47 kV lines run within a 12-foot wide easement along the makai boundary of the Property. The Wailea Substation is nearly filled to capacity.

MECO supports net energy metering as a way to encourage the use of eligible renewable energy electricity generators by residential and commercial customers. Net energy metering allows a MECO customer to: 1) offset all or part of the electricity they would normally receive from MECO with energy produced by the customer's renewable generation system (e.g. solar photovoltaic system); and 2) export any excess electricity they produce to the MECO grid for use by MECO in meeting electrical demand elsewhere.

MECO customers that own or lease an eligible renewable energy generator may enter into an agreement with MECO to connect their generator to the utility grid, allowing it to feed surplus electricity into the grid. Net energy metering means that any kilowatt-hours the customer's renewable energy generator feeds into the grid will be subtracted from the kilowatt-hours of electricity the customer obtains from MECO to determine the net amount of kilowatt-hours. The customer is then billed only on the net kilowatt-hours.

By Public Utility Commission (PUC) order, net energy metering is available to MECO customers on a first come, first served basis until the sum of the total energy received from the renewable energy generators equals four percent of MECO's current system peak demand. This cap is in place because when MECO customers participate in net energy metering, they receive credit at the retail rate for self-produced electricity. The retail electric rate that MECO charges includes not only recovery of the cost of producing

electricity, but also the cost for: 1) facilities (e.g., lines, substations, etc.) to deliver power to MECO customers; 2) maintaining and operating facilities; and 3) administrative and other operating costs, such as billing. Those MECO customers who produce their own electricity on-site only incur the cost of generating the electricity, not additional delivery and other costs. By receiving credit at the full retail rate, in essence, the MECO customer who net meters is receiving a subsidy from all other customers. By providing a cap, the subsidy can be kept to a reasonable level and still help to support small to medium renewable energy producers.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

When fully built-out, the peak forecasted electrical demand for Honua'ula is estimated to be ~~9,467~~ 11,103.3 kilowatts (kW) ~~per month~~. This peak forecasted electrical demand represents "conventional" demand without consideration of solar water heating, renewable energy systems, or other measures to reduce the energy consumption. Honua'ula Partners, LLC's electrical engineer calculated this demand in consultation with MECO based on empirical values derived from records of past electrical consumption of other similar facilities. The total forecasted demand includes estimated electrical loads for: 1) single- and multi-family homes; 2) neighborhood commercial uses; 3) golf course facilities including, the clubhouse and maintenance facility; and 4) infrastructure facilities, including well pumps, the reverse osmosis facility, the wastewater reclamation facility, and streetlights.

Honua'ula Partners, LLC's electrical engineer has been in communication with MECO to ensure service is provided. Based on the forecasted Honua'ula electrical demand and use, MECO anticipates additional transformer units or new substation development may be necessary. The current plans for the Property include an area for the expansion of the existing substation (Figure 1).

~~MECO is aware that Honua'ula Partners, LLC will provide area for the expansion of the existing substation, but at this time cannot confirm that the expansion area is needed without more detailed information, including projections for electrical demand for other proposed projects in the region. MECO has stated that they continuously attempt to plan for additional substation sites to meet the electrical demand of the community. Honua'ula Partners, LLC's electrical engineer will continue to coordinate with MECO regarding the need for expanding the substation and Honua'ula Partners, LLC will continue to include an area for the expansion of the existing substation on Honua'ula plans.~~

It has not yet been determined whether expansion of the existing substation will be necessary. Honua'ula Partners, LLC's electrical engineer has provided available information regarding Honua'ula to MECO for their review and planning purposes. MECO has stated that additional review is required during the design development stage of Honua'ula to determine if expansion of the existing substation will be necessary. MECO has also stated that although the current capacity of the MECO electrical system to serve Honua'ula may be limited, with continuously evolving demands for MECO's service,

along with MECO's on-going efforts to upgrade and maintain their system to serve new and existing loads, capacity may be in place and adequate to serve Honua'ula by the time Honua'ula is under construction. MECO will continue to review its electrical system and requirements as Honua'ula progresses into the design development stage so that MECO will be able to evaluate: 1) the size of actual electrical loads that MECO is required to serve; 2) the dates when these loads need to be energized by MECO; and 3) the state of the MECO electrical system at the time when these loads are expected to be connected.

In anticipation of the need, Honua'ula Partners, LLC will continue to include an area for the expansion of the existing substation on Honua'ula plans. Should MECO not require additional area, the existing substation would not be expanded. Since MECO cannot make a determination until Honua'ula is within the design development stage, details on the requirements for serving Honua'ula are not available at this time. Should the substation be expanded, however, MECO's additional equipment (i.e. transformers, switchgear, cabling, etc.) and structures currently are anticipated to be similar to what is presently constructed at the existing substation. In response to a question from the Maui Planning Commission on the Draft EIS regarding the feasibility of the Wailea Substation expansion to include batteries for the storage of energy, a MECO representative noted that battery storage is expensive, but feasibility would not be evaluated based only on cost, but on many different considerations, such as land availability, integration design, system impact, etc. The MECO representative stated that MECO was exploring this option near the Wailea Substation as there are grant funds that may be available to offset the cost.

Maui Electric Company (MECO) strictly complies with all applicable Federal, State, and County regulations regarding public safety and the environment. MECO designs its substations in accordance with current and applicable codes and standards. Presently, the National Electrical Code, 2008 Edition, and the Uniform Building Code, 1997 Edition, as approved by the County of Maui, along with the National Electrical Safety Code, 2002 Edition; govern minimum separation and clearance requirements. In addition, MECO's substation equipment installations meet all applicable County, State, and Federal environmental regulations and guidelines and do not contain toxic substances.

All new electrical lines within Honua'ula will be underground and Honua'ula Partners, LLC proposes to place underground the existing overhead lines that run over the Property in the mauka-makai direction and along the makai boundary.

To facilitate renewable energy generation and net energy metering within Honua'ula, Honua'ula Partners, LLC will consider providing "photovoltaic ready" homes and commercial buildings to allow home and business owners the option of installing their own photovoltaic system. Features of "photovoltaic ready" homes and buildings could include: 1) roof slopes orientated for optimal photovoltaic efficiency and aesthetic appeal; and 2) specific items such as inverters, grid intertie components, and fundamental wiring to easily connect to roof top photovoltaic panels. "Photovoltaic ready" homes and buildings would make installation of photovoltaic systems more attractive for home and building owners, thereby encouraging net metering agreements with MECO and on-site

power generation. Because of the cap imposed by the PUC on the amount of total energy received from renewable energy generators, it may not be possible for all homes and buildings within Honua'ula to participate in net energy metering, and therefore not all homes in Honua'ula would need to be "photovoltaic ready" in anticipation of being able to participate in net energy metering.

Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing energy consumption. ~~Energy-saving concepts and devices will be encouraged in the design of Honua'ula.~~ In compliance with Chapter 344 (State Environmental Policy) and Chapter 226 (Hawai'i State Planning Act), HRS, all Honua'ula buildings, activities, and grounds will be designed with energy-saving considerations. Design standards will specify low-impact lighting and will encourage energy-efficient building design and site development practices.
In compliance with County of Maui Ordinance No. 3554 (Condition 30), Honua'ula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.

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.

In further compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will: 1) equip all residential units (single-family and multi-family) 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 unit (Condition 30); 2) 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 (Condition 30) ; and 3) obtain confirmation from MECO that the proposal to relocate and/or landscape MECO facilities is incorporated in the Project District Phase II application and site plan (Condition 18j).

Equipping 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 unit is expected to reduce the energy consumption of individual Honua'ula homes by approximately 32 percent since energy consumption for hot water heating is typically about 40 percent of total residential energy use. Based on average

residential energy consumption of approximately 600 kilowatt-hours (kWh) per home per month, at full build out of all homes in Honua'ula a 32 percent reduction in energy use would result in a savings of 220,800 kWh per month. In relation to total energy demand for all of Honua'ula the residential hot water systems would reduce total electrical demand by approximately 8.5 percent.

In addition to the water heating systems provided with all homes, if a homeowner chooses to install a photovoltaic system, electrical demand could be further reduced. Assuming a homeowner installs a 2 kW PV system and assuming a very conservative four hours per day of usable sunlight, an additional reduction in energy consumption (2 kW x 4 hours/day x 30 days/month) of 240 kWh per month would be contributed by each such home with a photovoltaic system. Assuming that 200 homeowners choose to install a PV system the total reduction in energy demand would be 48,000 kWh per month (200 homes x 240 kWh/month equals 48,000 kWh/month) and the resulting energy savings would equal approximately 1.85 percent of Honua'ula's total energy demand.

Cumulatively, a 10.4 percent reduction in energy consumption could be achieved with the energy savings from the hot water systems combined with 200 homes installing a photovoltaic system. Additional reductions in energy consumption are anticipated as a result of: 1) meeting all applicable ENERGY STAR requirements; 2) ensuring that all air cooling systems and all heating systems for laundry facilities, swimming pools, and spa areas make maximum use of energy-efficient construction; and 3) and other energy conservation measures; however the projected reduction in energy consumption from these additional measures has not been calculated.

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.
- Installation of right-sized air conditioning systems with duct work that does not pass through unconditioned space (i.e. attic) unless the duct itself is insulated.
- Installation of zoned air conditioning systems with programmable thermostats.

- Installation of energy feedback devices in homes, such as a TED (The Energy Detective) so occupants can monitor energy use and adapt behavior to reduce power use.

### 4.8.7 Communication Facilities

Hawaiian Telcom provides telephone service in the Kīhei-Mākena region, and Oceanic Time Warner Cable (Oceanic) provides cable service. ~~The telephone system servicing the area consists of overhead and underground facilities.~~ Hawaiian Telcom currently has fiber optic trunk cables along Piilani Highway and continuing across the western boundary of Honuaʻula. Oceanic has an agreement with Hawaiian Telcom for joint use of utility poles that run along Piilani Highway and across the western boundary of Honuaʻula. The poles support Oceanic fiber optic trunk cables that provide Oceanic telecommunication services to the area.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

It is anticipated that Hawaiian Telcom will provide telephone service to Honuaʻula and Oceanic ~~Time Warner Cable~~ will provide cable service.

To provide telecommunication services to Honuaʻula, Hawaiian Telcom intends to extend fiber optic cables onto the Property from their existing splice point, which is situated adjacent to the Piʻilani Highway/Wailea Ike Drive intersection. Within the Property, Hawaiian Telcom will provide fiber optic distribution hubs in various locations to provide telecommunication services to individual homes and other users. Oceanic intends to extend fiber optic cables onto the Property from their existing trunk facilities. Within the Property Oceanic will provide power supply pedestals at various locations to facilitate providing and maintaining telecommunication services to individual homes and other users.

The telecommunication systems constructed on-site will be underground with the exception of fiber distribution hubs and power supply pedestals. Honuaʻula Partners, LLC will provide a network of underground ducts and handholes in accordance with Hawaiian Telcom's and Oceanic's standards, and Hawaiian Telcom and Oceanic then will provide the cable systems within the ducts and make necessary arrangements for serving individual telecommunications requirements. Therefore, during the design development of Honuaʻula, plans will be submitted to Hawaiian Telcom and Oceanic to verify their requirements.

## 4.9 SOCIO-ECONOMIC CHARACTERISTICS

The Hallstrom Group Inc., prepared an in-depth market study, economic impact analysis, and public costs/benefits assessment for Honuaʻula. Key findings of the analysis along with other social-economic information are summarized below. Appendix Q contains the complete study.

### 4.9.1 Community Character

Honuaʻula is located within the Kīhei-Mākena Community Plan region, which stretches from Māʻalaea in the north to La Perouse Bay in the south. This area contains the resort areas of Wailea and Mākena, and includes 25 percent of the Urban District lands on Maui. Urban development in the region consists of residential, commercial, and resort uses. The region has the second highest full-time resident population on Maui, with over 28,114 people in 2010. The region currently has the third highest number of jobs on the island and is forecasted to surpass the Lahaina Community Plan region by 2025. Kīhei-Mākena also contains the Maui Research and Technology Park, which has the potential to be a vibrant employment center for professional and technical resident workers. 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.

Many residents work in the community businesses and resorts, although Kīhei has long been planned to provide a centralized housing location for workers throughout the island. The gross household income among area residents is estimated at about $1 billion.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

Honuaʻula will complement the pattern of development in the Kīhei-Mākena region in a way that is consistent with the State Land Use Urban designation of the Property and envisioned in the *Kīhei-Mākena Community Plan*. In doing so, Honuaʻula will help to satisfy the housing demand of a growing population and provide for a complete and vibrant community.

Honuaʻula will differ substantially from the major coastal resort designations makai of the Property by providing a broad range of residential housing opportunities, rather than an economically stratified resort residential development.

Key objectives of Honuaʻula include: 1) reflecting community values to create a unique and compelling community in context with the Kīhei-Mākena region; 2) preserving the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas (see Section 3.6 (Botanical Resources)), parks, and open space, as well as through excellence in landscaping and design ; 3) integrating natural and human-made boundaries and landmarks to craft a sense of place within a defined community; 4) incorporating and preserving natural and cultural resources; 5) including buffer zones between residential areas and Piʻilani Highway; and 6) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments

convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community.

### 4.9.2 Population

Prior to the 1970s, Kīhei was a small coastal village with fewer than 3,000 residents, with very limited resort-oriented and commercial uses. By 1980, the population had more than doubled to about 7,000 persons, substantial commercial space was being developed, and the region was well-established as a desirable vacation locale offering a wide variety of resort units.

The overall population of Maui County has also exhibited relatively strong growth over the past decade. The ~~2000~~ 2010 United States Census reported that resident population of Maui County was ~~128,094~~ 154,834 people in ~~2000~~ 2010. This is more than double the 1980 total of 62,823 persons.

Population projections by the Maui County Planning Department (2006) indicate that the Maui Island population will reach 140,289 people in 2010[14].

For the Kīhei-Mākena region, Maui County Planning Department (2006) projections indicate that the Kīhei-Mākena population will reach 28,114 people in 2010.

In addition to the resident population, for the year 2010 the Maui County Planning Department projects that the Maui Island average visitor census is 49,476 people. The average visitor census is defined as the average number of visitors on an average day. Approximately 21,621 (43 percent of total) of these visitors are in the Kīhei-Mākena region (Maui County Planning Department 2006).

Combining the resident population and the average visitor census, the total population of Maui is estimated to be 189,765 people in 2010. The total population of the Kīhei-Mākena region is estimated to be 49,735 people in 2010.

Currently the Honua'ula Property does not contain any residents.

#### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Projections indicate that the Maui Island population will increase to 174,184 people by 2025, a 24 percent increase from the 2010 population. In the Kīhei-Mākena region, the population is expected to increase to 35,962 people in 2025, a 28 percent increase from the 2010 population. The average visitor census for Maui Island is projected to increase to 63,482 visitors in 2025, a 28 percent increase from the 2010 visitor census.

[14] The Maui County Planning Department projections presented here are their "baseline" projections, of which the Maui County Planning Department states are: "well within the range of likely future trends."

Approximately 30,241 (47 percent) of these visitors will be in the Kīhei-Mākena region. Therefore, the total population of Maui Island in 2025 is estimated to be 237,666 people. The total population of the Kīhei-Mākena region in 2025 is estimated to be 66,203 people.

Honuaʻula will respond to the demand for housing for the growing population in the Kīhei-Mākena region, as well as provide opportunities for existing Maui residents wishing to relocate to South Maui to be closer to their jobs. This will have a meaningful positive impact, as it will decrease commuting to and from South Maui, lessen traffic congestion, reduce stress, reduce energy consumption, lessen pollution, allow more family and recreation time, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general.

When fully built out, the total population of Honuaʻula is projected to be 1,833 persons, of which 1,541 will be full-time residents and 292 will be periodic users comprised of non-resident owners and their guests (Hallstrom 2009). Many of Honuaʻula's future residents may already be existing Maui residents because Honuaʻula's 450 on-site workforce affordable homes must be offered for sale to Maui residents. Based on a household size of 2.5 people per household approximately 1,125 (73 percent) of Honuaʻula's future 1,541 full-time residents may be existing Maui residents.

Potential impacts and mitigative measures related to Honuaʻula population, such as traffic, infrastructure, and public services, are discussed in other sections of this EIS. However, it should be noted that the population of Maui is projected to grow independent of Honuaʻula. Therefore, population-related impacts to traffic, infrastructure, public services, and other issues will need to be addressed regardless of whether Honuaʻula is built.

### 4.9.3 Housing

The Kīhei-Mākena region is among the most desirable resort and residential areas in Hawaiʻi. The area has many full-time residents but is also a large vacation destination, with many visitors, resorts, and second homes.

The demand by non-resident buyers for general residential units in the Kīhei-Mākena region is significant; the County Planning Department (2006) reports that 42 percent of all Kīhei-Mākena housing sales in 2004 were to buyers residing outside of Maui County. A more recent study (Hallstrom 2009) indicates that 25 to 35+ percent of demand for residential units in the Kīhei-Mākena region is from non-resident purchasers.

In December ~~2009~~ 2011, the year-end average sales price of a single-family home in Maui County was ~~$713,946~~ $787,552, the year-end average sales price of a single-family home in Kīhei was ~~$674,327~~ $597,124, and the year end average sales price of a single-family home in Wailea/Mākena was ~~$2,511,667~~ $4,492,089. ~~The~~ In December ~~2009~~ 2011, the year-end average sales price of a condominium in Maui County was ~~$719,993~~ $485,874, the year end average sales price of a condominium in Kīhei was ~~$360,660~~ $301,557, and

the year end average sales price of a condominium in Wailea/Mākena was ~~$1,507,710~~ $1,548,654 (Realtors Association of Maui, http://www.ramaui.com).

It is estimated that there are 13,251 housing units in Kīhei-Mākena region in 2010 (County Planning Department 2006). This includes single-family homes and condominiums occupied both by Maui residents and non-residents (i.e. visitors). It is projected that approximately 7,000 to 10,846 new homes will be needed in the Kīhei-Mākena region by 2030 (County Planning Department 2006; Hallstrom 2009). Currently there are approximately 510 unsold homes or residential lots in the region. Another 3,000 to 4,650 units are projected to be built in the region (not including Honuaʻula) by 2030 if all potential projects are actually built to maximum densities in a timely manner. Therefore by 2030 there is a potential housing shortfall ranging from 1,840 to 5,686 units in the Kīhei-Mākena region (Hallstrom 2009). Thus there is a substantial, quantifiable market demand for housing that Honuaʻula can help address (Hallstrom, 2009).

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Honuaʻula will help to satisfy the housing demand of a growing population by providing homes in the Kīhei-Mākena region. Objectives of Honuaʻula include: 1) emphasizing community development and creating a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community; and 2) providing homes near regional employment centers, thereby decreasing commuting and increasing quality of life.

Honuaʻula will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.

The Honuaʻula market rate homes will appeal to those buyers seeking the location, view, and climate of the Property. Although not a destination resort, as it is lacking ocean frontage and will not contain transient vacation rentals, Honuaʻula market-rate homes will be comparable with Maui's destination communities and are expected to attract purchasers from the same market segments.

The market study (Hallstrom 2009) concludes that the workforce affordable homes will be fully absorbed (sold out) within an eight year period and the market-priced homes within 12 years.

In compliance with County of Maui Ordinance No. 3554, Honuaʻula Partners, LLC will:

- Provide workforce housing in accordance with Chapter 2.96, MCC (Residential Workforce Housing Policy); provided that, 250 of the required workforce housing

units shall be located at the Kaʻonoʻulu 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. Honuaʻula Partners, LLC will provide a minimum two-acre park at Kaʻonoʻulu Light Industrial Subdivision, which shall be credited toward the requirements of Section 18.16.320, MCC, for that subdivision (Condition 5); and

- Not allow transient vacation rentals or time shares within Honuaʻula (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 (Condition 25).

### 4.9.4 Village Mixed Uses

Currently, there are no commercial uses within the Honuaʻula property. The nearest commercial area is the Wailea Gateway Center at the intersection of Piʻilani Highway and Wailea Ike Drive. This newly developed commercial space includes offices, retail, and restaurants. The Shops at Wailea is a resort-oriented shopping center which also includes many restaurants and is located at the intersection of Wailea Ike Drive/Wailea Alanui Drive. The closest supermarkets are Foodland, approximately 3.8 miles to the north in the Kīhei Town Center on South Kīhei Road, and Safeway, approximately 4.6 miles to the north at the intersection of Piʻilani Highway and Piʻikea Avenue. Kīhei also contains many other shopping centers, commercial areas, and offices.

#### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

Honuaʻula will be a complete community with village-mixed use areas comprised of, commercial, residential, recreational, and community facilities serving the needs of Honuaʻula residents and guests. The intent of the Village Mixed Use sub-district is to create a community identity and character with landmark buildings and groupings of services within a central core. Permitted uses in the Village Mixed Use sub-district include: retail food and beverage establishments; grocery stores; retail shops; offices; business services; minor medical offices; religious institutions; and public facilities.

It is expected that car trips from Honuaʻula residents onto Piʻilani Highway will be reduced since there will be various establishments providing for residents' day-to-day needs within the community. Therefore, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all needs and services. In addition, by locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honuaʻula.

While Honuaʻula residents are expected to support the commercial and retail establishments within Honuaʻula, additional market support is expected from populations in the general vicinity, particularly given Honuaʻula's location at the key intersection of

Piʻilani Highway and Wailea Ike Drive. In addition to offering convenience to these populations, the commercial areas within Honuaʻula are also anticipated to alleviate the need for some trips into Kīhei.

The total floor area of all commercial and retail uses within the Village Mixed Use sub-district will not exceed 100,000 square feet and the total land area will not exceed 53 acres. Based on the total Honuaʻula population, combined with near-by residents who may patronize Honuaʻula businesses, on-site employees, and passer-bys entering and exiting the Wailea region, the total quantified demand for Honuaʻula village mixed use space is estimated at 98,000 square feet, commensurate with the maximum allowable area of 100,000 square feet (Hallstrom 2009).

Appendix A includes: 1) a conceptual site plan of the proposed VMX Town Center; and 2) a conceptual site plan of the proposed golf clubhouse complex. The Town Center is currently proposed to contain approximately 75,000 square feet of commercial and retail uses, and the golf clubhouse complex is currently proposed to contain approximately 25,000 square feet of commercial and retail uses.

### 4.9.5 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.

Although signs of underlying mainland economic weakness and softening in a variety of real estate sectors began to appear on Maui by early to mid-2007, the critical event foreshadowing a broad downturn was the collapse of Aloha and ATA Airlines in April 2008. These events abruptly decimated tourism, leading to increasing unemployment, business failures, slackening of residential and contractor demand, and modified spending levels island wide.

Subsequent external events significantly exacerbated the situation, including the advent of economic recession on the U.S. mainland and throughout the Pacific Basin, rapidly fluctuating fuel prices, a significant tightening of available credit, and a major decline in stock/equity markets.

As a result, the unemployment rate on Maui, traditionally among the lowest in the nation, has more than doubled over the past year to 8.5 percent, up from the 3.3 percent rate of April 2008 (Hallstrom 2009). Tourism indicators have declined by 10 to 20-plus percent, and gross total expenditures (residents and visitors) were down by more than two percent in 2008, with 2009 showing a similar decline (Hallstrom, 2009). A previously fast-growing population has been somewhat stabilized by out-migration and a stagnation of gross household income.

Following past off-cycles, South Maui has demonstrated the ability to rebound faster than most neighbor island sectors, a function of its large working-class resident population and a highly competitive tourism infrastructure. The South Maui economy is anticipated to stabilize then recover in concert with statewide trends commencing in 2010-2011 (Hallstrom 2009).

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

The creation of Honua'ula will result in significant expenditures that will have a substantial positive impact on the County of Maui and State of Hawaii economies, on both a direct and indirect basis. By significantly increasing the level of capital investment and capital flow in the region, which will in turn create employment opportunities and widen the tax base, Honua'ula will serve as a compelling economic stimulus for the region.
As Honua'ula homes and commercial space are not expected to be offered for sale or lease until late 2012, at the earliest, the current recession is not expected to have a meaningful impact on the marketability of Honua'ula. The real estate sectors are anticipated to be in full recovery mode by this time, and it is highly probable that during the decade-plus build-out and absorption period another full economic cycle will transpire.

The Honua'ula economic impact analysis estimates the general and specific effects on the economy which will result from the creation of Honua'ula, including construction and business employment, wages and income, resident expenditures, regional monetary and employment effects, and taxes and fees accruing to the County of Maui and State of Hawaii.

#### Construction and Operations

Honua'ula is projected to generate approximately $1.2 billion of direct capital investment in the Maui economy over the 13-year build-out period. This includes investment in on-site infrastructure, home construction, golf course construction, and commercial building construction (Hallstrom 2009).

A total of approximately 9,537 "worker years[15]" of direct on-site employment will be created during the projected 13-year construction and sales period. Of this total, 3,692 worker years are direct construction-related jobs, 3,480 are on-going, on-site business operation and maintenance positions, and 2,366 are off-site/direct worker-year requirements. After completion, Honua'ula is projected to generate 518 permanent full-time equivalent jobs — 382 directly related to on-site activities and 136 indirect jobs throughout the island (Hallstrom 2009).

[15] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

Employee wages of approximately $480 million are projected to be paid out during the 13-year build-out period. On a stabilized basis after construction, golf course and commercial operations, maintenance, and other on- and off- site positions are projected to earn approximately $19 million in wages each year (Hallstrom 2009).

Discretionary expenditures made by Honua'ula residents and guests during the 13-year build-out period are expected to total $513.9 million, or nearly $40 million annually. After the build-out period, discretionary expenditures are expected to stabilize at approximately $77 million annually. The household income of full-time residents is forecast to total approximately $497 million over the build-out period and stabilize at $68.9 million per year after build-out (Hallstrom 2009).

The gross taxable operating economic activity generated from on-site operations (which include commercial operations, golf course operations, maintenance, landscaping, and renovations) is estimated to total approximately $383.7 million during the build-out period. After the build-out period, annual operating economic activity is estimated to be approximately $96.9 million (Hallstrom 2009).

The overall statewide economic impact over the 13-year build-out period is estimated to total approximately $3.2 billion. This includes direct capital investment, contractors' and suppliers' profits, employee wages, resident income and expenditures, and operating economic activity. On a stabilized basis after build-out, the overall economic impact of Honua'ula is estimated to be approximately $290.5 million annually (Hallstrom 2009). The expenditure of these funds into the island and state economies will facilitate hundreds of additional off-site, secondary, and indirect jobs on Maui and statewide.

**Taxes, Government Revenues, and Development Fees**

Fiscal and economic impacts from the short-term construction and long-term operation of Honua'ula are expected to directly benefit the State of Hawai'i and County of Maui through four major sources: 1) real property taxes; 2) gross excise tax receipts; 3) state income taxes; and 4) development fees. According to projections, in no year will the State or the County suffer a revenue shortfall due to Honua'ula.

As projected, the County of Maui will receive approximately $81.1 million in real property tax revenues from Honua'ula over the 13-year build-out period, and an estimated $7.25 million per year thereafter. The County government operating costs associated with serving the community, using a per capita basis, is estimated to total $39.3 million during the 13-year build-out period and stabilize at approximately $5.65 million per year after build-out. Therefore, the County will enjoy a net revenue benefit (taxes less costs) totaling approximately $41.8 million during the 13-year construction period, and $1.6 million each year after build-out.

It is projected that the State of Hawaiʻi will show a similar positive net revenue benefit from Honuaʻula. The total gross tax revenues during the 13-year build-out period will reach approximately $165 million from income and gross excise taxes, and will stabilize at approximately $11.3 million per year after build-out. State costs associated with the community on a per capita basis are projected to be $68.2 million during the 13-year build-out period and are projected to stabilize at approximately $9.8 million per year after build-out. The State will experience a net profit of approximately $97 million in the 13-build-out and sales period and a stabilized benefit of approximately $1.5 million per year after build-out.

In addition to State and County taxes, Honuaʻula will also pay specific development fees in compliance with County of Maui Ordinance No. 3554. These fees include:

- Traffic improvement fees of $5,000 per residential unit, payable to the County of Maui (Condition 3);
- Park assessment fees, currently at $17,240 per residential unit, payable to the County of Maui (Condition 11); and
- School impact fee, currently at <u>least</u> $3,000 per residential unit, payable to the State (Condition 22).

Together, these fees are at least $25,240 per residential unit and total over $29 million.

In addition, Honuaʻula Partners, LLC will also:

- Pay not less than $5 million to the County for the development of the South Maui Community Park in-lieu of dedicating a Little League Field within Honuaʻula (Condition 10);
- Contribute $550,000 to the County for the development of the new Kīhei District Police Station in South Maui (Condition 24); and
- Provide the County two acres of land with direct access to the Piʻilani Highway extension for the development of a fire station (Condition 24).

## 4.10 PUBLIC SERVICES AND FACILITIES

### Overview

As discussed in Section 4.9.2 (Population), projections indicate that the Maui Island population will increase from 140,289 people in 2010 to 174,184 people by 2025, a 24 percent increase (Maui County Planning Department 2006). For the Kīhei-Mākena region, the population is expected to increase from 28,114 people in 2010 to 35,962 people in 2025, a 28 percent increase (Maui County Planning Department 2006). These projections do not include the average daily visitor population of Maui Island, which is expected to increase from 49,476 people in 2010 to 63,482 people in 2025, a 28 percent increase.

Honua'ula will provide homes for Maui's growing population. Build-out of Honua'ula will occur over approximately 13 years, and thus the need for additional public services to serve Honua'ula residents is expected to occur incrementally and in proportion with Maui's population growth. The needs of a growing population relating to public services and other issues will need to be addressed regardless of whether Honua'ula is built.

As discussed in Section 4.9.5 (Economy), Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes from increased employment. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized.

### 4.10.1 Schools

The Kīhei-Mākena region is served by Kīhei Elementary (grades K-5), Kamali'i Elementary (grades K-5), Lokelani Intermediate (grades 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 5 provides the enrollment data.

**Table 6~~5~~. Capacity and Enrollment for Public Schools serving Kīhei-Mākena**

| School | Capacity | Enrollment in 2009-2010 School Year | Enrollment in 2011-2012 School Year | Projected Enrollment ~~2011-2012~~ 2015-2016 |
|---|---|---|---|---|
| Kīhei Elementary | 923 | 870 | 920 | ~~845~~ 988 |
| Kamali'i Elementary | ~~797~~ 809 | 660 | 638 | ~~765~~ 696 |
| Lokelani Intermediate | ~~697~~ 808 | 569 | 597 | ~~807~~ 623 |
| Kīhei Charter School | - | 436 | 509 | 500 |
| Maui High | ~~1,526~~ 1,701 | 1,815 | 1,826 | ~~1,861~~ 1,946 |

*Source: State of Hawai'i Department of Education, ~~2009~~ 2012 (http://doe.k12.hi.us/reports/enrollment.htm).*

Currently, the State DOE is planning to build a new high school in Kīhei on approximately 77 acres mauka of Pi'ilani Highway between Kūlanihāko'i and Waipu'ilani Gulches. Design enrollment for Kīhei High School will be for up to 1,650 students in grades 9-12. Phase I of the Kīhei High School is slated to open in ~~2013~~ 2016 with 800 students (Group 70 ~~2009~~2011)~~, the same year the first homes in Honua'ula are projected to be occupied~~.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

At build-out in 2022, the population of full-time Honua'ula residents is projected to be 1,541 persons, of which, approximately 370 (24 percent) will be school-age children (5 to 18 years of age). Public school students who will reside in Honua'ula will most likely attend Kamali'i Elementary School (K-5), Lokelani Intermediate (6-8), and the new Kīhei High School (9-12).

To help address the need for funding of school improvements, Honua'ula Partners, LLC will pay at least $3,450,000 to the DOE over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honua'ula Partners, LLC will pay the DOE at least $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.

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,~~ In November 2010, the Hawai'i Board of Education designated Central Maui, including Kīhei-Mākena Project District 9, as a school impact fee district. Honua'ula Partners, LLC will comply with all applicable laws regarding school impact fees. Currently the Central Maui school impact fee established by DOE is $5,560 per single-family unit and $2,451 per multi-family unit. Therefore, in compliance with County of Maui Ordinance No. 3554 (Condition 22), Honua'ula Partner's, LLC will pay a school impact fee of $5,560 per single-family unit and $3,000 per multi-family unit.

Honua'ula's commercial areas provide the opportunity for child care services for children under kindergarten-age, such as day care facilities, to be developed within Honua'ula to serve the community and neighboring areas. Under the Project District 9 Ordinance (Chapter 19.90A, MCC) governing the Property, day care facilities are a permitted use in the Village Mixed Use sub-district.

### 4.10.2 Police

The Maui Police Department is headquartered at the Wailuku Police Station on Mahalani Street. Twenty-four hour full-time uniformed police service for South Maui (Mā'alaea, Kīhei, Wailea, Mākena) is provided by the Kīhei Patrol District, which is currently located in a leased storefront within the Kīhei Town Center on South Kīhei Road, approximately 3.8 miles from the main entrance of Honua'ula. Two small offices are located at Wailea Point between Kama'ole Beach Parks II and III and at the old Kīhei Community Center.

According to the Maui Police Department, currently the Kīhei Police District is commanded by one Police Captain, who is assisted by one Police Lieutenant, and one Civilian Clerk. Staffing for the Kīhei District Station includes seven Police Sergeants who supervise 30 Police Officer positions, three Community Police Officer positions, two Visitor Oriented Police Officer positions, and one School Resource Officer position. There are also six Public Safety Aides (civilian employees).

Projected for the near future is a new Kīhei District Police Station at the intersection of Pi'ilani Highway and Kanani Road, 2.8 miles north of the main entrance to Honua'ula. This full service police station will replace the current police station at Kīhei Town Center.

### *POTENTIAL IMPACTS AND MITIGATION MEASURES*

As Maui County's population grows, there is a need for the County to allocate resources necessary to adequately fund police services. These additional funds could potentially be allotted from the increased tax revenues resulting from Honua'ula.

In their comment letter on the Draft EIS dated May 10, 2010, the Maui Police Department stated:

> *A residential community of this size will have a measurable impact on Police services.*
>
> *It is unknown however what the exact impact may be. There will be a wide variety of calls for service to this community.*

To help address the need for resources to adequately fund police services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honua'ula Partners, LLC will contribute $550,000 to the County for the development of the new Kīhei District Police station in South Maui, to be paid at the time a contract is entered into for the construction of that police station.

To minimze the impacts on police services and reduce the incidence of crime within Honua'ula, the Maui Police Department recommends incorporating principles of Crime Prevention Through Environmental Design (CPTED) into the design of Honua'ula. The goal of CPTED is to prevent crime by designing a physical environment that positively influences human behavior. The theory is based on four principles: 1) *natural surveillance*, which refers to the placement of physical features that maximize visibility of the neighborhood so residents can observe their surroundings; 2) *access management*, which involves guiding people by using signs, well-marked entrances and exits, and landscaping so visitors can be seen entering and exiting; 3) *territoriality*, which is the clear delineation of space to create pride or ownership and a vested interest of owners in their neighborhood; and 4) *physical maintenance*, which includes repair and general upkeep of space to maintain a well-kept appearance and neighborhood pride. These guiding principles and design objectives will

be encouraged in the design of Honuaʻula (see Appendix A (Design Guidelines) and Appendix G (Landscape Master Plan) for further discussion).

### 4.10.3 Fire

The fire station nearest Honuaʻula is the newly built Wailea Fire Station located at the intersection of Kilohana Drive and Kapili Street between Piʻilani Highway and South Kīhei Road. The Wailea Station is approximately one half mile from the Property (less than five minutes away) and services the area from Kamaʻole Beach Park II to Mākena. In addition, there are three other fire stations within 20 minutes from the Property.

The two-story ~~facility~~ Wailea Station is equipped with a 1,500 gallon per minute apparatus, a 95-foot mid-mount ladder truck and a 3,500 gallon water tanker truck. In addition, an emergency helipad and fuel dispensing station is located mauka of the fire station.

The Wailea Fire Station is staffed with 33 full-time paid firefighters where there are fire personnel on duty each day, 24-hours per day.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

Honuaʻula and all related structures will be designed and built in compliance with all fire protection requirements. Fire apparatus access roads and water supply for fire protection will comply with the Uniform Fire Code.

As Maui County's population grows, there is a need for the County to allocate resources necessary to adequately fund fire prevention and emergency services. These additional funds could potentially be allotted from the increased tax revenues resulting from Honuaʻula.

To help address the growing need for fire prevention and emergency services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honuaʻula Partners, LLC will provide the County with two acres of land that has direct access to the Piʻilani Highway extension for the development of fire control facilities within the village mixed-use sub-district. This land will be donated 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.

### 4.10.4 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***

Honuaʻula residents at some time may require health care and emergency medical services. Medical services are available in the region.

Honuaʻula's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Honuaʻula to serve the community and neighboring areas. Under the Project District 9 Ordinance (Chapter 19.90A, MCC) governing the Property, such medical services are a permitted use in the Village Mixed Use sub-district.

### 4.10.5 Recreational Facilities

There are over 3.8 acres of total park land per 1,000 residents in the Kīhei-Mākena area. Over 90 percent of Kīhei-Mākena's parks are either directly on a beach, or separated from a beach by a road. The Kīhei-Mākena public currently has access to ten tennis courts, three tot lots, six sport fields, four sport courts, and two community centers, in addition to the supplemental facilities offered by resorts in the area. The following County public parks and community centers are available in the region:

- Kamaʻole Beach Park (I, II, III);
- Charlie Young Beach;
- Kalama Beach Park;
- Kamaʻole Point;
- Keonekai Park;
- Cove Park;
- Kilohana Park;
- Kīhei Community Center;
- Kenolio Recreation Complex; ~~and~~
- Kenolio Park;
- Poʻolenalena Beach Park;
- Kalepolepo Beach Park, Lot 2-A;
- Haycraft Park (Maʻalaea);
- Ma Poina ʻOe Iaʻu Park;
- Kīhei Beach Preserve;
- Hale Piʻilani Park; and
- Kīhei Aquatic Center.

The total County-owned sub-regional park space in the Kīhei-Mākena region is approximately 114.2 acres, with the bulk of the community's parks categorized as special use beach parks." Special use parks serve a regional or islandwide populace because their activities or points of interest are tied to a specific location.

Kilohana Park, located on Kilohana Drive, is the County park facility nearest to Honuaʻula.

Despite a relativity large ratio of park area to people in comparison to other communities, according to the *Public Facilities Assessment Update County of Maui* (R.M. Towill Corporation 2007) the Kīhei-Mākena region has a deficiency of County park space and

facilities, including beach parks; however there is still land area available that is more than adequate to accommodate future park development (R.M. Towill Corporation 2007). The County is in the process of developing a 44-acre park site near Kīhei Elementary School, which will include six sports fields and a gym with community meeting rooms. According to the Public Facilities Assessment, the County also has a 150-acre parcel mauka of Kamali'i Elementary school which may be developed for a park, or used as an exchange for suitable park land in another area of the region (R.M. Towill Corporation 2007).

There are currently 28.8 acres of County beach parks the Kīhei-Mākena region (R.M. Towill Corporation 2007). This does not include Ulua, Wailea, Polo, Palauea, Keawakapu, Makena, and other beaches that are not County beach parks. Using a standard of 40 square feet of beach park space per person, and based on population projections of the Maui Planning Department, the *Public Facilities Assessment Update County of Maui* (R.M. Towill Corporation 2007) projects a need for an additional 37 acres of County beach park space by 2030[16].

In addition to County parks, Mākena State Park is located in the Kīhei-Mākena region. This 164-acre scenic wildland beach park is characterized by prominent cinder cone Pu'u Ōla'i and a large white sand beach. Because it is a State park, the 164 acres of Makena State Park is not included in the inventory of County beach parks provided in the *Public Facilities Assessment Update County* of Maui (R.M. Towill Corporation 2007), nor is the area of Makena State Park considered in relation to the projected need for an additional 37 acres of County beach park space by 2030.

Wailea Resort contains several recreational facilities, including the three championship golf courses, an 11-court tennis center, and white sand beaches with public access, as well as amenities within the Wailea Resort. Public beaches fronting or near the the Wailea Resort include: Ulua Beach, Wailea Beach, and Polo Beach. The Mākena Resort includes the Mākena North and South golf courses as well as the Mākena Tennis Club. Public beaches fronting or near the the Mākena Resort include: Palauea Beach and Po'olenalena Beach.

In addition to parks and related recreation facilities, the Kīhei-Mākena region also contains facilities for recreational boaters at the Kīhei Ramp. The 11.5 acre Kīhei Ramp facility is manged by the Department of Land and Natural Resources, Division of Boating and Ocean Recreation and contains three boat ramps (accommodated by one 35 foot-wide ramp), two loading docks, and parking for cars and trailers. The *Public Facilities Assessment Update County of Maui* (R.M. Towill Corporation 2007) projects the need for

[16] The park planning standards used in the *Public Facilities Assessment Update County of Maui* were obtained from: 1) Department of Parks and Recreation, City and County of Honolulu (1980); 2) Department of Parks and Recreation, County of Maui, *Open Space and Outdoor Recreation Plan* (2002); and 3) National Recreation and Parks Association (NHPA 2000).

three additional boat ramps island wide by 2030 based on island-wide population increases projected by the Maui Planning Department.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

Honuaʻula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will border the Native Plant Preservation Area and traverse an adjacent Native Plant Conservation Area (Figure 12); and 3) an 18-hole homeowner's golf course and related recreational facilities.

To provide the greater community the opportunity to enjoy the recreational benefits of the golf course, in compliance with County of Maui Ordinance No. 3554 Honuaʻula Partners, LLC will:

- Allow one non-profit organization per quarter, other than Maui Junior Golf Association ("Maui Junior Golf"), to use the golf course and clubhouse for a fund-raising activity (Condition 12a);
- Develop an organized instructional program for junior golfers from September to January each year, allow Maui Junior Golf to use the golf course in accordance with an instructional program, and sponsor one Maui Junior Golf fund-raising tournament per year (Condition 12b);
- Allow for the Maui Interscholastic League and the Hawaiʻi High School Athletic Association to each use the golf course once per year for an official golf tournament or regular season playoff if requested (Condition 12c); and
- Allow for Maui residents to play at the golf course on Tuesday of each week at a discounted rate that does not exceed 40 percent of the average market rate in South Maui for green fees and golf cart rental fees (Condition 12d).

To help alleviate the shortage of park space and facilities in the Kīhei-Mākena region, in compliance with County of Maui Ordinance No. 3554 (Condition 11), Honuaʻula Partners, LLC will develop six acres of private parks and 84 acres of open space within Honuaʻula. 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, MCC, or for future credits under the subdivision ordinance. The Director of Parks and Recreation and Honuaʻula 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, MCC. This cash contribution will be used to upgrade Maui County parks and facilities, which may include beach parks, as determined by the Department of Parks and Recreation in accordance with their park facility priorities.

Additionally, in compliance with County of Maui Ordinance No. 3554 (Condition 10), Honuaʻula agrees that in-lieu of the dedication of a Little League Field and related amenities and based on current land and construction cost estimates for the Little League Field, not less than $5,000,000 will be paid to the County upon Project District Phase II approval for the development of the South Maui Community Park. The amount shall not be credited against future park assessments.

In their comment letter on the EA/EISPN, the Department of Parks and Recreation (DPR) stated that they have no objections to Honuaʻula. DPR stated further:

> *The 6 acres of private parks and 84 acres of open space proposed to be developed outside of park assessment requirements, in addition to the agreement to satisfy the provisions of Section 18.16.320, Maui County Code, with an in-lieu cash contribution for the entire project, meets with our approval. The applicant's offer of payment not less than $5,000,000 to the County in lieu of the dedication of a Little League Field, upon Project District Phase II approval for the development of the South Maui Community Park is also acceptable. Finally, the applicant's agreement to support Maui Junior Golf, MIL athletic groups, and provide reduced rates for kamaʻaina is a favorable commitment.*

In addition, in their comment letter on the Draft EIS DPR stated:

> *The Draft Environmental Impact Statement for the subject project adequately addresses the concerns of the Department of Parks and Recreation. We have no additional comments or objections to the subject project at this time.*

Regarding beach use by Honuaʻula residents, it is assumed that some Honuaʻula residents will go to Maui beaches; however the number of Honuaʻula residents going to a specific beach on any given day cannot be known and it cannot be assumed that Honuaʻula residents will patronize only the beaches nearby Honuaʻula, such as Ulua, Wailea, Polo, Palauea, Poʻolenalena, Keawakapu, and Makena beaches; rather it is likely that they could choose to go to any beach in the Kīhei-Mākena region or on the entire island.

Maui Planning Department population projections indicate that the Maui and the Kīhei-Mākena populations are increasing. This increase is projected with or without Honuaʻula. The additional population will use public facilities, such as beaches. Therefore increased beach use and associated impacts will occur with or without Honuaʻula.

Furthermore many of Honuaʻula's future residents may already be existing Maui residents making periodic use of public facilities such as beaches because Honuaʻula's 450 on-site workforce affordable homes must be offered for sale to Maui residents. Based on a household size of 2.5 people per household approximately 1,125 (73 percent) of Honuaʻula's future 1,541 full-time residents may be existing Maui residents.

Regarding the Kīhei Boat Ramp and boat ramp facilitates on Maui in general, it is not anticipated that Honua'ula will trigger the need for additional boat ramp facilitates considering that: 1) the County projects a population increase with or without Honua'ula; 2) approximately 73 percent of Honua'ula's future residents may already be exiting Maui residents; and 3) relatively few new boat ramps will be necessary by 2030 to support the island wide population increase projected by the County.

# Chapter 5

## Land Use Conformance

# 5 LAND USE CONFORMANCE

State of Hawai'i and Maui 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 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 CZM Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the proposed Honua'ula lies within the CZM Area.

The relevant objectives and policies of the Hawai'i CZM Program, along with a detailed discussion of how Honua'ula conforms with these objectives and policies, is discussed below.

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Recreational Resources** | | | |
| ***Objective:*** Provide coastal recreational opportunities accessible to the public. | | | |
| ***Policies:*** | | | |
| *(A) Improve coordination and funding of coastal recreational planning and management; and* | | | **X** |
| *(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:* | | | **X** |
| *(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;* | | | **X** |
| *(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;* | | | **X** |

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;* | | | **X** |
| *(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;* | | | **X** |
| *(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;* | | | **X** |
| *(vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;* | **X** | | |
| *(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and* | | | **X** |
| *(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.* | | | **X** |
| **Discussion:** Honua'ula is not located on the coastline; therefore, policies regarding shoreline recreation resources are not applicable; however, Honua'ula will adopt water quality standards, that comply with State and Federal regulations regarding point and nonpoint source pollution, to protect the recreational value of coastal waters. | | | |
| **Historic Resources** | | | |
| ***Objective:*** *Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.* | | | |
| ***Policies:*** | | | |
| *(A) Identify and analyze significant archaeological resources;* | **X** | | |
| *(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and* | **X** | | |
| *(C) Support state goals for protection, restoration, interpretation, and display of historic resources.* | **X** | | |
| **Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites.<br><br>As further discussed in Section 4.1 (Archaeological and Historic Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site to be preserved, and the types of native plants to be used for landscaping buffer zones. | | | |

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| In addition, Honuaʻula 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 sites such as walls, platforms, pavements and mounds, or 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 SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary. | | | |
| **Scenic and Open Space Resources** | | | |
| ***Objective:*** *Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.* | | | |
| ***Policies:*** | | | |
| *(A) Identify valued scenic resources in the coastal zone management area;* | | | **X** |
| *(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;* | **X** | | |
| *(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and* | | | **X** |
| *(D) Encourage those developments that are not coastal dependent to locate in inland areas.* | **X** | | |
| **Discussion:** Honuaʻula is not a coastal dependent development, is not located on the coastline, and is not in the SMA; however, as discussed in Section 4.7 (Visual Resources), Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. The design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land. | | | |
| **Coastal Ecosystems** | | | |
| ***Objective:*** *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.* | | | |
| ***Policies:*** | | | |
| *(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;* | | | **X** |
| *(B) Improve the technical basis for natural resource management;* | **X** | | |
| *(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;* | | | **X** |
| *(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and* | **X** | | |
| *(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.* | **X** | | |

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Discussion:** To protect and restore the recreational value of coastal waters, Honua'ula will adopt water quality standards that comply with State and Federal regulations regarding point and nonpoint source pollution.<br><br>As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. The assessment concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honua'ula." Honua'ula will maintain on-going water quality monitoring in compliance with County of Maui Ordinance No. 3554 Condition 20.<br><br>As discussed in Section 4.8.3 (Drainage System), drainage from Honua'ula is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. Runoff will be stored in 26 detention basins located throughout the Property. The use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the Property. | | | |
| **Economic Uses** | | | |
| ***Objective:*** *Provide public or private facilities and improvements important to the State's economy in suitable locations.* | | | |
| ***Policies:*** | | | |
| *(A) Concentrate coastal dependent development in appropriate areas;* | | | **X** |
| *(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and* | | | **X** |
| *(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:* | | | **X** |
| *(i) Use of presently designated locations is not feasible;* | | | **X** |
| *(ii) Adverse environmental effects are minimized; and* | | | **X** |
| *(iii) The development is important to the State's economy.* | | | **X** |
| **Discussion:** Honua'ula is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable. | | | |

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Coastal Hazards** | | | |
| ***Objective:*** *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.* | | | |
| ***Policies:*** | | | |
| *(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;* | **X** | | |
| *(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;* | **X** | | |
| *(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and* | **X** | | |
| *(D) Prevent coastal flooding from inland projects.* | **X** | | |

**Discussion:** As discussed in Section 3.4 (Natural Hazards), Honua'ula will neither exacerbate any natural hazard conditions nor increase the Property's susceptibility or exposure to any natural hazards, including wildfires. ~~A majority of the~~ The entire Property is ~~located in Flood Zone C~~ designated on the FIRM as Zone X (which is outside of the 500-year flood plain in an area of minimal flooding) and is not in the tsunami inundation zone. However, to protect against natural hazards, all structures at Honua'ula will be constructed in compliance with requirements of the UBC, and other County, State, and Federal standards. Honua'ula Partners, LLC will also coordinate with the State of Hawai'i Department of Defense, Office of Civil Defense and the County of Hawaii Civil Defense Agency regarding civil defense measures, such as sirens, necessary to serve Honua'ula.

| **Managing Development** | | | |
|---|---|---|---|
| ***Objective:*** *Improve the development review process, communication, and public participation in the management of coastal resources and hazards.* | | | |
| ***Policies:*** | | | |
| *(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;* | | | **X** |
| *(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and* | | | **X** |
| *(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.* | **X** | | |

**Discussion:** Honua'ula is not a coastal development; however, this EIS discusses potential impacts and mitigation measures of Honua'ula. Public comments ~~will be~~ were received on this EIS and public comments were received on the EA/EISPN that was circulated in advance of this EIS.

Since 2000, in the course of planning, Honua'ula representatives have met with concerned individuals, community organizations, private groups, and government agencies (see Chapter 8). This extensive process has resulted in a plan that is responsive to concerns and reflects community values.

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| During the County Council hearings for the Honua'ula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions reflect a range of concerns and ensure that any impacts of Honua'ula are mitigated and addressed. | | | |
| **Public Participation** | | | |
| ***Objective:*** *Stimulate public awareness, education, and participation in coastal management.* | | | |
| ***Policies:*** | | | |
| *(A) Promote public involvement in coastal zone management processes;* | **X** | | |
| *(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and* | **X** | | |
| *(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.* | **X** | | |
| **Discussion:** Since 2000, in the course of planning, Honua'ula representatives have met with concerned individuals, community organizations, private groups, and government agencies (see Chapter 8). This extensive process has resulted in a plan that is responsive to concerns and reflects community values.<br><br>During the County Council hearings for the Honua'ula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions reflect a range of concerns and ensure that any impacts of Honua'ula are mitigated and addressed.<br><br>Public comments ~~will be~~ were received on this EIS and public comments were received on the EA/EISPN that was circulated in advance of this EIS. | | | |
| **Beach Protection** | | | |
| ***Objective:*** *Protect beaches for public use and recreation.* | | | |
| ***Policies:*** | | | |
| *(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;* | | | **X** |
| *(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and* | | | **X** |

| **COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.* | | | **X** |
| **Discussion:** Honuaʻula is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable. | | | |
| **Marine Resources** | | | |
| ***Objective:*** *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.* | | | |
| ***Policies:*** | | | |
| *(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;* | | | **X** |
| *(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;* | | | **X** |
| *(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;* | | | **X** |
| *(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and* | | | **X** |
| *(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.* | | | **X** |
| **Discussion:** Honuaʻula is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable. | | | |

### 5.1.4 Hawaiʻi State Plan, Chapter 226, Hawaiʻi Revised Statutes

The Hawaiʻi 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 Plan is divided into three parts: Part I (Overall Theme, Goals, Objectives and Policies); Part II (Planning, Coordination and Implementation); and Part III (Priority Guidelines). Part II elements of the State Plan pertain primarily to the administrative structure and implementation process of the Plan. As such, comments regarding the applicability of Part II to Honuaʻula are not appropriate. The sections of the Hawaiʻi State Plan directly applicable to Honuaʻula, along with a discussion of how Honuaʻula conforms to the State Plan are included below.

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-1: Findings and Purpose** | | | |
| **HRS § 226-2: Definitions** | | | |
| **HRS § 226-3: Overall Theme** | | | |
| **HRS § 226-4: State Goals.** *In order to guarantee, for the present and future generations, those elements of choice and mobility that insure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:*<br>*(1) A strong, viable economy, characterized by stability, diversity and growth that enables fulfillment of the needs and expectations of Hawaii's present and future generations.*<br>*(2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*<br>(3) *Physical, social and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring and of participation in community life.* | | | |
| **Discussion:** Honuaʻula contributes to attaining these three goals by 1) providing direct employment opportunities for present and future residents of Maui; 2) generating increased State and County fiscal revenues; 3) contributing to the stability, diversity, and growth of local and regional economies; and 4) protecting the archaeological, historic, and natural features of the Property. | | | |
| **HRS § 226-5: Objectives and policies for population.** | | | |
| ***Objective:*** *It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic and social objectives contained in this chapter.* | | | |
| ***Policies:*** | | | |
| *(1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social and economic aspirations while recognizing the unique needs of each County.* | **X** | | |
| *(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.* | **X** | | |
| *(3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.* | **X** | | |
| *(4) Encourage research activities and public awareness programs to foster an understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.* | | | **X** |
| *(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.* | | | **X** |
| *(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.* | | | **X** |
| *(7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.* | **X** | | |
| **Discussion:** Honuaʻula will: 1) respond to the demand for housing for the growing population in the Kīhei-Mākena region; 2) provide direct employment opportunities for present and future residents of Maui; 3) provide opportunities for existing Maui residents to pursue their physical and socio-economic aspirations; 4) implement State and County planning policies regarding the use of the Property for residential, recreational, and commercial uses that have been thought-out, studied, and advanced for over 20 years; | | | |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| and 5) contribute to the stability, diversity, and growth of local and regional economies through improved infrastructure. | | | |
| **HRS § 226-6: Objectives and policies for the economy in general.** | | | |
| ***Objectives:*** *Planning for the State's economy in general shall be directed toward achievement of the following objectives:* | | | |
| *(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.* | **X** | | |
| *(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Expand Hawaii's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.* | | | **X** |
| *(2) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.* | | | **X** |
| *(3) Seek broader outlets for new or expanded Hawaii business investments.* | | | **X** |
| *(4) Expand existing markets and penetrate new markets for Hawaii's products and services.* | | | **X** |
| *(5) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.* | | | **X** |
| *(6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.* | **X** | | |
| *(7) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.* | | | **X** |
| *(8) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.* | | | **X** |
| *(9) Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.* | | | **X** |
| *(10) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.* | **X** | | |
| *(11) Maintain acceptable working conditions and standards for Hawaii's workers.* | **X** | | |
| *(12) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.* | | | **X** |
| *(13) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy.* | | | **X** |
| *(14) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.* | **X** | | |
| *(15) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new, potential growth industries in particular.* | | | **X** |
| *(16) Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.* | | | **X** |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Discussion:** As discussed in Section 4.9.5 (Economy) Honuaʻula is projected to generate approximately $1.2 billion of direct capital investment in the Maui economy over the projected 13-year build-out period. This will result in significant expenditures that will have a substantial positive impact on the County of Maui and State of Hawaii economies, on both a direct and indirect basis. By significantly increasing the level of capital investment and capital flow in the region, which will in turn create employment opportunities and widen the tax base, Honuaʻula will serve as a compelling economic stimulus for the region. Honuaʻula will provide direct employment opportunities for present and future residents of the area and contribute to the stability, diversity, and growth of local and regional economies. | | | |
| **HRS § 226-7: Objectives and policies for the economy - agriculture** | | | |
| ***Objectives:*** *Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:* | | | |
| *(1) Viability of Hawaii's sugar and pineapple industries.* | | | **X** |
| *(2) Growth and development of diversified agriculture throughout the State.* | | | **X** |
| *(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.* | | | **X** |
| ***Policies:*** | | | |
| *(1) Establish a clear direction for Hawaii's agriculture through stakeholder commitment and advocacy.* | | | **X** |
| *(2) Encourage agriculture by making best use of natural resources.* | | | **X** |
| *(3) Provide the governor and the legislature with information and options needed for prudent decision making for the development of agriculture.* | | | **X** |
| *(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.* | | | **X** |
| *(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy.* | | | **X** |
| *(6) Seek the enactment and retention of federal and state legislation that benefits Hawaii's agricultural industries.* | | | **X** |
| *(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's producers and consumer markets locally, on the continental United States, and internationally.* | | | **X** |
| *(8) Support research and development activities that provide greater efficiency and economic productivity in agriculture.* | | | **X** |
| *(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.* | | | **X** |
| *(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.* | | | **X** |
| *(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.* | | | **X** |
| *(12) Expand Hawaii's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.* | | | **X** |
| *(13) Promote economically competitive activities that increase Hawaii's agricultural self-sufficiency.* | | | **X** |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.* | | | **X** |
| *(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.* | | | **X** |
| *(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.* | | | **X** |
| **Discussion:** Honuaʻula will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified under the LSB classification system and not classified under the ALISH classification system, indicating that the Property is not agriculturally significant. | | | |
| **HRS § 226-8: Objectives and policies for the economy – visitor industry** | | | |
| ***Objectives:*** *Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.* | | | |
| ***Policies:*** | | | |
| *(1) Support and assist in the promotion of Hawaii's visitor attractions and facilities.* | | | **X** |
| *(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.* | | | **X** |
| *(3) Improve the quality of existing visitor destination areas.* | | | **X** |
| *(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.* | | | **X** |
| *(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.* | | | **X** |
| *(6) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.* | | | **X** |
| *(7) Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.* | | | **X** |
| *(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaii's cultures and values.* | | | **X** |
| **Discussion:** Honuaʻula is not targeting the visitor industry, and transient vacation rentals or time shares will not be allowed within Honuaʻula; therefore, these objectives and policies are not applicable. | | | |
| **HRS § 226-9: Objective and policies for the economy – federal expenditures** | | | |
| ***Objective:*** *Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawaii's economy.* | | | |
| ***Policies:*** | | | |
| *(1) Encourage the sustained flow of federal expenditures in Hawaii that generates long-term government civilian employment.* | | | **X** |
| *(2) Promote Hawaii's supportive role in national defense.* | | | **X** |
| *(3) Promote the development of federally supported activities in Hawaii that respect* | | | **X** |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment.* | | | |
| *(4) Increase opportunities for entry and advancement of Hawaii's people into federal government service.* | | | **X** |
| *(5) Promote federal use of local commodities, services, and facilities available in Hawaii.* | | | **X** |
| *(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaii.* | | | **X** |
| *(7) Pursue the return of federally controlled lands in Hawaii that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.* | | | **X** |
| **Discussion:** Honua'ula will not use federal funds or federal lands; therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-10: Objectives and policies for the economy – potential growth activities.** | | | |
| ***Objective:*** *Planning for the State's economy with regard to potential growth activities shall be directed towards achievement of the objective of development and expansion of potential growth activities that serve to increase and diversify Hawaii's economic base.* | | | |
| ***Policies:*** | | | |
| *(1) Facilitate investment and employment in economic activities that have the potential for growth such as diversified agriculture, aquaculture, apparel and textile manufacturing, film and television production, and energy and marine-related industries.* | | | **X** |
| *(2) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people.* | | | **X** |
| *(3) Enhance and promote Hawaii's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.* | | | **X** |
| *(4) Accelerate research and development of new energy- related industries based on wind, solar, ocean, and underground resources and solid waste.* | | | **X** |
| *(5) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new economic activities into the State.* | | | **X** |
| *(6) Provide public incentives and encourage private initiative to attract new industries that best support Hawaii's social, economic, physical, and environmental objectives.* | | | **X** |
| *(7) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.* | | | **X** |
| *(8) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii.* | | | **X** |
| *(9) Foster a broader public recognition and understanding of the potential benefits of new, growth-oriented industry in Hawaii.* | | | **X** |
| *(10) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's social, economic, physical, and environmental objectives.* | | | **X** |
| *(11) Increase research and development of businesses and services in the telecommunications and information industries.* | | | **X** |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Discussion:** Honua'ula is not aimed at increasing the State's potential growth activities that serve to increase and diversify Hawai'i's economic base (although Honua'ula will provide significant positive economic benefits); therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-10.5: Objectives and policies for the economy – information industry** | | | |
| ***Objective:*** *Planning for the State's economy with regard to the information industry shall be directed toward the achievement of the objective of positioning Hawaii as the leading dealer in information businesses and services in the Pacific Rim.* | | | |
| ***Policies:*** | | | |
| *(1) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry;* | | | **X** |
| *(2) Facilitate the development of new business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii;* | | | **X** |
| *(3) Encourage greater cooperation between the public and private sectors in developing and maintaining a well- designed information industry;* | | | **X** |
| *(4) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people;* | | | **X** |
| *(5) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry;* | | | **X** |
| *(6) Foster a recognition of the contribution of the information industry to Hawaii's economy; and* | | | **X** |
| *(7) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific.* | | | **X** |
| **Discussion:** Honua'ula is not related to the information industry; therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-11: Objectives and policies for the physical environment – land-based, shoreline, and marine resources.** | | | |
| ***Objectives:*** *Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.* | | | |
| *(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.* | **X** | | |
| *(2) Effective protection of Hawaii's unique and fragile environmental resources.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.* | **X** | | |
| *(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.* | **X** | | |
| *(3) Take into account the physical attributes of areas when planning and designing activities and facilities.* | **X** | | |
| *(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.* | **X** | | |
| *(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.* | **X** | | |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.* | **X** | | |
| *(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.* | **X** | | |
| *(8) Pursue compatible relationships among activities, facilities, and natural resources.* | **X** | | |
| *(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.* | **X** | | |

**Discussion:** Although Honuaʻula is not located on the coastline, as discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honuaʻula.

As discussed in Sections 3.6 (Botanical Resources) and 3.7 (Wildlife Resources), Honuaʻula Partners, LLC will conserve portions of Honuaʻula and undertake propagation of selected remnant native dry shrubland plants located on-site. To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. Further, Honuaʻula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit.

In addition, a *Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Preservation Area and Native Plant Conservation Areas, and a ~~multi-species~~ Habitat Conservation Plan to ~~protect~~ offset the potential impact to the Blackburn's sphinx moth and avoid impacts to the Hawaiian hoary bat (as well as the candidate endangered *ʻāwikiwiki* plant) is being ~~prepared under~~ finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and Chapter 195D, HRS ~~in collaboration with DLNR and USFWS~~.

| **HRS § 226-12: Objectives and policies for the physical environment – scenic, natural beauty, and historic resources.** | | | |
|---|---|---|---|
| ***Objective:*** *Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.* | | | |
| ***Policies:*** | | | |
| *(1) Promote the preservation and restoration of significant natural and historic resources.* | **X** | | |
| *(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.* | **X** | | |
| *(3) Promote the preservation of views and vistas to enhance the visual and aesthetic* | **X** | | |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *enjoyment of mountains, ocean, scenic landscapes, and other natural features.* | | | |
| *(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.* | **X** | | |
| *(5) Encourage the design of developments and activities that complement the natural beauty of the islands.* | **X** | | |

**Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites.

As further discussed in Section 4.1 (Archaeological and Historic Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site to be preserved, and the types of native plants to be used for landscaping buffer zones.

As discussed in Sections 3.6 (Botanical Resources) and 3.7 (Wildlife Resources), Honuaʻula Partners, LLC will conserve portions of Honuaʻula and undertake propagation of selected remnant native dry shrubland plants located on-site. To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside as ~~Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. In addition, Honuaʻula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit. Further, a *Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Preservation Area and Native Plant Conservation Areas.

As discussed in Section 4.7 (Visual Resources), Honuaʻula will not impinge upon any significant public scenic view corridors and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. The design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land.

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-13: Objectives and policies for the physical environment – land, air, and water quality.** | | | |
| ***Objectives:*** *Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:* | | | |
| *(1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.* | **X** | | |
| *(2) Greater public awareness and appreciation of Hawaii's environmental resources.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.* | **X** | | |
| *(2) Promote the proper management of Hawaii's land and water resources.* | **X** | | |
| *(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.* | **X** | | |
| *(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.* | **X** | | |
| *(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.* | **X** | | |
| *(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.* | **X** | | |
| *(7) Encourage urban developments in close proximity to existing services and facilities.* | **X** | | |
| *(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.* | **X** | | |

**Discussion:** As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula.

As discussed in Section 3.6 (Botanical Resources), goals of the *Honua'ula Conservation and Stewardship Plan* are to 1) conserve native plant resources of Honua'ula and; 2) to cooperate with researchers in furthering the science of native plant propagation, provide education and outreach opportunities, and enhance the natural beauty of Honua'ula.

As discussed in Section 4.6 (Air Quality), the creation of Honua'ula, the widening of Pi'ilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the areas of the off-site water and wastewater infrastructure may result in short- and long-term impacts on air quality either directly or indirectly as a consequence of construction and use. However, appropriate mitigation measures will be implemented, and it is anticipated that no Federal or State air quality standards will be violated as a result of Honua'ula.

As discussed in Section 3.4 (Natural Hazards) Honua'ula will neither exacerbate any natural hazard conditions nor increase the Property's susceptibility or exposure to any natural hazards, such as flooding, tsunami inundation, hurricanes, volcanic eruptions, and earthquakes. To protect against natural hazards, including earthquakes and wildfires,

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|---|---|---|---|
| all structures at Honua'ula will be constructed in compliance with requirements of the UBC, and other County, State, and Federal standards. Fire apparatus access roads and water supply for fire protection will be provided in compliance with the Uniform Fire Code.<br><br>Honua'ula will provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship. | | | |
| **HRS § 226-14: Objective and policies for facility systems – in general** | | | |
| ***Objective:*** *Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.* | | | |
| ***Policies:*** | | | |
| *(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.* | | | **X** |
| *(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.* | | | **X** |
| *(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.* | | | **X** |
| *(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.* | | | **X** |
| **Discussion:** Honua'ula does not involve planning for the State's facility systems; therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-15: Objectives and policies for facility systems – solid and liquid wastes.** | | | |
| ***Objectives:*** *Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:* | | | |
| *(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.* | **X** | | |
| *(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Encourage the adequate development of sewerage facilities that complement planned growth.* | **X** | | |
| *(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.* | **X** | | |
| *(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.* | **X** | | |
| **Discussion:** As discussed in Section 4.8.2 (Wastewater System), Honua'ula will either participate in the operation of a private WWRF and system that accommodates the needs of Honua'ula (Alternative 1) or provide a WWRF on-site (Alternative 2). After treatment, R-1 recycled water (reclaimed water) will be used within Honua'ula for golf course irrigation. | | | |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| As discussed in Section 4.8.5 (Solid Waste), Honua'ula will implement strategies for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Green waste, particularly from the golf course, may be processed on-site and reused. | | | |
| **HRS § 226-16: Objectives and policies for facility systems – water.** | | | |
| ***Objective:*** *Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.* | | | |
| ***Policies:*** | | | |
| *(1) Coordinate development of land use activities with existing and potential water supply.* | **X** | | |
| *(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.* | **X** | | |
| *(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.* | **X** | | |
| *(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.* | **X** | | |
| *(5) Support water supply services to areas experiencing critical water problems.* | **X** | | |
| *(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.* | **X** | | |
| **Discussion:** As discussed in Section 4.8.1 (Water System), Honua'ula will include a private water system providing both potable and non-potable water for use within Honua'ula. Non-potable water will be used for all irrigation purposes. In addition, water conservation strategies will be implemented to reduce consumption, conserve resources, and minimize water demands. | | | |
| **HRS § 226-17: Objectives and policies for facility systems – transportation.** | | | |
| ***Objective:*** *Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:* | | | |
| *(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.* | | | **X** |
| *(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.* | | | **X** |
| ***Policies:*** | | | |
| *(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;* | | | **X** |
| *(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;* | | | **X** |
| *(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;* | | | **X** |
| *(4) Provide for improved accessibility to shipping, docking, and storage facilities;* | | | **X** |
| *(5) Promote a reasonable level and variety of mass transportation services that* | **X** | | |

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|---|---|---|---|
| *adequately meet statewide and community needs;* | | | |
| *(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;* | **X** | | |
| *(7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;* | | | **X** |
| *(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;* | | | **X** |
| *(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;* | | | **X** |
| *(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;* | | | **X** |
| *(11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;* | **X** | | |
| *(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and* | | | **X** |
| *(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.* | | | **X** |
| **Discussion:** As discussed in Section 4.3 (Trails and Access), Honua'ula will integrate a system of pedestrian and bike paths along the community's roadways, gulches, and drainage ways. 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.<br><br>Honua'ula's transportation demand management strategies support ridesharing, bicycle and pedestrian use, alternative work schedules and other management objectives to reduce dependency on individual vehicles by Honua'ula residents, employees, and visitors after construction, as discussed in Section 4.4 (Roadways and Traffic). | | | |
| **HRS § 226-18: Objectives and policies for facility systems – energy.** | | | |
| ***Objectives:*** *Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:* | | | |
| *(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;* | **X** | | |
| *(2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;* | **X** | | |
| *(3) Greater energy security in the face of threats to Hawaii's energy supplies and systems; and* | **X** | | |
| *(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Support research and development as well as promote the use of renewable energy sources;* | | | **X** |
| *(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;* | | | **X** |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;* | | | **X** |
| *(4) Promote all cost-effective conservation of power and fuel supplies through measures including:* | **X** | | |
| *(A) Development of cost-effective demand-side management programs;* | | | **X** |
| *(B) Education; and* | | | **X** |
| *(C) Adoption of energy-efficient practices and technologies;* | **X** | | |
| *(5) Ensure to the extent that new supply-side resources are needed, the development or expansion of energy systems utilizes the least-cost energy supply option and maximizes efficient technologies;* | | | **X** |
| *(6) Support research, development, and demonstration of energy efficiency, load management, and other demand-side management programs, practices, and technologies;* | **X** | | |
| *(7) Promote alternate fuels and energy efficiency by encouraging diversification of transportation modes and infrastructure;* | **X** | | |
| *(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications; and* | **X** | | |
| *(9) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives.* | | | **X** |

**Discussion:** As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and 4.8.6 (Electrical System), Honua'ula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the United States EPA 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.

Honua'ula is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Pi'ilani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Honua'ula is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion. Honua'ula will also provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship. Furthermore, Honua'ula will include a system of pedestrian and bike trails along the community's roadways, gulches, and drainage ways. This secondary circulation system of linked pedestrian/bike trails will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas and will provide residents a meaningful alternative to driving for traveling within the community.

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|---|---|---|---|
| **HRS § 226-18.5: Objectives and policies for facility systems—telecommunications.** | | | |
| ***Objective:*** *Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.* | | | |
| ***Policies:*** | | | |
| *(1) Facilitate research and development of telecommunications systems and resources;* | | | **X** |
| *(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;* | | | **X** |
| *(3) Promote efficient management and use of existing telecommunications systems and services; and* | | | **X** |
| *(4) Facilitate the development of education and training of telecommunications personnel.* | | | **X** |
| **Discussion:** Coordination with the various communication companies will be undertaken; however Honua'ula is not involved with the planning of the State's telecommunications facility systems. Therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-19: Objectives and policies for socio-cultural advancement – housing.** | | | |
| ***Objectives:*** *Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:* | | | |
| *(1) Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.* | **X** | | |
| *(2) The orderly development of residential areas sensitive to community needs and other land uses.* | **X** | | |
| *(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people.* | **X** | | |
| ***Policies:*** | | | |
| *(1) Effectively accommodate the housing needs of Hawaii's people.* | **X** | | |
| *(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.* | **X** | | |
| *(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.* | **X** | | |
| *(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.* | | | **X** |
| *(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.* | **X** | | |
| *(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.* | **X** | | |
| *(7) Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.* | **X** | | |

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|---|---|---|---|
| *(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii.* | **X** | | |
| **Discussion:** As discussed in Section 4.9.3 (Housing), Honua'ula will offer a mix of single-family and multi-family housing types for a range of consumer groups, and will emphasize community development with single-family and multi-family units complemented with village-mixed uses primarily serving the residents of the community. As part of the mix of housing types, Honua'ula will include a significant number of workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents. | | | |
| **HRS § 226-20: Objectives and policies for socio-cultural advancement – health** | | | |
| ***Objectives:*** *Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:* | | | |
| *(1) Fulfillment of basic individual health needs of the general public.* | | | **X** |
| *(2) Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities.* | | | **X** |
| ***Policies:*** | | | |
| *(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.* | | | **X** |
| *(2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.* | | | **X** |
| *(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.* | | | **X** |
| *(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.* | | | **X** |
| *(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.* | | | **X** |
| *(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.* | | | **X** |
| **Discussion:** Honua'ula does not plan for the State's socio-cultural advancement with regard to health; therefore, these objectives and policies are not applicable. | | | |
| **HRS § 226-21: Objectives and policies for socio-cultural advancement – education.** | | | |
| ***Objectives:*** *Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.* | | | |
| ***Policies:*** | | | |
| *(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.* | **X** | | |
| *(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.* | **X** | | |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(3) Provide appropriate educational opportunities for groups with special needs.* | | | **X** |
| *(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.* | | | **X** |
| *(5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.* | | | **X** |
| *(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.* | | | **X** |
| *(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.* | | | **X** |
| *(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.* | | | **X** |
| *(9) Support research programs and activities that enhance the education programs of the State.* | | | **X** |
| **Discussion:** As discussed in Section 4.10.1 (Schools), in compliance with County of Maui Ordinance No. 3554, Honuaʻula Partners, LLC will pay the DOE at least $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater. | | | |
| **HRS § 226-22: Objective and policies for socio-cultural advancement – social services** | | | |
| ***Objective:*** *Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.* | | | |
| ***Policies:*** | | | |
| *(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.* | | | **X** |
| *(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.* | | | **X** |
| *(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities.* | | | **X** |
| *(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.* | | | **X** |
| *(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.* | | | **X** |
| *(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.* | | | **X** |
| **Discussion:** Honuaʻula does not plan for the State's socio-cultural advancement with regard to social services; therefore, these objectives and policies are not applicable. | | | |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-23: Objectives and policies for socio-cultural advancement – leisure.** | | | |
| ***Objective:*** *Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.* | | | |
| ***Policies:*** | | | |
| *(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.* | **X** | | |
| *(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.* | **X** | | |
| *(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.* | **X** | | |
| *(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.* | **X** | | |
| *(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.* | **X** | | |
| *(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.* | **X** | | |
| *(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.* | **X** | | |
| *(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.* | | | **X** |
| *(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawaii's population to participate in the creative arts.* | | | **X** |
| *(10) Assure adequate access to significant natural and cultural resources in public ownership.* | **X** | | |

**Discussion:** As disussed Section 4.10.5 (Recreational Facilities), Honua'ula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will border the Native Plant Preservation Area; and 3) an 18-hole homeowner's golf course and related recreational facilities.

To provide the greater community the opportunity to enjoy recreational benefits of the golf course, in compliance with County of Maui Ordinance No. 3554 (Condition 12), Honua'ula Partners, LLC will: 1) develop and support an organized instructional program for Maui junior golfers; and 2) allow for Maui residents to play at the golf course on Tuesday of each week at a discounted rate that does not exceed 40 percent of the average market rate in South Maui for green fees and golf cart rental fees.

Additionally, in compliance with County of Maui Ordinance No. 3554 (Condition 10), Honua'ula Partners, LLC pay not less than $5,000,000 to the County upon Project District Phase II approval for the development of the South Maui Community Park.

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-24: Objective and policies for socio-cultural advancement – individual rights and personal well-being.** | | | |
| ***Objective:*** *Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.* | | | |
| ***Policies:*** | | | |
| *(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.* | | | **X** |
| *(2) Uphold and protect the national and state constitutional rights of every individual.* | | | **X** |
| *(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.* | | | **X** |
| *(4) Ensure equal opportunities for individual participation in society.* | | | **X** |
| **Discussion:** Honua'ula does not plan for the State's socio-cultural advancement with regard to individual rights and personal well-being; therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-25: Objectives and policies for socio-cultural advancement – culture.** | | | |
| ***Objective:*** *Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawaii's people.* | | | |
| ***Policies:*** | | | |
| *(1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.* | | | **X** |
| *(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.* | | | **X** |
| *(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii.* | | | **X** |
| *(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.* | | | **X** |
| **Discussion:** Honua'ula does not plan for the State's socio-cultural advancement with regard to culture; therefore, this objective and these policies are not applicable. | | | |
| **HRS § 226-26: Objectives and policies for socio-cultural advancement – public safety.** | | | |
| ***Objectives:*** *Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:* | | | |
| *(1) Assurance of public safety and adequate protection of life and property for all people.* | | | **X** |
| *(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.* | | | **X** |
| *(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people.* | | | **X** |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| ***Policies related to public safety:*** | | | |
| *(1) Ensure that public safety programs are effective and responsive to community needs.* | | | **X** |
| *(2) Encourage increased community awareness and participation in public safety programs.* | | | **X** |
| ***Policies related to criminal justice:*** | | | |
| *(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.* | | | **X** |
| *(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.* | | | **X** |
| *(3) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.* | | | **X** |
| ***Policies related to emergency management:*** | | | |
| *(1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.* | | | **X** |
| *(2) Enhance the coordination between emergency management programs throughout the State.* | | | **X** |
| **Discussion:** Honua'ula does not include State public safety programs; therefore, these objectives and policies are not applicable. | | | |
| **HRS § 226-27: Objectives and policies for socio-cultural advancement – government.** | | | |
| ***Objectives:*** *Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:* | | | |
| *(1) Efficient, effective, and responsive government services at all levels in the State.* | | | **X** |
| *(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.* | | | **X** |
| ***Policies:*** | | | |
| *(1) Provide for necessary public goods and services not assumed by the private sector.* | | | **X** |
| *(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.* | | | **X** |
| *(3) Minimize the size of government to that necessary to be effective.* | | | **X** |
| *(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii.* | | | **X** |
| *(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.* | | | **X** |
| *(6) Provide for a balanced fiscal budget.* | | | **X** |
| *(7) Improve the fiscal budgeting and management system of the State.* | | | **X** |
| *(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.* | | | **X** |
| **Discussion:** Planning the State's socio-cultural advancement with regard to government is not relevant to Honua'ula; therefore, these objectives and policies are not applicable. | | | |

## PART III. PRIORITY GUIDELINES

The purpose of this part of the Hawai'i State Plan is to establish overall priority guidelines to address areas of statewide concern. The Hawai'i State Plan notes that the State shall strive to improve the quality of life for Hawai'i's present and future population through the pursuit of desirable courses of action in five major areas of statewide concern which merit priority attention: 1) economic development; 2) population growth and land resource management; 3) affordable housing; 4) crime and criminal justice; and 5) quality education (§226-102). The priority guidelines applicable to Honua'ula are discussed below:

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-101: Purpose.** *The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.* | | | |
| **HRS § 226-102: Overall direction.** *The State shall strive to improve the quality of life for Hawaii's present and future present and future population through the pursuit of desirable courses of action in five major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, and quality education.* | | | |
| **HRS § 226-103: Economic priority guidelines.** | | | |
| *(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:* | | | |
| *(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.* | | | **X** |
| *(A) Encourage investments which:* | **X** | | |
| *(i) Reflect long term commitments to the State;* | **X** | | |
| *(ii) Rely on economic linkages within the local economy;* | **X** | | |
| *(iii) Diversify the economy;* | **X** | | |
| *(iv) Reinvest in the local economy;* | **X** | | |
| *(v) Are sensitive to community needs and priorities; and* | **X** | | |
| *(vi) Demonstrate a commitment to provide management opportunities to Hawaii residents.* | | | **X** |
| *(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.* | | | **X** |
| *(3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.* | | | **X** |
| *(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.* | | | **X** |
| *(5) Streamline the building and development permit and review process, and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where public health, safety and welfare would not be adversely affected.* | | | **X** |
| *(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaii's small-scale producers, manufacturers, and distributors.* | | | **X** |
| *(7) Continue to seek legislation to protect Hawaii from transportation interruptions between Hawaii and the continental United States.* | | | **X** |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | S | N/S | N/A |
|---|---|---|---|
| *(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:* | | | X |
| *(A) An industry that can take advantage of Hawaii's unique location and available physical and human resources.* | | | X |
| *(B) A clean industry that would have minimal adverse effects on Hawaii's environment.* | | | X |
| *(C) An industry that is willing to hire and train Hawaii's people to meet the industry's labor needs at all levels of employment.* | | | X |
| *(D) An industry that would provide reasonable income and steady employment.* | | | X |
| *(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawaii business.* | | | X |
| *(10) Enhance the quality of Hawaii's labor force and develop and maintain career opportunities for Hawaii's people through the following actions:* | | | X |
| *(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.* | | | X |
| *(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.* | | | X |
| *(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.* | | | X |
| *(D) Promote career opportunities in all industries for Hawaii's people by encouraging firms doing business in the State to hire residents.* | | | X |
| *(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on- the-job training opportunities.* | | | X |
| *(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.* | | | X |
| *(b) Priority guidelines to promote the economic health and quality of the visitor industry:* | | | |
| *(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawaii's residents and visitors.* | | | X |
| *(2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.* | | | X |
| *(3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.* | | | X |
| *(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.* | | | X |
| *(5) Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.* | | | X |
| *(6) Support and coordinate tourism promotion abroad to enhance Hawaii's share of existing and potential visitor markets.* | | | X |
| *(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.* | | | X |
| *(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.* | | | X |
| *(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.* | | | X |
| *(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:* | | | |

| **HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | S | N/S | N/A |
|---|---|---|---|
| *(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.* | | | X |
| *(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaii.* | | | X |
| *(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.* | | | X |
| *(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:* | | | |
| *(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.* | | | X |
| *(2) Assist in providing adequate, reasonably priced water for agricultural activities.* | | | X |
| *(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.* | | | X |
| *(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.* | | | X |
| *(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaii's agricultural community.* | | | X |
| *(6) Seek favorable freight rates for Hawaii's agricultural products from interisland and overseas transportation operators.* | | | X |
| *(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.* | | | X |
| *(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.* | | | X |
| *(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.* | | | X |
| *(10) Support the continuation of land currently in use for diversified agriculture.* | | | X |
| *(e) Priority guidelines for water use and development:* | | | |
| *(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.* | X | | |
| *(2) Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.* | X | | |
| *(3) Increase the support for research and development of economically feasible alternative water sources.* | X | | |
| *(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.* | X | | |
| *(f) Priority guidelines for energy use and development:* | | | |
| *(1) Encourage the development, demonstration, and commercialization of renewable energy sources.* | | | X |
| *(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.* | | | X |
| *(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.* | | | X |
| *(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.* | | | X |
| *(g) Priority guidelines to promote the development of the information industry:* | | | |
| *(1) Establish an information network that will serve as the catalyst for establishing a viable information industry in Hawaii.* | | | X |
| *(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing,* | | | X |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | S | N/S | N/A |
|---|---|---|---|
| *teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.* | | | |
| *(3) Encourage the development of small businesses in the information field such as software development, the development of new information systems and peripherals, data conversion and data entry services, and home or cottage services such as computer programming, secretarial, and accounting services.* | | | X |
| *(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.* | | | X |
| *(5) Encourage research activities, including legal research in the information and telecommunications fields.* | | | X |
| *(6) Support promotional activities to market Hawaii's information industry services.* | | | X |

**Discussion:** As discussed in Section 4.9.5 (Economy), Honuaʻula is projected to generate approximately $1.2 billion of direct capital investment in the Maui economy over the projected 13-year build-out period. This will result in significant expenditures that will have a substantial positive impact on the County of Maui and State of Hawaii economies, on both a direct and indirect basis. By significantly increasing the level of capital investment and capital flow in the region, which will in turn create employment opportunities and widen the tax base, Honuaʻula will serve as a compelling economic stimulus for the region. Honuaʻula will provide direct employment opportunities for present and future residents of the area and contribute to the stability, diversity, and growth of local and regional economies.

As discussed in Section 4.8.1 (Water System), Honuaʻula will include a private water system providing both potable and non-potable water for use within Honuaʻula. Non-potable water will be used for all irrigation purposes. In addition, water conservation strategies will be implemented to reduce consumption, conserve resources, and minimize water demands.

As discussed in Section 4.8.2 (Wastewater System), Honuaʻula will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). After treatment, R-1 recycled water (reclaimed water) will be used within Honuaʻula for golf course irrigation.

| **HRS § 226-104: Population growth and land resources priority guidelines.** | | | |
|---|---|---|---|
| *(a) Priority guidelines to effect desired statewide growth and distribution:* | | | |
| *(1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.* | X | | |
| *(2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.* | X | | |
| *(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.* | X | | |
| *(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.* | | | X |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | S | N/S | N/A |
|---|---|---|---|
| *(5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.* | | | X |
| *(6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.* | | | X |
| *(7) Support the development of high technology parks on the neighbor islands.* | | | X |
| *(b) Priority guidelines for regional growth distribution and land resource utilization:* | | | |
| *(1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.* | | | X |
| *(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.* | | | X |
| *(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.* | | | X |
| *(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.* | | | X |
| *(5) In order to preserve green belts, give priority to state capital-improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.* | | | X |
| *(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.* | | | X |
| *(7) Pursue rehabilitation of appropriate urban areas.* | | | X |
| *(8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.* | | | X |
| *(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.* | | | X |
| *(10) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.* | | | X |
| *(11) Identify all areas where priority should be given to preserving rural character and lifestyle.* | | | X |
| *(12) Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.* | | | X |
| *(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.* | | | X |

**Discussion:** Honuaʻula responds to the demand of a growing population for the Kīhei-Mākena region, as well as the demand for homes in South Maui for existing full-time residents, as discussed in Section 4.9.2 (Population).

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| As discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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.<br><br>As discussed in Section 4.10.1 (Schools), to help address the need for funding of school improvements, Honuaʻula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honuaʻula Partners, LLC will pay the DOE at least $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.<br><br>As discussed in Section 4.10.2 (Police), to help address the need for resources to adequately fund police services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honuaʻula Partners, LLC will contribute $550,000 to the County for the development of the new Kīhei District Police station in South Maui, to be paid at the time a contract is entered into for the construction of that police station.<br><br>As discussed in Section 4.10.3 (Fire), to help address the growing need for fire prevention and emergency services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honuaʻula Partners, LLC will provide the County with two acres of land that has direct access to the Piʻilani Highway extension for the development of fire control facilities within the village mixed-use sub-district. This land will be donated 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.<br><br>Honuaʻula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. | | | |
| **HRS § 226-105: Crime and criminal justice.** | | | |
| *Priority guidelines in the area of crime and criminal justice:* | | | |
| *(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.* | | | **X** |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | S | N/S | N/A |
|---|---|---|---|
| *(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.* | | | X |
| *(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.* | | | X |
| *(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.* | | | X |
| *(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.* | | | X |
| *(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.* | | | X |
| **Discussion:** The priority guidelines for crime and criminal justice are not applicable to Honuaʻula~~.~~; however, to minimze the impacts on police services and reduce the incidence of crime within Honuaʻula, the Maui Police Department recommends incorporating principles of Crime Prevention Through Environmental Design (CPTED) into the design of Honuaʻula. The goal of CPTED is to prevent crime by designing a physical environment that positively influences human behavior. | | | |
| **HRS § 226-106: Affordable housing.** | | | |
| *Priority guidelines for the provision of affordable housing:* | | | |
| *(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.* | X | | |
| *(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.* | | | X |
| *(3) Improve information and analysis relative to land availability and suitability for housing.* | | | X |
| *(4) Create incentives for development which would increase home ownership and rental opportunities for Hawaii's low- and moderate-income households, gap-group households, and residents with special needs.* | X | | |
| *(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing.* | | | X |
| *(6) Encourage public and private sector cooperation in the development of rental housing alternatives.* | X | | |
| *(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.* | | | X |
| *(8) Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing intended primarily for individuals outside of Hawaii.* | X | | |
| **Discussion:** As discussed in Section 4.9.3 (Housing), Honuaʻula will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents. | | | |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **HRS § 226-107: Quality education.** | | | |
| *Priority guidelines to promote quality education:* | | | |
| *(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;* | | | **X** |
| *(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;* | | | **X** |
| *(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;* | | | **X** |
| *(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities;* | | | **X** |
| *(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:* | | | **X** |
| *(A) The electronic exchange of information;* | | | **X** |
| *(B) Statewide electronic mail; and* | | | **X** |
| *(C) Access to the Internet.* | | | **X** |
| *Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;* | | | **X** |
| *(1) Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;* | | | **X** |
| *(2) Develop resources and programs for early childhood education;* | | | **X** |
| *(3) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and* | | | **X** |
| *(4) Strengthen and expand educational programs and services for students with special needs.* | | | **X** |
| **Discussion:** Honuaʻula will not directly establish education programs. Therefore, these priority guidelines are not applicable. However, as discussed in Section 4.10.1 (Schools), to help address the need for funding of school improvements, Honuaʻula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honuaʻula Partners, LLC will pay the DOE at least $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater. | | | |
| **HRS § 226-108: Sustainability** | | | |
| *Priority guidelines and principles to promote sustainability shall include:* | | | |
| *(1) Encouraging balanced economic, social, community, and environmental priorities;* | **X** | | |
| *2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;* | **X** | | |
| *(3) Promoting a diversified and dynamic economy;* | **X** | | |
| *(4) Encouraging respect for the host culture;* | **X** | | |
| *(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;* | **X** | | |
| *(6) Considering the principles of the ahupuaa system; and* | | | **X** |

| **HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.* | **X** | | |

**Discussion:** As discussed in Section 2.3 (Honuaʻula Description), Honuaʻula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks. Honuaʻula will contribute to a high quality of life for all Honuaʻula residents. Honuaʻula's inclusionary design provides for a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses, parks, and open space, and integrated bicycle and pedestrian networks. These components combine 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.

Key objectives of Honuaʻula include: 1) reflecting community values to create a unique and compelling community in context with the Kīhei-Mākena region; 2) preserving the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas (see Section 3.6 (Botanical Resources)), parks, and open space, as well as through excellence in landscaping and design ; 3) integrating natural and human-made boundaries and landmarks to craft a sense of place within a defined community; 4) incorporating and preserving natural and cultural resources; 5) including buffer zones between residential areas and Piʻilani Highway; and 6) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community. Honuaʻula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

As discussed in Section 2.5 (Environmentally-Responsible Planning and Design), Honuaʻula Partners, LLC is committed to limiting the environmental impact of Honuaʻula and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, such as the use of solar energy and solar heating, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council (i.e. the LEED rating systems), the Hawaii Commercial Building Guidelines for Energy Star, Green Communities, or other similar programs, into the design and construction of Honuaʻula. Honuaʻula Partners, LLC will also: 1) encourage lot purchasers to design houses that meet at least the minimum requirements of one of the aforementioned programs; and 2) provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.

### 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, are discussed below.

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| **AGRICULTURE FUNCTIONAL PLAN** | | | | |
| ***Objective A:*** | *Achievement of increased agricultural production and growth through cultural and management practices.* | | | X |
| ***Objective B:*** | *Achievement of an orderly agricultural marketing system through product promotion and industry organization.* | | | X |
| ***Objective C:*** | *Achievement of increased consumption of and demand for Hawaii's agricultural products through consumer education and product quality.* | | | X |
| ***Objective D:*** | *Achievement of optimal contribution by agriculture to the State's economy.* | | | X |
| ***Objective E:*** | *Achievement of adequate capital, and knowledge of its proper management, for agricultural development.* | | | X |
| ***Objective F:*** | *Achievement of increased agricultural production and growth through pest and disease controls.* | | | X |
| ***Objective G:*** | *Achievement of effective protection and improved quality of Hawaii's land, water, and air.* | | | X |
| ***Objective H:*** | *Achievement of productive agricultural use of lands most suitable and needed for agriculture.* | | | X |
| ***Objective I:*** | *Achievement of efficient and equitable provision of adequate water for agricultural use.* | | | X |
| ***Objective J:*** | *Achievement of maximum degree of public understanding and support of agriculture in Hawaii.* | | | X |
| ***Objective K:*** | *Achievement of adequate supply of properly trained labor for agricultural needs.* | | | X |
| ***Objective L:*** | *Achievement of adequate transportation services and facilities to meet agricultural needs.* | | | X |
| ***Objective M:*** | *Achievement of adequate support services and infrastructure to meet agricultural needs.* | | | X |
| **Discussion:** Honua'ula will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified under the LSB classification system and not classified under the ALISH classification system, indicating that the Property is not agriculturally significant. | | | | |
| **CONSERVATION LANDS FUNCTIONAL PLAN** | | | | |
| ***Objective IA:*** | *Establishment of data bases for inventories of existing lands and resources.* | | | X |
| ***Objective IB:*** | *Establishment of criteria for management of land and natural resources.* | | | X |
| ***Objective IIA:*** | *Establishment of plans for natural resources and land management.* | | | X |
| ***Objective IIB:*** | *Protection of fragile or rare natural resources.* | X | | |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| ***Objective IIC:*** | *Enhancement of natural resources.* | X | | |
| ***Objective IID:*** | *Appropriate development of natural resources.* | X | | |
| ***Objective IIE:*** | *Promotion and marketing of appropriate natural resources designated for commercial development.* | | | X |
| ***Objective IIF:*** | *Increase enforcement of land and natural resource use laws and regulations.* | | | X |
| ***Objective IIIA:*** | *Develop and implement conservation education programs for the general public and visitors.* | | | X |
| ***Objective IIIB:*** | *Increase access to land and natural resource data by the public and increase cooperation between agencies by making access to land and natural resource information more efficient.* | | | X |

**Discussion:** While Honua'ula is within the State Urban District and not the State Conservation District, as discussed in Sections 3.6 (Botanical Resources), Honua'ula Partners, LLC will conserve portions of Honua'ula and undertake propagation of selected remnant native dry shrubland plants located on-site. To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. Further, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit.

| **EDUCATION FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A(1):*** | ***Academic Excellence.*** *Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.* | | | X |
| ***Objective A(2):*** | ***Basic Skills.*** *Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning. Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement.* | | | X |
| ***Objective A(3):*** | ***Education Workforce.*** *Initiate efforts to improve the quality of education by improving the capabilities of the education workforce.* | | | X |
| ***Objective A(4):*** | ***Services and Facilities.*** *Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.* | | | X |
| ***Objective B(1):*** | ***Alternatives for Funding and Delivery.*** *Explore alternatives for funding and delivery of educational services to improve the overall quality of education.* | | | X |
| ***Objective B(2):*** | ***Autonomy and flexibility.*** *Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities.* | | | X |
| ***Objective B(3):*** | ***Increased Use of Technology.*** *Increase and improve the use information technology in education and encourage programs which increase the public's awareness and understanding of the impact of information technologies on our lives.* | | | X |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| ***Objective B(4):*** | ***Personal Development.*** *Support education programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.* | | | X |
| ***Objective B(5):*** | ***Students with Special Needs.*** *Provide appropriate educational opportunities for groups with special needs.* | | | X |
| ***Objective C(1):*** | ***Early Childhood Education.*** *Develop resources and programs for early childhood education.* | | | X |
| ***Objective C(2):*** | ***Hawaii's Cultural Heritage.*** *Promote educational programs which enhance understanding of Hawaii's cultural heritage.* | | | X |
| ***Objective C(3):*** | ***Research Programs and [Communication] Activities.*** *Support research programs and activities that enhance the education programs of the State.* | | | X |

**Discussion:** As discussed in Section 4.10.1 (Schools), to help address the need for funding of school improvements, Honua'ula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honua'ula Partners, LLC will pay the DOE <u>at least</u> $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.

| **EMPLOYMENT FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A:*** | *Improve the qualifications of entry-level workers and their transition to employment.* | | | X |
| ***Objective B:*** | *Develop and deliver education, training and related services to ensure and maintain a quality and competitive workforce.* | | | X |
| ***Objective C:*** | *Improve labor exchange.* | | | X |
| ***Objective D:*** | *Improve the quality of life for workers and families.* | X | | |
| ***Objective E:*** | *Improve planning of economic development, employment and training activities* | | | X |

**Discussion:** Honua'ula will improve the quality of life for workers and families by providing: 1) workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy); and 2) homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship.

| **ENERGY FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A:*** | *Moderate the growth in energy demand through conservation and energy efficiency.* | X | | |
| ***Objective B:*** | *Displace oil and fossil fuels through alternate and renewable energy resources.* | X | | |
| ***Objective C:*** | *Promote energy education and legislation.* | | | X |
| ***Objective D:*** | *Support and develop an integrated approach to energy development* | | | X |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| | *and management.* | | | |
| ***Objective E:*** | *Ensure State's abilities to implement energy emergency actions immediately in event of fuel supply disruptions. Ensure essential public services are maintained and provisions are made to alleviate economic and personal hardships which may arise.* | | | **X** |

**Discussion:** As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and 4.8.5 (Electrical System), Honua'ula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the United States EPA 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.

| **HEALTH FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective 1:*** | *Health promotion and disease prevention. Reduction in the incidence, morbidity and mortality associated with preventable and controllable conditions.* | | | **X** |
| ***Objective 2:*** | *Prevention and control of communicable diseases. Reduction in the incidence, morbidity, and mortality associated with infectious and communicable diseases.* | | | **X** |
| ***Objective 3:*** | *Health needs of special populations with impaired access to health care. Increased availability and accessibility of health services for groups with impaired access to health care programs.* | | | **X** |
| ***Objective 4:*** | *Community hospitals system. Development of a community hospital system which is innovative, responsive and supplies high quality care to the constituencies it serves.* | | | **X** |
| ***Objective 5:*** | *Environmental programs to protect and enhance the environment. Continued development of new environmental protection and health services programs to protect, monitor, and enhance the quality of life in Hawaii.* | | | **X** |
| ***Objective 6:*** | *DOH leadership. To improve the Department of Health's ability to meet the public health need of the State of Hawaii in the most appropriate, beneficial and economical way possible.* | | | X |

**Discussion:** Honua'ula does not include the creation of medical or health programs; therefore, the Health Functional Plan is not applicable.

| **HIGHER EDUCATION FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A:*** | *A number and variety of postsecondary education institutions sufficient to provide the diverse range of programs required to satisfy individual and societal needs and interests.* | | | **X** |
| ***Objective B:*** | *The highest level of quality, commensurate with its mission and objectives, of each educational, research, and public service program offered in Hawaii by an institution of higher education.* | | | **X** |
| ***Objective C:*** | *Provide appropriate educational opportunities for all who are willing and able to benefit from postsecondary education.* | | | **X** |
| ***Objective D:*** | *Provide financing for postsecondary education programs sufficient to ensure adequate diversity, high quality, and wide accessibility.* | | | **X** |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| ***Objective E:*** | *Increase program effectiveness and efficiency through better coordination of educational resources.* | | | X |

**Discussion:** Honua'ula does not include the creation of higher education programs; therefore, the Higher Education Functional Plan is not applicable.

| **HISTORIC PRESERVATION FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A:*** | *Identification of historic properties.* | X | | |
| ***Objective B:*** | *Protection of historic properties.* | X | | |
| ***Objective C:*** | *Management and treatment of historic properties.* | X | | |
| ***Objective D:*** | *Provision of adequate facilities to preserve historic resources.* | X | | |
| ***Objective E:*** | *The establishment of programs to collect and conserve historic records, artifacts, and oral histories and to document and perpetuate traditional arts, skills, and culture.* | X | | |
| ***Objective F:*** | *Provision of better access to historic information.* | | | X |
| ***Objective G:*** | *Enhancement of skills and knowledge needed to preserve historical resources.* | | | X |

**Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites.

As further discussed in Section 4.1 (Archaeological and Historic Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site to be preserved, and the types of native plants to be used for landscaping buffer zones.

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 sites such as walls, platforms, pavements and mounds, or 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 SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

| **HOUSING FUNCTIONAL PLAN** | | | | |
|---|---|---|---|---|
| ***Objective A:*** | *Homeownership for at least sixty percent, or roughly 248,500 households by the year 2000.* | | | X |
| ***Objective B:*** | *Sufficient amount of affordable rental housing units by the year 2000 so* | | | X |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| | *as to increase the State's rental vacancy rate to at least 3%, with priority given to increasing the supply of units affordable to very low and lower income households.* | | | |
| ***Objective C:*** | *Increased development of rental housing units for the elderly and other special need groups to afford them an equal access to housing.* | | | X |
| ***Objective D:*** | *Preservation of existing public and private housing stock.* | | | X |
| ***Objective E:*** | *Acquire and designate land suitable for housing development in sufficient amount to locate the deficit in housing units by the year 2000.* | | | X |
| ***Objective F:*** | *Maintain a statewide housing data system for use by public and private agencies engaged in the provision of housing.* | | | X |
| **Discussion:** Although Honua'ula does not directly relate to the Housing Functional Plan's objectives, Honua'ula will help to satisfy the housing demand of a growing population by providing homes Kīhei-Mākena region priced for a wide range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). | | | | |
| **HUMAN SERVICES FUNCTIONAL PLAN** | | | | |
| ***Objective A:*** | *To sustain and improve current elder abuse and neglect services.* | | | X |
| ***Objective B:*** | *To increase cost-effective, high quality home and community based services.* | | | X |
| ***Objective C:*** | *To increase home-based services to keep children in their homes and to increase placement resources for those children who must be temporarily or permanently removed from their homes, due to abuse or neglect.* | | | X |
| ***Objective D:*** | *To address factors that contribute to child abuse and other forms of family violence.* | | | X |
| ***Objective E:*** | *To provide affordable, accessible, and quality child care.* | | | X |
| ***Objective G:*** | *To provide AFDC recipients with a viable opportunity to become independent of the welfare system.* | | | X |
| ***Objective H:*** | *To facilitate client access to human services.* | | | X |
| ***Objective I:*** | *To eliminate organizational barriers which limit client access to human services.* | | | X |
| **Discussion:** Honua'ula does not include the creation of human service programs; therefore, the Human Services Functional Plan is not applicable. | | | | |
| **RECREATION FUNCTIONAL PLAN** | | | | |
| ***Objective I.A:*** | *Address the problem of saturation of the capacity of beach parks and nearshore waters.* | | | X |
| ***Objective I.B:*** | *Reduce the incidence of ocean recreation accidents.* | | | X |
| ***Objective I.C:*** | *Resolve conflicts between different activities at heavily used ocean recreation areas.* | | | X |
| ***Objective I.D:*** | *Provide adequate boating facilities. Balance the demand for boating facilities against the need to protect the marine environment from potential adverse impacts.* | | | X |
| ***Objective II.A:*** | *Plan, develop, and promote recreational activities and facilities in mauka and other areas to provide a wide range of alternatives.* | X | | |

| **HAWAI'I STATE FUNCTIONAL PLANS** (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| ***Objective II.B:*** | *Meet special recreation needs of the elderly, the disabled, woman, single-parent families, immigrants, and other groups.* | | | X |
| ***Objective II.C:*** | *Improve and expand the provision of recreation facilities in urban areas and local communities.* | X | | |
| ***Objective III.A:*** | *Prevent the loss of access to shoreline and upland recreation areas due to new developments.* | | | X |
| ***Objective III.B:*** | *Resolve the problem of landowner liability that seriously hampers public access over private lands.* | | | X |
| ***Objective III.C:*** | *Increase access to State Forest Reserve lands over federal property, leased State lands, and other government lands.* | | | X |
| ***Objective III.D:*** | *Acquire, develop, and manage additional public accessways.* | X | | |
| ***Objective IV.A:*** | *Promote a conservation ethic in the use of Hawaii's recreational resources.* | X | | |
| ***Objective IV.B:*** | *Prevent degradation of the marine environment.* | X | | |
| ***Objective IV.C:*** | *Improve the State's enforcement capabilities.* | | | X |
| ***Objective IV.D:*** | *Mitigate adverse impacts of tour helicopters on the quality of recreational experiences in wilderness areas.* | | | X |
| ***Objective V.A:*** | *Properly maintain existing parks and recreation areas.* | X | | |
| ***Objective V.B:*** | *Promote interagency coordination and cooperation to facilitate sharing of resources, joint development efforts, clarification of responsibilities and jurisdictions, and improvements in enforcement capabilities.* | | | X |
| ***Objective V.C:*** | *Assure adequate support for priority outdoor recreation programs and facilities.* | | | X |
| ***Objective VI.A:*** | *Increase recreational access and opportunities in Hawaii's wetlands.* | | | X |
| ***Objective VI.B:*** | *Develop an adequate information base to assist the County planning departments and other regulatory agencies in make decisions regarding wetlands.* | | | X |
| ***Objective VI.C:*** | *Assure the protection of the most valuable wetlands in the state.* | | | X |

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), Honua'ula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will border the Native Plant Preservation Area; and 3) an 18-hole homeowner's golf course and related recreational facilities.

To provide the greater community the opportunity to enjoy recreational benefits of the golf course, in compliance with County of Maui Ordinance No. 3554 (Condition 12), Honua'ula Partners, LLC will: 1) develop and support an organized instructional program for Maui junior golfers; and 2) allow for Maui residents to play at the golf course on Tuesday of each week at a discounted rate that does not exceed 40 percent of the average market rate in South Maui for green fees and golf cart rental fees.

As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. | | | | |
| **TOURISM FUNCTIONAL PLAN** | | | | |
| ***Objective I.A:*** | *Development, implementation and maintenance of policies and actions which support the steady and balanced growth of the visitor industry.* | | | X |
| ***Objective II.A:*** | *Development and maintenance of well-designed visitor facilities and related developments which are sensitive to the environment, sensitive to neighboring communities and activities, and adequately serviced by infrastructure and support services.* | | | X |
| ***Objective III.A:*** | *Enhancement of respect and regard for the fragile resources which comprise Hawaii's natural and cultural environment. Increased preservation and maintenance efforts.* | | | X |
| ***Objective IV.A:*** | *Support of Hawaii's diverse range of lifestyles and natural environment.* | | | X |
| ***Objective IV.B:*** | *Achievement of mutual appreciation among residents, visitors, and the visitor industry.* | | | X |
| ***Objective V.A:*** | *Development of a productive workforce to maintain a high quality visitor industry.* | | | X |
| ***Objective V.B:*** | *Enhancement of career and employment opportunities in the visitor industry.* | | | X |
| ***Objective VI.A:*** | *Maintenance of a high customer awareness of Hawaii as a visitor destination in specific desired market segments.* | | | X |
| **Discussion:** Honua'ula is not targeting the visitor industry; therefore, the Tourism Functional Plan is not applicable. | | | | |
| **TRANSPORTATION FUNCTIONAL PLAN** | | | | |
| ***Objective I.A:*** | *Expansion of the transportation system.* | | | X |
| ***Objective I.B:*** | *Reduction of travel demand through zoning and decentralization initiatives.* | | | X |
| ***Objective I.C:*** | *Management of existing transportation systems through a program of transportation systems management (TSM).* | | | X |
| ***Objective I.D:*** | *Identification and reservation of lands and rights-of-way required for future transportation improvements.* | | | X |
| ***Objective I.E:*** | *Planning and designing State highways to enhance inter-regional mobility.* | | | X |
| ***Objective I.F:*** | *Improving and enhancing transportation safety.* | | | X |
| ***Objective I.G:*** | *Improved transportation maintenance programs.* | | | X |
| ***Objective I.H:*** | *Ensure that transportation facilities are accessible to people with disabilities.* | | | X |
| ***Objective II.A:*** | *Development of a transportation infrastructure that supports economic development initiatives.* | X | | |
| ***Objective III.B:*** | *Expansion of revenue bases for transportation improvements.* | | | X |
| ***Objective IV.A:*** | *Providing educational programs.* | | | X |

| **HAWAI'I STATE FUNCTIONAL PLANS**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | | S | N/S | N/A |
|---|---|---|---|---|
| **Discussion:** Although Honua'ula does not directly relate to the Transportation Functional Plan's objectives, as discussed in Section 4.4 (Roadways and Traffic), Honua'ula will provide a wide-range of traffic-related improvements that will not only address traffic impacts specifically related to the creation of Honua'ula, but will also address traffic impacts that would be necessary because of general regional population growth even if Honua'ula was not built. In addition, Honua'ula's TMPs propose transportation management strategies to reduce: 1) construction-related traffic during the construction of Honua'ula and the widening of Pi'ilani Highway; and 2) dependency on individual vehicles by Honua'ula residents, employees, and visitors after construction. | | | | |
| **WATER RESOURCES DEVELOPMENT FUNCTIONAL PLAN** | | | | |
| ***Objective A:*** | *Enunciate State water policy and improve management framework.* | | | X |
| ***Objective B:*** | *Maintain the long-term availability of freshwater supplies, giving consideration to the accommodation of important environmental values.* | | | X |
| ***Objective C:*** | *Improve management of floodplains.* | | | X |
| ***Objective D:*** | *Assure adequate municipal water supplies for planned urban growth.* | | | X |
| ***Objective E:*** | *Assure the availability of adequate water for agriculture.* | | | X |
| ***Objective F:*** | *Encourage and coordinate with other water programs the development of self-supplied industrial water and the production of water-based energy.* | X | | |
| ***Objective G:*** | *Provide for the protection and enhancement of Hawaii's freshwater and estuarine environment.* | X | | |
| ***Objective H:*** | *Improve State grant and loan procedures for water program and projects.* | | | X |
| ***Objective I:*** | *Pursue water resources data collection and research to meet changing needs.* | X | | |
| **Discussion:** As discussed in Section 4.8.1 (Water System), Honua'ula will include a private water system providing both potable and non-potable water for use within Honua'ula. Non-potable water will be used for all irrigation purposes. In addition, water conservation strategies will be implemented to reduce consumption, conserve resources, and minimize water demands.<br><br>As discussed in Section 4.8.2 (Wastewater System), Honua'ula will either participate in the operation of a private WWRF and system that accommodates the needs of Honua'ula (Alternative 1) or provide a WWRF on-site (Alternative 2). After treatment, R-1 recycled water (reclaimed water) will be used within Honua'ula for golf course irrigation.<br><br>As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. | | | | |

## 5.2 COUNTY OF MAUI

County-specific land use plans and ordinances pertaining to Honuaʻula include the *Countywide Policy Plan*, the *Kīhei-Mākena Community Plan*, and Chapter 19.90A, MCC.

### 5.2.1 Countywide Policy Plan

The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the forthcoming Maui Island Plan as well as for updating the nine detailed Community Plans.

The final Maui Island Plan has not yet been adopted by the Maui County Council; however the backbone of the Maui Island Plan will be the Directed Growth Strategy, which will include Directed Growth Maps specifying "urban growth boundaries" for the Island of Maui. As ~~April 2010~~ May 2012, Honuaʻula is within the "urban growth boundary" of the Directed Growth Maps of put forth by: 1) the Planning Department; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee.

The Countywide Policy Plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

Discussion of how Honuaʻula conforms to the relevant goals, objectives, policies, and implementing actions of the *Countywide Policy Plan* is provided below.

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **A. PROTECT THE NATURAL ENVIRONMENT** | | | |
| ***Goal:*** *Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.* | | | |
| ***Objective:*** | | | |
| *(1) Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Perpetuate native Hawaiian biodiversity by preventing the introduction of invasive species, containing or eliminating existing noxious pests, and protecting critical habitat areas.* | **X** | | |
| *(b) Preserve and reestablish indigenous and endemic species' habitats and their connectivity.* | **X** | | |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(c) Restore and protect forests, wetlands, watersheds, and stream flows, and guard against wildfires, flooding, and erosion.* | **X** | | |
| *(d) Protect baseline stream flows for perennial streams, and support policies that ensure adequate stream flow to support Native Hawaiian aquatic species, traditional kalo cultivation, and self-sustaining ahupua'a.* | | | **X** |
| *(e) Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural shoreline processes.* | | | **X** |
| *(f) Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.* | **X** | | |
| *(g) Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.* | **X** | | |
| *(h) Expand coordination with the State and nonprofit agencies and their volunteers to reduce invasive species, replant indigenous species, and identify critical habitat.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop island-wide networks of greenways, watercourses, and habitat corridors.* | **X** | | |

**Discussion:** As discussed in Section 3.6 (Botanical Resources), to protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. Further, Honuaʻula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit.. In addition, the *Honuaʻula Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Preservation Area and Native Plant Conservation Areas, including removal of invasive plant species.

As discussed in Section 3.7 (Wildlife Resources), to ~~protect~~ offset the potential impact to the Blackburn's sphinx moth and avoid impacts to the Hawaiian hoary bat (as well as the candidate endangered *ʻāwikiwiki* plant), a ~~multi-species~~ Habitat Conservation Plan is being ~~prepared under~~ finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and Chapter 195D, HRS ~~in collaboration with DLNR and USFWS~~.. Several other mitigation measures are also proposed for the protection of wildlife resources.

As discussed in Section 3.4 (Natural Hazards), the creation of Honuaʻula will mitigate the potential for wildfires on the Property through its landscape design and plant palette. In large part, vegetative fuel for fires, such as ~~kiawe/buffel~~ buffel grass, will be replaced by buildings and landscaping of the community, thereby decreasing the Property's susceptibility to wildfires.

As discussed in Section 4.7 (Visual Resources), Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. The design objectives of Honuaʻula will

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| encourage building forms that respect and maintain the unique topographic and landscape character of the land. Honua'ula also will include buffer areas along the border with Maui Meadows and along Pi'ilani Highway.<br><br>As discussed in Section 4.3 (Trails and Access), Honua'ula will include an integrated system of pedestrian and bike paths along the community's roadways, gulches and drainage ways. This secondary circulation system of linked pedestrian/bike trails will provide another option for traveling within the community and will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas. | | | |
| ***Objective:*** | | | |
| *(2) Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Protect and restore nearshore reef environments and water quality.* | **X** | | |
| *(b) Protect marine resources and valued wildlife.* | **X** | | |
| *(c) Improve the connection between urban environments and the natural landscape, and incorporate natural features of the land into urban design.* | **X** | | |
| *(d) Utilize land-conservation tools to ensure the permanence of valued open spaces.* | **X** | | |
| *(e) Mitigate the negative effects of upland uses on coastal wetlands, marine life, and coral reefs.* | **X** | | |
| *(f) Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.* | **X** | | |
| *(g) Regulate the use and maintenance of stormwater-treatment systems that incorporate the use of native vegetation and mimic natural systems.* | **X** | | |
| *(h) Advocate for stronger regulation of fishing, boating, cruise ship, and ecotourism activities.* | | | **X** |
| *(i) Restore watersheds and aquifer-recharge areas to healthy and productive status, and increase public knowledge about the importance of watershed stewardship, water conservation, and groundwater protection.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Develop regulations to minimize runoff of pollutants into nearshore waters and reduce nonpoint and point source pollution.* | | | **X** |
| **Discussion:** The creation of Honua'ula will not involve alteration of the shoreline or offshore environments, as Honua'ula is separated from the shoreline by the existing Wailea Resort. As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of a nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honua'ula. The assessment concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honua'ula." Honua'ula will maintain on-going water quality monitoring in compliance with County of Maui Ordinance No. 3554 Condition 20. | | | |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| As further discussed in Section 3.5.2 (Nearshore Marine Environment), the Wailea Resort has been in existence for several decades, and therefore the marine communities downslope from Honua'ula have been influenced by land uses of the Resort and do not represent "pristine" conditions. An ~~preliminary~~ assessment of the marine community structure of the nearshore waters downstream from Honua'ula (MRC 2010b) concludes: 1) potential changes to water chemistry as a result of the alteration of groundwater flow and composition (see Section 3.5.1 (Groundwater)) will not change the existing character of the marine environment to an extent that will alter biotic community structure; 2) Honua'ula does not appear to present the potential for alteration of the offshore environment; and 3) none of the activities necessary for the creation of Honua'ula has the potential to induce large changes in physico-chemical properties that could affect biotic community structure.<br><br>As discussed in Section 4.8.3 (Drainage System), drainage from Honua'ula is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. Runoff will be stored in detention basins located throughout the Property. The use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the Property.<br><br>As discussed in Section 2.2.1 (Statement of Objectives) an important objective of Honua'ula is to integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community. In addition, as discussed in Section 2.3.6 (Design Guidelines) guiding principles and design objectives for Honua'ula include encouraging building forms that respect and maintain both the unique topographic and landscape character of each individual building site | | | |
| ***Objective:*** | | | |
| *(3) Improve the stewardship of the natural environment.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.* | **X** | | |
| *(b) Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.* | **X** | | |
| *(c) Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.* | **X** | | |
| *(d) Improve efforts to mitigate and plan for the impact of natural disasters, human influenced emergencies, and global warming.* | **X** | | |
| *(e) Regulate access to sensitive ecological sites and landscapes.* | **X** | | |
| *(f) Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.* | **X** | | |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(g) Plan and prepare for and educate visitors and residents about the possible effects of global warming.* | | | **X** |
| *(h) Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.* | | | **X** |
| *(i) Educate the construction and landscape industries and property owners about the use of best management practices to prevent erosion and nonpoint source pollution.* | **X** | | |
| *(j) Support the acquisition of resources with scenic, environmental, and recreational value, and encumber their use.* | | | **X** |
| *(k) Improve enforcement activities relating to the natural environment.* | **X** | | |
| *(l) For each shoreline community, identify and prioritize beach-conservation objectives, and develop action plans for their implementation.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Document, record, and monitor existing conditions, populations, and locations of flora and fauna communities.* | **X** | | |
| *(b) Implement Federal and State policies that require a reduction of greenhouse-gas emissions.* | | | **X** |
| *(c) Establish a baseline inventory of available natural resources and their respective carrying capacities.* | **X** | | |

**Discussion:** As discussed in Sections 3.6 (Botanical Resources) and 3.7 (Wildlife Resources), Honua'ula Partners, LLC will conserve portions of Honua'ula and undertake propagation of selected remnant native dry shrubland plants located on-site. To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement, and additional ~~native plant conservation~~ ~~and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. Further, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit.

In addition, a *Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Preservation Area and Native Plant Conservation Areas, and a ~~multi-species~~ Habitat Conservation Plan to ~~protect~~ offset the potential impact to the Blackburn's sphinx moth and avoid impacts to the Hawaiian hoary bat (as well as the candidate endangered *'āwikiwiki* plant) is being ~~prepared under~~ finalized in collaboration with USFWS and DLNR in accordance with Section 10(a)(1)(B) of the Endangered Species Act and Chapter 195D, HRS ~~in collaboration with DLNR and USFWS~~.

As discussed in Section 3.4 (Natural Hazards), the creation of Honua'ula will mitigate the potential for wildfires on the Property through its landscape design and plant palette. In large part, vegetative fuel for fires, such as ~~kiawe/buffel~~ buffel grass, will be replaced by buildings and landscaping of the community, thereby decreasing the Property's susceptibility to wildfires.

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| As discussed in Section 4.3 (Trails and Access), Honuaʻula will integrate a system of pedestrian and bike paths along the community's roadways, gulches, and drainage ways. 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. Therefore, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services, and it is expected that car trips by Honuaʻula residents onto Piʻilani Highway will be reduced accordingly. Honuaʻula will also include traditional native Hawaiian mauka-makai access trails across the Property (*ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands)). These trails will follow the Property's natural gulches from mauka to makai.<br><br>As discussed in Section 4.4 (Roadways and Traffic), an objective of Honuaʻula is to provide homes near regional employment centers, thereby decreasing commuting time and increasing quality of life and environmental stewardship. Honuaʻula's workforce affordable homes are expected to appeal to many employees working in the nearby Wailea and Mākena resorts. Providing the opportunity for workers to afford a home near their jobs is expected to decrease commuting to and from other parts of Maui, lessen traffic congestion, reduce stress, allow more family and recreation time, lessen pollution, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general.<br><br>As discussed in Section 4.8.6 (Electrical System), Honuaʻula is committed to limiting energy consumption. Honuaʻula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. All homes (single-family and multi-family) will be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system and other energy-saving concepts and devices will be encouraged in the design of Honuaʻula. Design standards will specify low-impact lighting and encourage energy-efficient building design and site development practices.<br><br>In addition, as discussed in Section 4.5 (Noise) and Section 4.6 (Air Quality), the creation of Honuaʻula, the widening of Piʻilani Highway, the Wailea Ike Drive and Wailea Alanui Drive intersection improvements, and the off-site water and wastewater infrastructure are ~~is~~ not anticipated to significantly impact the acoustical environment or air quality and thus will not significantly contribute to cumulative and secondary impacts associated with these issues. Finally, adherence with Chapter 20.35, MCC regarding outdoor lighting ensures cumulative and secondary impacts related to light pollution will not impact sensitive surrounding land uses. | | | |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| ***Objective:*** | | | |
| *(4) Educate residents and visitors about responsible stewardship practices and the interconnectedness of the natural environment and people.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Expand education about native flora, fauna, and ecosystems.* | **X** | | |
| *(b) Align priorities to recognize that the health of the natural environment and the health of people are inextricably linked.* | **X** | | |
| *(c) Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.* | **X** | | |
| **Discussion:** As discussed in Section 3.6 (Botanical Resources), goals of the *Honua'ula Conservation and Stewardship Plan* are to: 1) conserve native plant resources of Honua'ula; and 2) to cooperate with researchers in furthering the science of native plant propagation~~,~~ <u>and</u> provide education and outreach opportunities~~, and enhance the natural beauty of Honua'ula~~. | | | |
| **B. PRESERVE LOCAL CULTURES AND TRADITIONS** | | | |
| ***Goal:*** *Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents' multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.* | | | |
| ***Objective:*** | | | |
| *(1) Perpetuate the Hawaiian culture as a vital force in the lives of residents.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.* | **X** | | |
| *(b) Prohibit inappropriate development of cultural lands and sites that are important for traditional Hawaiian cultural practices, and establish mandates for the special protection of these lands in perpetuity.* | **X** | | |
| *(c) Promote the use of ahupua'a and moku management practices.* | **X** | | |
| *(d) Encourage the use of traditional Hawaiian architecture and craftsmanship.* | | | **X** |
| *(e) Promote the use of the Hawaiian language.* | **X** | | |
| *(f) Recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.* | **X** | | |
| *(g) Encourage schools to promote broader incorporation of Hawaiian and other local cultures' history and values lessons into curriculum.* | | | **X** |
| *(h) Ensure the protection of Native Hawaiian rights.* | **X** | | |
| *(i) Promote, encourage, and require the correct use of traditional place names, particularly in government documents, signage, and the tourism industry.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Establish alternative land use and overlay zoning designations that recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.* | | | **X** |
| *(b) Develop requirements for all County applicants to perpetuate and use proper traditional place names in all applications submitted.* | | | **X** |
| **Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ <u>16</u> sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ <u>six</u> sites. | | | |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| As discussed in Section 4.2 (Cultural Resources), in compliance with County of Maui Ordinance No. 3554 (Condition 13), Aki Sinoto Consulting, LLC and Hana Pono, LLC have prepared a CRPP in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals.<br><br>The CRPP incorporates the findings of the archaeological inventory survey and cultural impact assessment report (discussed in Section 4.2) and sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones.<br><br>In addition, Honuaʻula 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 sites such as walls, platforms, pavements and mounds, or 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. The contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.<br><br>As discussed in Section 4.3 (Trails and Access), Honuaʻula will include traditional native Hawaiian mauka-makai access trails across the Property (*ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands)). These trails will follow the Property's natural gulches from mauka to makai.<br><br>As established in Honuaʻula's Design Guidelines, Honuaʻula will reflect community values and feature distinctive architecture to create an interesting, unique community in context with the Kīhei-Mākena region. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community. | | | |
| ***Objective:*** | | | |
| *(2) Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Acknowledge the Hawaiian culture as the host culture, and foster respect and humility among residents and visitors toward the Hawaiian people and their practices.* | **X** | | |
| *(b) Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.* | | | **X** |
| *(c) Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.* | | | **X** |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| *(d) Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.* | **X** | | |
| *(e) Protect and prioritize funding for recreational activities that support local cultural practices, such as surfing, fishing, and outrigger-canoe paddling.* | | | **X** |

**Discussion:** As discussed in Section 4.2 (Cultural Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones.

The CRPP incorporates the findings of the archaeological inventory survey and cultural impact assessment report (discussed in Section 4.1 and 4.2) and includes information regarding traditional place names, protocols, practices, as well as glimpses of daily life gained from oral interviews conducted in conjunction with both the CRPP and the cultural impact study. Starting from mythology and legends that include references to places in the region, there are well-known stories and folklore recounted for generations by the inhabitants. The compilation of not only this conventional folklore, but the recording of individual stories and experiences of area *kupuna* are invaluable resources that aid in interpreting the unique aspects of the region. The CRPP contains a compilation of not only texts and translations of several *mele* and *oli*, both traditional and contemporary, but also audio recordings of these on a compact disc.

| | | | |
|---|---|---|---|
| ***Objective:*** | | | |
| *(3) Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Foster teaching opportunities for cultural practitioners to share their knowledge and skills.* | | | **X** |
| *(b) Support the development of cultural centers.* | | | **X** |
| *(c) Broaden opportunities for public art and the display of local artwork.* | | | **X** |
| *(d) Foster the Aloha Spirit by celebrating the Hawaiian host culture and other Maui County cultures through support of cultural-education programs, festivals, celebrations, and ceremonies.* | | | **X** |
| *(e) Support the perpetuation of Hawaiian arts and culture.* | **X** | | |
| *(f) Support programs and activities that record the oral and pictorial history of residents.* | **X** | | |
| *(g) Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Establish incentives for the display of public art.* | | | **X** |
| *(b) Establish centers and programs of excellence for the perpetuation of Hawaiian arts and culture.* | | | **X** |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **Discussion:** As discussed in Section 4.2 (Cultural Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones.<br><br>The CRPP: 1) was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals; 2) will be submitted to SHPD and OHA for review and recommendations; and 3) will be provided to the Maui County Cultural Resources Commission for review and adoption after receipt of comments and recommendations from SHPD and OHA.<br><br>Through this collaborative process the CRPP will be refined to provide additional information including: 1) the nature of access to religious, ceremonial, and confirmed burial sites; 2) determination of appropriate traditional protocols and practices; and 3) establishment of educational and community stewardship programs. | | | |
| ***Objective:*** | | | |
| *(4) Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Support the development of island-wide historic, archaeological, and cultural resources inventories.* | **X** | | |
| *(b) Promote the rehabilitation and adaptive reuse of historic sites, buildings, and structures to perpetuate a traditional sense of place.* | **X** | | |
| *(c) Identify a sustainable rate of use and set forth specific policies to protect cultural resources.* | **X** | | |
| *(d) Protect and preserve lands that are culturally or historically significant.* | **X** | | |
| *(e) Support programs that protect, record, restore, maintain, provide education about, and interpret cultural districts, landscapes, sites, and artifacts in both natural and museum settings.* | **X** | | |
| *(f) Perpetuate the authentic character and historic integrity of rural communities and small towns.* | | | **X** |
| *(g) Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.* | **X** | | |
| *(h) Support the development of an Archaeological District Ordinance.* | | | **X** |
| *(i) Protect summits, slopes, and ridgelines from inappropriate development.* | | | **X** |
| *(j) Support the registering of important historic sites on the State and Federal historic registers.* | | | **X** |
| *(k) Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.* | **X** | | |
| *(l) Foster partnerships to identify and preserve or revitalize historic and cultural sites.* | **X** | | |

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|---|---|---|---|
| ***Implementing Actions:*** | | | |
| *(a) Identify, develop, map, and maintain an inventory of locally significant natural. cultural, and historical resources for protection.* | **X** | | |
| *(b) Prepare, continually update, and implement a cultural-management plan for cultural sites, districts, and landscapes, where appropriate.* | **X** | | |
| *(c) Enact an Archaeological District Ordinance.* | | | **X** |
| *(d) Nominate important historic sites to the State and Federal historic registers.* | | | **X** |

**Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for ~~15~~ 16 sites. Data recovery is recommended for 18 sites. No further work is recommended for ~~seven~~ six sites.

As discussed in Section 4.2 (Cultural Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/ mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones.

The CRPP: 1) was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals; 2) will be submitted to SHPD and OHA for review and recommendations; and 3) will be provided to the Maui County Cultural Resources Commission for review and adoption after receipt of comments and recommendations from SHPD and OHA.

Through this collaborative process the CRPP will be refined to provide additional information including: 1) the nature of access to religious, ceremonial, and confirmed burial sites; 2) determination of appropriate traditional protocols and practices; and 3) establishment of educational and community stewardship programs.

In addition, Honuaʻula 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 sites such as walls, platforms, pavements and mounds, or 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. The contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

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|---|---|---|---|
| The Honua'ula Property has been designated "Project District 9" in the *Kīhei Mākena Community Plan* for ~~over 18~~ 20 years. As planned, Honua'ula is consistent with the residential, recreational, and commercial uses envisioned for the Property in the *Kīhei-Mākena Community Plan* and will reflect community values to provide an interesting, unique community in context with the Kīhei-Mākena region. 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 generations. | | | |
| **C. IMPROVE EDUCATION** | | | |
| ***Goal:*** *Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.* | | | |
| ***Objective:*** | | | |
| *(1) Encourage the State to attract and retain school administrators and educators of the highest quality.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Encourage the State to provide teachers with nationally competitive pay and benefit packages.* | | | **X** |
| *(b) Encourage the State to ensure teachers will have the teaching tools and support staff needed to provide students with an excellent education.* | | | **X** |
| *(c) Explore Maui County district- and school-based decision making in public education.* | | | **X** |
| **Discussion:** Honua'ula will not directly establish education programs, and therefore this objective and these policies are not directly applicable. However, as discussed in Section 4.10.1 (Schools), to help address the need for funding of school improvements, Honua'ula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the projected 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honua'ula Partners, LLC will pay the DOE at least $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. | | | |
| ***Objective:*** | | | |
| *(2) Provide nurturing learning environments that build skills for the 21st century.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Expand professional-development opportunities in disciplines that support the economic-development goals of Maui County.* | | | **X** |
| *(b) Plan for demographic, social, and technological changes in a timely manner.* | **X** | | |
| *(c) Encourage collaborative partnerships to improve conditions of learning environments.* | | | **X** |
| *(d) Promote development of neighborhood schools and educational centers.* | | | **X** |
| *(e) Integrate schools, community parks, and playgrounds, and expand each community's use of these facilities.* | **X** | | |

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|---|---|---|---|
| *(f) Support coordination between land use and school-facility planning agencies.* | | | **X** |
| *(g) Encourage the upgrade and ongoing maintenance of public-school facilities.* | | | **X** |
| *(h) Encourage the State Department of Education to seek reliable, innovative, and alternative methods to support a level of per-pupil funding that places Hawai'i among the top tier of states nationally for its financial support of public schools.* | | | **X** |
| *(i) Encourage the State to promote healthier, more productive learning environments, including by providing healthy meals, more physical activity, natural lighting, and passive cooling.* | | | **X** |
| *(j) Encourage the State to support the development of benchmarks to measure the success of Hawaiʻi's public-education system and clarify lines of accountability.* | | | **X** |
| *(k) Design school and park facilities in proximity to residential areas.* | **X** | | |
| *(l) Support technology- and natural-environment-based learning.* | | | **X** |
| *(m) Encourage the State to support lower student-teacher ratios in public schools.* | | | **X** |
| *(n) Encourage alternative learning and educational opportunities.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Develop safe walking and bicycling programs for school children.* | **X** | | |

**Discussion:** While Honuaʻula will not directly establish education programs, as discussed in Section 4.10.1 (Schools), to help address the need for funding of school improvements, Honuaʻula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the projected 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honuaʻula Partners, LLC will pay the DOE at least $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.

As discussed in Section 4.9.2 (Population), Honuaʻula will respond to the demand for housing for the growing population in the Kīhei-Mākena region as well as provide opportunities for existing Maui residents wishing to relocate to South Maui to be closer to their jobs. This will have a meaningful positive impact, as it will decrease commuting to and from South Maui, lessen traffic congestion, reduce stress, reduce gasoline consumption, lessen pollution, allow more family and recreation time, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general.

As discussed in Section 2.3 (Honuaʻula Description), Honuaʻula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks. Honuaʻula will contribute to a high quality of life for all Honuaʻula residents. Honuaʻula's inclusionary design provides for a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses, parks, and open space, and integrated bicycle and pedestrian networks. These components combine to form a community that encourages

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| 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.<br><br>As discussed in Section 4.10.5 (Recreational Facilities), Honua'ula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will border the Native Plant Preservation Area; and 3) an 18-hole homeowner's golf course and related recreational facilities.<br><br>To provide the greater community and especially Maui's youth with the opportunity to enjoy recreational benefits of the golf course, in compliance with County of Maui Ordinance No. 3554 (Condition 12), Honua'ula Partners, LLC will: 1) develop an organized instructional program for Maui junior golfers at its golf course facility, including use of the golf course and sponsorship of one Maui Junior Golf fund-raising tournament per year; 2) permit one nonprofit organization per calendar quarter to use the golf course and clubhouse for a fund-raising activity; 3) permit the Maui Interscholastic League and the Hawaii High School Athletic Association to each use the golf course once per year for an official tournament or for regular season Maui Interscholastic League playoffs; and 4) permit Maui residents to play at the golf course on Tuesday of each week at a set discounted rate. | | | |
| ***Objective:*** | | | |
| *(3) Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Encourage the State to improve Maui Community College as a comprehensive community college that will serve each community.* | | | **X** |
| *(b) Broaden the use of technology and telecommunications to improve educational opportunities throughout the County.* | | | **X** |
| *(c) Attract graduate-level research programs and institutions.* | | | **X** |
| *(d) Promote the teaching of traditional practices, including aquaculture; subsistence agriculture; Pacific Island, Asian, and other forms of alternative health practices; and indigenous Hawaiian architecture.* | | | **X** |
| *(e) Integrate cultural and environmental values in education, including self-sufficiency and sustainability.* | | | **X** |
| *(f) Foster a partnership and ongoing dialogue between business organizations, formal educational institutions, and vocational training centers to tailor learning and mentoring programs to County needs.* | | | **X** |
| *(g) Ensure teaching of the arts to all ages.* | | | **X** |
| *(h) Expand and develop vocational learning opportunities by establishing trade schools.* | | | **X** |
| *(i) Encourage the State to integrate financial and economic literacy in elementary, secondary, and higher-education levels.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Encourage the State to establish a four-year university, and support the development* | | | **X** |

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|---|---|---|---|
| *of other higher-education institutions to enable residents to obtain bachelor degrees and postgraduate degrees in Maui County.* | | | |
| **Discussion:** Although Honua'ula will not directly establish education programs, Honua'ula will provide educational opportunities that further this objective by: 1) supporting the Maui Junior Golf program's use the Honua'ula golf course; 2) providing access to the Native Plant Preservation Area 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; and 3) establishing educational and community stewardship programs regarding archaeological and cultural resources as will be detailed in the final the CRPP. | | | |
| ***Objective:*** | | | |
| *(4) Maximize community-based educational opportunities.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Encourage the State and others to expand pre-school, after-school, and homebased (parent-child) learning.* | | | **X** |
| *(b) Support public-private partnerships to develop youth-internship, -apprenticeship, and -mentoring programs.* | **X** | | |
| *(c) Support the development of a wide range of informal educational and cultural programs for all residents.* | **X** | | |
| *(d) Improve partnerships that utilize the skills and talents at Hawai'i's colleges and universities to benefit the County.* | | | **X** |
| *(e) Support career-development and job-recruitment programs and centers.* | | | **X** |
| *(f) Attract learning institutions and specialty schools to diversify and enhance educational opportunities.* | | | **X** |
| *(g) Expand education of important life skills for the general public.* | | | **X** |
| *(h) Support community facilities such as museums, libraries, nature centers, and open spaces that provide interactive-learning opportunities for all ages.* | | | **X** |
| **Discussion:** Honua'ula will provide educational opportunities by: 1) supporting the Maui Junior Golf program's use the Honua'ula golf course; 2) providing access to the Native Plant Preservation Area 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; and 3) establishing educational and community stewardship programs regarding archaeological and cultural resources as will be detailed in the final the CRPP. | | | |
| **D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES** | | | |
| ***Goal:*** *Health and social services in Maui County will fully and comprehensively serve all segments of the population.* | | | |
| ***Objective:*** | | | |
| *(1) In cooperation with the Federal and State governments and nonprofit agencies, broaden access to social and healthcare services and expand options to improve the overall wellness of the people of Maui County.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Work with other levels of government and the nonprofit sector to expand services to* | | | **X** |

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|---|---|---|---|
| *address hunger, homelessness, and poverty.* | | | |
| *(b) Support the improvement of opportunities for disadvantaged youth, encourage the tradition of hanai relatives, and support expanded opportunities for foster care.* | | | **X** |
| *(c) Support expanded long-term-care options, both in institutions and at home, for patients requiring ongoing assistance and medical attention.* | | | **X** |
| *(d) Encourage the expansion and improvement of local hospitals, facilitate the establishment of new healthcare facilities, and facilitate prompt and high-quality emergency- and urgent-care services for all.* | | | **X** |
| *(e) Support broadened access to affordable health insurance and health care, and recognize the unique economic challenges posed to families when healthcare services are provided off-island.* | | | **X** |
| *(f) Encourage equal access to social and healthcare services through both technological and traditional means.* | | | **X** |
| **Discussion:** Honua'ula does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, as discussed in Section 4.10.4 (Medical), Honua'ula's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Honua'ula to serve the community and neighboring areas. | | | |
| ***Objective:*** | | | |
| *(2) Encourage the Federal and State governments and the private sector to improve the quality and delivery of social and healthcare services.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Strengthen partnerships with government, nonprofit, and private organizations to provide funding and to improve counseling and other assistance to address substance abuse, domestic violence, and other pressing social challenges.* | | | **X** |
| *(b) Encourage the State to improve the quality of medical personnel, facilities, services, and equipment.* | | | **X** |
| *(c) Encourage investment to improve the recruitment of medical professionals and the quality of medical facilities and equipment throughout Maui County.* | | | **X** |
| *(d) Promote the development of continuum-of-care facilities that provide assisted living, hospice, home-care, and skilled-nursing options allowing the individual to be cared for in a manner congruent with his or her needs and desires.* | | | **X** |
| *(e) Support improved social, healthcare, and governmental services for special needs populations.* | | | **X** |
| *(f) Plan for the needs of an aging population and the resulting impacts on social services, housing, and healthcare delivery.* | | | **X** |
| *(g) Improve coordination among the police, the courts, and the public in the administration of social and healthcare services.* | | | **X** |
| *(h) Support programs that address needs of veterans.* | | | **X** |
| *(i) Support programs that address the needs of immigrants.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Invest in programs designed to improve the general welfare and quality of life of Native Hawaiians.* | | | **X** |
| *(b) Assist and facilitate the State Department of Public Safety and others in efforts to strengthen programs and facilities that will improve the mental and social health of incarcerated people and assist in prison inmates' successful transition back into Maui County communities.* | | | **X** |

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|---|---|---|---|
| *(c) Develop and maintain a comprehensive index that will measure the health and wellness needs of families.* | | | **X** |
| *(d) Provide heliports countywide for emergency health and safety purposes.* | | | **X** |
| **Discussion:** Honua'ula does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, as discussed in Section 4.10.4 (Medical), Honua'ula's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Honua'ula to serve the community and neighboring areas. | | | |
| ***Objective:*** | | | |
| *(3) Strengthen public-awareness programs related to healthy lifestyles and social and medical services.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Expand public awareness about personal safety and crime prevention.* | | | **X** |
| *(b) Encourage residents to pursue education and training for careers in the healthcare, social services, and community-development fields.* | | | **X** |
| *(c) Expand public awareness and promote programs to achieve healthy eating habits and drug-free lifestyles.* | | | **X** |
| **Discussion:** Honua'ula does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, Honua'ula will promote healthy lifestyles by: 1) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community; 2) providing homes near regional employment centers, thereby decreasing commuting time and increasing quality of life and environmental stewardship; and 3) providing parks and other recreational amenities, such as the golf course. | | | |
| **E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS** | | | |
| ***Goal:*** *Quality, island-appropriate housing will be available to all residents.* | | | |
| ***Objective:*** | | | |
| *(1) Reduce the affordable housing deficit for residents.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Ensure that an adequate and permanent supply of affordable housing, both new and existing units, is made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.* | **X** | | |
| *(b) Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.* | **X** | | |
| *(c) Seek innovative methods to secure land for the development of low- and moderate-income housing.* | **X** | | |
| *(d) Provide the homeless population with emergency and transitional shelter and other supportive programs.* | | | **X** |
| *(e) Provide for a range of senior-citizen and special needs housing choices on each island that affordably facilitates a continuum of care and services.* | | | **X** |

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| *(f) Support the Department of Hawaiian Home Lands' development of homestead lands.* | | | **X** |
| *(g) Manage property-tax burdens to protect affordable resident homeownership.* | | | **X** |
| *(h) Explore taxation mechanisms to increase and maintain access to affordable housing.* | | | **X** |
| *(i) Improve awareness regarding available affordable homeowner's insurance.* | | | **X** |
| *(j) Redevelop commercial areas with a mixture of affordable residential and business uses, where appropriate.* | | | **X** |
| *(k) Ensure residents are given priority to obtain affordable housing units developed in their communities, consistent with all applicable regulations.* | **X** | | |
| *(l) Establish pricing for affordable housing that is more reflective of Maui County's workforce than the United States Housing and Urban Development's median-income estimates for Maui County.* | | | **X** |
| *(m) Develop neighborhoods with a mixture of accessible and integrated community facilities and services.* | **X** | | |
| *(n) Provide alternative regulatory frameworks to facilitate the use of Kuleana lands by the descendants of Native Hawaiians who received those lands pursuant to the Kuleana Act of 1850.* | | | **X** |
| *(o) Work with lending institutions to expand housing options and safeguard the financial security of homeowners.* | | | **X** |
| *(p) Promote the use of the community land trust model and other land-lease and land-financing options.* | | | **X** |
| *(q) Support the opportunity to age in place by providing accessible and appropriately designed residential units.* | **X** | | |
| **Discussion:** Honuaʻula will offer a mix of single-family and multifamily housing types for a range of consumer groups and will emphasize community development with single-family and multi-family units complemented with village-mixed uses primarily serving the residents of the community. As part of the mix of housing types, Honuaʻula will include a significant number of workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents. | | | |
| ***Objective:*** | | | |
| *(2) Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small town character.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Seek innovative ways to develop 'ohana cottages and accessory-dwelling units as affordable housing.* | | | **X** |
| *(b) Design neighborhoods to foster interaction among neighbors.* | **X** | | |
| *(c) Encourage a mix of social, economic, and age groups within neighborhoods.* | **X** | | |
| *(d) Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.* | **X** | | |
| *(e) Encourage the building industry to use environmentally sustainable materials, technologies, and site planning.* | **X** | | |
| *(f) Develop workforce housing in proximity to job centers and transit facilities.* | **X** | | |

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|---|---|---|---|
| *(g) Provide incentives to developers and owners who incorporate green building practices and energy-efficient technologies into their housing developments.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Revise laws to support neighborhood designs that incorporate a mix of housing types that are appropriate for island living.* | | | **X** |

**Discussion:** As discussed in Section 2.3 (Honuaʻula Description), Honuaʻula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks. Objectives of Honuaʻula include: 1) emphasizing community development and creating a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village-mixed uses primarily serving the residents of the community; and 2) providing homes near regional employment centers, thereby decreasing commuting and increasing quality of life.

Honuaʻula will be in character with surrounding uses and will complement the pattern of development as envisioned in the *Kīhei-Mākena Community Plan* and by the County zoning of the Property. Design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land.

As discussed in Section 4.9.3 (Housing), as part of the mix of housing types, Honuaʻula will include a significant number of workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.

As discussed in Section 4.8.6 (Electrical System), Honuaʻula is committed to limiting energy consumption. Honuaʻula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. All homes (single-family and multifamily) will be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system and other energy-saving concepts and devices will be encouraged in the design of Honuaʻula. Design standards will specify low-impact lighting and encourage energy-efficient building design and site development practices.

| | | | |
|---|---|---|---|
| ***Objective:*** | | | |
| *(3) Increase and maintain the affordable housing inventory.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Recognize housing as a basic human need, and work to fulfill that need.* | **X** | | |
| *(b) Prioritize available infrastructure capacity for affordable housing.* | **X** | | |
| *(c) Improve communication, collaboration, and coordination among housing providers and social-service organizations.* | | | **X** |

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|---|---|---|---|
| *(d) Study future projected housing needs, monitor economic cycles, and prepare for future conditions on each island.* | | | **X** |
| *(e) Develop public-private and nonprofit partnerships that facilitate the construction of quality affordable housing.* | **X** | | |
| *(f) Streamline the review process for high-quality, affordable housing developments that implement the goals, objectives, and policies of the General Plan.* | | | **X** |
| *(g) Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.* | **X** | | |
| *(h) Encourage long-term residential use of existing and future housing to meet residential needs.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop policies to even out the peaks and valleys in Maui County's construction-demand cycles.* | | | **X** |

**Discussion:** As discussed in Section 4.9.3 (Housing), Honuaʻula will help to satisfy the housing demand of a growing population by providing homes in the Kīhei-Mākena region. Objectives of Honuaʻula include: 1) emphasizing community development and creating a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community; and 2) providing homes near regional employment centers, thereby decreasing commuting and increasing quality of life.

Honuaʻula will include workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.

The Honuaʻula Property has been designated "Project District 9" in the *Kīhei Mākena Community Plan* for over 18 years. 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. As planned, Honuaʻula is consistent with the goals, objectives, and policies of the *Kīhei-Mākena Community Plan* and will reflect community values to provide an interesting, unique community in context with the Kīhei-Mākena region. 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 Honuaʻula residents with a distinctive home for generations.

Honuaʻula will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified under the LSB classification system and is not classified under the ALISH classification system, indicating that the Property is not agriculturally significant.

| ***Objective:*** | | | |
|---|---|---|---|
| *(4) Expand access to education related to housing options, homeownership, financing,* | | | **X** |

| **COUNTYWIDE POLICY PLAN**<br>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable) | **S** | **N/S** | **N/A** |
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| *and residential construction.* | | | |
| ***Policies:*** | | | |
| *(a) Broaden access to information about County, State, and Federal programs that provide financial assistance to renters and home buyers.* | | | **X** |
| *(b) Expand access to information about opportunities for homeownership and self-help housing.* | | | **X** |
| *(c) Educate residents about making housing choices that support their individual needs, the needs of their communities, and the health of the islands' natural systems.* | | | **X** |
| *(d) Improve home buyers' education on all aspects of homeownership.* | | | **X** |
| **Discussion:** Honua'ula does not directly expand access to education with regard to housing options, homeownership, financing and residential construction; therefore, this objective and these policies are not applicable. | | | |
| **F. STRENGTHEN THE LOCAL ECONOMY** | | | |
| ***Goal:*** *Maui County's economy will be diverse, sustainable, and supportive of community values.* | | | |
| ***Objective:*** | | | |
| *(1) Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Support economic decisions that create long-term benefits.* | **X** | | |
| *(b) Promote lifelong education, career development, and technical training for existing and emerging industries.* | | | **X** |
| *(c) Invest in infrastructure, facilities, and programs that foster economic diversification.* | **X** | | |
| *(d) Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.* | **X** | | |
| *(e) Support programs that assist industries to retain and attract more local labor and facilitate the creation of jobs that offer a living wage.* | **X** | | |
| *(f) Encourage work environments that are safe, rewarding, and fulfilling to employees.* | **X** | | |
| *(g) Support home-based businesses that are appropriate for and in character with the community.* | **X** | | |
| *(h) Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.* | **X** | | |
| *(i) Foster an understanding of the role of all industries in our economy.* | | | **X** |
| *(j) Support efforts to improve conditions that foster economic vitality in our historic small towns.* | | | **X** |
| *(k) Support and encourage traditional host-culture businesses and indigenous agricultural practices.* | | | **X** |
| *(l) Support public and private entities that assist entrepreneurs in establishing locally operated businesses.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Develop regulations and programs that support opportunities for local merchants, farmers, and small businesses to sell their goods and services directly to the public.* | | | **X** |
| *(b) Monitor the carrying capacity of the islands' social, ecological, and infrastructure systems with respect to the economy.* | **X** | | |
| **Discussion:** Honua'ula is projected to generate approximately $1.2 billion of direct capital investment in the Maui economy over the projected 13-year build-out period. This will | | | |

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result in significant expenditures that will have a substantial positive impact on the County of Maui and State of Hawaii economies, on both a direct and indirect basis. By significantly increasing the level of capital investment and capital flow in the region, which will in turn create employment opportunities and widen the tax base, Honua'ula will serve as a compelling economic stimulus for the region. Honua'ula will provide direct employment opportunities for present and future residents of the area and contribute to the stability, diversity, and growth of local and regional economies.

The approximately $1.2 billion of direct capital investment that Honua'ula is projected to generate in the Maui economy includes investment in on-site infrastructure, home construction, golf course construction, and commercial building construction. A total of approximately 9,537 "worker years[17]" of direct on-site employment will be created during the projected 13-year construction and sales period: including direct construction-related jobs, on-site business operation and maintenance positions, and off-site/direct worker-year requirements. After completion, Honua'ula is projected to generate 518 permanent full-time equivalent jobs—382 directly related to on-site activities and 136 indirect jobs throughout the island.

Employee wages of approximately $480 million are projected to be paid out during the projected 13-year build-out period. On a stabilized basis after construction is completed, golf course and commercial operations, maintenance, and other on- and off-site positions are projected to earn approximately $19 million in wages each year.

Discretionary expenditures made by Honua'ula residents and guests during the projected 13-year build-out period are expected to total $513.9 million, or nearly $40 million annually. After the build-out period, discretionary expenditures are expected to stabilize at approximately $77 million annually. The household income of full-time residents is forecast to total approximately $497 million over the build-out period and stabilize at $68.9 million per year after build-out.

The gross taxable operating economic activity generated from on-site operations (which include commercial operations, golf course operations, maintenance, landscaping, and renovations) is estimated to total approximately $383.7 million during the build-out period. After the build-out period, annual operating economic activity is estimated to be approximately $96.9 million.

The overall statewide economic impact over the projected 13-year build-out period is estimated to total approximately $3.2 billion. This includes direct capital investment,

[17] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

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| contractors' and suppliers' profits, employee wages, resident income and expenditures, and operating economic activity. On a stabilized basis after build-out, the overall economic impact of Honuaʻula is estimated to be approximately $290.5 million annually. The expenditure of these funds into the island and state economies will create hundreds of additional off-site, secondary, and indirect jobs on Maui and statewide.<br><br>Fiscal and economic impacts from the short-term construction and long-term operation of Honuaʻula are expected to directly benefit the State of Hawaiʻi and County of Maui through four major sources: 1) real property taxes; 2) gross excise tax receipts; 3) state income taxes; and 4) development fees.<br><br>As projected, the County of Maui will enjoy a net revenue benefit (taxes less costs) totaling approximately $41.8 million during the projected 13-year construction period, and $1.6 million each year after build-out. It is projected that the State of Hawaiʻi will show a similar positive net revenue benefit from Honuaʻula, with a projected net profit of approximately $97 million in the projected 13-year build-out period and a stabilized benefit of approximately $1.5 million per year after build-out.<br><br>In addition to State and County taxes, Honuaʻula will also pay specific development fees in compliance with County of Maui Ordinance No. 3554, including traffic improvement fees, park assessment fees, and school impact fees. Together, these fees are at least $25,240 per residential unit and total over $29 million. In addition to the foregoing, Honuaʻula Partners, LLC will also:<br><br>• Pay not less than $5 million to the County for the development of the South Maui Community Park in-lieu of dedicating a Little League Field within Honuaʻula (Condition 10)<br>• Contribute $550,000 to the County for the development of the new Kīhei District Police Station in South Maui (Condition 24)<br>• Provide the County two acres of land with direct access to the Piʻilani Highway extension for the development of a fire station (Condition 24).<br><br>In addition, Honuaʻula's VMX district is envisioned to include retail spaces which would allow local merchants or small business owners to sell their goods and services directly to the public. | | | |
| ***Objective:*** | | | |
| *(2) Diversify and expand sustainable forms of agriculture and aquaculture.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Support programs that position Maui County's agricultural products as premium export products.* | | | **X** |
| *(b) Prioritize the use of agricultural land to feed the local population, and promote the use of agricultural lands for sustainable and diversified agricultural activities.* | | | **X** |

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| *(c) Capitalize on Hawai'i's economic opportunities in the ecologically sensitive aquaculture industries.* | | | **X** |
| *(d) Assist farmers to help make Maui County more self-sufficient in food production.* | | | **X** |
| *(e) Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.* | | | **X** |
| *(f) Support a tax structure that is conducive to the growth of the agricultural economy.* | | | **X** |
| *(g) Enhance County efforts to monitor and regulate important agricultural issues.* | | | **X** |
| *(h) Support education, research, and facilities that strengthen the agricultural industry.* | | | **X** |
| *(i) Maintain the genetic integrity of existing food crops.* | | | **X** |
| *(j) Encourage healthy and organic farm practices that contribute to land health and regeneration.* | | | **X** |
| *(k) Support cooperatives and other types of nontraditional and communal farming efforts.* | | | **X** |
| *(l) Encourage methods of monitoring and controlling genetically modified crops to prevent adverse effects.* | | | **X** |
| *(m) Work with the State to ease the permitting process for the revitalization of traditional fish ponds.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Redirect efforts in the Office of Economic Development to further facilitate the development of the agricultural section and to monitor agricultural legislation and issues.* | | | **X** |
| *(b) Publicly identify, with signage and other means, the field locations of all genetically modified crops.* | | | **X** |
| *(c) Create agricultural parks in areas distant from genetically modified crops.* | | | **X** |
| **Discussion:** Honua'ula will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified under the LSB classification system and is not classified under the ALISH classification system, indicating that the Property is not agriculturally significant. | | | |
| ***Objective:*** | | | |
| *(3) Support a visitor industry that respects the resident culture and the environment.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Promote traditional Hawaiian practices in visitor-related facilities and activities.* | | | **X** |
| *(b) Encourage and educate the visitor industry to be sensitive to island lifestyles and cultural values.* | | | **X** |
| *(c) Encourage a spirit of welcome for residents at visitor facilities, such as by offering kama`aina incentives and discount programs.* | | | **X** |
| *(d) Support the renovation and enhancement of existing visitor facilities.* | | | **X** |
| *(e) Support policies, programs, and a tax structure that redirect the benefits of the visitor industry back into the local community.* | | | **X** |
| *(f) Encourage resident ownership of visitor-related businesses and facilities.* | | | **X** |
| *(g) Develop partnerships to provide educational and training facilities to residents employed in the visitor industry.* | | | **X** |
| *(h) Foster an understanding of local cultures, customs, and etiquette, and emphasize the importance of the Aloha Spirit as a common good for all.* | | | **X** |
| *(i) Support the diversification, development, evolution, and integration of the visitor* | | | **X** |

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|---|---|---|---|
| *industry in a way that is compatible with the traditional, social, economic, spiritual, and environmental values of island residents.* | | | |
| *(j) Improve collaboration between the visitor industry and the other sectors of Maui County's economy.* | | | **X** |
| *(k) Perpetuate an authentic image of the Hawaiian culture and history and an appropriate recognition of the host culture.* | | | **X** |
| *(l) Support the programs and initiatives outlined in the Maui County Tourism Strategic Plan 2006-2015.* | | | **X** |
| *(m) Promote water conservation, beach conservation, and open-space conservation in areas providing services for visitors.* | | | **X** |
| *(n) Recognize the important contributions that the visitor industry makes to the County's economy, and support a healthy and vibrant visitor industry.* | | | **X** |
| **Discussion:** Honuaʻula is not targeting the visitor industry, and transient vacation rentals or time shares will not be allowed within Honuaʻula; therefore, this objective and these policies are not directly applicable. | | | |
| ***Objective:*** | | | |
| *(4) Expand economic sectors that increase living-wage job choices and are compatible with community values.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Support emerging industries, including the following:*<br>*• Health and wellness industry;*<br>*• Sports and recreation industry;*<br>*• Film and entertainment industry;*<br>*• Arts and culture industry;*<br>*• Renewable-energy industry;*<br>*• Research and development industry;*<br>*• High-technology and knowledge-based industries;*<br>*• Education and training industry;*<br>*• Ecotourism industry; and*<br>*• Agritourism industry.* | | | **X** |
| **Discussion:** Honuaʻula is not directly aimed at expanding potential emerging industries that serve to increase and diversify Hawaii's economic base (although Honuaʻula will provide significant positive economic benefits); therefore, this objective and policy are not directly applicable. However, Honuaʻula could indirectly contribute to the health and wellness industry, the sports and recreation industry, the arts and culture industry, and the renewable-energy industry by providing on-site recreational amenities, preserving archaeological and cultural resources, and incorporating energy-saving design in Honuaʻula homes and buildings. | | | |
| **G. IMPROVE PARKS AND PUBLIC FACILITIES** | | | |
| ***Goal:*** *A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.* | | | |
| ***Objective:*** | | | |
| *(1) Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.* | **X** | | |

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| ***Policies:*** | | | |
| *(a) Protect, enhance, and expand access to public shoreline and mountain resources.* | **X** | | |
| *(b) Expand and enhance the network of parks, multi-use paths, and bikeways.* | **X** | | |
| *(c) Assist communities in developing recreational facilities that promote physical fitness.* | **X** | | |
| *(d) Expand venue options for recreation and performances that enrich the lifestyles of Maui County's people.* | **X** | | |
| *(e) Expand affordable recreational and after-school programs for youth.* | **X** | | |
| *(f) Encourage and invest in recreational, social, and leisure activities that bring people together and build community pride.* | **X** | | |
| *(g) Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.* | **X** | | |
| *(h) Expand affordable access to recreational opportunities that support the local lifestyle.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Identify and reserve lands for cemeteries, and preserve existing cemeteries on all islands, appropriately accommodating varying cultural and, faith-based traditions.* | | | **X** |

**Discussion:** Honua'ula will contribute to a high quality of life for all Honua'ula residents. Honua'ula's inclusionary design provides for a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses, parks, and open space, and integrated bicycle and pedestrian networks. These components combine 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.

As discussed Section 4.10.5 (Recreational Facilities), Honua'ula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will border the Native Plant Preservation Area; and 3) an 18-hole homeowner's golf course and related recreational facilities. Honua'ula will also include traditional native Hawaiian mauka-makai access trails across the Property (*ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands)). These trails will follow the Property's natural gulches from mauka to makai.

To provide the greater community the opportunity to enjoy recreational benefits of the golf course, in compliance with County of Maui Ordinance No. 3554 (Condition 12), Honua'ula Partners, LLC will: 1) develop an organized instructional program for Maui junior golfers at its golf course facility, including use of the golf course and sponsorship of one Maui Junior Golf fund-raising tournament per year; 2) permit one nonprofit organization per calendar quarter to use the golf course and clubhouse for a fund-raising activity; 3) permit the Maui Interscholastic League and the Hawaii High School Athletic Association to each use the golf course once per year for an official tournament or for regular season Maui Interscholastic League playoffs; and 4) permit Maui residents to play at the golf course on Tuesday of each week at a set discounted rate.

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| Additionally, in compliance with County of Maui Ordinance No. 3554 (Condition 10), Honua'ula Partners, LLC will pay not less than $5,000,000 to the County upon Project District Phase II approval for the development of the South Maui Community Park. | | | |
| ***Objective:*** | | | |
| *(2) Improve the quality and adequacy of community facilities.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Provide an adequate supply of dedicated shelters and facilities for disaster relief* | | | **X** |
| *(b) Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.* | **X** | | |
| *(c) Ensure that parks and public facilities are safe and adequately equipped for the needs of all ages and physical abilities to the extent reasonable.* | **X** | | |
| *(d) Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.* | **X** | | |
| *(e) Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.* | | | **X** |
| **Discussion:** Honua'ula's open space, parks, conservation areas, bicycle and pedestrian network, and golf course will provide for different recreational needs, significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health. | | | |
| ***Objective:*** | | | |
| *(3) Enhance the funding, management, and planning of public facilities and park lands.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Identify and encourage the establishment of regulated and environmentally sound campgrounds.* | | | **X** |
| *(b) Manage park use and control access to natural resources in order to rest sensitive places and utilize the resources in a sustainable manner.* | **X** | | |
| *(c) Provide public-recreational facilities that are clean and well-maintained.* | **X** | | |
| *(d) Develop partnerships to ensure proper stewardship of the islands' trails, public lands, and access systems.* | **X** | | |
| *(e) Ensure that there is an adequate supply of public restrooms in convenient locations.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Encourage the State to allow for overnight fishing along the shoreline in accordance with management plans and regulations.* | | | **X** |
| *(b) Develop and regularly update functional plans, including those relating to public facilities, parks, and campgrounds.* | | | **X** |
| *(c) Develop and adopt local level-of service standards for public facilities and parks.* | | | **X** |
| *(d) Identify, acquire, and develop lands for parks, civic spaces, and public uses.* | **X** | | |
| **Discussion:** Honua'ula will include: 1) neighborhood parks open to the public but privately maintained; 2) over 12 miles of pedestrian and bike trails along the community's roadways, gulches, and drainage ways, including a scenic trail along portions of the golf course that will link to several other trail segments and a Nature/Cultural trail that will | | | |

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| border the Native Plant Preservation Area and traverse an adjacent Native Plant Conservation Area; and 3) an 18-hole homeowner's golf course and related recreational facilities.<br><br>Additionally, in compliance with County of Maui Ordinance No. 3554 (Condition 10), Honua'ula Partners, LLC will pay not less than $5,000,000 to the County upon Project District Phase II approval for the development of the South Maui Community Park. | | | |
| **H. DIVERSIFY TRANSPORTATION OPTIONS** | | | |
| ***Goal:*** *Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.* | | | |
| ***Objective:*** | | | |
| *(1) Provide an effective, affordable, and convenient ground-transportation system that is environmentally sustainable.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Execute planning strategies to reduce traffic congestion.* | **X** | | |
| *(b) Plan for the efficient relocation of roadways for the public benefit.* | | | **X** |
| *(c) Support the use of alternative roadway designs, such as traffic-calming techniques and modem roundabouts.* | | | **X** |
| *(d) Increase route and mode options in the ground-transportation network.* | **X** | | |
| *(e) Ensure that roadway systems are safe, efficient, and maintained in good condition.* | **X** | | |
| *(f) Preserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.* | | | **X** |
| *(g) Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.* | **X** | | |
| *(h) Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.* | **X** | | |
| *(i) Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.* | **X** | | |
| *(j) Develop and expand an attractive, island-appropriate, and efficient public transportation system.* | | | **X** |
| *(k) Provide and encourage the development of specialized transportation options for the young, the elderly, and persons with disabilities.* | | | **X** |
| *(l) Evaluate all alternatives to preserve quality of life before widening roads.* | | | **X** |
| *(m) Encourage businesses in the promotion of alternative transportation options for resident and visitor use.* | **X** | | |
| *(n) Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Create incentives and implement strategies to reduce visitor dependence on rental cars.* | | | **X** |
| *(b) Establish efficient public-transit routes between employment centers and primary workforce residential areas.* | **X** | | |
| *(c) Create attractive, island-appropriate, conveniently located park-and-ride and ride-share facilities.* | **X** | | |

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**Discussion:** Honuaʻula is part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. An important objective of Honuaʻula is to make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community. Therefore, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services, and it is expected that car trips by Honuaʻula residents onto Piʻilani Highway will be reduced accordingly.

Another objective of Honuaʻula is to provide homes near regional employment centers, thereby decreasing commuting time and increasing quality of life and environmental stewardship. Honuaʻula's workforce affordable homes are expected to appeal to many employees working in the nearby Wailea and Mākena resorts. Providing the opportunity for workers to afford a home near their jobs is expected to decrease commuting to and from other parts of Maui, lessen traffic congestion, reduce stress, allow more family and recreation time, lessen pollution, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general. Providing homes near employment also allows workers more transportation options to get to work, such as walking and bicycling, and makes public transportation more feasible by clustering populations and destinations within a defined area along a practical route.

As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will widen Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive before the commencement of any construction on the Property, with the exception of grading. Appropriate signage, lighting, storage lanes, traffic signals, and buffers will be provided along this part of Piʻilani Highway, including the following traffic improvements to be completed prior to occupancy of the first units at Honuaʻula:

- Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive (Condition 2c)[18]
- Signalize the Piʻilani Highway/Wailea Ike Drive intersection and provide a right-turn lane from Piʻilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway (Condition 2d).
- Modify the Piʻilani Highway/Kilohana Drive/Māpu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Māpu Place (Condition 2f).

[18] This condition is also a condition of the Kai Malu project (MF-8). Honuaʻula Partners, LLC and the Kai Malu project (MF-8) developer, A&B Wailea, Inc., will coordinate the installation of the signal as part of the widening Piʻilani Highway.

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|---|---|---|---|
| At or prior to the completion for 50 percent of Honuaʻula, Honuaʻula Partners, LLC will extend Piʻilani Highway south, into Honuaʻula, from Wailea Ike Drive to Kaukahi Street (County of Maui Ordinance No. 3554 Condition 2b).<br><br>Additionally, in accordance with County of Maui Ordinance No. 3554 and before occupancy of any units within Honuaʻula, Honuaʻula Partners, LLC will modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement for northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive (Condition 2e).<br><br>Furthermore, when warranted, Honuaʻula Partners, LLC will also: 1) signalize the Wailea Ike Drive/Kālai Waʻa Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2g); and 2) signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2h).<br><br>The planning and design of the above roadway improvements are being done in close collaboration with the State DOT and the County of Maui. In compliance with County of Maui Ordinance No. 3554 (Condition 18k), Honuaʻula Partners, LLC will consult with the State DOT and the County Department of Public Works to ensure that the proposed roadway improvements meet with their satisfaction.<br><br>The traffic improvements that will be implemented by Honuaʻula Partners, LLC will have a significant positive impact on traffic conditions in the region. Not only will Honuaʻula Partners, LLC provide improvements that are specifically intended to address traffic impacts generated by the Honuaʻula, they will also complete improvements needed to address traffic impacts caused by general regional traffic growth even without Honuaʻula—improvements that are highly unlikely to be realized without Honuaʻula.<br><br>In addition to specific traffic improvements, Honuaʻula Partners, LLC also will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit, in compliance with County of Maui Ordinance No. 3554 (Condition 3). If all Honuaʻula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honuaʻula Partners, LLC will incur for the above regional and Honuaʻula-related traffic improvements.<br><br>Honuaʻula's Transportation Management Plans (TMPs) propose transportation management strategies to reduce: 1) construction-related traffic during the construction of Honuaʻula and the widening of Piʻilani Highway; and 2) dependency on individual vehicles by Honuaʻula residents, employees, and visitors after construction. Among other provisions, the TMPs support the establishment of centrally-located and well-developed park-and-ride facilities, ridesharing, bicycle and pedestrian use, and alternative work schedules. | | | |

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|---|---|---|---|
| ***Objective:*** | | | |
| *(2) Reduce the reliance on the automobile and fossil fuels by encouraging walking, bicycling, and other energy-efficient and safe alternative modes of transportation.* | **X** | | |
| ***Policies:*** | | | |
| *(d) Make walking and bicycling transportation safe and easy between and within communities.* | **X** | | |
| *(e) Require development to be designed with the pedestrian in mind.* | **X** | | |
| *(f) Design new and retrofit existing rights-of-way with adequate sidewalks, bicycle lanes, or separated multi-use transit corridors.* | | | **X** |
| *(g) Support the development of a countywide network of bikeways, equestrian trails, and pedestrian paths.* | **X** | | |
| *(h) Support the reestablishment of traditional trails between communities, to the ocean, and through the mountains for public use.* | **X** | | |
| *(i) Encourage educational programs to increase safety for pedestrians and bicyclists.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Design, build, and modify existing bikeways to improve safety and separation from automobiles.* | | | **X** |
| *(b) Increase enforcement to reduce abuse of bicycle and pedestrian lanes by motorized vehicles.* | | | **X** |
| *(c) Identify non-motorized transportation options as a priority for new sources of funding.* | | | **X** |

**Discussion:** Honua'ula is part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. An important objective of Honua'ula is to make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community. 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. Therefore, unlike residents in conventional residential subdivisions, Honua'ula residents will not have to drive outside of the community for all of their needs and services, and it is expected that car trips by Honua'ula residents onto Pi'ilani Highway will be reduced.

| | | | |
|---|---|---|---|
| ***Objective:*** | | | |
| *(3) Improve opportunities for affordable, efficient, safe, and reliable air transportation.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Discourage private helicopter and fixed-wing landing sites to mitigate environmental and social impacts.* | | | **X** |
| *(b) Encourage the use of quieter aircraft and noise-abatement procedures for arrivals and departures.* | | | **X** |
| *(c) Encourage the modernization and maintenance of air-transportation facilities for general-aviation activities.* | | | **X** |
| *(d) Encourage a viable and competitive atmosphere for air carriers to expand service and ensure sufficient intra-County flights and affordable fares for consumers.* | | | **X** |

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|---|---|---|---|
| *(e) Continue to support secondary airports, and encourage the State to provide them with adequate funding.* | | | **X** |
| *(f) During Community Plan updates, explore the use of the smaller airports.* | | | **X** |
| *(g) Encourage the State to provide efficient, adequate, and affordable parking and transit connections within and around airports.* | | | **X** |
| **Discussion:** Honua'ula does not include facilities for air transportation; therefore, this objective and these policies are not applicable. | | | |
| ***Objective:*** | | | |
| *(4) Improve opportunities for affordable, efficient, safe, and reliable ocean transportation.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Support programs and regulations that reduce the disposal of maritime waste and prevent spills into the ocean.* | | | **X** |
| *(b) Encourage the upgrading of harbors to resist damage from natural hazards and disasters.* | | | **X** |
| *(c) Encourage the State to study the use of existing harbors and set priorities for future use.* | | | **X** |
| *(d) Explore all options to protect the traditional recreational uses of harbors, and mitigate harbor-upgrade impacts to recreational uses where feasible.* | | | **X** |
| *(e) Encourage the upgrading of harbors and the separation of cargo and bulk materials from passenger and recreational uses.* | | | **X** |
| *(f) Encourage the State to provide for improved capacity at shipping, docking, and storage facilities.* | | | **X** |
| *(g) Encourage the State to provide adequate parking facilities and transit connections within and around harbor areas.* | | | **X** |
| *(h) Encourage the redevelopment and revitalization of harbors while preserving historic and cultural assets in harbor districts.* | | | **X** |
| *(i) Encourage the State to provide adequate facilities for small-boat operations, including small-boat launch ramps, according to community needs.* | | | **X** |
| *(j) Support the maintenance and cleanliness of harbor facilities.* | | | **X** |
| *(k) Support the redevelopment of harbors as pedestrian-oriented gathering places.* | | | **X** |
| **Discussion:** Honua'ula is not located on the coastline and does not include facilities for ocean transportation; therefore, this objective and these policies regarding ocean transportation are not applicable. | | | |
| ***Objective:*** | | | |
| *(5) Improve and expand the planning and management of transportation systems.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Encourage progressive community design and development that will reduce transportation trips.* | **X** | | |
| *(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.* | **X** | | |
| *(c) Establish appropriate user fees for private enterprises that utilize public transportation facilities for recreational purposes.* | | | **X** |
| *(d) Support the revision of roadway-design criteria and standards so that roads are* | | | **X** |

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|---|---|---|---|
| *compatible with surrounding neighborhoods and the character of rural areas.* | | | |
| *(e) Plan for multi-modal transportation and utility corridors on each island.* | | | **X** |
| *(f) Support designing all transportation facilities, including airport, harbor, and mass-transit stations, to reflect Hawaiian architecture.* | | | **X** |
| *(g) Utilize transportation-demand management as an integral part of transportation planning.* | **X** | | |
| *(h) Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.* | **X** | | |

**Discussion:** Honuaʻula is part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. An important objective of Honuaʻula is to make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community. Therefore, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services, and it is expected that car trips by Honuaʻula residents onto Piʻilani Highway will be reduced accordingly.

Another objective of Honuaʻula is to provide homes near regional employment centers, thereby decreasing commuting time and increasing quality of life and environmental stewardship. Honuaʻula's workforce affordable homes are expected to appeal to many employees working in the nearby Wailea and Mākena resorts. Providing the opportunity for workers to afford a home near their jobs is expected to decrease commuting to and from other parts of Maui, lessen traffic congestion, reduce stress, allow more family and recreation time, lessen pollution, and improve overall quality of life for not only Honuaʻula residents, but for Maui residents in general. Providing homes near employment also allows workers more transportation options to get to work, such as walking and bicycling, and makes public transportation more feasible by clustering populations and destinations within a defined area along a practical route.

As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will widen Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive before the commencement of any construction on the Property, with the exception of grading. Appropriate signage, lighting, storage lanes, traffic signals, and buffers will be provided along this part of Piʻilani Highway, including the following traffic improvements to be completed prior to occupancy of the first units at Honuaʻula:

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- Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive (Condition 2c)[19]
- Signalize the Piʻilani Highway/Wailea Ike Drive intersection and provide a right-turn lane from Piʻilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway (Condition 2d).
- Modify the Piʻilani Highway/Kilohana Drive/Māpu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Māpu Place (Condition 2f).

At or prior to the completion for 50 percent of Honuaʻula, Honuaʻula Partners, LLC will extend Piʻilani Highway south, into Honuaʻula, from Wailea Ike Drive to Kaukahi Street (County of Maui Ordinance No. 3554 Condition 2b).

Additionally, in accordance with County of Maui Ordinance No. 3554 and before occupancy of any units within Honuaʻula, Honuaʻula Partners, LLC will modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement for northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive (Condition 2e).

Furthermore, when warranted, Honuaʻula Partners, LLC will also: 1) signalize the Wailea Ike Drive/Kālai Waʻa Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2g); and 2) signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2h).

The planning and design of the above roadway improvements are being done in close collaboration with the State DOT and the County of Maui. In compliance with County of Maui Ordinance No. 3554 (Condition 18k), Honuaʻula Partners, LLC will consult with the State DOT and the County Department of Public Works to ensure that the proposed roadway improvements meet with their satisfaction.

The traffic improvements that will be implemented by Honuaʻula Partners, LLC will have a significant positive impact on traffic conditions in the region. Not only will Honuaʻula Partners, LLC provide improvements that are specifically intended to address traffic impacts generated by the Honuaʻula, they will also complete improvements needed to address traffic impacts caused by general regional traffic growth even without Honuaʻula—improvements that are highly unlikely to be realized without Honuaʻula.

[19] This condition is also a condition of the Kai Malu project (MF-8). Honuaʻula Partners, LLC and the Kai Malu project (MF-8) developer, A&B Wailea, Inc., will coordinate the installation of the signal as part of the widening Piʻilani Highway.

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| In further compliance with County of Maui Ordinance No. 3554, Honua'ula Partners, LLC will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit (Condition 3). If all Honua'ula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honua'ula Partners, LLC will incur for providing the above regional and Honua'ula-related traffic improvements.<br><br>Honua'ula's TMPs propose transportation management strategies to reduce: 1) construction-related traffic during the construction of Honua'ula and the widening of Pi'ilani Highway; and 2) dependency on individual vehicles by Honua'ula residents, employees, and visitors after construction. Among other provisions, the TMPs support the establishment of centrally-located and well-developed park-and-ride facilities, ridesharing, bicycle and pedestrian use, and alternative work schedules.<br><br>Honua'ula will provide a buffer along Pi'ilani Highway to mitigate highway noise and to reduce the visual impact of development, as discussed in Section 4.4 (Roadways and Traffic). Additionally, appropriate landscaping will be planted along public rights-of-way, roads and parks consistent with the Maui County Planting Plan. | | | |
| **I. IMPROVE PHYSICAL INFRASTRUCTURE** | | | |
| ***Goal:*** *Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.* | | | |
| ***Objective:*** | | | |
| *(1) Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.* | X | | |
| ***Policies:*** | | | |
| *(a) Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.* | X | | |
| *(b) Develop and fund improved water-delivery systems.* | X | | |
| *(c) Ensure a reliable and affordable supply of water for productive agricultural uses.* | | | X |
| *(d) Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require potable water.* | X | | |
| *(e) Retain and expand public control and ownership of water resources and delivery systems.* | | | X |
| *(f) Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.* | X | | |
| *(g) Explore and promote alternative water-source-development methods.* | | | X |
| *(h) Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.* | X | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop a process to review all applications for desalination.* | | | X |
| **Discussion:** As discussed in Section 4.8.1 (Water System), Honua'ula will include a private water system providing both potable and non-potable water for use within Honua'ula. Non-potable water will be used for all irrigation purposes. The water system will include | | | |

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|---|---|---|---|
| source, storage facilities, and transmission lines in accordance with all State and County standards. In addition, water conservation strategies will be implemented to reduce consumption, conserve resources, and minimize water demands. | | | |
| ***Objective:*** | | | |
| *(2) Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Provide sustainable waste-disposal systems and comprehensive, convenient recycling programs to reduce the flow of waste into landfills.* | **X** | | |
| *(b) Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.* | **X** | | |
| *(c) Encourage vendors and owners of automobile, appliance, and white goods to participate in the safe disposal and recycling of such goods, and ensure greater accountability for large waste producers.* | | | **X** |
| *(d) Develop strategies to promote public awareness to reduce pollution and litter, and encourage residents to reduce, reuse, recycle, and compost waste materials.* | **X** | | |
| *(e) Pursue improvements and upgrades to existing wastewater and solid-waste systems consistent with current and future plans and the County's Capital Improvement Program.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Establish recycling, trash-separation, and materials recovery programs and facilities to reduce the flow of waste into landfills.* | **X** | | |
| *(b) Study the feasibility of developing environmentally safe waste-to-energy facilities.* | | | **X** |
| *(c) Utilize taxes and fees as means to encourage conservation and recycling.* | | | **X** |
| *(d) Implement and regularly update the Integrated Solid Waste Management Plan.* | **X** | | |
| *(e) Phase out the use of injection wells.* | **X** | | |
| **Discussion:** As discussed in Section 4.8.5 (Solid Waste), Honua'ula will implement strategies for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Green waste, particularly from the golf course, may be processed on-site and reused.<br><br>As discussed in Section 4.8.2 (Wastewater System), Honua'ula will either participate in the operation of a private WWRF and system that accommodates the needs of Honua'ula (Alternative 1) or provide a WWRF on-site (Alternative 2). R-1 recycled water (reclaimed water) will be used within Honua'ula for golf course irrigation and none of the reclaimed water will be placed into injection wells. | | | |
| ***Objective:*** | | | |
| *(3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Promote the use of locally renewable energy sources, and reward energy efficiency.* | | | **X** |
| *(b) Consider tax incentives and credits for the development of sustainable- and* | | | **X** |

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|---|---|---|---|
| *renewable-energy sources.* | | | |
| *(c) Expand education about energy conservation and self-sufficiency.* | **X** | | |
| *(d) Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.* | | | **X** |
| *(e) Expand renewable-energy production.* | | | **X** |
| *(f) Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.* | | | **X** |
| *(g) Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy efficient urban design guidelines and amendments to the Building Code.* | **X** | | |
| *(h) Encourage the use of sustainable energy to power vehicles.* | | | **X** |
| *(i) Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.* | **X** | | |
| *(j) Encourage green footprint practices.* | **X** | | |
| *(k) Reduce Maui County's dependence on fossil fuels and energy imports.* | **X** | | |
| *(l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.* | **X** | | |
| *(m) Promote and support environmentally friendly practices in all energy sectors.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.* | | | **X** |
| *(b) Adopt a Green Building Code, and support green building practices.* | | | **X** |

**Discussion:** As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and 4.8.5 (Electrical System), Honua'ula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the United States EPA 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. Design standards also will specify low-impact lighting and encourage energy-efficient building design and site development practices.

In compliance with County of Maui Ordinance No. 3554 (Condition 30), Honua'ula Partners, LLC will: 1) equip all residential units (single-family and multifamily) 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 unit; and 2) 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.

In addition, by locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honua'ula and, unlike residents in conventional residential subdivisions, Honua'ula residents will not have to drive outside of the community for all of their needs and services. In so doing, Honua'ula will reduce the use and dependence of its residents and guests on non-

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|---|---|---|---|
| renewable energy sources. | | | |
| ***Objective:*** | | | |
| *(4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.* | | | **X** |
| *(b) Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas.* | | | **X** |
| *(c) Utilize appropriate infrastructure technologies in the appropriate locations.* | | | **X** |
| *(d) Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.* | **X** | | |
| *(e) Support catchment systems and on-site wastewater treatment in rural areas and aggregated water and wastewater systems in urban areas if they are appropriately located.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop a streamlining system for urban infill projects.* | | | **X** |
| *(b) Identify appropriate areas for urban expansion of existing towns where infrastructure and public facilities can be provided in a cost-effective manner.* | | | **X** |

**Discussion:** Honuaʻula implements State and County planning policies for the Property that have been thought-out, studied, and advanced for over 20 years. Honuaʻula realizes and supports decisions regarding the use of the Property for residential, recreational, and commercial uses made by the State LUC, the Maui Planning Commission, and the Maui County Council, which were affirmed through a community-based process during the course of the most recent update of the *Kīhei-Mākena Community Plan*. Honuaʻula is also within the "urban growth boundary" of the current Directed Growth Maps of: 1) the Planning Department; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. As such, Honuaʻula realizes the vision for the Property that has been formulated and refined over the course of more than two decades.

As discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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.

As further discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula will provide utilities to meet the needs of the planned community. Honuaʻula will not rely upon or burden any County water system or facilities. Instead, Honuaʻula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honuaʻula. Similarly, Honuaʻula will not rely upon or burden any public wastewater facilities. In compliance with County of Maui Ordinance No. 3554

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| (Condition 17), Honuaʻula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). | | | |
| ***Objective:*** | | | |
| *(5) Improve the planning and management of infrastructure systems.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Provide a reliable and sufficient level of funding to enhance and maintain infrastructure systems.* | **X** | | |
| *(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.* | **X** | | |
| *(c) Improve coordination among infrastructure providers and planning agencies to minimize construction impacts.* | **X** | | |
| *(d) Maintain inventories of infrastructure capacity, and project future infrastructure needs.* | **X** | | |
| *(e) Require social-justice and -equity issues to be considered during the infrastructure-planning process.* | | | **X** |
| *(f) Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.* | **X** | | |
| *(g) Ensure that infrastructure is built concurrent with or prior to development.* | **X** | | |
| *(h) Ensure that basic infrastructure needs can be met during a disaster.* | **X** | | |
| *(i) Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.* | **X** | | |
| *(j) Promote the undergrounding of utility and other distribution lines for health safety, and aesthetic reasons.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop and regularly update functional plans for infrastructure systems.* | | | **X** |
| *(b) Develop, adopt, and regularly update local or community-sensitive level-of service standards for infrastructure systems.* | | | **X** |
| **Discussion:** As discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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.<br><br>As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will widen Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive before the commencement of any construction on the Property, with the exception of grading.<br><br>The planning and design of roadway improvements are being done in close collaboration with the State DOT and the County of Maui. In compliance with County of Maui Ordinance No. 3554 (Condition 18k), Honuaʻula Partners, LLC will consult with the State DOT and the County Department of Public Works to ensure that the proposed roadway improvements meet with their satisfaction. | | | |

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|---|---|---|---|
| In further compliance with County of Maui Ordinance No. 3554 (Condition 3), Honua'ula Partners, LLC will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit. If all Honua'ula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honua'ula Partners, LLC will incur for providing the above regional traffic improvements.<br><br>Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized.<br><br>Pursuant to Honua'ula's zoning conditions under County of Maui Ordinance No. 3554, the timing of the provision of traffic improvements, the payment of school, traffic and park fees, and the contribution of land and funds for fire and police facilities are based primarily upon the timing of the build-out of Honua'ula. This will ensure that the development of Honua'ula is done in a systematic fashion, commensurate with the provision of adequate infrastructure and public facilities and services.<br><br>As discussed in Section 3.4 (Natural Hazards), Honua'ula will not exacerbate any natural hazard conditions. ~~A majority of the~~ The entire Property is ~~located in Flood Zone C~~ designated on the FIRM as Zone X (which is outside of the 500-year flood plain in an area of minimal flooding) and is not in the tsunami evacuation zone. However, to protect against natural hazards, all structures at Honua'ula will be constructed in compliance with requirements of the UBC, and other County, State, and Federal standards. Honua'ula Partners, LLC will also coordinate with the State of Hawai'i Department of Defense, Office of Civil Defense and the County of Hawaii Civil Defense Agency regarding civil defense measures, such as sirens, necessary to serve Honua'ula.<br><br>As discussed in Section 3.4 (Natural Hazards), the creation of Honua'ula will mitigate the potential for wildfires on the Property through its landscape design and plant palette. In large part, vegetative fuel for fires, such as kiawe/buffel grass, will be replaced by buildings and landscaping of the community.<br><br>As discussed in Section 4.10.2 (Police), to help address the need for resources to adequately fund police services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honua'ula Partners, LLC will contribute $550,000 to the County for the development of the new Kīhei District Police station in South Maui, to be paid at the time a contract is entered into for the construction of that police station.<br><br>As discussed in Section 4.10.3 (Fire), to help address the growing need for fire prevention and emergency services, in compliance with County of Maui Ordinance No. 3554 (Condition 24), Honua'ula Partners, LLC will provide the County with two acres of land | | | |

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|---|---|---|---|
| that has direct access to the Pi'ilani Highway extension for the development of fire control facilities within the village mixed-use sub-district. This land will be donated 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.<br><br>As discussed in Section 4.8.6 (Electrical System), all new electrical lines within Honua'ula will be underground, and Honua'ula Partners, LLC proposes to place underground the existing overhead lines that run over the Property in the mauka-makai direction and along the makai boundary. | | | |
| **J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT** | | | |
| ***Goal:*** *Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.* | | | |
| ***Objective:*** | | | |
| *(1) Improve land use management and implement a directed-growth strategy.* | X | | |
| ***Policies:*** | | | |
| *(a) Establish, map, and enforce urban- and rural-growth limits.* | | | X |
| *(b) Direct urban and rural growth to designated areas.* | X | | |
| *(c) Limit the number of visitor-accommodation units and facilities in Community Plan Areas.* | X | | |
| *(d) Maintain a sustainable balance between the resident, part-time resident, and visitor populations.* | X | | |
| *(e) Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.* | X | | |
| *(f) Discourage new entitlements for residential, resort, or commercial development along the shoreline.* | | | X |
| *(g) Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.* | | | X |
| *(h) Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.* | X | | |
| *(i) Establish and maintain permanent open space between communities to protect each community's identity.* | X | | |
| *(j) Support the dedication of land for public uses.* | X | | |
| *(k) Preserve the public's rights of access to and continuous lateral access along all shorelines.* | | | X |
| *(l) Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.* | X | | |
| *(m) Protect summits, slopes, and ridgelines from inappropriate development.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Regularly update urban- and rural-growth boundaries and their maps.* | | | X |
| *(b) Establish transfer and purchase of development rights programs.* | | | X |
| *(c) Develop and adopt a green infrastructure plan.* | | | X |
| *(d) Develop studies to help determine a sustainable social, environmental, and economic carrying capacity for each island* | | | X |
| *(e) Identify and define resort-destination areas.* | | | X |

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|---|---|---|---|

**Discussion:** Honuaʻula implements State and County planning policies for the Property that have been thought-out, studied, and advanced for over 20 years. Honuaʻula realizes and supports decisions regarding the use of the Property for residential, recreational, and commercial uses made by the State LUC, the Maui Planning Commission, and the Maui County Council, which were affirmed through a community-based process during the course of the most recent update of the *Kīhei-Mākena Community Plan*. Honuaʻula is also within the "urban growth boundary" of the current Directed Growth Maps of: 1) the Planning Department; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. As such, Honuaʻula realizes the vision for the Property that has been formulated and refined over the course of more than two decades.

Honuaʻula will complement the pattern of development in the Kīhei-Mākena region in a way that is consistent with the State Land Use Urban designation of the Property and envisioned in the *Kīhei-Mākena Community Plan*.

Key objectives of Honuaʻula include: 1) reflecting community values to create a unique and compelling community in context with the Kīhei-Mākena region; 2) preserving the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas (see Section 3.6 (Botanical Resources)), parks, and open space, as well as through excellence in landscaping and design; 3) integrating natural and human-made boundaries and landmarks to craft a sense of place within a defined community; 4) incorporating and preserving natural and cultural resources; 5) including buffer zones between residential areas and Piʻilani Highway; and 6) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community.

As discussed in Section 4.7 (Visual Resources), Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. The design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land. Honuaʻula also will include landscaped buffer areas along the border with Maui Meadows and along Piʻilani Highway.

As discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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.

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|---|---|---|---|
| ***Objective:*** | | | |
| *(2) Improve planning for and management of agricultural lands and rural areas.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.* | | | **X** |
| *(b) Provide opportunities and incentives for self-sufficient and subsistence homesteads and farms.* | | | **X** |
| *(c) Discourage developing or subdividing agriculturally designated lands when non-agricultural activities would he primary uses.* | | | **X** |
| *(d) Conduct agricultural-development planning to facilitate robust and sustainable agricultural activities.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.* | | | **X** |
| **Discussion:** Honua'ula will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified under the LSB classification system and is not classified under the ALISH classification system, indicating that the Property is not agriculturally significant. | | | |
| ***Objective:*** | | | |
| *(3) Design all developments to be in harmony with the environment and to protect each community's sense of place.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Support and provide incentives for green building practices.* | | | **X** |
| *(b) Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.* | | | **X** |
| *(c) Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.* | **X** | | |
| *(d) Ensure that adequate recreational areas, open spaces, and public-gathering places are provided and maintained in all urban centers and neighborhoods.* | **X** | | |
| *(e) Ensure business districts are distinctive, attractive, and pedestrian-friendly destinations.* | | | **X** |
| *(f) Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.* | **X** | | |
| *(g) Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.* | **X** | | |
| *(h) Ensure better connectivity and linkages between land uses.* | **X** | | |
| *(i) Adequately buffer and mitigate noise and air pollution in mixed-use areas to maintain residential quality of life.* | **X** | | |
| *(j) Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.* | **X** | | |
| *(k) Support small-town revitalization and preservation.* | | | **X** |
| *(l) Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.* | **X** | | |

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|---|---|---|---|
| ***Implementing Actions:*** | | | |
| *(a) Establish design guidelines and standards to enhance urban and rural environments.* | **X** | | |
| *(b) Provide funding for civic-center and civic-space developments.* | | | **X** |
| *(c) Establish and enhance urban forests in neighborhoods and business districts.* | | | **X** |

**Discussion:** As discussed in Section 2.3 (Honuaʻula Description), Honuaʻula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks.

As established in Honuaʻula's Design Guidelines, Honuaʻula will reflect community values and feature distinctive architecture to create an interesting, unique community in context with the Kīhei-Mākena region. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community.

As discussed in Section 4.7 (Visual Resources), Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. The design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land.

Honuaʻula will be in character with surrounding uses and will complement the pattern of development as envisioned in the *Kīhei-Mākena Community Plan* and by the County zoning of the Property. To mitigate environmental conflicts and enhance scenic amenities, Honuaʻula will include buffer areas along the border with Maui Meadows and along Piʻilani Highway. Design objectives of Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land.

Honuaʻula'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.

Honuaʻula will be a complete community with village-mixed use areas comprised of commercial, residential, recreational, and community facilities serving the needs of Honuaʻula residents and guests. Honuaʻula will integrate a system of pedestrian and bike paths along the community's roadways, gulches, and drainage ways. 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.

As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and

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|---|---|---|---|
| 4.8.5 (Electrical System), Honua'ula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the United States EPA 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. | | | |
| ***Objective:*** | | | |
| *(4) Improve and increase efficiency in land use planning and management.* | **X** | | |
| ***Policies:*** | | | |
| *(a) Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.* | **X** | | |
| *(b) Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.* | **X** | | |
| *(c) Encourage public and private partnerships to preserve lands of importance, develop housing, and meet the needs of residents.* | **X** | | |
| *(d) Promote creative subdivision designs that implement best practices in land development, sustainable management of natural and physical resources, increased pedestrian and bicycle functionality and safety, and the principles of livable communities.* | **X** | | |
| *(e) Coordinate with Federal, State, and County officials in order to ensure that land use decisions are consistent with County plans and the vision local populations have for their communities.* | **X** | | |
| *(f) Enable greater public participation in the review of subdivisions.* | **X** | | |
| *(g) Improve land use decision making through the use of land- and geographic information systems.* | **X** | | |
| ***Implementing Actions:*** | | | |
| *(a) Institute a time limit and sunsetting stipulations on development entitlements and their implementation.* | | | **X** |

**Discussion:** As discussed in Section 4.9.1 (Community Character), Honua'ula will complement the pattern of development in the Kīhei-Mākena region in a way that is consistent with the State Land Use Urban designation of the Property and envisioned in the *Kīhei-Mākena Community Plan*. In doing so, Honua'ula will help to satisfy the housing demand of a growing population and provide for a complete and vibrant community.

This EIS assesses the cumulative impact of Honua'ula on natural ecosystems, natural resources, wildlife habitat, and surrounding uses. Specific sections of this EIS address potential impacts on natural ecosystems (see Chapter 3, Description of the Natural Environmental, Potential Impacts, and Mitigation Measures) and Section 7.2 (Cumulative and Secondary Impacts) discusses cumulative impacts.

In the course of planning Honua'ula, since 2001, Honua'ula representatives met with concerned individuals, community organizations, private groups, and Federal, State, and County officials ((see Chapter 8). Through this process, the plan evolved to reflect community values and embrace contemporary "smart growth" planning principles, such

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| as diverse residential opportunities, village mixed uses, and integrated bicycle and pedestrian networks. A significant amount of input was received on community impacts such as water, traffic, parks, and affordable and workforce housing. The input received drove solutions to issues such as private source development, improvements to Pi'ilani Highway in advance of any permits, money to be dedicated to park development in South Maui and workforce housing on site. As more investigation was done on the Property, the plan was further refined to integrate and preserve natural and cultural resources and maintain the physical and historic character of the Property.<br><br>During the County Council hearings for the Honua'ula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions address a wide range of concerns and ensure that any impacts of Honua'ula are mitigated and addressed.<br><br>Prior to the County Council hearings in 2008, the Council's Land Use Committee had held extensive public meetings over the course of 2006 and 2007 to consider the Honua'ula project, including an estimated ten public hearings where public testimony was heard. These meetings/hearings provided significant opportunity for the consideration of public questions and concerns prior to the Council's consideration and approval of the Phase I application. | | | |
| **K. STRIVE FOR GOOD GOVERNANCE** | | | |
| ***Goal:*** *Government services will be transparent, effective, efficient, and responsive to the needs of residents.* | | | |
| ***Objective:*** | | | |
| *(1) Strengthen governmental planning, coordination, consensus building, and decision making.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Plan and prepare for the effects of social, demographic, economic, and environmental shifts.* | | | **X** |
| *(b) Plan for and address the possible implications of Hawaiian sovereignty.* | | | **X** |
| *(c) Encourage collaboration among government agencies to reduce duplication of efforts and promote information availability and exchange.* | | | **X** |
| *(d) Expand opportunities for the County to be involved in and affect State and Federal decision making.* | | | **X** |
| *(e) Plan and prepare for large-scale emergencies and contingencies.* | | | **X** |
| *(f) Improve public awareness about preparing for natural hazards, disasters, and evacuation plans.* | | | **X** |
| *(g) Improve coordination among Federal, State, and County agencies.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Develop policies, regulations, and programs to protect and enhance the unique character and needs of the County's various communities.* | | | **X** |

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|---|---|---|---|
| *(b) Evaluate and if necessary, recommend modifications to the County Charter that could result in a possible change to the form of governance for Maui County.* | | | **X** |
| *(c) Study and evaluate the feasibility and implications of voting in Maui County Council elections.* | | | **X** |
| *(d) Study and evaluate the feasibility of authorizing town governments in Maui County.* | | | **X** |
| **Discussion:** Honua'ula will not directly develop government services; therefore, this objective and these policies are not applicable. However, Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. | | | |
| ***Objective:*** | | | |
| *(2) Promote civic engagement.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Foster consensus building through in-depth, innovative, and accessible public participatory processes.* | **X** | | |
| *(b) Promote and ensure public participation and equal access to government among all citizens.* | | | **X** |
| *(c) Encourage a broad cross-section of residents to volunteer on boards and commissions.* | | | **X** |
| *(d) Encourage the State to improve its community-involvement processes.* | | | **X** |
| *(e) Support community-based decision making.* | | | **X** |
| *(f) Expand advisory functions at the community level.* | | | **X** |
| *(g) Expand opportunities for all members of the public to participate in public meetings and forums.* | **X** | | |
| *(h) Facilitate the community's ability to obtain relevant documentation.* | **X** | | |
| *(i) Increase voter registration and turnout.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Implement two-way communication using audio-visual technology that allows residents to participate in the County's planning processes.* | | | **X** |
| *(b) Ensure and expand the use of online notification of County business and public meetings, and ensure the posting of all County board and commission meeting minutes.* | | | **X** |
| *(c) Explore funding mechanisms to improve participation by volunteers on boards and commissions.* | | | **X** |
| *(d) Develop a project-review process that mandates early and ongoing consultation in and with communities affected by planning and land use activities.* | **X** | | |
| **Discussion:** In the course of planning Honua'ula, since 2001, Honua'ula representatives met with concerned individuals, community organizations, private groups, and Federal, State, and County officials ((see Chapter 8). Through this process, the plan evolved to reflect community values and embrace contemporary "smart growth" planning principles, such as diverse residential opportunities, village mixed uses, and integrated bicycle and | | | |

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|---|---|---|---|
| pedestrian networks. A significant amount of input was received on community impacts such as water, traffic, parks, and affordable and workforce housing. The input received drove solutions to issues such as private source development, improvements to Pi'ilani Highway in advance of any permits, money to be dedicated to park development in South Maui and workforce housing on site. As more investigation was done on the Property, the plan was further refined to integrate and preserve natural and cultural resources and maintain the physical and historic character of the Property.<br><br>During the County Council hearings for the Honua'ula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions address a wide range of concerns and ensure that any impacts of Honua'ula are mitigated and addressed.<br><br>Prior to the County Council hearings in 2008, the Council's Land Use Committee had held extensive public meetings over the course of 2006 and 2007 to consider the Honua'ula project, including an estimated ten public hearings where public testimony was heard. These meetings/hearings provided significant opportunity for the consideration of public questions and concerns prior to the Council's consideration and approval of the Phase I application.<br><br>Further review for Honua'ula will include the review of this EIS and the Project District Phase II public hearings by the Maui Planning Commission. Both of these steps provide for agency and public input and comments, as well as opportunities for the public and decision makers to ask for more information to address any additional concerns that may arise. | | | |
| ***Objective:*** | | | |
| *(3) Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Use advanced technology to improve efficiency.* | | | **X** |
| *(b) Simplify and clarify the permitting process to provide uniformity, reliability, efficiency, and transparency.* | | | **X** |
| *(c) Improve communication with Lana'i and Moloka'i through the expanded use of information technologies, expanded staffing, and the creation and expansion of government-service centers.* | | | **X** |
| *(d) Ensure that laws, policies, and regulations are internally consistent and effectuate the intent of the General Plan.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Update the County Code to be consistent with the General Plan.* | | | **X** |
| *(b) Identify and update County regulations and procedures to increase the productivity and efficiency of County government.* | | | **X** |

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|---|---|---|---|
| *(c) Develop local level-of-service standards for infrastructure, public facilities, and services.* | | | **X** |
| *(d) Implement plans through programs, regulations, and capital improvements in a timely manner.* | | | **X** |
| *(e) Expand government online services.* | | | **X** |
| **Discussion:** Honua'ula will not directly improve government processes, decision making and standards; therefore, this objective and these policies are not applicable. However, Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. | | | |
| ***Objective:*** | | | |
| *(4) Adequately fund in order to effectively administer, implement, and enforce the General Plan.* | | | **X** |
| ***Policies:*** | | | |
| *(a) Adequately fund, staff, and support the timely update and implementation of planning policy, programs, functional plans, and enforcement activities.* | | | **X** |
| *(b) Ensure that the County's General Plan process provides for efficient planning at the County, island, town, and neighborhood level.* | | | **X** |
| *(c) Encourage ongoing professional development, education, and training of County employees.* | | | **X** |
| *(d) Encourage competitive compensation packages for County employees to attract and retain County personnel.* | | | **X** |
| *(e) Enable the County government to be more responsive in implementing our General Plan and Community Plans.* | | | **X** |
| *(f) Review discretionary permits for compliance with the Countywide Policy Plan.* | | | **X** |
| *(g) Strengthen the enforcement of County, State, and Federal land use laws.* | | | **X** |
| ***Implementing Actions:*** | | | |
| *(a) Establish penalties to ensure compliance with County, State, and Federal land use laws.* | | | **X** |
| **Discussion:** Honua'ula will not directly improve government administration, programs, or plans; therefore, this objective and these policies are not applicable. However, Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. | | | |
| ***Objective:*** | | | |
| *(5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.* | | | **X** |
| ***Policies:*** | | | |

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|---|---|---|---|
| *(a) Educate residents on the benefits of sustainable practices.* | | | **X** |
| *(b) Encourage the retention and hiring of qualified professionals who can improve cultural and environmental practices.* | | | **X** |
| *(c) Incorporate environmentally sound and culturally appropriate practices in government operations and services.* | | | **X** |
| *(d) Encourage all vendors with County contracts to incorporate environmentally sound and culturally appropriate practices.* | | | **X** |
| **Discussion:** Honua'ula will not directly improve government policies and practices; therefore, this objective and these policies are not applicable. However, Honua'ula will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. | | | |

### 5.2.2 Kīhei-Mākena Community Plan

The *Kīhei-Mākena Community Plan* is one of nine community plans developed to address 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 are discussed below.

| **KĪHEI-MĀKENA COMMUNITY PLAN (1998)** | **S** | **N/S** | **N/A** |
|---|---|---|---|
| **LAND USE** | | | |
| ***Goal:***<br>*A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of infrastructural and community needs while preserving and enhancing the unique character of Ma'alaea, Kihei, Wailea and Makena as well as the region's natural environment, marine resources and traditional shoreline uses.* | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Acquire beachfront properties for public use.* | | | **X** |
| *(b) Identify priority growth areas to focus public and private efforts on the provision of infrastructure and amenities to serve existing residents and to accommodate new growth.* | **X** | | |
| *(c) Upon adoption of this plan, allow no further development unless infrastructure, public facilities, and services needed to service new development are available prior to or concurrent with the impacts of new development.* | **X** | | |
| *(d) Limit hotel uses to those areas presently planned for hotel use, and limit hotel development until adequate public facilities and services are established to meet existing needs.* | **X** | | |
| *(e) Establish a system of parks, utility easements, shoreline areas, drainageways and wetlands as an open space framework for the urban areas of the region, i.e. where structures exist or are planned to exist, and provide an integrated system of pedestrian and bicycle paths.* | **X** | | |
| *(f) Establish a distribution of land uses which provides housing, jobs, shopping, open space, and recreation areas in close proximity to each other in order to enhance* | **X** | | |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
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| *Kihei's neighborhoods and to minimize dependence on automobiles.* | | | |
| *(g) Encourage the establishment of single-family and multi-family land use designations which provide affordable housing opportunities for areas which are in close proximity to infrastructure systems and other urban services.* | X | | |
| *(h) Develop commercial services at the following locations to meet community needs: 1) North Kihei, between the existing South Kihei Road, Pi`ilani Highway and Uwapo Road. 2) A central business and commercial center for Kihei clustered about the South Kihei Road/Road "C" intersection. 3) In existing commercially zoned areas along South Kihei Road in the vicinity of Kalama Park. 4) Along South Kihei Road opposite the Kama'ole beach parks.* | | | X |
| *(i) Limit commercial services to neighborhood business uses or other low-key business activities with a residential scale on those properties which abut single-family residential areas.* | X | | |
| *(j) Locate resort-related retail commercial facilities at strategic points in the Wailea and Makena destination areas.* | X | | |
| *(k) Provide for limited expansion of light industrial services in the area south of Ohukai and mauka of Pi`ilani Highway, as well as limited marine-based industrial services in areas next to Ma`alaea Harbor. Provide for moderate expansion of light industrial use in the Central Maui Baseyard, along Mokulele Highway. These areas should limit retail business or commercial activities to the extent that they are accessory or provide service to the predominate light industrial use. These actions will place industrial use near existing and proposed transportation arteries for the efficient movement of goods.* | | | X |
| *(l) Preserve coastal vistas, open space and recreational opportunities for residents by prohibiting further shoreline development except in places designated on the 1997 community plan land use map, and prohibit future community plan amendments along the shoreline that would increase the intensity of land use, with the exception of land use that is public or quasi-public in nature.* | | | X |
| *(m) Provide for limited residential expansion in Ma'alaea which complements the existing natural and built environment.* | | | X |
| *(n) Maintain State Conservation District boundaries in the planning region. However, State Conservation District reclassification of lands may be warranted to enhance environmental preservation.* | | | X |
| *(o) Establish a site for a future higher educational institution north of the research and technology park project district.* | | | X |
| *(p) Prevent urbanization of important agricultural lands.* | | | X |
| *(q) Allow ohana units only where sufficient infrastructure is available.* | | | X |
| *(r) Allow special permits in the State Agricultural Districts to accommodate unusual yet reasonable uses including: (1) limited agriculturally related commercial, public and quasi-public uses serving the immediate community; (2) uses clearly accessory or subordinate to a principal agricultural use on the property; (3) public facility uses such as utility installations or landfills whose location depends on technical considerations; and (4) extractive industries, such as quarrying, where the operation would not adversely affect the environment or surrounding agricultural uses.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Prepare a prioritized island-wide directed and managed growth strategy to ensure that the location, rate and timing of development is consistent with the provision of infrastructure and public facilities and services.* | X | | |
| *(b) Include conditions of approval for new residential developments requiring that adequate school facilities shall be in place before a certificate of occupancy is issued.* | X | | |

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| *(c) Prepare an Open Space Master Plan for the region to provide a unified system of non-motorized access to community resources, and to provide a planned program of resource stewardship. Establish standards for the use of drainageways, gulches, wetlands, and easements for public access.*<br>*The Open Space Master Plan shall be prepared by partnership between governmental and non-governmental organizations. The plan preparation shall include, but not be limited to, public input and informational workshops; inventory and mapping of cultural, natural, and open space resources; and review of legal options and constraints.*<br><br>*Professional design of the Open Space Master Plan should be funded; and, upon its adoption, the Open Space Master Plan should be incorporated into the Kihei-Makena Community Plan.* | X | | |
| *(d) Control the timing and phasing of project district construction through zoning in order to ensure systematic and incremental development. Such an action shall prevent haphazard development, and ensure that the provision of adequate infrastructure and public facilities and services takes place prior to or concurrent with development.* | X | | |
| *(e) Review, amend and adopt, as appropriate, zoning ordinances and maps to carry out the intent of the land use categories identified in the plan.* | | | X |
| *(f) Establish and enforce building height limits and densities mauka of Piʻilani Highway which preserve significant mauka views and vistas.* | X | | |

**Discussion:** The Honuaʻula Property has been designated as Kīhei-Mākena Project District 9 (Chapter 19.90A, MCC) to establish permissible land uses and appropriate standards of development for a residential community consisting of single-family and multi-family dwellings complemented with village mixed used, all integrated with an 18-hole golf course and other recreational amenities.

As discussed in Section 2.3 (Honuaʻula Description), Honuaʻula will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks.

As established in Honuaʻula's design guidelines, Honuaʻula will reflect community values and feature distinctive architecture to create an interesting, unique community in context with the Kīhei-Mākena region. This cohesive approach will integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community.

As discussed in Section 4.4 (Roadways and Traffic) and 4.8 (Infrastructure and Utilities), Honuaʻula responds to the demand of a growing population for the Kīhei-Mākena region by funding the Piʻilani Highway widening project and other traffic improvements and providing additional infrastructure to meet the needs of Honuaʻula.

Honuaʻula'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

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| and community health.<br><br>Honuaʻula will be a complete community with village-mixed use areas comprised of commercial, residential, recreational, and community facilities serving the needs of Honuaʻula residents and guests. Honuaʻula will integrate a system of pedestrian and bike paths along the community's roadways, gulches, and drainage ways. 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.<br><br>By locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honuaʻula and, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services. Located near the intersection of Piʻilani Highway and Wailea Ike Drive, Honuaʻula's commercial and retail establishments will also help serve the needs of the neighboring Wailea and Mākena destination areas.<br><br>Honuaʻula will help to satisfy housing demand by providing homes in the Kīhei-Mākena region priced for a wide range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). Transient vacation rentals or time shares will not be allowed within Honuaʻula, thereby maintaining a balance between resident and visitor populations.<br><br>As discussed in Section 4.10.1 (Schools), Honuaʻula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the projected 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honuaʻula Partners, LLC will pay the DOE <u>at least</u> $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.<br><br>Pursuant to Honuaʻula's zoning conditions under County of Maui Ordinance No. 3554, the timing of the provision of traffic improvements, the payment of school, traffic and park fees, and the contribution of land and funds for fire and police facilities are based primarily upon the timing of the build-out of Honuaʻula. This will ensure that the creation of Honuaʻula is done in a systematic fashion, commensurate with the provision of adequate infrastructure and public facilities and services.<br><br>Honuaʻula's Project District 9 (Chapter 19.90A, MCC) ordinance establishes maximum building heights and densities that will help preserve significant mauka views and vistas. | | | |

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| **ENVIRONMENT** | | | |
| ***Goal:*** *Preservation, protection, and enhancement of Kihei-Makena's unique and fragile environmental resources.* | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Maintain and enhance the long-term availability of shoreline resources for public enjoyment through adequate access, space, and facility provisions, and through on-going resource management programs.* | | | X |
| *(b) Preserve, protect, and restore unique natural areas with significant conservation values.* | X | | |
| *(c) Require that new shoreline development respect shoreline resources and maintain public access: 1) Existing dune formations are important elements of the natural setting and should remain intact. 2) Indigenous or endemic strand vegetation should remain undisturbed; new development and landscaping should treat such vegetation as given conditions. 3) Planning for new shoreline development, as well as redevelopment, shall consider the cyclic nature of beach processes. Setbacks shall be used to provide a sufficient buffer between the ocean and structures to allow for periodic and long-term accretion and erosion of the shoreline. A Coastal Erosion Rate Analysis shall be developed. The planning commissions are encouraged to incorporate data from the analysis into planning decisions for shoreline areas, especially with respect to shoreline building setbacks. In the interim period prior to the completion of the analysis, the planning commissions are further encouraged to utilize minimum setbacks for multi-family and hotel uses of 150 feet from sandy shorelines, and 75 feet from rocky shorelines, or 25% of the average lot depth, whichever is greater.* *Where shoreline erosion threatens existing structures or facilities, beach replenishment shall be the preferred means of controlling erosion, as opposed to sole reliance on seawalls or other permanent shoreline hardening structures. 4) Storm water run-off from proposed developments shall not adversely affect the marine environment and nearshore and offshore water quality. 5) Planning, design, and layout for new development shall be integrated with public shoreline use and sound principles of resource management.* | | | X |
| *(d) Permit recreational activities in the shoreline zone which respond to shoreline characteristics and principles of sound resource management. Activities which damage or deplete shoreline resources, or are incompatible with ecological systems, shall not be permitted.* | | | X |
| *(e) Protect the quality of nearshore waters by ensuring that land-based discharges meet water quality standards. Continued monitoring of existing and future waste disposal systems is necessary to ensure their efficient operation. Programs should be implemented to reduce the reliance on injection wells for wastewater disposal.* | X | | |
| *(f) Protect all wetland resources, such as those at Kealia Pond and near Road "C". These open space and wildlife habitat resources are important for flood control and for their natural beauty.* | | | X |
| *(g) Require the integration of wetlands and drainageways into an open space, pedestrian pathway, and bikeway system within and around the Lipoa business district.* | | | X |
| *(h) Encourage such land uses as would serve to reduce hazardous fire conditions in the developed community plan areas.* | X | | |
| *(i) Discourage shoreline hardening structures where North Kihei Road abuts the coastline. Instead, use soft approaches such as dune restoration and beach nourishment with or without supporting structures.* | | | X |

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| ***Implementing Actions:*** | | | |
| *(a) Implement programs to reduce the reliance on injection wells for wastewater disposal.* | X | | |
| *(b) Establish and maintain a monitoring program for nearshore waters.* | X | | |
| *(c) Support the development of the Ma`alaea-Kealia bypass highway.* | | | X |
| *(d) Develop a master plan for a recreational coastline access along North Kihei Road once the Ma'alaea-Kealia bypass is planned.* | | | X |
| *(e) Facilitate protection of valuable shoreline resources in the Open Space Master Plan by transferring State Beach Reserves and adjacent undeveloped State-owned lots to County jurisdiction. Prepare and implement a plan for enhancement of these lands to provide stewardship of cultural and natural resources and the fostering of traditional cultural activities.* | | | X |
| *(f) Survey, map, and describe the mauka boundaries of the State Beach Reserves to delineate between public and private property.* | | | X |
| *(g) Partner with the Na Ala Hele, South Maui Heritage Corridor, Kihei 2000, and Bikeways Maui organizations to establish a continuous trail/greenway/bikeway system from Kealia Pond to Kilohana Road, to provide pedestrian lateral accesses to the Kihei-Makena shoreline, and to protect and maintain traditional shoreline access.* | | | X |
| *(h) Initiate a wetlands enhancement project with the Kihei Franks development in coordination with the enhancement of the Countyowned wetland adjacent to Saint Theresa's Church. Include a pedestrian and bikepath to allow school children to access the beach and greenway.* | | | X |
| *(i) Develop and implement a strategy for sand dune protection.* | | | X |
| *(j) New studies should be commissioned that seek to better understand site-specific causes of coastal erosion.* | | | X |
| *(k) Develop and implement a dune restoration project for the beach area along South Kihei Road from the Maui Lu to Suda Store. Such a project may use drift fencing, native vegetation, and dune walkovers in order to restore the sand dunes and prevent sand from blowing onto and across the road.* | | | X |

**Discussion:** As discussed in Sections 3.6 (Botanical Resources) and 3.7 (Wildlife Resources), Honua'ula Partners, LLC will conserve portions of Honua'ula and undertake propagation of selected remnant native dry shrubland plants located on-site. To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a conservation easement and additional ~~native plant conservation~~ ~~and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants. In addition, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit. Further, a *Conservation and Stewardship Plan* sets forth proactive stewardship actions to manage the Native Plant Preservation Area and Native Plant Conservation Areas. Section 3.6 (Botanical Resources) contains the full discussion.

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| Honua'ula is not located on the coastline; therefore, policies regarding shoreline resources are not applicable. Honua'ula, however, will maintain a nearshore water quality monitoring program and will adopt water quality standards that comply with State and Federal regulations regarding wastewater disposal; per County of Maui Ordinance No. 3554 (Condition 17), no reclaimed water from Honua'ula will be placed into injection wells.<br><br>As discussed in Section 4.3 (Trails and Access), Honua'ula will include an integrated system of pedestrian and bike paths along the community's roadways, gulches and drainage ways. This secondary circulation system of linked pedestrian/bike trails will provide another option for traveling within the community.<br><br>As discussed in Section 3.4 (Natural Hazards), the creation of Honua'ula will mitigate the potential for wildfires on the Property through its landscape design and plant palette. In large part, vegetative fuel for fires, such as kiawe/buffel grass, will be replaced by buildings and landscaping of the community. | | | |
| **CULTURAL RESOURCES** | | | |
| ***Goal:***<br>*Identification, preservation, enhancement, and appropriate use of cultural resources, cultural practice, and historic sites that:*<br>*a. provides a sense of history and defines a sense of place for the Kihei- Makena region; and*<br>*b. preserves and protects native Hawaiian rights customarily and traditionally exercised for subsistence, cultural, and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 Haw. 425 (1995).* | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Identify, preserve, protect and restore significant historical and cultural sites.* | X | | |
| *(b) Foster an awareness of the diversity and importance of cultural and archaeological resources and of the history of Kihei-Makena. Promote distinct cultural resources as an identifying characteristic of the region.* | X | | |
| *(c) Encourage and protect traditional mauka and makai accesses, cultural practices and rural lifestyles.* | X | | |
| *(d) Protect those areas, structures and elements that are a significant and functional part of Hawaii's ethnic and cultural heritage.* | X | | |
| *(e) Encourage community stewardship of historic sites.* | X | | |
| *(f) Preserve and restore historical roads and paths as cultural resources, and require such resources to be available to the public.* | X | | |
| *(g) Recognize and respect family ancestral ties to certain sites.* | X | | |
| *(h) Establish "cultural parks" and heritage corridors for visitation and education.* | X | | |
| *(i) Establish cultural and educational programs to perpetuate Hawaiian and other ethnic heritages.* | X | | |
| *(j) Develop a County ordinance for indigenous architecture.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Prepare a Kihei-Makena specific Cultural Resources Management Plan. Use the plan to update the Countywide Cultural Resources Management Plan. Include an inventory of cultural resources and develop strategies for the preservation and enhancement of those resources.* | X | | |

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| *(b) Require development projects to identify all cultural resources located within or adjacent to the project area, prior to application, as part of the County development review process. Further require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources, including site avoidance, adequate buffer areas and interpretation. Particular attention should be directed toward the southern areas of the planning region.* | X | | |
| *(c) Implement a historic or cultural district overlay ordinance to provide protection for areas of significant archaeological, historical and cultural resources. These ordinances should be used at Palauea, Keone'o'io and other significant archaeological complexes in the Honua'ula District of the region.* | | | X |
| *(d) Upon development of Project District 8 (Palauea), the developer shall implement a historic park and interpretative center at Palauea, preserving the Palauea archaeological district and providing interpretation for sites in the Makena-Wailea region.*<br><br>*Permitted uses shall include a cultural preserve/park area which shall be a minimum of at least 20 contiguous acres to protect and preserve known significant archaeological sites, which shall include, but not be limited to, the Palauea village and heiau complex, and the Palauea landing complex. Consideration should also be given to expanding the cultural preserve to include additional newly identified sites. Because of the significance of the sites, the County Cultural Resources Commission shall review all plans for development.*<br>*Because of high public interest and the contiguous nature of the sites, consideration should be given to educational uses of the sites.* | | | X |
| *(e) Formulate and adopt rural and historic district roadway standards for the old Makena Road to promote the maintenance of historic landscapes and streetscapes in character with the region, so long as these standards are for public roadway purposes, and do not obstruct or interfere with the rights of the public for the use and enjoyment of the area. Makena Road shall be kept open for public use.* | | | X |
| *(f) General sites that should be identified for preservation include, but are not limited to, the following:*<br>*1) Ancient Trails/Old Government Roads*<br>*2) Fishponds*<br>*3) Landings*<br>*4) Nearshore marine cultural resources*<br>*5) Significant native vegetation zones*<br>*6) Plantation ditch systems*<br>*7) Religious Structures (shrines, churches & heiau)*<br>*8) Old bridges*<br>*9) Plantation camps*<br>*10) Plantation era structures & homes*<br>*11) Petroglyphs*<br>*12) Burials* | X | | |
| *(g) Important sites and areas in the Kihei-Makena Community Plan region include the following:*<br>*1) Lahaina-Pali Trail*<br>*2) McGregor's Landing*<br>*3) Ma`alaea/McGregor Complex*<br>*4) Ma`alaea Petroglyphs*<br>*5) Kealia Pond*<br>*6) Naval Air Station Pu`unene* | | | X |

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| *7) Kihei Landing*<br>*8) Keolahou Church*<br>*9) Kalepolepo Fishpond*<br>*10) David Malo Church*<br>*11) Waiohuli Kai Fishpond*<br>*12) Ko`a at Waimahaihai, Kama`ole*<br>*13) Kihei Regional Park Complex*<br>*14) Kama`ole House Site*<br>*15) Palauea Complex*<br>*16) Makena Landing Area Sites*<br>*17) Makena Complex*<br>*18) Keawala`i Church*<br>*19) Pu`u Olai*<br>*20) Mo`omuku Ko`a*<br>*21) Kanahena Landing Area*<br>*22) Moanakala Village*<br>*23) Kanahena Point Complex*<br>*24) Kalaeloa Complex*<br>*25) Keone`o`io Village*<br>*26) Hoapili Trail*<br>*27) Keawanaku Complex*<br>*28) Wawaloa Complex*<br>*29) Alaha Complex*<br>*30) Waiakapuhi Complex*<br>*31) Kalulu Complex*<br><br>*The above list is not comprehensive. It represents some of the wellknown sites that are currently listed in the State inventory of Historic Places and on file with the State and National Registers of Historic Places. Many more sites have not been surveyed for historic significance.*<br><br>*A map indicating the general location of these sites is on file with the County's Department of Planning. The said map should be consulted prior to development proposals affecting the above-mentioned areas. Prior to any development approvals, the said map shall be referenced and the comments of the State Historic Preservation Division and the County Cultural Resources Commission shall be sought.* | | | |

**Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), a total of 40 archaeological sites comprised of 60 component features have been recorded within the Property. No burials or human remains have been found. Permanent *in situ* preservation is recommended for 15 sites. Data recovery is recommended for 18 sites. No further work is recommended for seven sites.

As discussed in Section 4.2 (Cultural Resources), in compliance with County of Maui Ordinance No. 3554 (Condition 13), Aki Sinoto Consulting, LLC and Hana Pono, LLC have prepared a CRPP in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various

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| knowledgeable individuals.<br><br>The CRPP incorporates the findings of the archaeological inventory survey and cultural impact assessment report (discussed in Section 4.2) and sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones.<br><br>As discussed in Section 4.3 (Trails and Access), Honuaʻula will include traditional native Hawaiian mauka-makai access trails across the Property (*ala i ke kai* (pathway to the ocean) and the *ala i ke kula* (pathway to the uplands)). These trails will follow the Property's natural gulches from mauka to makai. | | | |
| **ECONOMIC ACTIVITY** | | | |
| ***Goals:***<br>*A diversified and stable economic base which serves resident and visitor needs while providing long-term resident employment.* | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Establish a sustainable rate of economic development consistent with concurrent provision of needed transportation, utilities, and public facilities improvements.* | X | | |
| *(b) Expand educational opportunities and encourage research and technological activities.* | X | | |
| *(c) Encourage research, development, and use of alternate energy sources.* | X | | |
| *(d) Establish balance between visitor industry employment and nonvisitor industry employment.* | X | | |
| *(e) Provide for the preservation and enhancement of important agricultural lands for a variety of agricultural activities, including sugar cane, diversified agriculture and aquaculture.* | | | X |
| *(f) Increase the availability and variety of commercial services to provide for regional needs and strategically establish small scale commercial uses within, or in close proximity to, residential areas.* | X | | |
| ***Implementing Actions:*** | | | |
| *(a) Seek State and private support for the establishment of a four-year university in the Kihei-Makena region.* | | | X |
| *(b) Establish a comprehensive data base to analyze county and regional economic statistics.* | | | X |
| *(c) Where feasible within the region, utilize alternate energy sources in all public structures, and encourage the same in private residences.* | X | | |
| **Discussion:** Honuaʻula is projected to generate approximately $1.2 billion of direct capital investment in the Maui economy over the projected 13-year build-out period. This will result in significant expenditures that will have a substantial positive impact on the County of Maui and State of Hawaii economies, on both a direct and indirect basis. By significantly increasing the level of capital investment and capital flow in the region, which will in turn create employment opportunities and widen the tax base, Honuaʻula will serve as a compelling economic stimulus for the region. Honuaʻula will provide | | | |

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| direct employment opportunities for present and future residents of the area and contribute to the stability, diversity, and growth of local and regional economies.<br><br>The approximately $1.2 billion of direct capital investment that Honuaʻula is projected to generate in the Maui economy includes investment in on-site infrastructure, home construction, golf course construction, and commercial building construction. A total of approximately 9,537 "worker years"[20] of direct on-site employment will be created during the projected 13-year construction and sales period including: direct construction-related jobs, on-site business operation and maintenance positions, and off-site/direct worker-year requirements. After completion, Honuaʻula is projected to generate 518 permanent full-time equivalent jobs—382 directly related to on-site activities and 136 indirect jobs throughout the island.<br><br>Discretionary expenditures made by Honuaʻula residents and guests during the projected 13-year build-out period are expected to total $513.9 million, or nearly $40 million annually. After the build-out period, discretionary expenditures are expected to stabilize at approximately $77 million annually. The household income of full-time residents is forecast to total approximately $497 million over the build-out period and stabilize at $68.9 million per year after build-out.<br><br>The gross taxable operating economic activity generated from on-site operations (which include commercial operations, golf course operations, maintenance, landscaping, and renovations) is estimated to total approximately $383.7 million during the build-out period. After the build-out period, annual operating economic activity is estimated to be approximately $96.9 million.<br><br>The overall statewide economic impact over the projected 13-year build-out period is estimated to total approximately $3.2 billion. This includes direct capital investment, contractors' and suppliers' profits, employee wages, resident income and expenditures, and operating economic activity. On a stabilized basis after build-out, the overall economic impact of Honuaʻula is estimated to be approximately $290.5 million annually. The expenditure of these funds into the island and state economies will create hundreds of additional off-site, secondary, and indirect jobs on Maui and statewide.<br><br>Fiscal and economic impacts from the short-term construction and long-term operation of Honuaʻula are expected to directly benefit the State of Hawaiʻi and County of Maui through four major sources: 1) real property taxes; 2) gross excise tax receipts; 3) state income taxes; and 4) development fees. | | | |

[20] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

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| Pursuant to Honuaʻula's zoning conditions under County of Maui Ordinance No. 3554, the timing of the provision of traffic improvements, the payment of school, traffic and park fees, and the contribution of land and funds for fire and police facilities are based primarily upon the timing of the build-out of Honuaʻula. This will ensure that the creation of Honuaʻula is done in a systematic fashion, commensurate with the provision of adequate infrastructure and public facilities and services.<br><br>To expand the region's educational opportunities, and as discussed in Section 4.10.1 (Schools), Honuaʻula Partners, LLC will pay at least $3,450,000 to the DOE for school improvements over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honuaʻula Partners, LLC will pay the DOE <u>at least</u> $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.<br><br>As discussed in Section 4.4 (Roadways and Traffic) and 4.8 (Infrastructure and Utilities), Honuaʻula responds to the demand of a growing population for the Kīhei-Mākena region by funding the Piʻilani Highway widening project and other traffic improvements and providing additional infrastructure to meet the needs of Honuaʻula.<br><br>As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and 4.78.5 (Electrical System), Honuaʻula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the Climate Protection Division of the United States EPA in effect at the time of construction. Energy systems include all hot water systems, air cooling systems, and heating systems.<br><br>In further compliance with County of Maui Ordinance No. 3554 (Condition 30), Honuaʻula Partners, LLC will: 1) equip all residential units <u>(single-family and multifamily)</u> 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 unit; and 2) 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.<br><br>As discussed in Section 4.9.4 (Village Mixed Uses), Honuaʻula will include village-mixed use areas comprised of, commercial, residential, recreational, and community facilities serving the needs of Honuaʻula residents and guests. Permitted uses in the Village Mixed Use sub-district include: retail food and beverage establishments; grocery stores; retail | | | |

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| shops; offices; business services; minor medical offices; religious institutions; and public facilities. By locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honua'ula and, unlike residents in conventional residential subdivisions, Honua'ula residents will not have to drive outside of the community for all of their needs and services.<br><br>Honua'ula will not impact important agricultural lands since no part of the Property is designed as important agricultural lands. As discussed in Section 3.3 (Soils), the Property is rated "E" and unclassified on the LSB classification system, and not classified for under the ALISH system, indicating that the Property is not agriculturally significant. Therefore, Honua'ula will not reduce the inventory of important agricultural lands. | | | |
| **HOUSING AND URBAN DESIGN** | | | |
| ***Goals:***<br>*A variety of attractive, sanitary, safe and affordable homes for Kihei's residents, especially for families earning less than the median income for families within the County. Also, a built environment which provides complementary and aesthetically pleasing physical and visual linkages with the natural environment.* | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Provide an adequate variety of housing choices and range of prices for the needs of Kihei's residents, especially for families earning less than the median income for families within the County, through the project district approach and other related programs. Choices can be increased through public/private sector cooperation and coordinated development of necessary support facilities and services.* | X | | |
| *(b) Require a mix of affordable and market-priced housing in all major residential projects, unless the project is to be developed exclusively as an affordable housing project.* | X | | |
| *(c) Preserve Kihei-Makena's significant views of the Pacific Ocean and the broad vista to the Central Maui and Upcountry region. Prohibit the use of walls higher than 4 feet in front yard setbacks especially in areas close to the shoreline where view corridors can be blocked.* | X | | |
| *(d) Provide for integration of natural physical features with future development of the region. New development shall incorporate features such as gulches and wetlands into open space and pedestrian pathway and bikeway systems.* | X | | |
| *(e) Implement landscaped setbacks for future multi-family and commercial areas. Developments shall provide space for landscaped pedestrian ways and bikeways.* | X | | |
| *(f) Incorporate the principles of xeriscaping in all future landscaping.* | X | | |
| *(g) Encourage the use of native plants in landscaping in the spirit of Act 73, Session Laws of Hawaii, 1992.* | X | | |
| *(h) Recommend to the Maui County Arborist Committee for consideration as "Exceptional Trees" all trees, or groves of trees, that have historic or cultural value, represent an important community resource, or are exceptional by reason of age, rarity, location, size, aesthetic quality, or endemic qualities. Healthy mature trees shall be saved and incorporated in the landscape plans of subdivisions, roads, or any other construction or development.* | X | | |
| ***Implementing Actions:*** | | | |
| *(a) Develop a comprehensive strategy for housing assistance which coordinates all available public and private resources and incorporates appropriate regulatory measures.* | | | X |

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| *(b) Explore modifying zoning, building and subdivision codes to incorporate minimum lot sizes, compact parking ratios, and roadway and utility standards which meet resident needs but which may depart from customary urban standards, in an effort to reduce development and housing costs.* | | | X |
| *(c) Plant appropriate trees, turfgrass, and ground covers along existing public rights-of-way, roads, and parks. Neighborhood communities and citizen groups shall be encouraged to upgrade their streets and parks in accordance with the Maui County Planting Plan.* | X | | |
| *(d) Provide landscaped buffer areas between Piʻilani Highway and adjacent communities to mitigate highway noise and to reduce the visual impact of development. Both Pi`ilani Highway and South Kihei Road shall be landscaped to achieve a parkway character.* | X | | |
| *(e) Provide an aesthetic landscaped entry-way and park at the north end of Kihei, north of the future commercial area. Provide a similar Kihei entry-way at Road C.* | | | X |
| *(f) Develop Kihei-Makena Urban Design Guidelines to address architectural, landscape, and graphic design standards. Use the guidelines to establish a sense of place by defining distinctive standards for four neighborhoods: the Uwapo Road-Suda Store neighborhood, the Lipoa Street-Azeka Place neighborhood, the Kalama Park neighborhood, and the Kamaʻole Parks neighborhood.* | | | X |
| *(g) Implement streetscape beautification through an "adoption" program for trees, sidewalks, street frontages, and intersections.* | | | X |

**Discussion:** Honuaʻula will help to satisfy the housing demand of a growing population by providing homes in the Kīhei-Mākena region priced for a wide range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy).

As discussed in Section 4.7 (Visual Resources), panoramic views of shoreline, upland areas of Haleakalā, West Maui Mountains, and the offshore islands of Molokini, Kahoʻolawe, and Lānaʻi are available from selected areas of the Property. Views of the ocean are available from almost all areas of the site. Honuaʻula will not impinge upon any significant public scenic view corridors, and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. To ensure an overall architectural theme as well as other design standards are established for Honuaʻula, design guidelines have been prepared. The design guidelines cover various aspects of Honuaʻula design with the overall goal of providing a framework so that a consistent character is achieved.

As discussed in Section 4.3 (Trails and Access), Honuaʻula will integrate a system of pedestrian and bike paths along the community's roadways, gulches, and drainage ways. This secondary circulation system of linked pedestrian/bike trails will provide another option for traveling within the community. The community trail system will connect residential areas to the village mixed use areas, neighborhood parks, golf course clubhouse, and other areas.

To protect and conserve the area that contains the highest density of representative native plant species, a Native Plant Preservation Area will be established in perpetuity under a

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| conservation easement and additional ~~native plant conservation and protection areas~~ Native Plant Conservation Areas also will be established. In total, approximately ~~143~~ 76 acres will be set aside ~~as Native Plant Areas~~ to ensure the long-term genetic viability and survival of native plants.<br><br>The Honua'ula Landscape Master Plan establishes an overall landscape concept and establishes principles to guide the design and implementation of landscape planting within Honua'ula. The Landscape Master Plan strives to create a naturalized landscape palette, using native plants, which require minimal irrigation and will, after establishment, require minimal maintenance. Consistent with the Maui County Planting Plan, the Honua'ula Landscape Master Plan is responsive to the botanical resources of the area and the need to limit the use of water for irrigation.<br><br>Honua'ula will provide a buffer along Pi'ilani Highway to mitigate highway noise and to reduce the visual impact of development, as discussed in Section 4.4 (Roadways and Traffic). Additionally, appropriate landscaping will be planted along public rights-of-way, roads and parks. | | | |
| **PHYSICAL AND SOCIAL INFRASTRUCTURE** | | | |
| ***Goals:***<br>*Provision of facility systems, public services and capital improvement projects in an efficient, reliable, cost effective, and environmentally sensitive manner which accommodates the needs of the Kihei-Makena community,*<br>*and fully support present and planned land uses, especially in the case of project district implementation.*<br>*Allow no development for which infrastructure may not be available concurrent with the development's impacts.* | | | |
| ***Transportation*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Develop and implement a well-planned road and public transportation system to allow residents and visitors to move safely, effectively and comfortably within the region. Roadway improvements should be planned, designed, and constructed as prioritized under the Implementing Actions section below, and as generally described in the Kihei Traffic Master Plan.* | X | | |
| *(b) Undertake transportation system improvements concurrently with planned growth of the Kihei-Makena region. Require adequate interregional highway capacity, including the widening of Pi`ilani and Mokulele Highways to four lanes, prior to the construction of major projects south of Kilohana Road or mauka of Pi`ilani Highway.* | X | | |
| *(c) Strengthen the coordination of land use planning and transportation planning to promote sustainable development and to reduce dependence on automobiles. New residential communities should provide convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks and public facilities.* | X | | |
| *(d) Support ridesharing, bicycle and pedestrian use, alternative work schedules, traffic signal synchronization, and/or other transportation demand management strategies.* | X | | |
| *(e) Support a new bypass highway mauka of Pi`ilani Highway, coordinated with a Ma`alaea-Kealia Pond bypass highway, and an Upcountry-Kihei connector road, to be constructed as growth in the region warrants.* | | | X |

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| *(f) Protect and preserve the traditional rural scale and character of existing portions of old Makena Road in a manner similar to that existing at Keawalai Church.* | | | X |
| *(g) Plan, design, and construct a pedestrian and bikeway network throughout the Kihei-Makena region which considers the utilization of existing stream beds, drainageways, wetlands and public rights-of-way along coastal and inland areas.* | X | | |
| *(h) Encourage joint public/private participation in the planning, design and construction of roadway improvements, especially those identified in this plan.* | X | | |
| *(i) Support the planning and design of the Ma`alaea-Kealia bypass highway in order to address potential environmental concerns of North Kihei Road, and its proximity to the shoreline.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Plan, design and construct a new Road "C", from South Kihei Road to Pi`ilani Highway, to provide an alternative connector roadway in Central Kihei, as described in the Kihei Traffic Master Plan. Said alignment shall extend in an easterly direction from its existing segment at South Kihei Road and link with Pi`ilani Highway. This is the highest priority for roadway improvements in the community plan region.* | | | X |
| *(b) Plan, design and construct appropriate sections of a new North-South Collector Road, from Uwapo Road to Keonekai Road, to facilitate improved traffic movement in Kihei proper. When selecting a specific alignment, impacting existing structures should be kept to a minimum. Consideration should be given to segments between Kaonoulu Street and Auhana Street as well as between Ke Alii Alanui and Keonekai Road. In terms of roadway improvements within the community plan region, this shall be the second priority.* | | | X |
| *(c) Widen Pi`ilani Highway, between Mokulele Highway and Wailea Ike Drive, to four lanes. In terms of roadway improvements within the community plan region, this shall be the third priority.* | X | | |
| *(d) Plan, design and construct a new Road "B", from South Kihei Road to the new North-South Collector Road, to improve internal circulation in the Central Kihei area.* | | | X |
| *(e) Plan, design and construct a new Road "A", from Road "B" to Lipoa Street, to provide increased circulation in the Lipoa business area.* | | | X |
| *(f) Provide clear signage with adequate lighting along Pi`ilani Highway to indicate Kihei access points. Also provide a landscape buffer and bikepath on both sides of Pi`ilani Highway.* | X | | |
| *(g) Provide left turn storage lanes and acceleration/deceleration lanes on Pi`ilani Highway, and traffic signals at important intersections along South Kihei Road.* | X | | |
| *(h) Widen Mokulele Highway to four lanes.* | | | X |
| *(i) Preserve and enhance the identity of Kihei's neighborhoods by designing the north-south collector road in discontinuous segments. Work with landowners, neighborhoods, and community groups to plan and implement an adjacent but separate trail/greenway/bikepath to provide non-motorized public access along the full length of the road reserve. In sections where no roadway is built, the trail/greenway/bikepath may be broadened to form a neighborhood park, public access, or open space area.* | | | X |

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will widen Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive before the commencement of any construction on the Property, with the exception of grading. Appropriate signage, lighting, storage lanes, traffic signals, and buffers will be provided

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along this part of Piʻilani Highway, including the following traffic improvements to be completed prior to occupancy of the first units at Honuaʻula:

- Signalize the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and provide an exclusive left-turn lane on Okolani Drive (Condition 2c)[21]
- Signalize the Piʻilani Highway/Wailea Ike Drive intersection and provide a right-turn lane from Piʻilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway (Condition 2d).
- Modify the Piʻilani Highway/Kilohana Drive/Māpu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Māpu Place (Condition 2f).

At or prior to the completion for 50 percent of Honuaʻula, Honuaʻula Partners, LLC will extend Piʻilani Highway south, into Honuaʻula, from Wailea Ike Drive to Kaukahi Street (County of Maui Ordinance No. 3554 Condition 2b).

Additionally, in accordance with County of Maui Ordinance No. 3554 and before occupancy of any units within Honuaʻula, Honuaʻula Partners, LLC will modify the Wailea Alanui/Wailea Ike Drive intersection to add a signalized double right-turn movement for northbound to eastbound turning traffic and provide two left-turn lanes for southbound traffic from Wailea Ike Drive (Condition 2e).

Furthermore, when warranted, Honuaʻula Partners, LLC will also: 1) signalize the Wailea Ike Drive/Kālai Waʻa Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2g); and 2) signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort (Condition 2h).

The planning and design of the above roadway improvements are being done in close collaboration with the State DOT and the County of Maui. In compliance with County of Maui Ordinance No. 3554 (Condition 18k), Honuaʻula Partners, LLC will consult with the State DOT and the County Department of Public Works to ensure that the proposed roadway improvements meet with their satisfaction.

In further compliance with County of Maui Ordinance No. 3554, Honuaʻula Partners, LLC will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit (Condition 3). If all Honuaʻula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honuaʻula Partners, LLC will incur for providing the above regional traffic

[21] This condition is also a condition of the Kai Malu project (MF-8). Honuaʻula Partners, LLC and the Kai Malu project (MF-8) developer, A&B Wailea, Inc., will coordinate the installation of the signal as part of the widening Piʻilani Highway.

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| improvements.<br><br>Honuaʻula's TMPs support ridesharing, bicycle and pedestrian use, alternative work schedules and other management objectives, as discussed in Section 4.4 (Roadways and Traffic).<br><br>As discussed in Section 4.3 (Trails and Access), Honuaʻula 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. By locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honuaʻula and, unlike residents in conventional residential subdivisions, Honuaʻula residents will not have to drive outside of the community for all of their needs and services. | | | |
| ***Water Distribution*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Provide for appropriate water source and transmission improvements concurrent with planned growth of the Kihei-Makena region.* | X | | |
| *(b) Support and expand the projected development of the Central Maui and East Maui water systems in order to meet the needs of all Maui residents.* | | | X |
| *(c) Develop water conservation, reuse and educational programs.* | X | | |
| *(d) Encourage the use of non-potable water for irrigation purposes and water features. Prohibit the use of potable water in large water features or require substantial mitigation fees.* | X | | |
| *(e) Encourage the use of plants which have a relatively low need for water.* | X | | |
| **Discussion:** As discussed in Section 4.8.1 (Water System), Honuaʻula Partners, LLC will include a private water system providing both potable and non-potable water for use within Honuaʻula.<br><br>Water conservation programs and practices will be implemented to meet the long-term needs of Honuaʻula. In addition, as described in Section 4.8.2 (Wastewater System), non-potable water will be used for all irrigation purposes<br><br>The Honuaʻula Landscape Master Plan strives to create a naturalized landscape palette, using native plants, which require minimal irrigation and will, after establishment, require minimal maintenance. Consistent with the Maui County Planting Plan, the Landscape Master Plan is responsive to the botanical resources of the area and the need to limit the use of water for irrigation. | | | |
| ***Liquid and Solid Waste*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Coordinate improvements to sewer transmission lines and wastewater reclamation* | X | | |

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| *facilities to meet the needs of future population growth. Require that the Wailea Resort Company and the Wailea Makena Alliance work toward a solution that would enable the Wailea sewerage system to be dedicated to the County.* | | | |
| *(b) Provide efficient, safe and environmentally sound systems for the reuse, recycling, and disposal of liquid and solid wastes.* | X | | |
| *(c) Reduce the reliance on injection wells for wastewater disposal. Require the use of reclaimed effluent--a procedure which is safe, economical and environmentally sound--for irrigation of golf courses, parks and landscaped areas.* | X | | |
| *(d) Encourage public awareness of the need to reduce, reuse, recycle and compost waste materials, and make composting facilities available to the public.* | X | | |

**Discussion:** As discussed in Section 4.8.2 (Wastewater System), Honuaʻula will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). After treatment, R-1 recycled water (reclaimed water) will be used within Honuaʻula for golf course irrigation.

Honuaʻula Partners, LLC is committed to limiting the environmental impact of the Honuaʻula community by reducing solid waste. A solid waste management plan will be coordinated with the County's DEM, Solid Waste Division for the disposal of on-site and construction-related waste material, and Honuaʻula Partners, LLC will work with contractors to minimize the amount of solid waste generated during the construction. After construction, Honuaʻula Partners, LLC will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. To the extent practical, wastes such as aluminum, paper, newspaper, glass, and plastic containers will be recycled. Green waste, particularly from the golf course, may be processed on-site and reused. Section 4.8.5 (Solid Waste) contains the full discussion.

Waste that cannot be recycled will be disposed of in the County's Central Maui Landfill in Puʻunēnē. Increases in waste diversion achieved through education, recycling, composting, and reuse programs are expected to decrease demand for landfill space and extend the life of the Central Maui Landfill beyond the currently projected closure date of 2025. The County's DEM Solid Waste Division anticipates that additional phases of the Central Maui Landfill will be developed as needed to accommodate future waste.

Honuaʻula will adopt water quality standards that comply with State and Federal regulations regarding wastewater disposal; per County of Maui Ordinance No. 3554 (Condition 17), no reclaimed water from Honuaʻula will be placed into injection wells.

To conserve water within Honuaʻula, and in compliance with County of Maui Ordinance No. 3554 (Condition 14), non-potable water will be used for all irrigation purposes.

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| ***Drainage*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Design drainage systems that protect coastal water quality by incorporating best management practices to remove pollutants from runoff. Construct and maintain, as needed, sediment retention basins and other best management practices to remove sediments and other pollutants from runoff.* | X | | |
| *(b) Construct necessary drainage improvements in flood prone areas. Where replacement drainage are required for flood protection, these systems shall be designed, constructed, and maintained using structural controls and best management practices to preserve the functions of the natural system that are beneficial to water quality. These functions include infiltration, moderation of flow velocity, reduced erosion, uptake of nutrients and pollutants by plants, filtering, and settlement of sediment particles. The use of landscaped swales and unlined channels shall be urged.* | X | | |
| *(c) Support the implementation of flood control projects and sediment retention basins mauka of Piilani Highway to address present problem areas.* | X | | |
| *(d) Minimize the increase in discharge of storm water runoff to coastal waters by preserving flood storage capacity in low-lying areas, and encouraging infiltration of runoff.* | X | | |
| *(e) Encourage the use of setbacks and flood protection areas as part of an open space pedestrian-way and bikeway network throughout the region.* | X | | |
| ***Implementing Actions:*** | | | |
| *(a) Formulate a drainage master plan for Kihei-Makena that considers the cumulative impacts of existing and planned development. The master plan shall guide future development while preventing flooding and providing guidance to reduce the degradation of coastal waters.* | X | | |
| *(b) Establish a comprehensive program of improvements to the storm drainage system; implement a maintenance program; and ensure that safety, property loss, pollutant removal, and the need for comprehensive planning, are considered.* | X | | |
| *(c) Revise the County drainage rules to require that drainage system design shall not adversely affect downstream and coastal water quality.* | X | | |

**Discussion:** As discussed in Section 4.8.3 (Drainage System), drainage from Honua'ula is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. In accordance with the County of Maui's "Rules for the Design of Storm Drainage Facilities," all drainage improvements will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions.

Stormwater over Honua'ula will percolate directly into the ground (in natural and landscaped areas), evaporate, or will be collected and managed through a drainage system. The drainage system will include detention basins, drainage pipes, open channels, and roadway culverts. Runoff will be stored in 26 detention basins located throughout the Property. In addition, the use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the Property.

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| Residential areas will be graded so that runoff flows to drain inlet structures. From the drains, the flow will be piped through a series of drain lines in the roadways to the detention basins. Natural open drainage channels also will be provided throughout the site to divert runoff toward the detention basins. Open channels also will be provided at the upper limits of the Property to direct mauka off-site runoff entering the Property to natural drainage ways on-site. These channels will remain natural and unlined. Roadway culverts will be provided throughout the Property to divert runoff under major streets and prevent flooding.<br><br>As discussed in Section 3.5.2 (Nearshore Marine Environment), the nearshore water quality assessment concludes that the detention basins will: 1) ensure that the peak rate of runoff leaving the Property will not increase over current conditions; and 2) capture floatables and suspended solids in the basins, thus reducing sediment loads discharging to the marine environment at the shoreline. The assessment further concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honua'ula."<br><br>All drainage improvements will be designed in accordance with the County of Maui's "Rules for the Design of Storm Drainage Facilities." In compliance with County of Maui Ordinance No. 3554 (Condition 6), 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 Engineering Report.<br><br>As discussed in Section 4.3 (Trails and Access), Honua'ula will integrate a system of pedestrian and bike paths along the community's roadways, gulches and drainage ways. | | | |
| ***Energy and Public Utilities*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Promote energy efficiency as the energy resource of first choice, and increase energy efficiency in all sectors of the community.* | X | | |
| *(b) Locate goods, services, and employment in close proximity to residential centers to minimize energy expenditures for transportation. Support the development of communication infrastructure and promote telecommuting to minimize travel.* | X | | |
| *(c) Increase the use of renewable resources in all County-owned buildings, facilities, and vehicles. Utilize renewable energy for water pumping or other energy services which can take advantage of intermittent energy resources.* | | | X |
| *(d) Promote environmentally and culturally sensitive use of renewable energy resources like biomass, solar, wind, and hydroelectric energy in all sectors of the community.* | | | X |
| *(e) Support the establishment of an alternate fuels distribution infrastructure.* | | | X |
| *(f) Interface County planning with the energy utilities' integrated resource planning programs.* | | | X |
| *(g) Encourage the provision of public utilities which will meet community needs in a* | X | | |

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| *timely manner.* | | | |
| *(h) Require proper site selection, facility construction and monitoring of power generation facilities in order to minimize adverse environmental impacts upon the Kihei-Makena community.* | | | X |
| *(i) Increase the energy security of community "lifeline" facilities and improve energy emergency response capabilities.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Develop incentives and requirements for energy-efficient building design and site development practices through various approaches, including modifications to building, zoning, and subdivision codes.* | X | | |
| *(b) Develop, compile and disseminate information on new energy technologies, policies, and programs that may prove helpful to the community's economy and environment.* | X | | |
| *(c) Initiate an integrated County energy resource planning program.* | | | X |
| *(d) Use energy-efficient street lights and develop appropriate street lighting standards for agricultural and rural areas.* | X | | |

**Discussion:** As discussed in Sections 2.5 (Environmentally-Responsible Planning and Design) and 4.8.6 (Electrical System), Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing energy consumption. 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.

In compliance with County of Maui Ordinance No. 3554 (Condition 30), 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 EPA in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.

In further compliance with County of Maui Ordinance No. 3554 (Condition 30), Honua'ula Partners, LLC will: 1) equip all residential units (single-family and multifamily) 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 unit; and 2) 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.

Honua'ula will be a complete community with village-mixed use areas comprised of, commercial, residential, recreational, and community facilities serving the needs of Honua'ula residents and guests. By locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Honua'ula and, unlike residents in conventional residential subdivisions, Honua'ula residents will not have to drive outside of the community for all of their needs and services.

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| As discussed in Section 4.8 (Infrastructure and Utilities), Honua'ula will provide utilities to meet the needs of the planned community. Honua'ula will not rely upon or burden any County water system or facilities. Instead, Honua'ula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honua'ula. Honua'ula will not rely upon or burden any public wastewater facilities. In compliance with County of Maui Ordinance No. 3554 (Condition 17), Honua'ula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honua'ula (Alternative 1) or provide a WWRF on-site (Alternative 2).<br><br>All outdoor lighting in Honua'ula, including street lights, will be in compliance with Chapter 20.335, MCC. | | | |
| ***Recreation*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Provide high-quality recreational facilities to meet the present and future needs of residents of all ages and physical ability.* | X | | |
| *(b) Provide for a range of park sizes and types at neighborhood, community and regional scales. New residential developments shall provide recreational facilities on-site to meet the immediate needs of project residents.* | X | | |
| *(c) Plan, design and construct a regional park on approximately 100-150 acres within the District. Facilities should include, but may not be limited to: a community center, swimming pool, ball fields, and basketball and tennis courts. Consideration should be given to locating the park in fairly close proximity to the Kihei Wastewater Reclamation Facility so that treated effluent may be used for park irrigation purposes.* | X | | |
| *(d) Encourage the construction of public parks adjacent to schools to provide for joint utilization of facilities by school and community.* | | | X |
| *(e) Improve recreation facilities and services through the integration of public parking, vehicular drop-offs and turnarounds, and sanitation facilities with facility planning and design.* | | | X |
| *(f) Improve public access to shoreline and nearshore resources through the following measures:*<br>*1) Develop and implement a plan for public access to the shoreline, which includes both existing and future accesses, based on the location of significant shoreline resources. Accesses shall be consistent with the characteristics of resources to be reached.*<br>*2) Provide adequate landscaped public access to shoreline areas with significant recreational and scenic value. Provide adequate lateral public access along the shoreline to connect significant shoreline areas and to establish continuity of the public shoreline areas. Particular attention shall be directed toward southern shoreline resources from Polo Beach southwards, and between Kama`ole Parks II and III.*<br>*3) Require setbacks to include recreational space on lands behind the legally defined public shoreline zone wherever possible. This allows for adequate recreational activities and proper management of the shoreline.*<br>*4) Provide setback areas with landscaping to enhance recreational use and scenic* | | | X |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| *quality. Recreational amenities should be commensurate with the scale of the setback area, intended use, and resource characteristics.* | | | |
| *(g) Establish several youth centers throughout the region, one of which could be located at the park site adjacent to Lokelani Intermediate School.* | | | X |
| *(h) Provide for adequate parking at all park facilities. Many existing parks lack sufficient parking and require substantial increases in parking spaces.* | | | X |
| *(i) Support the creation and promotion of overnight campsites within the region.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Designate appropriate locations and provide for community and neighborhood parks within the Kihei-Makena region.* | X | | |
| *(b) Revise standards in the park dedication ordinance to increase the quantity and quality of parks generated by new developments. Strategies which should be explored include increasing park assessment provisions, various cash vs. land dedication options, and provision of active vs. passive recreation parks. The analysis should recognize the importance of on-site recreational facilities as well as the need for parks at the neighborhood, community and regional level.* | X | | |
| *(c) Implement Makena-LaPerouse Park for nature-oriented recreation, including shoreline activities, picnicking, camping, biking, and interpretive/educational pursuits. Provide for a residential caretaker and security personnel to oversee facilities and public safety at this large remote destination.* | | | X |
| *(d) Provide adequate maintenance programs and enforce existing regulations regarding littering and defacement of public property at all public facilities.* | | | X |
| *(e) Create a master plan to rehabilitate the existing beach parks in the region, and to develop County-owned lands designated for park use.* | | | X |

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

As discussed in Section 4.10.5 (Recreational Facilities), 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, MCC, 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, MCC (Condition 11).

In addition, Honua'ula will contribute not less than $5,000,000 to the County upon Project District Phase II approval for the development of the South Maui Community Park, as discussed in Section 4.10.5 (Recreational Facilities).

In compliance with County of Maui Ordinance No. 3554 (Condition 12), and to expand the County's recreational programs, Honua'ula will: 1) develop an organized instructional program for Maui junior golfers at its golf course facility, including use of the

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| golf course and sponsorship of one Maui Junior Golf fund-raising tournament per year; 2) permit one nonprofit organization per calendar quarter to use the golf course and clubhouse for a fund-raising activity; 3) permit the Maui Interscholastic League and the Hawaii High School Athletic Association to each use the golf course once per year for an official tournament or for regular season Maui Interscholastic League playoffs; and 4) permit Maui residents to play at the golf course on Tuesday of each week at a set discounted rate. | | | |
| ***Health and Public Safety*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Improve and expand the delivery of health and public safety services to Kihei-Makena residents and visitors.* | X | | |
| *(b) Provide for the establishment of a health clinic with full emergency services.* | | | X |
| *(c) Support a new full-service hospital facility in the Kihei-Makena Region to be constructed as growth in the region and the island warrants.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Provide a police station in the Kihei-Makena region.* | X | | |
| *(b) Expand fire fighting and rescue capabilities, including the acquisition of a new ladder truck, and the provision of a fire and ambulance station in the Wailea area.* | X | | |
| **Discussion:** As discussed in Section 4.10 (Public Services and Facilities), Honua'ula Partners, LLC will provide the County two acres of land for the development of fire control facilities within the village mixed-use sub-district, and $550,000 for the development of the new Kīhei District Police station in South Maui.<br><br>Honua'ula's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Honua'ula to serve the community and neighboring areas. | | | |
| ***Education*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Require the delivery of quality educational facilities at the time such facilities are needed. Emphasize advanced planning so that school facilities such as classrooms, playgrounds, libraries, cafeterias and other appurtenant structures are delivered in a timely manner so as to eliminate the use of portable facilities.* | X | | |
| *(b) Enhance the classroom learning environment through measures which would reduce excessive temperature and background noise problems.* | | | X |
| *(c) Consider a third elementary school site of approximately 20 acres in the North Kihei area.* | | | X |
| *(d) Build a high school to serve the Kihei region when required to accommodate growth.* | X | | |
| *(e) Encourage the construction of child day care centers which are located convenient to users, but which place minimal impact upon residential neighborhoods.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Enhance the classroom learning environment through such measures as the installation of air-conditioning and ceiling fans.* | | | X |
| *(b) Require the construction of a playground and physical education facilities east of* | | | X |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| *Lokelani Intermediate School. Consider the joint use of property on the south side of Lokelani Intermediate School for playground use in order to provide additional recreation space and flexibility for both Lokelani and Kihei Elementary schools.* | | | |
| *(c) Request that the Department of Education shall provide and maintain a landscaped buffer between Pi`ilani Highway and Lokelani and Kihei Elementary schools. This visually attractive buffer would reduce excessive noise problems from Pi`ilani Highway.* | | | X |
| *(d) Plan and locate a site for a high school to serve the Kihei region.* | | | X |

**Discussion:** As discussed in Section 4.10.1 (Schools), Honua'ula Partners, LLC will pay at least $3,450,000 to the State DOE for school improvements over the course of the 13-year build-out period. In compliance with County of Maui Ordinance No. 3554 (Condition 22), Honua'ula Partners, LLC will pay the State DOE at least $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.

Currently, the State DOE is planning to build a new high school in Kīhei slated to open in ~~2013~~ 2016 (Group 70 ~~2009~~ 2011)~~, the same year the first homes in Honua'ula are projected to be occupied~~.

| ***GOVERNMENT*** | | | |
|---|---|---|---|
| ***Goal:*** ***Efficient, effective and responsive government services in the Kihei-Makena region.*** | | | |
| ***Objectives and Policies:*** | | | |
| *(a) Improve the delivery of services by government agencies to the Kihei- Makena region.* | X | | |
| *(b) Continue to streamline the permit process, where appropriate, through means such as consolidated public hearings and concurrent processing of applications.* | | | X |
| *(c) Continue to expedite the review and approval process for projects which will result in public benefit by "fast-tracking" and the assignment of permit expediters.* | | | X |
| *(d) Use the County's real property tax assessment function as a mechanism to encourage desirable private development, rehabilitation, or preservation, to monitor the implementation of the Community Plan, and to establish a land use information base.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Evaluate and modify present zoning and subdivision ordinances to incorporate land use and design guidelines as well as other recommendations incorporated herein.* | | | X |
| *(b) Compile plans and studies to implement the recommendations of this Plan, including water development, housing, local and regional circulation, drainage, solid waste, and other special studies as required.* | | | X |
| *(c) Continue to develop and utilize a computerized County planning system, including, but not limited to, integrating into the system future plans, studies, guidelines, and legislation. The computerized planning system should not become stagnant, but should become an integral part of planning within the County.* | | | X |
| *(d) Continue to operate and fund mobile/satellite government facilities.* | | | X |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| *(e) Implement tax incentives and/or disincentives that encourage desirable private development or preservation.* | | | X |
| *(f) Adopt a beach/mountain access dedication ordinance pursuant to Chapter 46, Hawaii Revised Statutes to assist in establishing public mauka and makai accesses, in conjunction with an overall public access master plan to serve as the framework for decision-making.* | | | X |
| **Discussion:** Honua'ula will improve the delivery of services by government agencies in the form of cash contributions for parks, schools, traffic improvements and police services, and a land contribution for a fire station.<br><br>In addition, Honua'ula will significantly boost revenues for the County and State governments through increases in (i) real property taxes, (ii) gross excise tax receipts, and (iii) state income taxes. | | | |
| ***INDIGENOUS ARCHITECTURE*** | | | |
| ***Goal:***<br>***Reserve for future implementation provisions for indigenous architecture as may be adopted from time to time by the County Council and/or the County Cultural Resources Commission.*** | | | |
| ***Objective and Policy:*** | | | |
| *(a) To legitimize indigenous architecture as viable spaces for living, work, and recreation.* | | | X |
| ***Implementing Actions:*** | | | |
| *(a) Develop a County ordinance for indigenous architecture.* | | | X |
| *(b) Adopt standards for indigenous architecture.* | | | X |
| **Discussion:** Honua'ula does not involve planning for the region's future implementation of indigenous architecture; therefore, this objective and policy are not applicable. | | | |
| **PLANNING STANDARDS** | | | |
| ***Land Use Standards:*** | | | |
| *(a) All zoning applications and/or proposed land uses and developments shall be consistent with the Land Use Map and Objectives and Policies of the Kihei-Makena Community Plan.* | X | | |
| *(b) Development of the Kihei Kalama Villages property identified as TMK 3-9-03:portion of 08, approximately 0.6 acres in size, shall be limited in its use for parking purposes only.* | | | X |
| *(c) Development of the Pacific Warehouse properties identified as TMK 3-9-03:33, approximately 10,000 square feet in size, and TMK 3-9-3:45, approximately 1.0 acres in size, shall be limited in its use for parking, trash compactor, and storage purposes only.* | | | X |
| *(d) Road widening adjacent to the Stinson property, identified as TMK 3-9-07:38, 39, 40, and 41, approximately 1.1 acres in size, shall occur entirely on the said Stinson property, to the extent feasible.* | | | X |
| *(e) Development of the "Changs Beach" property, identified as TMK 2-1-12:15, approximately 1.4 acres in size, shall be compatible with Native Hawaiian cultural practices. Compatibility shall include, but not be limited to, consulting with Native Hawaiian organizations regarding the property's site plans, providing a program for* | | | X |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| *cultural interpretation and education, and ensuring access for cultural practices, including complete privacy where warranted. Furthermore, a non-vehicular public access shall be provided at the western tip of the property, consisting of a 100 foot southerly ocean setback, and a 40 foot northerly ocean setback.* | | | |
| *(f) The existing parking lot for the Wailea Shopping Village identified as TMK 2-1-08:74, approximately 5.5 acres in size, shall be limited in its use for parking purposes only.* | | | X |
| **Discussion:** As planned, Honua'ula is consistent with the residential, recreational, and commercial uses envisioned for the Property in the *Kīhei-Mākena Community Plan* and will reflect community values to provide 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 generations. | | | |
| ***Project District Standards:*** | | | |
| ***PROJECT DISTRICT 9 (Maui Wailea 670) 670 acres***<br>*This project district is located mauka and makai of the proposed Pi`ilani Highway extension, mauka of Wailea Resort, south of Maui Meadows and north of Seibu Mauka. It 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.* | X | | |
| **Discussion:** The Honua'ula Property has been designated "Project District 9" in the *Kīhei-Mākena Community Plan* for over 18 years. As planned, Honua'ula is consistent with the residential, recreational, and commercial uses envisioned for the Property in the *Kīhei-Mākena Community Plan* and in Chapter 19.90A, MCC for Project District 9. Honua'ula is also within the "urban growth boundary" of the current Directed Growth Maps of: 1) the Planning Department; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee.<br><br>Honua'ula's current master plan envisions a master-planned community, one golf course, open space and recreational trails, and village mixed-use areas. The current master plan is significantly smaller in scale than the previously accepted 1988 plan, which proposed 2,100 housing units, two 18-hole golf courses, a 480-room resort and lodge, and six acres of commercial property.<br><br>In April 2008, following Maui County Council approval, the Mayor signed into law Honua'ula's Change in Zoning and Project District Phase I Approval requests in favor of the revised plan. As approved, Project District 9 now includes provisions for 1,400 homes (including affordable workforce homes in conformance with the County's Residential | | | |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| 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).<br><br>In compliance with the *Kīhei-Mākena Community Plan* and Chapter 19.90A, MCC, Honuaʻula will:<br><br>• Provide a mix of single- and multi-family housing types for a range of consumer groups;<br>• Emphasize community development with single- and multi-family units complemented with village mixed uses and commercial uses primarily serving the residents of the community;<br>• Integrate a golf course and other recreational amenities with the different uses within Honuaʻula;<br>• Integrate community-oriented parks with pedestrian and bicycle recreation ways;<br>• Incorporate buffer zones between residential areas and the Piʻilani Highway extension corridor; and<br>• Provide a site for future public use in anticipation of need.<br><br>As discussed in Section 2.2 (Honuaʻula Purpose and Need), the objectives of Honuaʻula are to:<br><br>• Reflect community values to create an interesting, unique community in context with the Kīhei-Mākena region and the neighboring Wailea Resort;<br>• Emphasize community development and create a complete and vibrant community of with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community;<br>• Integrate the golf course and recreational amenities with the different uses comprising the community;<br>• Allow walking or biking to be alternatives to driving by integrating bicycle/pedestrian recreation ways throughout the community and locating commercial and retail establishments convenient to residential areas;<br>• Include buffer zones between residential areas and the Piʻilani Highway extension corridor;<br>• Integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community;<br>• Incorporate and preserve natural and cultural resources to provide Honuaʻula residents with a distinctive home for generations;<br>• Provide homes near regional employment centers, thereby increasing quality of life through decreasing commuting; and | | | |

| KĪHEI-MĀKENA COMMUNITY PLAN (1998) | S | N/S | N/A |
|---|---|---|---|
| • Incorporate sustainability by design. | | | |
| ***Urban Design Standards:*** | | | |
| *(a) Building Form*<br>*1) Establish a maximum of thirty-five (35) feet in building height for new commercial facilities.*<br>*2) Establish a maximum of forty-five (45) feet in building height for multi-family development.*<br>*3) Limit resort development throughout the region to thirty-five (35) feet in building height for sites near the shoreline. Building height limits may gradually be increased up to seventy-five (75) feet for inland resort development provided that important mauka/makai vistas are maintained, and impacts to coastal resources are minimized. Resort community planning and design shall integrate recreational amenities with adequate shoreline setback and public shoreline access provisions.*<br>*4) Limit the height of industrial buildings to thirty-five (35) feet. Within large industrial tracts, separate industrial design guidelines should be formulated to guide development. Such guidelines shall, among other issues, address landscaping and building design to achieve design continuity for the overall industrial development area.*<br>*5) All new multi-family and commercial facilities should provide a garden setting appropriate to the region. Setback requirements should be sufficient to allow for street and sidewalk climate-adapted landscaped buffers and interior planting areas.* | X | | |
| *(b) Setbacks*<br>*A Coastal Erosion Rate Analysis shall be developed. Data from the analysis shall be incorporated into planning decisions for shoreline areas, especially with respect to shoreline building setbacks. In the interim period prior to the completion of the analysis, minimum setbacks for multi-family and hotel uses shall be 150 feet from sandy shorelines, and 75 feet from rocky shorelines, or 25% of the average lot depth, whichever is greater.* | | | |
| *(c) Special Design Standards*<br>*1) Establish design standards for new and existing residential, commercial, and hotel developments using the following guidelines:*<br>*a. Establish streetscape standards that address low-cost improvements to landscaping, lighting, signage, and intersections along South Kihei Road, Pi'ilani Highway, and all existing or proposed collector roads.*<br>*b. Establish building design standards which promote island architecture while at the same time providing related visual and physical characteristics for the Kihei region.*<br>*c. Set uniform right-of-way standards for connector roads and South Kihei Road.* | X | | |
| **Discussion:** Honua'ula will be in conformance with all provisions of Chapter 19.90A, MCC, which specifies, among other things, design standards within Project District 9. | | | |

### 5.2.3 County of Maui Zoning

On April 8, 2008, following Maui County Council approval, the Mayor signed into law 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, Hawaiʻi." Pursuant to Section 19.510.050, MCC, 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 Honuaʻula 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 (Honuaʻula) project in accordance with Department of Water Supply standards and all applicable community plans. Honuaʻula Partners, LLC, its successors and permitted assigns, shall comply with all reporting requirements of the State Commission on Water Resource Management.*

   *In addition, Honuaʻula 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, Honuaʻula 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.*

**Discussion:** As discussed in Section 4.8.1 (Water System), Honuaʻula Partners, LLC will comply with this condition by providing a private water source, storage facilities, and transmission lines for Honuaʻula in accordance with DWS standards and all applicable community plans. Further discussion is provided in Section 4.8.1 (Water System).

In comments on the Draft EIS some commenters referenced the *The Makawao-Pukalani-Kula Community Plan* and commented that Honuaʻula's private water system was not in compliance with this plan. Specifically these comments pertained to Water Objective & Policy # 4 of the *Makawao-Pukalani-Kula Community Plan*, which states:

> 4. *Restrict the use of any water developed within or imported to the Upcountry region to consumption within the Upcountry region, with exception provided for agricultural use.*

Honuaʻula's private water system is not in conflict with this policy. Honuaʻula's off-site wells are located in the Kīhei-Mākena Community Plan region in an area north of Maui Meadows. The water from the wells will be transmitted directly to Honuaʻula by an underground water line running roughly parallel to the upper boundary of Maui Meadows. Some of the water will be treated by reverse osmosis at a facility within Honuaʻula. Some of this treated water will be stored on site and some will be transmitted to an off-site water storage tank located east (mauka) of Honuaʻula at the 810 foot elevation. The off-site water storage tank at the 810 elevation is necessary to create water pressure. The off-site wells, transmission line, and storage tank will be used exclusively to provide water to Honuaʻula. Water from Honuaʻula's off-site wells will not be imported to

the Makawao-Pukalani-Kula Community Plan region for consumption or use, but will be transmitted through the lower elevations of the region for use at Honuaʻula. No water source is being developed within the Makawao-Pukalani-Kula Community Plan region and no water is being imported to the Makawao-Pukalani-Kula Community Plan region. Rather, water from Honuaʻula's off-site wells is being transmitted through the lower elevations of the Makawao-Pukalani-Kula Community Plan region. This is not in conflict with the *Makawao-Pukalani-Kula Community Plan*.

Figure 2 shows the location of Honuaʻula's off-site water infrastructure and the boundary between the Makawao-Pukalani-Kula Community Plan and the Kīhei-Mākena Community Plan regions.

In further compliance with ~~this condition~~ Condition 1, Honuaʻula Partners, LLC will also: 1) offer the right to purchase the completed water system to the County; and 2) ensure that water rates for the residential workforce housing units will be no higher than the general water consumer rates set by the County, for as long as the units are subject to Chapter 2.96 of the County Code.

2. *That Honuaʻula Partners, LLC, its successors and permitted assigns, shall implement the following traffic improvements:*
    a. *Upgrade Piʻilani 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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will widen Piʻilani Highway before the commencement of any construction on the Property, with the exception of grading. ~~Planning is already underway for~~ For the widening of Piʻilani Highway to four lanes, along with required intersection improvements at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, the Piʻilani Highway/Wailea Ike Drive intersection, and the Piʻilani Highway/Kilohana Drive/Māpu Place intersection~~.~~, ~~Preliminary~~ design of these improvements has been completed and a draft and final EA ~~is being~~ were prepared. The State DOT ~~is currently reviewing the draft EA before notice of the draft EA is~~ has accepted the final EA and issued a Finding of No Significant Impact, which was published in the OEQC's *The Environmental Notice* ~~and the public comment period commences~~ on May 8 2012.

    b. *Extend Piʻilani 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 Honuaʻula Partners, LLC, its successors and permitted assigns.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), at or prior to the completion of 50 percent of Honuaʻula, Honuaʻula Partners, LLC will extend Piʻilani Highway south into Honuaʻula from Wailea Ike Drive to Kaukahi Street. Initial design plans have been completed and are now under internal review.

c. *Signalize the Piʻilani 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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will comply with Condition 2c[22] and the signal will be provided as part of the widening of Piʻilani Highway. As stated above, ~~planning is already underway~~ for the widening of Piʻilani Highway to four lanes, along with required intersection improvements at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, the Piʻilani Highway/Wailea Ike Drive intersection, and the Piʻilani Highway/Kilohana Drive/Māpu Place intersection~~.~~, ~~Preliminary~~ design of these improvements has been completed and a draft and final EA ~~is being~~ were prepared. The State DOT ~~is currently reviewing the draft EA before notice of the draft EA is~~ has accepted the final EA and issued a Finding of No Significant Impact, which was published in the OEQC's *The Environmental Notice* ~~and the public comment period commences~~ on May 8 2012.

d. *Modify the Piʻilani Highway/Wailea Ike Drive intersection into a signalized intersection and provide a free right-turn lane from Piʻilani Highway to Wailea Ike Drive and a second right-turn lane from Wailea Ike Drive to northbound Piʻilani Highway prior to occupancy of the first unit in Kīhei-Mākena Project District 9.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will comply with this condition. Initial improvements (lane configurations) will be provided as part of the widening of Piʻilani Highway and a signal will be provided before occupancy of the first unit in Honuaʻula. As stated above, ~~planning is already underway~~ for the widening of Piʻilani Highway to four lanes, along with required intersection improvements at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, the Piʻilani Highway/Wailea Ike Drive intersection, and the Piʻilani Highway/Kilohana Drive/Māpu Place intersection~~.~~, ~~Preliminary~~ design of these improvements has been completed and a draft and final EA ~~is being~~ were prepared. The State DOT ~~is currently reviewing the draft EA before notice of the draft EA is~~ has accepted the final EA and issued a Finding of No Significant Impact, which was published in the OEQC's *The Environmental Notice* ~~and the public comment period commences~~ on May 8 2012.

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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will complete the Wailea Ike Drive and Wailea Alanui Drive intersection improvements

[22] This condition is also a condition of the Kai Malu project (MF-8). Honuaʻula Partners LLC and the Kai Malu project (MF-8) developer, A&B Wailea, Inc., will coordinate the installation of the signal as part of widening Piʻilani Highway.

before occupancy of the first unit in Honuaʻula. Design has been completed, a draft and final EA have been prepared, and the County Department of Public Works has accepted the final EA. A SMA Permit application is also being processed.

*f. Modify the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani 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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will comply with this condition and the lane improvements will be provided as part of the widening of Piʻilani Highway. As stated above, ~~planning is already underway~~ for the widening of Piʻilani Highway to four lanes, along with required intersection improvements at the Piʻilani Highway/Okolani Drive/Mikioi Place intersection, the Piʻilani Highway/Wailea Ike Drive intersection, and the Piʻilani Highway/Kilohana Drive/Māpu Place intersection~~.~~, ~~Preliminary~~ design of these improvements has been completed and a draft and final EA ~~is being~~ were prepared. The State DOT ~~is currently reviewing the draft EA before notice of the draft EA is~~ has accepted the final EA and issued a Finding of No Significant Impact, which was published in the OEQC's *The Environmental Notice* ~~and the public comment period commences~~ on May 8 2012.

*g. Signalize the Wailea Ike Drive/Kālai Waʻa Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will comply with this condition.

*h. Signalize the Wailea/Kaukahi Drive/Kaukahi Street intersection in coordination with Wailea Resort and Mākena Resort when warranted.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Honuaʻula Partners, LLC will comply with this condition.

*3. That, as represented, Honuaʻula 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, Honuaʻula 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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic) Honuaʻula Partners, LLC will pay a traffic improvement fee of at least $5,000 per residential unit to the County of Maui before issuance of a residential building permit in compliance with this condition. If

all Honuaʻula units are constructed, this fee will total at least $5.75 million and is in addition to the costs Honuaʻula Partners, LLC will incur for the above regional and Honuaʻula-related traffic improvements.

4. *That Honuaʻula 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 Honuaʻula Partners, LLC, its successors and permitted assigns. Honuaʻula Partners, LLC shall execute appropriate agreements with governmental agencies regarding participation in improvements of infrastructure and public facilities as determined by the agencies.*

**Discussion:** As discussed in Section 4.8 (Infrastructure and Utilities), Honuaʻula Partners, LLC will be responsible for all required infrastructure improvements for Honuaʻula, including water source and system improvements for potable and non-potable 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. Improvements will be constructed and implemented concurrently with each phase of Honuaʻula, and will be completed prior to issuance of any certificate of occupancy of final subdivision approval, unless improvements are bonded. Honuaʻula Partners, LLC will execute appropriate agreements with governmental agencies regarding participation in improvements of infrastructure and public facilities as determined by the agencies.

As discussed in Section 4.8.1 (Water System), Honuaʻula will not rely upon or burden any County water system. Instead, Honuaʻula Partners, LLC will develop, maintain, and operate a private water system providing both potable and non-potable water for use within Honuaʻula.

As discussed in Section 4.8.2 (Wastewater System), Honuaʻula will not rely upon or burden any County wastewater system. Instead, Honuaʻula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). Connection to the Mākena WWRF would be in conformance with the option of participating in the operation of a private wastewater treatment facility (Alternative 1), and is the preferred alternative for Honuaʻula wastewater treatment.

As discussed in Section 4.8.3 (Drainage System), Honuaʻula Partners, LLC will design and implement a drainage system that will include detention basins, drainage pipes, open channels, and roadway culverts. In accordance with the County of Maui's "Rules for the

Design of Storm Drainage Facilities," all drainage improvements will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the Property compared to existing conditions. Drainage from Honuaʻula is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters.

As discussed in Section 4.8.6 (Electrical System), Honuaʻula is setting aside land within the Property for the expansion of the MECO substation that will be providing electrical power. Figure 1 shows the location of the MECO substation expansion.

As discussed in Section 4.4 (Roadways and Traffic) and above, Honuaʻula will provide a wide-range of traffic-related improvements that will not only address traffic impacts specifically related to the creation of Honuaʻula, but will also address traffic impacts that would be necessary because of general regional population growth even if Honuaʻula was not built.

5. *That Honuaʻula 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. Honuaʻula 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.*

**Discussion:** As discussed in Section 4.9.3 (Housing), Honuaʻula will provide workforce affordable homes in compliance with Chapter 2.96, MCC. In compliance with this condition, Honuaʻula will provide 250 affordable homes in the Kaʻonoʻulu Light Industrial Subdivision. Implementation of the provision of workforce housing in the Kaʻonoʻulu Light Industrial Subdivision has been initiated through subdivision approval for the housing site.

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.*

**Discussion:** As discussed in Section 4.8.3 (Drainage System), a Preliminary Engineering Report for Honuaʻula has been prepared by Wilson Okamoto Corporation. The Report reviews the existing topography and drainage conditions and includes a Drainage Master Plan and Phasing Plan of improvements. Appendix P contains the Preliminary Engineering Report.

7. *That Honuaʻula 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. Honuaʻula 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.*

**Discussion:** As discussed in Section 3.7 (Wildlife Resources), SWCA Environmental Consultants has prepared a wildlife survey and a Conservation and Stewardship Plan for Honuaʻula which includes an animal management plan, including recommendations for perimeter fencing and other animal intrusion management measures. Appendix H contains the wildlife survey and Appendix F contains the Conservation and Stewardship Plan.

8. *That Honuaʻula 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.*

**Discussion:** As discussed in Section 3.7 (Wildlife Resources), SWCA Environmental Consultants has prepared a wildlife survey and a Conservation and Stewardship Plan for Honuaʻula which includes an animal management plan. In compliance with this condition, Honuaʻula will inform owners within Honuaʻula that the area is subject to the intrusion of mammals and provide information regarding the animal management plan. Appendix H contains the wildlife survey and Appendix F contains the Conservation and Stewardship Plan.

9. *That Honuaʻula 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.*

**Discussion:** As discussed in Section 3.7 (Wildlife Resources) the wildlife survey conducted by SWCA Environmental Consultants includes an assessment of the Hawaiian Short-eared Owl and the Hawaiian Hoary Bat. The assessment was prepared in coordination with DLNR. Appendix H contains the wildlife survey.

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.*

**Discussion:** In compliance with this condition, Honua'ula Partners, LLC will contribute not less than $5,000,000 to the County upon Project District Phase II approval for the development of the South Maui Community Park, as discussed in Section 4.10.5 (Recreational Facilities).

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.*

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), 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, MCC, 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, MCC.

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.*

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), Honua'ula Partners, LLC will comply with this condition.

    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.*

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), Honuaʻula Partners, LLC will develop and support an organized instructional program for Maui junior golfers in compliance with this condition.

c. *Honuaʻula Partners, LLC, its successors and permitted assigns, shall permit the Maui Interscholastic League ("MIL") and the Hawaiʻi 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.*

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), Honuaʻula will comply with this condition.

d. *Honuaʻula 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.*

**Discussion:** As discussed in Section 4.10.5 (Recreational Facilities), Honuaʻula will comply with this condition.

13. *That Honuaʻula 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/Lānaʻi 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, Honuaʻula 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 Hawaiʻi, the Hawaiʻi 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.*

**Discussion:** As discussed in Section 4.2 (Cultural Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP. The CRPP sets forth (among other things) selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones. The CRPP: 1) was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui, the Maui County Cultural Resources Commission, the Maui/Lāna'i Island Burial Council, the DLNR Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals; 2) ~~will be~~ has been submitted to SHPD and OHA on March 18, 2010 for review and recommendations; and 3) will be provided to the Maui County Cultural Resources Commission for review and adoption after receipt of comments and recommendations from SHPD and OHA. Through this collaborative process specified by the Maui County Council the CRPP will be refined to provide additional information including: 1) the nature of access to religious, ceremonial, and confirmed burial sites; 2) determination of appropriate traditional protocols and practices; ~~and~~ 3) establishment of educational and community stewardship programs; and 4) any other issues SHPD, OHA and the Maui County Cultural Resources Commission would like clarified and addressed. Appendix J contains the CRPP.

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

**Discussion:** In compliance with this condition non-potable water will be used for all irrigation purposes within Honua'ula. Section 4.8.1 (Water System) contains discussion regarding Honua'ula's private water system. Appendix P contains the Preliminary Engineering Report, which contains additional discussion regarding Honua'ula's private water system.

*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.*

**Discussion:** In compliance with this condition, during construction all dust control will use non-potable water or effluent, which may be obtained from the Kīhei WWRF. In further compliance with this condition, as discussed in Section 4.6 (Air Quality), 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.

*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.*

**Discussion:** As discussed in Section 4.8.2 (Wastewater System) Honuaʻula will not rely upon or burden any County wastewater system. Instead, Honuaʻula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). The Preliminary Engineering Report prepared for Honuaʻula (Appendix P) provides preliminary information regarding wastewater. For a more detailed analysis Honuaʻula Partners, LLC ~~has~~ engaged Brown and Caldwell Engineers to prepare a ~~Draft~~ Honuaʻula Sewage Disposal Analysis. In accordance with this condition, the Analysis ~~will be~~ has been submitted to the State DOH and DLNR and the County DEM and DWS for review and comment before Project District Phase II approval. These agencies have since provided comments and subsequently, ~~The~~ the Analysis, along with reviews and comments, ~~will then be~~ was submitted to the Maui County Council on May 11, 2010 for review. After receiving the Analysis, the Maui County Council accepted the Analysis and did not subject Honuaʻula to any additional conditions or amendments. As a result, Condition 16 has been fully satisfied.

17. *That Honuaʻula 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 rates 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.*

**Discussion:** As discussed in Section 4.8.2 (Wastewater System), Honuaʻula will not rely upon or burden any public wastewater facilities. In compliance with this condition, Honuaʻula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). Connection to the Mākena WWRF, which is approximately one mile south of Honuaʻula, would be in conformance with the option of participating in the operation of a private wastewater treatment facility (Alternative 1), and is the preferred alternative for Honuaʻula wastewater treatment. After treatment—at either the possible on-site WWRF or the existing Mākena WWRF—R-1 recycled water (reclaimed water) will be used within Honuaʻula for golf course irrigation and none of the reclaimed water will be placed into injection wells.

In further compliance with this condition, Honua'ula Partners, LLC will ensure that 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, MCC.

*18. That Honua'ula Partners, LLC, its successors and permitted assigns, shall address in their Project District Phase II application the following:*

**Discussion:** Conditions 18a to 18i primarily relate to compliance with DOH's "Twelve Conditions Applicable to all New Golf Course Development" ("12 conditions"). As discussed in Section 3.5.1 (Groundwater), to ensure that Honua'ula's golf course is developed and operated in an environmentally responsible manner and potential impacts are mitigated, Environmental & Turf Services, Inc., prepared a comprehensive Best Management Practices (BMPs) document adhering to the DOH's "Golf Course Best Management Practices" guidelines (DOH 2005). The BMPs also satisfy all previous DOH recommendations regarding golf courses, including, "Guidelines Applicable to Golf Courses in Hawaii" (Version 6, DOH 2002) and "Twelve Conditions Applicable to all New Golf Course Development" ("12 conditions;" Version 4, DOH 1992). Appendix C contains the complete BMP document. Compliance with each specific sub condition of Condition 18 is discussed below.

*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;*

**Discussion:** As discussed in Section 3.5.1 (Groundwater), Honua'ula Partners, LLC will provide and execute a groundwater monitoring program. As discussed in Section 3.5.2 (Nearshore Water Marine Environment), Honua'ula Partners, LLC has conducted baseline water quality monitoring assessments (for both groundwater and marine waters downstream of Honua'ula). These assessments will continue. In conducting these baseline assessments and in providing and executing a groundwater monitoring program, Honua'ula Partners, LLC, will be in compliance with Condition 1 of DOH's "12 Conditions," which relates to establishing baseline groundwater/vadose zone and nearshore water quality data. The results from the assessments will be provided to DOH. Appendix D contains the most recent assessment.

*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;*

**Discussion:** As discussed in Section 3.5.1 (Groundwater), Honua'ula Partners, LLC will provide and execute a groundwater monitoring program. In providing and executing a groundwater monitoring program, Honua'ula Partners, LLC, will be in compliance with Condition 12 of DOH's "12 Conditions" which relates to establishing a groundwater monitoring program. As discussed in Section 3.5.1 (Groundwater), the groundwater

monitoring program includes a contingency plan that would trigger pesticide use restrictions or bans if pesticides are detected at predetermined concentrations. In providing this contingency plan Honuaʻula Partners, LLC will be in compliance with Condition 3 of DOH's "12 Conditions" which requires immediate action if data from the monitoring system indicates increased levels of a contaminate that poses, or may pose, a threat to public health and the environment.

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;*

**Discussion:** As discussed in Section 4.8.2 (Wastewater) and above, Honuaʻula Partners, LLC will either participate in the operation of a private WWRF and system that accommodates the needs of Honuaʻula (Alternative 1) or provide a WWRF on-site (Alternative 2). The golf course clubhouse and other golf course facilities will be connected to the Honuaʻula wastewater system. In connecting the golf course clubhouse and other golf course facilities to the Honuaʻula wastewater system, Honuaʻula Partners, LLC, will be in compliance Condition 4 of DOH's "12 Conditions" relating to connecting the golf course clubhouse and other golf course facilities to a WWRF.

d. *Condition 5 of the Department of Health's "12 Conditions" relating to use of effluent has been satisfied;*

**Discussion:** As discussed in Section 4.8.2 (Wastewater) and above, after treatment at either the existing Mākena WWRF or the possible on-site WWRF, R-1 recycled water (reclaimed water) will be used within Honuaʻula for golf course irrigation. In using R-1 recycled water (reclaimed water) for golf course irrigation Honuaʻula Partners, LLC, will be in compliance Condition 5 of the DOH's "12 Conditions" relating to use of treated wastewater for golf course irrigation.

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;*

**Discussion:** As discussed in Section 3.5.1 (Groundwater), Honuaʻula will include a state-of-the-art golf course maintenance center, which will include above ground fuel storage tanks in compliance with all State of Hawaii requirements. In providing a state-of-the-art golf course maintenance center, Honuaʻula Partners, LLC will be in compliance with Condition 6 of DOH's "12 Conditions," which relates to storage of petroleum products for fueling golf carts, maintenance vehicles, and emergency power generators that pose potential risk to groundwater.

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;*

**Discussion:** As discussed in Section 3.5.1 (Groundwater), Honua'ula will include a state-of-the-art golf course maintenance center, which will include facilities for the safe storage of fertilizers, biocides, and pesticides. A golf course maintenance program will be implemented, which will include an Integrated Pest Management (IPM) approach that avoids conventional spray methods for pest management. In addition, a modern golf course irrigation system will be provided to use non-potable water efficiently. Further, as discussed in Section 4.6 (Air Quality), all construction activities will comply with the provisions of Chapter 11-60.1-33, HAR on fugitive dust. In providing these facilities, programs, and infrastructure, and in complying with State regulations regarding fugitive dust, Honua'ula Partners, LLC be in compliance with:

- Condition 7 of DOH's "12 Conditions" which relates to buildings designed to house fertilizers and biocides;
- Condition 8 of DOH's "12 Conditions" which relates to a golf course maintenance plan and program in regard to: 1) use of fertilizers and biocides; and 2) irrigation; and
- Condition 11 of DOH's "12 Conditions" which relates to: 1) fugitive dust during construction; and 2) application of pesticides and chemicals.

*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;*

**Discussion:** As discussed in Section 3.5.1 (Groundwater), Honua'ula will include a state-of-the-art golf course maintenance center. As discussed in Section 4.8 (Noise), the golf maintenance center will be located in an area sufficiently distanced from residential uses and will be designed to further lessen noise to surrounding uses. All golf course maintenance will be conducted in a manner so as not to cause a nuisance to residents. In providing a state-of-the-art golf course maintenance center in an appropriate area, Honua'ula Partners, LLC be in compliance with Condition 9 of DOH's "12 Conditions," which relates to minimizing noise from golf course maintenance activities.

*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;*

**Discussion:** As discussed in Section 4.8.5 (Solid Waste), green waste from the golf course may be processed and reused on-site. Honua'ula will also support the County's recycling, reuse, and composting activities. In implementing green waste and recycling programs, Honua'ula Partners, LLC be in compliance with Condition 10 of DOH's "12 Conditions" concerning solid waste disposal, managing waste so that it does not create a nuisance,

and composting green waste for subsequent use as a soil conditioner or mulching material.

> *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;*

**Discussion:** As discussed in Section 3.3 (Soils), all grading for Honua'ula will be in compliance with Chapter 20.08, MCC (Soil Erosion and Sedimentation Control) and NPDES Notice of General Permit Coverage for stormwater associated with construction activity will be necessary. In complying with Chapter 20.08, MCC (Soil Erosion and Sedimentation Control) and the provisions of the NPDES permit, Honua'ula Partners, LLC will also be in compliance with Condition 12 of the State DOH's "12 Conditions Applicable to All New Golf Course Development" concerning soil runoff during construction, consultation with the USDA-SCS, and obtaining a NPDES permit.

In further compliance with Condition 18i, concerns of the DOT, DWS, DOH, and the NRCS of the U.S. Department of Agriculture relating to drainage will be addressed and incorporated in grading and construction plans. Appendix P contains the Preliminary Engineering Report, which includes a preliminary drainage plan.

> *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;*

**Discussion:** The current plans for the Property include an area for the expansion of the existing substation (Figure 1). Honua'ula Partners, LLC is not requesting that the existing MECO substation be relocated. ~~MECO is aware that Honua'ula Partners, LLC will provide area for the expansion of the existing substation, but at this time cannot confirm that the expansion area is needed without more detailed information, including projections for electrical demand for other proposed projects in the region. MECO has stated that they continuously attempt to plan for additional substation sites to meet the electrical demand of the community. Honua'ula Partners, LLC's electrical engineer will continue to coordinate with MECO regarding the need for expanding the substation and Honua'ula Partners, LLC will continue to include an area for the expansion of the existing substation on Honua'ula plans.~~

Honua'ula Partners, LLC's electrical engineer has provided available information regarding Honua'ula to MECO for their review and planning purposes. MECO has stated that additional review is required during the design development stage of Honua'ula to determine if expansion of the existing substation will be necessary. MECO has also stated that although the current capacity of the MECO electrical system to serve Honua'ula may

be limited, with continuously evolving demands for MECO's service, along with MECO's on-going efforts to upgrade and maintain their system to serve the new and existing loads, capacity may be in place and adequate to serve Honua'ula by the time Honua'ula is under construction. MECO will continue to review its electrical system and requirements as Honua'ula progresses into the design development stage so that MECO will be able to evaluate: 1) the size of actual electrical loads that MECO is required to serve; 2) the dates when these loads need to be energized by MECO; and 3) the state of the MECO electrical system at the time when these loads are expected to be connected.

In anticipation of the need, Honua'ula Partners, LLC will continue to include an area for the expansion of the existing substation on Honua'ula plans. Should MECO not require additional area, the existing substation would not be expanded. Since MECO cannot make a determination until Honua'ula is within the design development stage, details on the requirements for serving Honua'ula are not available at this time. At MECO's request, landscaping plans will be submitted to MECO during the design development stage of Honua'ula for their review and approval. MECO's concerns regarding landscaping around their facilities pertain to potential operational, maintenance, and safety issues.

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.*

**Discussion:** ~~Honua'ula Partners, LLC has requested verification from the State DOT and County Department of Public Works that the proposed roadway improvements meet with their satisfaction. Honua'ula Partners, LLC will provide verification when received from State DOT and County Department of Public Works.~~

Honua'ula Partners, LLC has engaged in extensive consultation and correspondence with the DOT and DPW regarding roadway improvements that Honua'ula Partners, LLC are required to implement. These includes the regional traffic improvements noted above under the heading "Regional Traffic Improvements" and the Honua'ula-related traffic improvements noted above under the heading "Honua'ula-Related Traffic Improvements." These improvements are all provided in compliance with County of Maui Ordinance No. 3554 Condition 2, which includes multiple sub-conditions as noted above. The consultation involved ensuring that the design of the proposed improvements is to the satisfaction and agreement of: 1) DOT regarding State Highway improvements; and 2) DPW regarding County roadway improvements.

In correspondence from DOT dated March 24, 2010, DOT stated:

> *The improvements to be performed by Honuaula Partners LLC as stated in Condition 2 are consistent with the improvements identified in the Traffic Impact Assessment Report (TIAR)*

*dated 29, 2009[23]. These improvements are understood to be considered the 'fair share' for highway related improvements of the affected area.*

In their March 24, 2010 letter DOT also specifically addressed extending Piilani Highway into Honua'ula from Wailea Ike Drive to Kaukahi Street (Condition 2b), a portion of which will be on State-owned ROW, by specifying their design requirements for the extension. In so specifying it is implicit that DOT is in agreement with extending Piilani Highway over the State-owned ROW. Regarding the widening of Piilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive (Condition 2a), in further correspondence from DOT dated August 23, 2010, DOT concurred with the design of the widening provided by Honua'ula Partners, LLC.

In correspondence from DPW dated February 24, 2010 DPW stated: "We confirm that Honua'ula Partners, LLC is in compliance with and has initiated implementation of Condition Nos. 2e, g and h as defined in the conditions of zoning for the Honua'ula project." Conditions 2e, 2g, and 2h pertain to improvements to County roadways.

The correspondence between Honua'ula Partners, LLC and DOT and DPW indicates the satisfaction of DOT and DPW with the improvements that Honua'ula Partners, LLC will provide and constitutes these agencies' agreement with the improvements as designed thus far. Further satisfaction and agreement with the proposed improvements is evidenced by the environment assessments (EAs) for the widening of Pi'ilani Highway and the Wailea Ike Drive/Wailea Alanui Drive intersection improvements. Specifically the Final EA for the widening of Pi'ilani Highway (Appendix R) contains design details and—as the accepting authority for the EA—DOT has reviewed the draft and final EA, accepted the final EA, and issued a Finding of No Significant Impact. Similarly, the Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA (Appendix S) includes design details and DPW—as the accepting authority for the EA—has reviewed the draft and final EA, accepted the final EA, and issued a Finding of No Significant Impact.

In summary, the consultation and subsequent written correspondence between Honua'ula Partners, LLC and DOT and DPW demonstrates the efforts of all involved to work cooperatively to implement the required roadway improvements. This is further evidenced by DOT's and DPW's review and acceptace of the EAs covering the respective improvements these agencies are responsible for overseeing. These agencies review of, and satisfaction with, the improvements required of, and proposed by, Honua'ula Partners LLC constitutes their agreement with the improvements and the use of the State and County ROWs necessary to implement the improvements. Collectively, DOT's and DPW's

[23] The TIAR dated October 29, 2009, pertains to the widening of Piilani Highway from Kilohana Drive to Wailea Ike Drive, including improvements at the intersections of: 1) Pi'ilani Highway/Okolani Drive/Mikioi Place; and 2) Pi'ilani Highway/Kilohana Drive/Mapu Place. The TIAR contained in the Draft EIS and this Final EIS is dated March 2, 2010, and identifies the same recommended improvements to these intersections.

satisfaction with, and agreement of, the improvements constitutes Honua'ula Partners, LLC's compliance with Condition 18k.

Appendix L includes the above referenced correspondence between Honua'ula Partners, LLC and DOT and DPW. Appendix R contains the Pi'ilani Highway Widening Project Final EA. Appendix S contains the Wailea Ike Drive and Wailea Alanui Drive Intersection Improvements Final EA.

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.*

**Discussion:** As discussed in Section 4.8 (Infrastructure and Utilities), Honua'ula will be responsible for all required infrastructure improvements as determined by the appropriate governmental agencies and public utility companies and will execute appropriate agreements to this effect. Honua'ula Partners, LLC has requested both State and County agencies to verify Honua'ula Partners, LLC's compliance with this condition and specific improvement requirements conditioned by those agencies.

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.*

**Discussion:** As discussed in Section 3.5.2 (Nearshore Marine Environment), MRC conducted nearshore water quality monitoring assessments in 2005, 2006, 2008, ~~and~~ 2009, 2010, and 2011 to provide pre-Honua'ula baseline data and an assessment of existing conditions of coastal water resources (groundwater and surface water) that receive surface or groundwater discharges from the hydrological unit where Honua'ula is located. Honua'ula nearshore water quality monitoring assessments will continue during construction and after Honua'ula is built. Information and conclusions from the ~~most recent assessment~~ 2010 (MRC 2010a) and 2011 (MRC 2011) reports, as well as other relevant information, are summarized in Section 3.5.2 (Nearshore Marine Environment). Appendix D contains the complete 2010 assessment report included in the Draft EIS (MRC 2010a) and the most recent assessment report (MRC 2011). In addition:

- Current and future nearshore water quality monitoring assessments provide, and will continue to provide, water quality data necessary to assess compliance with Section 11-54-06, HAR (Open Coastal Waters of the DOH Water Quality Standards);
- Current and future Honua'ula nearshore water quality monitoring assessments were done, and will continue to be done, in accordance with the current (and as may be amended) DOH methodology for Clean Water Act Section 305(b) water quality assessment, including the use of approved analytical methods and quality control/quality assurance measures.
- After construction commences water quality data will be submitted annually to DOH for use in future State "Integrated Report of Assessed Waters prepared under Clean Water Act Sections 303(d) and 305(b)" (Intergrated Reports)[24] (which is the same as "the State's Integrated Report of Assessed Waters prepared under Clean Water Act Sections 303(d) and 305(b)" as stated in Condition 20).

In further compliance with County of Maui Ordinance No. 3554 Condition 20, it is noted that the 2006 Integrated Report (DOH 2008) lists two areas of nearshore receiving waters downstream from Honua'ula as "impaired," meaning State ocean water quality standards for specific criteria were not attained based on data collected in 2006 or before. The Clean Water Act requires that TMDLs be established for specific criteria that do not meet the standards; however, DOH, the State agency responsible for developing TMDLs, has not developed any TMDL critera for any marine areas off the coast of Maui (DOH 2010). Honua'ula is not yet built, and thus is not currently contributing to any downstream water quality impacts. Comparison of data from the 2006 Integrated Report and the current Honua'ula nearshore water quality monitoring study (MRC ~~2010a~~ 2011) shows that water quality results can vary over time, as the current study results indicated a lesser degree of

[24] The actual name of the most recent report is: *2006 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to Sections §303(D) and §305(B), Clean Water Act (P.L. 97-117).* The report was prepared by the Hawaii State Department of Health and is dated January 11, 2008. The DOH refers to this report as the "Integrated Report."

impairment than the 2006 Integrated Report (see Section 3.5.2 (Nearshore Marine Environment for additional information). At the time the Draft EIS was prepared (March 2010) DOH ~~anticipates~~ anticpated publishing an update of the 2006 Integrated Report in 2010 however, as of May 2012 an updated report was not published.~~, and, in~~ In light of the recent test results from the Honua'ula study, it is possible that ~~the 2010~~ a future update will find a lesser degree of impairment than the 2006 Integrated Report. If the State's Integrated Report lists the receiving waters downstream from Honua'ula as "impaired" after construction of Honua'ula commences, and if by that time, DOH has developed TMDL critera for receiving waters downstream from Honua'ula, then the Honua'ula nearshore water quality monitoring program will be amended to evaluate land-based pollutants, including: 1) monitoring of surface water and groundwater quality for the pollutants indentified as the source of 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 estimates will be submitted to DOH Environmental Planning Office, TMDL Program.

As further discussed in Section 3.5.2 (Nearshore Marine Environment), MRC conducted ~~a preliminary~~ an assessment of the marine community structure of the nearshore waters downstream from the Property (i.e. ecological monitoring) in accordance with the Coral Reef Assessment and Monitoring Program protocols used by DLNR (MRC 2010b). Information and conclusions from the marine community structure assessment report are summarized below. Appendix D contains the complete report. In adition, Marine community structure assessment surveys (i.e. ecological monitoring) will be done annually and the annual results will be reported to the Aquatic Resources Division, DLNR.

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.*

**Discussion:** All Honua'ula outdoor lighting will be in compliance with Chapter 20.35 (Outdoor Lighting), MCC.

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.*

**Discussion:** As discussed in Section 4.10.1 (Schools), Honua'ula Partners, LLC will comply with this condition. In 2007, the State Legislature passed a law establishing school impact fees (see HRS Section 302A-1601 et. seq). In November 2010, the Hawai'i Board of Education designated Central Maui, including Kīhei-Mākena Project District 9, as a school impact fee district. Honua'ula Partners, LLC will comply with all applicable laws regarding

school impact fees. Currently the Central Maui school impact fee established by DOE is $5,560 per single-family unit and $2,451 per multi-family unit. Therefore, in compliance with Condition 22, Honuaʻula Partner's, LLC will pay a school impact fee of $5,560 per single-family unit and $3,000 per multi-family unit.

23. *That Honuaʻula 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.*

**Discussion:** As discussed in Section 3.4 (Natural Hazards), Honuaʻula will comply with this condition.

24. *That Honuaʻula Partners, LLC, its successors and permitted assigns, shall provide to the County two acres of land with direct access to Piʻilani 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 Honuaʻula 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.*

**Discussion:** As discussed in Section 4.10.3 (Fire), Honuaʻula will comply with this condition. See Figure 1 for the location of the land to be provided to the County with direct access to the Piʻilani Highway extension for the development of fire control facilities.

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.*

**Discussion:** As discussed in Section 4.9.3 (Housing), Honuaʻula will comply this condition.

26. *That Honuaʻula Partners, LLC, its successors and permitted assigns, shall provide a preservation/mitigation plan pursuant to Chapter 6E, Hawaiʻi 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.*

**Discussion:** As discussed in Section 4.1 (Archaeological and Historic Resources), Aki Sinoto Consulting, LLC and Hana Pono, LLC prepared a CRPP which also serves as the archaeological preservation/mitigation plan pursuant to Chapter 6E, HRS. The CRPP sets forth (among other things) selection criteria for sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site to be preserved, and the types of native plants to be used for landscaping

buffer zones. The CRPP ~~will be~~ was provided to SHPD, DLNR and OHA on March 18, 2010 for approval prior to Project District Phase II approval. In accordance with SHPD requirements, Honua'ula Partners, LLC, will also provide a data recovery plan to SHPD for review and approval. Appendix J contains the CRPP.

> *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.*

**Discussion:** Honua'ula Partners, LLC will comply with ~~this condition~~ Condition 27. As discussed in Section 3.6 (Botanical Resources), SWCA Environmental Consultants (SWCA) prepared the *Honua'ula Conservation and Stewardship Plan* (2010b) to ensure the long-term conservation and stewardship of native plants within Honua'ula. The plan incorporates findings, conclusions, and recommendations from previous botanical surveys, wildlife surveys, and biological assessments of the Property and recommends proactive stewardship actions to manage the Native Plant Preservation Area and the Native Plant Conservation Areas (see discussion below and in Section 3.6 (Botanical Resources)). The *Honua'ula Conservation and Stewardship Plan*, along with the report titled: *"Remnant Wiliwili Forest Habitat at Wailea 670, Maui, Hawaii by Lee Altenberg, Ph.D.,"* ~~will be~~ was provided to DLNR, the USFWS, and the U.S. Corps of Engineers for review and recommendations on March 22, 2010, which is before 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.*

**Discussion:** In their letter addressed to William Spence, Director of the County of Maui Planning Department dated February 15, 2012, the DLNR stated:

> *With regard to Condition 27, we note that the ordinance refers to "preservation". Statutory provisions for the preservation of natural resources are provided in Chapter 195, Hawaii Revised Statutes, through the establishment of the Natural Area reserve System. At this time, the Subject Area is not designated a Natural Area Reserve. Chapter 195 provides a process by which a natural Area reserve may be established.*

DLNR also stated: "Mitigation for a project as part of an HPC [Habitat Conservation Plan] may, in priniciple, be conducted off site if all other requrements are met and if the HCP is approved."

In their letter commenting on the Honua'ula Draft Environmental Impact Statement (EIS) dated July 2, 2010, the USFWS stated: "…we recommend that the conservation easement or Native Plant Preservation Area include a contiguous area of roughly 130 acres (56 hectares) which would encompass the majority of the mixed use remnant kiawe-wiliwili shrubland." USFWS also stated that the Conservation & Stewardship plan (see Appendix F):

> *…has identified numerous proposed mitigation measures and an interest in cooperating with funding off-site conservation projects to offset the loss of habitat within the proposed project footprint. Your Final EIS should also include a description of these off-site conservation projects. In order to fully address this aspect of the project in your Final EIS, we suggest that a 130-acre (56 hectare) Native Plant Preservation Area, located within the southern portion of the property, be incorporated into the preferred alternative. Alternatively, you discussion of the project alternatives (Section 6.0) in your Final EIS should thoroughly address any reasons conservation of the entire southern area was not included selected* [sic] *as the preferred alternative.*

Based on the presence of the non-native tree tobacco (Nicotiana glauca) and native host plants for the endangered Blackburn's sphinx moth, the USFWS also expressed concern that "habitat loss within the project site could adversely impact Blackburn's sphinx moth populations within this region of Maui."

In their letter dated May 10, 2010 the United States Army Corps of Engineers stated:

> *The Corps Regulatory Program does not have the legal authority or expertise to comment or make recommendations as to the appropriateness of areas of a parcel for preservation or for use as mitigation, for a particular project, for Maui Planning Commission use.*

Since June of 2010 Honua'ula Partners, LLC has met with DLNR and USFWS on many occasions to reach agreement regarding satisfaction of Condition 27. As a result of these meetings, Honua'ula Partners, LLC proposes both on- and off-site measures to protect and enhance native plants and habitat for the Blackburn's sphinx moth (*Manduca blackburni*) as discussed below.

As discussed in Section 3.6 (Botanical Resources), to protect and conserve an area that contains the highest density of representative native plant species within Honua'ula, Honua'ula Partners, LLC will dedicate in perpetuity a conservation easement titled "Native Plant Preservation Area." As shown on Figure 1 and Figure 12, the proposed Native Plant Preservation Area encompasses a contiguous ~~22~~- 40-acre area within the portion of the Property south of latitude 20º40'15.00"N. The area of the Native Plant Preservation Area

will be subject to concurrence by the DLNR, USFWS, and the U.S. Corps of Engineers and will be dedicated to the conservation of native Hawaiian plants and significant cultural sites (see Section 4.1 (Archaeological and Historic Resources) and Section 4.2 (Cultural Resources) for information on archaeological and cultural resources).

In addition to the Native Plant Preservation Area, Native Plant Conservation Areas will be located throughout the Property including adjacent to both the golf course and the Native Plant Preservation Area. The areas will include:

- All the existing natural gulches throughout the Property (28 acres);
- Ungraded conservation areas (eight acres) in which existing native plants will be protected and that will be managed as natural areas; and
- Areas containing naturalized landscape in which existing native vegetation will be conserved or enhanced through propagation of native species from seeds collected on the Property.

Honua'ula's Native Plant Preservation Area, combined with ~~other~~ the Native Plant Conservation Areas within Honua'ula (Figure 12~~ and Table 2~~), will provide a total of approximately ~~143~~ 76 acres on-site for the protection, enhancement, and propagation of native plants of the mixed *kiawe-wiliwili* shrubland associations in southeastern Maui. These areas will: 1) provide protection for native plants; 2) ensure the long-term genetic viability and survival of the native dry shrubland species; and 3) enhance long-term population growth.

For off-site mitigation, Honua'ula Partners, LLC will:

1. Acquire a perpetual conservation easement of approximately 224-acres on a currently unprotected portion of property owned by Ulupalakua Ranch adjacent to the eastern boundary of the State of Hawaii Kanaio Natural Area Reserve; and
2. Fund and implement the continuation and expansion of restoration efforts within the Auwahi Forest Restoration Project area, just north of the Kanaio Natural Area Reserve, include fencing of approximately 130 acres, ungulate removal, and plant restoration activities.

See Figure 12a for the proposed locations of the off-site mitigation areas. The on- and off-site mitigation measures and areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR.

The proposed on- and off-site measures to protect native plants and Blackburn's sphinx moth habitat proposed by Honua'ula Partners, LLC provide a net conservation benefit (as required under Chapter 195D, HRS) through:

- The protection and propagation of additional native host plants for both larval and adult Blackburn's sphinx moth (including the native host species 'aiea (*Nothocestrum spp.*) and halapepe (*Pleomele spp.*)); and

- Creation and protection of a higher number species of native host plants than currently exists on the Property.

Together the on- and off-site mitigation areas provide approximately 394 acres of native dry shrublands for the perpetual protection and propagation of native dryland plants, including wiliwili. Through the perpetual protection and enhancement of these areas, a stable core habitat area will be secured for the moth, providing net benefit to this covered species, as well as a large number of additional native dryland species.

See Section 3.6 (Botanical Resources) and Section 3.7 (Wildlife Resources) for a more complete description of on- and off-site measures to protect native plants and Blackburn's sphinx moth habitat proposed by Honua'ula Partners, LLC.

In response to USFWS' comment that "…discussion of the project alternatives (Section 6.0) in your Final EIS should thoroughly address any reasons conservation of the entire southern area was not included selected [sic] as the preferred alternative," Chapter 6 (Alternatives) has been revised to include an alternative discussing a 130-acre Native Plant Preservation Area and reasons why this alternative is not feasible. In summary, a Native Plant Preservation Area of 130 acres would result in significant changes to the Conceptual Master Plan, resulting in conflicts with several provisions of Chapter 19.90A, Maui County Code (MCC). A Native Plant Preservation Area of 130 acres would necessitate shifting a significant number of single-family and multi-family homes to the northern section of the Property, thereby increasing density in this area. It would also significantly change the golf course layout or possibly make a golf course altogether infeasible. Simply reducing the number of homes or not providing a golf course could make Honua'ula economically unfeasible in light of the significant on and off-site improvements required as conditions of County of Maui Ordinance No. 3554. Reducing the number of homes and/or not providing a golf course would also dramatically decrease the economic benefits of Honua'ula, such as property tax revenues to the County, total gross tax revenues to the State; and impact fees paid to the County and State by Honua'ula Partners LLC.

*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").*

**Discussion:** As discussed in Section 3.6 (Botanical Resources), Honuaʻula Partners, LLC will comply with this condition and is preparing a draft agreement setting forth the scope of the Easement (i.e., the Native Plant Preservation Area).

b. *That Honuaʻula 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.*

**Discussion:** As discussed in Section 3.6 (Botanical Resources), Honuaʻula Partners, LLC agrees to confine use of the Easement to activities consistent with the purpose and intent of the Easement (i.e., the Native Plant Preservation Area).

c. *That Honuaʻula 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.*

**Discussion:** As discussed in Section 3.6 (Botanical Resources), Honuaʻula Partners, LLC will comply with this condition and will prohibit development in the Easement (i.e., the Native Plant Preservation Area) other than erecting fences, enhancing trails, and constructing structures for the maintenance needed for the area, in accordance with the *Honuaʻula Conservation and Stewardship Plan* (2010b).

d. *That title to the Easement shall be held by Honuaʻula 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.*

**Discussion:** As discussed in Section 3.6 (Botanical Resources), Honuaʻula Partners, LLC will comply with this condition and agrees that access to the Easement (i.e., the Native Plant Preservation Area) shall be permitted pursuant to an established schedule specified in the *Honuaʻula Conservation and Stewardship Plan* (2010b) 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. *Honuaʻula 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 Hawaiʻi.*

**Discussion:** Honuaʻula Partners, LLC will comply with this condition.

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.*

**Discussion:** As discussed in Section 4.4 (Roadways and Traffic), Austin, Tsutsumi & Associates have prepared TMPs for construction and post-construction operations for Honua'ula and the Pi'ilani Highway widening. The TMPs propose transportation management strategies to reduce: 1) construction-related traffic during the construction of Honua'ula and the widening of Pi'ilani Highway; and 2) dependency on individual vehicles by Honua'ula residents, employees, and visitors after construction. Among other things, the TMPs support the establishment of centrally-located park-and-ride facilities and the establishment of a transportation coordinator position to implement and facilitate effective traffic management strategies. Appendix M contains the full TMPs.

The ~~TMPs have been submitted to the~~ State DOT, the County Department of Public Works, and the County Department of Transportation ~~for review and approval. In a letter dated December 18, 2009 the County Department of Public Works~~ have all reviewed and approved the TMPs for Honua'ula construction and post-construction operations. ~~This~~ The approval letters are ~~is~~ included in Appendix M.

In compliance with this condition, annual reports will be submitted to the specified State and County agencies and to the Maui County Council.

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.*

**Discussion:** In compliance with this condition, Honua'ula Partners, LLC has provided, and will continue to provide, annual compliance reports to the Department of Planning and the Maui County Council.

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.*

**Discussion:** As discussed in Section 2.5 (Environmentally-Responsible Planning and Design) and Section 4.8.5 (Electrical System), Honua'ula will include energy-efficient design and energy conservation measures, such as energy systems that meet all applicable ENERGY STAR requirements established by the EPA 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.

In addition, Honua'ula Partners, LLC will: 1) equip all residential units (single-family and multi-family) 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 unit; and 2) 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.

### 5.2.4 Special Management Area

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

## 5.3 APPROVALS AND PERMITS

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

**Table 7~~6~~. Required Permits and Approvals**

| Permit/Approval | Responsible Agency | Status |
|---|---|---|
| Chapter 343, HRS Compliance | Maui Planning Department/Planning Commission OEQC | ~~Pending public comments and~~ Planning Commission acceptance received on _____. |
| Project District Phase II | Maui Planning Department | Application submitted to the Planning Department concurrent with the EIS. |
| Project District Phase III | Maui Planning Department | Application(s) to be submitted after Project District Phase II approval. |
| Subdivision Approval | Maui Planning Department | Application(s) to be submitted pending Project District Phase II approval. |
| National Pollutant Discharge Elimination System Permit | State DOH | Application to be submitted prior to Grading/Building Permits. |
| Grading/Building Permits | Maui Department of Public Works | Application to be filed after Project District Phase II approval. |
| Grading and Grubbing | Maui Department of Public Works | Application to be filed after Project District Phase III approval. |
| Drainage Approval | Maui Department of Public Works | Application to be filed after Project District Phase III approval. |
| Approval for Wastewater Reclamation Facility | State DOH | Application to be filed after Project District Phase II approval. |
| Permit to Perform Work within a State ROW | State Department of Transportation | Application to be filed after Project District Phase III approval. |
| Permit to Construct and Operate a Recycled Water Facility | State DOH | Application to be filed after Project District Phase III approval. |
| Incidental Take Permit/Incidental Take License | USFWS/ State DLNR | Application to be submitted to USFWS/DLNR |

# Chapter 6

## Alternatives

# 6 ALTERNATIVES

Under HAR Title 11, DOH, Chapter 200, EIS 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 Honuaʻula, along with reasons why each alternative was rejected are described below.

**Honuaʻula Objectives** – As discussed in Section 2.2.1, the objectives of Honuaʻula are rooted in the desire of Honuaʻula Partners, LLC to implement the *Kīhei-Mākena Community Plan* and create an appealing master-planned community with a variety of housing opportunities, village mixed uses, and abundant recreational amenities. Honuaʻula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

The objectives of Honuaʻula are to:

- Reflect community values to create a unique and compelling community in context with the Kīhei-Mākena region;
- Emphasize community development and create a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community;
- Integrate the golf course and recreational amenities with the different uses comprising the community;
- Preserve the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas, parks, and open space, as well as through excellence in landscaping and design;
- Make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community;
- Include buffer zones between residential areas and Piʻilani Highway;
- Integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community;
- Incorportate and preserve natural and cultural resources to maintain the physical and historic character of the Property, thereby creating a distinctive community for generations;
- Provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship ; and
- Incorporate sustainability by design.

## 6.1 NO ACTION ALTERNATIVE

Under the No Action alternative, Honua'ula would not be created and the Property would remain vacant. There would be no master-planned community embracing "smart growth" principles, such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian networks. The vision for the Property as set out in the *Kīhei-Mākena Community Plan* and under Section 19.90A.010, MCC for Project District 9 would not be realized, and decisions regarding the use of the Property for residential, recreational, and commercial uses previously made by the State LUC, the Maui Planning Commission, and the Maui County Council would not be implemented.

Under the No Action alternative, many of the conditions of zoning under County of Maui Ordinance No. 3554 that benefit the entire region would not be implemented, such as:

- Upgrading Pi'ilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive (Condition 2a);
- Modifying 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 (Condition 2e);
- Providing a contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements (Condition 3).
- Providing workforce housing in accordance with Chapter 2.96, MCC (the "Residential Workforce Housing Policy") (Condition 5);
- Providing a contribution of $5 million to the County for the development of the South Maui Community Park (Condition 10);
- Providing an in-lieu cash contribution to satisfy the park assessment requirements under Section 18.16.320, MCC (currently set at $17,240 per residential unit) (Condition 11);
- Developing formal provisions regarding cultural resources, such as access to specific sites to be preserved, the manner and method of preservation of sites, and appropriate protocol for visitation to cultural sites (Condition 13)
- Payment of <u>at least</u> $3,000 per dwelling unit (totaling <u>over</u> $3.45 million) to DOE for schools serving the Kīhei-Mākena Community Plan area (Condition 22);
- Providing two acres of land to the County of Maui for the development of a fire station and providing a contribution of $550,000 to the County for the development of a police station in South Maui (Condition 24); and
- Formal protection, restoration, and propagation of native plants, including setting aside a Native Plant Preservation Area and Native Plant Conservation Areas (Condition 27).

The No Action Alternative would also deprive the State, County, and general public of the significant economic benefits associated with Honuaʻula, including an estimated:

- $1.2 billion of direct capital investment in the Maui economy during the 13-year build-out period;
- 9,537 "worker years[25]" of direct on-site employment during the 13-year build-out period;
- $480 million in employee wages paid out during the 13-year build-out period;
- 518 jobs (382 directly related to on-site activities and 136 related to indirect off-site activities) after the build-out period;
- $19 million in annual wages from the on and off-site jobs after the build-out period;
- $513.9 million (nearly $40 million annually) in discretionary expenditures into the Maui economy by Honuaʻula residents and guests during the 13-year build-out period;
- $77 million annually in discretionary expenditures into the Maui economy by Honuaʻula residents and guests after the build-out period;
- $41.8 million in net tax revenue benefit (taxes less costs) to the County of Maui during the 13 year build-out period;
- $1.6 million in annual net tax revenue benefit (taxes less costs) to the County of Maui after the build-out period;
- $97 million in net tax revenue benefit (taxes less costs) to the State of Hawaii during the 13 year build-out period; and
- $1.5 million in annual net tax revenue benefit (taxes less costs) to the State of Hawaii after the build-out period.

Potential benefits of the No Action Alternative would include: 1) retaining the area as open space; 2) avoidance of additional infrastructure demands (water, wastewater flows, solid waste disposal; however Honuaʻula will be providing its own private water and wastewater systems and so would not be impacting County systems for these needs); 3) no Honuaʻula-related traffic impacts; and 4) no short-term construction-related impacts (such as construction noise, construction equipment exhaust emissions, and fugitive dust). The No Action Alternative also would not add to regional population increases or require any public services, such as parks and schools, to accommodate an increased population in the area.

Honuaʻula is a well thought out master-planned community fully consistent with: 1) the *Kīhei-Mākena Community Plan*; 2) uses envisioned under its State Urban District classification; and 3) the purpose and intent of the Project District 9 ordinance, Chapter 19.90A, MCC.

[25] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

In summary, the No Action alternative:

- Does not meet the objectives of Honuaʻula;
- Would not be consistent with the designation of the Property as Project District 9 in the *Kīhei-Mākena Community Plan*;
- Would not be consistent with the purpose and intent of the Project District 9 ordinance, Chapter 19.90A, MCC
- Would not implement decisions regarding the Property made by the State LUC, the Maui Planning Commission, and the Maui County Council;
- Would deny the entire region of many substantive benefits that would be implemented under County of Maui Ordinance No. 3554; and
- Would not provide the State, County, and general public the significant economic benefits associated with the creation of Honuaʻula.

For these reasons, the No Action alternative was rejected.

## 6.2 RESIDENTIAL LOT SUBDIVISION ALTERNATIVE

An alternative to the current Honuaʻula plan could be developing the Property as a residential lot subdivision, similar to neighboring Maui Meadows, without a golf course or any commercial uses. If developed with similar densities as Maui Meadows, with minimum sized lots of one-half acre, the Property could possibly contain up to 1,340 lots and units. If ohana units were allowed, as in Maui Meadows, the Property could contain as many as 2,680 units.

Typical subdivisions consisting of only residential uses usually require residents to drive outside of the subdivision for many daily needs (i.e. from homes to shopping centers, restaurants, recreational facilities, etc). Such subdivisions have been criticized for not fostering sustainable development and failing to foster neighborhood interaction.

Honuaʻula offers a different residential solution than a conventional residential subdivision. As discussed in Section 2.2.1 (Statement of Objectives), the objectives of Honuaʻula are rooted in Honuaʻula Partners, LLC's desire to implement the *Kīhei-Mākena Community Plan* and create an attractive master-planned community with a variety of housing opportunities, village mixed uses, and abundant recreational amenities. Honuaʻula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

As opposed to a conventional residential subdivision, Honuaʻula embraces "smart growth" principles in its design, with stores and services as an integral part of the community. This design will help to minimize car trips onto Piʻilani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Honuaʻula is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars.

Several aspects of the design of Honuaʻula contribute to a high quality of life. The community will include a mix of residential and commercial uses, a golf course, parks and open space, biking and walking paths, and significant areas set aside for native plant and archaeological/cultural preservation. These components combine 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 conventional residential lot subdivision alternative most likely would result in greater impacts than Honuaʻula, such as increased population, increased traffic, and greater infrastructure demands for water, wastewater flows, solid waste disposal, and electricity.

The conventional residential lot subdivision alternative does not meet several objectives of Honuaʻula, including: 1) reflecting community values to create a unique and compelling community in context with the Kīhei-Mākena region and the neighboring Wailea Resort; 2) emphasizing community development and creating a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community; 3) integrating the golf course and recreational amenities with the different uses comprising the community; 4) preserving the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas, parks, and open space; and 5) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community.

The conventional residential lot subdivision alternative also does not meet the purpose and intent of the Project District ordinance for the Property (Chapter 19.90A, MCC), which is to establish permissible land uses and appropriate standards of development for a residential community consisting of single-family and multifamily dwellings complemented with village mixed uses, all integrated with an eighteen-hole golf course and other recreational amenities.

Because the conventional residential lot subdivision alternative is contrary to the objectives of Honuaʻula and the intent of the Project District ordinance for the Property (Chapter 19.90A, MCC), this alternative was rejected.

## 6.3 MORE WORKFORCE HOUSING ALTERNATIVE

Another possible alternative could be to develop the Property with more workforce housing. Different master plans could be designed that could result in the provision of more workforce housing. However, to subsidize the added costs resulting from additional workforce housing, it is highly likely that more market-rate housing would be required, resulting in a higher density project. The amount of recreation and village

mixed uses may also need to be reduced and the golf course eliminated to accommodate more residential units, resulting in a more conventional type subdivision with different, and most likely greater, environmental impacts and decreased quality of life for residents.

A higher density project with more workforce housing could keep the same buildable area (a positive benefit) as currently proposed, but result in a community with increased visual impacts (appearance of the site changing from moderate density to a higher density development, with more stories for the residential buildings and/or smaller lots). A higher density project would also result in increased traffic and infrastructure demands (increased water demand, wastewater generated, and solid waste produced), as well as increased demand for public services. Implementation of this alternative would also most likely result in increased construction-related impacts due to the greater number of units being built – including construction noise, construction equipment exhaust emissions, temporary traffic disruption, fugitive dust and soil erosion.

Alternatively, a higher density project could also be accomplished by reducing open space on the Property from what is currently proposed (currently approximately 50 percent of the Property is proposed to be open space, including the golf course). However, this would reduce park, recreation, and preserve areas and would result in decreased quality of life for residents, increased impermeable surfaces, and increased runoff. Reducing open space would also not avoid the increased traffic and infrastructure demands that are inherent in a higher density project.

Honuaʻula already responds to the demand for housing in the Kīhei-Mākena region by providing homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce affordable homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents. The Honuaʻula market-rate homes will appeal to those buyers seeking the location, view, and climate of the Property. Although not a destination resort, as it is lacking ocean frontage and will not contain transient vacation rentals, Honuaʻula market-rate homes will be comparable with Maui's destination communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The market assessment prepared for Honuaʻula concludes that there is sufficient demand for the range of homes within Honuaʻula, with the workforce affordable homes being fully sold out within an eight year period and the market-priced homes within 12 years.

As currently proposed, Honuaʻula will contribute to a high quality of life for all Honuaʻula residents. Honuaʻula's inclusionary design provides for a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses, parks, and open space, and integrated bicycle and pedestrian networks. These components combine 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.

As discussed in Section 2.2.1 (Statement of Objectives), the objectives of Honua'ula are rooted in Honua'ula Partners, LLC's desire to implement the *Kīhei-Mākena Community Plan* and create an attractive master-planned community with a variety of housing opportunities, village mixed uses, and abundant recreational amenities. Honua'ula will also foster preservation of natural and cultural resources while contributing to Maui's social fabric and economic diversity.

The alternative of a higher density project with more workforce housing is contrary to the objectives of Honua'ula. In addition, implementation of this alternative would result in: 1) increased demand for infrastructure (water, wastewater flows, solid waste disposal) and public services; 2) increased traffic impacts; and 3) increased short-term construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and fugitive dust). For the foregoing reasons, this higher density alternative was rejected

## 6.4 RESORT/RESIDENTIAL COMMUNITY WITH TWO GOLF COURSES ALTERNATIVE

A previous proposal for the Property in 1988 included the development of up to 2,100 multifamily and single-family resort/residential units, two 18-hole golf courses, a mixed use village center, and a 480-room resort and lodge to complement the luxury hotel accommodations of Wailea and Mākena Resorts.

Under the 1988 plan, a village center was envisioned within the makai 300 acres of the Property. The primary activities and services within the village center were proposed to be commercial and restaurant uses, resort lodge visitor accommodations, a visitor information center, and other facilities such as theaters. A church was also proposed within the village center as a landmark feature. The balance of the makai portion of the Property was proposed to contain an 18-hole golf course, a golf course clubhouse, a tennis center, and various multifamily and single family residential uses located along the golf course.

A second 18-hole golf course was proposed in the mauka portion of the Property along with golf-oriented resort lodging and residential uses, but at lower densities than in the makai portion. Commercial development was proposed for approximately six acres at the intersection of Pi'ilani Highway and Wailea Ike Drive.

This alternative was oriented toward the visitor industry and represents a high-density use of the Property. It was envisioned before the Property was designated as Project District 9 on the *Kīhei-Mākena Community Plan*. Although the previous Property owner was successful in processing a community plan amendment to designate the Property as Project District 9—and this designation was reaffirmed through a community-based

process in the mid-1990s as part of the *Kīhei-Mākena Community Plan* update—this alternative is not consistent with the current Project District ordinance for the Property (Chapter 19.90A, MCC), which limits the Property to one golf course and a maximum of 1,400 residential units. In addition, the change in zoning ordinance for Honuaʻula (County of Maui Ordinance No. 3554): 1) requires affordable housing in conformance with the County's Residential Workforce Housing Policy (Chapter 2.96, MCC), which was not in effect at the time the 1988 plan was proposed; and 2) prohibits transient vacation rentals and time-share units within Honuaʻula

The 1988 plan also does not meet several objectives of Honuaʻula such as: 1) emphasizing community development and creating a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing; 2) preserving the inherent beauty of the Property by incorporating a Native Plant Preservation Area, Native Plant Conservation Areas, parks, and open space; 3) including buffer zones between residential areas and Piʻilani Highway; and 4) incorporating and preserving natural and cultural resources to maintain the physical and historic character of the Property, thereby creating a distinctive community for generations.

The 1988 plan would also generate greater impacts such as increased traffic; greater infrastructure demands regarding water, wastewater flows, solid waste disposal, and electricity; and the possible need for more public services, such as parks and schools. However, if the level of development as proposed in the 1988 plan were warranted by market demand, it could have greater positive economic impacts than Honuaʻula and fiscal revenues could rise faster than the cost to fund public services and utilities.

The 1988 plan is not a viable alternative because it:

- Is not consistent with the current Project District 9 ordinance for the Property (Chapter 19.90A, MCC);
- Would not provide workforce housing in conformance with the Residential Workforce Housing Policy (Chapter 2.96, MCC);
- Includes resort lodge visitor accommodations, which are prohibited under the change in zoning ordinance for Honuaʻula (County of Maui Ordinance No. 3554);
- Would generate greater impacts; and
- Is contrary to several objectives of Honuaʻula.

## 6.5 RESORT RESIDENTIAL COMMUNITY WITH ONE GOLF COURSE ALTERNATIVE

In 2000, after WCPT/GW Land Associates obtained ownership of the Property, the plan submitted with the Change in Zoning Application proposed up to 1,400 primarily upscale resort residential units, a single golf course on approximately 180 acres, and commercial uses at the intersection of Piʻilani Highway and Wailea Ike Drive.

Since 2000, in the course of planning, Honuaʻula representatives met with concerned individuals, community organizations, private groups, and government agencies (see

Chapter 8). Through this community-based process, the plan evolved to reflect community values and embrace contemporary "smart growth" planning principles, such as diverse residential opportunities, village mixed uses, and integrated bicycle and pedestrian networks. A significant amount of input was received on community impacts such as water, traffic, parks, and affordable and workforce housing. The input received drove solutions to issues such as private source development, improvements to Piʻilani Highway in advance of any permits, money to be dedicated to park development in South Maui and workforce housing on site. As more investigation was done on the Property, the plan was further refined to integrate and preserve natural and cultural resources and maintain the physical and historic character of the Property. The plan was also shaped by the Residential Workforce Housing Policy (Chapter 2.96, MCC)—which was not in effect in 2000—to include workforce housing and was further modified by the County Council to prohibit transient vacation rentals and time-share units within Honuaʻula. The current Project District 9 ordinance for the Property (Chapter 19.90A, MCC) also specifies specific uses, general standards of development, and land use sub districts with allowable densities and acreage, which are all reflected in the current plan.

With this evolution, and the desire of Honuaʻula Partners, LLC to implement the *Kīhei-Mākena Community Plan* to create an appealing master-planned community, the current objectives of Honuaʻula took shape, and the plan originally proposed in 2000 has been refined to the current Honuaʻula plan. Therefore the 2000 plan is no longer a viable alternative and the current plan, as elaborated on throughout this EIS, is the established, preferred alternative.

## 6.6 POSTPONING ACTION PENDING FURTHER STUDY ALTERNATIVE

The alternative of postponing action pending further study is neither necessary nor desirable, for the following reasons:

- This EIS and its related technical studies provide a comprehensive, in-depth evaluation of the impacts from Honuaʻula;
- Since 2000, in the course of planning, Honuaʻula representatives have met with concerned individuals, community organizations, private groups, and government agencies (see Chapter 8). This extensive process has resulted in a plan that is responsive to concerns and reflects community values;
- During the County Council hearings for the Honuaʻula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions address a wide range of concerns and ensure that any impacts of Honuaʻula are mitigated and addressed;
- Prior to the County Council hearings in 2008, the Council's Land Use Committee had held extensive public meetings over the course of 2006 and 2007 to consider the Honuaʻula project, including an estimated ten public hearings where public

testimony was heard. These meetings/hearings provided significant opportunity for the consideration of public questions and concerns prior to the Council's consideration and approval of the Phase I application;

- Further review for Honuaʻula will include the review of this EIS and the Project District Phase II public hearings by the Maui Planning Commission. Both of these steps provide for agency and public input and comments, as well as opportunities for the public and decision makers to ask for more information to address any additional concerns that may arise;
- It is projected that approximately 7,000 to 10,846 new homes will be needed in the Kīhei-Mākena region by 2030 (County Planning Department 2006; Hallstrom 2009). Postponing Honuaʻula to allow for more studies will only amplify the demand for housing, which could lead to increased prices; and
- As discussed in Section 6.1 above and elsewhere in this EIS, Honuaʻula will provide for a wide range of substantive benefits—both economic and otherwise—to the County, State and general public. Postponing the Honuaʻula project to allow for more studies will serve only to delay the realization of these important benefits.

## 6.7 130-ACRE NATIVE PLANT PRESERVATION AREA

Several comments on the Draft EIS requested that the EIS include an alternative discussing a Native Plant Preservation Area of 130 acres. County of Maui Ordinance No. 3554 Condition 27 states, in part, that the Native Plant Preservation Area "shall not be less than 18 acres and shall not exceed 130 acres." County of Maui Ordinance No. 3554 also includes a map showing the location of the Native Plant Preservation Area within the portion of the Property south of latitude 20º40'15.00"N. This map shows a Native Plant Preservation Area of 18 acres.

As discussed in Section 3.6 (Botanical Resources), in conformance with County of Maui Ordinance No. 3554 Condition 27, to protect and conserve an area that contains the highest density of representative native plant species within Honuaʻula, Honuaʻula Partners, LLC will dedicate in perpetuity a conservation easement titled "Native Plant Preservation Area." As shown on Figure 1 and Figure 12, the Native Plant Preservation Area encompasses a contiguous 40-acre area within the southern portion of the Property. Section 3.6 (Botanical Resources) and Section 3.7 (Wildlife Resources) detail additional on-site measures to protect native plants also discusses off-site measures that that Honuaʻula Partners, LLC will undertake to protect and enhance native plants and habitat for the Blackburn's sphinx moth[26], including:

- Acquiring a perpetual conservation easement of approximately 224-acres on a currently unprotected portion of property owned by Ulupalakua Ranch adjacent to the eastern boundary of the State of Hawaii Kanaio Natural Area Reserve; and

[26] The on- and off-site mitigation measures and areas are subject to the approval of the Habitat Conservation Plan by USFWS and DLNR.

- Funding and implementing the continuation and expansion of restoration efforts within the Auwahi Forest Restoration Project area, just north of the Kanaio Natural Area Reserve, including fencing of approximately 130 acres, ungulate removal, and plant restoration activities.

It is important to note that no Federal or State of Hawai'i listed threatened or endangered plant species have been identified on the Honua'ula Property[27]. The Property is not located within or immediately adjacent to critical habitat or recovery management units designated by the U.S. Fish and Wildlife Service (USFWS) and until recently there have been no efforts by any Federal, State, or local government agency, or non-governmental conservation organizations to acquire or protect any portion of the Honua'ula Property. The non-native tree tobacco (Nicotiana glauca) has been found at various locations throughout the Property and often appears quickly following grading, mowing, or related land disturbances. While insignificant as an introduced weedy plant species, it is a recognized host plant for the Federally-listed endangered Blackburn's sphinx moth (Manduca blackburni) (for information on the Blackburn's sphinx moth see Section 3.7 (Wildlife Resources)).

Chapter 19.90A, MCC (Kihei-Makena Project District 9 (Wailea 670)), sets forth Honua'ula's: purpose and intent; land use sub-districts, including allowable densities and acreage; general standards of development; and specifications for each sub-district. Chapter 19.90A, MCC also includes an adopted conceptual land use map for Honua'ula that graphically shows Honua'ula's land use sub districts, golf course, circulation, and other elements. This map does not show a Native Plant Preservation Area of any size.

The Conceptual Master Plan shown in Figure 1 is in conformance with the requirements of Chapter 19.90A, MCC regarding Honua'ula's purpose and intent, land use subdistricts, allowable densities, and other elements, such as the provision of a golf course. It is also in conformance with the map provided with County of Maui Ordinance No. 3554 regarding the general size and location of the Native Plant Preservation Area.

Providing a Native Plant Preservation Area of 130 acres would result in significant changes to the Conceptual Master Plan (Figure 1), resulting in conflicts with several provisions of Chapter 19.90A, MCC. A Native Plant Preservation Area of 130 acres would necessitate shifting a significant number of single-family and multi-family homes to the northern section of the Property, thereby increasing density in this area. It would also significantly change the golf course layout or possibly make a golf course altogether infeasible. Simply reducing the number of homes or not providing a golf course could make Honua'ula economically unfeasible in light of the significant on and off-site improvements required as conditions of County of Maui Ordinance No. 3554. Reducing

[27] While no Federal or State of Hawai'i listed threatened or endangered plant species have been identified, five individual plants of the candidate endangered species, 'āwikiwiki (Canavalia pubescens), have been documented within the Property.

the number of homes and/or not providing a golf course would also dramatically decrease the economic benefits of Honua'ula, such as property tax revenues to the County, total gross tax revenues to the State; and impact fees paid to the County and State by Honua'ula Partners LLC.

To elaborate on how a Native Plant Preservation Area of 130 acres would be in conflict with the provisions of Chapter 19.90A, MCC, the following examples are provided:

- Section 19.90A.010, MCC states: "The purpose and intent of Kihei-Makena project district 9 (Wailea 670) … is to establish permissible land uses and appropriate standards of development for a residential community consisting of single-family and multifamily dwellings complemented with village mixed uses, all integrated with an eighteen-hole golf course and other recreational amenities."

- Section 19.90A.010(B)(3), MCC states: "Integrate the golf course and recreational amenities with the different uses comprising the project."

  A Native Plant Preservation Area of 130 acres would significantly impact the ability to integrate Honua'ula's single and multifamily homes with an 18-hole golf course and other recreational amenities, as shifting nearly all of the residential uses to the northern section of the Property would require most of the area to be used for residential uses, or if integrated with a golf course, require significantly higher density residential configurations.

- Section 19.90A.020(A), MCC sets forth maximum allowable densities and acreage for each sub-district. The single-family sub-district is limited to an average density of 2.5 units per acre or less and approximately 40 percent of Honua'ula's total dwelling units are required to be single-family. The multi-family sub-district is limited to an average density of 10 units per acre or less and approximately 60 percent of Honua'ula's total dwelling units are required be multi-family.

  Shifting nearly all the single-family and multi-family homes to the northern section of the Property would require: 1) significantly higher density residential configurations in the northern section to provide the same amount of workforce and market priced homes; or 2) significantly less homes to comply with the density requirements of Section 19.90A.020(A), MCC. Reducing the total number of homes would make Honua'ula economically unfeasible in light of the significant on and off-site improvements required as conditions of County of Maui Ordinance No. 3554.

- Section 19.90A.020(B), MCC requires that 450 affordable homes shall be provided within the Honua'ula Property.

  Shifting nearly all single-family and multi-family homes (affordable and market priced) would require significantly higher density residential design or a reduction

in the total number of homes. Since 450 affordable homes are required, any reduction in the number of homes would result in less market priced homes. Reducing the number of market priced homes would make Honua'ula economically unfeasible in light of the significant on and off-site improvements required as conditions of County of Maui Ordinance No. 3554.

In addition, some Maui Meadows residents have expressed concerns about the density of affordable multi-family homes adjacent to the Maui Meadows boundary. On the Conceptual Master Plan included with the Draft EIS it was necessary to include multifamily homes in this area to accommodate the initial Native Plant Preservation Area. Providing a larger 130-acre Native Plant Preservation Area would necessitate increasing the number and density of units in the northern section of the Property thus adding to the concerns of some Maui Meadows residents.

- Section 19.90A.020(D), MCC references a conceptual land use map that "is adopted and is made a part of this section." The map graphically shows Honua'ula's land use sub districts, golf course, circulation, and other elements.

  The conceptual land use map adopted as part of Section 19.90A.020(D) has already been modified to accommodate the initial Native Plant Preservation Area and other conditions required under County of Maui Ordinance No. 3554. The Planning Department reviewed the changes necessary to implement the initial Native Plant Preservation Area and other conditions which included changes to sub-district configurations and densities, circulation design, and golf course layout. Increasing the Native Plant Preservation Area to 130 acres would require additional changes in sub-district configurations and densities, circulation design, golf course layout, and other critical design considerations. A significantly revised conceptual land use map incorporating a 130-acre Native Plant Preservation area would be inconsistent with the conceptual land use map referenced in Section 19.90A.020(D).

- Section 19.90A.030(A)(1), MCC requires: "Existing natural drainageways shall remain as open spaces and their hardening shall be discouraged, provided that landscaping, walkways, bikeways, roadways, fences, drainage, and minor recreational and other structures, which do not either detract from the natural environment or adversely affect drainageways and improvements, shall be permitted."

  Shifting nearly all single-family and multi-family homes to the northern section of the Property would impact the ability to retain the natural drainage ways, buffer zones, and slope areas in their natural condition. Grading for home site pads would be drastically increased as a result of greater densities. This would have aesthetic impacts and, more importantly, create greater concentrations of run-off within the

property. Increases in density would result increased non-permeable areas and create the need for increased detention basin area.

- Section 19.90A.030(A)(2), MCC states: "The drainage master plan shall incorporate the golf course and open spaces as areas for stormwater retention and desilting basins."

  Increasing density in the northern section of the Property will impact the ability to create a golf course and a drainage plan required under Section 19.90A.030(A)(2), MCC. In all Honua'ula planning and engineering studies the golf course has been a critical element of the drainage design. If the golf course layout is significantly altered in its design, or becomes infeasible, the ability to use the golf course for drainage will be significantly impacted.

- Section 19.90A.030(A)(3) requires: "Grading of the project site shall be encouraged to retain the existing rolling topography and natural drainage ways.

  Shifting nearly all single-family and multi-family homes to the northern section of the Property would dramatically increase grading of the Property, as significantly more grading would be necessary to create home site pads with the increased density.

County of Maui Ordinance No. 3554 contains conditions requiring Honua'ula to provide a private water system (Condition 1) and a private wastewater system (Condition 17). Significantly reducing the number of homes within Honua'ula to accommodate a 130-acre Native Plant Preservation Area could make providing these systems infeasible as the cost to build and operate these systems may not be supportable with less homes. In addition, Condition 17 also requires reclaimed water from the private wastewater system to be used for irrigation. A reduced number of homes would result in less output of reclaimed water from the private wastewater system, thereby possibly necessitating more non-potable well water for irrigation. Alternatively, if the same amount of homes were provided at increased densities, with a 130-acre Native Plant Preservation Area there would be less area available to dispose of the reclaimed water. Condition 17 prohibits injection wells.

County of Maui Ordinance No. 3554 requires Honua'ula to pay specific development fees, including:

- Traffic improvement fees of $5,000 per residential unit, payable to the County of Maui (Condition 3);
- Park assessment fees, currently at $17,240 per residential unit, payable to the County of Maui (Condition 11); and
- School impact fees, currently at $5,560 per single family unit and $3,000 per multifamily unit, payable to the State (Condition 22).

Together, these fees are at least $25,240 per residential unit and total over $29 million.. Any reduction in the number of units will result in a corresponding decrease in fees paid to the State and the County. County property tax revenues would also decrease with less homes or diminished property values resulting from higher density homes. State tax revenues, estimated on a per capita basis, would also decrease with fewer homes.

County of Maui Ordinance No. 3554 also requires Honua'ula Partners, LLC to:

- Widen Piilani Highway from Kilohana Drive to Wailea Ike Drive from two to four lanes[28]. The widening project is estimated to cost approximately $26 million;
- Pay not less than $5 million to the County for the development of the South Maui Community Park in-lieu of dedicating a Little League Field within Honua'ula (Condition 10);
- Contribute $550,000 to the County for the development of the new Kīhei District Police Station in South Maui (Condition 24); and
- Provide the County two acres of land with direct access to the Pi'ilani Highway extension for the development of a fire station (Condition 24).

Reducing the number of homes within Honua'ula or not providing a golf course could make Honua'ula economically unfeasible in light of these significant fees that must be paid, in addition to overall on-site construction costs of Honua'ula.

In summary, the alterative with a 130-acre Native Plant Preservation Area would:

- Conflict with provisions of Chapter 19.90A, MCC;
- Conflict with several conditions of approval required under County of Maui Ordinance No. 3554
- Necessitate shifting a significant number of single-family and multi-family homes to the northern section of the Property, thereby increasing density in this area and requiring significant changes to the Conceptual Master Plan;
- Significantly change the golf course layout or possibly make a golf course altogether infeasible;
- Impact the ability to use the golf course for drainage as required under Section 19.90A.030(A)(2), MCC;
- Significantly increase grading of the Property to create home site pads required for the increased density;
- Impact the ability to use reclaimed water for irrigation;

[28] Cost to be shared by Honua'ula Partners, LLC, A&B Wailea LLC, Keaka LLC, and ATC Makena Holdings; however County of Maui Ordinance No. 3554 Condition 2a requires the widening of Piilani Highway to be completed before any construction on the Honua'ula Property, with the exception of grading; therefore Honua'ula Partners, LLC may be required to pay the total amount if the other entities are not able to contribute before construction of Honua'ula begins.

- Decrease the economic benefits of Honua'ula, such as property tax revenues to the County, total gross tax revenues to the State, and impact fees paid by Honua'ula Partners LLC; and
- Make Honua'ula economically unfeasible in light of the significant on and off-site improvements required as conditions of County of Maui Ordinance No. 3554;

Honua'ula's on-site 40-acre Native Plant Preservation Area will protect and conserve the area of the Property that contains the highest density of representative native plant species. It also will allow for conformance with the requirements of Chapter 19.90A, MCC and the conditions of County of Maui Ordinance No. 3554. Combined, Honua'ula's on-site 40-acre Native Plant Preservation Area and proposed off-site mitigation measures discussed in Section 3.6 (Botanical Resources) and Section 3.7 (Wildlife Resources) provide approximately 394 acres of native dry shrublands for the perpetual protection and propagation of native dryland plants—a substantially greater area for native plant protection and Blackburn's sphinx moth habitat than would be provided solely by a 130-acre Native Plant Preservation area on the Honuaula Property.

# Chapter 7

## Contextual Issues

# 7 CONTEXTUAL ISSUES

This chapter presents key issues within the context of Honuaʻula.

## 7.1 RELATIONSHIP BETWEEN THE SHORT-TERM USES OF ENVIRONMENTAL RESOURCES AND LONG-TERM PRODUCTIVITY

Short-term uses and long-term productivity consist of Honuaʻula's short-term construction phases and the long-term benefits after construction. Short-term construction impacts can be mitigated while they occur. In the long-term, the creation of Honuaʻula will contribute substantial positive community and economic benefits, as discussed throughout this EIS. Therefore, Honuaʻula will contribute to the maintenance and enhancement of long-term productivity for Maui in general.

In the short-term, construction activities will impact the area. Grading and construction will be visible from Piʻilani Highway and adjacent areas, such as Maui Meadows and parts of Wailea Resort. Construction may impact noise levels, possibly ambient air quality, and possibly traffic conditions (although a TMP has been prepared for construction operations to mitigate the impacts of construction-related traffic and a post-construction TMP has also been prepared). As discussed previously in this EIS, all of the foregoing construction-related impacts will be mitigated. At the same time, construction will also generate significant employment and economic benefits, including:

- $1.2 billion of direct capital investment in the Maui economy during the 13-year build-out period;
- 9,537 "worker years[29]" of direct on-site employment during the 13-year build-out period;
- $480 million in employee wages paid out during the 13-year build-out period;
- $513.9 million (nearly $40 million annually) in discretionary expenditures into the Maui economy by Honuaʻula residents and guests during the 13-year build-out period;
- $41.8 million in net tax revenue benefit (taxes less costs) to the County of Maui during the 13 year build-out period; and
- $97 million in net tax revenue benefit (taxes less costs) to the State of Hawaii during the 13 year build-out period.

The overall statewide economic impact over the projected 13-year build-out period is estimated to total approximately $3.2 billion (Hallstrom 2009). This includes direct capital investment, contractors' and suppliers' profits, employee wages, resident income and expenditures, and operating economic activity.

[29] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

Over the long-term, as portions of Honuaʻula become operational and construction activities decline, short-term impacts generated by construction activities will decrease and be replaced by the long-term impacts generated by increased human activity in the area, as discussed in Chapter 4 (Assessment of Human Environment).

The long-term productivity of Honuaʻula will outweigh the short-term uses of the environment. Long-term community benefits include:

- Upgrading Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive;
- Modifying 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;
- Providing a contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements;
- Providing workforce housing in accordance with Chapter 2.96, MCC (the "Residential Workforce Housing Policy") (Condition 5);
- Providing a contribution of $5 million to the County for the development of the South Maui Community Park;
- Providing an in-lieu cash contribution to satisfy the park assessment requirements under Section 18.16.320, MCC (currently set at $17,240 per residential unit);
- Developing formal provisions regarding cultural resources, such as access to specific sites to be preserved, the manner and method of preservation of sites, and appropriate protocol for visitation to cultural sites;
- Payment of <u>at least</u> $3,000 per dwelling unit (totaling <u>over</u> $3.45 million) to DOE for schools serving the Kīhei-Mākena Community Plan area;
- Providing two acres of land to the County of Maui for the development of a fire station and providing a contribution of $550,000 to the County for the development of a police station in South Maui; and
- Formal protection, restoration, and propagation of native plants, including setting aside a Native Plant Preservation Area and Native Plant Conservation Areas.

Long-term economic benefits include:

- 518 jobs (382 directly related to on-site activities and 136 related to indirect off-site activities) after the build-out period;
- $19 million in annual wages from the on and off-site jobs after the build-out period;
- $77 million annually in discretionary expenditures into the Maui economy by Honuaʻula residents and guests after the build-out period;
- $1.6 million in annual net tax revenue benefit (taxes less costs) to the County of Maui after the build-out period; and
- $1.5 million in annual net tax revenue benefit (taxes less costs) to the State of Hawaii after the build-out period.

After Honua'ula is built out, the long-term overall statewide economic impact is estimated to be approximately $290.5 million annually (Hallstrom 2009). The expenditure of these funds into the island and state economies will have benefits that ripple through the economy with additional off-site, secondary, and indirect jobs on Maui and statewide. Income from property, personal, and excise taxes are expected to more than offset expenses associated with expanded public services to meet the requirements of Honua'ula and population growth.

Long-term risks to health and safety are not expected. Honua'ula will comply with all natural hazard building codes, drainage regulations, water quality standards, and waste disposal requirements. The infrastructure improvements implemented (as discussed in Section 4.8) will be in compliance will all health and safety standards.

The natural environment of the Property will be altered from its present vacant state, but the Property's long-term sustainability, viability, and productivity will be significantly enhanced. Native plants will be protected and propagated (see Section 3.6 Botanical Resources); native and endangered animal species will be protected and non-native feral ungulates, which pose a risk to native plant species, will be managed (see Section 3.7 Wildlife Resources); archaeological and cultural resources will be preserved for generations to come (see Section 4.1 Archaeological and Historic Resources and Section 4.2, Cultural Resources); and infrastructure improvements, such as drainage systems, water systems, and wastewater systems, will be designed to be self-sufficient and sustainable (see Section 4.8 Infrastructure and Utilities).

In addition, the proposed range of uses, types of development, quantity of open space, and mitigation measures for various environmental impacts will not foreclose future options for enhancement, expansion, or preservation of various environmental, cultural, and community facilities.

## 7.2 CUMULATIVE AND SECONDARY IMPACTS

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. Table 7 lists recently completed and proposed South Maui development projects, as compiled by the County of Maui Department of Planning, Long Range Planning Division. As defined by the Long Range Planning Division, projects are divided among the following categories:

- **Recently Completed Projects** include those where the subdivision process is complete, total build-out of the project has been reached or nearly reached, and real property is being actively marketed;
- **Planned/Committed Projects** have the appropriate conforming Community Plan and zoning entitlements, are approved agricultural subdivisions, are approved 201G/H, HRS projects (i.e. affordable housing projects which may be granted certain exemptions from State and County land use regulations), or are Department

of Hawaiian Home Lands (DHHL) projects (which are exempt from State and County land use regulations);

- **Planned/Designated Projects** have urban or rural Community Plan designations but not the conforming zoning entitlements to proceed; and
- **Proposed Projects** are currently lacking urban or rural Community Plan designations.

**Table 87. South Maui Development Projects**

| Projects | Unit Types | | |
|---|---|---|---|
| | Single Family | Multi-Family | Time Share and Hotel |
| **Recently Completed** | | | |
| Hoʻolei Wailea MF-9 | 0 | 120 | 0 |
| Honu Ala Hele | 62 | 0 | 0 |
| Kai Makani | 0 | 112 | 0 |
| Kamaliʻi Alayna Estates | 92 | 0 | 0 |
| Kīhei Kauhale | 23 | 0 | 0 |
| Kilohana Hema | 20 | 0 | 0 |
| Kilohana Mauka | 73 | 0 | 0 |
| Landry Apartments | 0 | 18 | 0 |
| Moana Estates | 90 | 0 | 0 |
| Wailea Beach Villas | 0 | 105 | 0 |
| **Sub-Total** | **360** | **355** | **0** |
| | | | |
| **Planned/Committed** | | | |
| Alahele Homes | 48 | 0 | 0 |
| Bluffs at Wailea | 12 | 0 | 0 |
| Chambers Apartments | 0 | 18 | 0 |
| Cove Beach Villas | 0 | 32 | 0 |
| Garcia Mākena Residences | 10 | 0 | 0 |
| Grand Wailea Resort Expansion | 0 | 0 | 310 |
| Hale Mahaolu Ehiku | 0 | 114 | 0 |
| Hoʻonani Homes | 28 | 0 | 0 |
| Hokulani Golf Villas | 182 | 58 | 0 |
| Honuaʻula | 560 | 840 | 0 |
| Kai Ani Village | 0 | 99 | 0 |
| Kai Malu Wailea Master | 0 | 150 | 0 |
| Kalama Heights Ph. 2 | 0 | 36 | 0 |
| Kalama Hills | 12 | 0 | 0 |
| Kanani Wailea | 38 | 0 | 0 |
| Ke Aliʻi Ocean Villas | 14 | 144 | 0 |
| Kenolio Leilani Affordable Homes | 7 | 0 | 0 |
| Kihana Nursery | 1 | 0 | 0 |
| Kīhei Hanalei Condominiums | 0 | 4 | 0 |
| Kilohana Waena | 31 | 0 | 0 |
| Liloa Village | 65 | 0 | 0 |
| Mākena Condos | 0 | 436 | 0 |
| Maluaka Mākena Residences | 13 | 0 | 0 |
| Maui Beach Place | 0 | 3 | 0 |
| Maui Lu Timeshare | 0 | 388 | 400 |

| | | | |
|---|---|---|---|
| **Planned/Committed (Continued)** | | | |
| MF-21 Subdivision | 5 | 0 | 0 |
| Nani Loa Condos | 0 | 64 | 0 |
| Naupaka Courtyard | 0 | 78 | 0 |
| One Palauea Bay PD 8 | 15 | 0 | 0 |
| Papa'anui Mākena Place | 7 | 0 | 0 |
| Paradise Ridge Estates | 0 | 32 | 0 |
| Sunset Estates | 25 | 0 | 0 |
| Wailea Baccarat (Renaissance) | 0 | 0 | 193 |
| Wailea MF-10 | 10 | 36 | 0 |
| Wailea MF-11 Lots | 12 | 0 | 0 |
| Wailea MF-19 Lots | 9 | 0 | 0 |
| Wailea SF-11 Lots | 16 | 0 | 0 |
| Wailea SF-8 | 60 | 0 | 0 |
| Wailea Villas (MF-4) (Papali) | 25 | 0 | 0 |
| Waiaka Village Apartments | 0 | 18 | 0 |
| **Sub-Total** | **1,205** | **2,550** | **903** |
| | | | |
| **Planned/Designated** | | | |
| Hale Pama Condos | 0 | 6 | 0 |
| 'Iwa 'Ike Mākena Lots | 4 | 0 | 0 |
| Kaiwahine Lots | 47 | 0 | 0 |
| Kalani Mākena Condos | 0 | 4 | 0 |
| Ka'ono'ulu Condos | 0 | 166 | 0 |
| Ke Kani Kai Mākena Lots | 2 | 0 | 0 |
| Kenolio Makai Lots | 18 | 0 | 0 |
| Kīhei Kaiwahine Res. A&B | 600 | 0 | 0 |
| Mākena Lots | 669 | 0 | 0 |
| Ohukai Village | 768 | 160 | 0 |
| One Wailea Dev. | 20 | 0 | 0 |
| **Sub-Total** | **2,128** | **336** | **0** |
| | | | |
| **Proposed** | | | |
| Ka'ono'ulu Village | 1,522 | 895 | 0 |
| Kama'ole Heights | 0 | 98 | 24 |
| Kama'ole Mauka Village | 364 | 0 | 0 |
| Kama'ole Village | 1,216 | 400 | 0 |
| Kulanihakoi Residences | 0 | 231 | 0 |
| Maui Palisades | 300 | 0 | 0 |
| Ohukai Village | 70 | 56 | 0 |
| Waiakoa Homes A&B | 1,700 | 0 | 0 |
| Waiohuli Village | 616 | 512 | 0 |
| **Sub-Total** | **5,788** | **2,192** | **24** |
| | | | |
| **Total** | **9,121** | **5,078** | **927** |

Source: County of Maui Department of Planning, Long Range Planning Division (2009) (http://co.maui.hi.us/documents/Planning/Long%20Range%20Division/GIS%20Maps/DevProj200907_SouthMaui_WM.PD)

In addition, to proceed projects listed as Planned/Committed Projects, Planned/Designated Projects, or Proposed Projects may also need: 1) a State Land Use District Boundary Amendment, to designate the property to the appropriate State Land Use District (for example a property could have the necessary County Community Plan and/or zoning designation, but still be in the State Agricultural District, and thus require a reclassification to the State Urban District); 2) compliance with Chapter 343, HRS regarding preparing an EA or EIS; and 3) one or more County approvals, such as a SMA Use Permit, Project District Phase 1, 2 or 3 approval, subdivision approval or other approval.

In considering cumulative impacts, the above designations are important distinctions regarding when and if a proposed project may proceed. It is unknown whether all proposed projects will proceed or be built as currently proposed, as desired product types change over time and project developers are constantly assessing project feasibility. For several of the listed projects there has been no movement toward development, in some cases for many years. The feasibility of a project proceeding is based on many factors, including the State Land Use District classification, the Community Plan and zoning designations, other necessary approvals, overall economic conditions, the demand for the proposed product, and the willingness of a landowner or developer to risk the capital required for development.

In addition to the category distinctions utilized for the list of projects above, however, there are other important considerations that must also be taken into account when evaluating cumulative impacts. Some listed projects may be proceeding only with their preliminary or first phases or only have some of their required approvals. Other listed projects are currently within the State Agricultural or Conservation districts, do not have the appropriate community plan designation, or proper zoning, and thus to proceed may require: 1) a State Land Use District Boundary Amendment at the State level; 2) a community plan amendment at the County level; and/or 3) a change in zoning approval at the County level. These approvals could take many years to obtain and are subject to review and approval of State and County decision-making bodies, which will need to weigh the merits of each project at the time the approvals are requested. Therefore, proposed projects in the State Agricultural or Conservation Districts, without the appropriate community plan designation, and without property zoning, are much more speculative than projects with the appropriate underlying entitlements.

Furthermore, a multi-stage land use approval and permitting process exists in Hawai'i, such that there are many approvals of a project at various levels of government and at different points in time. At each step, decision-makers involved in the process evaluate a project in the context of the existing regional conditions, including infrastructure capacity and other factors. Because it is not possible to know which proposed projects may proceed, at what time, and in what form, it is appropriate to evaluate the impact of an individual project at each step in the decision-making process in context with all other projects that have preceded it. This comprises the existing cumulative conditions at the time. This is a rational, logical approach that allows each project to be evaluated in sequence with others that have preceded it (i.e. in context of the existing cumulative

conditions at the time). Because of the multi-stage land use approval process, along with additional environmental permit regulations, there are sufficient safeguards in place to address and mitigate for cumulative impacts when proposed projects apply for approvals.

Finally, the capacity of infrastructure systems (such as roadways and wastewater treatment facilities) are constraints to unlimited development, and large-scale projects increasingly are required to provide regional solutions to add capacity proportionate with their impacts or to build private systems (as Honuaʻula will) that do not or do burden State and County facilities. The availability of water is also a critical factor in determining whether a project can proceed and may be a limiting factor with respect to a specific project moving forward, especially in the Kīhei region with its restricted water resources. Thus, for all of the foregoing reasons, an overly broad approach of simply adding up the total units of all proposed projects and then concluding that the total amount of proposed development will have significant cumulative impacts, is too simplistic, unrealistic, and unreasonably alarmist.

Honuaʻula will be part of the overall change and growth of the region. Cumulative and secondary impacts resulting from proposed projects are likely to include increased population and greater demands on public infrastructure systems and services. However, the population of the Kīhei-Mākena region is projected to grow and the needs of a growing population relating to traffic, infrastructure, public services, and other issues will need to be addressed regardless if some or all of these projects are built. The challenge is to manage growth in a predictable and acceptable manner.

In the case of Honuaʻula, the "Project District 9" designation of Property on the *Kīhei-Mākena Community Plan* has been in place since 1992. 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. Thus, the primary uses envisioned for Honuaʻula have been well thought out, considered, and anticipated for nearly 20 years.

In addition, during the County Council hearings for the Honuaʻula Change in Zoning and Project District Phase I approval in 2008, the County Council heard extensive testimony from both the public and experts in various fields of study. In response to concerns raised at the hearings, the Council included comprehensive conditions as part of the Change in Zoning Ordinance (County of Maui Ordinance No. 3554) approval. These conditions reflect a range of concerns and ensure that any impacts of Honuaʻula are mitigated and addressed in context with regional impacts and demands, including impacts related to traffic and demands related to infrastructure systems such as water and wastewater. Prior to the County Council hearings in 2008, the Council's Land Use Committee had held extensive public meetings over the course of 2006 and 2007 to consider Honuaʻula,

including an estimated ten public hearings where public testimony was heard. These meetings/hearings provided significant opportunity for the consideration of public questions and concerns prior to the Council's consideration and approval of the Project District Phase I application.

One of the conditions imposed by the Council as part of Honua'ula's Change in Zoning Ordinance (County of Maui Ordinance No. 3554, Condition 5) requires Honua'ula Partners, LLC to provide workforce affordable homes in compliance with Chapter 2.96, MCC, with 250 of these required workforce affordable homes to be provided off-site at the Ka'ono'ulu Light Industrial Subdivision (TMK (2) 3-9-01: 16). The Ka'ono'ulu Light Industrial Subdivision is within the State Urban District and is within the County of Maui Light Industrial zoning district. Multifamily homes are a permitted use within the State Urban District and County Light Industrial zone.

Providing workforce affordable homes at the Ka'ono'ulu Light Industrial Subdivision does not trigger the need for an environmental assessment or environmental impact statement under Chapter 343, HRS. However, impacts related to the use of the property for urban uses and uses permitted under the property's Light Industrial zoning have previously been examined as part of the property's State Land Use District Boundary Amendment, County Change in Zoning, and County Subdivision approvals. No rare, threatened, or endangered plant species are expected to be impacted, as none were found during a botanical inventory survey of the property. An archaeological inventory survey and a related preservation plan have been prepared to address impacts to archaeological resources and, based on their approval of these documents, the State Historic Preservation Division has determined that no historic properties will be affected. As part of the subdivision process for the Ka'ono'ulu Light Industrial Subdivision, the County of Maui Department of Public Works reviewed and approved improvements necessary for the subdivision, including provisions for water, sewage disposal, electrical and communications lines, drainage and flood control, and connection with Pi'ilani Highway, including widening and traffic signal improvements. The State DOT has also reviewed and approved the connection with Pi'ilani Highway, including widening and traffic signal improvements. Further, the construction of the improvements required for the subdivision has been guaranteed with a bond of over $22 million.

Regional traffic growth, including from the Ka'ono'ulu Light Industrial Subdivision, is being taken into account as part of DOT's Long Range Land Transportation Plan (LRLTP), which is currently being updated in consideration of known proposed developments in the region and will serve as a guide for the development of major surface transportation facilities and programs to be implemented in the future.

Because Chapter 2.96, MCC requires the workforce affordable homes to be offered to Maui residents, the affordable homes will result in a redistribution of the existing Maui population as opposed to an incremental increase. As a result, there will be no impacts related to increased population, such as an overall increase in the need for State and County services. In addition to the workforce affordable homes, Honua'ula Partners, LLC

will also provide a minimum two-acre park within Kaʻonoʻulu Light Industrial Subdivision to meet the recreational needs of the workforce affordable home residents.

Impacts to schools will be addressed by Honuaʻula Partners, LLC's compliance with County of Maui Ordinance No. 3554, Condition 22, which requires Honuaʻula Partners, LLC to pay DOE at least $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, Honuaʻula Partners, LLC will from that point forward comply with the State requirements, or contribute $3,000 per dwelling unit, whichever is greater.

Of all the projects currently proposed within South Maui, Honuaʻula stands out as contributing its fair share and more to address cumulative and secondary impacts. For example, Honuaʻula will address the regional need for:

- **Traffic Improvements**, by:
  - Upgrading Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive;
  - Modifying 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;
  - Signalizing the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and providing an exclusive left-turn lane on Okolani Drive;
  - Modifying the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Mapu Place; and
  - Providing a contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements.
- **Workforce Housing**, by providing a significant amount of workforce housing in accordance with Chapter 2.96, MCC (the "Residential Workforce Housing Policy");
- **Parks**, by providing a contribution of $5 million to the County for the development of the South Maui Community Park and an in-lieu cash contribution to satisfy the park assessment requirements under Section 18.16.320, MCC (currently set at $17,240 per residential unit) in addition to providing parks within Honuaʻula that are open to the public but privately maintained;
- **Schools**, by paying at least $3,000 per dwelling unit (totaling over $3.45 million) to DOE for schools serving the Kīhei-Mākena Community Plan area;
- **A Fire Station**, by providing two acres of land to the County of Maui for the development of a fire station; and
- **A Police Station**, by providing a contribution of $550,000 to the County for the development of a police station in South Maui.

In addition, Honuaʻula will not rely upon or burden any public infrastructure facilities and will instead develop, maintain, and operate its own private water and wastewater systems (or partner with other private providers, in the case of wastewater treatment facilities). All infrastructure will be constructed concurrently with development and will be completed before the issuance of any certificate of occupancy, thus ensuring that necessary facilities and services are in place before residents move in.

Further, the substantial tax revenues from Honuaʻula are expected to be well in excess of the costs incurred by the State and County, thereby contributing to the overall State and County tax base (see Section 4.9.5, Economy) and, in turn, the provision of public infrastructure and facilities concurrent with growth.

Regarding cumulative impacts of traffic, the TIAR prepared for Honuaʻula (see Section 4.4 and Appendix L) accounted for increased traffic due to additional projects in the Wailea and Mākena region. Traffic on Piʻilani Highway and other roads is expected to increase even if Honuaʻula is not built. As stated above Honuaʻula will be part of the regional traffic solution by: 1) upgrading Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive; 2) modifying 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; 3) signalizing the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and providing an exclusive left-turn lane on Okolani Drive; 4) modifying the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Mapu Place; and 5) providing a contribution of $5,000 per unit (totaling $575 million) to the County for traffic improvements.

Honuaʻula is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Piʻilani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Honuaʻula is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

In mitigating cumulative impacts to human and environmental health, Honuaʻula is committed to limiting energy consumption and reducing solid waste. Honuaʻula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. All homes (single-family and multifamily) will be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system and other energy-saving concepts and devices will be encouraged in the design of Honuaʻula. Design standards will specify low-impact lighting and encourage energy-efficient building design and site development practices. Honuaʻula will also implement strategies from the

County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Green waste, particularly from the golf course, may be processed on-site and reused.

Honua'ula will make an important and valuable contribution to the long-term viability, preservation, and conservation of native plants in southeastern Maui. Honua'ula's on-site Native Plant Preservation Area, combined with other on-site Native Plant Conservation Areas within Honua'ula (see Figure 12 and Section 3.6 (Botanical Resources)), will provide a total of approximately ~~143~~ 76 acres for the protection, enhancement, and propagation of native plants of the mixed *kiawe-wiliwili* shrubland associations in southeastern Maui. These areas will: 1) provide protection for native plants; 2) ensure the long-term genetic viability and survival of the native dry shrubland species; and 3) enhance long-term native plant population growth. In addition, Honua'ula Partners, LLC will implement significant off-site measures to protect native plants and Blackburn's sphinx moth habitat and provide a net conservation benefit. Combined, Honua'ula's on-site 40-acre Native Plant Preservation Area and off-site mitigation measures discussed in Section 3.6 (Botanical Resources) provide 394 acres of native dry shrublands for the perpetual protection and propagation of native dryland plants.

Existing scientific research suggests even small restoration efforts consisting of a few hectares can help provide habitat for native species and can subsequently serve as urgently-needed sources of propagules (Cabin et al. 2000b, Cabin, et al. 2002a). This is reinforced by numerous sources of information on successful propagation of native plants specifically for landscaping (e.g., TNC 1997, Tamimi 1999, Friday 2000, Wong 2003, Bornhorst and Rauch 2003, Lilleeng-Rosenberger and Chapin 2005, CTAHR 2006). The research shows that even small preserves consisting of individual trees are being deemed as appropriate and feasible by USFWS and DLNR when managed in combination with regional preserve areas, such as at La'i'opua on Hawai'i Island (Leonard Bisel Associates, LLC and Geometrician Associates 2008). Protected and managed natural areas in south Maui in proximity to Honua'ula include the 'Auwahi 1 restoration area (10 acres) and Pu'u o Kali (236 acres) Forest Reserves and the Kanaio (876 acres) and 'Āhihi-Kīna'u (1,238 acres) Natural Area Reserves – ~~substantial~~ habitats that ~~are more intact~~ host higher diversity of known native host plants for the Blackburn's sphinx moth than those found in Honua'ula, and contain a greater diversity of native plant species than Honua'ula.

Honua'ula will make lasting contributions to preserving the archaeological and cultural resources of the region by preserving archaeological sites *in situ* and through the preparation and implementation of the CRPP (see Section 4.1 (Archaeological and Historic Resources) and Section 4.1 (Cultural Resources)). The CRPP sets forth selection criteria for archaeological sites to be preserved and short- and long-term preservation measures, including buffer zones and interpretative signs, as appropriate for each site and types of native flora to be used for landscaping for buffer zones. The CRPP: 1) was prepared in consultation with interested and concerned parties, cultural advisors, Nā Kūpuna O Maui,

the Maui County Cultural Resources Commission, the Maui/Lānaʻi Island Burial Council, the DLNR, Nā Ala Hele, SHPD, OHA, and various knowledgeable individuals; 2) ~~will be~~ has been submitted to SHPD and OHA for review and recommendations; and 3) will be provided Maui County Cultural Resources Commission for review and adoption after receipt of comments and recommendations from SHPD and OHA. Through this collaborative process the CRPP will be refined to provide additional information including: 1) the nature of access to religious, ceremonial, and confirmed burial sites; 2) determination of appropriate traditional protocols and practices; and 3) establishment of educational and community stewardship programs.

An assessment of the potential impacts on groundwater resources of Honuaʻula concludes that the creation of Honuaʻula will not impair Wailea Resort's golf course irrigation wells, with the possible exception of a salinity increase in Wailea Resort's Well 2, which is directly downgradient of Honuaʻula's on-site wells. Decreased pumping of Honuaʻula's on-site wells would alleviate this potential impact. With respect to Honuaʻula's off-site wells, an estimated six active downgradient irrigation wells may be impacted by a potential increase in salinity due to reduced flowrate, which current calculations indicate may be on the order or five percent. It is not known if the increase in salinity would materially impair the utility of the wells; however if the utility of the wells is materially impaired, additional wells (pumping the same combined amount of water) in the area north of Maui Meadows would distribute the draft over a greater area and would alleviate the impact downgradient. Honuaʻula Partners, LLC commits to providing these additional wells if the utility of active downgradient wells is materially impaired. All existing on- and off-site wells are fully permitted by the State CWRM. All new wells will be developed in compliance with all requirements of Chapter 174C, HRS (State Water Code) and HAR, Chapters 13-167 to 13-171, as applicable, pertaining to CWRM and administration of the State Water Code. In addition, since the Honuaʻula water system will be a private, closed system (i.e., it will not be connected to any other public or private system, there will be no impact to present or future irrigation well owners in the Wailea/South Maui area related to transmission and storage of Honuaʻula's water.

Honuaʻula, the widened Piʻilani Highway, the Wailea Ike Drive/Wailea Alanui Drive intersection improvements, and the off-site water and wastewater infrastructure ~~is~~ are not expected to cause secondary impacts to marine water resources. As discussed in Section 3.5.2 (Nearshore Marine Environment), the results of the nearshore water quality assessment and further evaluation of the potential changes to groundwater composition indicate that there is little or no potential for alteration of the marine environment or negative impacts to marine waters due to Honuaʻula. The assessment concludes that: "the estimates of changes to groundwater and surface water would result in a decrease in nutrient and sediment loading to the ocean relative to the existing condition. With such a scenario, it is evident that there would be no expected impacts to the nearshore marine ecosystem owing to development of Honuaʻula."

In addition, as discussed in Section 4.5 (Noise) and Section 4.6 (Air Quality), Honuaʻula, the widened Piʻilani Highway, the Wailea Ike Drive/Wailea Alanui Drive intersection

improvements, and the off-site water and wastewater infrastructure ~~is~~ are not anticipated to significantly impact the acoustical environment or air quality and thus will not significantly contribute to cumulative and secondary impacts associated with these issues. Finally, adherence with Chapter 20.35, MCC regarding outdoor lighting ensures cumulative and secondary impacts related to light pollution will not impact sensitive surrounding land uses.

## 7.3 IRRIVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Creation of Honuaʻula will involve the irreversible and irretrievable commitment of certain land and fiscal resources. Major resource commitments include the land and capital, construction materials, non-renewable resources, labor, and energy required for the community's completion.

Honuaʻula will require that approximately half of the Property be used for urban-like uses; however approximately half of the Property also will be set aside for open space, including the Native Plant Preservation Area, Native Plant Conservation Areas, natural gulches, open space buffers along Piʻilani Highway and the border of Maui Meadows, and the golf course. The urban-like uses of Honuaʻula are well-suited for the Property because the Property is: 1) located contiguous to existing urban land uses (Wailea Resort); 2) designated as "Project District 9" on the Kīhei-Mākena Community Plan; 3) adjacent to Piʻilani Highway; 4) in close proximity to employment areas; and 5) in accordance with the purpose and intent of the Project District 9 ordinance, Chapter 19.90A, MCC, which provides for a residential community consisting of single-family and multi-family dwellings complemented with village mixed uses, all integrated with an eighteen-hole golf course and other recreational amenities.

The impacts represented by the commitment of resources should be weighed against the significant positive and recurring benefits that will be derived from Honuaʻula versus the consequences of either taking no action or pursuing another less beneficial use of the Property.

## 7.4 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Potential environmental impacts resulting from the creation of Honuaʻula have been discussed throughout this EIS, and mitigation measures have been provided for adverse impacts. Probable adverse environmental effects that cannot be avoided are discussed below.

**Goundwater** – As discussed above and in more detail in Section 3.5.1 (Groundwater), an assessment of the potential impacts on groundwater resources of Honuaʻula concludes that the creation of Honuaʻula will not impair Wailea Resort's golf course irrigation wells, with the possible exception of a salinity increase in Wailea Resort's Well 2, which is directly downgradient of Honuaʻula's on-site wells. Decreased pumping of Honuaʻula's on-site wells would alleviate this potential impact. With respect to Honuaʻula's off-site

wells, an estimated six active downgradient irrigation wells may be impacted by a potential increase in salinity due to reduced flowrate, which current calculations indicate may be on the order or five percent. It is not known if the increase in salinity would materially impair the utility of the wells; however if the utility of the wells is materially impaired, additional wells (pumping the same combined amount of water) in the area north of Maui Meadows would distribute the draft over a greater area and would alleviate the impact downgradient. Honuaʻula Partners, LLC commits to providing these additional wells if the utility of active downgradient wells is materially impaired. All existing on- and off-site wells are fully permitted by the State CWRM. All new wells will be developed in compliance with all requirements of Chapter 174C, HRS (State Water Code) and HAR, Chapters 13-167 to 13-171, as applicable, pertaining to CWRM and administration of the State Water Code.

**Land Use Character** – Over the last several decades, land uses in the Kīhei-Mākena region have undergone a gradual change as more in-fill urban uses were built on previously vacant properties, and growth has started moving mauka of Piʻilani Highway.

Creation of Honuaʻula will change the visual appearance of the Property from vacant land to a built environment. This change will be visible from Piʻilani Highway looking mauka across the Property. However Honuaʻula will not impinge upon any significant public scenic view corridors and Honuaʻula will have no significant impacts on views toward the ocean or Haleakalā. Honuaʻula will encourage building forms that respect and maintain the unique topographic and landscape character of the land

Honuaʻula will be in character with surrounding uses and will complement the pattern of development as envisioned in the *Kīhei-Mākena Community Plan* and by the County zoning of the Property. Honuaʻula will incorporate appropriate architecture, materials, colors, site design standards, and landscaping to create a community in context with the Kīhei-Mākena region. To ensure an overall architectural theme as well as other design standards are established for Honuaʻula, design guidelines have been prepared. The design guidelines cover various aspects of Honuaʻula design with the overall goal of providing a framework so that a consistent character is achieved (see Section 2.3.6 (Design Guidelines).

**Traffic Impacts** – Although the creation of Honuaʻula will have an impact on traffic in the region, traffic on Piʻilani Highway and other roads is expected to increase even if Honuaʻula is not built. Furthermore, Honuaʻula will be part of the regional traffic solution by: 1) upgrading Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive; 2) modifying 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; 3) signalizing the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and providing an exclusive left-turn lane on Okolani Drive; 4) modifying the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Mapu Place; and 5) providing a

contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements.

Honua'ula is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Pi'ilani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Honua'ula is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

**Solid Waste** – As detailed in Section 4.8.5, there will be solid waste generated during and after construction of Honua'ula, but Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing solid waste. A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and Honua'ula Partners, LLC will work with contractors to minimize the amount of solid waste generated during the construction. After construction, Honua'ula Partners, LLC will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces and actively promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Green waste, particularly from the golf course, may be processed on-site and reused.

**Electrical Power** – When fully built-out, the peak forecasted electrical demand for Honua'ula is estimated to be 9,467 kilowatts (kW) per month. Honua'ula Partners, LLC is committed to limiting the environmental impact of Honua'ula by reducing energy consumption. To reduce energy consumption, Honua'ula Partners, LLC will design and construct energy systems for all residential units to meet all applicable ENERGY STAR requirements established by the EPA in effect at the time of construction. All homes (single-family and multi-family) with be equipped with a primary hot water system at least as energy efficient as a conventional solar panel hot water system and other energy-saving concepts and devices will be encouraged in the design of Honua'ula. Design standards will also specify low-impact lighting and encourage energy-efficient building design and site development practices. The Honua'ula project plan includes area set aside for the expansion of the MECO substation (Figure 1).

**Air Quality** – In the short term, construction of: 1) Honua'ula; 2) the widening of Pi'ilani Highway; 3) the Wailea Ike Drive and Wailea Alanui Drive intersection improvements; and 4) the off-site water and wastewater infrastructure will unavoidably contribute to air pollutant concentrations due to fugitive dust releases at construction areas. However, mitigation measures, including frequent watering of exposed surfaces, will help to reduce and control such releases, and all construction activities will comply with the provisions of HAR, Chapter 11-60.1, Air Pollution Control, Section 11-60.1-33, "Fugitive Dust."

Over the long-term, the air quality modeling analysises prepared for Honua'ula and the widening of Piilani Highway (see Section 4.6 Air Quality, ~~and~~ Appendix O, and Appendix R) conclude~~s~~ that: 1) even during worst-case conditions, predicted concentrations of traffic-related pollutants will remain well below State and Federal standards; 2) mitigation measures for traffic-related air quality impacts are unnecessary and unwarranted~~; and 3)~~. In addition the air quality modeling analysis prepared for Honua'ula concludes that significant long-term impacts on air quality are unlikely due to indirect emissions associated with the community's electrical power and solid waste disposal requirements. Long-term impacts due to Wailea Ike Drive and Wailea Alanui Drive intersection improvements are not expected to be significant as the the improvements will accommodate anticipated future traffic while while providing similar vehical flow and queing times at the intersection as compared to exiting conditions. Long-term air quality impacts are not expected to be significant from the off-site water and wastewater infrastructure, as after these facilities are created there will be very little to no vehicle emmissions associated with on-going operations.

**Noise** – In the short term, construction of: 1) Honua'ula; 2) the widened Pi'ilani Highway; 3) the Wailea Ike Drive/Wailea Alanui Drive intersection improvements; and 4) the off-site water and wastewater infrastructure will generate temporary noise impacts. The dominant noise sources during construction will likely be associated with operation of heavy construction machinery, paving equipment, ~~and~~ material transport vehicles, and possible blasting to break or dislodge rock. As an alternative to blasting, the use of chemical expansion to break or dislodge rock will be considered. However, noise from construction activities will be short-term and will comply with all federal and state noise control regulations.

In the long-term, the acoustic study prepared for Honua'ula (see Section 4.5 Noise and Appendix N) concludes that substantial change in traffic-generated noise levels (as defined by DOT) will not occur due to the creation of Honua'ula and the widening of Pi'ilani Highway, however, the number of residences along Pi'ilani Highway subject to noise levels that exceed DOT residential noise standards is projected to increase from two residences to up to up to 16 residences by the year 2022—with most of this increase due to regional increases in traffic even if Honua'ula is not built. To mitigate impacts to residences along Pi'ilani Highway subject to noise levels that exceed DOT residential noise standards, sound attenuating walls are recommended in accordance with DOT's traffic noise abatement policy. Noise levels from the completed Wailea Ike Drive and Wailea Alanui Drive intersection improvements and the off-site water and wastewater infrastructure are not expected to be significant in the long term.

### 7.4.1 Rationale for Proceeding with Honua'ula Notwithstanding Unavoidable Effects

In light of the above mentioned unavoidable effects, Honua'ula should proceed because the adverse impacts can be mitigated and are more than offset by substantial positive factors, including:

- Compliance with the *Kīhei-Mākena Community Plan*, which designates the Property as "Project District 9," and the Project District 9 ordinance (Chapter 19.90A, MCC) which provides for a residential community consisting of single-family and multifamily dwellings complemented with village mixed uses, all integrated with an eighteen-hole golf course and other recreational amenities;
- Significant long-term community benefits provided by Honuaʻula in compliance with the conditions of zoning under County of Maui Ordinance No. 3554, including:
    - Upgrading Piʻilani Highway to four lanes from Kilohana Drive to Wailea Ike Drive (Condition 2a);
    - Modifying 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 (Condition 2e);
    - Signalizing the Piʻilani Highway/Okolani Drive/Mikioi Place intersection and providing an exclusive left-turn lane on Okolani Drive;
    - Modifying the Piʻilani Highway/Kilohana Drive/Mapu Place intersection to provide an exclusive left-turn lane, and the southbound Piʻilani Highway approach to provide an exclusive right-turn lane into Mapu Place;
    - Providing a contribution of $5,000 per unit (totaling $5.75 million) to the County for traffic improvements (Condition 3);
    - Providing workforce housing in accordance with Chapter 2.96, MCC (the "Residential Workforce Housing Policy") (Condition 5);
    - Providing a contribution of $5 million to the County for the development of the South Maui Community Park (Condition 10);
    - Providing an in-lieu cash contribution to satisfy the park assessment requirements under Section 18.16.320, MCC (currently set at $17,240 per residential unit) (Condition 11);
    - Developing formal provisions regarding cultural resources, such as access to specific sites to be preserved, the manner and method of preservation of sites, and appropriate protocol for visitation to cultural sites (Condition 13);
    - Payment of <u>at least</u> $3,000 per dwelling unit (totaling <u>over</u> $3.45 million) to the DOE for schools serving the Kīhei-Mākena Community Plan area (Condition 22);
    - Providing two acres of land to the County of Maui for the development of a fire station and providing a contribution of $550,000 to the County for the development of a police station in South Maui (Condition 24); and
    - Formal protection, restoration, and propagation of native plants, including setting aside a Native Plant Preservation Area and Native Plant Conservation Areas (Condition 27).
- Significant economic benefits, including an estimated:
    - $1.2 billion of direct capital investment in the Maui economy during the 13-year build-out period;

- 9,537 "worker years[30]" of direct on-site employment during the 13-year build-out period;
- $480 million in employee wages paid out during the 13-year build-out period;
- 518 jobs (382 directly related to on-site activities and 136 related to indirect off-site activities) after the build-out period;
- $19 million in annual wages from the on and off-site jobs after the build-out period;
- $513.9 million (nearly $40 million annually) in discretionary expenditures into the Maui economy by Honua'ula residents and guests during the 13-year build-out period;
- $77 million annually in discretionary expenditures into the Maui economy by Honua'ula residents and guests after the build-out period;
- $41.8 million in net tax revenue benefit (taxes less costs) to the County of Maui during the 13 year build-out period;
- $1.6 million in annual net tax revenue benefit (taxes less costs) to the County of Maui after the build-out period;
- $97 million in net tax revenue benefit (taxes less costs) to the State of Hawaii during the 13 year build-out period; and
- $1.5 million in annual net tax revenue benefit (taxes less costs) to the State of Hawaii after the build-out period.

## 7.5 UNRESOLVED ISSUE

**Wastewater –** As discussed in Section 4.8.2 (Wastewater System), Honua'ula Partners, LLC, will either transport wastewater to the Mākena WWRF for treatment or provide a WWRF on-site. The preferred alternative is to transport wastewater to the Mākena WWRF. Transporting wastewater to the Mākena WWRF for treatment provides the benefit of consolidating wastewater services for both Honua'ula and Mākena, allowing economies of scale in the treatment process and consolidated regulatory compliance. Additionally, sufficient golf course land is available within both developments to reuse 100 percent of the recycled water for irrigation. Honua'ula Partners, LLC has had substantive discussions about this alternative with the Mākena WWRF owner, Mākena Wastewater Corporation, and they support the connection; however, formal agreements with Mākena Wastewater Corporation have not yet been finalized. <u>If formal agreements with Mākena Wastewater Corporation are not finalized, Honua'ula Partners, LLC will proceed with the other alternative for wastewater treatment discussed in Section 4.8.2 (Wastewater System), which is to construct an on-site WWRF that is capable of treating all of the Honua'ula wastewater to R-1 standards.</u>

[30] A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

# Chapter 8

## Consultation

# 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, Land Use Planner

- Department of Health
  - Herbert Matsubayashi, Chief, District Environmental Health Division*

- Department of Land and Natural Resources
  - Betsy Gagne, Natural Area Reserve System
  - John Cummings, Branch Manager, Maui DOFAW
  - Fern Duvall, Wildlife Biologist, DOFAW
  - Paula Hartzell, Conservation Initiative Coordinator, DOFAW
  - Charles Ice, Staff, CWRM
  - Ane Bakutis, formerly with Plant Extinction Prevention Program (DLNR)
  - Talia Portner, Plant Extinction Prevention Program (DLNR)

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

- Office of Hawaiian Affairs
  - Boyd Mossman, Trustee*
  - Kai Markell, Director of Native Rights, Land, and Culture
  - Jerome Yasuhara, Compliance Specialist

- University of Hawai'i
  - Dr. Creighton Litton, Assistant Professor of Forest Ecology
  - Dr. Jonathan Price, Assistant Professor of Geography & Environmental Studies

  - Dr. Cliff Morden, Associate Professor of Botany

**Federal**

- U.S. Fish and Wildlife Service
  - James Kwon, Botanist
  - Lorena Wada, Biologist
  - Bill Standley, Fish and Wildlife Biologist
  - Mike Richardson, Entomologist

- U.S. Geological Survey
  - Dr. Art Medeiros, Research Biologist

- U.S. Army Corps of Engineers
  - George Young, Chief, Regulatory Branch
  - Robert Deroche, Project Manager, Regulatory Branch

- U.S. Army
  - Stephen Mosher, Wildlife Biologist (Contractor)

**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 and Public Safety
  - Carl Kaupololo, Chief*
  - Jeffrey Murray, Chief
  - Neal Bal, Deputy Chief*
  - Robert Shimada, Deputy Chief

- Department of Housing and Human Concerns
  - Alice Lee, Director*

- 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, Engineering Manager

- 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
    - Mr. Stan Franco
    - Board members

- Maui Junior Golf
    - Eric Miyajima

- Nā Kūpuna 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

- Bernice Pauahi Bishop Museum
    - Dr. Rob Preston, Department of Entomology
    - Dr. Derral Herbst, Department of Botany (Retired)

- The Nature Conservancy
    - Dr. Sam Gon

- Maui Coastal Land Trust
    - Dale Bonar

- Contractors
    - Maya LeGrande, Botanist/owner, LeGrande Biological Surveys
    - Hina Kneubuhl, Botanist, LeGrande Biological Surveys
    - Ronald Walker, former DLNR wildlife biologist
    - Reggie David, wildlife biologist

- 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 CONSULTED DURING THE EIS PROCESS

Various Federal, State, and County agencies, as well as organizations and members within the community, were consulted with or provided comments on the EA/EISPN which aided in preparation of the Draft EIS (see Chapter 11, EA/EISPN Comments and Responses). ~~This Draft EIS will be distributed to the following agencies, organizations, and individuals. Comment letters received on this Draft EIS and responses will be included in the Final EIS.~~

**State of Hawaiʻi**

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

**Federal**

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

**Maui County**

- County Council
- 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**

- Hawaiian Telcom
- Maui Electric Company, Ltd.
- Maui News
- Maui Meadows Neighborhood Association
    - Madge Schaefer
- Wailea Community Association
- Save Mākena.org
    - Angie Hoffman
    - Elle Cochran

- Maui Unite!
  - Elle Cochran
  - Gordon Cockett
- Maui Cultural Lands
  - Clare Apana
- Maui Tomorrow Foundation
  - Irene Bowie
- Sierra Club Maui Group
  - Lucienne de Naie

- Community Members
  - Angie Hofmann
  - Claire Jordan
  - Clare Apana
  - Dale Deneweth
  - Daniel Kanahele
  - Dick Mayer
  - George Harker
  - Gordon Cockett
  - Joe Fell-McDonald
  - Johnny Be
  - Joyclynn Costa
  - Karrie Silva
  - Katie Romanchuk
  - Keegan House
  - Ken Rose
  - Lee Altenberg
  - Lucienne de Naie
  - Madeleine Migenes
  - Mark Hyde
  - Michael Howden
  - Michael & Barbara Gach
  - Robert Wintner
  - Robin Knox
  - Sally Raisbeck
  - Scott Heller
  - Steve Lefleur
  - Teri Leonard
  - Todd Wilson
  - Wayne Bachman

**EIS Consulted Parties**

Title 11, Chapter 200, HAR, §11-200-15, Consultation Prior to Filing a Draft EIS, states: "Upon publication of a preparation notice in the periodic bulletin, agencies, groups, or individuals shall have a period of thirty days from the initial issue date in which to request to become a consulted party and to make written comments regarding the environmental effects of the proposed action."

The following organizations and individuals requested to become a consulted party:

- Maui County Council
  - Wayne Nishiki

- Maui Cultural Lands
  - Clare Apana

- Maui Unite!
  - Elle Cochran

- Maui Tomorrow Foundation
  - Irene Bowie

- Save Mākena
  - Angie Hoffman

- Sierra Club Maui Group
  - Lucienne de Naie

- Community Members
  - Angie Hofmann
  - Claire Jordan
  - Clare Apana
  - Dale Deneweth
  - Daniel Kanahele
  - George Harker
  - Joe Fell-McDonald
  - Johnny Be
  - Joyclynn Costa
  - Karrie Silva
  - Katie Romanchuk
  - Keegan House
  - Ken Rose
  - Lucienne de Naie
  - Mark Hyde
  - Michael Howden
  - Michael & Barbara Gach
  - Robert Wintner
  - Robin Knox
  - Scott Heller
  - Steve Lefleur
  - Teri Leonard
  - Todd Wilson

## 8.3 FURTHER CONSULTATION

Following the distribution of the Draft EIS, additional consultation was sought prior to the preparation and distribution of the Final EIS. Based on input gathered at these consultation meetings, the Draft EIS was refined to the plans presented in the Final EIS.

Some key issues that have surfaced from the consultation include: archaeological sites on the Property, size of the Native Plant Preservation Area, and off-site improvements. Below is a list of consulted agencies and individuals.

**State of Hawaiʻi**

- Department of Land & Natural Resources
- DLNR – Division of Forestry and Wildlife
- DLNR – State Historic Preservation Division
- Office of Hawaiian Affairs

**Federal**

- U.S. Fish and Wildlife Service

**Maui County**

- County Council
- Planning Commission
- Planning Department
- Urban Design Review Board

**Private Organizations & Individuals**

- Maui Unite!
    - Elle Cochran
- Maui Cultural Lands
    - Daniel Kanahele
- Sierra Club Maui Group
    - Lucienne de Naie

- Community Members
    - Angie Hofmann
    - Claire Jordan
    - Keʻeaumoku Kapu
    - Uʻilani Kapu
    - Lee Altenberg
    - Janet Six
    - Ekolu Lindsey

# Chapter 9

## List of Preparers

# 9 LIST OF PREPARERS

This EIS has been prepared by PBR HAWAII, 1001 Bishop Street, ASB Tower, Suite 650, Honolulu, Hawai'i 96813.

Several key technical consultants were employed to provide specific assessments of environmental factors for this project. These consultants and their specialty are listed below:

| **Name** | **Area of Expertise** |
|---|---|
| Aki Sinoto Consulting | Archaeology |
| Austin, Tsutsumi & Associates | Traffic |
| B. D. Neal & Associates | Air Quality |
| Brown & Caldwell | Wastewater |
| Environmental & Turf Services | Golf Course Impacts |
| Hana Pono LLC | Cultural Impact |
| Marine Research Consultants | Marine Water Quality & Environment |
| SWCA Environmental Consultants | Botanical & Wildlife |
| The Hallstrom Group | Market & Economic |
| Tom Nance Water Resources Engineering | Hydrology |
| Wilson Okamoto | Engineering |
| Y. Ebisu & Associates | Acoustic Assessment |

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# Chapter 10

# References

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