## VOLUME 1

# DRAFT FINAL ENVIRONMENTAL IMPACT STATEMENT FOR PI'ILANI PROMENADE

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Appendix D	Air Quality Study <u>dated August 1, 2014</u>
Appendix D-1	Air Quality Study Update dated March 11, 2016
Appendix D-2	Air Quality Study Update dated February 2, 2017

Applicant: Pi'ilani Promenade North LLC. & Pi'ilani Promenade South LLC. c/o Sarofim Realty Advisors, Mr. Robert Poynor, Vice President 8115 Preston Road, Ste. 400 Dallas, Texas, 75225

> Planning Consultant: Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii, 96793-1717

> > <u>June 2017</u> August 2014



## Final Environmental Impact Statement

TMKs (2) 3-9-001: 016, 170, 171 (developable lots)
TMKs (2) 3-9-001: 172, 173, 174 (roadway widening lots)
TMKs (2) 3-9-001: Portion (Por.) 148 and Por. 169 (offsite improvements)
TMK (2) 3-9-048: Por. 122 (offsite improvements)
TMK (2) 2-2-002: 077 (water tank site)
TMKs (2) 2-2-002: Por. 016 and Por. 082 (offsite improvements)
Kihei, Maui, Hawaii

Prepared for: The Accepting Authority, State Land Use Commission & Sarofim Realty Advisors (Applicant)

Prepared by: Chris Hart and Partners, Inc. (Planning Consultant)

This Environmental Impact Statement and all ancillary documents were prepared under our direction or supervision and that the information submitted, to the best of our knowledge fully addresses document content requirements as set forth in sections 11-200-17 and 11-200-18, Hawaii Administrative Rules.

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June 2017

June 2017

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Applicant: Pi'ilani Promenade North LLC. & Pi'ilani Promenade South LLC. c/o Sarofim Realty Advisors, Mr. Robert Poynor, Vice President 8115 Preston Road, Ste. 400 Dallas, Texas, 75225

> Planning Consultant: Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii, 96793-1717

Accepting Authority: Land Use Commission Department of Business, Economic Development & Tourism State of Hawaii

> June 2017 August 2014



## **OVERVIEW**

Project Name:	Pi'ilani Promenade
Type of Document:	Draft Final Environmental Impact Statement
Applicable Chapter 343 Review "Trigger":	Use of State land for Roadway widening purposes (HRS sec. 343-5(a)(1))
Approving Agency:	Hawaii State Land Use Commission Department of Business, Economic Development & Tourism State of Hawaii P.O. Box 2359, Honolulu, Hawaii 96804-2359 Contact: Mr. Daniel Orodenker, Executive Officer (808.587.3822)
Applicant:	Pi'ilani Promenade North LLC. and Pi'ilani Promenade South LLC. c/o Sarofim Realty Advisors 8115 Preston Road, Ste. 400, Dallas, Texas, 75225 Contact: Mr. Robert Poynor, Vice President (214.692.4227)
Consultant:	Chris Hart & Partners, Inc. 115 North Market Street, Wailuku, Hawaii 96753 Contact: Mr. Jordan E. Hart, President (808.242.1955)
Property:	Kihei, Maui TMKs (2) 3-9-001: 016, 170, 171 (developable lots) TMKs (2) 3-9-001: 172, 173, 174 (roadway widening lots) TMKs (2) 3-9-001: Portion (Por.) 148 and Por. 169 (offsite improvements) TMK (2) 3-9-048: Por. 122 (offsite improvements) TMK (2) 2-2-002: 077 (water tank site) TMKs (2) 2-2-002: Por. 016 and Por. 082 (offsite improvements)
Land Use Controls:	State Land Use: Urban Community Plan: Light Industrial (LI) County Zoning: M-1 Light Industrial
Project Summary:	The proposed project involves the development of Light Industrial, Business/Commercial, and Multi-Family land uses on approximately 75 acres of land in North Kihei. The project will include associated onsite and offsite infrastructure improvements including but not limited to water, sewer, roads, drainage, electrical. <u>Amenities will include</u> bicycle, and pedestrian pathways, and landscaping. A Maui Electric Company (MECO) substation is also proposed on the project site.

<u>Onsite and</u> Offsite improvements include re-routing the County's existing 36-inch high pressure water main which traverses the property, installing a 1.0 million gallon drinking water tank and water transmission lines, and providing utility system connections and an access easement *mauka* and to the north of the project site. This easement which will also provide access for future maintenance and construction vehicles, and future pedestrians and bicycles access and with connectivity to Ohukai Road. The project will also provide road-widening along Pi'ilani Highway lots and improve the intersection of Pi'ilani Highway at Kaonoulu Street.

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Pi'ilani	Promenade
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ACRONYMS AND ABBR	REVIATIONS
AAQS	Ambient Air Quality Standards
ALISH	Agricultural Lands of Importance to the State of Hawai'i
AMSL	Above Mean Sea Level
BMP	Best Management Practices
BWS	Board of Water Supply (County of Maui)
CATV	Cable Television
CDP	Census Defined Place
CIA	Cultural Impact Assessment
CPLU	Community Plan Land Use
County	Maui County
CWS	Water System (County of Maui)
CWRM	Commission on Water Resource Management
CZM	Coastal Zone Management
DBEDT	Department of Business, Economic Development and
	Tourism (State of Hawai'i)
DEM	Department of Environmental Management (County of
	Maui)
DHHC	Department of Housing and Human Concerns (County of
	<u>Maui)</u>
DLNR	Department of Land and Natural Resources (State of
	Hawai'i)
DOE	Department of Education (State of Hawai'i)
DOH	Department of Health (State of Hawai'i)
DOT	Department of Transportation (State of Hawai'i)
DPW	Department of Public Works (County of Maui)
DWS	Department of Water Supply (County of Maui)
DEIS	Draft Environmental Impact Statement
EISPN	Environment Impact Statement Preparation Notice
ESA	Environmental Site Assessment
FEA	Final Environmental Assessment
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GPD	Gallons per day
GPM	Gallons per minute
HPL	Honua'ula Partners LLC

Pi'ilani	Promenade
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HRS	Hawaii Revised Statutes
HT	Hawaiian Telcom
КСА	Kihei Community Association
КМСР	Kihei-Makena Community Plan
KUH	Kihei Upcountry Highway
KWWTF	Kihei Wastewater Treatment Facility
kV	Kilovolt
kVa	Kilovolt Ampere
Leq	Equivalent Sound Level
	Light Industrial
LOS	Level of Service
LSB	Land Study Bureau
LUC	Land Use Commission (State of Hawai'i)
MCC	Maui County Code
MECO	Maui Electric Company
MG	Million gallons
MGD	Million gallons per day
MMA	Maui Market Area
MRTP	Maui Research and Technology Park
MSL	Mean Sea Level
NPDES	National Pollutant Discharge Elimination System
NFIP	National Flood Insurance Program
Oceanic	Oceanic Time Warner Cable
OEQC	Office of Environmental Quality Control (State of Hawai'i)
OHA	Office of Hawaiian Affairs
OSDS	Onsite Disposal Systems
Ppm	Parts Per Million
PV	Photovoltaic
ROW	Right-of-Way
SF	Square Feet
SHPD	State Historic Preservation Division (Hawai'i)
SHWS	State Hazardous Waste Sites
SIHP	State Inventory of Historic Places
SMA	Special Management Area
State	State of Hawai'i
ТМК	Tax Map Key
TSS	Total Suspended Solid



UBC	Uniform Building Code
UGB	Urban Growth Boundary
UST	Underground Storage Tank Site
V/C	Volume to Capacity Ratio
WWRF	Wastewater Reclamation Facility



## I. PROJECT SUMMARY

### A. BRIEF DESCRIPTION OF THE ACTION

The proposed project is referred to as the "Pi'ilani Promenade" or as the "Project", which is a conceptual development plan that includes a mixed-used project consisting of retail, office, business/commercial development limited to 530,000 square feet, 58,000 square feet of light industrial space, 226 multi-family apartment units, and public/quasi-public (Maui Electric Company (MECO) substation) uses. The Pi'ilani Promenade will include associated onsite and offsite infrastructure improvements including but not limited to water, sewer, roads, drainage, and electrical improvements. Amenities will include bicycle and pedestrian pathways, public park area, and landscaping.

Onsite and Offsite improvements include re-routing the County's existing 36-inch high pressure water main which traverses the property, installing a 1.0 million gallon (MG) drinking water tank and water transmission lines, and providing utility system connections and an access easement *mauka* and to the north of the Project site. This access easement will also provide access for maintenance and construction vehicles, and future pedestrians and bicycles with connectivity to Ohukai Road. The Project will also provide road-widening along Piilani Highway lots and improve the intersection of Pi'ilani Highway at Kaonoulu Street.

### B. <u>SIGNIFICANT BENEFICIAL AND ADVERSE IMPACTS WITH</u> <u>MITIGATION MEASURES (INCLUDING CUMULATIVE IMPACTS</u> <u>AND SECONDARY IMPACTS)</u>

#### The beneficial impacts of the Project are:

- <u>Providing greater diversity and flexibility of business/commercial space to attract small</u> and large-scale employers;
- <u>Providing light industrial space for south Maui business;</u>
- Providing restaurants, shops and other retail services to the local residents and visitors;
- <u>Creating Jobs;</u>

- Increasing tax revenue to State of Hawaii and Maui County;
- <u>Providing much needed residential rental housing in south Maui;</u>
- <u>Providing housing within walking distance of employment;</u>
- <u>Reducing the Project's energy demand through conservation and energy efficient</u> <u>design; and</u>
- Construction of significant public infrastructure improvements, such as the initial increment of the Kihei/upcountry highway, and domestic water infrastructure improvements, which will serve south Maui at no cost to the public.

#### The potential adverse impacts of the Project with mitigation measures are:

#### **1. TOPOGRAPHY AND SOILS**

**Potential Impact:** Potential impacts to the land form include routing a small unregulated drainageway (Drainageway "A") to the future East Kaonoulu Street right of way as part of the overall drainage system. Additional impacts may include 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 erosion forces. Some wind erosion of soils could occur without a proper watering and re-vegetation program.

**Mitigation Measures:** As part of the overall drainage master plan, Drainageway "A" will be routed to the East Kaonoulu Street right of way with no increase in flow and will terminate at the existing culverts routing the system under and *makai* of the Pi'ilani Highway. This change will not increase the quantity of drainage water traveling through this system or downstream.

During site preparation, storm runoff from the site will be controlled in accordance with the County's "Soil Erosion and Sediment Control Standards". Typical mitigation measures include appropriately stockpiling materials on the site to prevent runoff, temporary detention, and commencing building construction and/or establishing landscaping as early as possible in order to minimize the length of exposure of disturbed soils. After construction, the establishment of a permanent stormwater system and landscaping will provide additional long-term erosion control.

Why Mitigation Measures were selected: Drainageway "A" is proposed to be routed underground to the East Kaonoulu right of way as part of the drainage system improvements in order to accommodate the grade changes necessary for East Kaonoulu Street and develop the property as proposed. Maui County's "Soil Erosion and Sediment Control Standards "are the recommended mitigation measures for site preparation and stormwater runoff prevention.

#### 2. NOISE QUALITY

**Potential Impact:** The Acoustic Study reports that the proposed extension of Kaonoulu Street mauka of Piilani Highway will increase the existing background ambient noise levels along the center portion of the Project site. Through project build-out in CY 2032, noise levels at the Project's planned residential buildings fronting Kaonoulu Street should not exceed the 65 DNL federal standard or the State DOT 66 Leq noise abatement criteria, as long as the residential buildings are located at least 51 feet from the centerline of Kaonoulu Street.

Mitigation Measures: Based on the best available traffic forecasts available for future conditions following completion of the Upcountry Highway, a setback distance of 70 feet from the centerline of Kaonoulu Street is required for 65 DNL and 66 Leq to not be exceeded at these residential buildings. The Project site will be designed such that rental residential uses within the Project are located at adequate setback distances from the future Kihei Upcountry Highway to eliminate the need for traffic noise mitigation measures. The Applicant will inform future residents of the potential for high noise levels due to existing light industrial activities adjacent to the northern corner of the Project site.

Why Mitigation Measures were selected: This mitigation measure of providing an ample setback from the roadway was selected in lieu of constructing a sound attenuating wall along the Kihei Upcountry Highway to reduce noise impacts to residences.

#### **3. ARCHAEOLOGICAL RESOURCES**

Potential Impact: Loss of historical sites identified on the property.

Mitigation Measures: Preparation of an Archaeological Data Recovery Plan and Archaeological Monitoring Plan.

Why Mitigation Measures were selected: The plans were recommended by the SHPD.

#### **<u>4. GROUNDWATER RESOURCES</u>**

**Potential Impact:** Hydrologic impact to the Iao Aquifer from withdrawal of 171,000 gpd of drinking water and impact to the Kamaole Aquifer from withdrawal of 81,000 gpd of non-drinking water for irrigation.

Mitigation Measures: The CWRM estimates that 0.421 MGD of groundwater can be allocated within the Iao Aquifer System. The Piilani Promenade drinking water demand is expected to withdraw 171,000 gpd, and can be accommodated within the remaining 0.421 MGD of available groundwater. This limited amount of water is not anticipated to significantly impact the Iao Aquifer from recharging.

The CWRM approved an irrigation well permit for a well built in 2011 at a wellhead elevation of 118 feet. The well has the capacity to produce 216,000 gpd of non-drinking water from the Kamaole Aquifer, and a permanent pump with an additional capacity of 150 gpm has since been installed, but is not currently in use. In addition, the Applicant is required to provide for a future connection to the County reclaimed water system that would eliminate the need for the brackish irrigation well.

Why Mitigation Measures were selected: Three 3-inch domestic water meters have been approved by the County DWS and are available for the Project. The issuance of water meters for the Project by the DWS carries the implicit approval by the DWS of Piilani Promenade's use of the Iao Aquifer System for drinking water.

The irrigation well was approved, and when the Maui County reclaimed water system is expanded to the Project site, the Applicant will connect to the system in compliance with the condition imposed by the County in connection with obtaining the current zoning designation.

#### **5. RECREATION FACILITIES**

**Potential Impact:** Incremental impact that new development places upon the region's park <u>facilities.</u>

**Mitigation Measures:** The Pi'ilani Promenade is anticipated to positively impact recreational facilities by providing an approximately 2-acre park site adjacent to the proposed 226 apartments.

The Applicant met with the County Department of Parks & Recreation on March 13, 2015 to discuss how the parks and playgrounds assessment requirements for the proposed Project can be satisfied in accordance with MCC Section 18.16.320. As a result of the meeting, the Applicant is proposing the following general changes to the on-site park space:

- 1. Inclusion of active play space and facilities within the park areas;
- 2. Inclusion of parking for park users; and
- 3. <u>Possible reconfiguration of the park acreage to create a more contiguous park area.</u>

Additionally, improvements are being made to accommodate pedestrian and bicycle travel adjacent to and within the Project. Recognizing that the availability of existing off-street pedestrian and bike pathways is limited in south Maui, and that there is a need for projects to offer options other than vehicular access, the Pi'ilani Promenade includes a pedestrian and bike pathway system adjacent to and within the Project site, as shown in Figure 15 "Conceptual Circulation Plan". The red bike lane shown in Figure 15 is located within the Pi'ilani Highway right of way. The blue system shown provides for a series of pedestrian and bike pathways with the Project site and East Kaonoulu Road allowing for safe off street interconnectivity for the public using the various components of the land plan and providing for future connectivity to the areas north, south and east of the Project site.

Why Mitigation Measures were selected: The requirements for Parks and Playgrounds, pursuant to MCC Section 18.16.320, are required by the County of Maui.

#### 6. SCHOOLS

Potential Impact: Increase in student population

Mitigation Measures: Payment of the DOE school impact fee to contribute to future South Maui school facilities.

Why Mitigation Measures were selected: The Project site is not a preferred location for a school site, therefore the contribution of a fee is anticipated.

#### 7. ROADWAYS

**Potential Impact:** The Project will generate 564 new trips during the morning peak hour, 2,482 new trips during the afternoon peak hour and 2,651 new trips during the Saturday peak hour.

**Mitigation Measures:** Consistent with previously approved subdivision plans for the Project site, the TIAR recommends the following mitigation measures to be constructed by the Applicant at the intersection of Piilani Highway and Kaonoulu Street as part of the Piilani Promenade:

• Install traffic signals and striped pedestrian crosswalks across Pi'ilani Highway.

- Southbound approach will have double left turn lanes, two through lanes, and a channelized right turn lane.
- Northbound approach will have a dedicated left turn lane, two through lanes, and <u>a channelized right turn lane.</u>
- Eastbound approach will have a left turn lane, a through lane, and a channelized right turn lane.
- Westbound approach will have dual left turn lanes, a through lane and channelized right turn lane with an acceleration lane.
- <u>The Project also includes the construction of a shared-use pedestrian and bike path</u> <u>along the mauka-side of Pi'ilani Highway, adjacent to the Project and within the</u> <u>Project site, in addition to bike lanes on Pi'ilani Highway.</u>

#### Why Mitigation Measures were selected: Recommendations of the TIAR.

#### 8. DRAINAGE

#### **Potential Impact:** Hydrologic impact on downstream properties.

**Mitigation Measures:** Surface runoff generated by Pi'ilani Promenade's buildings and pavement will be directed to drain inlets located throughout the development and then conveyed to stormwater detention facilities (by underground drainlines) in order to provide peak flow mitigation. Underground detention chambers located on the southern portion of the Project site and an open detention pond located in the northern portion of the Project site will provide a combined storage capacity of 7.6 acre-feet and will limit downstream stormwater discharges to a peak flow rate that does not exceed pre-development levels. Once the stormwater detention facilities are in place, the hydrologic impact on downstream properties resulting from the proposed development of Pi'ilani Promenade will be negligible because the pre-development peak flow is the same is the post-development peak flow.

Why Mitigation Measures were selected: Compliance with County engineering standards and the recommendation of the Project Civil Engineering Preliminary Drainage Report.

#### <u>9. WATER</u>

**Potential Impact:** The Project is estimated to consume on average of 252,000 gpd at full buildout, including 171,000 gpd of drinking water for domestic uses.

Mitigation Measures: The proposed Project will connect to the existing County water system for drinking water. At the request of the DWS, the Applicant agreed to construct a 1.0 MG

water storage tank to serve the future needs of the Project and South Maui. Three 3-inch domestic water meters have been approved and are available for the Project. The combined flow capacity of these meters is 1,050 gpm, which exceeds the approximately 600 gpm of required flow capacity for the Project. Therefore, there will be adequate flow capacity to build out the Project. Consequently, no additional drinking water sources beyond the County-issued water meters are anticipated in order to construct and operate the Pi'ilani Promenade.

Why Mitigation Measures were selected: Consultation with DWS led to the request for construction of the 1.0 MG water tank as an alternative to source development. Additionally, the 1.0 MG water tank is part of the previously approved subdivision plans.

#### **10. RELOCATION OF COUNTY WATERLINE**

**Potential Impact:** Relocating the 36-inch diameter high pressure waterline could disrupt water service during improvement work.

**Mitigation Measures:** Previously approved DWS construction plans for the relocation work include a bypass line, comprehensive site preparation work, and disconnect/connection during non-peak hours.

Why Mitigation Measures were selected: The current location of the County line crosses diagonally through Project site, restricting use of land over water line alignment. The proposed high pressure waterline relocation was coordinated with the DWS and the construction plans have been approved.

#### 11. SOLID WASTE

**Potential Impact:** Solid Waste generated from the Project will contribute towards the use of the Central Maui Landfill.

**Mitigation Measures:** A solid waste management plan will be coordinated with the County Solid Waste Division for the disposal of onsite and construction-related waste material. The Applicant will work with the Project contractor to minimize the amount of solid waste generated during construction. In addition, the Project will provide on-site recycling opportunities in an effort to reduce solid waste entering the landfill. The County Solid Waste Division anticipates that additional phases of the Central Maui Landfill will be developed as needed to accommodate future waste, including waste generated by the Project. Why Mitigation Measures were selected: A solid waste management plan is the recommended for construction projects. Providing the on-site recycling opportunities within the Pi'ilani Promenade site is a measure that will support waste diversion.

#### **12. WASTEWATER**

Potential Impact: Development of the Project will generate 114,000 gpd of wastewater.

**Mitigation Measures:** The Applicant will pay the Regional Wastewater Treatment System Facility Expansion Assessment Fee for treatment plant expansion, which is currently assessed at \$4.65 per gallon of Project flow. The Pi'ilani Promenade will be assessed approximately \$530,100 for the 114,000 gpd of anticipated wastewater flow. The Project will connect to the existing County sewer system.

Why Mitigation Measures were selected: The Regional Wastewater Treatment System Facility Expansion Assessment Fee is required by the Department of Environmental Management.

#### 13. ELECTRICAL

**Potential Impact:** MECO has advised that the existing 12 kV system, based on current electrical use growth projections, does not have sufficient spare capacity to accommodate the estimated 6,250 kVA of load required by the current Pi'ilani Promenade development plan.

Mitigation Measures: MECO is planning a new substation to provide the additional capacity needed to accommodate further growth in the Kihei and South Maui area.

Why Mitigation Measures were selected: The need for a substation in this area of Kihei was a requirement of MECO to continue to provide electrical needs the growth in the Kihei and south Maui areas.

#### The potential secondary and cumulative impacts are:

The build-out of the Project is likely to affect the businesses and residents of Kihei. Implementation of the Project, when added to other adopted and proposed projects, may have a significant effect on a regional scale. The potential secondary and cumulative impacts that may result from the development of the Pi'ilani Promenade are:

Impacts to Natural and Environmental Resources. Assuming all BMPs and mitigation measures documented in this FEIS are implemented and all requirements imposed under

applicable permits and/or approvals are complied with; no adverse, cumulative or secondary impacts are anticipated on the natural environment.

Flora and Fauna. As documented in Section III.A.5 of the FEIS, the Project will not impact rare or endangered flora and fauna species. In consideration of existing State and Federal regulations to protect rare and endangered species, there should be no significant cumulative and/or secondary impacts to flora and fauna resources arising from planned growth in the area.

**Coastal Water Quality.** Development of the Pi'ilani Promenade, together with other area projects, could have significant cumulative impacts to coastal water quality if BMPs are not strictly adhered to. During the construction phase, BMPs must be implemented to mitigate runoff of bare soils and other construction contaminants into drainage ways and culverts. If not properly mitigated, the cumulative impact of these contaminants could impact coastal water quality.

The Applicant retained Marine Research Consultants, Inc. to prepare a Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities. The purpose of the Baseline Assessment was to assess potential impacts to groundwater and the marine environment as a result of the proposed Project. In connection with this work, water quality testing was conducted and the underwater biotic composition along the Kihei coastline was analyzed.

The findings of the Baseline Assessment indicate that the proposed Project will not have any significant negative effect on water quality. (See: Appendix J, "Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities Report.")

During the Project's operation phase, any increase in runoff will be retained on site as required by the County's drainage rules. (See: Section III.D.3). Retaining the additional increment of runoff on-site, together with filtration of contaminants from runoff, will mitigate the Project's impact to coastal waters. Likewise, other future developments in the area will be required to implement similar mitigation measures as part of their operation phase BMPs. Therefore, the Project, together with other planned projects in the area, should not have a significant cumulative impact on coastal water quality if construction and operation phase BMPs are strictly adhered to. **Agricultural Lands.** As documented in Section III.A.11 of the FEIS, the Pi'ilani Promenade is located on State designated urban land, therefore, the Project is not expected to have a significant cumulative impact upon the long-term viability or growth of agriculture on Maui.

The establishment of Urban Growth Boundaries in the Maui Island Plan create more predictable development patterns and create more certainty in the urban and agricultural land markets, thereby mitigating the escalation of agricultural land values. HRS Chapter 165, the "Hawaii Right to Farm Act," protects farmers from frivolous lawsuits in which a farming operation is alleged to be a nuisance. In addition, the Pi'ilani Promenade will incorporate landscape planting around the perimeter of the property with a buffer to mitigate potential agricultural use conflicts.

Drinking Water Resources. The development of the Pi'ilani Promenade, together with other area projects, will increase the demand for drinking water. The Applicant is constructing a 1.0 MG water tank and supporting infrastructure to provide water storage for the Project (only requiring 171,000 gpd), with the remaining capacity available for future south Maui water customers. The development of the 1.0 MG water tank will help support the drinking water needs for the future planned growth of south Maui. With these measures in place, significant cumulative and/or secondary impacts are not anticipated to threaten the long-term sustainability of the County's water resources.

Air Quality. The cumulative impact of the build-out of the Pi'ilani Promenade, together with other developments in Kihei, will increase the amount of pollutants entering the atmosphere. These pollutants will be generated by an increase in demand for energy in the form of transportation fuels for automobiles, and carbon-based fuels to power the Ma`alaea Power Plant. It is the opinion of the air quality consultant that re-analysis of the Project air quality impacts due to Project traffic would not yield significantly different results and the conclusions stated in the air quality study of August 2014 remain valid. (See: Appendix D-2 "Air Quality Report Update dated February 2, 2017.")

**Socio-Cultural Environment.** The development of the Pi'ilani Promenade, together with other developments in Kihei, will increase population, create jobs, and generate tax revenues. Together, these projects will also increase the demand for housing and place increasing demands on infrastructure and public facility systems both locally and island-wide.

According to the Maui Island Plan, there will be a demand for an additional 34,637 housing units on Maui through 2030. The County of Maui's Land Use Forecast (November 2006) forecasted that there will be a demand for an additional 9,735 units in Kihei-Makena through 2030. The 226 units proposed at the Project are approximately 2% of the forecasted Kihei-Makena demand. The proposed Project together with other planned projects in Kihei, are a necessary source of housing to accommodate the forecasted population growth.

The continued build-out of Kihei will also change the area's urban design character and sense of place. Today, Kihei is a developing community with a number of undeveloped infill parcels intermixed with lower and medium-density residential, strip commercial, industrial, resort and public facility uses. In the coming years, pursuant to the land-use policies contained in the Maui Island Plan and Kihei-Makena Community Plan, Kihei will evolve to become a more unified and cohesive urban settlement. An increase in population, including population created by the Pi'ilani Promenade, may increase demand for coastal and inland active and passive recreation lands. MCC Section 18.16.320 requires a park land dedication, or cash-inlieu fee, to mitigate the impact of growth on park and recreation facilities.

With regard to the concern relative to sprawl, the proposed Project is located immediately adjacent to an extensive and larger light industrial complex which is adjacent to a significant residential area in north Kihei. Immediately to the south of the proposed Project is the proposed Kihei High School for which the State has acquired the land and is now in the process of design. The amount of residential or apartment zoned land in south Maui available for residential and especially apartment development is limited. The Project site is County zoned Light Industrial and Apartments are a permitted use. This mixed-use project will include light industrial, business /commercial and residential uses, active park space, pedestrian and bicycle connectivity within the site and along the frontage portions of the Kihei Upcountry Highway and Pi'ilani Highway to promote smart growth and less dependence on the automobile. In addition, the Project will provide an easement for pedestrian and bicycle connectivity from Ohukai Road to the mauka portion of the Project site and the Applicant anticipates that there will be opportunities for future connection along Pi'ilani Highway with the Kihei High School, once the school is built. The onsite pedestrian oriented improvements will reduce the need for the automobile and create a healthier lifestyle for those who live there and the offsite easement will expand the regional non-vehicular transportation network.

**Infrastructure and Public Facilities** The build-out of the Pi'ilani Promenade, together with other developments in Kihei, will increase population; thereby, increasing the demand for infrastructure and public facility systems, including water, wastewater, and roadways; solid waste, schools, and parks; and medical facilities, public transit and government offices. The County's Infrastructure and Public Facilities Issue Paper (September 2007) documents the

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impact of projected population growth on the County's infrastructure and public facility systems by region and identifies associated capital improvement projects to support this growth.

As documented in Section III.D of the FEIS, the Pi'ilani Promenade will mitigate its impact on infrastructure and public facility systems through a variety of on and off-site infrastructure and public facility counter-measures. One such counter measure, as documented in Section III.D.1 of the FEIS, is the development of a 1.0 MG drinking water storage tank to provide drinking water storage to accommodate the cumulative impact of Pi'ilani Projected population growth. Property taxes generated by the development, together with other planned projects in the area, will help fund County operations and capital improvement projects.

Secondary impacts could also result from investments into infrastructure and public facility improvements to support the Project. For example, development of the KUH could induce further growth mauka of Pi'ilani Highway. As documented in Section III.D.1 of the FEIS, development mauka of Pi'ilani Highway is supported by the Maui Island Plan. The future growth of the KUH outside of the Project site is unknown at this time.

## C. ALTERNATIVES CONSIDERED

#### No Action

Under the no action alternative, existing entitlements would remain and the property could be developed as a 123-lot commercial and light industrial subdivision within the Petition Area (as such a term is defined in Section II.A). Under the no action alternative, there would be no affordable rental workforce housing, no on-site recreational amenities, no opportunity to provide additional commercial and office space for south Maui, and it is likely the land would not be developed as a 123 lot development is not feasible and therefore the infrastructure improvements would not be built.

#### <u>No Residential Use</u>

An alternative to the proposed Project (Preferred Alternative) could be to not allow rental residential uses. This alternative could reduce the impact to water usage, solid waste, schools and public facilities, and allow for the development of light industrial and business/commercial uses, but would eliminate the opportunity to develop a true mixed use

project providing for housing (including affordable housing), employment within close proximity and a new 2-acre park for the area. Under this alternative, business, retail and commercial uses, and support services, would be provided.

#### <u>Alternative Site</u>

This option would require that the Applicant acquire and develop another entitled property of a comparable size and location. The proposed Project is located centrally within Kihei to provide jobs, services and housing to the existing and future residents of Kihei. If the Project were relocated, the residents of Kihei would not benefit from the infrastructure improvements and the opportunity to stay within Kihei rather than driving to Kahului. Also, this alternative is not in line with the Maui Island Plan for the future growth of commercial and residential development in the Kihei area.

### **D. UNRESOLVED ISSUES**

The table below provides the list of unresolved issues associated with the Project. A detailed description of each issue is provided in *Section V.D. Unresolved Issues* section of this FEIS.

Issue	Parties Involved	Estimated Resolution
1. Motion for Order Amending the <u>Findings of Fact, Conclusions of Law,</u> <u>and Decision and Order dated February</u> <u>10, 1995</u>	<u>Applicant, LUC, Office of</u> <u>State Planning</u>	<u>2017</u>
2. Compliance with the Kihei-Makena Community Plan	Applicant, County of Maui, Department of Planning	<u>2017</u>
3. Preservation of Archaeological Sites	Applicant, SHPD	<u>2017</u>
<u>4. Future location of Wastewater Pump</u> <u>Station</u>	Applicant, County of Maui, Department of Environmental Management	Unknown: The wastewater pump station construction timeline is to be determined by the



Issue	Parties Involved	Estimated Resolution	
		<u>County of Maui</u> <u>Department of</u> <u>Environmental</u> <u>Management</u>	
<u>5. Pedestrian Connectivity to the Kihei</u> <u>High School</u>	<u>Applicant, DOE, various</u> <u>private land owners</u>	<u>Unknown:</u> <u>establishing</u> <u>connectivity from</u> <u>the Project to the</u> <u>future high school</u> <u>is to be coordinated</u> <u>with the DOE, DOT</u> <u>and other private</u> <u>landowners</u>	
<u>6. Army Corps of Engineers Jurisdictional</u> Determination	Applicant, Army	2017	
7. Impact Fee Agreement	<u>Applicant, DOE</u>	Prior to construction of the Project infrastructure, which is estimated to happen in 2018.	

### E. COMPATIBILITY WITH LAND USE PLANS AND POLICIES, AND LISTING OF PERMITS OR APPROVALS

State Land Use

The Project is located within the Urban District; therefore the Pi'ilani Promenade is in compliance with section 15-15-24 HAR.

Maui Island Plan

The Project is located within the Urban growth Boundary identified in the Maui Island Plan and therefore in compliance with the Plan objectives and policies.

Maui County Zoning

The Project is located in the M-1 Light Industrial District. The proposed Light Industrial, Commercial and Multi-family uses are permitted within the M-1 Light Industrial District.

Kihei-Makena Community Plan

Although the County has determined that the Project complies with the KMCP, the Applicant recognizes that certain parties have asserted that an amendment to the KMCP is necessary for development of the Project to proceed. This is further discussed in the Unresolved Issues section of this document.

Below is a list of permits and approvals:

Permit / Approval Required	Responsible Authority	<u>Projected</u> <u>Submittal</u> <u>Date</u>
Order Granting Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order dated February 10, 1995	LUC	<u>Pending</u>
HRS Chapter 343 Compliance, Approval of FEIS	LUC	<u>June 2017:</u> <u>Approval</u> <u>July 2017</u>
Jurisdictional Determination	Army Corps of Engineers	<u>2017</u>
Grading and Grubbing Permit	<u>Maui County, Public Works, Development</u> <u>Services Administration</u>	<u>2017</u>

Permit / Approval Required Responsible Authority		<u>Projected</u> <u>Submittal</u> <u>Date</u>	
<u>NPDES Permit</u>	<u>State of Hawaii, DOH</u>	<u>2017</u>	
Air Pollution Control Permit	<u>State of Hawaii, DOH</u>	<u>2017</u>	
Community Noise Permit	<u>State of Hawaii, DOH</u>	<u>2017</u>	
Drainage Approval	DPW Engineering Division, and State DOT	<u>2017</u>	
<u>Permit to Perform Work</u> <u>Within the State ROW</u>	<u>State DOT</u>	<u>2017</u>	
<u>Easements for Utilities and</u> <u>Roadways</u>	<u>Various</u>	<u>2017</u>	
<u>Wastewater Discharge</u> (Hookup) Permit	<u>Maui County, Department of Environmental</u> <u>Management, Wastewater Division</u>	<u>2017</u>	
Building Permits	<u>Maui County, Public Works, Development</u> <u>Services Administration</u>	<u>2017-2018</u>	

## **II. PROJECT DESCRIPTION**

### A. PROPERTY LOCATION

The proposed 74.871 acre project site is located in Kihei, *mauka* of the intersection of Kaonoulu Road and Pi'ilani Highway. The project boundary is adjacent to the Kihei Commercial Center to the North, Kulanihakoi Gulch to the South, Pi'ilani Highway to the West, and ranch land to the East extending up to Kula. (**See**: Figure No. 1 "Regional Location Map" <u>and Figure No. 1A "Aerial Property Map"</u>)

The project site is comprised of TMK's (2) 3-9-001:016, 170-174. Parcels 16, 170 & 171 are developable parcels. Parcel 172 is a roadway lot for the future East Kaonoulu Street which is the first segment of the future Kihei Upcountry Highway (KUH). Parcels 173 and 174 are roadway widening lots to improve the intersection of Kaonoulu Street at Pi'ilani Highway. The proposed 74.871 acre project site is the petition area in the pending motion to amend before the State Land Use Commission, which is discussed in more detail in Section II.C. herein.

There are several off-site improvements that are located in close proximity to the developable parcels, however they are owned by others including road widening lots for intersection improvements at Kaonoulu Street and Pi'ilani Highway, an easement for utilities and roadway, an irrigation well with pump for landscaping and a 1 acre lot for a 1.0 million gallon water tank. (**See**: Figure Nos. 2 "Tax Map Key", 3 "Conceptual Site Plan", 4 "Offsite Improvement Plan", 8 "Site Photographs" and 8A "Site Photographs")

## **B. LAND OWNERSHIP AND PROJECT APPLICANT**

Except for the offsite parcels, the Applicant is the owner of the parcels comprising the project. The land ownership is provided below in Table 1: Land Ownership.

Table 1: Land Ownership				
ТМК	OWNERSHIP	Description	Acreage	
LAND OWNED BY PPN/PPS				
	Development P	arcels		
(2) 3-9-01:016*	PPN/PPS	Development Parcel Phase 1	30.132	
(2) 3-9-01:170	PPN/PPS	Development Parcel Phase 2	18.519	
(2) 3-9-01:171	PPN/PPS	Development Parcel Phase 2	19.539	
		x. 0.981 acre lot will be conveyed t	to MECO for	
construction of a MECO	D substation			
	Kihei Upcountry High			
		Roadway Widening Lot		
(2) 3-9-01:172	PPN/PPS	(Kihei Upcountry Highway)	4.898	
	Pi'ilani Highway Wi			
(2) 3-9-01:173	PPN/PPS	Pi'ilani HWY widening lot	0.924	
(2) 3-9-01:174	PPN/PPS	Pi'ilani HWY widening lot	0.859	
			74.871 total	
	LAND NOT OWNED	•		
	Pi'ilani Highway Wi			
(2) 3-9-048:122	KENRANES LTD.	Pi'ilani HWY widening lot	0.332	
(2) 3-9-01:148	Pacific West Communities Inc.	Pi'ilani HWY widening lot	0.407	
	Offsite Easem			
(2) 2-2-02:082		1.0 MG Water Tank transmission		
(portion)	Kaonoulu Ranch LLLP	line easement	10.646	
(2) 2-2-02:016				
(portion)	Haleakala Ranch Company	Roadway and utility easement	1.119	
(2) 3-9-01:169				
(portion)	Honua'ula Partners	Landscape Irrigation Well	0.135	
	Offsite Water Ta		4.454	
(2) 2-2-02:077	Kaonoulu Ranch LLLP	1.0 MG Water Tank site	1.154	
			13.793 total	
	Land Not Part of Pi'ilani Promenade Project			
	Offsite Multi-fa			
(2) 2 0 01.160	Honua'ula Partners	Future affordable Multi-family	12 120	
(2) 3-9-01:169	Honua ula Partners	development	13.129	

## C. PROJECT BACKGROUND

On July 6, 1994, Kaonoulu Ranch filed a Petition for a Land Use District Boundary Amendment with the Land Use Commission (Docket No. A94-706). Kaonoulu Ranch's Petition encompassed approximately 88 acres of land located at Kaonoulu, Makawao-Wailuku (the "Petition Area"), including the entire 7574.871 acres comprising the project site. Kaonoulu Ranch proposed to develop a 123-lot commercial and light industrial subdivision within the Petition Area. In the Petition, the Kaonoulu Ranch sought an amendment of the land use district boundary to effect reclassification from the Agricultural District to the Urban District.

On February 10, 1995, the <u>LUC</u> Land Use Commission ("the Commission") issued its Findings of Fact, Conclusions of Law, Decision and Order for Docket No. A94-706 (the "1995 Decision and Order"). The 1995 Decision and Order reclassified the Petition Area from the State Agricultural District to the State Urban District subject to conditions specified therein.

On March 6, 1998 the Kihei-Makena Community Plan was adopted by Ordinance No. 2641, and the Petition Area was designated as "LI" Light Industrial.

In 1998, the Kaonoulu Ranch applied to the County of Maui for a change in the zoning of the Petition Area from Agricultural to M-1 Light Industrial, as required by Condition 1 of the 1995 Decision and Order. In 1999, County of Maui Ordinance No. 2772 was passed, granting the change in zoning application with no limitations on the types of uses permitted within the Project area. After obtaining the change in the zoning of the Petition Area to M-1 light industrial, the Kaonoulu Ranch applied for and obtained from the County of Maui final approval for a large lot subdivision for the 88 acre Petition Area in 2001, and subsequently a large lot subdivision consisting of four (4) lots, for which preliminary approval was granted in 2003.

In 2005, Kaonoulu Ranch sold the lands comprising the Petition Area to Maui Industrial Partners, LLC, which worked with various consultants and State and County agencies, to obtain <u>final</u> approval of a <del>further</del> large lot subdivision of the Petition Area. On August 14, 2009, the County of Maui approved the subdivision of the Petition Area into seven (7) lots, six (6) of which are affected by this <u>FEIS</u> <u>Motion</u>. <u>The final subdivision map was issued by the County after the provision of a \$22 million dollar bond guaranteeing the construction of the civil improvements for the subdivision. (See: Appendix O "Final Subdivision Approval Letter.")</u>

On August 20, 2009, Maui Industrial Partners, LLC sold one parcel of the Petition Area identified by Tax Map Key No. (2)3-9-001:169, comprising approximately 13 acres and located on the northeast corner of the Petition Area, to Honua'ula Partners, LLC (the "Honua'ula Parcel"). Honua'ula Partners, LLC is the current owner of the <u>13- acre</u>

Honua'ula Parcel. Honua'ula Partners, LLC is not related or in any way connected to Applicant, and does not share any common ownership, members, shareholders, or control The 13-acre Honua'ula Parcel is not the subject matter of this with Applicant. Environmental Impact Statement. However, the impact of the proposed development of the Honua'ula Parcel was considered in some of the technical reports, including the TIAR update, the Cultural Impact Assessment, the Archaeological Inventory Survey, the Air Quality Study, and the Acoustical Study in included as necessary background information. The Pi'ilani Promenade and the development of the Honua'ula Parcel are not phases or increments of a larger total undertaking; neither development is a necessary precedent for the other project; neither development represents a commitment to proceed with the other development; and the two developments are not identical to each other. While the development of the Honua'ula Parcel must, by condition, provide a 2-acre park in connection with the 250 affordable housing units provided, and the Pi'ilani Promenade similarly proposes a 2-acre park in connection with the 226 apartment units, these parks are separate and distinct parks that support separate development projects.

It is the Applicant's understanding that HPL is in the process of developing documentation necessary to address the requirements of HRS Chapter 343, and is contracting with the technical consultants needed for the preparation of a full-scope of environmental and technical reports.

On September 10, 2010, Maui Industrial <u>Partners, LLC</u> sold the project parcels – TMK's (2) 3-9-001:016, 170-174 - to the Applicant. The project parcels comprise approximately 75 of the 88 acres contained within the Petition Area (hereinafter "the Pi'ilani Parcels"). <u>Ownership of the Project parcels have been established through the title insurance policy</u> (See: Appendix V, Deeds and Policies of Title Insurance).

Applicant, through Eclipse Development Company, LLC, originally planned to develop a shopping complex known as "Pi'ilani Promenade" on the Pi'ilani Parcels. On April 11, 2012 and April 18, 2012, Maui County issued to Applicant two grading permits, placing Applicant in a position to begin construction of on-site and off-site infrastructure for the Pi'ilani Parcels. However, on May 23, 2012, Maui Tomorrow Foundation, Inc., South Maui Citizens for Responsible Growth, and Daniel Kanahele filed a Motion for a Hearing, Issuance of Order to Show Cause, and Other Relief with the <u>LUC Commission</u>, which was granted on September 10, 2012 (the "Order to Show Cause").

On November 1, 2, 15 and 16, 2012, the <u>LUC Commission</u> heard evidence and arguments in the first of two phases of the Order to Show Cause proceeding. At a meeting on February 7, 2013, a majority of the members of the <u>LUC Commission</u> determined by oral vote that Applicant's proposed use of the Pi'ilani Parcels and Honua'ula <u>Partner, LLC'</u> s proposed use of the Honua'ula Parcel would violate Conditions 5 and 15 of the 1995 Decision and Order, and that Condition 17 had also been violated. No written order regarding the foregoing has been entered. On April 48, 2013, Applicant filed a Motion to Stay <u>Phase II of</u> the Order to Show Cause Proceeding. Applicant represented in said Motion that Applicant intended to file a motion to amend the 1995 Decision and Order (<u>the "Motion to Amend"</u>) to allow Applicant to develop a project different from that originally presented to the Commission when the 1995 Decision and Order was issued. Applicant requested that the <u>LUC</u> <del>Commission</del> stay the Order to Show Cause Proceeding to allow the <u>LUC Commission</u> to consider the Motion to Amend. On June 27, 2013, the <u>LUC Commission</u> granted the Motion to Stay the Order to Show Cause Proceeding, and ordered that further proceedings on the Order to Show Cause would be stayed on the condition that Applicant file this Motion to Amend before December 31, 2013, and that no construction <u>of the</u> <u>proposed project or infrastructure will commence</u> on the Property occur during the stay.

In December 2013, the Applicant filed a Motion to Amend the 1995 Decision and Order with the Commission in order to facilitate the development of the proposed project which is described in greater detail below. The Environmental Impact Statement which has been prepared for the proposed project will be submitted to the Land Use Commission for processing in connection with their review of the Motion to Amend.

The DEIS was published by the OEQC on August 23, 2014 and the 45-day public comment deadline was October 7, 2014.

The EISPN was published by the OEQC on September 23, 2013 and the 30-day public comment deadline was October 23, 2013.

### D. PROPOSED PROJECT OBJECTIVES

The objectives of the Project are rooted in the desire to create a vibrant regional and subregional shopping experience for local residents and visitors, to contribute to the County and State economies, and to create employment opportunities. The Project will also foster a small residential community with connectivity to adjacent existing and future neighborhoods while contributing to Maui's economic diversity and social fabric.

The objectives of the Project are to:

- <u>Provide much needed residential rental housing in south Maui;</u>
- <u>Provide greater diversity and flexibility of business/commercial space to attract</u> <u>small and large-scale employers;</u>
- <u>Provide light industrial space for south Maui business;</u>
- <u>Provide restaurants, shops and other retail services to the local residents and visitors;</u>
- <u>Create jobs;</u>
- Increase tax revenue to State and County;

- <u>Provide housing within walking distance of employment; and</u>
- <u>Reduce the project's energy demand through conservation and energy efficient</u> <u>design.</u>

# E. PROPOSED PROJECT DESCRIPTION

The proposed project is a conceptual plan that has evolved since the original development plan proposed for the Project site, which was developed by Eclipse Development for the Applicant (the "Eclipse Development Plan") in 2011. The Eclipse Development Plan was based on the highest and best use for the Project site based on the land use and zoning designations, but was not developed with any input by the Kihei community.

The original Eclipse Development Plan proposed approximately 695,000 SF of retail space with approximately 3,700 parking stalls, with development concentrated in two major commercial development areas with substantial paved parking lots separating them. In contrast to the current plan, the Eclipse Development Plan did not include any light industrial uses or a multi-family rental housing, pedestrian and bicycle access and a park component.

The community was critical of the Eclipse Development Plan, and criticism prompted Applicant to revise the development plans for the Project site. The current Project conceptual plans were developed after a series of discussions with the community. The changes made to the original Eclipse Development Plan were largely in response to comments received from the south Maui community, and in response to findings from an updated economic analysis prepared for the Project. Eclipse Development is no longer involved. The proposed Project will involve the development of a mixed-used project consisting of retail, office, business/commercial, light industrial, multi-family (226 apartment units), and public/quasi-public (park, MECO substation) uses. The proposed uses are permitted by M-1, Light Industrial zoning which is codified by in Chapter 19.24 of the Maui County Code. A network of vehicular roadways, bicycle and pedestrian pathways will establish connectivity throughout the project and will provide opportunities for connection with adjoining properties along Pi'ilani Highway. In addition the proposed project will include the construction of a portion of the future Kaonoulu Street Extension which will become the KUH and two (2) Pi'ilani Highway road-widening lots. (See: Figure 3 "Conceptual Site Plan")

The current Project conceptual plan responds to input from the south Maui community, as well as the market and demand for housing in Maui County. The current Project conceptual plan includes the development of a mixed-used project consisting of approximately 530,000 square feet of retail, office, business/commercial development, 58,000 square feet light industrial space, 226 multi-family apartment units, and public/quasi-public (park, MECO substation) uses. The estimated 1,609 required parking stalls required under the current Project conceptual plan is substantially less that the 3,700 stalls proposed by the prior Eclipse Development Plan.

The proposed uses are permitted by M-1, Light Industrial zoning which is codified in Chapter 19.24 of the Maui County Code. A network of vehicular roadways, bicycle and pedestrian pathways will establish connectivity throughout the project and will provide opportunities for connection with adjoining properties along Pi'ilani Highway. In addition the proposed project will include the construction of a portion of the future Kaonoulu Street Extension which will become the KUH and two (2) Pi'ilani Highway road-widening lots.

In response to comments received on the DEIS, at the public meeting on November 3, 2013, Mr. Charlie Jencks, who serves as the lead Project consultant, represented that, in his estimation, a 25% reduction in traffic from the Eclipse Development Plan would be possible with the traffic study being prepared for the DEIS. Mr. Jencks also stated that the roadway and highway infrastructure previously proposed would not be changed to reflect the reduction in total traffic generated. The Eclipse Development Plan proposed development of approximately 700,000 square feet of retail, office, business/commercial uses, while the current conceptual Pi'ilani Promenade plan proposes approximately 530,000 square feet of retail, office, business/commercial uses as well as business/commercial uses, in contrast to the Eclipse Development Plan which was entirely commercial.

Subsequent to a meeting held with the Kihei Community Association in the fall of 2013, a Traffic Impact Assessment Report (TIAR) was prepared by Phillip Rowell and Associates in June 2014 for the DEIS. Once the DEIS was published for comment, due to severe medical complications, Mr. Rowell was physically unable to complete his analysis and respond to the comments received on the DEIS and the Applicant elected to engage another consultant with the task of fully updating the TIAR and assisting with the responses to comments. The TIAR was updated in December 2016 by a new transportation consultant, SSFM International, which included revised estimated automobile trips generated by the project utilizing current traffic count data, input from the State DOT, and a further analysis of other proposed projects in south Maui.

The Project differs significantly from the Eclipse Development Plan, and is intended to create a vibrant regional and sub-regional center providing residential, light industrial, and commercial opportunities for local residents and visitors. Revenues generated by the Project will positively contribute to the County and State economies, and the Project will create employment opportunities.

The Project will provide a mix of uses permitted by the light industrial zoning, which are needed to address past and current growth trends in south Maui. Other examples on Maui of projects with similar community plan and zoning designations and similar uses include the Maui Marketplace, the Maui Business Park Phases I and II, the Kahului Industrial Complex, the Lahaina Business Park, the Lahaina Gateway, the Wailuku Industrial Park, and the Millyard industrial area in Wailuku. The Project site is zoned light industrial and

the proposed light industrial, business commercial and apartment uses are permitted uses within this designation.

The Project site is located within the KMCP plan area, and is designated for Light Industrial Use under the KMCP. Community plan land use (CPLU) designations are intended to depict what types of land uses are envisioned during the duration of the community plan. CPLU designations are intended to guide decision-making for changes in zoning, subdivisions, budgeting and capital improvements, and developments in the community plan area. CPLU designations do not provide, nor are they intended to provide an exclusive or complete lists of land uses allowed, nor do they provide specific development standards. On the other hand, zoning designations regulate land use, and zoning designations provide exclusive and complete lists of land uses and specific development standards.

Light Industrial is described in the KMCP as "warehousing, light assembly, service and craft-type industrial operations." Although the KMCP describes light industrial in this manner, the County Planning Department has stated that "the County's M-1 Light Industrial District is a tiered system allowing for businesses uses *in addition to light industrial uses*." In support of this conclusion, the Planning Department issued a letter dated April 13, 2012, which provides direction as to the acceptability of the proposed uses for the Project. (See: Appendix S, "Dept. of Planning Letter dated April 13, 2012")

In Appendix T of the FEIS a letter addressed to Mr. Charles Jencks from then Director of Planning Michael Foley addressing the question as to how transient accommodations with kitchens are found to be consistent with the relevant Community Plan land use designation of Hotel. This question was asked as it specifically related to the acquisition of land in Kaanapali upon which the Honua Kai project was constructed and completed. This letter from Mr. Foley restates the direction provided within Part I, Section A of the KMCP referenced above and expands the explanation as to community plan interpretation for permitted uses as follows:

"The community plan is a planning document which provides guidance for government actions and decision making. In addition, implementation of the goals, objectives and policies within a community plan are effectuated by various processes including zoning. Therefore, transient vacation uses with kitchens, i.e. single family dwellings, apartments, and apartment hotels, within the hotel zoning district are considered consistent with the community plan." (See: Appendix T, "Dept. of Planning Letter dated July 18, 2003")

In addition to the letter from Director Foley, please see the Deposition of Mr. Jeffrey Hunt, Director of the Department of Planning, dated January 23, 2007, in Appendix U of the FEIS. Mr. Hunt's deposition references the previously mentioned letter from Director Foley specifically addressing the appropriate approach to interpreting community plans. (See: Appendix U, "Declaration of Director of Planning dated January 23, 2007")

# Project Parcels Owned by PPN/PPS

**Parcel 16** is <u>the northern portion of the project site and is</u> 30.132 acres in size and <del>is</del> <del>proposed for the conceptual plan reflects</del> a mixture of uses including <u>approximately</u> 100,000 square feet of business commercial uses, <del>57,558</del> <u>approximately 58,000</u> square feet of light industrial use, and multi-family, and public/quasi-public activities. Approximately 20 acres of Parcel 16 are proposed as <u>shows</u> a mix of light Industrial, business/commercial uses. This portion of the project will also provide vehicular, bicycle, and pedestrian connectivity within the project site and with neighboring parcels along Pi'ilani highway. The remaining acreage will be allocated for multi-family use and a MECO substation.

The proposed multi-family component will consist of <u>reflects approximately</u> 226 <u>rental</u> units with a<u>n approximately</u> 2-acre <u>private</u> park space and necessary support infrastructure including, but not limited to, off-street parking, sewer, water, roadways, and sidewalks. The units will be a mix of one and two bedroom units, of which a portion will be rented at an affordable rate in compliance with the Maui County Residential Workforce Housing Ordinance.

The MECO substation will be located near the project boundary north of the multi-family housing component, in the northern sector of Parcel 16. (See: Figure 3 "Conceptual Site Plan")

**Parcels 170 and 171** have a combined area of approximately 38 acres <u>and</u> make up the southern portion of the project site. <u>The conceptual plan for</u> this area <del>will consist of reflects</del> <u>approximately 430,000 square feet</u> of business/commercial uses including but not limited to retail, restaurants, and office space. This portion of the project will also provide vehicular, bicycle, and pedestrian connectivity within the project site and with neighboring parcels along Pi'ilani highway.

For the purposes of quantifying the potential impacts of development on these parcels, the conceptual project assumes 530,000 total square feet of business/commercial, 58,000 square feet of light industrial, and 226 apartment units to analyze the impacts. Actual future uses and locations of structures could vary, and occupants could be a variety of possible stores and users.

Development of the Pi'ilani Promenade is subject to MCC Chapter 19.36A, Off-street parking and loading, therefore the Applicant is required to provide adequate parking onsite in appropriate locations. The proposed apartments units will require a total of 2 parking stalls per unit to be located in close proximity to the units. The light industrial portion of the Project will require one parking stall for every 600 square feet of building, or 25% of the total lot coverage, whichever is greater. The business/commercial portion of the Pi'ilani Promenade will require one parking stall for every 500 square feet of building. This parking ratio could change due to the nature of a specific use, such as a restaurant which will require one parking stall for every 100 square feet of building. The exact number of parking stalls for the project is unknown until the Applicant applies for building permits and a parking analysis is completed by the Zoning Administration and Enforcement Division to determine the required amount of parking stalls.

The Applicant will submit a comprehensive parking analysis to the Maui County Planning Department for review and approval upon acceptance by the LUC of this FEIS, upon issuance by the LUC of an order granting the Motion to Amend by the LUC, and upon the issuance of amended Findings of Fact, Conclusions of Law, and Decision and Order for the Project site.

**Parcel 172** is the new East Kaonoulu Street (*aka*, Kaonoulu Street Extension, the first segment of the future Kihei Upcountry Highway) which will be constructed as a four (4) lane divided roadway providing access to the project from Pi'ilani Highway. The design of this roadway will includes designated bicycle lanes and pedestrian walkways which are separated from the street. (See: Figure 14 "Kaonoulu Street Section")

Currently, the re-routed Central Maui Water Transmission System waterline crosses Parcel 172 diagonally. In order to develop Parcel 172 as proposed, the Applicant proposes to re-route the waterline along the eastern property boundary of the Honua'ula Parcel and Parcel 172, where the waterline will make a ninety-degree turn and a new waterline will carry water under East Kaonoulu Street to Pi'ilani Highway, where it will connect with the existing system. **(See: Appendix L "Preliminary Engineering Report")** 

**Parcels 173 & 174** are road-widening lots along the *mauka* side Pi'ilani Highway, which are being provided for the construction of intersection improvements at Kaonoulu Street and Pi'ilani Highway.

## Off-site Improvements (On parcels not owned by PPN/PPS)

Offsite infrastructure improvements include construction of a 1.0 million gallon, aboveground drinking water storage tank and transmission lines located *mauka* of the project site. Identified by TMK (2) 2-2-02: 077, the tank site is located on a 1.154 acre parcel owned by Kaonoulu Ranch and will be dedicated to the County of Maui upon completion. The transmission lines connecting the drinking water storage tank to the public water system will require an easement on Parcel (2) 2-2-02: portion of 082 which is owned by Kaonoulu Ranch.

A water well and storage tank for landscape irrigation will be constructed *mauka* of the project site. The offsite irrigation well and storage tank will require an easement of approximately 0.135 acres on TMK (2) 3-9-01: portion of 169 which is owned by Honua'ula Partners. (**See:** Figure 4 "Offsite Improvement Plan")

Portions of **Parcels 122 and 148** are road-widening lots along the *makai* side of Pi'ilani Highway, which are being provided for the construction of intersection improvements at Kaonoulu Street and Pi'ilani Highway.

## **Off-site Easements**

In addition to the water tank transmission line easement, a 44-foot wide (1.119 acre) access and utility easement will be provided on the north and *mauka* side of the project site on TMK (2) 2-2-02: portion of 016 which is owned by Haleakala Ranch. The access easement will allows for utilities, vehicles and future <u>bicycle and pedestrian</u> connectivity from Ohukai Road to a point located to the north of the project site. (See: Figure 4 "Offsite Improvement Plan")

<u>All known easements necessary for the on- and off-site improvements needed for the</u> <u>Project have been secured and finalized through the large lot subdivision process.</u>

The current Project plan includes off-road pedestrian and bicycle routes along both East Kaonoulu Street as well as through an access easement from Ohukai Street to East Kaonoulu Street. Additionally, the Project includes a separate pedestrian/bicycle pathway running parallel to the Pi'ilani right of way within the project property as a preferred and safe route for south Maui residents traveling to and from the project area. With regard to the Kulanihakoi Gulch crossing, the project owner has offered to assist the State DOT in the design of a separate crossing facility located within the right of way and outside the roadway section for pedestrian and bicycle safety. All of the above proposed improvements are intended to facilitate safe walking and bicycling and to reduce the requirement for automobile use in order to access the development.(See: Figures 14 A "Piilani Hwy Existing Street Section" and 14B "Piilani Hwy Proposed Street Section")

# F. DEVELOPMENT PHASING

It is anticipated that the Pi'ilani Promenade project will be constructed in two (2) three (3) phases upon receipt of LUC approval and as market conditions warrant.

Phase one is the Pi'ilani Promenade North development will include development of the northern developable lot (Parcel 16) which will include 100,000 square feet of business commercial uses, 226 rental apartment uses and 57,558 square feet of light industrial use.

Phase one (1) <u>includes over \$22 million dollars in infrastructure improvements</u> including construction of the future Kihei Upcountry Highway (KUH) <u>through the project area</u>, (Parcel 172) and improving the intersection of Kaonoulu and Pi'ilani Highway which provides access to the project. Phase one also includes construction of the 1.0 MG drinking

water tank, <u>the relocation of the Maui County high pressure drinking water line</u>, the irrigation <u>(non-drinking water)</u> well with pump and related utility and offsite easements.

Phase two (2) is the development of the northern developable lot (Parcel 16) which will include approximately 100,000 square feet of business commercial uses, 226 rental apartment uses and approximately 58,000 square feet of light industrial use development under roof on 5 acres of land.

Phase two three (3) is the development of the 2 southern parcels (Parcels 170 and 171) that will consist of 430,000 square feet of business commercial.

It is anticipated that all of the necessary entitlements to fully implement the Pi'ilani Promenade will be obtained by in the second quarter of 20162017 and construction for Phase 1 and 2 is expected to be completed in 2018. Phase 2 and Phase 3 developments are market driven and the exact timing is unknown, however estimated full buildout of the proposed project by 2031 - 2032.

As requested by the LUC and the Office of Planning, Table 1.a below provides an estimated timeline for development and estimated construction cost for the proposed project. The estimated construction costs will be privately paid for by the Applicant, no public funds are being used to construct the proposed project.

# <u>Table No. 1a</u> Development Phasing Timeline with Cost Estimate

Tellmeted				
<u>Project</u>	Estimated Cost	Estimated Start Date	<u>Estimated</u> <u>Completion</u> <u>Date</u>	
	<u>Phase 1</u>			
Site work Improvements	<u>\$1,256,710.00</u>	Upon approval of the Motion to Amend by the LUC	<u>16 months after</u> <u>approval of the</u> <u>Motion to</u> <u>Amend by the</u> <u>LUC</u>	
<u>East Kaonoulu Street</u> <u>Improvements</u>	<u>\$2,299,046.00</u>	<u>"</u>	<u>"</u>	
<u>Pi'ilani Highway Widening</u> <u>Improvements</u>	<u>\$1,411,106.00</u>	<u>"</u>	<u>"</u>	
Access Road and Swales	\$1,771,330.00	"	"	
Sewer System/Revisions	\$712,592.00			
Storm Drainage System/Revisions	\$2,895,052.00			
Onsite Water System	\$834,700.00	"	"	
<u>12" Offsite Water/1MG</u> <u>Water Tank</u>	<u>\$4,802,784.00</u>	<u>"</u>	<u>"</u>	
<u>36" Water</u> <u>Main/Water/Misc. Revisions</u>	<u>\$2,444,940.00</u>	<i>"</i>	<u>"</u>	
Electrical	\$885,566.00	"	"	
Traffic Signal Improvements	\$643,000.00	"	"	
Landscape/Irrigation	\$1,202,000.00	"		
CRM Walls	<u>\$900,000.00</u>	"		
Phase 2				
Light Industrial	<u>\$13,000,000</u>	<u>Prior to</u> completion of <u>Phase 1</u>	<u>15-16 months</u> <u>after</u> <u>commencing</u> <u>work</u>	
Business/Commercial	\$27,500,000	"	"	
Apartments	<u>\$33,500,000</u>	<u>"</u>	<u>12 to 13 months</u> <u>after</u> <u>commencing</u> <u>work</u>	
Phase 3				
Business/Commercial	<u>\$118,250,000</u>	Prior to completion of Phase 2, this portion of development is market driven	<u>15-16 months</u> <u>after</u> <u>commencing</u> <u>work</u>	

#### 1. Alternatives

Under HAR Title 11, DOH, Chapter 200, EIS Rules, Section 11-200-17(F), a Draft Final 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 the preferred Pi'ilani Promenade plan, along with reasons why each alternative was rejected, are described below.

**Pi'ilani Promenade Objectives –** Objectives of the Pi'ilani Promenade project are rooted in the desire <u>to create a vibrant regional and sub-regional shopping experience for local</u> <u>residents and visitors</u>, contribute to the Maui <u>and State</u> econom<u>ies</u> and <del>by</del> create employment opportunities. The proposed development plan will also foster a small residential community with connectivity to adjacent existing and future neighborhoods while contributing to Maui's economic diversity and social fabric.

The objectives of the project are to:

- Provide much needed residential rental housing in south Maui,
- Provide greater diversity and flexibility of business/commercial space to attract both very small and large-scale employers;
- Provide light industrial space for south Maui business,
- <u>Provide restaurants, shops and other retail services to the local residents and visitors;</u>
- <u>Create jobs;</u>
- Increase tax revenue to State and County;
- Provide housing within walking distance of employment; and
- Reduce the project's energy demand through conservation and energy efficient design.

Three (3) alternatives to the Preferred Alternative (Proposed Plan) were considered. These alternatives are discussed below.

#### 2. No Action Alternative

Under the no action alternative, existing entitlements would remain and the property could be developed as a 123-lot commercial and light industrial subdivision within the Petition Area. <u>Additionally</u>, according to the Maui Island Plan, residential and commercial land uses are predominately segregated within the Kihei-Makena Community plan region. Mixed-use neighborhoods centers are needed to provide services and jobs within close proximity to where people live and provide a more efficient

land use pattern.<sup>1</sup> Under this alternative, the project would not satisfy the Maui Island Plan. <u>The Applicant has determined that, based on current market conditions, the</u> <u>development of a 123-lot commercial and light industrial subdivision would not be</u> <u>economically feasible, and therefore, there exists a significant chance that the land would</u> <u>remain undeveloped under this alternative.</u>

Under the no action alternative, there would be no rental <del>workforce</del>-housing, including affordable units, <u>infrastructure improvements</u>, on-site recreational amenities, or opportunity to provide additional commercial <del>and office space in advance of demand</del> for south Maui as follows:

- *Rental housing opportunities.* The project will bring 226 multi-family rental units. Pricing for rental units is expected to be largely affordable for Maui Island residents in a market that is limited in supply of rental units.
- Opportunity to live within walking/biking distance of jobs, parks, shopping and schools. At build-out the Project will be located in close proximity to the future Kihei High School. The proposed residential units will be within a short 5-minute walk from on-site commercial uses and employment. The commercial uses will be easily accessible and the site will be designed to incorporate walking and bicycling connection to the existing residential neighborhood surrounding Ohukai Street. The proposed non-vehicular circulation at the proposed project site is in accordance with the goals and objectives of the Maui Island Plan.
- *Parks and open space*. The site plan proposes a 2 acre park and open space will be provided throughout the site between buildings <u>including bicycle and pedestrian pathways</u>. These areas will be accessible to the public in a manner that is not possible in the currently undeveloped condition.
- Infrastructure Improvements. Phase 1 of the proposed project will include constructing a portion of the KUH through the project area. The portion provided by the Applicant will included pedestrian and bicycle pathways separated from the roadway. In addition the project proposes constructing a 1.0 MG public water tank and providing land for a future MECO substation that will provide services to provide electricity for the project and future surrounding planned development. The access easement allows for utilities, vehicular and future bicycle and pedestrian connectivity from Ohukai Road to a point located to the north of the project site. In addition the project is providing an easement for future vehicular access to Ohukai Road to increase connectivity mauka of Pi'ilani Highway.

<sup>&</sup>lt;sup>1</sup> Maui County General Plan 2030, Directed Growth Plan, 8-27.

- The Hallstrom Group completed an Economic Study with inventory of the Kihei Retail market and found that about ten percent of the total floor area in the community was vacant. However, the vacancies were either restaurant spaces (the least stable sector of the market) or in uncompetitive projects or locations (such as along Lipoa Road). All of the quality/competitive spaces along S. Kihei Road or in newer, modern centers were occupied. Over the past year numerous new leases have been signed and the vacancy rate in Kihei has dropped below seven percent. The economic report found that there is a lack of quality, modern, well-located inventory. Overall the Kihei retail market is strong, and performed better during the recession and recovery than most neighbor island sectors.
- The Maui Island Plan calls for the development of thousands of residential dwelling units in Kihei planned growth areas to address future demand for housing. Associated with that growth will be the need for light industrial space for future small businesses, commercial and office space to address this future growth.

The no action alternative would also deprive the State, County and general public of the significant economic benefits associated with the Pi'ilani Promenade, including an estimated:

- \$212 million in direct capital investment in the Maui economy during the build-out period;
- 878 "worker years" of direct on-site employment and \$66.5 million in total wages over a 12-15 year absorption period;
- 1,210 permanent jobs after build-out with an annual payroll of about \$36.6 million.
- \$2.3 billion base economic impact during build-out and \$348.7 million annually upon stabilization.
- \$210.7 million in net tax revenue (profit) during development and \$26 million per year to the State of Hawaii on an annualized basis thereafter.
- \$25.9 million in net tax revenue (profit) during the build-out period and \$2.2 million in annual net tax revenue (profit) to the County of Maui after the build-out period.
- <u>Financing and Construction of a portion of the Kihei Upcountry Highway</u>
- <u>Financing and Construction of a 1.0 MG water tank</u>

Potential benefits of the no action alternative would include: 1) no short-term construction-related impacts (such as construction noise, construction equipment exhaust emissions and fugitive dust); 2) avoidance of additional infrastructure demands (water, wastewater flows, and solid waste disposal); 3) no less increased Pi'ilani Highway traffic

impacts <u>as a result of the project</u> and associated infrastructure costs; and 4) less demand upon the region's coastal and inland parks and recreation facilities. The no action alternative 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.

For the following reasons, the no action alternative was rejected:

- Does not meet the objectives of the Maui Island Plan
- Would not address the current and future demand for residential, commercial, office and light industrial space needed for the future planned growth of south Maui;
- <u>Would not provide local south Maui jobs, (temporary construction and permanent</u> <u>employees.)</u>
- Would not provide south Maui residents with the opportunity for affordable rental housing.
- <u>The 1.0 MG water tank and park would not be provided.</u>
- Would not provide the first segment of the Kihei Upcountry Highway (KUH) and improvements to the intersection of Pi'ilani Highway and Kaonoulu Street.
- Would deny the entire region of many substantive benefits that would be implemented under the plan; and
- Would not provide the State, County and general public the significant economic benefits <u>(tax revenue)</u> associated with the implementation of the Pi'ilani Promenade.
- Does not meet the objectives of the Pi'ilani Promenade ownership;

In summary, the benefits associated with the no action alternative are far outweighed by the benefits to the community that the Proposed Project (Preferred Alternative) would bring.

#### 3. No Residential Uses Alternative

An alternative to the proposed project (Preferred Alternative) could be to not allow <u>rental</u> residential uses in the Pi'ilani Promenade. However, this alternative would allow for the development of <del>additional</del> light industrial and business/commercial uses <u>but eliminate</u> <del>and foreclose on the</del> opportunity to develop a true mixed use project providing for housing and employment within close proximity. Under this alternative, business, retail and commercial uses, and support services, would be permitted.

Research of successful employment centers in other locations has shown that businesses and industries are attracted to locations offering a mix of uses, <u>including commercial and</u> <u>residential</u> and workforce housing opportunities. <u>Rental</u> residential development is an important component of the mixed use, complete community concept, and the Pi'ilani Promenade may not be as attractive to <u>future</u> <u>users or</u> investors without the <u>rental units</u> <u>housing options</u> proposed. Under this alternative, no affordable housing will be provided <u>to address a critical demand for rental product on Maui or</u> within walking and biking distance of employment, thus not utilizing "smart growth" and "neo-traditional" planning principles. With no residential component, <u>there would be no proposed park</u> <u>space and</u> there will be less construction <del>phase</del> employment associated with the development of the <u>project</u> <del>Pi'ilani Promenade</del>, providing fewer economic benefits to the region and Maui at large. Additionally, there could be less long-term employment should the <u>project</u> <del>Pi'ilani Promenade</del> be less successful than it would otherwise be with the residential component.

Potential benefits of the no residential alternative would include: 1) avoidance <u>reduction</u> of additional infrastructure demands (water, wastewater flows, and solid waste disposal); 2) <del>less</del> <u>minimal</u> demand upon the region's coastal and inland parks and recreation facilities. The no residential alternative would not add to regional population increases, or require public services, such as parks and schools, to accommodate <del>an increased</del> <u>the</u> <u>small increase to</u> population in the area.

For the following reasons, the no residential uses alternative was rejected:

- <u>Would not provide a mixed-use type project.</u>
- Would deny the entire region of many substantive infrastructure benefits <u>including a park</u> that would be implemented under the preferred alternative; and
- Would not provide Maui residents with the opportunity for affordable rental housing.
- Does not meet the objectives of the <u>ownership</u> Pi'ilani Promenade and Maui Island Plan;

In summary, the benefits associated with the no residential component alternative are far outweighed by the benefits to the community that the Proposed Project (Preferred Alternative) would bring.

#### 4. Alternative Site

The final alternative considered is the Alternative Site option. This option would require that the owner/applicant find and develop another entitled property of a comparable size and location.

The positive impacts of the alternative site option are that in the short term the existing project site would remain vacant and open and the impacts of development will be felt in another location on Maui.

Potential benefits of the alternative site outside of Kihei <u>including Wailea and Makena</u> would include: 1) avoidance of additional infrastructure demands (water, wastewater flows, and solid waste disposal <u>in Kihei</u>); 2) <u>slight</u> reduction of future Kihei Upcountry Highway traffic impacts; and 3) less demand upon the region's <u>Kihei's</u> coastal and inland parks and recreation facilities. Depending upon location <u>outside of south Maui</u>, the alternative site option would not add to regional <u>Kihei</u> population increases, or require public services, such as parks and schools.

In the last few decades Kihei has become a significant urban center on the island of Maui; however a majority of businesses and retail services are located approximately 8 miles away in Kahului. Growth is planned for the <u>Kihei</u> area including a new high school and substantial residential development that will create need for jobs, services and retail/dining options <u>for local residents and visitors</u>, which the Pi'ilani Promenade could provide. The proposed project is located centrally within Kihei to provide jobs, services and housing to the existing and future residents <u>and visitors</u> of Kihei. If the project was relocated the residents of Kihei would not benefit from the opportunity to stay within Kihei rather than driving to Kahului.

For the following reasons, the alternative site option was rejected:

- Demand for police, fire, electrical and water services and roadway infrastructure would not change.
- Would not provide local south Maui jobs, (temporary construction and permanent employees.)
- Would not provide south Maui residents with the opportunity for affordable rental housing <u>or local commercial and dining options.</u>
- <u>The 1.0 MG water tank, park and MECO substation would not be provided.</u>
- Would not provide the first segment of the Kihei Upcountry Highway (KUH) and improvements to the intersection of Pi'ilani Highway and Kaonoulu Street.

- Does not meet the objectives of the <u>ownership</u> Pi'ilani Promenade and Maui Island Plan;

In summary, the benefits associated with the alternative site option are far outweighed by the benefits to the community that the Proposed Project (Preferred Alternative) would bring.

As requested by the Land Use Commission and the Office of Planning the table below provides an estimated timeline for Entitlements and other permit approvals in order to construct the proposed project.

# G. ENTITLEMENTS AND APPROVALS

#### Table No. 1b Estimated Entitlements and Approvals

Permit / Approval Required	Responsible Authority	Projected Submittal Date
Order Granting Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order dated February 10, 1995	LUC	<u>Pending</u>
HRS Chapter 343 Compliance, Approval of FEIS	LUC	<u>June 2017;</u> <u>Approval</u> July 2017
Jurisdictional Determination	Army Corps of Engineers	<u>2017</u>
Grading and Grubbing Permit	<u>Maui County, Public Works,</u> <u>Development Services</u> <u>Administration</u>	<u>2017</u>
<u>NPDES Permit</u>	<u>State of Hawaii, DOH</u>	<u>2017</u>
Air Pollution Control Permit	<u>State of Hawaii, DOH</u>	<u>2017</u>
Community Noise Permit	<u>State of Hawaii, DOH</u>	<u>2017</u>

#### Pi'ilani Promenade



	2//19/	
Permit / Approval Required	Responsible Authority	Projected Submittal Date
Drainage Approval	<u>DPW Engineering Division, and</u> <u>State DOT</u>	<u>2017</u>
<u>Permit to Perform Work Within the</u> <u>State ROW</u>	<u>State DOT</u>	<u>2017</u>
Easements for Utilities and Roadways	<u>Various</u>	<u>2017</u>
Wastewater Discharge (Hookup) Permit	<u>Maui County, Department of</u> <u>Environmental Management,</u> <u>Wastewater Division</u>	<u>2017</u>
<u>Building Permits</u>	<u>Maui County, Public Works,</u> <u>Development Services</u> <u>Administration</u>	<u>2017-2018</u>

# **H. POTENTIAL IMPACTS AND MITIGATION MEASURES**

At the request of the LUC, the following section has been provided to identify the potential impact and the corresponding mitigation measure(s). The basis for why a particular measure was selected and the timing of its implementation in the process should be described here as should the proposed provisions to ensure that each measure will be undertaken.

#### 1. TOPOGRAPHY AND SOILS

**Potential Impact:** Potential impacts to the land form include routing Drainageway "A" to the future East Kaonoulu Street right of way as part of the overall drainage system. Additional impacts may include 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 erosion forces. Some wind erosion of soils could occur without a proper watering and re-vegetation program.

**Mitigation Measures:** As part of the overall drainage master plan, Drainageway "A" will be routed to the East Kaonoulu Street right of way with no increase in flow and will terminate at the existing culverts routing the system under and *makai* of the Pi'ilani Highway. This change will not increase the quantity of drainage water traveling through this system or downstream.

During site preparation, storm runoff from the site will be controlled in accordance with the County's "Soil Erosion and Sediment Control Standards". Typical mitigation measures include appropriately stockpiling materials on the site to prevent runoff, temporary detention, and commencing building construction and/or establishing landscaping as early as possible in order to minimize the length of exposure of disturbed soils. After construction, the establishment of a permanent stormwater system and landscaping will provide additional long-term erosion control.

Why Mitigation Measures were selected: Drainageway "A" is proposed to be routed underground to the East Kaonoulu right of way as part of the drainage system improvements in order to accommodate the grade changes necessary for East Kaonoulu Street and develop the property as proposed. Maui County's "Soil Erosion and Sediment Control Standards "are the recommended mitigation measures for site preparation and stormwater runoff prevention.

**Timing of Implementing Mitigation Measures:** The proposed mitigation measures will be implemented during Phase 1 site work which will begin upon approval of the Motion to Amend by the LUC.

**Provision to ensure that each measure will be undertaken:** Construction activities on the property will comply with all applicable Federal, State, and County regulations and rules for erosion and sediment control. Prior to the issuance of a grading permit, a final erosion control plan and best management practices will be submitted to the County of Maui for review and approval. All construction activities will comply with the provisions of Chapter 11-60.1, Hawaii Administrative Rules (HAR), Section 11-60.1-33, pertaining to Fugitive Dust.

#### 2. NOISE QUALITY

**Potential Impact:** The Acoustic Study reports that the proposed extension of Kaonoulu Street mauka of Piilani Highway will increase the existing background ambient noise levels along the center portion of the Project site. Through project build-out in CY 2032, noise levels at the Project's planned residential buildings fronting Kaonoulu Street should not exceed the 65 DNL federal standard or the State DOT 66 Leq noise abatement criteria, as long as the residential buildings are located at least 51 feet from the centerline of Kaonoulu Street.

**Mitigation Measures:** Based on the best available traffic forecasts available for future conditions following completion of the Upcountry Highway, a setback distance of 70 feet from the centerline of Kaonoulu Street is required for 65 DNL and 66 Leq to not be exceeded at these residential buildings. The Project site will be designed such that rental residential uses within the Project are located at adequate setback distances from the future Kihei Upcountry Highway to eliminate the need for traffic noise mitigation measures. The Applicant will inform future residents of the potential for high noise levels due to existing light industrial activities adjacent to the northern corner of the Project site.

Why Mitigation Measures were selected: This mitigation measure of providing an ample setback from the roadway was selected in lieu of constructing a sound attenuating wall along the Kihei Upcountry Highway to reduce noise impacts to residences.

**Timing of Implementing Mitigation Measures:** DOH Community Noise Permit will be applied for upon approval of the Motion to Amend by the LUC and prior to the start of Phase 1 site work. The construction of the residential units is proposed as part of Phase 2.

**Provision to ensure that each measure will be undertaken:** The project will comply with State Department of Health noise regulations for construction activities. As stipulated by DOH permit requirements, noise-generating construction activities are not allowed on Sundays and holidays, during the early morning, and during the late evening and nighttime periods.

#### 3. ARCHAEOLOGICAL RESOURCES

Potential Impact: Loss of historical sites identified on the property.

Mitigation Measures: Preparation of an Archaeological Data Recovery Plan and Archaeological Monitoring Plan.

Why Mitigation Measures were selected: The plans were recommended by the SHPD.

**Timing of Implementing Mitigation Measures:** The Archaeological Data Recovery Plan was received by the SHPD on June 17, 2016 and is under review. Prior to ground disturbing activities a project specific Archaeological Monitoring Plan will be prepared following the results of SHPD's review of the Data Recovery Plan.

**Provision to ensure that each measure will be undertaken:** DLNR, SHPD has required a preservation plan and Archeological monitoring plan per the AIS acceptance letter dated January 6, 2016.

#### 4. GROUNDWATER RESOURCES

**Potential Impact:** Hydrologic impact to the Iao Aquifer from withdrawal of 171,000 gpd of drinking water and impact to the Kamaole Aquifer from withdrawal of 81,000 gpd of non-drinking water for irrigation.

**Mitigation Measures**: The CWRM estimates that 0.421 MGD of groundwater can be allocated within the Iao Aquifer System. The Piilani Promenade drinking water demand is expected to withdraw 171,000 gpd, and can be accommodated within the remaining 0.421 MGD of available groundwater. This limited amount of water is not anticipated to significantly impact the Iao Aquifer from recharging.

The CWRM approved an irrigation well permit for a well built in 2011 at a wellhead elevation of 118 feet. The well has the capacity to produce 216,000 gpd of non-drinking water from the Kamaole Aquifer, and a permanent pump with an additional capacity of 150 gpm has since been installed, but is not currently in use. In addition, the Applicant is required to provide for a future connection to the County reclaimed water system that would eliminate the need for the brackish irrigation well.

Why Mitigation Measures were selected: Three 3-inch domestic water meters have been approved by the County DWS and are available for the Project. The issuance of water meters for the Project by the DWS carries the implicit approval by the DWS of Piilani Promenade's use of the Iao Aquifer System for drinking water.

The irrigation well was approved, and when the Maui County reclaimed water system is expanded to the Project site, the Applicant will connect to the system in compliance with the condition imposed by the County in connection with obtaining the current zoning designation.

Timing of Implementing Mitigation Measures: The domestic water meters will connect to the County water system during Phase 1. The irrigation well will be utilized during Phase 1 site work and there is no established timetable for connection to the County reclaimed water system.

**Provision to ensure that each measure will be undertaken:** The Applicant is required to provide for a future connection to the County reclaimed water system is a condition of County zoning for

this project (Ordinance 2772, May 25, 1999). In the future, connecting the Project to the reclaimed water system will eliminate the need for the brackish irrigation well.

## 5. RECREATION FACILITIES

**Potential Impact:** Incremental impact that new development places upon the region's park facilities.

**Mitigation Measures:** The Pi'ilani Promenade is anticipated to positively impact recreational facilities by providing an approximately 2-acre park site adjacent to the proposed 226 apartments.

The Applicant met with the County Department of Parks & Recreation on March 13, 2015 to discuss how the parks and playgrounds assessment requirements for the proposed Pi'ilani Promenade can be satisfied in accordance with MCC Section 18.16.320. As a result of the meeting, the Applicant is proposing the following general changes to the on-site park space:

- 1. <u>Inclusion of active play space and facilities within the park areas;</u>
- 2. Inclusion of parking for park users; and
- 3. <u>Possible reconfiguration of the park acreage to create a more contiguous park area.</u>

Additionally, improvements are being made to accommodate pedestrian and bicycle travel adjacent to and within the Project. Recognizing that the availability of existing off-street pedestrian and bike pathways is limited in south Maui, and that there is a need for projects to offer options other than vehicular access, the Pi'ilani Promenade includes a pedestrian and bike pathway system adjacent to and within the Project site, as shown in Figure 15 "Conceptual Circulation Plan". The red bike lane shown in Figure 15 is located within the Pi'ilani Highway right of way. The blue system shown provides for a series of pedestrian and bike pathways with the Project site and East Kaonoulu Road allowing for safe off street interconnectivity for the public using the various components of the land plan and providing for future connectivity to the areas north, south and east of the Project site.

Why Mitigation Measures were selected: The requirements for Parks and Playgrounds, pursuant to MCC Section 18.16.320, are required by the County of Maui.

<u>**Timing of Implementing Mitigation Measures:** The Applicant proposes to construct the park space in conjunction with the multi-family units as part of Phase 2 development.</u>

**Provision to ensure that each measure will be undertaken:** The Applicant will comply with the requirements for Parks and Playgrounds, pursuant to MCC Section 18.16.320. The park assessment requirements are designed to mitigate the incremental impact that new development places upon the region's park facilities.

## 6. SCHOOLS

Potential Impact: Increase in student population

Mitigation Measures: Payment of the DOE school impact fee to contribute to future South Maui school facilities.

Why Mitigation Measures were selected: The Project site is not a preferred location for a school site, therefore the contribution of a fee is anticipated.

**Timing of Implementing Mitigation Measures:** Upon approval of the Motion to Amend by the LUC and prior to grading or building permits for Phase 2 and 3 developments.

**Provision to ensure that each measure will be undertaken:** In 2007, the Hawaii Legislature enacted Act 245 as Section 302A, HRS, "School Impact Fees".

# 7. ROADWAYS

**Potential Impact:** The Project will generate 564 new trips during the morning peak hour, 2,482 new trips during the afternoon peak hour and 2,651 new trips during the Saturday peak hour.

**Mitigation Measures:** Consistent with previously approved subdivision plans for the Project site, the TIAR recommends the following mitigation measures to be constructed by the Applicant at the intersection of Piilani Highway and Kaonoulu Street as part of the Piilani Promenade:

- Install traffic signals and striped pedestrian crosswalks across Pi'ilani Highway.
- <u>Southbound approach will have double left turn lanes, two through lanes, and a channelized right turn lane.</u>
- Northbound approach will have a dedicated left turn lane, two through lanes, and a channelized right turn lane.
- Eastbound approach will have a left turn lane, a through lane, and a channelized right turn lane.
- Westbound approach will have dual left turn lanes, a through lane and channelized right turn lane with an acceleration lane.
- <u>The Project also includes the construction of a shared-use pedestrian and bike path along</u> <u>the mauka-side of Pi'ilani Highway, adjacent to the Project and within the Project site, in</u> <u>addition to bike lanes on Pi'ilani Highway.</u>

Why Mitigation Measures were selected: Recommendations of the TIAR.

**Timing of Implementing Mitigation Measures:** Upon approval of the Motion to Amend by the <u>LUC.</u>

**Provision to ensure that each measure will be undertaken:** TIAR with mitigations will be approved by the DOT.

#### 8. DRAINAGE

Potential Impact: Hydrologic impact on downstream properties.

**Mitigation Measures:** Surface runoff generated by Pi'ilani Promenade's buildings and pavement will be directed to drain inlets located throughout the development and then conveyed to stormwater detention facilities (by underground drainlines) in order to provide peak flow mitigation. Underground detention chambers located on the southern portion of the Project site and an open detention pond located in the northern portion of the Project site will provide a combined storage capacity of 7.6 acre-feet and will limit downstream stormwater discharges to a peak flow rate that does not exceed pre-development levels. Once the stormwater detention facilities are in place, the hydrologic impact on downstream properties resulting from the proposed development of Pi'ilani Promenade will be negligible because the pre-development peak flow.

Why Mitigation Measures were selected: Compliance with County engineering standards and the recommendation of the Project Civil Engineering Preliminary Drainage Report.

**Timing of Implementing Mitigation Measures:** Upon approval of the Motion to Amend by the LUC.

**Provision to ensure that each measure will be undertaken:** The drainage system is required to be built in compliance with Maui County's Drainage Rules.

#### <u>9. WATER</u>

**Potential Impact:** The Project is estimated to consume on average of 252,000 gpd at full build-out, including 171,000 gpd of drinking water for domestic uses.

**Mitigation Measures:** The proposed Project will connect to the existing County water system for drinking water. At the request of the DWS, the Applicant agreed to construct a 1.0 MG water storage tank to serve the future needs of the Project and South Maui. Three 3-inch domestic water meters have been approved and are available for the Project. The combined flow capacity of these meters is 1,050 gpm, which exceeds the approximately 600 gpm of required flow capacity for the Project. Therefore, there will be adequate flow capacity to build out the Project. Consequently, no additional drinking water sources beyond the County-issued water meters are anticipated in order to construct and operate the Pi'ilani Promenade.

Why Mitigation Measures were selected: Consultation with DWS led to the request for construction of the 1.0 MG water tank as an alternative to source development. Additionally, the 1.0 MG water tank is part of the previously approved subdivision plans.

<u>**Timing of Implementing Mitigation Measures:** 1 MG water tank and other water related infrastructure will occur during Phase 1 upon approval of the Motion to Amend by the LUC.</u>

**Provision to ensure that each measure will be undertaken:** As part of the final subdivision approval for the project site the required drinking water improvements are listed.

#### **10. RELOCATION OF COUNTY WATERLINE**

**Potential Impact:** Relocating the 36-inch diameter high pressure waterline could disrupt water service during improvement work.

**Mitigation Measures:** Previously approved DWS construction plans for the relocation work include a bypass line, comprehensive site preparation work, and disconnect/connection during non-peak hours.

Why Mitigation Measures were selected: The current location of the County line crosses diagonally through Project site, restricting use of land over water line alignment. The proposed high pressure waterline relocation was coordinated with the DWS and the construction plans have been approved.

<u>**Timing of Implementing Mitigation Measures:** Waterline relocation will occur in Phase 1, upon approval of the Motion to Amend by the LUC.</u>

**Provision to ensure that each measure will be undertaken:** The proposed high pressure waterline relocation has been approved by the Department of Water Supply (DWS) and will be constructed in accordance with the rules and regulation of the department.

#### 11. SOLID WASTE

**Potential Impact:** Solid Waste generated from the Project will contribute towards the use of the Central Maui Landfill.

Mitigation Measures: A solid waste management plan will be coordinated with the County Solid Waste Division for the disposal of onsite and construction-related waste material. The Applicant will work with the Project contractor to minimize the amount of solid waste generated during construction. In addition, the Project will provide on-site recycling opportunities in an effort to reduce solid waste entering the landfill. The County Solid Waste Division anticipates that additional phases of the Central Maui Landfill will be developed as needed to accommodate future waste, including waste generated by the Project.

Why Mitigation Measures were selected: A solid waste management plan is the recommended for construction projects. Providing the on-site recycling opportunities within the Pi'ilani Promenade site is a measure that will support waste diversion.

**Timing of Implementing Mitigation Measures**: Solid waste will be an ongoing impact of the project and the solid waste management plan will be implanted at the start of construction which is expected to begin upon approval of the Motion to Amend by the LUC.

**Provision to ensure that each measure will be undertaken:** The Applicant is required to comply with the rules of the County of Maui Department of the Environmental Management as it relates to solid waste.

#### 12. WASTE WATER

Potential Impact: Development of the Project will generate 114,000 gpd of wastewater.

**Mitigation Measures:** The Applicant will pay the Regional Wastewater Treatment System Facility Expansion Assessment Fee for treatment plant expansion, which is currently assessed at \$4.65 per gallon of Project flow. The Pi'ilani Promenade will be assessed approximately \$530,100 for the 114,000 gpd of anticipated wastewater flow. The Project will connect to the existing County sewer system.

Why Mitigation Measures were selected: The Regional Wastewater Treatment System Facility Expansion Assessment Fee is required by the Department of Environmental Management.

<u>Timing of Implementing Mitigation Measures:</u> Sewer systems improvements are proposed as part of Phase 1 and would start upon approval of the Motion to Amend by the LUC.

**Provision to ensure that each measure will be undertaken:** The Wastewater Reclamation Division of the Maui Department of Environmental Management reports that available capacity at the KWWR is approximately 4.6 million-gallons-per-day (mgd) of out 8.0 mgd total treatment capacity based on measured average daily flows. As such, there should be ample treatment capacity available to accommodate the 114,000 gallon (0.1 mgd) daily wastewater flow which the Pi'ilani Promenade project is expected to generate at full development.

#### 13. ELECTRICAL

**Potential Impact:** MECO has advised that the existing 12 kV system, based on current electrical use growth projections, does not have sufficient spare capacity to accommodate the estimated 6,250 kVA of load required by the current Pi'ilani Promenade development plan.

Mitigation Measures: MECO is planning a new substation to provide the additional capacity needed to accommodate further growth in the Kihei and South Maui area.

Why Mitigation Measures were selected: The need for a substation in this area of Kihei was a requirement of MECO to continue to provide electrical needs the growth in the Kihei and south Maui areas.

**Timing of Implementing Mitigation Measures:** MECO plans to have the substation built by the fall of 2017.

**Provision to ensure that each measure will be undertaken:** MECO is moving forward to construct the substation and has informed the LUC that MECO intends to apply for and obtain all necessary permits to complete the substation by the fall of 2017.

# III. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

# A. PHYSICAL ENVIRONMENT

# 1. Surrounding Land Uses

*Existing Conditions.* The project area is located in the State Urban District (See: Figure 5. "State Land Use Map") and is zoned for M-1, Light Industrial uses (See: Figure 6 "Maui County Zoning Map"). The site is designated for Light Industrial (LI) purposes by the Kihei-Makena Community Plan (See: Figure 7, "Kihei-Makena Community Plan Map") and is intended for future urban development.

The project site is proximate to existing urban development in the area including a light industrial-zoned complex situated on State Urban District lands to the north of the site which <u>include uses predominately commercial in nature</u>, including includes a self-storage facility, a gasoline filling stations, and <u>an</u> automobile sales lot. <del>business/commercial enterprises.</del>

On the *mauka* or eastern side of the property are commercial agricultural uses and ranch lands which extend to Lower Kula. Kulanihakoi Gulch, <u>a vacant parcel</u>, and the future Kihei High School lie to the south of the project site. Lands *makai* (west) of the project site include Pi'ilani Highway, the Kaonoulu Estates residential subdivision, the Maui Lu Resort, and South Kihei Road.

In addition to land uses adjacent to the site, their State land use, zoning, and community plan designations are summarized below:

North:	<u>Community Plan</u> : Light Industrial, Rural, Single Family and	
	Agriculture	
	<u>State Land Use</u> : Urban	
	Zoning: Light Industrial, Agricultural	
	<u>Maui Island Plan:</u> <u>Urban Growth Boundary</u>	
	Existing Uses: Predominately commercial uses, including a	
	<del>G</del> gasoline <del>S</del> station, <u>and an automobile sales lot</u> <del>Light</del>	
	Industrial/commercial	

South:	<u>Community Plan</u> : Agriculture, <u>Public- Quasi-Public</u> <u>State Land Use</u> : Agricultural, Urban <u>Zoning</u> : Agricultural <u>Maui Island Plan</u> : <u>Urban Growth Boundary</u> <b>Existing Uses:</b> Kulanihakoi Gulch, <u>proposed</u> Kihei High School site
East:	<u>Community Plan</u> : Agriculture <u>State Land Use</u> : Agricultural <u>Zoning</u> : Agricultural <u>Maui Island Plan</u> : <u>Urban Growth Boundary</u> <b>Existing Uses:</b> Commercial agricultural uses and Kaonoulu Ranch Lands
West:	<u>Community Plan</u> : Single-Family, Business and Multi- Family <u>State Land Use</u> : Urban <u>Zoning</u> : A-1 Apartment, R-1 & R-2 Residential <u>Maui Island Plan</u> : <u>Urban Growth Boundary</u> <b>Existing Uses</b> : Kaonoulu Estates Single-Family Residential subdivision <u>and future Kenolio Apartments</u>

*Potential Impacts and Mitigation Measures*. The project area is designated for M-1, Light Industrial uses and Light Industrial (LI) purposes by Maui County zoning code and the Kihei-Makena Community Plan, respectively, and has thus been designated for future urban development.

To the east or *mauka* of the site lie Kaonoulu Ranch lands which are <u>currently</u> used for grazing purposes. Proper livestock fencing along the property boundary will ensure that grazing animals are kept separate from the site. The development of the Pi'ilani Promenade will include the construction of a 1.0 MG water tank on approximately one (1) acre of land that will require use of existing Kaonoulu Ranch lands. The water tank will be fenced and will not impact mauka grazing lands.

The proposed <u>conceptual</u> development <u>would</u> <u>will</u> include a variety of uses including light industrial, multi-family housing, <del>commercial</del>, office, retail and restaurants.

The development of the site is not expected to have a significant impact on the existing land uses <u>adjacent to and</u> *makai* of the site.

The proposed development will not impact or increase discharge of stormwater runoff into the Kulanihakoi Gulch. The proposed drainage system will retain any increase in runoff as a result of the proposed development. and The Project would provide additional multi-family housing in close proximity to the planned Kihei High School. The Project is also providing land for a MECO substation and the 1.0 MG water storage tank.

As previously mentioned the lands *makai* and across the highway from the project site include Kaonoulu Estates, a mixture of single and multi-family residential development. The Pi'ilani Promenade will help achieve and sustain the County's goal of creating greater economic diversification while ensuring that housing and support services are in close proximity to jobs. The uses proposed for the Pi'ilani Promenade are compatible with other lands uses within the State Urban District.

# 2. Topography and Soils

*Existing Conditions.* The project site is *mauka* of Pi'ilani Highway and lies in an area of Kihei that is currently undeveloped and is characterized by pasture land with minimal <u>seasonal</u> vegetation.

Elevations across the project area range from approximately 123 feet above Mean Sea Level (MSL) at the mauka (East) property boundary to approximately 30 feet MSL along the property's Pi'ilani Highway frontage. The project site has an average slope of 4 percent and includes an unnamed natural drainageway (Drainageway "A") that runs in a northeast-to-southwest direction across the site before converging with the main stem of Kulanihakoi Gulch *makai* of Pi'ilani Highway. The offsite 1.0 MG water tank is located 234 feet above Mean Sea Level (MSL). The Applicant received comments on the DEIS incorrectly stating that Drainageway "A" is named the "Ka`ono`ulu Gulch". While there is a Ka`ono`ulu Gulch on the Island of Maui, it is located significantly mauka and south of the Project site. **(See: Figures 20 & 21, "USGS MAP 1923" & "USGS MAP 1983").** 

As described in the *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii,* two (2) different soil types underlie the subject property (**See**: Figure 9, "Soils Map"). "Waiakoa extremely stony silty clay loam", 3 to 25 percent slopes, eroded (WID2), is characterized by medium runoff and severe erosion hazard if left exposed, with at least half the surface layer eroded in most areas. The southwestern portion of the property may contain Alae sandy loam, 3 to 7 percent slopes (AaB). Alae Series soil consists of

excessively drained soils on alluvial fans on the island of Maui. These soils developed in volcanic ash and recent alluvium derived from basic igneous rock. Runoff is slow and the erosion hazard is slight.

**Potential Impacts and Mitigation Measures.** The development of the Pi'ilani Promenade will require site grading for the project's buildings and infrastructure and to create a roadway for the future KUH. The project Civil Engineer will update the grading plan for the project building sites as the conceptual site plans <u>are</u> is refined and building pad locations are identified.

Drainageway "A" will be routed to the East Kaonoulu Street right of way with no increase in downstream flow and will terminate at the existing culverts routing the system under and *makai* of the Pi'ilani Highway. This change will not increase the quantity of drainage water traveling through this system or downstream.

The Army Corps of Engineers conducted a site visit in January 2017 and staff is currently reviewing site plans to provide a jurisdictional determination to determine that there are no waters of the U.S. located on the Project site. The Applicant expects this determination in 2017.

During site preparation, storm runoff from the site will be controlled in accordance with the County's "Soil Erosion and Sediment Control Standards". Typical mitigation measures include appropriately stockpiling materials on the site to prevent runoff, and commencing building construction and/or establishing landscaping as early as possible in order to minimize the length of exposure of disturbed soils.

Potential impacts to the land form include the 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 erosion forces. Some wind erosion of soils could occur without a proper watering and re-vegetation program.

Measures taken to control erosion during the site development period may include, but are not limited to:

- Minimizing the time of construction;
- Retaining existing ground cover as long as possible;
- Constructing drainage control features early, <u>such as silt screens</u>, <u>temporary berms</u> <u>and cut-off ditches</u>;
- 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.

Construction activities on the property will comply with all applicable Federal, State, and County regulations and rules for erosion and sediment control. Prior to the issuance of a grading permit, a final erosion control plan and best management practices will be submitted to the County of Maui for review and approval. All construction activities will comply with the provisions of Chapter 11-60.1, Hawaii Administrative Rules (HAR), Section 11-60.1-33, pertaining to Fugitive Dust.

After construction, the establishment of a permanent <u>stormwater system and</u> landscaping will provide additional long-term erosion control. <u>The existing irrigation water well will</u> provide irrigation water for landscaping. In the future the project site will have access to the Maui County reclaimed water line to provide landscape irrigation.

The Hawaii CZM Program and the DOH developed the Hawai'i Watershed Guidance (the "Guidance"), which contains guidelines to facilitate watershed management. The Guidance includes management measures designed to control runoff from six main sources, including urban areas. The Project site is designated "Urban" on the State Land Use Classification map, and thus, the urban area management measures are applicable to the development of the Project.

Chapter 5.3 of the Guidance identifies twelve (12) management measures that apply to urban areas. These management measures are applied to control urban runoff and treat associated pollutants generated from new development, redevelopment, and new and relocated roads, highways and bridges.

- 1. <u>New Development</u>
- 2. <u>Watershed Protection</u>
- 3. <u>Site Development</u>
- 4. Existing Development
- 5. <u>New Onsite disposal systems</u>
- 6. Operating Onsite disposal system
- 7. Pollution Prevention
- 8. Golf Course maintenance
- 9. Planning, Siting and Development of Roads and Highways
- 10. Bridges
- 11. Operation and Maintenance, Roads and Highways

#### 12. <u>Runoff systems for Roads, Highways and Bridges</u>

#### 1. <u>New Development</u>

Management Measure 1. "By design or performance: (a) construction has been completed and the site is permanently stabilized, to reduce the average annual total suspended solid (TSS) loadings by 80%. For the purposes of this measure, an 80% TSS reduction is to be determined on an average annual basis, or (b) reduce the post development loadings of TSS so that the average annual TSS loadings are no greater than predevelopment loadings."

Analysis: In addition to the foregoing management measure, the County also requires the implementation of water quality control measures to reduce water pollution from stormwater runoff. In satisfaction of the Guidance management measures and the County requirements, the Project design incorporates both "flow through" and "detention based" treatments to mitigate stormwater-related water pollution associated with the Project site. "Flow through" treatment will be achieved by outfitting parking lot drain inlets with filters capable of removing up to 80 percent of Total Suspended Solids. "Detention based" treatment will be provided by providing additional storage volume in the subsurface detention chambers and surface detention pond to facilitate sediment removal in addition to peak flow mitigation.

**Management Measure 2**. "To the extent practicable, maintain post development peak runoff rate and average volume at levels that are similar to predevelopment levels."

Analysis: Warren S. Unemori Engineering, Inc. has prepared a drainage plan to mitigate surface runoff caused by seasonal storm events, and which will ensure that, to the extent practicable, the post development peak runoff rate and average storm flow volume generated at the Project site, after mitigation measures are implemented, will be maintained at levels that are similar to predevelopment levels, which are equal to or less than 85 cfs. The Project site will be designed retain any increase, if any, in post development runoff generated by development, consistent with County of Maui regulations.

#### 2. <u>Watershed Protection</u>

**Management Measure**. "Develop a watershed protection program to: 1. Avoid conversion, to the extent practicable, of areas that are particularly susceptible to erosion and sediment loss; 2. Preserve areas that provide important water quality benefits and/or are necessary to maintain riparian and aquatic biota; and 3. Site development, including roads, highways, and bridges, to protect to the extent practicable the natural integrity of waterbodies and natural drainage systems.

Analysis: As noted in the "Description" discussion of this management measure, "[t]his measure is intended to provide general goals for States and local governments to use in

developing comprehensive programs for guiding future development and land use activities in a manner that will prevent and mitigate the effects of non-point pollution." Because the Applicant is not a State or local government entity, this management measure is inapplicable. However, the Applicant supports the goals of reducing the generation of nonpoint source pollutants and mitigating the impacts of urban runoff and associated pollutants that result from new development.

#### 3. <u>Site Development</u>

Management Measure. "Plan, design, and develop sites to: 1. Protect areas that provide important water quality benefits and/or are particularly susceptible to erosion and sediment loss; 2. Limit increases of impervious areas, except where necessary; 3. Limit land disturbance activities such as clearing and grading, and cut and fill to reduce erosion and sediment loss; and 4. Limit disturbance of natural drainage features and vegetation."

<u>Analysis:</u> The Project has been designed to incorporate a permanent stormwater system that will include onsite surface and subsurface drainage basins or chambers. In addition, to protect the Project site, the Project design will incorporate landscaping to provide long-term erosion control.

Construction activities on the Project site will comply with all applicable Federal, State, and County regulations and rules for erosion and sediment control. Prior to the issuance of a grading permit, a final erosion control plan and best management practices will be submitted to the County for review and approval.

In addition, development of the Project will comply with the condition of the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

<u>BMPs</u> prepared in accordance with MCC Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits. In addition, an NPDES permit will be obtained from the DOH's Clean Water Branch for the discharge of storm water associated with construction activities. The Applicant will meet all of the requirements set forth by the DOH's Clean Water Branch.

#### 4. Existing Development

**Management Measure.** "Develop and implement watershed management programs to reduce runoff pollutant concentrations and volumes from existing development: 1. Identify priority local and/or regional watershed pollutant reduction opportunities, e.g., improvements to existing urban runoff control structures; 2. Contain a schedule for implementing appropriate controls; 3. Limit destruction of natural conveyance systems; and 4. Where appropriate, preserve, enhance, or establish buffers along surface waterbodies and their tributaries."

Analysis: There is no existing development on the Project site; thus, this management measure is not applicable to the Project. However, as part of the development plans, the Project site will be designed to contain drain inlets, stormwater detention facilities, and underground drain lines to provide peak flow mitigation. These drainage systems present reduction opportunities and appropriate controls to reduce runoff pollutant concentrations and volumes from the proposed development.

#### 5. <u>New Onsite Disposal Systems</u>

**Management Measure 1.** "Ensure that new Onsite Disposal Systems (OSDS) are located, designed, installed, operated, inspected, and maintained to prevent the discharge of pollutants to the surface of the ground and to the extent practicable reduce the discharge of pollutants into ground waters that are closely hydrologically connected to surface waters. Where necessary to meet these objectives: (a) discourage the installation of garbage disposals to reduce hydraulic and nutrient loadings; and (b) where low-volume plumbing fixtures have not been installed in new developments or redevelopments, reduce total hydraulic loadings to the OSDS by 25%. Implement OSDS inspection schedules for preconstruction, construction, and post-construction.

Management Measure 2. "Direct placement of OSDS away from unsuitable areas. Where OSDS placement away from unsuitable areas is not practicable, ensure that the OSDS is designed or sited at a density so as not to adversely affect surface waters or ground water that is closely hydrologically connected to surface water. Unsuitable areas include, but are not limited to, areas with poorly or excessively drained soils; areas with shallow water tables or areas with high seasonal water tables; areas overlaying fractured bedrock that drain directly to ground water; areas within floodplains; or areas where nutrient and/or pathogen concentrations in the effluent cannot be sufficiently treated or reduced before the effluent reaches sensitive waterbodies."

Management Measure 3. "Establish protective setbacks from surface waters, wetlands, and floodplains for conventional as well as alternative OSDS. The lateral setbacks should be based on soil type, slope, hydrologic factors, and type of OSDS. Where uniform protective setbacks cannot be achieved, site development with OSDS so as not to adversely affect waterbodies and/or contribute to a public health nuisance." **Management Measure 4**. "Establish protective separation distances between OSDS system components and groundwater which is closely hydrologically connected to surface waters. The separation distances should be based on soil type, distance to ground water, hydrologic factors, and type of OSDS."

**Management Measure 5**. "Where conditions indicate that nitrogen-limited surface waters may be adversely affected by excess nitrogen loadings from ground water, require the installation of OSDS that reduce total nitrogen loadings by 50% to groundwater that is closely hydrologically connected to surface water."

Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to all new onsite disposal systems including package plants and small scale or regional treatment facilities not covered by NPDES regulations, in order to manage the siting, design, installation, and operation and maintenance of all such onsite disposal systems." Because the Project does not incorporate onsite disposal systems, and because development of the Project site is subject to NPDES regulations, this management measure is not applicable.

#### 6. **Operating Onsite Disposal System**

**Management Measure 1.** "Establish and implement policies and systems to ensure that existing OSDS are operated and maintained to prevent the discharge of pollutants to the surface of the ground and to the extent practicable reduce the discharge of pollutants into ground waters that are closely hydrologically connected to surface waters. Where necessary to meet these objectives, encourage the reduced use of garbage disposals, encourage the use of low-volume plumbing fixtures, and reduce total phosphorus loadings to the OSDS by 15% (if the use of low-level phosphate detergents has not been required or widely adopted by OSDS users). Establish and implement policies that require an OSDS to be repaired, replaced, or modified where the OSDS fails, or threatens or impairs surface waters."

Management Measure 2. "Inspect OSDS at a frequency adequate to ascertain whether OSDS are failing."

Management Measure 3. "Consider replacing or upgrading OSDS to treat influent so that total nitrogen loadings in the effluent are reduced by 50%. This provision applies only: a. where conditions indicate that nitrogen-limited surface waters may be adversely affected by significant groundwater nitrogen loadings from OSDS, and b. where nitrogen loadings from OSDS are delivered to groundwater that is closely hydrologically connected to surface water.

Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to all operating onsite disposal systems." Because the

<u>Project site is undeveloped, there are no operating onsite disposal systems on the Project site. Accordingly, this management measure is not applicable.</u>

## 7. <u>Pollution Prevention</u>

Management Measure. "Implement pollution prevention and education programs to reduce nonpoint source pollutants generated from the following activities, where applicable: a. The improper storage, use, and disposal of household hazardous chemicals, including automobile fluids, pesticides, paints, solvents, etc.; b. Lawn and garden activities, including the application and disposal of lawn and garden care products, and the improper disposal of leaves and yard trimmings; c. Turf management on golf courses, parks, and recreational areas; d. Improper operation and maintenance of onsite disposal systems; e. Discharge of pollutants into storm drains including floatables, waste oil, and litter; f. Commercial activities including parking lots, gas stations, and other entities not under NPDES purview; and g. Improper disposal of pet excrement."

Analysis: The Applicant intends to implement a solid waste management plan to prevent and reduce nonpoint source pollutants generated during construction and operation of the Project. The solid waste management plan will be coordinated with the County Solid Waste Division, and will regulate the disposal of onsite and construction-related waste material. The Applicant will work with the Project contractor to minimize the amount of solid waste generated during construction. In addition, the Project will provide on-site recycling opportunities in an effort to reduce solid waste entering the landfill.

The Project will comply with the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

<u>BMPs prepared in accordance with MCC Chapter 20.08 (Soil Erosion and Sedimentation</u> <u>Control</u>) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits. In addition, an NPDES will be obtained from the DOH's <u>Clean Water Branch for the discharge of storm water associated with construction</u> <u>activities. The Applicant will meet all of the requirements set forth by the DOH's Clean</u> <u>Water Branch.</u>

Low-impact development strategies, including a series of strategically located drainage retention basins and channels, are designed to mitigate downstream impacts to *makai* landowners. A Drainage Master Plan was designed to County standards, and includes measures that mitigate the increase in runoff generated from the development of

impervious surfaces. On-site runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped area. Drain lines from the catch basins will convey the runoff to onsite detention basins or underground subsurface drainage systems.

The onsite drainage system will provide storage for the increase in stormwater runoff from a 50 -year, 1 -hour storm. The drainage system will be designed in compliance with Chapter 4 "Rules for the Design of Storm Drainage Facilities in the County of Maui" and Chapter 15-11 "Rules for the Design of Storm Water Treatment Best Management Practices."

#### 8. Golf Course Maintenance

Management Measure 1. "Develop and implement grading and site preparation plans to: a. Design and install a combination of management and physical practices to settle solids and associated pollutants in runoff from heavy rains and/or from wind; b. Prevent erosion and retain sediment, to the extent practicable, onsite during and after construction; c. Protect areas that provide important water quality benefits and/or are environmentally sensitive ecosystems; d. Avoid construction, to the extent practicable, in areas that are susceptible to erosion and sediment loss; e. Protect the natural integrity of waterbodies and natural drainage systems by establishing streamside buffers; and f. Follow, to the extent practicable, the amended U.S. Golfing Association (USGA) guidelines for the construction of greens."

**Management Measure 2.** "Develop nutrient management guidelines appropriate to Hawaii for qualified superintendents to implement so that nutrients are applied at rates necessary to establish and maintain vegetation without causing leaching into ground and surface waters."

Management Measure 3. "Develop and implement an integrated pest management plan. Follow EPA guidelines for the proper storage and disposal of pesticides."

Management Measure 4. "Develop and implement irrigation management practices to match the water needs of the turf."

Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to all golf courses in Hawaii that are in operation, under construction or to be built in the future." Because the Project will not include a golf course, this management measure is not applicable.

#### 9. Planning, Siting, and Developing Roads and Highways

Management Measure. "Plan, site, and develop roads and highways to: 1. Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss; 2. Limit land disturbance such as clearing, grading and cut and fill to reduce erosion and sediment loss; and 3. Limit disturbance of natural drainage features and vegetation."

<u>Analysis</u>: The Project is located in an arid region of Kihei mauka of Piilani Highway and will not impact land areas that provide important water quality benefits. The property has not experienced significant erosion or sediment loss.

The Applicant will limit grading at the site to reduce erosion and sediment loss and implement BMPs to ensure sediment loss and erosion are mitigated during construction. BMPs prepared in accordance with MCC Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits.

The Project includes construction of a portion of the Kihei Upcountry Highway (KUH) in addition to interior roadways and driveways. The KUH was designed by the State of Hawaii and will intersect with Piilani Highway. The planning and siting of this new highway was coordinated by the State of Hawaii Department of Transportation and the alignment is set in order to connect to an existing intersection at Piilani Highway. As part of the construction of the portion KUH, the Applicant is providing subsurface retention underneath the roadway to retain stormwater runoff as result of the roadway and surrounding impervious surfaces. The Project does not propose any channeling or culvert work for Kulanihakoi Gulch. The smaller "Drainageway A" crossing the Project will be diverted to the KUH alignment with a *makai* terminus in the same location as the present.

Modifications to Drainageway "A" are also necessary as part of the engineering design and solution for the KUH as the grades for the roadway are higher than the existing grades within Drainageway "A", requiring a design solution to allow drainage flow, which is accommodated in the drainage master plan.

A Drainage Master Plan was designed to County standards, and includes measures that mitigate the increase in runoff generated from the development of impervious surfaces. On-site runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped area.

The onsite drainage system will provide storage for the increase in stormwater runoff from a 50 –year, 1 –hour storm. The drainage system will be designed in compliance with Chapter 4 "Rules for the Design of Storm Drainage Facilities in the County of Maui" and

<u>Chapter 15-11 "Rules for the Design of Storm Water Treatment Best Management</u> <u>Practices."</u>

The Project will comply with the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

#### 10. <u>Bridges</u>

**Management Measure.** "Site, design, and maintain bridge structures so that sensitive and valuable aquatic ecosystems and areas providing important water quality benefits are protected from adverse effects."

Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to new, relocated, and rehabilitated bridge structures in order to control erosion, streambed scouring, and surface runoff from such activities." Because the Project will not include any bridges, this management measure is not applicable.

#### 11. Management Measure for Operation and Maintenance

**Management Measure.** "Incorporate pollution prevention procedures into the operation and maintenance of roads, highways, and bridges to reduce pollutant loadings to surface waters."

Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to existing, restored, and rehabilitated roads, highways, and bridges." The Project site is vacant, and there are no existing roads, highways, or bridges. Therefore, this management measure is not applicable.

#### 12. Road, Highway, and Bridge Runoff Systems

Management Measure. "Develop and implement runoff management systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters. 1. Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures); and 2. Establish schedules for implementing appropriate controls." Analysis: As noted in the "Applicability" discussion of this management measure, "[t]his management measure applies to existing, resurfaced, restored, and rehabilitated roads, highways, and bridges." The Project site is vacant, and there are no existing roads, highways, or bridges. Therefore, this management measure is not applicable.

# 3. Natural Hazards

*Existing Conditions.* Natural hazards impacting the Hawaiian Islands include hurricanes, tsunamis, volcanic eruptions, earthquakes, and flooding.

Seismic hazards are those related to ground shaking. Landslides, ground cracks, rock falls, and tsunamis are all seismic hazards. Engineers and other professionals have created a system of classifying seismic hazards on the basis of the expected strength of ground shaking and the probability of the shaking actually occurring within a specified time. The results are included in the Uniform Building Code (UBC) as seismic provisions.

The UBC seismic provisions contain six seismic zones, ranging from 0 (no chance of severe ground shaking) to 4 (10 percent chance of severe shaking in a 50-year interval). Kauai County is located in Zone 1, the City and County of Honolulu is in Zone 2A, the County of Maui is in Zone 2B, and the County of Hawaii is in Zone 4.

In addition to seismic hazards, devastating hurricanes occur and have impacted Hawaii twice since 1980: Hurricane Iwa in 1982 and Hurricane Iniki in 1992. While it is difficult to predict these natural occurrences, it is reasonable to assume that future events could be likely given the recent record.

Tsunamis are large, rapidly moving ocean waves triggered by a major disturbance of the ocean floor, which is usually caused by an earthquake but sometimes can be produced by a submarine landslide or a volcanic eruption. About 50 tsunamis have been reported in the Hawaiian Islands since the early 1800s, including the most recent tsunami as a result of the March 2011 earthquake in Japan. The Pi'ilani Promenade is located beyond the Civil Defense Agency's Tsunami Evacuation Zone.

Volcanic hazards are not a concern in the South Maui area due to the dormant status of Haleakala.

In Hawaii, 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

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occur in Hawaii, the vast majority of them so small they are detectable only with highly sensitive instruments. On October 16, 2006, a 6.7 magnitude earthquake struck on the underwater segment of the major rift zone of the Hualalai volcano on the northwest side of the Island of Hawaii. The earthquake caused rockslides and some damage to roadways on Maui.

Flood hazards are primarily identified by the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency's (FEMA), National Flood Insurance Program. According to the Federal Insurance Rate Map (FIRM) Panel 1500030580E and 0586E, September 25, 2009 the Pi'ilani Promenade is located in Zone X, which represents an area beyond the limits of a flood hazard (**See**: Figure No<u>s</u> 10, <u>10A</u>, and <u>10B</u>, "Flood Hazard Map").

**Potential Impacts and Mitigation Measures.** The project site is located beyond the limits of a flood hazard and is located approximately 0.5 miles from the coastline, therefore the proposed project is not anticipated to be affected by natural hazards such as storms events or tsunamis. <u>The project site is ideally located as a place of refuge or staging area for Kihei residents in the event of an emergency such as a tsunami.</u>

Any structures built within the Pi'ilani Promenade will be constructed in accordance with the Building Code adopted by the County of Maui.

# 4. Hazardous Substances

*Existing Conditions.* A Phase I Environmental Site Assessment (ESA) of the Pi'ilani Promenade site was prepared by Malama Environmental, LLC. (MEV) in December 2013 (See: Appendix B, "Environmental Site Assessment"). The investigation and report format follows the guidelines of the American Society of Testing and Materials (ASTM) Publication E1527-05, which is recognized by 40 CFR Part 312 as an acceptable guidance document for satisfying the EPA's final "All Appropriate Inquiries" rule.

After a review of records the ESA noted that there were no current investigations of the site under any Federal, State, or local environmental agency. Two (2) potential risk sites, listed as State hazardous Waste Sites (SHWS) were identified within a 1-mile radius of the project site.

- 1. Selland Construction Inc. located at 454 Ohukai Road had a confirmed diesel fuel and oil release in 1994 due to overfill of maintenance equipment when the area was called "Ohukai Baseyard". This area is now a residential subdivision.
- 2. Kihei Chevron located at 1281 S. Kihei Road is listed as a SHWS due to a station spill.

The field survey was conducted on July 23, 2013 and focused on identifying physical recognized environmental conditions on the property and assessing the property in relation to surrounding land uses and natural surface features. The following observations were made during the field survey:

- The majority of the subject property was historically used for cattle grazing and ranch land during the ownership of Kaonoulu Ranch.
- The Monsanto Seed Farm is located north east of the proposed utility and waterline easements.
- A small portion of the northwest corner of the site is a gravel staging area, previously used as a construction baseyard for the adjacent gas station and commercial properties.
- Several boulders debris piles were noted near the above mentioned baseyard. No hazardous substances were found.
- No bulk hazardous/regulated substances are currently stored on-site.

*Potential Impacts and Mitigation Measures.* The ESA found no evidence of recognized environmental conditions in connection with the property. Additionally MEV does not believe the two (2) potential risk sites would have environmentally and adversely affected the subject property due to their distance from the Pi'ilani Promenade site and the down gradient proximity. However, the Shell Station, which was constructed in 2007 and is located immediately adjacent to the northwestern corner of the project site, is not listed as a UST site. Due to the close proximity and slightly higher elevation of the gas station with respect to the survey area, this facility may pose a negative impact to the environmental condition of the subject property if a leak in the underground storage tanks should occur in the future.

The ESA stated that there was no evidence of historic or current significant misuse of hazardous or regulated substances and or petroleum products on the subject property (**See**: Appendix B, "Environmental Site Assessment").

The Applicant's planning consultant spoke with the Hazard Evaluation and Emergency Response Office and there we no records of hazardous substances or soil contamination on the Project site. The ESA determined that the Project will not impact soil quality at Project site.

The remaining <u>other</u> potential concerns identified by the ESA such as illegal solid waste dumping are limited in scope and will be mitigated prior to or during project development. No impacts from hazardous substances are anticipated at the site based on the conclusions of the Phase I ESA (**See**: Appendix B, "Environmental Site Assessment"). There has been no activity on the project site or change in the land that would impact the ESA since the July 2013 environmental assessment.

Under ASTM standards, a Phase I Environmental Site Assessment may be considered out of date if not conducted within the prior 180 days. As a result the Applicant requested an update of the ESA. A site visit was conducted by MEV on January 13, 2017, and MEV determined that nothing came to their attention that would cause them to change any matter or opinion set forth in the ESA. Accordingly, MEV issued the Environmental Site Assessment update letter. (**See**: Appendix B-1, "Environmental Site Assessment update letter dated January 18, 2017").

# 5. Flora and Fauna

*Existing Conditions.* Botanical and Faunal Surveys were conducted for the Pi'ilani Promenade site by Mr. Robert W. Hobdy in July 2013 (See: Appendix C, "Botanical and Fauna Surveys").

Formerly, the project site was a dry, seasonal pasture situated on gently sloping lands above the coastal plain in north Kihei. For the past 150 years, the area has been grazed by livestock which has resulted in a gradual loss of native plant species and the subsequent growth of hardy pasture grasses and weeds. During the past 40 years introduced axis deer (*Axis axis*) have eliminated native plants and fires have swept through the area as evidenced by charred stumps throughout the property.

The site is now dominated by two (2) non-native species, Kiawe trees (*Prosopis pallid*a) and buffelgrass (*Cenchrus ciliaris*). These two (2) species make up more than 95 percent of the plant cover. The Kiawe trees create an open woodland area cross the entire property with denser growth along the rocky gully. The buffelgrass forms an almost uniform grassland

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area between and underneath the trees. All other plant species were uncommon on the property. Small parts of the property had bare patches of soil and surface stones.

A total of ten (10) species of plants were recorded during the survey. Of these two (2) were native Hawaiian species, ilima (*Sida fallax*) and uhaloa (*Waltheria indica*). Both are indigenous to Hawaii as well as other countries and both are widespread and of common occurrence in Hawaii.

No federally listed endangered of threatened native plants were encountered during the course of the botanical and fauna survey. No special habitats or rare plant communities were seen on the property.

Four (4) mammalian species, seven (7) non-native bird species, and six (6) insect species were observed. Using sight survey and a bat listening device, the surveys found no evidence of the Hawaiian hoary bat (*Lasiurus cinereus semotus*). The bat is the only land mammal native to the Hawaiian Islands. The report also found no evidence of the Blackburn's sphinx moth (BSM). The BSM (*Manduca blackburni*) is Hawaii's largest native insect.

**Potential Impacts and Mitigation Measures.** The vegetation is dominated by non-native plants, and no rare or protected species occur on or adjacent to the property. The proposed land uses are not expected to have a significant negative impact on the botanical resources in this part of Maui. The development will incorporate native dry-land plants into the landscape design of the completed project.

The sighting of six (6) endangered Nene geese flying over the project area was recorded in the inventory, but has to be considered tangential in nature and not an indication of use of this habitat by these birds. There are no food or water resources that would lure the birds to feed or rest here.

No Hawaiian bats were recorded on the project area nor were any Blackburn's sphinx moths or their larvae were found. The total lack of their required host plant species on the project site effectively prohibits their use of this habitat.

No native birds were found on the property and none are expected in this habitat. However Since birds fly over these lowland areas to burrows higher up the mountain, outdoor lights will be downward directed and shielded as required by the Maui County Code. <u>The Botanical and Faunal Surveys concluded no other impacts are anticipated on wildlife</u> <u>species on the Project site as a result of the proposed Project.</u>

# 6. Air Quality

*Existing Conditions.* An Air Quality Study was prepared by B.D. Neal & Associates which examines the potential short- and long-term air quality impacts that could occur as a result of construction and use of the proposed Project and suggests mitigation measures to reduce any potential air quality impacts where possible and appropriate (See: Appendix D, "Air Quality Study" <u>and Appendix D-1 "Air Quality Study Update dated March 11, 2016" and D-2 "Air Quality Study Update dated February 2, 2017").</u>

Regional and local climate together with the amount and type of human activity generally dictate the air quality of a given location. The climate of the project area is very much affected by its elevation near sea level and by nearby mountains.

Haleakala 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 project area are generally very consistent and warm with average daily temperatures ranging from about 63 degrees Fahrenheit to 86 degrees Fahrenheit. Rain fall in the project area is minimal with an average of only about 12 inches per year. Except for periodic impacts from volcanic emissions (vog) and possibly occasional localized impacts from traffic congestion and local agricultural sources, the present air quality of the project area is believed to be relatively good. There is very little air quality monitoring data from the Department of Health for the project area, but the limited data that are available suggest that concentrations are generally well within state and national air quality standards (**See**: Appendix D, "Air Quality Study").

*Potential Impacts and Mitigation Measures.* As part of the Air Quality Study prepared by B.D. Neal & Associates, the following scenarios were analyzed to identify the potential air quality impacts of the proposed project.

After construction, motor vehicles coming to and from the proposed development will result in a long-term increase in air pollution emissions in the project area. To assess the impact of emissions from these vehicles, a computer modeling study was undertaken to estimate current ambient concentrations of carbon monoxide at intersections in the project vicinity and to predict future levels both with and without the proposed project. For this project three (3) scenarios were selected for the modeling study:

- 1. Year 2013 with present conditions,
- 2. Year 2018 without the project, and
- 3. Year 2018 with the project and including the Honua'ula Project.

The present conditions (year 2013) existing background concentrations of carbon monoxide in the project vicinity are believed to be at low levels. This, background contributions of carbon monoxide from sources or roadways not directly considered in the analysis were accounted for by adding a background concentration of 0.5 ppm to all predicted concentrations for 2013. Although increased traffic is expected to occur within the project area within the next few years with or without the project, background carbon monoxide concentrations may not change significantly since individual emissions from motor vehicles are forecast to decrease with time. The highest estimated 1-hour concentration within the project vicinity was 2.2 parts per million (ppm) and projected to occur during the weekday morning near the intersection of Pi'ilani Highway and Ohukai Street. All predicted worst-case concentrations for the 2013 scenario were within both the National <u>Ambient Air Quality Standards</u> (AAQS) of 35 ppm and the State standard of 9 ppm.

For the Year 2013 scenario, the estimated worst-case 8-hour concentrations ranged from 0.8 to 1.1 ppm during the weekday morning peak traffic hour at the intersection of Pi'ilani Highway and Ohukai Street. The estimated worst case-concentrations for the existing case were well within both the Nation<u>al AAQS</u> limit of 9 ppm and the State standard of 4.4 ppm.

In the year 2018 without the project, the highest worst-case 1-hour concentration was predicted to occur during the weekday morning peak traffic hour at the intersection of Pi'ilani Highway and Kulanihakoi Road. A value of 1.8 ppm was predicted for this time and location. Compared to the existing case, concentrations mostly remained about the same or decreased slightly, and all projected worst-case concentrations for this scenario remained well within state and national standards.

For the Year 2018 without the project scenario, the estimated worst-case 8-hour concentrations generally remained about the same or decreased slightly. All predicted concentrations remained within the National and State standards.

In the year 2018 with the <u>assumption that the pP</u>roject and <u>the adjacent with</u> Honua'ula <u>affordable residential project both are fully developed</u>, the highest worst-case 1-hour

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concentration was predicted to occur during the weekday morning peak traffic hour at the intersection of Pi'ilani Highway and Kulanihakoi Road and at the intersection of Pi'ilani Highway and Ohukai Street with a value of 1.8 ppm. Compared to the without project scenario, concentrations increased slightly, however all projected worst-case concentrations for this scenario remained well within state and national standards.

For the Year 2018 with the <u>full development of the pP</u>roject and <u>the adjacent</u> with Honua'ula <u>affordable residential project</u>, the estimated worst-case 8-hour concentrations were predicted to remain about the same or increase slightly compared to the without project scenario. All predicted concentrations for this scenario remained within the National and State standards.

During worst-case conditions, model results indicated that present 1-hour and 8-hour carbon monoxide concentrations are well within both the state and the national Ambient Air Quality Standards (AAQS).

As part of the preparation of the FEIS, the Applicant retained B. D. Neal & Associates to analyze the years 2025 and 2032 to estimate long range air quality impacts, and to prepare updates to the Air Quality Survey prepared for the DEIS. Air quality studies were conducted on March 11, 2016 and again on February 2, 2017. Based on these studies, and based further on the review of the TIAR update dated December 20, 2016, B. D. Neal & Associates determined that re-analysis of the Project air quality impacts was not necessary, as the conclusions stated in the 2014 Air Quality Survey remain valid. (See: Appendix D-2 "Air Quality Report Update dated February 2, 2017")

Short- and/or long-term impacts on air quality will occur either directly or indirectly as a consequence of project construction and use. Short-term impacts from fugitive dust will likely occur during the project construction phases. To a lesser extent, exhaust emissions from stationary and mobile construction equipment, from the disruption of traffic, and from workers' vehicles may also affect air quality during the period of construction. State air pollution control regulations require that there be no visible fugitive dust emissions at the property line. Hence, an effective dust control plan will be implemented to ensure compliance with State regulations. Fugitive dust emissions can be controlled to a large extent by implementing the following types of mitigation measures:

- Watering of active work areas;
- Using wind screens;
- Keeping adjacent paved roads clean; and
- Covering open-bodied trucks;-

- Limiting the area that can be disturbed at any given time; <u>and</u>
- Mulching or chemically stabilizing inactive areas that have been worked <u>disturbed</u>.

Paving and landscaping of project areas early in the construction schedule will also reduce dust emissions. Monitoring dust at the project boundary during the period of construction could be considered as a means to evaluate the effectiveness of the project dust control program. Exhaust emissions can be mitigated by moving construction equipment and workers to and from the project site during off-peak traffic hours. During development, adequate dust control measures, in compliance with HAR, Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust will be implemented to control dust during all phases of construction.

Depending on the demand levels, long-term impacts on air quality are also possible due to indirect emissions associated with a development's electrical power and solid waste disposal requirements.

Renewable energy sources, if developed, could reduce these emissions substantially. Incorporating energy conservation design features and promoting energy conservation programs within the proposed development could also serve to reduce any associated emissions. Presently, all solid waste on Maui is landfilled, and any associated air pollution emissions are relatively negligible. Nevertheless, Promoting conservation and recycling programs within the proposed development could serve to further reduce any associated impacts.

As previously mentioned, based on the review of the TIAR Update dated December 20, 2016, it is the opinion of B. D. Neal & Associates that re-analysis of the Project air quality impacts due to Project traffic would not yield significantly different results and conclusions from those stated in the 2014 Air Quality Survey, and thus the 2014 Air Quality Survey remains valid. (See: Appendix D-2 "Air Quality Report Update dated February 2, 2017")

#### 7. Noise Quality

*Existing Conditions.* Ambient noise levels are an important indicator of environmental quality. In an urban environment, noise is primarily generated by vehicular traffic, air travel, heavy machinery, construction activities, and heating and cooling systems. The

ramifications of various activities and their corresponding sound levels may impact health conditions and the physical or sensory appeal of an area.

An Acoustic Study (February, 2014) was prepared by Y. Ebisu & Associates to describe the existing and future traffic noise levels in the environs of the proposed Pi'ilani Promenade. Traffic noise level increases and impacts associated with the proposed project were determined within the project site and along public roadways servicing the development. The <u>original</u> Acoustic Study assumes the proposed project will be <u>build</u> <u>built</u> out in 2018 (**See**: Appendix E, "Acoustic Study").

The existing traffic noise levels in the project environs along Pi'ilani Highway are in the "Significant Exposure, Normally Unacceptable" category, and at or greater than 65 DNL (Day-Night Average Sound Level) at the first row of existing homes on the *makai* side of the Pi'ilani highway, which are the Kaonoulu Estates single family homes. The existing traffic noise levels in the project environs along South Kihei Road are in the "Significant Exposure, Normally Unacceptable" categories, and at or greater than 65 DNL within <u>57</u> to 60 to 63 feet of the roadway's centerline. Along the lower volume connector streets, existing noise levels are in the "Moderate Exposure, Acceptable" category, and less than 65 DNL at 50 feet or greater distance from the roadways' centerlines.

Potential Impacts and Mitigation Measures. <u>Based on the review of the TIAR update, an updated Acoustic Study was prepared assuming full project build out.</u> (See: Appendix E-1 "Acoustic Study dated March 2016") Additionally, the Acoustic Study was updated again to include an analysis of the adjacent HPL affordable housing project. (See: Appendix E-2 "Acoustic Study dated January 23, 2017")

The growth in **non-project traffic** by 2018 <u>full build out</u> is predicted to result in traffic noise level increases of 0.6 0.0 to 0.8 1.4 DNL along Pi'ilani Highway. Chapter 7 of the Acoustic Study reports that increases in future traffic noise levels of 0.2 0.4 to 0.8 0.7 DNL are expected along Pi'ilani Highway in the project environs by 2018 <u>full build out</u> as a result of **project-related traffic**.

The largest total increase (<del>1.7</del> <u>2.9</u> to <del>2.6</del> <u>3.6</u> DNL) in <u>Project related</u> traffic noise level is anticipated to occur along Kaonoulu Street between Pi'ilani Highway and South Kihei Road. <u>Non-Project traffic is expected to add 2.9 to 5.1 DNL of traffic noise to this section of Kaonoulu Street.</u> Adverse traffic noise impacts along Kaonoulu <u>Street are possible</u> towards the west end of Kaonoulu Street where relatively small setback distances could result in future traffic noise levels exceeding the United States Department of Housing & Urban Development ("HUD") standard of 65 DNL by 1 DNL unit at full build out. not expected to occur since existing traffic noise levels are very low, and the addition of both project plus non-project traffic is not expected to cause traffic noise to exceed 65 DNL at existing residences along Kaonoulu Street, **therefore** The remaining majority of noise sensitive residential buildings along Kaonoulu Street have adequate setback distances such that predicted traffic noise levels at full build out should remain in the "Moderate Exposure, Normally Acceptable" category at these buildings. For these reasons, traffic noise mitigation measures is should not be required for the existing residences.

The addition of the proposed extension of Kaonoulu Street mauka of Pi'ilani Highway will increase the existing background ambient noise levels along the center portion of the Project site. Through Project build-out, noise levels at the Project's planned residential buildings fronting Kaonoulu Street should not exceed the 65 DNL HUD standard or the State DOT 66 Leq (equivalent continuous sound level) noise abatement criteria as long as the residential buildings are located at least 51 feet from the centerline of Kaonoulu Street. Based on the best available traffic forecasts available for future conditions following completion of the KUH, a setback distance of 70 feet from the centerline of Kaonoulu Street is required for 65 DNL and 66 Leq to not be exceeded at these residential buildings. Noise mitigation measures in the form of a sound attenuating wall or closure and air conditioning would be required if adequate setback distances are not available. The future traffic noise levels at all planned residential buildings will not exceed the State DOT's "15 dB increase" noise abatement criteria.

In order to minimize the potential for noise conflicts between the Project's residential units and the Project's light industrial, business, and commercial tenants, the inclusion of various restrictive provisions within the land conveyance documents is recommended. These include limits on noise emissions from the light industrial, business, and commercial tenants to levels allowed by the State DOH for multifamily dwellings, as well as disclosure of potential noise from adjoining nonresidential uses to owners/renters of the Project's residential units. In addition, creating driveway setbacks from the Project's residential units, enforcing restrictions on nighttime and early morning delivery truck operations, and the use of broadband backup alarms instead of beeper type backup alarms within the nonresidential lots are recommended.

The project site will be designed such that <u>rental</u> residential uses within the project are <u>situated located</u> at adequate setback distances from the future Kihei Upcountry Highway to eliminate the need for traffic noise mitigation measures. The Applicant will inform future residents of the potential for high noise levels due to existing light industrial activities <u>adjacent</u> to the north<u>ern corner</u> of the project site.

Based on the review of the TIAR Update dated December 20, 2016, it is the opinion of Y. Ebisu & Associates that any potential adverse noise impacts at the HPL workforce housing project can be compared to the potential noise impacts as follows:

There should be less exposure to noise from the Project's noise source since on the south side of the Honua'ula Parcel will face the Project's business/commercial activities;

Pi'ilani Promenade traffic on East Kaonoulu Street fronting the Honua'ula Parcel should be less than Pi'ilani Promenade traffic on East Kaonoulu Street fronting the Pi'ilani Promenade's 226 residential units. Total predicted traffic noise in 2032 at the HPL workforce housing project should also be less than the 59 to 61 DNL predicted at the Pi'ilani Promenade's 226 residential units.

**Figures 18 (Noise Impact Map 5A)** and **19 (Noise Impact Map 6A)** were prepared by Y. Ebisu & Associates and show the predicted traffic noise levels at 3 locations on the proposed high school site. Both existing and future (2032) traffic noise levels from Pi'ilani Highway should be less than 55 DNL at the proposed Kihei High School facilities due to adequate setback distances provided from Pi'ilani Highway. Adverse traffic noise impacts at the proposed high school are not anticipated for this reason.

Unavoidable, but temporary, noise impacts may occur during construction of the proposed project, particularly during the earth-moving activities on the project site. While construction activities are predicted to be audible within the project site and at nearby properties the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases. Notwithstanding this, t<u>T</u>he project will comply with State Department of Health noise regulations <u>including Chapter 11-46, HRS pertaining to "Community Noise Control".</u> for construction activities. As stipulated by DOH permit requirements, noise-generating construction activities are not allowed on Sundays and holidays, during the early morning, and during the late evening and nighttime periods.

# 8. Historical and Archaeological Resources

*Existing Conditions.* An Archaeological Inventory Survey (AIS) was previously undertaken and completed by Xamanek Researches in July 1994. A total of 20 sites were located during the 1994 AIS of the 88-acre property. Of these sites there were eight (8) rock piles and cairns, two (2) enclosures, three (3) parallel alignments, one (1) erosion

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containment wall segment, five (5) surface scatters, and a petroglyph on a boulder. These sites were designated 50-50-10-3727 through 3746. The majority of the sites were associated with ranching and World War II military activities, while the petroglyph and surface scatter remains were interpreted as possible pre-contact sites. The petroglyph boulder (Site 3746) was relocated to the property of a former land owner after the 1994 AIS with a relocation study completed and with the approval of the State Historic Preservation Division. **Note:** The 1994 AIS is included as an Appendix in the 2014 AIS. (**See**: Appendix F, "Archaeological Inventory Survey <u>dated March 2014 revised August 26, 2015</u>")

In connection with the proposed project, the Applicant retained Xamanek Researches to update the 1994 AIS to include the project area and areas included for off-site improvements. The purpose of the updated AIS (March 2014) was to determine the presence/absence of archaeological midden, deposits, and/or artifact deposits on the surface of the parcels and to assess the potential for the presence of subsurface cultural deposits (**See**: Appendix F, "Archaeological Inventory Survey <u>dated March 2014 revised August 26, 2015</u>").

During the <u>environmental review</u> <del>consultation</del> process questions were raised as to the presence of historical sites within Kulanihakoi Gulch <u>(which is not located on the Project site)</u> and the need for additional survey work to assess the presence of possible sites. In response to this request, the Applicant contacted Kaonoulu Ranch and received their approval to submit an SHPD accepted AIS (2008) done for the area south of the project boundary including the gulch area adjacent to and mauka of the project area. The 2008 AIS indicates that no resources were found in the area fronting the property on either side of the Kulanihakoi Gulch (**See**: Appendix G, "<u>Archaeological Inventory Survey of Kulanihakoi Gulch AIS</u> dated 2008").

#### Potential Impacts and Mitigation Measures.

The significance assessments for Sites 50-50-10-3727 through 3746 remain the same, while data recovery is the recommended mitigation for several of the remaining sites. A forthcoming data recovery plan will be developed for Sites 3727, 3728, 3735, 3736, and 3741-3745.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (**See**: Appendix F, "Archaeological Inventory Survey <u>dated March 2014 revised August 26, 2015</u>").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the DFEIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the <del>current</del> 2014 AIS, and to receive and document input from the cultural community on archaeological and cultural knowledge of the Project area. In addition to discussing the return of the petroglyph boulder and potential impacts to Kulanihakoi Gulch, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and the previously removed petroglyph stone be returned to the property. The Applicant has discussed the possible return of the petroglyph stone and the owner (the former owner of Kaonoulu Ranch) rejected this request given the fact that the relocation plan was submitted and approved by SHPD. In addition, an archaeological monitoring plan was submitted to SHPD for review and approval, was approved and referenced for all recent work on the site. The monitoring plan may be found in Appendix H and will be updated once project construction is initiated. (See: Appendix H, "Archaeological Monitoring Plan dated July 2011 with SHPD acceptance letter dated August 2011").

In July 2015, SHPD received comments from Maui Cultural Lands indicating that there were undocumented sites on the Project site and that further investigation work was necessary. The Applicant retained the Project Archaeologist to conduct a follow-up survey of the Project site. Supplemental inventory level fieldwork was carried out during the summer of 2015 and covered 100% of the Project site. In addition, all previously identified sites from the 1994 AIS were located, reassessed and altered/impacted sites were remapped. Of the original 20 sites, Site 3746 (the petroglyph) was previously relocated, and Site 3734 (stone pile) and Site 3939 (parallel boulder alignment) were destroyed by previous heavy equipment activity on the Project site. Seven of the sites were impacted to some extent by post-1994 earthmoving activities on the Project Site.

During the survey, a new site was identified on Parcel 16. This site has been identified as Site 50-50-10-8266 and is interpreted as a possible pre-contact temporary habitation area, and qualifies for significance under Criterion "d" for its information content. This site consists of a rectangular rock enclosure, and based on subsurface test results, this site appears to be a temporary habitation area that was possibly used in pre-contact times. Data recovery is the recommended mitigation for this site. In addition to locating a new site, the status of individual previously identified sites was updated in an AIS dated August 26, 2015 (See: Appendix F, "Archaeological Inventory Survey dated March 2014 revised August 26, 2015"). The remaining 17 sites on the Project site are listed in Table 2 below, along with the newly identified Site 8266 (a rock enclosure), for a total of 18 sites.

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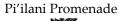
The significance assessments for <u>several</u> Sites 50-50-10-3727 through 3746 remain the same, while data recovery is the recommended mitigation for several of the remaining sites. A forthcoming data recovery plan will be developed for Sites 3727, 3728, 3735, 3736, and 3741-3745. has been revised since the Draft EIS. The following Table No. 2 is the revised 2015 AIS mitigation recommendations:

Site # 50-50-10-	Site Type	2015 Mitigation	
		Recommendation	
3727	Stone piles	Data recovery ("DR")	
<u>3728</u>	Stone piles	DR	
<u>3729</u>	Stone cairn	DR	
<u>3730</u>	Stone cairn	No further work	
		<u>("NFW")</u>	
<u>3731</u>	Stone cairn	<u>NFW</u>	
<u>3732</u>	Stone cairn	DR	
<u>3733</u>	Stone cairn	<u>NFW</u>	
<u>3735</u>	<u>Enclosure</u>	DR	
<u>3736</u>	<u>Enclosure</u>	DR	
<u>3737</u>	Parallel alignment	NFW	
<u>3738</u>	Parallel alignment	NFW	
<u>3740</u>	Erosion containment walls	NFW	
<u>3741</u>	Surface scatter	DR	
<u>3742</u>	Surface scatter	DR	
<u>3743</u>	Surface scatter	DR	
<u>3744</u>	Surface scatter	DR	
<u>3745</u>	Surface scatter	DR	
<u>8266</u>	<u>Enclosure</u>	DR	

#### Table No. 2 Archaeological Mitigation Recommendations

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey (**See**: Appendix F, "Archaeological Inventory Survey <u>dated March 2014 revised August 26, 2015"</u>).

As a follow up to the February 25, 2014 meeting, the Project team's Archaeologist and Cultural consultant participated in a site visit on January 22, 2016. The site visit was attended by:



- <u>Kimokeo Kapahulehua</u>
- Erik Frederickson
- <u>Brett Davis</u>
- Jordan Hart
- <u>Daniel Kanahele</u>
- <u>Michael Lee</u>
- <u>Basil Oshiro</u>
- <u>Brian Naeole</u>
- Florence K. Lani
- <u>Lucienne DeNaie</u>

The Applicant's Archaeologist prepared a data recovery plan that was received by the SHPD on June 17, 2016 and is under review. In addition, the Project AIS was accepted by SHPD on January 6, 2016. (See: Appendix F-1, "SHPD acceptance letter dated January 6, 2016").

In conclusion, the updated archaeological survey of the Project site was conducted in the summer of 2015, and one new historic property was located. The previously identified sites were registered in the State Inventory of Historic Places (SIHP) as No. 50-50-10-3727 through 3746. Of the original 20 sites, 17 remain and one new site was identified for a new total of 18 sites. Seven of these sites have been impacted to some extent by post-1994 earthmoving activities on the Project site. Of the impacted sites, Site 3734 (a rock pile) and Site 3739 (parallel boulder alignment) have essentially been destroyed. In addition, the Site 3746 petroglyph was removed from the Project site in late 1994 by a previous landowner. As such, a total of 18 sites are present within the Project site. No historic properties were located on the previously disturbed off-site portions of the Project site.

The SHPD issued a letter dated January 6, 2016 that accepts the AIS as **final**. (See: Appendix F-1, "SHPD acceptance letter dated January 6, 2016"). Data recovery is now the recommended mitigation for twelve (12) sites, including Sites 3727-3729, 3732, 3735, 3736, 3741 through 3745, and newly identified Site 8266 (**See:** Table No. 2). A data recovery plan has been prepared and submitted to SHPD in June 2016 and is currently under review by SHPD staff. In addition the SHPD issued a letter dated January 6, 2016 that accepts the AIS as **final**. (**See**: Appendix F-1, "SHPD acceptance letter dated January 6, 2016 that accepts the AIS as **final**. (**See**: Appendix F-1, "SHPD acceptance letter dated January 6, 2016 that accepts the AIS as **final**. (**See**: Appendix F-1, "SHPD acceptance letter dated January 6, 2016").

The SHPD-accepted AIS makes no connection between the sites located within the Project site and Drainageway A. There is one site, an erosion containment wall along Drainageway A, with a recommendation for No Further Work.

The Project promotes the preservation of historic resources and as noted the Applicant's Archaeologist prepared a data recovery plan that was received by the SHPD on June 17, 2016 and is under review.

As previously noted, the Site 3746 petroglyph was removed from the Project site in late 1994 by a former landowner. An after-the-fact Preservation Plan for the treatment of this petroglyph was submitted in October 1994 (Munekiyo & Hiraga, Inc.).

In 2011 a monitoring plan was completed and accepted for a large parcel within Ka'ono'ulu *ahupua'a* (SHPD DOC #1108MD012). While the proposed Project is located within this *ahupua`a*, a Project-specific monitoring plan will be prepared for onand off-site project improvements with input from the SHPD Maui office. Also included in the forthcoming monitoring plan will be Lot 2B, which is owned by a separate entity, but which will be affected by the Project.

Drainageway "A" is located in the northern half of the Project site. (See: "Appendix L, "Preliminary Engineering Report Figures 2-3 and 2-4). A portion of Drainageway "A contains one previously identified historic property - Site 50-50-10-3740. Site 3740 was first identified during the 1994 AIS, which surveyed the entire Petition Area (Fredericksen, et al., 1994). At the time, Site 3740 was interpreted as a post-contact ranch-era feature, possibly associated with erosion control. This site consists of segments of a low, discontinuous rock wall that primarily extend along portions of either side of the gully. The SHPD Maui staff archaeologist at the time visited the Petition Area in 1994 to inspect the various sites that had been identified during the inventory survey, including Site 3740. The SHPD approved the archaeological inventory survey report, concurred with site interpretations, and indicated that no further archaeological work was needed for any of the remaining identified sites, including Site 3740. This recommendation was reaffirmed in a 2011 SHPD comment letter (SHPD DOC NO: 1103MD05).

Xamanek Researches LLC was subsequently hired to carry out an archaeological inventory survey of the Petition Area plus additional lands in 2014-2015. This subsequent survey reexamined sites previously identified in 1994, including Site 3740, in addition to one newly identified site. Pedestrian inspections of all previously identified sites, including Site 3740, were conducted during the Applicant's 2014-2015 fieldwork. The SHPD Maui staff archaeologist at the time carried out two project inspections with Xamanek Researches LLC staff in 2015. The SHPD Maui staff archaeologist was able to view all sites, including Site 3740. The archaeological inventory survey report (Fredericksen, 2015) for the overall Project site was approved in a 2016 SHPD comment

#### <u>letter (SHPDDOC NO: 1601MD08). The SHPD concurred with the interpreted function for</u> <u>Site 3740 and affirmed that no additional work was warranted for this post-contact site.</u>

Xamanek Researches LLC staff members have subsequently revisited the gully area on three separate occasions since the inventory survey was accepted in early 2016. No additional findings have been made in Drainageway "A". However, given concerns raised, the Applicant's has voluntarily agreed to have archaeological data recovery work carried out on Site 3740. This additional and intensive work will include detailed mapping, subsurface and surface investigation of the construction style of sections of the wall segments, including a short wall section that is located within along a portion of Drainageway "A"'s slope. Results of this work will be included in the Project's forthcoming data recovery report. The SHPD will review the results of this future report. (See: Appendix H-1 "Archaeological Consultant memo dated October 28, 2016.)

The previous archaeological inventory survey report (Fredericksen, 2015) for the overall Project site was approved in a 2016 State Historic Preservation Division comment letter (SHPD DOC NO: 1601MD08). Site 3727 consists of three stone piles and a surface scatter, and Site 3728 consists of a stone pile. Both of these sites will be further investigated during the forthcoming Archaeological Data Recovery project (Fredericksen, 2016). Both of the above sites are in the vicinity (west) of the County Department of Water Supply 36-inch waterline that crosses Project site. This substantial waterline was installed about 40 years ago.

Many boulders in this area display heavy equipment scars from prior mechanical disturbance of this portion of the Project site. By way of background, the SHPD Maui staff archaeologist previously carried out two project inspections with Xamanek Researches LLC staff in 2015. The SHPD Maui staff archaeologist was able to view all previously identified sites, including Sites 3727 and 3728. The SHPD Maui staff archaeologist was previously sent the Submittal by Interested Parties that included comment regarding the natural boulder (eclipse rock feature) in question, and subsequently provided Xamanek Researches LLC with a copy of a 2015 memo prepared in advance of her two inspections of the Project site.

Xamanek Researches LLC staff members have subsequently revisited this portion of the Project site on two separate occasions since the inventory survey was accepted in early 2016. No additional archaeological findings have been made, which suggest the possible function of this boulder. However, given the concern raised, the Applicant has voluntarily agreed to preserve this natural boulder (eclipse rock feature) on the Project site. Concerned individuals will be consulted regarding the final location of this boulder (eclipse rock

feature). (See: Appendix H-2 "Archaeological Consultant memo dated November 15, 2016.)

With regard to incorporating into the Project landscape plan elements of the cultural and archaeological history of the area the results of data recovery work on the various sites within the Project site may provide material that may be incorporated into the plan. A decision on what and where will be addressed once the data recovery work is complete and through cultural consultation.

Xamanek Researches was contracted by a former landowner to conduct the 1994 AIS. That AIS, which identified 20 archaeological sites on the property, was accepted by the State Historic Preservation Division ("SHPD") by letter dated July 12, 1994.

In July 2011, Piilani Promenade engaged Scientific Consultant Services, Inc. to prepare an archaeological monitoring plan for the Piilani Promenade properties. That plan was accepted by the SHPD by letter dated August 10, 2011.

In March 2014, Piilani Promenade engaged Xamanek Researches LLC to update the July 1994 AIS. That updated AIS was accepted by the SHPD in January 2016. The updated survey identified 19 of the original 20 archaeological sites on the property. However, two of the originally identified sites (3734 and 3739) were determined to have been destroyed/lost by post-1994 land altering activities. The updated AIS report contained the following mitigation recommendations:

- Data recovery was recommended for twelve (12) archaeological sites: 3727, 3728, 3729, 3732, 3735, 3736, 3741, 3742, 3743, 3744, 3745, and 8622. Note: the SHPD review/acceptance letter (Doc No: 1601MD08) contains a typo it states 13 sites for data recovery (this is a simple addition error).
- No further work was recommended for six (6) archaeological sites: 3730, 3731, 3733, 3737, 3738, and 3740.

In July 2015, Piilani Promenade organized a site visit of its property for any interested members of the community. Following that site visit, two interested community members – Daniel Kanahele and Lucienne DeNaie -- recommended to SHPD that the following seven (7) archaeological sites be preserved: 3730, 3731, 3732, 3736, 3740, 3745, and 8622. In addition, Mr. Kanahele and Ms. DeNaie also identified (i) an unmarked stone near archaeological sites 3727 and 3728, and (ii) an unmarked stone on the southwest portion of the Piilani Promenade property, and recommended to SHPD that these stones also be preserved. These seven archaeological sites and two unmarked stones are hereinafter collectively referred to as the "Community Sites".

Having reviewed the revised 2015 Xamanek Report and considering the above recommendations of Mr. Kanahele and Ms. DeNaie, the SHPD accepted the updated Xamanek Researches LLC report and issued a letter dated January 6, 2016, accepting the specific mitigation recommendations contained in Xamanek's updated AIS.

Notwithstanding the above, given the concerns expressed by interested community members, Piilani Promenade has agreed – in the spirit of cooperation – to meet with Mr. Kanahele, Ms. DeNaie and Xamanek to authenticate which sites have significance and preserve the appropriate Community Sites at reasonable locations on the Piilani Promenade property. Piilani Promenade will consult with Mr. Kanahele and Ms. DeNaie to determine a reasonable and appropriate means and location of preservation of the Community Sites.

#### 9. Visual Resources

*Existing Conditions.* The project site is located in North Kihei along the southern flank of Haleakala. Elevations on the project site range from 30 feet above mean sea level near Pi'ilani Highway to approximately 115 feet AMSL. The project site lies between existing light industrial development to the north of the site and Kulanihakoi Gulch which defines the southern boundary of the site (**See**: Figure 1, "Regional Location Map").

Scenic resources that are visible from certain areas in the Kihei region include the West Maui Mountains to the north, Haleakala to the east, Pu`u Olai to the south, and the Pacific Ocean and offshore islands of Molokini, Kaho`olawe, and Lana`i to the west.

**Potential Impacts and Mitigation Measures.** The Maui Coastal Scenic Resources Study (August 31, 1990) was prepared by Environmental Planning Associates, Inc. on behalf of the Maui Planning Department. The proposed Pi'ilani Promenade is located in an area which is largely characterized by open space views on the *mauka* side of Pi'ilani Highway (**See**: Figure 13, "Scenic Resources Map"). Most of these lands are owned by Haleakala Ranch and Kaonoulu Ranch and have been used for cattle grazing although the project site has been designated for urban use and development by the Kihei-Makena Community Plan for over 20 years.

The project site is <u>adjacent</u> to the Pi'ilani Highway. Building heights within this area are limited to 60 feet. The site plan and building layout for the Pi'ilani Promenade will be designed to preserve the view towards Haleakala from Pi'ilani Highway. In addition, the project will be setback from Pi'ilani Highway <u>a minimum of 30 feet</u>, and the future KUH and will also be buffered by landscape planting <u>as noted in the approved Landscape Plan</u> for Kaonoulu Marketplace subdivision(the name of the prior development project on the Project site). **(See:** Figure No. 17 "Landscape Plan")

The Project will include light industrial, business, commercial, and residential apartment structures. As shown in the approved Landscape Plan for the Project, a significant element of the landscape program is the inclusion of a 30-foot landscaping easement located adjacent to the Pi'ilani Highway. The landscaping easement will be planted with monkeypod trees, which when mature are expected to significantly buffer the transition between the Pi'ilani Highway and the Project, and to define the views from Pi'ilani Highway into the Project. (See: Figure 17A "Landscape Rendering").

A view analysis was prepared by Architects Orange and depicts 4 views from Pi'ilani Highway looking across the Project site towards Haleakala. (See: Figure 16 "View Analysis"). The view analysis used the following methodology:

- 1. <u>Photographs used in the analysis are approximately 5 feet 8 inches above</u> <u>street level on the makai side of Pi'ilani Highway, across from the Project</u> <u>site.</u>
- 2. <u>The estimated future finish grade is based upon preliminary calculations</u> <u>made by the Project civil engineer, Warren S. Unemori Engineering, Inc.</u>
- 3. <u>The assumed 60-foot building height is based on the current County zoning</u> <u>code, which permits for 60-foot maximum building heights in an M-1 Zoning</u> <u>district. These 60-foot buildings will be set back 500 feet from the Project site</u> <u>boundary along Pi'ilani Highway.</u>
- 4. <u>The estimated 30-foot building height is based upon the height of mid-sized</u> <u>commercial buildings that may be built through-out the Project site.</u>

As shown in the view analysis, the maximum allowable building height does not impact the public view of *Pu'u o Kali or* the summit of Haleakala. The extension of Kaonoulu Road will provide views towards *Pu'u o Kali* and the summit of Haleakala, but is not considered a major view corridor.

The proposed apartments will be a maximum of three (3) stories tall, up to a maximum allowable height of 60 feet provided for in the M-1 zoning district. The light industrial and commercial buildings are permitted to have a maximum height of 60 feet, however, the estimated height of future buildings is unknown at this time.

The Applicant is proposing to develop the Project with the following development standards as mitigation measures to limit the impacts to visual resources.

1. <u>Any buildings at the maximum height allowed by the then-current County zoning</u> <u>code will be set back at least 500 feet from the Project site boundary along Pi'ilani</u> <u>Highway.</u>

- 2. <u>Any building above 30 feet in height will be set back at least 100 feet from the western boundary of the Project site.</u>
- 3. <u>The cumulative linear frontage of buildings built within the 100 foot set back from</u> <u>the western boundary of the Project site will not exceed 35% of the total frontage</u> <u>of the western boundary of the Project site.</u>

The proposed project will transform the character of the site from its existing large lotonly approved design vacant land to a mixed-used development consisting of retail, office, business/commercial, light industrial, multi-family (226 apartment units), and public/quasi-public (park, MECO substation) uses, as well as with pedestrian and bicycle networks, an approximately 2-acre park and landscape plantings. The project will set forth building height limits and setbacks in order to help maintain views towards the summit of Haleakala and the Pacific Ocean. In addition the open space areas incorporated into the Pi'ilani Promenade will provide view corridors in between buildings toward the Pacific Ocean and Haleakala.

With regard to design, the proposed project will <u>positively complement the architectural</u> <u>character of the adjacent concrete tilt up light industrial structures to the north of the</u> <u>Project area.</u> <u>complement the high quality architectural character as other developed</u> <del>properties in the area.</del> The Pi'ilani Promenade <u>will be</u> is being designed to control the density, architectural design, and variation of all buildings in the project without sacrificing views or the aesthetic character of the proposed project. As noted, the maximum building height within the Project will be 60 feet and buildings will be setback from Pi'ilani Highway to maintain public views towards the summit of Haleakala from Pi'ilani Highway. Overall urban design of the project will position buildings fronting landscaped roadways to screen the massing of the buildings.

All buildings within the Pi'ilani Promenade will be designed in accordance with the applicable Maui County building code standards.

In response to comments, the Applicant has coordinated with the Planning Department and will continue to refine plans to create a well-designed Project. Following the acceptance of the FEIS and completion of the Motion to Amend process, design guidelines will be presented to the Kihei Community Association Design Review Committee and the Maui County Urban Design Review Board for review and comment prior to submittal to the Planning Department for review and approval.

# 10. Agricultural Resources

*Existing Conditions.* The project site is located in the State Urban District, the County's M-1, Light Industrial Zoning District, and is designated for Light Industrial (LI) use by the 1998 Kihei-Makena Community Plan.

<u>LSB.</u> In 1967 The University of Hawaii, Land Study Bureau (LSB), developed the Overall Productivity Rating, which classifies soils according to five (5) levels, ranging from "A", representing the class of highest productivity soils, to "E", representing the lowest.

The lands underlying the project site are classified as "E", or very poorly suited for agricultural production (**See**: Figure 11, "Land Study Bureau Map").

*ALISH.* In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawaii (ALISH). The classification system is based primarily, although not exclusively, upon the soil characteristics of the lands. The three (3) classes of ALISH lands are: "Prime", "Unique", and "Other", with all remaining lands termed "Unclassified". When utilized with modern farming methods, "Prime" agricultural lands have a soil quality, growing season and moisture supply necessary to produce sustained crop yields economically. "Unique" agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. "Other" agricultural lands include those that have not been rated as "Prime" or "Unique" but are still considered important agricultural lands.

The ALISH system classifies the majority of the project site as "Unclassified". A <u>small</u> 3acre portion of the project site, located by the southwest corner of the site, is classified as "Prime" (**See**: Figure 12, "Agricultural Lands of Importance to the State of Hawaii Map"). The<u>re is a large</u> supply of good farmland <del>of which there is also a large supply</del>. As such, the proposed project is not expected to impact the long-term viability or growth of agriculture on the island of Maui.

The Monsanto farming fields were not part of the Petition Area, and are not part of the Project.

The LSB and ALISH classification systems indicate that the lands underlying the Project site possess poor soil and low soil ratings for productive agricultural uses. The lands underlying the project site are classified as "E", or very poorly suited for agricultural production. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate.

Formerly, the Project site was a dry, seasonal pasture situated on gently sloping lands above the coastal plain in north Kihei. For the past 150 years, the area has been grazed by livestock which has resulted in a gradual loss of native plant species and the subsequent growth of hardy pasture grasses and weeds. During the past 40 years, introduced axis deer (*Axis axis*) have eliminated native plants and fires have swept through the area as evidenced by charred stumps throughout the Project site.

**Potential Impacts and Mitigation Measures.** The LSB and ALISH classification systems indicate that the lands underlying the project site possess poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate.

A Phase I Environmental Site Assessment (ESA) for the proposed project found no presence of any fertilizers, herbicides, pesticides, or other types of agricultural products which may have been used on the site or the presence of any hazardous substance or petroleum products on the property.

In addition, there is no evidence of any historic or current significant misuse of hazardous or regulated substances on the subject property (**See**: Appendix B, "Environmental Site Assessment"). While the proposed project will result in the loss of low-quality agricultural land, the inventory of good quality, productive agricultural lands will not be <u>significantly</u> affected.

# 11. Groundwater Resources

*Existing Conditions.* Drinking water for the proposed project will come from the network owned and operated by the Maui Department of Water Supply (DWS). <u>Three 3-inch</u> domestic water meters have been approved by the DWS and are available for the Project. <u>The issuance of water meters for the Project by the DWS carries the implicit approval by</u> the DWS of the Project's use of the DWS system for drinking water.

Water for the Central Maui Water System is pumped from existing groundwater wells located in upper Waiehu and North Waihee which draws groundwater from the Iao and Waihee Aquifers. <u>The most reliable estimate of the Iao Aquifer and the Waihee Aquifer's</u> <u>rate of recharge and resulting groundwater flow rate is in the CWRM Water Resource</u> <u>Protection Plan 2008</u>. This plan has estimated the groundwater recharge from rainfall in the Iao Aquifer system to be 20 MGD and the Waihee Aquifer system to be 8 MGD. The Water Resource Protection Plan 2008 is currently being updated and a draft plan is expected in late 2017.

In consultation with Mr. Charley Ice (CWRM Water Resource Planner) on February 9, 2017, the CWRM has allocated 19.579 MGD to existing users and estimates that 0.421 MGD of groundwater can be allocated from the Iao Aquifer System.

The Waihee Aquifer is split into two (2) portions that each yield 4 MGD per day. The lower portion of the Waihee Aquifer has reached its capacity of 4 MGD, however there is additional drinking water available in the upper portion of the Waihee Aquifer that can be allocated for future development. A specific allocation amount is not available because water allocations are not recorded for the Waihee Aquifer. The CWRM has indicated that increase withdraw from the Waihee Aquifer may result in an initiation of groundwater management area designated by the CWRM.

The Pi'ilani Promenade <u>at the request of the DWS agreed to has an agreement with the DWS to</u> construct a 1.0 million gallon (MG) water storage tank which will serve the future needs of the project and South Maui. Three 3-inch domestic water meters have been approved and are available for the project. The combined flow capacity of these meters is 1,050 gallons per minute (gpm) which exceeds the approximately 600 gpm of <u>required</u> flow capacity <u>for which</u> the Pi'ilani Promenade, <u>therefore there will be adequate flow</u> <u>capacity</u> <del>need</del> to build out the project. Consequently, no additional drinking water sources beyond the County-issued water meters are anticipated in order to construct and operate the Pi'ilani Promenade (<u>See: Appendix L, "Preliminary Engineering Report dated</u> <u>December 2013, revised February 2, 2017").</u>

The State Commission on Water Resource Management approved an irrigation well permit for a well built in 2011 at a wellhead elevation of 118 feet. The well has proven to be capable of producing 216,000 gallons of non-drinking water per day and a permanent pump (150 gpm) has since been installed <u>but is not in use</u>. The well water will be used <u>during future construction for dust control and</u> Construction of the distribution infrastructure for the irrigation system is currently pending when permanent electrical power is available, the well will be used for landscape irrigation. In addition, a connection point for utilizing reclaimed water from the County's R-1 system in the future will be provided (See: Appendix L, "Preliminary Engineering Report dated December 2013, revised February 2, 2017").

Groundwater beneath the Project site occurs as a brackish basal lens overlying saline groundwater at depth and in hydraulic contact with seawater shore. This groundwater

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body has been named as the Kamaole Aquifer by the CWRM. The most reliable estimate of the Kamaole Aquifer's rate of recharge and resulting groundwater flow rate is in the CWRM Water Resource Protection Plan 2008. This plan has estimated the groundwater recharge from rainfall in the Kamaole Aquifer system to be 25 MGD. Of the estimated 25 MGD of groundwater recharge, the CWRM estimates that 11 MGD of groundwater can be developed within the Kamaole Aquifer System on a sustainable basis. (Water Resource Protection Plan, 2008). The Water Resource Protection Plan is currently being updated and a draft plan is expected in late 2017.

Existing water use within the Kamaole Aquifer System amounted to 1.859 MGD (Water Resource Protection Plan, 2008). This water use is primarily for golf course and landscape irrigation purposes from existing brackish wells.

A subsurface investigation conducted in 2011 by a reputable geotechnical engineering firm performed 27 soil borings across portions of the Project site to depths ranging from 10 to 40 feet below the ground surface. No groundwater was encountered at any of the boring locations. (See: Appendix Q "Soil Investigation Reports")

Potential Impacts and Mitigation Measures. <u>The Pi'ilani</u> Promenade will consume on average of 252,000 gpd of water at full build-out, including 171,000 gpd of drinking water for domestic uses and 81,000 gpd of nondrinking water for irrigation. (See: Appendix L, "Preliminary Engineering Report dated December 2013, revised February 2, 2017")

As mentioned, the CWRM estimates that 0.421 MGD of groundwater can be allocated within the Iao Aquifer System. The Piilani Promenade drinking water demand is expected to withdraw 171,000 gpd and can be accommodated within the remaining 0.421 MGD of available groundwater. This limited amount of water is not anticipated to significantly impact the Iao Aquifer from recharging.

As mentioned, three 3-inch domestic water meters have been approved by the County DWS and are available for the project. The issuance of water meters for the project by the DWS carries the implicit approval by the DWS of Piilani Promenade's use of the Iao Aquifer System for drinking water.

The CWRM estimates that 11 MGD of groundwater can be developed within the Kamaole Aquifer System on a sustainable basis. (Water Resource Protection Plan, 2008). The irrigation well for landscaping is expected withdraw 81,000 gpd and this limited amount of water is not anticipated to significantly impact the Kamaole Aquifer from recharging. In the future, when the County reclaimed water line is extended north towards the Project site, the Applicant will connect to the R-1 water source for irrigation water eliminating the need for the brackish irrigation well.

In response to comments on the DEIS, the FEIS has been updated in the ground water section, the water section, and the cumulative impacts section to include a matrix of the readily identifiable future developments in South Maui and their direct potential effect on water source and availability. Table No. 3 below provides an estimate of water use by future proposed developments in South Maui.

Name of	Average	Drinking	<u>Average</u>	Non	Type of	Source
Project	Daily	Source	Non-	Drinking	System	Document
<u>j</u>	Drinking		drinking	Source	<u></u>	
	Water Use		Water Use			
Maui Lu	144,200	CWS,	136,000 gpd	Existing	Private	Maui Lu
Resort	gpd	existing		well water	irrigation	FEA 2004
	(53,300	meter		(Kamaole	brackish	
	gpd			Aquifer)	water	
	existing;			<u>+</u>		
	<u>86,300 gpd</u>					
	proposed)					
<u>Noni Loa</u>	<u>21,840 gpd</u>	<u>CWS,</u>	<u>None, will</u>	<u>CWS</u>	CWS	<u>Noni Loa</u>
		<u>Existing</u>	<u>use drinking</u>			FEA
		<u>meter</u>	<u>water until</u>			<u>December 8,</u>
			<u>R-1 line is</u>			<u>2015</u>
			<u>available</u>			
Makena	<u>94,260 gpd</u>	<u>CWS,</u>	<u>129,075 gpd</u>	Existing	Private	Makena
<u>Resort</u>		<u>existing</u>		Well water	<u>irrigation</u>	Resort DEA
		meter		<u>(Kamaole</u>	<u>brackish</u>	<u>January 8,</u>
				<u>aquifer)</u>	<u>water</u>	<u>2016</u>
MRTP	789,065	CWS,	373,329 gpd	R-1 Water	Maui	MRTP FEIS
	gpd	existing	01	line	County	March 23,
	<del>01</del>	meters			R-1 Water	2013
					line	
<u>Kenolio</u>	<u>104,160</u>	<u>Proposed</u>	<u>15,000 gpd</u>	<u>1 proposed</u>	<u>* will</u>	<u>Kenolio</u>
<u>Apartments</u>	<u>gpd</u>	connection		<u>brackish</u>	connect to	<u>Apartments</u>
		to CWS		<u>water well</u>	<u>R-1 line</u>	<u>FEA July 23,</u>
				(Kamaole	once	<u>2014</u>
				<u>Aquifer)</u>	available to	
T/ · · ·		<b>D</b> 1	<b>NT 11</b>	OT 12	property	77 . 1.
Kaiwahine	<u>67,200 gpd</u>	Proposed	None, will	<u>CWS</u>	<u>CWS</u>	Kaiwahine
<u>Village</u>		connection	use drinking			<u>Village</u>
		to CWS	water until			<u>201H</u>
			<u>R-1 line is</u>			Application Fobruary
			<u>available</u>			February 2011
						2011

#### Table No. 3 Estimated Water Use by Future Developments

<u>Name of</u> <u>Project</u>	<u>Average</u> <u>Daily</u> Drinking	Drinking Source	<u>Average</u> <u>Non-</u> drinking	<u>Non</u> Drinking Source	<u>Type of</u> <u>System</u>	<u>Source</u> Document
	Water Use		Water Use			
<u>Kihei High</u> <u>School</u>	<u>37,450 gpd</u>	Proposed connection to CWS	<u>185,000 gpd</u>	2 proposed <u>brackish</u> water wells (Kamaole <u>Aquifer)</u>	<u>Private</u> <u>brackish</u> <u>well</u>	<u>Kihei H.S.</u> <u>FEIS</u> <u>September</u> <u>8, 2012</u>
<u>Honua'ula</u> <u>Affordable</u> <u>Housing</u> <u>Project</u>	<u>210,000</u> gpd	Proposed connection to CWS	<u>Unknown</u>	<u>Existing</u> <u>well water</u> <u>(Kamaole</u> <u>Aquifer)</u>	<u>Private</u> <u>brackish</u> <u>well</u>	<u>Calculated</u> <u>using</u> <u>County</u> <u>standards.</u>
Downtown <u>Kihei</u>	<u>48,500 –</u> <u>143,600</u> <u>gpd</u>	Proposed connection to CWS	<u>15,900 –</u> 29,500 gpd	County R-1 Water	<u>R-1 Water</u> line from <u>KWWRF</u>	Downtown <u>Kihei FEA</u> April 8, 2013
<u>Honua'ula</u> <u>(Mauka of</u> <u>Makena</u> <u>Resort)</u>	<u>340,000</u> gpd	<u>Proposed</u> <u>Well water</u> <u>(Kamaole</u> <u>aquifer)</u>	810,000 gpd for irrigation,71 7,000 gpd for golf course	<u>Well water</u> (Kamaole <u>aquifer)</u> <u>* will</u> <u>connect to</u> <u>R-1 line</u> <u>once</u> <u>available to</u> <u>property</u>	<u>Private</u> <u>brackish</u> <u>well</u>	<u>Honua'ula</u> <u>FEIS August</u> <u>8, 2012</u>
<u>Kihei</u> <u>Residential</u>	<u>530,000</u> <u>gpd</u>	Connect to CWS or Well water (from Kahului or Paia aquifers)	<u>None</u>	<u>Connect to</u> <u>County</u> <u>Water</u> <u>system or</u> <u>Well water</u> <u>(from</u> <u>Kahului or</u> <u>Paia</u> <u>aquifers)</u>	Private brackish well, *Applicant <u>would</u> prefer to connect with the <u>Maui</u> <u>County</u> <u>R-1 Water</u> <u>line</u>	<u>Kihei</u> <u>Residential</u> <u>FEIS</u> June 8, 2008
Estimated Totals	2,481,775 gpd of estimated drinking water usage 2,394,904 gpd of estimated non-drinking water usage					

Pi'ilani Promenade

# Table No. 3 above provides the direct impacts related to each project and in total the estimated cumulative impact for drinking water systems is a total of 2,481,775 gpd of estimated drinking water usage, and 2,394,904 gpd of estimated non-drinking water usage.

In regards to the drinking water, the Applicant will cooperate with the CWRM to determine available water use in the Iao Aquifer and underlying Kamaole Aquifer as the Water Resources Protection Plan is updated. It is the Applicant's understanding that the CWRM judges use of the aquifers relative to its sustainable yield by the 12-month moving average of pumpage, not by the cumulative capacity of pump installations permits; therefore the proposed use of the Iao and Kamaole a\Aquifers, will not exceed the sustainable yields.

The Applicant retained Marine Research Consultants, Inc. to prepare a Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities. The purpose of the report was to assess potential impacts to groundwater and the marine environment as a result of the proposed project. In connection with this work, water quality testing was conducted and the underwater biotic composition along the Kihei coastline was analyzed.

The findings of the report indicate that the proposed project will not have any significant negative effect on water quality. (See: Appendix J, "Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities Report")

In regards to the non-drinking water, which will be drawn from the irrigation well, Waimea Water Services prepared an assessment of potential impacts from the pumping of the approved irrigation well. (See: Appendix R, "Waimea Water Services Report") (Note: Waimea Water Services applied for and supervised the well drilling for the approved irrigation well described above). The assessment found that no probable impact to the aquifer will occur from using the well for irrigation purposes.

Due to the proposed pumping rate of the newly constructed irrigation well, known as the Kaonoulu Irrigation Well, a 24-hour long term pump test was required by the State. The test results suggest that the water quality and quantity were stable at the 175gpm pumping rate and prolonged pumping at this rate would not be likely to adversely affect the aquifer at this location. The present estimate is that the sustained pumping rate of the well should not exceed 175 gpm, but it must be noted that this is only a best estimate based on available data.

Waimea Water Services recently performed a pump test and monitoring program in the Kihei area, and the results are pertinent to this discussion due to the proximity to the Kaonoulu Irrigation Well and because of the similar hydro-geological setting. In summary, no recorded influences from the 96-hour pump test were observed in the surrounding monitoring wells. Tidal influences were expected and documented in all three surrounding monitoring wells in the form of water level changes related to the local tide. The data collected from the three monitoring wells also suggests that there are no subsurface geological barriers that would potentially impede water flow.

In an effort to further understand the hydrogeology of the area surrounding the Kaonoulu Irrigation Well, Waimea Water Services performed an investigation into the available CWRM well data of the Kihei area. Twelve irrigation wells are located within 6,300 feet of the Kaonoulu Irrigation Well, three of which are located downstream of the subject well. All three of these wells are located greater than 3,000 feet away from the subject well and it is the opinion of Waimea Water Services, based upon its field experience in this location, that adverse impacts would be highly unlikely to be detected in these wells as long as the Kaonoulu Irrigation Well does not exceed the proposed 175 gpm or 100,000 gpd.

The data gathered thus far occurs over a very limited time span. Data over the long term operation of the wells in the Kihei area is needed for a true determination of the long term performance or impacts of the Kaonoulu Irrigation Well. It is absolutely essential that the water levels and the total chlorides in these wells be monitored on a regular basis to provide a real indication of what this aquifer can reliably produce on a sustainable basis. **(See:** Appendix R, "Waimea Water Services Report")

A condition imposed during the County re-zoning process for the Project site was the requirement that the landowner provide a future connection to the County reclaimed water system. In the future, connecting the Project to the reclaimed water system will eliminate the need for the brackish irrigation well.

# B. SOCIO-ECONOMIC ENVIRONMENT

# 1. Population

*Existing Conditions*. The population of the County of Maui has exhibited relatively strong growth from 2000-2010. The population increased from 128,241 in 2000 to 154,924 residents in 2010. The Maui Island population is projected to increase to 181,017 in 2020 and 207,307 in 2030.<sup>2</sup>

The proposed project site is located in Kihei, a Census Designated Place (CDP). In 2010 the population of the Kihei CDP was 20,881 residents.

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. Approximately 21,621 (43 percent of total) of these visitors are in the Kihei-Makena region.<sup>3</sup> Currently the property does not contain any residents.

<sup>1. &</sup>lt;sup>2</sup> Maui County Data Book, 2012

<sup>2. &</sup>lt;sup>3</sup> Maui County Planning Department 2006

**Potential Impacts and Mitigation Measures.** An Economic and Fiscal Impact Assessment was prepared for the Project by the Hallstrom Group Inc. in December 2013, and was updated in July 2015 (See: Appendix K, "Economic and Fiscal Impact Assessment <u>revised</u> July 2015"). It is anticipated that the construction of the proposed project will create 878 worker years' worth of construction jobs and wWhen fully built out, the total resident population of the multi-family developments is projected to be 607 persons. After completion the mixed use project could support an estimated 1,210 permanent jobs.

The projected population increase as a result of 226 apartment units is relatively small when compared to other proposed projects in South Maui such as the MRTP (1,250 units); however the project will result in a small increased population which will use local streets, recreation facilities, and other public services such as schools, and fire and police protection services. The Pi'ilani Promenade will contribute to various assessment and impacts fee programs as required to offset impacts associated with the proposed project and will contribute towards the tax base of Maui County.

# 2. Housing

*Existing Conditions.* For a variety of reasons, there has been a generally high appreciation of real estate prices on Maui since the early 1970s. At the same time, the population has expanded significantly, leading to high demand for residential units.

Median home prices have increased over the last year. In March 2014, the median sales price of a single family home on Maui was \$596,000, a 15% percent increase from the March 2013 median sales price of \$508,000. In the Kihei area, median home prices have increased substantially over the past year from \$489,550 \$647,500 in March 2013 2016 to \$700,000 in December 2014 2016.<sup>4</sup>

The median family income for the island of Maui (except for Hana) is \$75,800.00 based on income data provided by the U.S. Department of Housing and Urban Development, adjusted for Maui County. As home prices increase more residents are seeking rental options. The <u>Maui County</u> Department of Housing and Human Concerns (DHHC) has indicated there is a need for rental units in Kihei.

According to the Economic and Fiscal Impact Assessment prepared for the Project (See: Appendix H), the demand for new residential units in the Kihei-Makena Corridor will be

<sup>3. &</sup>lt;sup>4</sup> Realtors Association of Maui, December <del>2014</del> 2016.

from 7,250 to 11,500 units over the next 22 18 years (through 2035) (See: Appendix K, "Economic and Fiscal Impact Assessment dated December 2013, revised July 2015").

#### Potential Impacts and Mitigation Measures.

In response to comments on the DEIS from the State Office of Planning, the proposed 226 rental apartment units are for the Project and none of the rental units will be used or credited by another project. The Project will satisfy the County's affordable housing requirements by providing the required rental units on-site at an affordable rate to be determined by the DHHC. Currently the County requirement is for 25% of the units to be rented at affordable rates.

The proposed includes the construction of 226 rental housing units, of which a required <u>twenty-five percent (25%) or 57 units</u> will be rented at an affordable rate determined by the Maui County Department of Housing and Human Concerns.

In response to comments from the Hawaii Housing Finance and Development Corporation the apartment units will be a mix of one and two bedroom units and are targeted at the full spectrum of workers in the development. <u>The units will be available for all age groups, including seniors and rented for a range of consumer groups, including workforce affordable units and will not be available for sale.</u>

Chapter 2.96 MCC (Residential Workforce Housing Policy) requires that one third (1/3) of the affordable units be provided to 1) "very low income" residents and "low income" residents, 2) "below moderate income" residents, and 3) "moderate income" residents. Based on the 2016 Affordable Sales Pricing Guidelines 1) "very low income" residents and "low income" residents range from 50-80% of the median income for County, 2) "Below moderate income" residents, range from 81%- 100% and 3) "moderate income" residents earn 101%-120% of median income.

The exact rental prices for the units and allocation of units by income is unknown at this time and will be determined after the environmental review process and when the project is ready for construction. The project will comply with the affordability requirements of Chapter 2.96 MCC (Residential Workforce Housing Policy). <u>The Applicant will execute the residential workforce housing agreement with the Department prior to building permit approval.</u>

Rental housing in Kihei is under-supplied, with low vacancies and is a result of the focus of developers on upper-end housing which usually includes high land and construction <u>costs</u>. The Economic and Fiscal Impact Assessment estimates the projected demand for new residential units in Kihei-Makena is 7,250 – 11,500 units through 2035.

As mentioned above there is a demand for new residential units in the Kihei-Makena region especially rental units, therefore it is anticipated that long-term regional growth of south Maui will support the proposed 226 apartments at the project site.

#### 3. Economy

*Existing Conditions.* An\_Economic and Fiscal Impact Assessment was prepared for the Project by The Hallstrom Group Inc. in December 2013, and was updated in July 2015. (See: Appendix K, "Economic and Fiscal Impact Assessment"). Hawaii has steadily rebounded from the 2008-09 recession and associated down-cycle in the real estate market with Maui and Oahu showing the strongest recovery. Unemployment in Maui County has dropped to a the current level of 4.5 percent to a high of 9.1 percent during the 2008-09 recession. In addition median household income has grown two percent in each of the last two years, leasing of commercial and industrial space has shown strong gain in 2013.

<u>As of the report date</u>, Maui <del>currently</del> has some <u>approximately</u> 16.1 million square feet of "commercial" floor area, including light industrial, retail and office uses, or about 108.8 square feet per resident, which is lower than the U.S. average of 138.8 square feet per resident. The Kihei –Makena region currently has 1.8 million square feet of commercial space, which is an average of 63.4 square feet per resident. The Economic and Fiscal Impact Assessment estimates that there will be a demand for an additional 936,000 to 1,505,000 square feet of leasable commercial floor space in Kihei-Makena region by 2035.

Contending with Maui's high cost of living, most households support themselves on two or more jobs and many are forced into renting housing. According to the Department of Business, Economic Development and Tourism, the median household income is \$64,583. \$67,013.<sup>5</sup> Rental housing in Kihei is under-supplied, with low vacancies and is a result of the focus of developers on upper-end housing which usually includes high land and construction costs. The Economic and Fiscal Impact Assessment estimates the projected demand for new residential units in Kihei-Makena is 7,250 – 11,500 units through 2035.

According to the Maui Island Plan (December 2012), diversifying Maui's economy has been a key, longstanding County policy. The Economic Development chapter of the plan

<sup>&</sup>lt;sup>5</sup> Maui County Data Book, <del>2012</del> <u>2015</u>.



includes the following statement in its analysis of the island's challenges and opportunities:

"The Island of Maui, like the County as a whole, faces two fundamental challenges in economic development: (1) diversification; and (2) increasing the number and proportion of living wage jobs. There is a subset of more specific challenges, such as the high cost of housing and the need to strengthen public education".

**Potential Impacts and Mitigation Measures.** Over the past 20 years the Maui light industrial sector has evolved and the initial conceptual plan of 123 small lots to would support approximately 900,000 square feet (SF) of business floor area and is no longer valid in today's market. The updated Pi'ilani Promenade project proposes a smaller development at 530,000 square feet of business commercial space, and approximately 58,000 square feet of light industrial space, and the 226 multi-family units. Therefore it is anticipated that this development is more appropriate and will be successful in current and future market conditions.

The construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million (See: Appendix K, "Economic and Fiscal Impact Assessment").

# <u>The 226 unit apartment component of the Project is required to provide a certain amount</u> of the rental units at an affordable price determined by the DHHC.

During the build out period, the project will generate approximately \$2.3 billion in economic activity. After completion and stabilization of the project, the onsite businesses will generate approximately \$348.7 million in revenues/sales per year (See: Appendix K, "Economic and Fiscal Impact Assessment").



The State of Hawaii will receive \$210.7 million in net tax revenue (profit) during development of the project and \$26 million per year to the State on an annualized basis thereafter. The project will generate \$25.9 million in net tax revenue (profit) during the build-out period and \$2.2 million in annual net tax revenue (profit) to the County of Maui after the build-out period.

The KMCP identifies four areas that have been fully developed and provide some of the commercial needs for south Maui residents, which are: 1) North Kihei, between the existing South Kihei Road, Piilani 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; and 4) along South Kihei Road opposite the Kamaole beach parks. These limited commercial areas were intended to serve the commercial needs of the fastest growing community in the State which has clearly out grown the goods and services available in these areas. The KMCP has designated the Project site for light industrial uses with approved zoning providing for light industrial uses that include neighborhood and regional needs addressing the current and future demand.

While there will inevitably be some cross-over, the Pi'ilani Promenade and Downtown Kihei development will appeal to different customer and tenant types. Downtown Kihei does not offer the exposure, access, intercept or site characteristics that Pi'ilani Promenade does. According to Downtown Kihei market study, the primary patrons of the Project will be visitors.

The Project is intended to focus on providing light industrial and commercial uses for local Maui residents as an alternative shopping destination to Kahului. It is not intended to be directly competitive with the majority of stores along South Kihei Road which attract large numbers of visitors as their primary patrons, or otherwise comprise a significant portion of their customer base.

We anticipate some visitors will patronize the Project but will comprise only a minority of shoppers to selected retail stores and restaurants and not necessarily for the residentoriented anchor tenant and light industrial businesses.

As part of this FEIS, the Hallstrom Group prepared an Economic and Fiscal Impact Assessment for the Project, which includes analysis of the existing commercial properties in Kihei. An inventory of existing occupied and vacant commercial properties was developed and used as part of the economic analysis for the Project. The Economic and Fiscal Impact Assessment was revised to address comments received on the DEIS. Specifically, Table V-4 of the Economic and Fiscal Impact Assessment in the FEIS now includes the accurate County costs and State costs per year.

It is projected that the Project will address sub-regional and regional commercial demand more efficiently than the fragmented commercial space located along South Kihei Road because of its location and visibility and ease of access for residents in west, south and central Maui.

In mid-2014, The Hallstrom Group completed an inventory of the Kihei Retail market and found that about 10 percent of the total floor area in the community was vacant. However, the vacancies were either restaurant spaces (the least stable sector of the market) or in uncompetitive projects or locations (such as along Lipoa Street). All of the quality/competitive spaces along South Kihei Road or in newer, modern centers were occupied. Over the past year numerous new leases have been signed and the vacancy rate in Kihei has dropped below seven percent (2014).

The Hallstrom Group's assessment determines that the problem is not with demand for competitive spaces in the area, but the lack of quality, modern, well-located inventory. Overall the Kihei retail market is strong, and performed better during the recession and recovery than most neighbor island sectors.

This Project will not alleviate the need for other available light industrial and commercial spaces within Kihei to maintain a competitive, and attractive position in the market.

In summary, the Pi'ilani Promenade will create jobs for residents, which will in turn have a positive impact on the rest of the Maui economy. <u>As a new mixed use development, the</u> <u>proposed</u> Pi'ilani Promenade <u>will provide affordable rental housing units and</u> will contribute to the standing of South Maui as a destination for business by offering quality, well-located, building parcel inventory capable of supporting a wide variety of commercial and light industrial use types meeting the demands of companies seeking an accessible location in Kihei.

# 4. Cultural Resources

*Existing Conditions.* Hana Pono LLC. prepared a Cultural Impact Assessment (CIA) for the Pi'ilani Promenade to identify historical and current cultural uses of the project area and to assess the impact of the proposed action on the cultural resources, practices, and beliefs. <u>The CIA included the Honua'ula Affordable Housing development parcel in its</u>

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analysis. The CIA was conducted in accordance with the State of Hawaii Office of Environmental Quality Control (OEQC) guidelines for Assessing Cultural Impact Assessments. In response to consultation with the community and various government agencies, the Applicant retained Scientific Consultant Services (SCS) to prepare a supplemental CIA (the "SCIA") to include supplemental consultation and additional interviews with people who may have knowledge of the area. (See: Appendix I-1 "Supplemental Cultural Impact Assessment Report dated March 2017"). It is noted that the SCIA does not include the Honua'ula Affordable Housing development parcel however SCS has prepared a separate CIA for the Honua'ula Affordable Housing development parcel. (See: Appendix I-2 "Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017").

The project site is located in the Kula Moku and the <del>Waiohuli and</del> Kaonoulu ahupua'a in an area archaeologically known as the "barren zone". Based on a praxis of archaeological studies conducted on the "barren zone" in the region of the Project site, site expectation and site density is low. (See: Appendix I-1 "Supplemental Cultural Impact Assessment <u>Report dated March 2017").</u>

The area of Kihei that includes the project site has been severely disturbed from its original and unaltered state for many decades, by the effects of grazing cattle and the construction of ranch roads, county roads and the construction of Pi'ilani Highway. The CIA indicates that any resources or practices occurring traditionally in the area are <del>no</del> non-existent and would have been obliterated. (**See**: Appendix I "Cultural Impact Assessment Report dated December 2013, revised March and August 2016").

Interviews with individuals (*kūpuna-kapuna*/*makua*) knowledgeable about the lands of the Kaonoulu ahupua'a were conducted in 2013 and in 2016 by of Hana Pono LLC- as part of the CIA, and by SCS in 2016 as part of the SCIA. As noted SCS has prepared a separate CIA for the Honua'ula Affordable Housing development parcel that includes interviews with the same individuals as the SCIA. (See: Appendix I-2 "Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017"). The oral history interviews were conducted in order to collect information on possible pre-historic and historic cultural resources associated with these lands, as well as traditional cultural practices. (See: Appendix I "Cultural Impact Assessment Report dated December 2013, revised March and August 2016"; see also Appendix I-1 "Supplemental Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017").).

A public information <u>and cultural consultation</u> meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the <del>D</del><u>F</u>EIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing the return of the petroglyph boulder (<u>which</u> <u>removed from the Project site and is preserved under a SHPD-approved preservation</u> <u>plan</u>) and potential impacts to Kulanihakoi Gulch (<u>which is not located on the Project site</u>), some of the participants suggested that the <u>potential</u> archaeological sites could be incorporated into the design of the project or into its landscaping and the previously removed petroglyph stone be returned to the property. The Applicant has discussed the possible return of the petroglyph stone and the <u>former</u> owner (<u>Kaonoulu Ranch</u>) rejected this request given the fact that the relocation <u>and a preservation</u> plan was submitted and approved by SHPD.

As a follow up to the February 25, 2014 meeting, the Project team's archaeologist and cultural consultant participated in a site visit on January 22, 2016. Following the January 22, 2016 site visit, a request was made from the Aha Moku for a further cultural consultation meeting. The meeting was held on April 27, 2016, and a transcript of the April 27, 2016 meeting is available as Appendix A to the Supplemental Cultural Impact Assessment. (See: Appendix I-1 "Supplemental Cultural Impact Assessment dated March 2017"). As part of the SCIA, SCS reached out to 21 persons for consultation, 3 of whom responded and wanted to be interviewed.

#### Potential Impacts and Mitigation Measures.

In general, concerns expressed by the community in these site visits, meetings, and cultural consultations focused on the potential presence of undocumented archaeological sites within the Project site that may be impacted by development of the Project. As documented in Section III.8 of this FEIS, an Archaeological Inventory Survey undertaken and completed by Xamanek Researches in July 1994 identified a total of 20 archaeological sites within the Petition Area. The Archaeological Inventory Survey prepared for the DEIS identified an additional archaeological site on the Project. (See: Appendix F, "Archaeological Inventory Survey dated March 2014 revised August 26, 2015").–In addition, To monitor these sites, an archaeological monitoring plan was prepared and submitted to SHPD for review and approval, and was approved and referenced for all recent work on the site. The monitoring plan may be found in Appendix H and will be updated once project construction is initiated. (See: Appendix F, "Archaeological Inventory Survey dated March 2014 revised Inventory H and will be updated once project construction is initiated. (See: Appendix F, "Archaeological Inventory Survey dated March 2014 revised August 26, 2015").

The concerns expressed by those interviewed for the SCIA did not focus on traditional cultural practices previously or currently conducted within the Project area. However,

there is the potential for traditional cultural practices conducted within the greater *ahupua* '*a* to be impacted by development of the Project (*i.e.*, naturally occurring flooding and run-off generated by construction activities within the Project area which may negatively affect the adjacent areas, including Kalepolepo Fishpond and the Pacific Ocean). As discussed in Section III.D.2, the Applicant is proposing several measures to mitigation any potential adverse drainage impacts caused by development of the Project, which includes under- and above-ground stormwater detention basins. For more information on the proposed mitigation measures that will be implemented to provide a level of stormwater filtration and pollution control, please review Section III.D.2 of this FEIS.

The CIA reports that the proposed project <u>will have no has no significant effects impact</u> on-to cultural resources, beliefs, or practices. <u>Given the culture-historical background</u> presented by the CIA and SCIA, in addition to the summarized results of prior archaeological studies in the project area and in the neighboring areas, the CIA and SCIA determined that there are no specific valued cultural, historical, or natural resources within the project area; nor are there any traditional and customary native Hawaiian rights being exercised within the project area. The long-term use of the project area for grazing and ranching activities also supports this conclusion.

The cultural and historical background presented in the CIA prepared by Hana Pono, LLC and the SCIA prepared by SCS, in addition to the findings of prior archaeological studies in the project area and in the neighboring areas, support the findings of the CIA prepared for the Honua'ula offsite workforce housing project. The findings are that there are no specific valued cultural, historical, or natural resources within the project area. Nor are there any traditional and customary native Hawaiian rights being exercised within the project area. (**See:** Appendix I-2 "Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017").

From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or gatherings currently taking place. The oral history interviews did not reveal any known gathering places on the subject property or any access concerns as a result of the proposed project. Therefore it can be concluded that development of the site will not impact cultural resources on the property or within its immediate vicinity (**See**: Appendix I "Cultural Impact Assessment Report <u>dated December 2013, revised</u> <u>March and August 2016</u>").

Notwithstanding the absence of valued resources, the Applicant is willing to continue meetings with the Aha Moku members as well as other members of the community during

the Data Recovery effort proposed for the archaeological sites. The findings of the Archaeological Monitoring program will be conducted under the guidance and directive of the SHPD.

Because there are no valued cultural, historical, or natural resources in the Project site, and because there are no traditional and customary native Hawaiian rights exercised within the Project site, such resources --including traditional and customary native Hawaiian rights--will not be affected or impaired by the Project. Accordingly, there are no feasible actions needed to reasonably protect native Hawaiian rights. See Ka Pa'akai O Ka'Aina v. Land Use Comm'n, State of Hawai'i, 94 Hawai'i 31, 7 P.3d 1068 (2000).

# C. PUBLIC SERVICES

#### 1. Recreational Facilities

*Existing Conditions.* Sub-regional parks include mini-, neighborhood, and district/community parks. Most parks within the South Maui area are located along the coast, and are mainly beach parks with few recreational facilities. Phase I of the South Maui Community Park was completed and opened in 2011, significantly adding to Kihei's inventory of regional park acreage.

The following County public parks and community centers are currently available in the region:

- South Maui Community Park, Phase I;
- Charley Young Park;
- Cove Park;
- Hale Pi'ilani Park;
- Hay craft Park;
- Kalama Park;
- Kalepolepo Park;
- Kamaole Beach Park (I, II, III);
- Kenolio Recreation Complex;
- Keonekai Park;
- Kihei Aquatic Center;
- Kihei Beach Reserve / Waipuilani Park;
- Kihei Community Center;
- Kilohana Park;
- Mai Poina Park / Maipoina OE IAU Beach Park;

- Piikea Park; and
- Poolenalena Park / Chang's Beach.

In addition to County parks, Makena State Park is located in the Kihei-Makena region, encompassing 164-acres of scenic beach park. Numerous recreational facilities, including golf courses and tennis courts, are also present within the region's private hotels.

**Potential Impacts and Mitigation Measures.** A number of existing park facilities, including South Maui Community Park, Kihei Aquatic Center, Kihei Community Center, Kalama Park, and Charley Young Park are within close proximity to the project site.

On-site <u>park open</u> spaces will include a central neighborhood park, totaling approximately two (2) acres and small open spaces throughout the development. The owners of the project will comply with the requirements for Parks and Playgrounds, pursuant to Maui County Code Section 18.16.320. The park assessment requirements are designed to mitigate the incremental impact that new development places upon the region's park facilities. As such, the Pi'ilani Promenade is anticipated to positively impact recreational facilities by providing an approximately 2-acre park site adjacent to the proposed Apartments.

The Applicant met with the County Department of Parks & Recreation on March 13, 2015 to discuss how the parks and playgrounds assessment requirements for the proposed Project can be satisfied in accordance with MCC Section 18.16.320. As a result of the meeting, the Applicant is proposing the following general changes to the on-site park space:

- 1. Inclusion of active play space and facilities within the park areas;
- 2. Inclusion of parking for park users; and
- 3. Possible reconfiguration of the park acreage to create a more contiguous park area.

Additionally, improvements are being made to accommodate pedestrian and bicycle travel adjacent to and within the Project. Recognizing that the availability of existing offstreet pedestrian and bike pathways is limited in south Maui, and that there is a need for projects to offer options other than vehicular access, the Pi'ilani Promenade includes a pedestrian and bike pathway system adjacent to and within the Project site, as shown in Figure 15 "Conceptual Circulation Plan". The red bike lane shown in Figure 15 is located within the Pi'ilani Highway right of way. The blue system shown provides for a series of pedestrian and bike pathways with the Project site and East Kaonoulu Road allowing for safe off street interconnectivity for the public using the various components of the land plan and providing for future connectivity to the areas north, south and east of the Project site.

## 2. Medical Facilities

*Existing Conditions.* Maui Memorial Medical Center, located in Wailuku and approximately 10 miles from the project site, is the island's only acute care hospital. This 240-bed facility provides acute, general, and emergency care services. Various private medical offices and facilities are located in the South Maui area including Kihei Clinic and Wailea Medical Service, Kihei Pediatric Clinic, Kihei Physicians, the Kihei-Wailea Medical Center, Maui Medical Group, and Kaiser Permanente.

*Potential Impacts and Mitigation Measures.* The Project will produce an increase in the population of the immediate area. The <u>minimal</u> increase in population will produce a marginal increase in demand for physicians, dentists, nurses, mental health personnel, and hospital beds. In the context of the overall population growth for the island, the proposed project is not anticipated to produce an overall significant impact to the island's medical facilities.

The Pi'ilani Promenade commercial areas will provide the opportunity for expanded services, such as medical and dental offices to serve the central Kihei area.

### 3. Police and Fire Protection Services

*Existing Conditions.* The Maui Police Department is headquartered at the Wailuku Police Station on Mahalani Street. The Pi'ilani Promenade falls within the Maui Police Department's Kihei Patrol District 6 (Ma'alaea, Kihei, Wailea, Makena). This police district is served by the recently completed Kihei District Police Station located at the intersection of Pi'ilani Highway and Kanani Road, approximately 1.5 miles south of the project site.

There are two fire stations servicing South Maui; Wailea Fire Station and Kihei Fire Station. The Kihei Fire Station is located near Kalama Park on South Kihei Road, about 1.5 miles from the project site, sufficiently proximate to provide adequate fire service to the site. Additionally, a 2-acre fire station facility is planned within the proposed Honua'ula development with Golf Course mauka of the Wailea Resort.

**Potential Impacts and Mitigation Measures.** The Project will produce a minimal increase in the population of the immediate area. The increase in population will produce a marginal increase in demand for police and fire protection services, including personnel, vehicles, and facilities. According to the *Maui County Public Facilities Assessment Update* (R.M. Towill Corporation, 2007) the Maui Police Department's generation rate for officers per 1,000 population is 1.96, and the generation rate for total employees per 1,000 population is 2.56. Assuming the project increases population by 607 people and using the provided generation rates the proposed project is estimated to generate the need for 1.19 additional officers and 1.55 additional total employees.

Increased tax revenues generated by the project will provide additional funds to the County for police and fire capital facility improvements and service upgrades. Additionally, the Project will comply with any impact fee ordinances for police and fire that may be adopted.

#### 4. Schools

*Existing Conditions*. Maui schools are organized into complexes and complex-areas. A complex consists of a high school and all of the intermediate/middle and elementary schools that flow into it. Groups of two to four complexes form a "complex area" that is under the supervision of a complex area superintendent.

The Pi'ilani Promenade site is located within the State Department of Education's (DOE) Maui Complex, within the Baldwin-Kekaulike-Maui Complex-Area. Currently there is capacity at all public schools for additional students. Current and projected enrollment and capacities for area schools are given in Table No.  $2 \frac{4}{2}$ , "DOE School Enrollment & Capacity" below. \***Note:** the "Capacity" column numbers are based on the results of a classroom space survey conducted by DOE in the 2012-13 school year.

Schools	2013- 2014 Enroll- ment	Capacity	2014-2015 Projected Enroll- ment	2014-2015 Enroll- ment	2015-2016 Enroll- ment	2016-2017 Projected Enroll- ment	2016 Enroll- ment	2017-2018 Projected Enroll- ment
Kihei Elementary	947	890	851	<u>864</u>	<u>801</u>	<u>883</u>	<u>786</u>	<u>791</u>
Kamalii Elementary	585	928	584	<u>530</u>	<u>481</u>	<u>542</u>	<u>452</u>	<u>447</u>
Lokelani Intermediate	550	836	525	<u>553</u>	<u>594</u>	<u>593</u>	<u>584</u>	<u>574</u>
Maui High	1908	2035	1967	<u>1931</u>	<u>1906</u>	<u>1861</u>	<u>1941</u>	<u>1977</u>

 Table No. 24
 DOE School Enrollment & Capacity

Source: DOE 2016

Currently, the State DOE is planning to build a new high school for grades 9-12 in Kihei on approximately 77 acres mauka of Pi'ilani Highway between Kulanihakoi and Waipuilani Gulches, south of the Pi'ilani Promenade. <u>Phase I is slated to open in 2017</u> with a design capacity of 930 students, staff and visitors and Phase II is planned to open

in 2025 with a design capacity of 1,941. <u>Based upon consultation with the DOE in April</u> 2016, the high school in Kihei does not have a schedule for opening because the school is still in a pre-design phase. Grading work has started at the site and construction will begin when further funding is available.

Additionally, Kihei Charter School, provides K through 12 education for 546 students <u>and</u> the Kihei Charter School is pursuing building permits to construct a new high school in the MRTP in 2017.

**Potential Impacts and Mitigation Measures.** The Economic <u>and Fiscal</u> Impact Assessment estimates that the proposed project will generate 60-70 students that will attend public schools (**See:** Appendix K, "Economic and Fiscal Impact Assessment").

The Economic and Fiscal Impact Assessment projected that the Project would generate 60-70 students. This projection is based on population/age modeling, and assumes that the children in an affordable apartment project would attend public school. The Economic and Fiscal Impact Assessment based the student generation rate on census data that between 10% and 11.5% of the population is of school age, which equals about 60 to 70 students based on the projected resident population of 607.

The DOE forecasts public school children for Kihei (which is considered part of Central Maui) at the rate of .22 public school children per multifamily unit and at .49 per single family home.

So, applying the DOE formula the total number of anticipated public school attendees from the 226-proposed subject apartment units would be 49.72, rounded to 50 students (.22 X 226).

<u>The Project has not been designed to accommodate a public school site.</u> In 2007, the Hawaii Legislature enacted Act 245 as Section 302A, HRS, "School Impact Fees". Based upon this legislation, the DOE has enacted impact fees for residential developments that occur within identified school impact districts. The Project is within the boundaries of the Central Maui Impact District and is within the Makawao Cost Area of that district. Projects within the district and cost area pay a construction fee and either a fee-in-lieu of land or a land donation, at the DOE's discretion. The Economic Impact Assessment estimates the projects impact fee is \$535,846.00 \$553,926.00 (See: Appendix K, "Economic and Fiscal Impact Assessment"). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement that will help finance the construction of a school facilities in Kihei.

The Applicant had discussions with the DOE on the Project and is still designing the rental apartment portion of the Project and will enter into a written agreement with the DOE after the EIS and LUC review process has concluded.

To clarify, there was an estimation of the impact fee error in the DEIS and Economic and Fiscal Impact Analysis. The Project site contains land located within the Makawao Cost Area, and the appropriate school impact fee amount will be settled in the written agreement.

### 5. Solid Waste

*Existing Conditions.* The Department's Residential Collection program collects and disposes of residential waste in three major districts: Wailuku (including Kahului and South Maui), Makawao (including Kula, Pukalani, Paia, and Haiku) and Lahaina (West Maui). <u>The Project is located in the Wailuku waste district.</u> Weekly, <u>single-family</u> residential solid-waste collection in the area is provided by the County of Maui, Department of Environmental Management (DEM), Solid Waste Division. <u>The proposed</u> <u>multi-family apartments are required to contract a private refuse company to handle solid waste generated by the apartment residents.</u>

The Central Maui Landfill, which is located in the Wailuku-Kahului Community Plan region, receives residential solid waste from the area. Green waste is <u>processed</u> <del>collected</del> by Eko Compost, which is located at the Central Maui Landfill. Construction and demolition (C&D) waste is accepted at the privately operated C&D Landfill in Ma'alaea.

Plastic, glass, metal, cardboard, and newspaper can be recycled when left at various dropboxes throughout the County. <u>Additional</u> green waste recycling is provided by several private organizations.

**Potential Impacts and Mitigation Measures.** The proposed project will consist of industrial, commercial and multi-family uses therefore the owners are required to contract a private refuse company to handle solid waste generated at the project site. <u>The County's DEM</u>, 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.<sup>6</sup> 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.

<sup>&</sup>lt;sup>6</sup> Gershman, Brickner & Bratton, Inc. February 2009. *Integrated Solid Waste Management Plan*. Prepared for County of Maui Department of Environmental Management Solid Waste Division.

Using the above rates, after full build-out and occupancy of all 226 residential apartment units and commercial units employing an estimated 1,210 people at the Project site, total waste generated is estimated to be approximately (2,431.60) 2,432 tons per year. ( $2.3 \times 226$ = 519.80 tons per year) ( $1.58 \times 1,210 = 1,911.80$  tons per year) (519.8 + 1911.8 = 2,431.6rounded to 2,432 tons per year)

Using the County's waste diversion rate of 30 percent, total waste from the Project site is estimated to be approximately 1,702 tons per year. Achieving the County's waste diversion rate of 50 percent by 2030 would reduce the Project's waste to 1,216 tons per year.

In 2009 the Integrated Solid Waste Management Plan (ISWMP) for Maui County was updated and projected that the Central Maui Landfill will have adequate capacity to accommodate Residential and Commercial waste through the year 2026. 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 year. The County's Department of Environmental Management, Solid Waste Division, anticipates that additional phases of the Central Maui Landfill will be developed as needed to accommodate future waste.

Waste generated by site preparation will primarily consist of rocks, and debris from clearing, grubbing, and grading. Very little demolition material is expected, as the site is vacant.

During the short term, construction activities will require the disposal of the existing onsite waste, as well as cleared vegetation and construction-related solid waste. A solid waste management plan will be coordinated with the County's Solid Waste Division for the disposal of onsite and construction-related waste material. The applicants will work with the contractor to minimize the amount of solid waste generated during the construction of the project.

In addition the project will provide on-site recycling opportunities for residents in an effort to reduce solid waste entering the landfill.

# 6. Civil Defense

*Existing Conditions.* The State of Hawaii Civil Defense recently installed a new emergency siren at the Kihei Community Center which provides coverage for a majority of central Kihei.

**Potential Impacts and Mitigation Measures.** Except as stated below, no comments on civil defense issues were received during the DEIS comment period and no requests from Civil Defense were received.

In response to comments from LUC, the Applicant has contacted the Maui County Civil Defense Agency on several occasions and has not received any comments to date. The Maui County Civil Defense Agency was provided a copy of the DEIS for comment in August 2014, and after receiving no comment the Applicant's planning consultant hand delivered a hardcopy of summary documents and figures, and a copy of the DEIS on December 11, 2014. The Applicant is willing to consider recommendations from Maui County Civil Defense Agency, should they provide comment on the proposed project.

Furthermore, Condition 4 of the 1995 Decision and Order states that the "Petitioner shall fund and construct adequate civil defense measures as determined by the State and County Civil Defense Agencies". The Applicant does not seek any modification or deletion of Condition 4.

# D. INFRASTRUCTURE

# 1. Roadways

*Existing Conditions:* A Traffic Impact Analysis Report\_was prepared <u>for the DEIS</u> by Phillip Rowell and Associates, Inc. in June 2014 which describes the traffic characteristics of the proposed project and likely impacts to the adjacent roadway network (See: Appendix M, "Traffic Impact Analysis Report <u>dated June 6, 2014</u>"). The Traffic Impact Assessment Report (TIAR) was prepared by Phillip Rowell and Associates in June 2014 for the DEIS. Once the DEIS was published for comment, due to severe medical complications, Mr. Rowell was physically unable to complete his analysis and respond to the comments received on the DEIS and the Applicant elected to engage another consultant with the task of fully updating the TIAR and assisting with the responses to comments. The TIAR was updated in December 2016 by a new transportation consultant, SSFM International, which included revised estimated automobile trips generated by the project utilizing current traffic count data, input from the State DOT, and a further

analysis of other proposed projects in south Maui. (See: Appendix M-1, "Traffic Impact Analysis Report Update, dated December 20, 2016").

The singular access route into and out of the Project area will be the first increment of the KUH at the intersection of Pi'ilani Highway and Kaonoulu Street.

#### **Existing Roadway System**

**Pi'ilani Highway** provides primary regional mobility for the Kihei and Wailea-Makena areas. Pi'ilani Highway is a four-lane, undivided highway with a north-south orientation connecting Mokulele Highway to the north with Wailea Resort to the south. The posted speed limit is 40 miles per hour south of Ohukai Road and 45 <u>40</u> miles per hour north of Ohukai Road.

**Ohukai Road** is a two-lane, two-way street, but widens to provide two approach lanes as it approaches Pi'ilani Highway. The posted speed limit is 20 miles per hour. Both the eastbound and westbound approaches provide a through and left turn lane and a separate right turn lane. The eastbound and westbound approaches move concurrently, which means that left turns are permitted rather than protected. The eastbound approach has been modified to provide one left turn lane, one through lane and one right turn lane. The westbound approach has been modified to provide one left turn lane, one left turn lane, an optional left turn or through lane and one right turn lane.

**Kaonoulu Street** currently connects Pi'ilani Highway with South Kihei Road. Currently, it is a two-lane, two-way street with separate left turn lanes at intersections. The posted speed limit is 20 miles per hour. The intersection with Pi'ilani Highway is currently an unsignalized, T-intersection.

**Kaiwahine Street** is a two-lane, two-way residential collector street connecting the project with Pi'ilani Highway. The posted speed limit is 20 miles per hour. Residential parking is allowed along both sides of the street. Uwapo Road is an extension of Kaiwahine Street west of Pi'ilani Highway to South Kihei Road. <u>No Project related traffic will be routed onto Kaiwahine Street</u>. The singular access route into and out of the Project area will be the first increment of the KUH.

**Uwapo Road** is a two-lane, two-way roadway. There is no development along the north side and there are multi-family residential units along the south side. No parking is allowed along either side. The assumed speed limit is 20 miles per hour.



**South Kihei Road** is a collector road providing north-south mobility and property access within the Kihei Community. It is generally a two-lane roadway. Major segments of South Kihei Road have been improved to provide either a median turn lane or parallel parking on the makai-side. Sidewalks were provided on these enhanced segments along with striped bike lanes. Unimproved sections of South Kihei Road usually have only two undivided traffic lanes. The posted speed limit on South Kihei Road is <u>25</u> <u>30</u> miles per hour <u>along most of its length, with 20 mph in select locations due to roadway conditions.</u>

#### **Bicycle and Pedestrian Access**

No dedicated bicycle facilities or sidewalks currently exist at the vacant site. Bicycles share the pavement with motor vehicles along Pi'ilani Highway. <u>Moderate pedestrian and bicycle volumes were counted at the Project intersections during the AM, PM and Saturday peak hours (See: Tables 5 & 6 of Appendix M-1, Traffic Impact Analysis Report Update dated December 20, 2016) near the Project area. Saturday volumes were higher than weekday volumes which is reflective of the use of the roads more for recreational riding than commuting.</u>

#### **Public Transit**

The island of Maui is served by the Maui Public Bus Transit System, operated by Maui County. Kihei is served by the Kihei Villager and Islander bus routes. The Kihei Islander route extends further to the north and south, connecting Kahului to Makena via Ma'alaea and Kihei. Both routes operate with a headway of one hour throughout the day. Within Kihei, the Maui buses use South Kihei Road. The closest bus stop to the site is located at the intersection of Kaonoulu Street and South Kihei Road.

#### **Existing Traffic Volumes**

<u>As part of the TIAR update</u>, traffic turning movement counts were conducted at the following study area intersections in May and October 2013 on January 12, 2016 at the following intersections shown in Table No. 3 <u>5</u>.

Table No. <u>3</u> <u>5</u> Existing Traffic Volumes, <u>Jurisdiction and Control Status</u>											
Intersection Jurisdiction Existing Right-of-Way Contr											
North Kihei Road at South Kihei Road	State	Signals									
Pi'ilani Highway at North Kihei Road	State	Signals									
Pi'ilani Highway at Kaiwahine Street /Uwapo Road	State	Signals									
Pi'ilani Highway at Ohukai Road	State	Signals									

82	240	
Pi'ilani Highway at Piikea Avenue	State	Signals
Pi'ilani Highway at Kaonoulu Street	State	Stop Sign
Kaonoulu Street at South Kihei Road	County	Stop Sign
Pi'ilani Highway at Kulanihakoi Street	State	Stop Sign
Kaonoulu Street at Kenolio Road	County	Stop Sign
Kaonoulu Street at Alulike Street	County	Stop Sign

#### **Existing Intersection Operations**

The intersections <u>noted in Table No. 5</u> were analyzed during weekdays from 6:00-9:00AM and 3:00-6:00PM and the Saturday traffic counts were performed from 10:00AM to 2:00PM.

Operating conditions at an intersection by approach are expressed as a qualitative measure known as Level of Service (LOS) ranging from A to F. LOS A represents freeflow operations with low delay, while LOS F represents congested conditions with relatively high delay. The overall intersection LOS is a weighted average of the LOS of individual traffic movement groups. Field observations were performed at selected intersections to verify the results of the intersection analyses. Table No. 4 <u>6</u> displays the existing (2016) conditions level of service (LOS) for each signalized and un-signalized intersection, volume to capacity ratio (v/c) and delay were determined for the weekday AM and PM and weekend (Saturday) mid-day peak hours (see Table No. 6).

Existing (2016) unsignalized and signalized intersection LOS, v/c ratio and delay were determined for the weekday AM and PM and weekend (Saturday) mid-day peak hours (see Table No. 6). All signalized intersection LOS resulted in LOS D or better; however, individual traffic movements for the signalized and unsignalized intersections resulted in LOS E or F conditions with some having v/c greater than 1.0. The worst conditions were seen for the minor movements at the unsignalized intersections of Pi'ilani Highway at Piikea Avenue, Pi'ilani Highway at Kaonoulu Street, and Pi'ilani Highway at Kulanihakoi Street which resulted in LOS F conditions and high v/c. Detailed analysis reports for these intersections during Existing (2016) conditions are provided in Appendix D of the TIAR update.

Table 4	2013 Lovals-of-Service of Signalized Intersections
<del>1 abie 4</del>	<u>2013 Levels-01-Service of Signalized Intersections</u>

	A	<del>M Peak H</del> e	əur	P	<del>A Peak He</del>	<del>ur</del>	Saturday Peak Hour		
Intersection and Lane Group	<del>V/C</del>	<del>Delay 1</del>	LOS-2	<del>V/C</del>	<del>Delay</del>	LOS	<del>V/C</del>	<del>Delay</del>	LOS
<del>Pi'ilani-Highway at Ohukai Road</del>	<del>0.95</del>	<del>46.7</del>	₽	<del>0.87</del>	<del>50.3</del>	₽	<del>0.88</del>	<u>29.7</u>	C
Eastbound Left & Thru	<del>0.88</del>	<del>80.6</del>	F	<del>0.97</del>	<del>122.0</del>	F	<del>0.85</del>	<del>50.1</del>	Ð
-castbound Right	0.08	<del>46.8</del>	Ð	0.06	60.4	E	0.11	<del>26.6</del>	e
Westbound Left & Thru	<del>1.05</del>	<del>116.6</del>	F	<del>0.91</del>	<del>84.4</del>	F	<del>0.71</del>	<del>37.9</del>	Ð

			-265						
Westbound Right	<del>0.13</del>	44.4	Ð	<del>0.12</del>	<del>49.4</del>	Ð	0.03	<del>26.7</del>	e
Northbound Left	<del>0.36</del>	<del>61.1</del>	E	0.70	<del>47.1</del> 67.9	E	0.60	40.8	Ð
Northbound Thru	0.86	<del>31.7</del>	Ę	0.70 0.87	47.5	Ð	0.00 0.92	32.5	e
Northbound Right	0.04	<del>13.0</del>	B	0.08	<del>30.4</del>	e	0.10	15.2	B
Southbound Left	0.91 0.91	100.0	F	0.71	<del>90.1</del>	<del>F</del>	0.68	40.9	Ð
Southbound Thru	0.97	37.3	Ð	0.85	33.6	e	0.82	<del>23.4</del>	Ę
Southbound Right	0.06	2.6	A	0.08	7.4	A	0.05	<del>12.9</del>	B
Pi'ilani Highway at Kaiwahine Street	<del>0.69</del>	<del>32.0</del>	e	<del>0.64</del>	<del>33.3</del>	e	<del>0.55</del>	<del>10.4</del>	B
Eastbound Left & Thru	0.87	77.6	E	0.82	<del>93.9</del>	F	0.55	30.0	e
Eastbound Right	0.11	41.4	₽	0.06	<del>58.0</del>	Ē	0.05	24.2	C
Westbound Left & Thru	<del>0.61</del>	<del>52.2</del>	Ð	0.51	<del>63.5</del>	E	0.43	<del>27.4</del>	e
Westbound Right	<del>0.06</del>	<del>40.9</del>	Ð	0.04	<del>57.8</del>	E	<del>0.03</del>	24.1	e
Northbound Left	0.28	<del>31.8</del>	e	0.50	<del>57.2</del>	E	0.49	<del>30.5</del>	e
Northbound Thru	0.64	<del>30.3</del>	C	0.61	<del>32.6</del>	C	0.51	7.5	A
Northbound Right	0.04	<del>42.6</del>	Ð	0.07	<del>36.3</del>	Ð	0.03	<del>5.1</del>	A
Southbound Left	<del>0.38</del>	<del>45.1</del>	Ð	<del>0.60</del>	<del>51.4</del>	Ð	0.55	<del>30.9</del>	e
Southbound Thru	<del>0.57</del>	<del>23.1</del>	e	<del>0.54</del>	<del>22.2</del>	e	<del>0.59</del>	7.7	A
Southbound Right	<del>0.02</del>	<u>12.9</u>	B	<del>0.05</del>	<u>26.9</u>	C	0.05	4.7	A
<del>Pi'ilani-Highway at North Kihei Road</del>	<del>0.66</del>	<del>30.5</del>	e	<del>0.86</del>	<del>48.0</del>	Ð	<del>0.58</del>	<del>16.6</del>	B
Eastbound Left	<del>0.70</del>	<del>70.8</del>	E	0.82	<del>65.4</del>	E	<del>0.55</del>	<del>31.2</del>	e
Eastbound Left & Thru	<del>0.72</del>	72.0	E	<del>0.86</del>	<del>71.2</del>	E	<del>0.55</del>	<del>31.0</del>	e
Eastbound Right	<del>0.22</del>	<del>26.7</del>	e	<del>0.09</del>	<del>134.3</del>	F	<del>0.15</del>	<del>15.2</del>	₿
<del>Westbound Left, Thru &amp; Right</del>	0.31	<del>60.0</del>	E	<del>0.84</del>	<del>83.6</del>	F	0.06	<del>32.4</del>	e
Northbound Left	0.71	<u>41.2</u>	Ð	0.89	77.4	E	0.55	<u>27.0</u>	C
Northbound Thru & Right	<del>0.54</del>	<del>19.2</del>	B	<del>0.61</del>	<del>15.3</del>	B	<del>0.45</del>	<del>8.3</del>	A
Southbound Left	<del>0.73</del>	<del>172.3</del>	F	<del>0.57</del>	<del>86.1</del>	F	<del>0.60</del>	<del>62.4</del>	E
Southbound Thru	<del>0.66</del>	<del>27.0</del>	e	<del>0.82</del>	<del>41.6</del>	Ð	<del>0.70</del>	<del>17.9</del>	₿
Southbound Right	<del>0.08</del>	<del>18.1</del>	₿	<del>0.18</del>	<u>25.7</u>	C	0.11	<del>12.0</del>	B
<del>North Kihei Road at South Kihei Road</del>	<del>0.39</del>	<del>19.5</del>	B	<del>0.53</del>	<del>22.4</del>	e	<del>0.51</del>	<del>10.4</del>	B
Eastbound Thru	<u>0.27</u>	<u>9.7</u>	A	<del>0.54</del>	<u>29.3</u>	C	<del>0.39</del>	<u>9.9</u>	A
Eastbound Right	0.14	<del>8.6</del>	A	<del>0.30</del>	<del>24.5</del>	e	0.20	<del>8.7</del>	A
Westbound Left	<del>0.59</del>	<del>57.3</del>	E	<del>0.58</del>	<del>25.4</del>	e	<del>0.70</del>	<del>26.6</del>	e
Westbound Thru	<del>0.17</del>	<del>1.3</del>	A	<del>0.16</del>	<del>3.7</del>	A	<del>0.13</del>	<del>3.3</del>	A
Northbound Left	<del>0.75</del>	<del>54.2</del>	Ð	<del>0.32</del>	<u>44.2</u>	Ð	<del>0.47</del>	<del>16.7</del>	₿
Northbound Right	<del>0.13</del>	<del>0.0</del>	A	<del>0.12</del>	<del>0.0</del>	A	<del>0.11</del>	<del>0.0</del>	A
<del>Pi'ilani-Highway at Piikea Avenue</del>	<del>0.71</del>	<del>19.2</del>	₿	<del>0.98</del>	<del>19.8</del>	B	<del>0.73</del>	<del>16.3</del>	₿
Eastbound Left	<del>0.87</del>	<del>71.2</del>	E	<del>0.99</del>	<del>113.8</del>	F	<del>0.76</del>	<del>29.4</del>	e
Eastbound Right	<del>0.51</del>	47.4	Ð	<del>0.66</del>	<del>71.8</del>	E	<del>0.17</del>	<del>18.5</del>	B
Northbound left	<del>0.67</del>	<del>27.9</del>	e	<del>0.96</del>	<del>57.8</del>	E	<del>0.74</del>	<del>32.7</del>	e
Northbound Thru	0.41	<del>6.0</del>	A	<del>0.54</del>	<del>6.7</del>	A	<del>0.45</del>	<del>6.4</del>	A
Southbound Thru	<del>0.60</del>	<del>12.0</del>	₿	<del>0.46</del>	<del>1.7</del>	A	<del>0.71</del>	<del>18.7</del>	₿
Southbound Right	<del>0.25</del>	<del>31.3</del>	e	<del>0.25</del>	<del>0.8</del>	A	<del>0.24</del>	<del>13.4</del>	₿

NOTES:

(1) (2)

Delay is in seconds per vehicle. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of Service is based on

delay. See Appendix B for Level of Service Analysis Worksheets..... (3)

	AM Pea	<del>k Hour</del>	PM Pea	<del>k Hour</del>	Saturday I	Peak Hou
Intersection and Lane Group	<del>Delay 1</del>	LOS-2	<del>Delay</del>	LOS	<b>Delay</b>	LOS
Pi'ilani Highway at Kaonoulu Street	<del>11.5</del>	₿	<del>1.8</del>	$\boldsymbol{A}$	<del>1.7</del>	$\boldsymbol{A}$
Eastbound Left	<del>72.3</del>	Ē	<del>36.0</del>	Ē	24.0	C
Eastbound Right	<del>122.6</del>	Ŧ	<del>24.2</del>	e	<del>15.6</del>	e
Northbound Left	20.7	e	<del>16.9</del>	e	<del>12.4</del>	B
South Kihei Road at Kaonoulu Street	<u>2.7</u>	$\boldsymbol{A}$	<u>2,9</u>	$\boldsymbol{A}$	<u>3.2</u>	$\boldsymbol{A}$
Westbound Left	<del>29.6</del>	Ð	4 <del>2.7</del>	E	<del>32.7</del>	Ð
Westbound Right	<del>13.5</del>	₿	<del>12.8</del>	₿	<del>12.5</del>	B
Southbound Left	<del>0.6</del>	A	<del>1.9</del>	A	<del>0.6</del>	A
Pi'ilani Highway at Kulanihakoi Street	<del>5.0</del>	A	<del>2.0</del>	$\boldsymbol{A}$	<del>1.4</del>	A
Eastbound Left	<del>159.2</del>	0	<del>62.5</del>	F	<del>23.7</del>	e
Eastbound Right	<u>44.2</u>	E	<del>24.0</del>	e	<del>15.0</del>	e
Northbound Left	24.4	e	<del>19.3</del>	e	<del>11.8</del>	₿
Kaonoulu Street at Kenolio Road	7.5	A	<del>5.4</del>	A	<del>5.7</del>	A
Eastbound Left	7.5	A	<del>7.6</del>	A	<del>7.5</del>	A
Westbound Left	7.4	A	<del>7.5</del>	A	7.4	A
Northbound Left	-0.0	A	<del>0.0</del>	A	<del>0.0</del>	A
Northbound Thru & Right	<del>9.1</del>	A	<del>10.0</del>	B	<del>9.6</del>	A
Southbound Left	<del>14.5</del>	B	<del>14.4</del>	B	<del>12.2</del>	B
Southbound Thru & Right	<del>9.1</del>	A	<del>10.2</del>	B	<del>9.1</del>	A
<del>Kaonoulu Street at Alulike Street</del>	<del>3.8</del>	A	<del>3.4</del>	A	<del>5.0</del>	A
Eastbound Left	7.4	A	7.5	A	7.5	A
Westbound Left	7.4	A	<del>7.5</del>	A	7.5	A
Northbound Left, Thru & Right	<del>10.2</del>	B	<del>11.3</del>	A	<del>10.9</del>	₿
Southbound Left, Thru & Right	<del>9.0</del>	A	9.5	A	<del>10.2</del>	B

#### Table 5 - 2013 Levels-of-Service of Unsignalized Intersections

NOTES: (1) (2) (3)

—Delay is in seconds per vehicle.
—LOS denotes Level of Service calculated using the operations method described in *Highway Capacity Manual*. Level of Service is based on delay.
—See Appendix B for Level of Service Analysis Worksheets.

			<u>Table 6</u>	: Existing	<u>g (2016)</u>	Interse	<u>ction Lev</u>	<u>el of Se</u>	<u>ervice</u>			
App         Mvmt         Delay         v/c         LOS         Delay         v/c         LOS         Delay         v/c           Signatived         47.3         :         D         26.0         :         C         24.2         :           EB         I         51.4         0.42         D         62.9         0.32         E         31.020           Bighway         B         0.0         0.00         *         0.0         0.00         :         0.0         0.0	Intersection	<u>Traffic</u>	<u>Control</u>	AM	Peak H	our	PM I	Peak H	our	Weeke	nd Peal	<u> K Hour</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	mersection	Appr	<u>Mvmt</u>	Delay	<u>v/c</u>	LOS	Delay	<u>v/c</u>	LOS	Delay	<u>v/c</u>	LOS
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Sign	alized	47.3	-	D	26.0	-	С	24.2	-	<u>C</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					0.74			0.71			0.65	D
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		EB						_				<u>C</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		<u></u>	_									*
Highway and Ohukai         WB         T         40.0         0.10         D         52.6         0.18         D         28.9         0.12           Road         R         0.0         0.00         *         0.0         0.00         *         0.0         0.00           Road         MB         T         57.4         0.25         E         68.4         0.44         E         36.5         0.22         0.0         0.00         * <t< td=""><td>Pi'ilani</td><td></td><td></td><td></td><td></td><td>F</td><td></td><td></td><td>F</td><td></td><td></td><td>D</td></t<>	Pi'ilani					F			F			D
and Ohukai Road $\  \  \  \  \  \  \  \  \  \  \  \  \  \$		WB		40.0	0.10	D	52.6	0.18		28.9	0.12	C
Road $\  \  \  \  \  \  \  \  \  \  \  \  \  $			<u>R</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
NB         R         0.0         0.00 $\frac{1}{2}$ 0.0         0.00 $\frac{1}{2}$ 0.0         0.00           SB         I         47.5         0.79         D         1.7         0.72         A         18.4         0.67           BB         I         47.5         0.79         D         1.7         0.72         A         18.4         0.67           R         0.0         0.00 $\frac{2}{2}$ 0.0         0.00           R         0.0         0.00 $\frac{2}{2}$ 0.0         0.00 $\frac{2}{2}$ 0.0         0.00					0.25		<u>68.4</u>	0.44		36.5	0.29	D
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		<u>NB</u>	-	<u>31.3</u>	<u>0.71</u>	<u>C</u>	<u>29.9</u>	<u>0.79</u>	<u>C</u>	<u>24.9</u>	<u>0.78</u>	<u>C</u>
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			<u>R</u>	<u>0.0</u>	0.00		<u>0.0</u>	0.00	_	0.0	0.00	*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			_						E			<u>C</u>
Pi'ilani Highway and Uwapo Road/ Kaiwahine Street         Signalized I         6.1         r.         A         5.5         r.         A         8.3         r.           Highway and Uwapo Road/ Kaiwahine Street         LT         52.7         0.43         D         69.9         0.01         E         28.4         0.25           MB         LT         56.1         0.60         E         71.6         0.48         E         29.0         0.32           MB         L         58.9         0.48         E         71.1         0.64         E         30.3         0.45           R         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00           SB         T         0.5         0.50         A         6.1         0.57         A         6.3         0.51           B         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.0		<u>SB</u>										<u>B</u>
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		<u>Sign</u>	alized	<u>6.1</u>	Ξ	<u>A</u>	<u>5.5</u>	Ξ	<u>A</u>	<u>8.3</u>	=	<u>A</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		FB					<u>69.9</u>					<u>C</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Pi'ilani					-						*
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		WB			_			_				<u>C</u>
Kinky         NB $I$ 0.5         0.50         A         6.1         0.57         A         6.3         0.54           Street         R         0.0         0.00 $*$ 0.0         0.00         0.00 $*$ 0.0         0.00         0.00 $*$ 0.0         0.00         0.0         0.00 <th< td=""><td>and Uwapo</td><td><u></u></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>_</td><td></td><td></td><td>*</td></th<>	and Uwapo	<u></u>				_			_			*
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$								_			_	<u>C</u>
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		<u>NB</u>	_						_			<u>A</u>
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Street							_				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		CD										<u>C</u>
Pi'ilani         Signalized         19.3         :         B         22.4         :         C         15.7         :           Highway $EB$ $LT$ 56.6         0.64         E         69.0         0.67         E         37.8         0.58           MB $LT$ 56.6         0.64         E         69.0         0.67         E         37.8         0.58           MB $L$ 58.2         0.12         E         70.0         0.30         E         40.6         0.00           and North $WB$ $L$ 47.7         0.86         D         60.3         0.87         E         37.1         0.71           MB $T$ 0.4         0.42 $A$ 0.5         0.49 $A$ 7.1         0.45           MB $T$ 0.4         0.42 $A$ 0.5         0.49 $A$ 7.1         0.45           MB $T$ 0.4         0.42 $A$ 0.5         0.49 $A$ 7.1         0.45           South Kihei $R$ 0.0         0.00 $*$ 0.0		<u>50</u>	_						_			<u>A</u> *
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		EB										<u>D</u>
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Highway and North Kihei Road         IR         62.0         0.35         E         90.9         0.69         F         41.3         0.02           MB         I         47.7         0.86         D         60.3         0.87         E         37.1         0.71           MB         I         0.4         0.42         A         0.5         0.49         A         7.1         0.45           R         0.0         0.00         *         0.0         0.00         *         0.0         0.00           SB         I         98.2         0.53         F         93.5         0.56         F         67.4         0.53           SB         I         17.3         0.54         B         20.3         0.65         C         13.1         0.52           R         0.0         0.00         *         0.0         0.00         *         0.0         0.00           SB         I         17.3         0.54         B         20.3         0.65         C         13.1         0.52           R         0.0         0.00         *         0.0         0.00         *         0.0         0.00         *         0.00	<u>Pi'ilani</u>	WB										D
Kihei Road         NB $\underline{T}$ $\underline{0.4}$ $\underline{0.42}$ $\underline{A}$ $\underline{0.5}$ $\underline{0.49}$ $\underline{A}$ $\underline{7.1}$ $\underline{0.45}$ R         0.0         0.00 $\frac{*}{-}$ 0.0         0.00 $\frac{*}{-}$ 0.00												<u>D</u>
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South Kihei $\underline{EB}$ $\underline{T}$ $\underline{8.9}$ $\underline{0.29}$ $\underline{A}$ $\underline{12.3}$ $\underline{0.35}$ $\underline{B}$ $\underline{11.6}$ $\underline{0.51}$ Road and $\underline{R}$ $\underline{0.0}$ $\underline{0.00}$ $\underline{*}$ $\underline{0.00}$ $\underline{0}$ $\underline{0}$ </td <td></td> <td>Sim</td> <td></td> <td></td> <td></td> <td>- C</td> <td></td> <td></td> <td>- -</td> <td></td> <td></td> <td><u> </u></td>		Sim				- C			- -			<u> </u>
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	<u>ittau</u>											B
$\frac{NB}{R} = \frac{53.6}{53.6} = \frac{0.79}{D} = \frac{0.61}{76.9} = \frac{0.61}{2} = \frac{14.6}{14.6} = \frac{0.41}{0.64}$		<u>NB</u>										B

Table 6: Existing (2016) Intersection Level of Service

Intersection	<u>Traffic</u>	<u>Control</u>	AM	Peak H	our	<u>PM I</u>	Peak Ho	<u>our</u>	Weeke	nd Peak	<u> Hour</u>
intersection	<u>Appr</u>	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
	<u>Sign</u>	alized	20.4	=	<u>C</u>	<u>23.0</u>	=	<u>C</u>	<u>13.3</u>	=	<u>B</u>
Pi'ilani	EB	L	<u>72.0</u>	0.89	E	<u>80.4</u>	0.91	<u>F</u>	<u>30.2</u>	0.81	<u>C</u>
<u>Highway</u>		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
<u>and Piikea</u>	NB	<u>L</u>	<u>73.1</u>	0.85	<u>E</u>	<u>83.5</u>	0.90	<u>F</u>	<u>38.2</u>	0.81	<u>D</u>
<u>Avenue</u>		<u>T</u> T	<u>5.0</u> 17.7	<u>0.40</u> 0.74	<u>A</u> B	<u>7.5</u> 20.2	<u>0.58</u> 0.65	<u>A</u> C	<u>4.8</u> 13.1	0.45 0.62	<u>A</u> B
	<u>SB</u>	R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
<u>Pi'ilani</u>	<u>Unsig</u>	nalized	=	<u> </u>		=	=	-	=	=	-
<u>Highway</u>	<u>NB</u>	L	<u>17.7</u>	<u>0.14</u>	<u>C</u>	<u>18.6</u>	<u>0.24</u>	<u>C</u>	<u>12.6</u>	<u>0.14</u>	B
<u>and</u> Kaonoulu	ED	L	<u>500+</u>	<u>1.35</u>	F	<u>500+</u>	<u>1.61</u>	F	<u>201.5</u>	<u>0.67</u>	<u>F</u>
<u>Street</u>	<u>EB</u>	<u>R</u>	<u>53.1</u>	<u>0.79</u>	<u>F</u>	<u>25.1</u>	<u>0.38</u>	<u>D</u>	<u>16.3</u>	<u>0.24</u>	<u>C</u>
	<u>Unsig</u>	nalized	=	=	Ξ	=	=	=	=	=	=
<u>South Kihei</u> <u>Road and</u>	<u>SB</u>	L	<u>8.6</u>	<u>0.01</u>	<u>A</u>	<u>9.1</u>	<u>0.03</u>	<u>A</u>	<u>8.9</u>	<u>0.03</u>	<u>A</u>
<u>Kaonoulu</u> Street	WB	<u>L</u>	<u>20.4</u>	<u>0.22</u>	<u>C</u>	<u>32.2</u>	<u>0.27</u>	<u>D</u>	<u>30.7</u>	<u>0.32</u>	<u>D</u>
	<u>VVD</u>	<u>R</u>	<u>11.8</u>	<u>0.04</u>	<u>B</u>	<u>12.7</u>	<u>0.05</u>	<u>B</u>	<u>12.3</u>	<u>0.03</u>	<u>B</u>
<u>Pi'ilani</u>	<u>Unsig</u>	nalized	<u>-</u>	<u> </u>	=	<u>-</u>	<u> </u>	=	<u>-</u>	<u> </u>	=
<u>Highway</u> and	<u>NB</u>	<u>L</u>	<u>19.7</u>	<u>0.15</u>	<u>C</u>	<u>17.2</u>	<u>0.16</u>	<u>C</u>	<u>12.3</u>	<u>0.08</u>	<u>B</u>
<u>Kulanihako</u>	<u>EB</u>	<u>L</u>	<u>500+</u>	<u>4.21</u>	<u>F</u>	<u>500+</u>	<u>2.51</u>	<u>F</u>	<u>304.4</u>	<u>1.05</u>	<u>F</u>
<u>i Street</u>		<u>R</u>	<u>37.6</u>	<u>0.57</u>	<u>E</u>	<u>24.3</u>	<u>0.36</u>	<u>C</u>	<u>15.5</u>	<u>0.18</u>	<u>C</u>
	<u>Unsig</u>	nalized	<u>-</u>	=	<u>-</u>	<u>-</u>	=	Ξ	<u>-</u>	<u>_</u>	Ξ
	<u>NB</u>	L	<u>9.5</u>	<u>0.01</u>	<u>A</u>	<u>0.0</u>	<u>0.00</u>	<u>A</u>	<u>10.2</u>	<u>0.01</u>	<u>B</u>
<u>Kenolio</u> Road and	IND	TR	8.8	0.03	A	<u>9.3</u>	0.02	A	<u>9.3</u>	0.02	A
<u>Koad and</u> Kaonoulu	EB	L	7.4	0.02	A	<u>7.7</u>	0.03	A	<u>7.5</u>	0.03	<u>A</u>
Street	WB	<u>L</u>	<u>7.3</u>	<u>0.01</u>	<u>A</u>	<u>7.3</u>	<u>0.01</u>	A	7.4	<u>0.01</u>	<u>A</u>
	CD	L	<u>10.9</u>	0.22	B	<u>11.6</u>	0.13	B	<u>11.1</u>	0.14	B
	<u>SB</u>	TR	8.8	0.01	A	<u>9.2</u>	0.02	A	<u>9.1</u>	0.02	A
	<u>Unsig</u>	nalized	=	=	Ξ	=	=	Ξ	=	=	Ξ
<u>Kaonoulu</u> Street and	<u>NB</u>	LTR	<u>9.6</u>	0.02	<u>A</u>	<u>10.7</u>	0.01	B	<u>10.0</u>	0.02	<u>B</u>
<u>Alulike</u>	EB	L	<u>7.3</u>	0.02	<u>A</u>	7.4	0.05	A	7.4	0.02	<u>A</u>
Street	<u>WB</u>	L	<u>7.3</u>	<u>0.01</u>	<u>A</u>	<u>7.4</u>	<u>0.01</u>	<u>A</u>	<u>7.4</u>	<u>0.01</u>	<u>A</u>
	<u>SB</u>	LTR	<u>8.7</u>	<u>0.05</u>	<u>A</u>	<u>9.0</u>	0.04	<u>A</u>	<u>9.0</u>	<u>0.06</u>	<u>A</u>
* Right turn ch	nanneliza	ation; App	r = Appr	oach; M	vmt = N	lovement	t; v/c =	volume	e to capac	ity ratio	);

\* Right turn channelization; Appr = Approach; Mvmt = Movement; v/c = volume to capacity ratio; NB = Northbound; EB = Eastbound; WB = Westbound; SB = Southbound; L = Left turn movement; R = Right turn movement; T = Through movement

#### **Existing Mitigation Measures**

At the intersections of Pi'ilani Highway at Kaonoulu Street and Pi'ilani Highway at Kulanihakoi Street, the westbound left turn movements resulted in LOS F during all peak hours with the v/c ratio greater than 1.0 which suggests that capacity is exceeded. Mitigating measures were considered to address existing intersection conditions. Potential mitigation considered included the need for signalizing the intersections.

#### **Existing Deficiencies**

For signalized intersections, Level-of-Service D is the minimum acceptable Level-of-Service<sup>7</sup> and this standard is applicable to the overall intersection and major through movements. Minor movements, such as left turns, and minor side street approaches may operate at Level-of-Service E or F for short periods of time during the peak hours so that the overall intersection and major movements along the major highway will operate at Level-of-Service D, or better. All volume-to-capacity ratios must be 1.00 or less<sup>8</sup>.

A standard has not been established for unsignalized intersections that has been agreed to by State of Hawaii Department of Transportation. Therefore, we have used <u>the industry</u> standard that Level-of-Service D is an acceptable level-of-service for major controlled lane groups, such as left turns from a major street to a minor street. Side street approaches may operate at Level-of-Service E or F for short periods of time. This is determined from the delays of the individual lane groups. If the delay of any of the side street approaches appears to be so long that it will affect the overall level-of-service of the intersection, then mitigation measures should be assessed.

At the intersection of Pi'ilani Highway at Ohukai Road, the westbound left and through lane group operates at Level of Service F during the morning peak hour. The volume-tocapacity ratio is 1.05 and the average vehicle delay is 116.6. This lane group operates at Level of Service F during the afternoon peak hour and Level of Service D during the Saturday peak hour, but the volume-to-capacity ratio is less than 1.00.

#### **Future Roadway Construction**

Planned construction in the area includes the North-South Collector Road, between Kaonoulu Street and Waipuilani Road, as well as the proposed mauka roadway, between Ohukai Road and Lipoa Street. These roads will add additional capacity and should help alleviate the vehicle demand on Pi'ilani Highway. However, without additional information on timing, these projects were not included in the future analysis.

<sup>6&</sup>lt;sup>7</sup> Institute of Transportation Engineers, *Transportation Impact Analyses for Site Development: A Recommended Practice*, 2006, page 60.

<sup>7&</sup>lt;sup>8</sup> Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000, p. 16-35.

#### **Future Surrounding Area Development**

Known developments in the surrounding area that were considered likely to be constructed by 2025 and 2032 are shown in Figure 7 of the TIAR update. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016"). The description of each development is explained in the following sections.

#### Kaiwahine Village

The proposed Kaiwahine Village is located at the east end of Kaiwahine Street. This affordable housing residential development will consist of 120 multi-family units. The traffic assignments for the subdivision were obtained from the *Traffic Impact Analysis Report for Kaiwahine Village* (PRA, 2010). This project is anticipated to be completed by 2025.

#### <u>Maui Lu Resort</u>

Maui Lu Resort currently exists in the northeast quadrant of the intersection of South Kihei Road at Kaonoulu Street. Plans are for the existing resort to be demolished and a 400-unit timeshare constructed in its place. It is also proposed that each timeshare unit will have one lock off unit which may be used as a separate hotel room. As part of the Maui Lu project, the intersection of South Kihei Road at Kaonoulu Street will be signalized. Construction has started on the redevelopment of this resort with a proposed opening in 2017. The proposed signalization had not been completed at the time of this report. The traffic assignments for the project were obtained from *TIAR for Maui Lu Resort* (PRA, 2004).

The intersection of South Kihei Road at Kaonoulu Street will be signalized and the southbound approach has been modified to provide a separate left turn lane. These improvements are recommended as part of the Maui Lu Resort Redevelopment project.

#### Kihei High School

The proposed Kihei High School will be located along the east side of Pi'ilani Highway, south of the Pi'ilani Promenade. According to the *Traffic Impact Report for Kihei High* School (WOC, 2012), the school will have a capacity of approximately 1,650 students serving grades 9 through 12. The development of the school will be in two phases with 800 students in Phase 1 and 850 students in Phase 2. Both phases are expected to be completed by 2025.

Access and egress will be via the intersection of Pi'ilani Highway at Kulanihakoi Road, which will be modified with an extension of Kulanihakoi Road across Pi'ilani Highway. The intersection of Pi'ilani Highway at Kulanihakoi Street will be signalized to accommodate the trips generated proposed high school.

The number of trips that the high school will generate during weekday peak hours was obtained from the *Traffic Impact Report for Kihei High School* (WOC, 2012) for the project. Based on the trip generation data, the number of trips generated on a Saturday will be negligible.

The intersection of Pi'ilani Highway at Kulanihakoi Road will be signalized. The northbound approach will be modified to provide a dedicated right turn lane, the southbound approach will be modified to provide a left turn lane and the eastbound and westbound approaches will be modified to provide a shared through/left turn lane and a dedicated right turn lane. These improvements are those recommended in the TIAR to accommodate the traffic from the proposed Kihei High School.

#### Kenolio Apartments

The Kenolio Apartments is located between Pi'ilani Highway and Kenolio Road in the southwest quadrant of the intersection of Kaonoulu Street at Pi'ilani Highway. The project is a 186 unit multi-family affordable housing development. It is anticipated that the project will be completed in 2017. Access to and egress from will be via two driveways along the east side of Kenolio Road. The traffic assignments for the project were obtained from the *TIAR for Kenolio Apartments, An Affordable Housing Project* (PRA, 2014).

#### <u>Kihei Residential</u>

The proposed Kihei Residential development is located on the east side of Pi'ilani Highway, north of Kaiwahine Street. The project includes 400 single-family units, 200 multi-family units, 3,000 square feet of commercial area, 7,000 square feet of offices, and a 10 acre park. Groundbreaking occurred in mid-January 2016. It is anticipated that 25% of the project will be completed by 2025 and full build out will be by 2032. Access to and egress from will be via a driveway along Kaiwahine Road and a driveway along Pi'ilani Highway. The traffic assignments for the project were obtained from the *TIAR Kihei Residential Project* (ATA, 2007).

It was recommended to modify the southbound approach on Pi'ilani Highway to provide an additional left-turn lane. It was also recommended that the westbound approach on Kaiwahine Street have an additional left-turn lane. These modifications were included in the future analyses.

#### Krausz Companies Commercial Mixed-Use Development (Downtown Kihei)

The proposed Krausz Companies commercial mixed-use development (referred as Downtown Kihei) is located along Piikea Avenue between Liloa Drive and South Kihei Road. The project includes 249,450 square feet of retail space, approximately 18,500 square feet of office space, and a 150-room hotel. The traffic assignments for the project were obtained from the *TIAR Krausz Companies Commercial Mixed-Use Development (Downtown Kihei)* (ATA, 2012). Proposed completion is expected by 2025.

It was recommended to install an additional left-turn lane on the eastbound approach of Piikea Avenue at the intersection of Pi'ilani Highway. It was also recommended to monitor the northbound left-turn movement along Pi'ilani Highway at this intersection in case an additional left-turn lane is needed. However, the status of the construction of the additional turn lane is unknown at this time and will not be included in the future analyses.

### Honua'ula Affordable Housing

The proposed Honua'ula Affordable Housing is located north of Pi'ilani Promenade. This development will include 125 units of affordable apartments and 125 owner-occupied units, meeting the requirements of the County Work Force Housing Ordinance. Access to this development will be through East Kaonoulu Street. If construction of the Honua'ula Affordable Housing commences prior to the construction of the East Kaonoulu Street extension, temporary construction access to this development will be through a driveway off of Ohukai Road. Once the East Kaonoulu Street extension is open, the temporary access will be closed and all trips generated by this trip will use East Kaonoulu Street. This development is anticipated to be completed by 2025.

#### Maui Research and Technology Park

The Maui Research and Technology Park (MRTP) is located south of Kihei High School on the mauka side of Pi'ilani Highway. Primary access to MRTP will be through the intersection of Pi'ilani Highway and Lipoa Parkway. According to the *Traffic Impact Analysis for Maui Research and Technology Park* (PB, 2013), the proposed development will be implemented in two phases. Phase 1 will consists of 723,200 square feet (sf) of employment, 100,000 sf of retail, 750 residential dwelling units, 150 hotel rooms and 102,000 sf of an elementary school. Phase 2 will consist of over one-million sf of employment, and 500 residential dwelling units. Phase 1 of the MRTP is projected to be completed by 2024. Phase 2 is projected to be completed by 2034. Traffic associated with the MRTP would be accounted for in the background growth as the primary access to the MRTP is located outside the study area (south of the intersection of Pi'ilani Highway and Piikea Avenue).

### **Other Developments**

There were several additional developments identified within Kihei, Wailea and Makena. However, upon research, the status of these developments was in flux. It was therefore assumed that the increase in traffic associated with these developments would be accounted for in the background growth.

Changes in roadway configuration are expected as described above and are anticipated to be completed by 2025. In addition to the changes in roadway configuration due to surrounding area developments, the intersection of Pi'ilani Highway and Kaonoulu Street passed signal warrants and therefore was analyzed as a signalized intersection.

According to the *Maui Long Range Land Transportation Plan* model (CH2M Hill/HDOT, 2013), traffic volumes along Pi'ilani Highway are projected to increase an average of 1.25% per year from 2007 to 2020 and 1.24% per year from 2020 to 2035. The annual compounded growth rate along South Kihei Road was 3.60% from 2007 to 2020 and 2.05% from 2020 to 2035. These growth rates were used to calculate the projected background growth from 2016 to 2025 and from 2025 to 2032.

The respective growth factors were applied to the northbound and southbound through traffic movements along Pi'ilani Highway and South Kihei Road at the study intersections. Intersection turning movement traffic volumes are considered a reflection of individual project trips and not regional growth, and therefore no ambient growth rate was applied.

#### **Other Project Related Volumes**

The addition of trips resulting from the surrounding area projects are shown in Table No. 7. This data was taken from the respective traffic impact analysis reports or calculated.

	<u></u>		<u>. 7. Oth</u>		a Relateu	<u>111ps</u>			
Project Name	<u>AM I</u>	Peak Ho	<u>our</u>	<u>P</u> I	<mark>M Peak</mark> H	lour	<u>Sat</u>	urday <u>Hou</u> ı	
	<u>In</u>	Out	<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	Out	<u>Total</u>
<u>Kaiwahine</u> <u>Village</u>	<u>10</u>	<u>50</u>	<u>60</u>	<u>47</u>	<u>23</u>	<u>70</u>	<u>42</u>	<u>35</u>	<u>77</u>
<u>Maui Lu Resort</u>	<u>213</u>	<u>103</u>	<u>316</u>	<u>157</u>	<u>206</u>	<u>363</u>	<u>157</u>	<u>206</u>	<u>363</u>
<u>Kihei High</u> <u>School Phase 1</u>	<u>228</u>	<u>108</u>	<u>336</u>	<u>49</u>	<u>55</u>	<u>104</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Kihei High</u> <u>School Phase 2</u>	<u>243</u>	<u>114</u>	<u>357</u>	<u>52</u>	<u>59</u>	<u>111</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Kenolio</u> <u>Apartments</u>	<u>19</u>	<u>76</u>	<u>95</u>	<u>78</u>	<u>42</u>	<u>120</u>	<u>47</u>	<u>48</u>	<u>95</u>
Kihei Residential	<u>213</u>	<u>403</u>	<u>616</u>	<u>405</u>	<u>332</u>	<u>737</u>	330	311	<u>641</u>
<u>Krauz</u>	<u>143</u>	<u>78</u>	<u>221</u>	<u>249</u>	<u>270</u>	<u>519</u>	<u>338</u>	<u>305</u>	<u>643</u>
<u>Development</u>	<u>87</u>	<u>55</u>	<u>142</u>	<u>259</u>	270	<u>529</u>	<u>361</u>	<u>333</u>	<u>694</u>
<u>Honua'ula</u> <u>Affordable</u> <u>Housing</u>	<u>24</u>	<u>103</u>	<u>127</u>	<u>104</u>	<u>54</u>	<u>158</u>	<u>78</u>	<u>71</u>	<u>149</u>

Table No. 7: Other Project Related Trips

#### Potential Impacts and Mitigation Measures.

The TIAR update analyzed the future traffic of the years 2025 and 2032 to estimate the traffic impacts of surrounding developments and the Project.

#### Projected Year 2018 Background Traffic

The TIAR analyzed the future traffic conditions of the Year 2018 to estimate the traffic impacts of surrounding developments. The Year 2018 background traffic volumes were derived using existing traffic along with trip generation obtained from the Maui Travel Demand Forecasting Model. The future Year 2018 background traffic assumes the presence of the following developments:

- Kaiwahine Village
- Maui Lu Resort

Kihei High School Phase 1

Kenolio 6 affordable housing project

The projected Year 2018 trip generation summary of related projects is shown in Table 6.

Table 6 Trip Generation Summary of Related Projects

			<u>AM</u>	Peak I	Hour	<u>PM</u>	<del>Peak I</del>	<u>lour</u>	<u>Saturday Peak</u> <u>Hour</u>			
	Related Project					<u>In</u>	<u><del>Ou</del></u> <u>ŧ</u>	<u>Tot</u> <u>al</u>	<u>In</u>	<u><del>Ou</del></u> <u>ŧ</u>	Tot al	
A	<del>Kaiwahine Village</del>	<del>120 Multi Family</del>	<del>19</del>	47	<del>66</del>	<del>49</del>	<del>31</del>	<del>80</del>	<del>26</del>	<del>26</del>	<del>52</del>	
₿	<del>Maui Lu Resort</del>	4 <del>00 Timeshares + 400</del> <del>Lock Off Units</del> <del>(Maximum)</del>	<del>245</del>	<del>140</del>	<del>385</del>	<del>205</del>	<del>230</del>	4 <del>35</del>	<del>350</del>	<del>275</del>	<del>625</del>	
e	<del>Kihei High School</del> <del>(Phase 1)</del>	<del>800 Students Grades</del> <del>9 thru 12</del>	<del>228</del>	<del>108</del>	<del>336</del>	<del>104</del>	<del>55</del>	<del>159</del>	θ	θ	θ	
₽	<del>Kenolio 6</del> <del>Affordable</del> <del>Housing Project</del>	124 Multi Family	<del>20</del>	4 <del>8</del>	<del>68</del>	<del>51</del>	<del>32</del>	<del>83</del>	<del>32</del>	<del>32</del>	<del>64</del>	
TO	TALS FOR 2018	<del>512</del>	<del>343</del>	<del>855</del>	4 <del>09</del>	<del>348</del>	757	4 <del>08</del>	<del>333</del>	741		

The results of the level-of-service analysis of the signalized intersections for 2018 background without project generated traffic are shown in the TIAR, which summarizes the volume to-capacity ratios, average vehicle delays and levels of service of the overall intersection and all controlled lane groups.

The conclusion of the level of service of 2018 baseline conditions is that roadway improvements are required at the intersection of Pi'ilani Highway at Ohukai Road and the intersection of Pi'ilani Highway at Kaiwahine Street and Uwapo Road to accommodate traffic associated with background growth and the related projects. The recommended improvements are:

- At the intersection of Pi'ilani Highway at Ohukai Road, the eastbound and westbound approaches should be modified to provide one left turn lane, one optional left turn or thru lane and one right turn lane and the southbound approach should be modified to provide an additional left turn only lane.
- At the intersection of Pi'ilani Highway at Kaiwahine Street and Uwapo Road, the eastbound and westbound approaches should be modified to provide separate left turn, through and right turn lanes.

#### Future (2025) Without Project LOS

Future (2025) Without Project intersection LOS, v/c ratio and delay were determined for the AM, PM and Saturday peak hours (see: Table No. 8). For Future (2025) Without Project conditions, all signalized intersection LOS maintained LOS D or better results. Individual turning movement LOS and v/c remained poor for some signalized intersections. All unsignalized intersections resulted in LOS C or better. Detailed analysis reports for these intersections are provided in Appendix F of the TIAR update. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

Tab.	le No	<u>o. 8</u> :	<u>: Fu</u>	<u>iture</u>	<u>e (2025</u>	) Wit	<u>:hout I</u>	<u>Proje</u>	<u>ct Inter</u>	section	n Level	of Se	rvic	<u>e</u>
		0								D 1 7				1.5

	Traffic	Control	AM	Peak Ho	ur	PM I	Peak H	our	Weekend Peak Hour			
Intersection	<u>Appr</u>	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	<u>LOS</u>	<u>Delay</u>	<u>v/c</u>	<u>LOS</u>	<u>Delay</u>	<u>v/c</u>	<u>LOS</u>	
	Sign	<u>alized</u>	<u>48.9</u>	<u>-</u>	D	48.4	=	D	<u>33.2</u>	<u>-</u>	<u>C</u>	
		L	75.4	0.77	Ε	89.7	0.73	F	68.8	0.68	Е	
	EB	T	63.2	0.54	Е	76.0	0.54	Е	53.5	0.30	D	
		R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
Pi'ilani	TA/D	L	141.6	1.10	F	133.8	1.01	F	74.3	0.83	Е	
Highway	<u>WB</u>	Т	48.4	0.18	D	61.3	0.23	Е	45.1	0.20	D	
and Ohukai		L	66.5	0.30	Е	80.4	0.56	F	59.2	0.44	Е	
Road	NB	Т	33.8	0.72	С	45.5	0.95	D	29.7	0.83	С	
		<u>R</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
		L	75.1	0.87	Е	123.4	1.01	F	72.3	0.81	Е	
	SB	<u>T</u>	35.9	0.93	D	28.1	0.85	С	23.0	0.73	С	
		R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
	Sign	alized	<u>34.7</u>	=	<u>C</u>	<u>20.4</u>	=	<u>C</u>	14.2	=	<u>B</u>	
	<u>EB</u>	L	150.4	0.98	F	44.4	0.48	D	72.0	0.60	E	
		T	67.1	0.40	Е	39.9	0.41	D	64.9	0.40	E	
Pi'ilani		<u>R</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
Highway	TA/D	L	193.1	1.19	F	40.8	0.55	D	63.6	0.55	E	
and Uwapo	<u>WB</u>	<u>T</u>	66.6	0.37	Е	35.2	0.16	D	59.6	0.20	E	
Road/	NID		L	40.8	0.08	D	37.3	0.40	D	56.9	0.41	E
<u>Kaiwahine</u>	NB	<u>T</u>	7.5	0.54	Α	17.9	0.88	В	8.4	0.61	A	
<u>Street</u>		<u>R</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
		L	63.7	0.42	Е	40.4	0.61	D	61.6	0.40	E	
	<u>SB</u>	T	29.6	0.88	С	18.5	0.89	В	11.0	0.61	B	
		<u>R</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*	
	Sign	<u>alized</u>	<u>23.9</u>	-	<u>C</u>	<u>32.3</u>	=	<u>C</u>	<u>19.4</u>	=	B	
	EB	LT	35.9	<u>0.59</u>	D	45.5	0.61	D	<u>47.0</u>	0.63	D	
<u>Pi'ilani</u>	ED	<u>R</u>	<u>0.0</u>	0.00	*	0.0	0.00	*	<u>0.0</u>	0.00	*	
<u>Highway</u>	W/B	L	36.1	0.09	D	46.3	0.23	D	51.8	0.07	D	
and North	<u>WB</u>	TR	38.5	0.26	D	52.2	0.54	D	<u>52.3</u>	0.03	D	
<u>Kihei Road</u>		L	<u>42.8</u>	0.88	D	55.6	0.89	E	47.4	0.80	D	
	<u>NB</u>	T	<u>9.1</u>	0.54	A	11.4	0.68	B	<u>7.6</u>	0.54	A	
	IND	<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	0.0	0.00	*	0.0	0.00	*	

	Traffic Control AM Peak Hour PM Peak Hour Weekend Peak Hou													
	<u>Traffic</u>	<u>Control</u>	<u>AM</u>	Peak Ho	ur	<u>PM I</u>	Peak H	our	Weekend Peak Hour					
Intersection	<u>Appr</u>	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	<u>LOS</u>	<u>Delay</u>	<u>v/c</u>	LOS			
		L	<u>74.6</u>	0.52	E	<u>68.3</u>	0.54	E	<u>79.0</u>	0.53	E			
	<u>SB</u>	<u>T</u>	<u>26.4</u>	<u>0.86</u>	<u>C</u>	<u>41.7</u>	<u>0.98</u>	D	<u>16.9</u>	<u>0.64</u>	B			
		R	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*			
	Sign	alized	<u>18.3</u>	=	B	<u>18.0</u>	<u>=</u>	B	<u>15.2</u>	=	B			
	EB	T	<u>11.7</u>	0.44	B	<u>14.3</u>	0.65	B	<u>13.0</u>	<u>0.58</u>	B			
South Kihei		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*			
Road and	WB	L	<u>28.6</u>	<u>0.63</u>	<u>C</u>	<u>29.2</u>	<u>0.76</u>	<u>C</u>	22.2	<u>0.72</u>	<u>C</u>			
<u>North Kihei</u>	<u></u>	<u>T</u>	<u>4.8</u>	<u>0.24</u>	<u>A</u>	<u>4.1</u>	<u>0.23</u>	<u>A</u>	<u>4.1</u>	<u>0.20</u>	<u>A</u>			
Road		<u>L</u>	<u>26.3</u>	<u>0.79</u>	<u>C</u>	<u>20.6</u>	<u>0.64</u>	<u>C</u>	<u>17.9</u>	<u>0.61</u>	<u>B</u>			
	<u>NB</u>	<u>R</u>	<u>33.8</u>	<u>0.79</u>	<u>C</u>	<u>41.9</u>	<u>0.86</u>	D	<u>29.1</u>	<u>0.79</u>	<u>C</u>			
	Sign	alized	31.4	-	<u>C</u>	41.1	_	D	35.0	=	D			
D'/'1 '	ГР	L	<u>62.0</u>	0.89	E	84.8	1.02	F	74.1	0.93	E			
<u>Pi'ilani</u> Highway	<u>EB</u>	R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*			
and Piikea	NID	L	<u>106.8</u>	<u>1.00</u>	F	<u>99.2</u>	<u>1.03</u>	F	<u>80.4</u>	0.92	F			
Avenue	<u>NB</u>	T	<u>6.5</u>	<u>0.59</u>	A	<u>12.5</u>	0.80	B	<u>11.8</u>	0.54	B			
	SB	<u>T</u>	<u>39.0</u>	<u>1.00</u>	<u>F</u>	<u>52.8</u>	<u>1.03</u>	<u>F</u>	<u>34.9</u>	<u>0.77</u>	<u>C</u>			
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*			
Pi'ilani	Sign	alized	<u>11.3</u>	-	<u>B</u>	<u>17.9</u>	=	<u>B</u>	<u>12.6</u>	=	<u>B</u>			
Highway	EB	L	<u>55.3</u>	<u>0.76</u>	F	<u>94.3</u>	0.84	<u>F</u>	<u>74.7</u>	<u>0.82</u>	<u>E</u>			
and	<u>NB</u>	<u>L</u>	<u>92.5</u>	<u>0.91</u>	<u>F</u>	<u>65.9</u>	<u>0.52</u>	<u>E</u>	<u>55.2</u>	<u>0.49</u>	<u>E</u>			
Kaonoulu	<u>NB</u>	<u>T</u>	<u>2.0</u>	<u>0.47</u>	<u>A</u>	<u>4.6</u>	0.71	<u>A</u>	<u>3.2</u>	<u>0.56</u>	<u>A</u>			
Street	SB	<u>T</u>	<u>11.4</u>	<u>0.84</u>	B	<u>24.6</u>	<u>0.86</u>	<u>C</u>	<u>14.5</u>	<u>0.66</u>	<u>B</u>			
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*			
	Sign	alized	<u>9.3</u>	=	<u>A</u>	<u>9.2</u>	<u> </u>	<u>A</u>	<u>10.2</u>	<u> </u>	<u>B</u>			
South Kihei	WB	<u>L</u>	<u>31.4</u>	<u>0.65</u>	<u>C</u>	<u>27.6</u>	<u>0.61</u>	<u>C</u>	24.5	<u>0.63</u>	<u>C</u>			
Road and		<u>R</u>	<u>24.7</u>	<u>0.34</u>	<u>C</u>	<u>25.4</u>	0.42	<u>C</u>	<u>21.3</u>	0.33	<u>C</u>			
Kaonoulu	NB	<u>T</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	0.0	0.00	_			
<u>Street</u>		<u>R</u>	<u>8.3</u>	0.67	<u>A</u>	<u>10.4</u>	0.83	<u>B</u>	<u>12.6</u>	0.85	<u>B</u>			
	SB	<u>L</u>	<u>42.6</u>	0.68	<u>D</u>	<u>38.3</u>	0.74	<u>D</u>	<u>33.6</u>	0.70	<u>C</u>			
	Ciar	<u>T</u>	<u>2.7</u>	<u>0.36</u>	<u>A</u>	<u>3.0</u>	<u>0.59</u>	<u>A</u>	<u>3.2</u>	<u>0.58</u>	<u>A</u>			
		alized	<u>24.7</u>	<u>-</u>	<u>C</u>	<u>24.6</u>	<u>-</u>	<u>C</u>	<u>6.0</u>	<u>-</u>	<u>A</u>			
D'/'1	<u>EB</u>	<u>LT</u>	<u>45.2</u>	0.33	<u>D</u>	<u>75.7</u>	<u>0.32</u>	<u>E</u>	<u>64.6</u>	0.45	<u>E</u> *			
<u>Pi'ilani</u> Highway		<u>R</u>	<u>0.0</u>	0.00	_	01 1	0.62		<u>0.0</u>	0.00	_			
<u>Highway</u> and	WB	<u>LT</u> P	<u>52.9</u>	0.68	<u>D</u>	<u>81.1</u>	0.62 0.00	<u>F</u> *	<u>59.7</u>	0.05	<u>E</u> *			
Kulanihakoi	NB	<u>R</u> L	<u>0.0</u> <b>118.0</b>	<u>0.00</u> 0.83	<u> </u>	<u>0.0</u> 98.0	0.80	<u> </u>	<u>0.0</u> <b>79.4</b>	<u>0.00</u> 0.77	Ē			
Street		<u> </u>	<u>118.0</u> 14.2	0.65	B	<u>96.0</u> 32.1	0.93	<u>r</u> <u>C</u>	2.9	0.60	<u> </u>			
	<u>SB</u>	L	<u>14.2</u> 67.4	0.83	E E	<u>52.1</u> 59.5	0.09	E	0.0	0.00	*			
	<u>50</u>	T	<u>23.9</u>	0.94	<u><u> </u></u>	10.3	0.76	B	<u>5.1</u>	0.59	Ā			
	Unsig	nalized	<u></u>	<u>0.74</u>		<u>- 10.0</u>	<u>0.70</u>		<u>-</u>	<u>0.07</u>				
Kenolio		L	13.0	0.05	<u>-</u> B	17.6	0.07	<u>-</u> C	15.7	<u>-</u> 0.07	<u>-</u> C			
Road and	<u>NB</u>	TR	<u>13.0</u> 9.9	0.08	A	<u>17.0</u> 11.0	0.09	B	11.0	0.09	B			
<u> </u>	<u>NB</u>	<u>111</u>	<u></u>	0.00	<u> </u>	11.0	0.07	<u> </u>	11.0	0.07	<u> </u>			

	Traffic	<u>Control</u>	AM	Peak Ho	ur	PM I	Peak H	our	Weeker	nd Peak	<u>Hour</u>				
Intersection	Appr	<u>Mvmt</u>	Delay <u>v/c</u> LOS		<u>Delay</u>	<u>v/c</u>	<u>LOS</u>	<u>Delay</u>	<u>v/c</u>	<u>LOS</u>					
<u>Kaonoulu</u>	EB	L	7.7	0.02	A	8.0	0.04	A	7.8	0.03	A				
<u>Street</u>	<u>WB</u> <u>L</u>		<u>7.6</u>	0.03	A	<u>7.8</u>	0.05	A	<u>7.8</u>	0.04	A				
	L		<u>19.3</u>	0.43	<u>C</u>	24.9	0.39	<u>C</u>	22.0	0.38	<u>C</u>				
	<u>SB</u>	TR	<u>10.5</u>	0.04	B	<u>12.6</u>	0.07	B	<u>11.3</u>	0.05	B				
Veensulu	<u>Unsig</u>	nalized	=	=	=	Ξ	=	_	=	=	=				
<u>Kaonoulu</u> Street and	<u>NB</u>	LTR	<u>11.9</u>	0.05	B	<u>12.9</u>	0.03	B	<u>12.6</u>	0.04	B				
Alulike	EB	L	<u>7.7</u>	0.03	A	7.8	0.06	A	7.7	0.04	A				
Street	WB	L	7.6	0.01	A	7.8	0.01	A	7.8	0.01	A				
ouce	SB	LTR	10.1	0.09	B	10.7	0.10	B	10.8	0.13	B				
* Pight turn of	hannali	totion. A.	$ann = \Lambda n$	nroach.	Mumt	- Mouor	nont r	$l_{\alpha} = m$	aluma ta	annaaita	ratio				

<u>\* Right turn channelization; Appr = Approach; Mvmt = Movement; v/c = volume to capacity ratio;</u> <u>NB = Northbound; EB = Eastbound; WB = Westbound; SB = Southbound; L = Left turn movement;</u> R = Right turn movement; T = Through movement

#### Future (2032) Without Project LOS

Future (2032) Without Project intersection LOS, v/c ratio and delay were determined for the AM, PM and Saturday peak hours (see Table No. 9 below). For Future (2032) Without Project conditions, all signalized intersection LOS maintained LOS D or better results except for the intersection of Pi'ilani Highway at Ohukai Road which resulted in LOS E during the AM and Weekend peak hours. Individual turning movement LOS and v/c remained poor for some signalized intersections. All unsignalized intersections resulted in LOS C or better. Detailed analysis reports for these intersections are provided in Appendix F.

			ure (2032) V	viilloui	riojec	i mersec		everor					
Intersection		<u>affic</u> ntrol	AM Pe	eak Ho	<u>ur</u>	<u>PM I</u>	<u>Peak H</u>	<u>our</u>	<u>Weekend Peak</u> Hour				
<u>intersection</u>	Appr	Mvmt	Delay	v/c	LOS	Delay	v/c	LOS	Delay	<u>v/c</u>	LOS		
		alized	61.3	-	E	52.7	-	D	60.0	-	E		
		L	79.1	0.77	E	147.6	0.80	F	71.6	0.69	E		
	EB	T	66.1	0.56	Ē	142.9	0.81	F	57.7	0.44	Ē		
		R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*		
Pi'ilani	IATD	L	222.3	1.30	F	181.7	1.02	F	135.9	1.08	F		
Highway	<u>WB</u>	T	53.9	0.21	D	104.2	0.28	F	44.8	0.23	D		
and Ohukai		L	69.0	0.31	E	155.7	0.77	F	61.9	0.45	E		
<u>Road</u>	NB	<u>T</u>	32.9	0.78	C	61.7	0.98	E	<u>64.0</u>	1.02	F		
		R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*		
		L	<u>89.3</u>	<u>0.95</u>	F	<u>170.1</u>	<u>1.03</u>	F	<u>136.5</u>	<u>1.08</u>	F		
	SB	T	<u>50.9</u>	<u>1.03</u>	F	6.2	0.86	A	28.4	0.81	C		
		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*		
	Signa	alized	21.4	_	<u>C</u>	<u>19.9</u>	<u>-</u>	B	<u>18.0</u>	-	<u>B</u>		
		L	77.2	0.74	E	145.6	0.67	F	36.9	0.46	D		
	EB	<u>T</u>	<u>76.5</u>	<u>0.54</u>	E	<u>144.8</u>	0.80	F	<u>31.8</u>	<u>0.24</u>	<u>C</u>		
<u>Pi'ilani</u>		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*		
<u>Highway</u>	WB	L	<u>107.0</u>	<u>0.98</u>	<u>F</u>	<u>143.4</u>	<u>0.86</u>	<u>F</u>	<u>32.8</u>	0.42	<u>C</u>		
<u>and Uwapo</u>	<u></u>	<u>T</u>	<u>66.9</u>	0.39	<u>E</u>	<u>111.6</u>	0.26	<u>F</u>	<u>29.5</u>	<u>0.13</u>	<u>C</u>		
Road/		<u>L</u>	<u>36.9</u>	<u>0.09</u>	<u>D</u>	<u>103.1</u>	<u>0.31</u>	<u>F</u>	<u>33.5</u>	<u>0.57</u>	<u>C</u>		
<u>Kaiwahine</u>	<u>NB</u> <u>SB</u>	<u>T</u>	<u>0.9</u>	0.67	<u>A</u>	<u>0.8</u>	<u>0.86</u>	<u>A</u>	<u>16.9</u>	<u>0.86</u>	B		
Street		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*		
		<u>L</u> <u>66.6</u>	<u>66.6</u>	<u>0.67</u>	<u>E</u>	<u>118.0</u>	<u>0.90</u>	<u>F</u>	<u>31.4</u>	<u>0.27</u>	<u>C</u>		
		<u>T</u>	<u>14.0</u>	<u>0.99</u>	<u>B</u>	<u>1.5</u>	<u>0.84</u>	<u>A</u>	<u>16.5</u>	<u>0.85</u>	<u>B</u>		
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*		
	Sign	alized	<u>26.4</u>	=	<u>C</u>	<u>44.0</u>	<u> </u>	<u>D</u>	<u>22.5</u>	=	<u>C</u>		
	EB	LT	<u>69.5</u>	<u>0.72</u>	<u>E</u>	<u>130.2</u>	<u>0.81</u>	<u>F</u>	<u>33.6</u>	<u>0.63</u>			
		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*		
<u>Pi'ilani</u>	WB	<u>L</u>	<u>70.6</u>	<u>0.13</u>	<u>E</u>	<u>151.2</u>	<u>0.61</u>	<u>F</u>	<u>34.9</u>	<u>0.05</u>	<u>C</u>		
Highway	<u></u>	<u>TR</u>	<u>75.5</u>	<u>0.39</u>	<u>E</u>	<u>415.8</u>	<u>1.42</u>	<u>F</u>	<u>35.6</u>	<u>0.02</u>	<u>D</u>		
and North		<u>L</u>	<u>52.7</u>	<u>0.92</u>	<u>D</u>	<u>93.1</u>	<u>0.95</u>	<u>F</u>	<u>29.7</u>	<u>0.75</u>	<u>C</u>		
Kihei Road	<u>NB</u>	<u>T</u>	<u>0.5</u>	<u>0.53</u>	<u>A</u>	0.4	<u>0.62</u>	A	<u>10.3</u>	<u>0.70</u>	B		
		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	0.0	0.00	*		
		<u>L</u>	<u>111.3</u>	<u>0.53</u>	<u>F</u>	<u>158.2</u>	0.61	<u>F</u>	<u>61.4</u>	<u>0.52</u>	<u>E</u>		
	<u>SB</u>	<u>T</u>	<u>30.6</u>	<u>0.79</u>	<u>C</u>	<u>44.1</u>	<u>0.86</u>	<u>D</u>	<u>30.7</u>	<u>0.94</u>	<u>C</u>		
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*		
	Signa	alized	<u>22.6</u>	=	<u>C</u>	<u>32.9</u>	<u> </u>	<u>C</u>	<u>17.1</u>	<u> </u>	<u>B</u>		
South Kihei	EB	<u>T</u>	<u>14.2</u>	<u>0.46</u>	<u>B</u>	<u>18.8</u>	<u>0.52</u>	<u>B</u>	<u>14.3</u>	<u>0.63</u>	<u>B</u>		
Road and		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*		
North Kihei	WB	L	<u>36.8</u>	<u>0.67</u>	<u>D</u>	<u>57.9</u>	<u>0.89</u>	<u>E</u>	<u>25.1</u>	<u>0.73</u>	<u>C</u>		
Road	<u></u>	<u>T</u>	<u>15.5</u>	<u>0.27</u>	B	<u>0.1</u>	<u>0.22</u>	<u>A</u>	<u>4.6</u>	<u>0.21</u>	<u>A</u>		
	NB	<u>L</u>	<u>28.1</u>	<u>0.79</u>	<u>C</u>	<u>52.3</u>	<u>0.73</u>	<u>D</u>	<u>19.4</u>	<u>0.67</u>	<u>B</u>		
	<u>- 10</u>	<u>R</u>	<u>30.3</u>	<u>0.75</u>	<u>C</u>	<u>73.4</u>	<u>0.90</u>	<u>E</u>	<u>33.8</u>	<u>0.83</u>	<u>C</u>		

Table No. 9: Future (2032) Without Project Intersection Level of Service

				1																	
Intersection		<u>affic</u> ntrol	<u>AM Pe</u>	eak Ho	<u>ur</u>	<u>PM I</u>	Peak H	<u>our</u>		kend P Hour	<u>eak</u>										
	Appr	Mvmt	Delay	v/c	LOS	Delay	<u>v/c</u>	LOS	Delay	v/c	LOS										
	Sign	alized	49.3	=	D	51.7	-	D	34.6	-	<u>C</u>										
D://1 .	TD	L	121.5	1.05	F	119.0	1.08	F	86.7	1.05	F										
<u>Pi'ilani</u>	<u>EB</u>	R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*										
<u>Highway</u> and Piikea	NID	L	140.7	1.06	F	130.2	1.09	F	85.3	1.01	F										
Avenue	<u>NB</u>	Т	7.3	0.62	Ā	17.1	0.88	B	8.8	0.65	Ā										
Avenue	CD	<u>T</u>	<u>62.4</u>	1.06	F	<u>65.1</u>	1.06	F	35.9	0.96	D										
	<u>SB</u>	R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*										
D!/!!	Sign	alized	15.1	=	B	25.6	=	<u>C</u>	14.7	=	B										
<u>Pi'ilani</u>	EB	L	84.9	0.78	F	155.0	0.89	F	64.7	0.81	E										
Highway and		L	138.3	0.97	F	111.4	0.60	F	42.8	0.39	D										
Kaonoulu	<u>NB</u>	T	<u>2.1</u>	0.53	A	6.5	0.79	A	4.0	0.65	A										
Street	CP	<u>T</u>	<u>15.8</u>	0.90	B	34.4	0.91	<u>C</u>	21.0	0.82	<u>C</u>										
succi	<u>SB</u>	R	<u>0.0</u>	0.00	*	0.0	0.00	*	0.0	0.00	*										
	Sign	alized	<u>11.2</u>	=	B	10.3	-	B	12.3	:	B										
		L	<u>30.6</u>	0.67	C	35.0	0.64	<u>C</u>	28.3	0.65	<u>C</u>										
South Kihei	<u>WB</u>	R	26.5	0.34	С	32.2	0.44	С	24.7	0.34	C										
<u>Road and</u> Kaonoulu	NID	T	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*										
Street	<u>NB</u>	R	<u>11.7</u>	0.78	B	11.5	0.86	B	16.2	0.89	B										
<u>street</u>	CD	L	<u>42.7</u>	0.71	D	53.1	0.80	D	39.6	0.74	D										
	<u>SB</u>	T	<u>3.3</u>	0.43	A	3.2	0.65	A	3.8	0.64	A										
	Signalized		49.2	=	D	33.0	-	C	6.6	:	A										
	EB	L	<u>56.5</u>	0.34	E	119.4	0.35	F	<u>58.6</u>	0.42	E										
<b>Pi</b> 'ilani	<u>EB</u> <u>WB</u>								<u></u>	<u>ED</u>	<u>EB</u>	TR	0.0	0.00	*	_	_	_	0.0	0.00	*
<u>Highway</u>									L	<u>72.6</u>	0.74	E	130.7	0.73	F	54.3	0.11	D			
and			TR	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*									
<u>Kulanihakoi</u>	NB	L	<u>215.1</u>	<u>1.04</u>	F	<u>161.7</u>	0.84	F	<u>74.0</u>	0.77	E										
Street	-	T	<u>41.1</u>	0.92	D	40.0	0.96	D	<u>3.5</u>	0.68	A										
	<u>SB</u>	L	48.4	<u>0.32</u>	D	<u>106.7</u>	0.13	<u>F</u>	0.0	0.00	*										
		<u>T</u>	<u>49.5</u>	<u>1.04</u>	<u>F</u>	<u>15.6</u>	0.84	B	<u>6.4</u>	<u>0.69</u>	A										
	Unsig	nalized	-	=	- 1	<u>=</u>	=	<u>-</u>	<u>_</u>	<u>_</u>	<u>-</u>										
Varalia	NB	L	<u>13.0</u>	0.05	B	17.6	0.07	C	15.7	0.07	<u>C</u>										
<u>Kenolio</u> Road and	<u>NB</u>	TR	<u>9.9</u>	0.08	<u>A</u>	<u>11.0</u>	0.09	B	<u>11.0</u>	0.09	B										
Kaonoulu	EB	L	7.7	0.02	A	8.0	0.04	A	7.8	0.03	A										
<u>Street</u>	WB	L	<u>7.6</u>	0.03	<u>A</u>	<u>7.8</u>	<u>0.52</u>	<u>A</u>	<u>7.8</u>	0.04	A										
	SB	L	<u>19.3</u>	<u>0.43</u>	<u>C</u>	<u>24.9</u>	<u>0.39</u>	<u>C</u>	<u>22.0</u>	<u>0.38</u>	<u>C</u>										
	<u></u>	<u>TR</u>	<u>10.5</u>	0.04	B	<u>12.6</u>	0.07	B	<u>11.3</u>	<u>0.05</u>	<u>B</u>										
Kaanaulu	Unsig	nalized	-	_	- 1	<u>=</u>	-	=	<u> </u>	=	<u> </u>										
<u>Kaonoulu</u> Street and	NB	LTR	<u>12.0</u>	0.05	B	<u>12.9</u>	0.03	B	<u>12.7</u>	0.04	B										
Alulike	EB	L	<u>7.7</u>	0.03	A	7.8	0.06	A	<u>7.7</u>	0.04	A										
Street	WB	L	<u>7.6</u>	0.01	A	<u>7.8</u>	0.01	A	<u>7.8</u>	0.01	A										
	<u>SB</u>	LTR	<u>10.1</u>	0.09	<u>B</u>	<u>10.7</u>	0.10	B	<u>10.8</u>	0.13	B										
* Right turn ch									e to capa	city ra	tio;										
<u>NB = Northbo</u>	und; EB	= Eastbo	ound; WB =	Westbo	ound; S	B = South	nbound	;													

<u>NB</u> = Northbound; EB = Eastbound; WB = Westbound; SB = Southbound; L = Left turn movement; R = Right turn movement; T = Through movement

### **FUTURE WITHOUT PROJECT CONDITIONS**

### Future (2025) Without Project Mitigation

With all signalized intersections maintaining LOS D or better results and unsignalized intersection turning movements resulting in LOS C or better, no mitigation measures are deemed necessary.

#### Future (2032) Without Project Mitigation

Pi'ilani Highway and Ohukai Road

The intersection of Pi'ilani Highway and Ohukai Road resulted in poor LOS for Future (2032) Without Project conditions. Possible mitigation measures include signal optimization or the construction of additional turning lanes.

### FUTURE WITH PROJECT CONDITIONS

#### Future with Project Geometric Configuration

<u>A portion of East Kaonoulu Street is being constructed with the development of Pi'ilani</u> <u>Promenade by 2025. This will add a mauka leg to the intersection of Pi'ilani Highway and</u> <u>Kaonoulu Street. Additional intersection modifications include:</u>

- Install traffic signals and striped pedestrian crosswalks across Pi'ilani Highway.
- Southbound approach will have double left turn lanes, two through lanes, and a channelized right turn lane.
- Northbound approach will have a dedicated left turn lane, two through lanes, and a channelized right turn lane.
- Eastbound approach will have a left turn lane, a through lane, and a channelized right turn lane.
- Westbound approach will have dual left turn lanes, a through lane and channelized right turn lane with an acceleration lane.

The lane configuration for Future with Project conditions are shown in Figure 12 of the TIAR update.

The project also includes the construction of a shared-use pedestrian and bike path along the mauka-side of Pi'ilani Highway, adjacent to the proposed development and within the project site, in addition to the bike lanes on Pi'ilani Highway. A pedestrian plan created for the project is included as Figure No. 15 of the FEIS and in Appendix G of the TIAR update. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

#### **Future with Project Traffic Volumes**

#### Project Related Volumes

The addition of trips resulting from the Project was calculated using the four-step trip generation methodology: trip generation, trip distribution, modal choice, route assignment.

#### Trip Generation

#### Trip Generation Methodology

The proposed mixed-use development is planning to include commercial, light industrial and affordable apartment units. Resulting trip generation for the Project was calculated using *Trip Generation*, 8<sup>th</sup> Edition (ITE, 2008) and related trip generation rates are shown in Table No. 10.

#### **Project Related Traffic Conditions**

Future traffic volumes generated by the project were estimated using the procedures described in the *Trip Generation Handbook*<sup>9</sup> and data provided in *Trip Generation*<sup>10</sup>. This method used trip generation rates or equations to estimate the number of trips that the project will generate during the peak hours of the project and along the adjacent street.

Trip generation land use codes used for the Project are as follows:

- <u>Shopping Center [820]: A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center's composition is related to its market area in terms of size, location and type of store. A shopping center also provides on-side parking facilities sufficient to serve its own parking demands.</u>
- <u>General Light Industrial [110]: Light industrial facilities are free-standing facilities</u> <u>devoted to a single use. The facilities have an emphasis on activities other than</u> <u>manufacturing and typically have minimal office space. Typical light industrial</u> <u>activities include printing, material testing and assembly of data processing</u> <u>equipment.</u>
- Apartment [220]: Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example, quadraplexes and all types of apartment buildings. The studies included in this land use did not identify whether the apartments were low-rise, mid-rise, or high-rise.

<sup>&</sup>lt;sup>9</sup> Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 1998, p. 7-12

<sup>&</sup>lt;sup>10</sup> Institute of Transportation Engineers, *Trip Generation*, Washington, D.C., 2003

The results of the trip generation calculations are summarized <u>in Table No. 10</u> below. The trips shown are the peak hourly trips generated by the project during the peak hours of the adjacent street. As shown, the project will generate <del>613</del> <u>564</u> new trips during the morning peak hour, <u>1,830</u> <u>2,482</u> new trips during the afternoon peak hour and <u>2,278</u> <u>2,651</u> new trips during the Saturday peak hour.

					Project	Related	Trips					
Land Use [ITE Code]	<u>Years</u>	AN	I Peak Ho	ur	<u>PM</u>	l Peak H	<u>our</u>	Saturday Peak Hour				
		<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>		
	<u>2025</u>	<u>126</u>	<u>81</u>	<u>207</u>	<u>540</u>	<u>562</u>	<u>1,102</u>	<u>659</u>	<u>608</u>	<u>1,267</u>		
<u>Commercial</u>	<u>2032</u>	<u>125</u>	<u>80</u>	<u>205</u>	<u>540</u>	<u>563</u>	<u>1,103</u>	<u>659</u>	<u>608</u>	<u>1,267</u>		
[820]	<u>Total</u>	<u>251</u>	<u>161</u>	<u>412</u>	<u>1,080</u>	<u>1,125</u>	<u>2,205</u>	<u>1,318</u>	<u>1,216</u>	<u>2,534</u>		
Light	<u>2025</u>	<u>16</u>	<u>3</u>	<u>19</u>	<u>16</u>	<u>53</u>	<u>69</u>	<u>1</u>	<u>2</u>	<u>3</u>		
Industrial	<u>2032</u>	<u>16</u>	<u>3</u>	<u>19</u>	<u>14</u>	<u>52</u>	<u>67</u>	<u>1</u>	<u>1</u>	<u>2</u>		
[110]	<u>Total</u>	<u>32</u>	<u>6</u>	<u>38</u>	<u>30</u>	<u>105</u>	<u>135</u>	<u>2</u>	<u>3</u>	<u>5</u>		
	<u>2025</u>	<u>23</u>	<u>91</u>	<u>114</u>	<u>92</u>	<u>50</u>	<u>142</u>	<u>56</u>	<u>56</u>	<u>112</u>		
Apartment [220]	<u>2032</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
1==01	<u>Total</u>	<u>23</u>	<u>91</u>	<u>114</u>	<u>92</u>	<u>50</u>	<u>142</u>	<u>56</u>	<u>56</u>	<u>112</u>		
T ( 1	<u>2025</u>	<u>165</u>	<u>175</u>	<u>340</u>	<u>648</u>	<u>665</u>	<u>1,313</u>	<u>716</u>	<u>665</u>	<u>1,382</u>		
<u>Total</u> <u>Project</u>	<u>2032</u>	<u>141</u>	<u>84</u>	225	<u>554</u>	<u>615</u>	<u>1,170</u>	<u>660</u>	<u>609</u>	<u>1,270</u>		
110jeet	<u>Total</u>	<u>306</u>	<u>258</u>	<u>564</u>	<u>1,202</u>	<u>1,280</u>	<u>2,482</u>	<u>1,376</u>	<u>1,275</u>	<u>2,651</u>		

Table No. 10: Phased Project Related Trip Generation Volumes

 Table 7
 Summary of Trip Generation Analysis

			-				-	-					
				North Pa	arcel			Sout	th Parcel				
			<del>Retail</del> (100,000					<del>Retail</del> (358,091 S	<del>JF)</del>	<del>Outdoor</del> <del>Carden</del>	Total Project		
<del>Time</del> <del>Period</del>	<del>Directi</del> <del>on</del>	<del>Total</del> <del>Trips</del>	<del>Pass By</del> <del>Trips</del>	<del>Net New</del> <del>Trips</del>	Light Industria 1 (5 Acres)	1 (226		<del>Pass By</del> <del>Trips</del>	<del>Net New</del> <del>Trips</del>	<del>Total</del> <del>Trips</del> <del>(28,000</del> <del>SF)</del>	<del>Total</del> <del>Trips</del>	<del>Pass</del> <del>By</del> <del>Trips</del>	<del>Net</del> <del>New</del> Trips
AM Peak	Total	<del>145</del>	<del>15</del>	<del>130</del>	<del>38</del>	<del>114</del>	<del>327</del>	<del>33</del>	<del>294</del>	<del>37</del>	<del>661</del>	<del>48</del>	<del>613</del>
Hour	In	<del>88</del>	8	<del>80</del>	<del>32</del>	<u>23</u>	<u>199</u>	17	<del>182</del>	<del>19</del>	<del>361</del>	<del>25</del>	<del>336</del>
	Out	<del>57</del>	7	<del>50</del>	6	<del>91</del>	<del>128</del>	<del>16</del>	<del>112</del>	<del>18</del>	<del>300</del>	<del>23</del>	<del>277</del>
	Total	<del>593</del>	<del>238</del>	<del>355</del>	<del>135</del>	<del>142</del>	<del>1496</del>	404	<del>1092</del>	<del>106</del>	<del>2472</del>	<del>642</del>	<del>1830</del>
PM Peak Hour	In	<del>291</del>	<del>119</del>	<del>172</del>	<del>30</del>	<del>92</del>	<del>733</del>	<del>202</del>	<del>531</del>	<del>53</del>	<del>1199</del>	<del>321</del>	<del>878</del>
	<del>Out</del>	<del>302</del>	<del>119</del>	<del>183</del>	<del>105</del>	<del>50</del>	<del>763</del>	<del>202</del>	<del>561</del>	<del>53</del>	<del>1273</del>	<del>321</del>	<del>952</del>
Saturday	Total	<del>800</del>	<u>294</u>	<del>506</del>	ц	<u>112</u>	<del>1964</del>	<del>617</del>	<del>1347</del>	<del>308</del>	<del>3189</del>	<del>911</del>	<u>2278</u>
Peak	In	<del>416</del>	147	<del>269</del>	2	<del>56</del>	<del>1021</del>	<del>309</del>	<del>712</del>	<del>154</del>	<del>1649</del>	4 <del>56</del>	<del>1193</del>
Hour	Out	<del>384</del>	<del>147</del>	<del>237</del>	3	<del>56</del>	<del>943</del>	<del>308</del>	<del>635</del>	<del>154</del>	<del>1540</del>	<del>455</del>	<del>1085</del>

The project-related trips were distributed along the anticipated approach routes to the project site based on following assumptions:

1. The purpose of the project is to provide services for the residents <u>of</u> and visitors to of South Maui. Thus marketing and advertising will be directed toward this area. Accordingly, it was assumed that 75% of the traffic to and from the project will be generated by Kihei and South Maui.

2. 25% of the project generated traffic will approach and depart via Mokulele Highway (10%) and North Kihei Road (15%). Of the 15% from North Kihei Road, 10% will use North Kihei Road to Pi'ilani Highway at then Pi'ilani Highway to the project. The remaining 5% will use South Kihei Road and Kaonoulu Street.

3. The traffic generated from within Kihei (75%) was distributed based on the distribution of residential units and hotel rooms (including timeshares and vacation rentals) using the data presented in the *Maui Long-Range Land Transportation Plan* with adjustments to reflect Maui Lu Resort Redevelopment, the Kihei Residential Development, Honua'ula, Makena Resort and additional Wailea Resort units. Using this distribution, 20% of the trips would be generated by the area north of Kaonoulu Street and 80% would be generated by the area south of Kaonoulu Street.

#### Trips were assigned based on the following assumptions:

- 1. Kaonoulu Street is extended mauka of Pi'ilani Highway to provide access to the project and the intersection of Pi'ilani Highway at Kaonoulu Street is signalized.
- 2. There are four (4) driveways along East Kaonoulu Street to serve the project.

The results of the Level-of-Service analysis for the 2018 background plus project traffic of the signalized intersections are summarized in Table 8 and the results of the Level-of-Service analysis of the unsignalized intersections are summarized in Table 9.

#### Table 8 2018 Background Plus Project Levels-of-Service - Signalized Intersections

			AM Pe	ak Ho	ur			ł	PM Pea	k Hou	Ŧ		Saturday Peak Hour						
	Wit	hout P	roject	₩	ith Proj	ect	Witl	nout Pre	<del>ject</del>	W	ith Proje	<del>ct</del>	With	<del>wut Pre</del>	<del>ject</del>	With Project			
Intersection and Movement	<del>V/C</del>	<del>Dela</del> <del>y </del> ¹	105 2	<del>V/C</del>	<del>Delay</del>	<del>LOS</del>	<del>V/C</del>	<del>Delay</del>	LOS	<del>V/C</del>	<del>Delay</del>	LOS	<del>V/C</del>	<del>Delay</del>	<del>LOS</del>	<del>V/C</del>	<del>Delay</del>	LOS	
<del>Pi'ilani Hwy at</del> <del>Ohukai Rd</del>		<del>25.8</del>	€	<del>0.82</del>	<del>29.9</del>	e	<del>0.77</del>	<del>34.3</del>	e	<del>0.90</del>	<del>44.2</del>	Ð	<del>.62</del>	<del>18.8</del>	₿	<del>0.80</del>	<del>24.3</del>	e	
Eastbound Left	<del>0.46</del>	<del>51.7</del>	Ð	<del>0.46</del>	<del>51.7</del>	Ð	<del>0.62</del>	<del>72.7</del>	E	<del>0.72</del>	<del>84.2</del>	F	<del>0.57</del>	37.7	Ð	<del>0.54</del>	<del>38.2</del>	Ð	
Eastbound Left & Thru		<del>51.1</del>	₽	<del>0.41</del>	<del>51.1</del>	Ð	<del>0.63</del>	<del>73.1</del>	Ŧ	<del>0.72</del>	<del>83.4</del>	F	<del>0.59</del>	<del>38.4</del>	Ð	<del>0.56</del>	<del>38.8</del>	Ð	
Eastbound Right	<del>0.05</del>	4 <del>7.6</del>	Ð	<del>0.06</del>	<del>47.7</del>	Ð	<del>0.06</del>	<del>61.7</del>	E	<del>0.08</del>	<del>63.7</del>	E	<del>0.09</del>	<del>32.2</del>	e	<del>0.39</del>	<del>36.1</del>	Ð	

Westbound Left	0.60	<del>55.9</del>	E	0.63	<del>56.6</del>	E	<del>0.69</del>	72.8	E	<del>0.78</del>	<del>80.7</del>	F	0.63	<u>48.2</u>	Ð	0.80	<del>68.6</del>	E
Westbound Left &		56.9	Ē	0.65	56.0	Ē	0.72	7 <u>7</u> .0 7 <u>4.2</u>	Ē	0.80	<del>83.1</del>	F	0.55	40.2 42.4	Ð	0.80 0.81	$\frac{30.0}{70.1}$	Ē
<del>Thru</del> <del>Westbound Right</del>	<del>0.12</del>	4 <del>8.3</del>	Ð	0.05	47.9	Ð	<del>0.24</del>	<del>60.1</del>	Đ	0.00	62.2	Ē	<del>0.03</del>	<del>35.8</del>	e	<del>0.03</del>	<del>37.4</del>	Ð
Northbound Left	0.27	<del>74.8</del>	E	0.12 0.32	<del>58.9</del>	Ē	<del>0.69</del>	<del>85.4</del>	F	0.45	<del>86.6</del>	F	<del>0.43</del>	<del>38.8</del>	Ð	<del>0.83</del>	<del>77.0</del>	E
Northbound Thru		$\frac{14.1}{14.1}$	B	0.52 0.76	<del>18.6</del>	B	0.09	13.9	B	0.02 0.87	$\frac{28.1}{28.1}$	Ę	0.10	14.9	B	0.00	18.2	B
Northbound Right		<del>2.2</del>	A	0.70 0.04	$\frac{10.0}{17.1}$	B	0.05	<del>2.3</del>	A	0.07	<del>20.1</del> 11.3	B	0.00	<del>11.2</del>	B	0.70	$\frac{10.2}{10.1}$	B
_																		
Southbound Left		65.2	E	<del>0.46</del>	<del>66.4</del>	E	<del>0.62</del>	63.4	Ð	<del>0.73</del>	65.2	E	<del>0.30</del>	34.4	<del>C</del>	<del>0.37</del>	<del>38.1</del>	Ð
Southbound Thru		<u>19.1</u>	₿	0.92	<u>25.8</u>	<del>C</del>	0.74	<u>33.8</u>	C D	<del>0.90</del>	4 <del>3.7</del>	Ð	<del>0.60</del>	<u>12.7</u>	B	0.81	18.6	B
Southbound Right		<del>2.4</del>	A	<del>0.07</del>	4 <del>.1</del>	A	<del>0.07</del>	<del>35.6</del>	Ð	<del>0.07</del>	<del>33.0</del>	e	<del>0.07</del>	<del>8.3</del>	A	<del>0.07</del>	<del>9.2</del>	A
<del>Pi'ilani Hwy at</del> <del>Kaiwahine St</del>	<del>0.00</del>	<del>24.5</del>	e	<del>0.63</del>	<del>26.6</del>	e	<del>0.65</del>	<del>22.1</del>	e	<del>0.74</del>	<del>26.9</del>	e	<del>0.58</del>	<del>10.0</del>	₿	<del>0.71</del>	<del>15.1</del>	₿
Eastbound Left		<del>56.8</del>	E	<del>0.66</del>	<del>56.8</del>	E	<del>0.65</del>	<del>75.9</del>	E	<del>0.63</del>	<del>73.7</del>	E	<del>0.44</del>	<del>33.0</del>	e	<del>0.35</del>	<del>37.2</del>	Ð
Eastbound Thru		<u>44.1</u>	Ð	<del>0.06</del>	<u>44.1</u>	Ð	<del>0.12</del>	<del>62.2</del>	E	<del>0.11</del>	<del>61.7</del>	E	<del>0.07</del>	<del>29.1</del>	e	<del>0.06</del>	<del>34.3</del>	e
Eastbound Right		4 <del>4.3</del>	Ð	<del>0.08</del>	44.4	Ð	<del>0.05</del>	61.7	E	<del>0.08</del>	<del>61.5</del>	Ē	0.04	<u>28.9</u>	C	0.08	<del>34.5</del>	C
Westbound Left		4 <del>7.3</del>	Ð	<del>0.41</del>	4 <del>8.3</del>	Ð	<del>0.27</del>	<del>63.9</del>	E	<del>0.56</del>	<del>69.5</del>	E	<del>0.30</del>	<del>31.2</del>	e	<del>0.55</del>	<del>40.9</del>	Ð
Westbound Thru		44.5	Ð	<del>0.10</del>	44.5	Ð	<del>0.26</del>	<del>63.5</del>	E	<del>0.25</del>	<del>63.0</del>	E	0.21	<del>30.0</del>	e	<del>0.17</del>	<del>35.1</del>	Ð
Westbound Right	0.07	4 <del>4.3</del>	Ð	<del>0.07</del>	<del>44.3</del>	Ð	<del>0.05</del>	<del>61.6</del>	E	<del>0.05</del>	<del>61.2</del>	E	<del>0.03</del>	<del>28.9</del>	e	<del>0.03</del>	<del>34.2</del>	e
Northbound Left		<del>38.0</del>	Ð	<del>0.33</del>	<del>32.5</del>	e	<del>0.47</del>	<del>79.2</del>	E	<del>0.62</del>	<del>76.5</del>	E	<del>0.33</del>	<del>34.3</del>	e	<del>0.56</del>	<del>43.4</del>	Ð
Northbound Thru		<u>19.7</u>	₿	<del>0.64</del>	<del>22.5</del>	e	<del>0.65</del>	<u>18.2</u>	₿	<del>0.74</del>	<u>23.5</u>	C	<del>0.53</del>	<del>6.7</del>	A	0.64	<del>10.2</del>	₿
Northbound Right	<del>0.04</del>	<del>26.7</del>	e	<del>0.05</del>	<del>26.3</del>	e	<del>0.08</del>	<del>10.2</del>	₿	<del>0.11</del>	<del>13.2</del>	₿	<del>0.04</del>	<del>4.3</del>	A	<del>0.07</del>	<del>5.8</del>	A
Southbound Left	<del>0.37</del>	44.4	Ð	<del>0.37</del>	<del>45.5</del>	Ð	<del>0.63</del>	<del>83.5</del>	F	<del>0.63</del>	<u>82.9</u>	F	<del>0.67</del>	<del>45.2</del>	Ð	0.53	<u>41.8</u>	Ð
Southbound Thru	<del>0.56</del>	<del>20.3</del>	e	<del>0.63</del>	<del>22.6</del>	e	<del>0.60</del>	<del>12.3</del>	B	<del>0.71</del>	<del>17.2</del>	B	<del>0.62</del>	<del>7.2</del>	A	<del>0.77</del>	<del>12.8</del>	₿
Southbound Right	<del>0.01</del>	<del>13.3</del>	B	0.01	<del>16.9</del>	B	<del>0.05</del>	<del>5.0</del>	A	0.05	<del>6.7</del>	A	0.03	<del>3.8</del>	A	0.03	<del>5.6</del>	A
<del>Pi'ilani Hwy at N.</del> <del>Kihei Rd</del>	<del>0.61</del>	<del>29.6</del>	e	<del>0.64</del>	<del>29.6</del>	e	<del>0.78</del>	<del>36.5</del>	Ð	<del>0.85</del>	<del>39.9</del>	Ð	<del>0.61</del>	<del>17.1</del>	₿	<del>0.69</del>	<del>19.0</del>	₿
Eastbound Left	0.57	<del>59.7</del>	E	0.58	<u>58.9</u>	E	<del>0.75</del>	<del>56.8</del>	E	0.74	<del>55.6</del>	E	<del>0.46</del>	<del>29.8</del>	e	0.54	37.8	Ð
Eastbound Left &		<del>60.9</del>	Ē	<del>0.60</del>	<del>59.8</del>	Ē	<del>0.78</del>	<del>59.6</del>	Ē	<del>0.77</del>	<del>58.1</del>	E	<del>0.46</del>	<del>29.8</del>	e	<del>0.54</del>	<del>37.8</del>	Ð
Eastbound Right	<u>0.22</u>	<u>59.9</u>	Ē	0.28	54.4	Ð	<del>0.13</del>	<u>58.2</u>	Ē	<del>0.23</del>	<del>39.5</del>	Ð	0.14	<del>15.6</del>	₿	<del>0.33</del>	<del>20.4</del>	e
Westbound Left, Thru & Rt		<del>58.3</del>	Đ	<del>0.22</del>	<del>59.0</del>	E	<del>0.58</del>	<del>73.5</del>	E	<del>0.58</del>	<del>73.5</del>	E	<del>0.02</del>	<del>32.5</del>	e	<del>0.02</del>	<del>38.5</del>	Ð
Northbound Left	0.71	4 <del>2.1</del>	Ð	0.74	44.5	Ð	<del>0.84</del>	72.9	E	0.94	85.0	E	<del>0.54</del>	<del>27.4</del>	e	0.69	34.3	c
Northbound Thru	<del>0.54</del>	<del>19.0</del>	₿	<del>0.56</del>	<del>18.7</del>	₿	<del>0.56</del>	<del>16.9</del>	₿	<del>0.61</del>	<del>18.7</del>	₿	<del>0.50</del>	<del>8.7</del>	A	0.51	<del>7.9</del>	A
& Right Southbound Left		<del>63.6</del>	E	<del>0.21</del>	64.4	E	<del>0.46</del>	<del>78.4</del>	E	<del>0.46</del>	<del>78.4</del>	E	<del>0.35</del>	<del>38.3</del>	Ð	<del>0.41</del>	<del>46.3</del>	Ð
Southbound Thru		<del>23.0</del>	Ē	0.21 0.68	<del>23.8</del>	Ē	<del>0.10</del> 0.76	<del>32.5</del>	Ē	0.46 0.86	<del>70.4</del> 39.0	Ð	0.80	<del>20.6</del>	Ę	0.41 0.81	40.3 21.4	÷
		<del>23.0</del> 14.7	B	0.08	<del>23.0</del> 14.8	<del>с</del> В	<del>0.76</del> 0.16	<del>32.5</del> 20.0	e	0.00 0.17	<del>39.0</del> 21.4	÷	0.00 0.11	<del>20.0</del> <del>11.8</del>	B		<del>41.4</del> 11.7	њ В
Southbound Right					20.2								0.11 0.59			<del>0.11</del>	<del>11./</del>	Ð
<del>N. Kihei Rd at S.</del> <del>Kihei Rd</del>			£	<del>0.42</del>		¢	<del>0.58</del>	<del>24.5</del>	£	<del>0.64</del>	<del>28.6</del>	€		<del>10.1</del>	₿	<del>0.61</del>	<del>12.5</del>	₿
Eastbound Thru		<del>9.9</del>	A	<del>0.30</del>	<del>10.5</del>	₿	<del>0.42</del>	<del>19.8</del>	₿	<del>0.51</del>	<del>21.8</del>	e	<del>0.39</del>	<del>10.1</del>	₿	<del>0.54</del>	<del>14.0</del>	₿
Eastbound Right		<del>9.2</del>	A	<del>0.19</del>	<del>9.5</del>	A	<del>0.36</del>	<del>18.8</del>	₿	<del>0.42</del>	<del>20.1</del>	e	<del>0.27</del>	<del>9.3</del>	A	<del>0.30</del>	<del>11.7</del>	₿
Westbound Left		<del>68.9</del>	E	<del>0.59</del>	<del>70.5</del>	E	<del>0.71</del>	<del>98.7</del>	F	<del>0.71</del>	<del>99.7</del>	F	<del>0.57</del>	<del>21.2</del>	e	<del>0.51</del>	<del>24.5</del>	e
Westbound Thru		<del>1.1</del>	A	<del>0.19</del>	<del>1.1</del>	A	<del>0.15</del>	<del>2.1</del>	A	<del>0.19</del>	<del>1.8</del>	A	<del>0.14</del>	3.3	A	<del>0.18</del>	<u>4.2</u>	A
Northbound Left		<del>54.8</del>	Ð	<del>0.77</del>	<del>54.5</del>	Ð	<del>0.37</del>	4 <del>9.7</del>	Ð	<del>0.43</del>	<del>50.7</del>	Ð	<del>0.52</del>	<del>17.9</del>	₿	<u>0.52</u>	<u>21.8</u>	C
Northbound Right	<del>0.13</del>	<del>0.0</del>	A	<del>0.13</del>	<del>0.0</del>	A	<del>0.12</del>	<del>0.0</del>	A	<del>0.12</del>	4 <del>6.1</del>	Ð	<del>0.10</del>	<del>0.0</del>	A	<del>0.10</del>	<del>0.0</del>	A
										-		-						

			AM Pe	ak Ho	ur				PM Pea	ak Hou	HF			Sa	turday F	eak H	our	
Internetien and	Wi	thout Pr	roject	₩	/ith Proj	ect	Wit	hout Pro	ject	W	ith Proje	ect	Wit	hout Pre	oject	₩	ith Proje	ect
Intersection and Movement	<del>V/C</del>	Delay	LOS	<del>\/C</del>	Delay	LOS	<del>V/C</del>	<del>Delay</del>	LOS	<del>\/C</del>	<del>Delay</del>	LOS	<del>₩C</del>	Delay	LOS	<del>V/C</del>	<del>Delay</del>	LO
<del>Piʻilani Hwy at</del> <del>Kaonoulu St</del>	0.79	<del>-16.1</del>	₿	0.78	<u>32.9</u>	£	<del>0.74</del>	<del>13.0</del>	₿	<del>0.88</del>	<del>50.5</del>	Ð	<del>0.61</del>	<del>6.1</del>	A	0.87	<u>37.2</u>	Ð
Eastbound Left	<del>0.36</del>	<del>55.5</del>	E	<del>0.48</del>	<del>59.8</del>	E	<del>0.45</del>	<del>70.2</del>	E	<del>0.57</del>	<del>91.8</del>	F	<u>0.27</u>	<del>21.0</del>	C	<del>0.51</del>	4 <del>1.9</del>	Ð
Eastbound Thru				<del>0.26</del>	<del>53.7</del>	Ð				<del>0.66</del>	<del>85.0</del>	F				<del>0.64</del>	41.4	Ð
Eastbound Right	<del>0.42</del>	<del>56.3</del>	E	<del>0.64</del>	48.4	Ð	<del>0.13</del>	<del>66.6</del>	E	0.62	<del>75.1</del>	E	<del>0.46</del>	<del>22.4</del>	C	<del>0.39</del>	<del>30.5</del>	c
Westbound Left				<del>0.74</del>	<del>70.0</del>	E				<del>0.90</del>	<del>78.7</del>	E				<del>0.97</del>	<del>62.3</del>	E
Westbound Thru				<del>0.50</del>	<del>56.6</del>	E				0.52	<del>66.4</del>	E				<del>0.54</del>	<del>31.4</del>	c
Westbound Right			_	0.05	4 <u>2.4</u>	Ð			_	0.40	44.8	₽				<del>0.36</del>	<del>15.5</del>	B
Northbound Left	0.62 0.39	4 <u>3.2</u>	Ð	0.55	<del>38.6</del>	₽	0.72	<del>71.9</del>	Ē	0.57	84.0	F	0.59	<del>8.6</del> 4.1	A	0.74	<del>54.0</del>	Ð
Northbound Thru	0.39	<del>7.9</del>	A	0.52	<u>26.8</u>	<del>C</del>	0.56	4.1	A	0.90	<u>51.0</u>	Ð	0.46	4.1	A	<del>0.94</del>	<del>49.4</del>	Ð
Northbound Right				0.05	<del>36.4</del>	Ð				<del>0.28</del>	<del>13.6</del>	₽ _				<del>0.48</del>	<del>16.5</del>	₿
Southbound Left			_	0.53	4 <del>1.3</del>	Ð				<del>0.89</del>	<del>86.8</del>	F				<del>0.96</del>	<del>56.5</del>	E
Southbound Thru		<del>12.7</del>	₿	<del>0.80</del>	<del>26.1</del>	e	<del>0.63</del>	<del>9.0</del>	A	<del>0.70</del>	<del>28.7</del>	<del>C</del>	<del>0.52</del>	4.4	A	<del>0.73</del>	<del>25.4</del>	c
Southbound Right		<del>13.4</del>	B	<del>0.05</del>	<del>26.2</del>	e	<del>0.07</del>	<del>7.6</del>	A	<del>0.08</del>	<del>16.8</del>	B	<del>0.08</del>	<del>2.9</del>	A	<del>80.0</del>	17.4	₿
<del>S. Kihei Rd at</del> <del>Kaonoulu St.</del>	<del>0.45</del>	<del>6.2</del>	A	<del>0.47</del>	<del>6.6</del>	A	<del>0.50</del>	<del>8.4</del>	A	<del>0.66</del>	<del>15.9</del>	₿	<del>0.44</del>	<del>6.</del> 4	A	<del>0.55</del>	<del>7.2</del>	A
Westbound Left		<del>23.8</del>	e	<del>0.42</del>	<del>20.8</del>	e	<del>0.46</del>	<del>28.4</del>	¢	<del>0.57</del>	<del>22.6</del>	e	<del>0.48</del>	<del>23.6</del>	C	<del>0.55</del>	<del>15.4</del>	B
Westbound Right	<del>0.03</del>	<del>21.5</del>	e	<del>0.05</del>	<del>18.6</del>	B	<del>0.03</del>	<del>25.4</del>	c	<del>0.08</del>	<del>18.6</del>	₿	<del>0.02</del>	<del>20.8</del>	C	<del>0.08</del>	<del>12.5</del>	B
Northbound Thru	<del>0.45</del>	<del>3.5</del>	A	<del>0.49</del>	4.7	A	<del>0.49</del>	<del>6.1</del>	A	<del>0.63</del>	<del>10.9</del>	₽	<del>0.44</del>	<del>3.6</del>	A	<del>0.55</del>	<del>6.0</del>	Ą
Northbound Thru	<del>0.06</del>	<del>2.3</del>	A	<del>0.08</del>	<del>3.2</del>	A	<del>0.11</del>	4 <del>.3</del>	A	<del>0.16</del>	7.3	A	<del>0.09</del>	<del>2.5</del>	A	<del>0.16</del>	4 <del>.2</del>	Ą
Southbound Left	<del>0.06</del>	<del>2.3</del>	A	<del>0.14</del>	3.5	A	<del>0.70</del>	4 <del>8.5</del>	Ð	<del>0.95</del>	<del>79.1</del>	E	<del>0.10</del>	<del>2.5</del>	A	<del>0.43</del>	<del>5.8</del>	A
Southbound Thru	<del>0.30</del>	<del>2.9</del>	A	<del>0.33</del>	4 <del>.0</del>	A	<del>0.40</del>	<del>2.6</del>	A	<del>0.45</del>	4 <del>.3</del>	A	<del>0.37</del>	<del>3.3</del>	A	<del>0.46</del>	<del>5.4</del>	Ą
<del>Piʻilani Hwy at</del> Kulanihakoi St	<del>0.76</del>	<del>-15.5</del>	₿	<del>0.81</del>	<del>16.7</del>	₿	<del>0.66</del>	<del>10.8</del>	₿	<del>0.79</del>	<del>15.1</del>	₿	<del>0.53</del>	<del>6.</del> 4	A	<del>0.67</del>	<del>8.1</del>	A
Eastbound Left & Thru	0.37	<u>54.2</u>	₽	<u>0.52</u>	57.0	Ē	0.51	<del>72.0</del>	Ē	<del>0.64</del>	<u>75.2</u>	Ē	<u>0.29</u>	<u>28.2</u>	¢	0.57	41 <u>.3</u>	Ē
Eastbound Right	0.27	<del>53.1</del>	Ð	<del>0.37</del>	<del>54.1</del>	Ð	<del>0.06</del>	<del>65.8</del>	E	<del>0.06</del>	<del>62.1</del>	E	<del>0.06</del>	<del>26.6</del>	<del>C</del>	<del>0.06</del>	<del>34.5</del>	e
Westbound Left & Thru	<del>0.61</del>	<del>62.3</del>	E	<del>0.66</del>	<del>67.4</del>	E	<del>0.47</del>	71.3	E	<del>0.39</del>	<del>66.2</del>	E	<del>0.00</del>	<del>0.0</del>	A	<del>0.00</del>	<del>0.0</del>	Ą
Westbound Right	0.02	<del>50.8</del>	Ð	0.02	<del>50.8</del>	Ð	0.01	<del>65.4</del>	E	0.01	<del>61.6</del>	Æ	0.00	0.0	A	0.00	0.0	Ą
Northbound Left	<del>0.51</del>	<del>74.1</del>	E	<del>0.60</del>	<del>85.6</del>	F	<del>0.60</del>	<del>67.0</del>	E	<del>0.60</del>	<del>64.7</del>	Æ	<del>0.73</del>	<del>73.4</del>	E	<del>0.44</del>	44 <del>.0</del>	E
Northbound Thru		<del>9.7</del>	A	<del>0.58</del>	<del>10.0</del>	₿	<del>0.68</del>	4 <del>.6</del>	A	<del>0.80</del>	<del>8.5</del>	A	<del>0.48</del>	<del>3.1</del>	A	<del>0.63</del>	4 <u>.2</u>	Ą
Northbound Right	<del>0.08</del>	<del>4.3</del>	A	<del>0.08</del>	<del>3.1</del>	A	<del>0.02</del>	<del>2.1</del>	A	0.02	<del>3.9</del>	A	<del>0.00</del>	0.0	A	<del>0.00</del>	0.0	Ą
Southbound Left	<del>0.51</del>	<del>63.0</del>	E	<del>0.55</del>	<del>56.9</del>	E	<del>0.32</del>	<del>57.3</del>	E	<del>0.32</del>	<del>77.5</del>	Æ	<del>0.00</del>	0.0	A	<del>0.00</del>	0.0	Ą
Southbound Thru		<del>12.</del> 4	B	<del>0.80</del>	<del>14.5</del>	₽	<del>0.64</del>	<del>8.4</del>	A	<del>0.80</del>	<del>14.8</del>	₽	<del>0.53</del>	<del>5.7</del>	A	<del>0.68</del>	8.4	Ą
Southbound Right	<del>0.02</del>	<del>5.5</del>	A	<del>0.03</del>	7.7	A	<del>0.06</del>	<del>7.8</del>	A	<del>0.09</del>	<del>5.4</del>	A	<del>0.05</del>	<del>3.7</del>	A	0.07	4 <del>.3</del>	A
<del>Piʻilani Hwy at</del> <del>Piikea Ave</del>	<del>0.80</del>	<del>-19.7</del>	₿	<del>0.8</del> 4	<del>21.6</del>	£	<del>0.78</del>	<del>30.8</del>	e	<del>0.92</del>	<del>32.3</del>	£	<del>0.79</del>	<del>17.</del> 4	₿	<del>0.91</del>	<del>28.</del> 4	¢
Eastbound Left	<del>0.86</del>	<del>67.2</del>	E	<del>0.89</del>	<del>70.4</del>	E	<del>0.86</del>	<del>77.1</del>	E	<del>0.97</del>	<del>93.6</del>	F	0.79	<del>30.8</del>	<del>C</del>	<del>0.92</del>	<del>55.5</del>	E
Eastbound Right	0.16	4 <u>2.1</u>	Ð	<del>0.24</del>	4 <del>1.3</del>	Ð	0.17	<del>50.8</del>	Ð	<del>0.25</del>	4 <del>7.3</del>	Ð	0.17	<del>18.2</del>	₿	<del>0.18</del>	<del>24.8</del>	G
Northbound Left		<del>65.1</del>	E	0.76	<del>77.3</del>	E	0.85	<del>79.9</del>	E	0.85	<del>79.9</del>	Æ	<u>0.77</u>	<del>35.5</del>	Ð	0.91	<del>75.1</del>	E
Northbound Thru	0.46	7.0	A	0.51	8.3	A	0.61	<del>9.5</del>	A	0.73	<u>14.8</u>	B	0.51	7.0	A	0.65	<u>12.3</u>	₿
Southbound Thru		<u>17.2</u>	B	<del>0.84</del>	<del>19.3</del>	B	0.72	32.3	<del>C</del>	0.91	31.5	<del>C</del>	0.80	<del>21.4</del>	c	0.90	32.7	G
			-	1			1		-	1			1		-	1 1		

### Table 8 2018 Background Plus Projects Levels-of-Service - Signalized Intersections

- NOTES: (1) Delay is in seconds per vehicle. (2) LOS denotes Level of Service ca
  - ) LOS denotes Level of Service calculated using the operations method described in Highway Capacity Manual. Level of Service is based on delay.
- (3) See Appendix D for Level of Service Analysis Worksheets without Project.
- (4) See Appendix E for Level of Service Analysis Worksheets with Project.

#### Table 9 2018 Background Plus Project Levels-of-Service - Unsignalized Intersections

		AM Pea	ak Hour			PM Pea	k Hour		Ş	aturday F	<sup>p</sup> eak Hou	ŧt.
	Without	Project	With F	<del>Project</del>	Without	Project	With F	Project	Without	Project	With F	Project
Intersection and Movement	Delay <sup>4</sup>	LOS-2	<del>Delay</del>	LOS	<del>Delay</del>	LOS	<del>Delay</del>	LOS	<del>Delay</del>	LOS	<del>Delay</del>	LOS
Kaonoulu St at Kenolio Rd	<del>6.9</del>	A	<del>6.9</del>	A	<del>5.1</del>	A	<del>6.8</del>	A	<del>6.</del> 4	A	<del>6.2</del>	A
Eastbound Left	<del>7.6</del>	A	7.8	A	7.7	A	8.3	A	8.1	A	8.4	A
Westbound Left	7.5	A	<del>7.6</del>	A	<del>7.6</del>	A	<del>8.0</del>	A	7.7	A	<del>8.1</del>	A
Northbound Left	<u>11.2</u>	₿	<u>12.5</u>	₿	<u>12.8</u>	₿	<del>19.1</del>	<del>C</del>	<del>17.9</del>	C	<del>19.6</del>	C
Northbound Thru & Right	<del>9.4</del>	A	<del>9.9</del>	A	<u> 10.2</u>	₿	<del>12.3</del>	₽	<del>11.5</del>	₿	<del>13.1</del>	₿
Southbound Left	<del>16.0</del>	C	<u>20.4</u>	<del>C</del>	<u> 16.2</u>	<del>C</del>	<del>39.0</del>	E	<u>27.7</u>	Ð	<del>39.5</del>	臣
Southbound Thru & Right	<del>9.5</del>	A	<del>10.0</del>	₿	<del>11.0</del>	₿	<del>14.2</del>	₽	<del>12.0</del>	B	<del>12.6</del>	₿
Kaonoulu St at Alulike St	<del>2.8</del>	A	<del>2.</del> 4	A	<del>2.7</del>	A	<del>1.9</del>	A	<del>3.</del> 4	A	<del>2.</del> 4	A
Eastbound Left	<del>7.5</del>	A	<del>7.6</del>	A	7.7	A	<del>8.1</del>	A	7.7	A	<del>8.2</del>	A
Westbound Left	<del>7.5</del>	A	<del>7.6</del>	A	7.7	A	<del>8.0</del>	A	<del>7.6</del>	A	<del>8.1</del>	A
Northbound Left, Thru & Right	<del>11.7</del>	₿	<del>12.8</del>	₿	<del>11.9</del>	₿	<del>15.5</del>	e	<del>12.6</del>	₿	<del>18.5</del>	e
Southbound Left, Thru & Right	<del>9.2</del>	A	<del>9.6</del>	A	<del>9.7</del>	A	<del>11.2</del>	₿	<del>10.3</del>	₿	<del>12.8</del>	B

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level of Service calculated using the operations method described in *Highway Capacity Manual*. Level of Service is based on delay.

(3) See Appendix C for Level of Service Analysis Worksheets for Without Project conditions.

(4) See Appendix D for Level of Service Analysis Worksheets for With Project conditions.

#### Future with Project Level of Service

#### Future (2025) With Project LOS

Future (2025) With Project conditions intersection LOS, v/c ratio and delay were determined for the AM, PM and Saturday peak hours (See: Table No. 11). For Future (2025) With Project conditions, all signalized intersection LOS maintained LOS D or better results except the intersection of Pi'ilani Highway at Kaonoulu Street which operated at LOS E during the PM peak hour. Individual turning movement LOS and v/c remained poor for some signalized intersections. Most unsignalized intersections resulted in LOS D or better for individual movements, except for the southbound left turn movement which operated at LOS F for PM and Saturday peak hours. Detailed analysis reports for these intersections are provided in Appendix H of the TIAR update. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

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<u>_</u>		<u>o. 11: Fut</u>	ure (2023	<u>5) Witr</u>	n Projec	t Interse	ection I	level of	Service		
Intersection		<u>affic</u> <u>ntrol</u>	<u>AM</u> ]	Peak H	<u>lour</u>	<u>PM 1</u>	Peak H	our	Weeken	d Peak	<u>Hour</u>
	Appr	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
	Signa	<u>alized</u>	<u>45.3</u>	<u>-</u>	<u>D</u>	<u>54.2</u>	<u>-</u>	<u>D</u>	<u>33.0</u>	-	<u>C</u>
		<u>L</u>	<u>75.4</u>	<u>0.77</u>	<u>E</u>	<u>76.5</u>	<u>0.71</u>	<u>E</u>	<u>69.9</u>	<u>0.68</u>	<u>E</u>
	<u>EB</u>	<u>T</u>	<u>62.4</u>	<u>0.49</u>	<u>E</u>	<u>60.2</u>	<u>0.31</u>	<u>E</u>	<u>54.7</u>	<u>0.31</u>	<u>D</u>
		<u>R</u>	0.0	0.00	*	0.0	0.00	*	<u>0.0</u>	0.00	*
Pi'ilani	WB	<u>L</u>	<u>135.0</u>	<u>1.07</u>	<u>F</u>	<u>182.1</u>	<u>1.17</u>	<u>F</u>	<u>76.7</u>	0.82	<u>E</u>
Highway and		<u>T</u>	<u>50.1</u>	0.12	D E	<u>53.2</u>	0.20	<u>D</u>	<u>46.8</u>	0.16	<u>D</u>
<u>Ohukai Road</u>	NID	<u>L</u> <u>T</u>	<u>66.1</u>	0.35 0.74	<u>E</u> <u>C</u>	<u>68.0</u>	0.57	<u>E</u> F	<u>60.6</u> 30.0	0.53 0.86	<u>E</u> <u>C</u>
	<u>NB</u>	<u> </u>	<u>32.0</u> 0.0	0.00	<u> </u>	<u>56.1</u> 0.0	<u><b>1.02</b></u> 0.00	<u>r</u> *	0.0	0.00	*
		L	73.8	0.87	Ē	<u>100.3</u>	0.95	F	<u>70.8</u>	0.76	Ē
	SB	T	<u>75.8</u> 34.5	0.94	C	<u>100.5</u> 32.7	0.95	C E	24.1	0.78	C
	<u>50</u>	R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
	Sign	alized	<u>37.7</u>	-	D	<u>33.7</u>	-	<u><u> </u></u>	<u>0.0</u> 15.0	-	B
	<u></u>	L	77.2	0.74	E	<u>61.2</u>	0.57	<u> </u>	<u>10.0</u> 72.2	0.60	E
	EB	T	76.2	0.44	Ē	55.8	0.50	Ē	65.1	0.40	Ē
		R	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
	TATD	L	114.1	0.96	F	79.7	0.82	E	63.7	0.57	Ē
<u>Pi'ilani</u>	<u>WB</u>	Т	62.7	0.17	E	49.5	0.21	D	59.3	0.19	E
Highway and		L	48.3	0.10	D	35.8	0.17	D	<u>57.6</u>	0.47	E
<u>Uwapo Road/</u> Kaiwahine	NB	T	<u>12.7</u>	0.61	B	<u>11.0</u>	0.81	B	<u>9.1</u>	0.64	A
Street		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
<u>succ</u>		L	<u>71.4</u>	0.46	E	<u>60.8</u>	0.82	<u>E</u>	<u>61.8</u>	0.40	<u>E</u>
		<u>T</u>	<u>44.9</u>	<u>0.97</u>	<u>D</u>	<u>50.1</u>	<u>1.04</u>	<u>F</u>	<u>12.0</u>	<u>0.65</u>	<u>B</u>
	<u>SB</u>	<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
	Signa	alized	<u>24.0</u>	-	<u>C</u>	<u>32.8</u>	-	<u>C</u>	<u>20.9</u>	-	<u>C</u>
	EB	LT	<u>43.3</u>	<u>0.66</u>	<u>D</u>	<u>53.7</u>	0.65	<u>D</u>	<u>51.3</u>	<u>0.65</u>	D
		<u>R</u>	0.0	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
Pi'ilani	WB	<u>L</u>	<u>41.0</u>	<u>0.09</u>	<u>D</u>	<u>55.4</u>	<u>0.27</u>	<u>E</u>	<u>56.2</u>	<u>0.08</u>	<u>E</u>
Highway and	<u>,,,</u>	<u>TR</u>	<u>43.7</u>	<u>0.28</u>	D	<u>68.4</u>	<u>0.63</u>	<u>E</u>	<u>56.7</u>	<u>0.03</u>	<u>E</u>
North Kihei		<u>L</u>	<u>44.6</u>	0.88	<u>D</u>	<u>74.3</u>	<u>1.00</u>	<u>E</u>	<u>50.7</u>	0.82	<u>D</u>
Road	<u>NB</u>	<u>T</u>	<u>8.3</u>	0.52	<u>A</u>	<u>10.5</u>	0.66	<u>B</u>	<u>7.4</u>	0.54	<u>A</u>
		<u>R</u>	<u>0.0</u>	0.00	* 	<u>0.0</u>	<u>0.00</u>	* 	<u>0.0</u>	0.00	* 
	CD	<u>L</u>	<u>79.9</u>	0.52	<u>E</u>	<u>77.5</u>	0.55	<u>E</u>	<u>83.6</u>	0.53	<u>F</u>
	<u>SB</u>	<u>T</u> R	<u>25.2</u>	0.82	<u>C</u> *	<u>35.2</u>	0.93	<u>D</u> *	<u>18.5</u>	0.66	<u>B</u> *
	Ciarro		<u>0.0</u>	<u>0.00</u>	-	<u>0.0</u>	<u>0.00</u>		<u>0.0</u> 15.0	<u>0.00</u>	_
	Signa	alized T	<u>18.2</u>	-	B	<u>21.3</u>	-	<u>C</u>	<u>15.9</u> 12.5	<u> </u>	<u>B</u>
<u>South Kihei</u>	<u>EB</u>	<u>T</u> R	<u>12.0</u> 0.0	<u>0.46</u> 0.00	<u>B</u> *	<u>15.3</u> 0.0	<u>0.64</u> 0.00	<u>B</u> *	<u>13.5</u> 0.0	0.62 0.00	<u>B</u> *
Road and		_	28.6	0.63		<u>29.3</u>	0.81	<u> </u>	<u>0.0</u> 24.3	0.73	<u> </u>
North Kihei	WB	<u>L</u> T	<u>28.6</u> 4.9	0.83	<u>C</u> <u>A</u>	<u>29.5</u> 0.1	0.81	<u>C</u> A	<u>4.3</u> 4.1	0.73	A
Road		<u> </u>	<u>4.9</u> 26.4	0.23	<u>A</u> <u>C</u>	27.5	0.24	<u>A</u> <u>C</u>	<u>4.1</u> 19.6	0.21	B
	<u>NB</u>	R	32.9	0.79	<u>C</u>	<u>27.3</u> 66.9	0.95	<u>E</u>	<u>19.0</u> 30.9	0.79	<u>D</u> C
L	I	<u> </u>	52.9	0.70		00.9	0.90		50.9	0.19	

#### Table No. 11: Future (2025) With Project Intersection Level of Service

Intersection		<u>iffic</u> 1trol	<u>AM l</u>	Peak H	<u>our</u>	<u>PM 1</u>	Peak H	<u>our</u>	<u>Weeken</u>	d Peak	Hour
	Appr	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
	Signa	alized	38.4	=	<u>D</u>	<u>51.0</u>	=	D	<u>39.8</u>	=	<u>D</u>
	EB	L	<u>88.3</u>	<u>0.99</u>	<u>F</u>	<u>114.1</u>	<u>1.08</u>	<u>F</u>	<u>77.2</u>	<u>0.95</u>	E
<u>Pi'ilani</u>		<u>R</u>	0.0	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
Highway and	NB	L	<u>119.9</u>	<u>1.04</u>	<u>F</u>	<u>130.2</u>	<u>1.09</u>	<u>F</u>	<u>87.4</u>	<u>0.93</u>	<u>F</u>
<u>Piikea Avenue</u>	<u></u>	<u>T</u>	<u>7.1</u>	<u>0.60</u>	<u>A</u>	<u>16.5</u>	<u>0.84</u>	<u>B</u>	<u>14.5</u>	<u>0.60</u>	<u>B</u>
	SB	<u>T</u>	<u>46.2</u>	<u>1.02</u>	<u>F</u>	<u>61.0</u>	<u>1.04</u>	<u>F</u>	<u>42.5</u>	0.87	<u>D</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	0.0	<u>0.00</u>	*
	Signa	alized	<u>28.5</u>	<u>-</u>	<u>C</u>	<u>70.3</u>	=	<u>E</u>	<u>35.9</u>	<u>-</u>	<u>D</u>
	EB	<u>L</u>	<u>79.1</u>	0.69	<u>E</u>	<u>61.6</u>	0.42	<u>E</u>	<u>87.0</u>	0.53	<u>F</u>
Pi'ilani		<u>T</u>	<u>78.3</u>	0.68	<u>E</u>	<u>80.3</u>	0.86	<u>F</u>	<u>119.3</u>	0.90	<u>F</u>
Highway and	WB	<u>L</u> T	<u>70.1</u> 76.7	<u>0.57</u> 0.73	<u>E</u>	<u>69.5</u> 75.1	<u>0.81</u> 0.82	<u>Е</u> Е	<u>103.6</u> 94.0	0.88 0.72	<u>F</u> F
<u>Kaonoulu</u>			275.9	<u>0.75</u> <b>1.33</b>	<u> </u>	<u>75.1</u> 214.4	<u>0.82</u> <b>1.21</b>	<u> </u>	<u>94.0</u> 41.9	0.72	D
<u>Street</u>	<u>NB</u>	<u>L</u> T	<u>275.9</u> 8.8	<u>1.55</u> 0.54	A	<u>214.4</u> 55.6	<u>1.21</u> 1.02	<u> </u>	<u>41.9</u> 15.5	0.61	B
		<u>T</u>	<u>78.2</u>	0.63	<u><u> </u></u>	<u>331.5</u>	<u>1.02</u> 1.29	<u> </u>	<u>13.5</u> 58.6	0.77	<u> </u>
	<u>SB</u>	R	18.2	0.84	B	<u>201.5</u> 52.2	1.00	D	<u> </u>	0.57	B
	Signa	alized	12.0	-	B	21.6	<u>-</u>	<u></u> C	20.5	-	C
		L	32.2	0.70	<u><u> </u></u>	46.5	0.79	<u>D</u>	36.1	0.77	D
	<u>WB</u>	R	28.2	0.40	<u>c</u>	<u> </u>	0.53	D	30.6	0.42	<u> </u>
		T	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
South Kihei	<u>NB</u>	R	10.6	0.71	B	21.2	0.88	Ċ	23.7	0.91	C
Road and		L	48.8	0.78	D	98.3	0.91	F	69.7	0.83	E
<u>Kaonoulu</u> <u>Street</u>	<u>SB</u>	<u>T</u>	<u>3.3</u>	<u>0.38</u>	<u>A</u>	<u>5.3</u>	<u>0.57</u>	<u>A</u>	<u>5.4</u>	<u>0.56</u>	<u>A</u>
	Signa	alized	31.3	-	C	30.4	-	<u>C</u>	8.6	<u>-</u>	A
	EB	L	138.5	<u>1.05</u>	F	39.4	0.48	D	<u>65.0</u>	0.58	E
		TR	<u>0.0</u>	0.00	*	0.0	0.00	*	0.0	0.00	*
<u>Pi'ilani</u>	WB	L	<u>92.2</u>	<u>0.94</u>	<u>F</u>	<u>34.2</u>	<u>0.32</u>	<u>C</u>	<u>57.5</u>	<u>0.03</u>	<u>E</u>
Highway and		<u>TR</u>	<u>37.3</u>	<u>0.26</u>	D	<u>32.5</u>	<u>0.14</u>	<u>C</u>	<u>0.0</u>	<u>0.00</u>	*
Kulanihakoi	<u>NB</u>	<u>L</u>	<u>86.3</u>	0.78	<u>F</u>	<u>81.0</u>	<u>0.79</u>	<u>F</u>	<u>82.2</u>	<u>0.78</u>	<u>F</u>
Street		<u>T</u>	<u>14.1</u>	0.70	<u>B</u>	<u>28.4</u>	<u>0.99</u>	<u>C</u>	<u>4.5</u>	0.67	<u>A</u>
	<u> </u>	<u>R</u>	<u>9.4</u>	0.31	<u>A</u>	<u>4.3</u>	0.06	<u>A</u>	0.0	0.00	
	<u>SB</u>	L	<u>55.3</u>	0.81	<u>E</u>	<u>61.5</u>	0.69	<u>E</u>	0.0	0.00	*
		<u>T</u>	<u>32.4</u>	<u>0.99</u>	<u>C</u>	<u>31.0</u>	<u>0.99</u>	<u>C</u>	<u>7.8</u>	<u>0.67</u>	<u>A</u>
	Unsigi	nalized	<u>-</u>	=	<u>:</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	-	-
Kanali D. I	NB	<u>L</u> TD	<u>15.0</u>	0.06	<u>C</u>	<u>30.0</u>	0.13	D P	<u>23.9</u>	0.11	<u>C</u>
<u>Kenolio Road</u> and Kaonoulu		TR I	<u>10.4</u>	0.09	<u>B</u>	<u>13.5</u>	0.14	B	<u>13.2</u>	0.13	<u>B</u>
<u>Street</u>	<u>EB</u> WB	<u>L</u>	<u>7.9</u>	0.02	A	<u>8.5</u>	0.05	<u>A</u>	<u>8.2</u>	0.04	<u>A</u>
Jucci	<u>WB</u>	L L	<u>7.7</u> 26.4	0.03 0.54	A D	<u>8.3</u> 85.6	0.07 0.80	<u>A</u> F	<u>8.3</u> 57.3	<u>0.05</u> 0.70	<u>A</u> F
	<u>SB</u>	TR	<u>26.4</u> <u>11.4</u>	0.04	B	<u>85.0</u> 16.9	0.80	<u>r</u> <u>C</u>	<u> </u>	0.07	<u>F</u> <u>B</u>
<u> </u>	Unsig	nalized									
	<u></u>		<u>-</u>	=	=	=	=	<u>-</u>	=	=	_

Intersection		<u>ffic</u> Itrol	<u>AM P</u>	eak H	<u>our</u>	<u>PM F</u>	Peak H	<u>our</u>	Weeken	d Peak	<u>Hour</u>
	Appr	<u>Mvmt</u>	<u>Delay</u>	v/c	LOS	Delay	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
Veenerle	NB	LTR	<u>13.0</u>	0.06	B	<u>14.9</u>	0.06	<u>B</u>	<u>15.0</u>	0.07	<u>C</u>
<u>Kaonoulu</u> Street and	EB	L	<u>7.8</u>	0.04	A	<u>8.2</u>	<u>0.07</u>	A	<u>8.0</u>	0.04	<u>A</u>
Alulike Street	WB	L	7.7	0.01	A	8.3	0.02	A	8.2	0.01	A
Alunke Street	SB	LTR	11.0	0.11	B	14.8	0.17	B	13.9	0.20	B

\* Right turn channelization; Appr = Approach; Mvmt = Movement; v/c = volume to capacity ratio; NB = Northbound; EB = Eastbound; WB = Westbound; SB = Southbound; L = Left turn movement; R = Right turn movement; T = Through movement

= Right turn movement; T = Through movement

#### Future (2032) With Project LOS

Future (2032) With Project conditions intersection LOS, v/c ratio and delay were determined for the AM, PM and Saturday peak hours (See Table No. 12). For Future (2032) With Project conditions, the signalized intersections of Pi'ilani Highway at Ohukai Road, at Piikea Avenue and at Kulanihakoi Street operated at poor LOS E or F. The unsignalized intersection of Kenolio Street and Kaonoulu Street resulted in LOS E and F for the northbound left turn movement and the southbound left turn movement. Detailed analysis reports for these intersections are provided in Appendix H of the TIAR update. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

Intersection	Tra	<u>affic</u> ntrol		Peak H			Peak H		Weeken	d Peak	Hour
	Appr	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
	Sign	alized	<u>74.0</u>	11	<u>E</u>	<u>105.3</u>	-	F	<u>71.5</u>	-	<u>E</u>
		<u>L</u>	<u>68.6</u>	<u>0.75</u>	E	<u>76.5</u>	0.71	E	<u>71.6</u>	<u>0.69</u>	<u>E</u>
	EB	<u>T</u>	<u>57.2</u>	<u>0.45</u>	E	<u>60.2</u>	<u>0.31</u>	E	<u>57.7</u>	<u>0.44</u>	<u>E</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*
Pi'ilani	WB	<u>L</u>	<u>167.9</u>	<u>1.17</u>	F	<u>274.9</u>	<u>1.40</u>	F	<u>161.6</u>	<u>1.15</u>	<u>F</u>
Highway and	<u></u>	<u>T</u>	<u>47.5</u>	<u>0.13</u>	<u>D</u>	<u>55.0</u>	<u>0.21</u>	<u>D</u>	<u>46.1</u>	<u>0.21</u>	<u>D</u>
Ohukai Road		L	<u>61.3</u>	<u>0.13</u>	E	<u>73.2</u>	<u>0.65</u>	E	<u>65.0</u>	<u>0.59</u>	<u>E</u>
	<u>NB</u>	<u>T</u>	<u>34.1</u>	<u>0.35</u>	<u>C</u>	<u>122.7</u>	<u>1.20</u>	<u>F</u>	<u>83.7</u>	<u>1.09</u>	<u>F</u>
		<u>R</u>	<u>0.0</u>	<u>0.85</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
		<u>L</u>	<u>92.4</u>	<u>0.91</u>	<u>F</u>	<u>87.5</u>	<u>0.95</u>	F	<u>151.5</u>	<u>1.11</u>	<u>F</u>
	<u>SB</u>	<u>T</u>	<u>88.7</u>	<u>1.11</u>	F	<u>75.8</u>	<u>1.10</u>	<u>F</u>	<u>35.5</u>	<u>0.92</u>	D
		R	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*
	Signa	<u>alized</u>	<u>45.8</u>	<u> </u>	D	<u>34.5</u>	<u>-</u>	<u>C</u>	<u>39.3</u>	=	<u>D</u>
Pi'ilani		L	<u>94.8</u>	<u>0.76</u>	<u>F</u>	<u>82.8</u>	<u>0.61</u>	<u>F</u>	<u>55.2</u>	<u>0.56</u>	<u>E</u>
<u>Highway and</u>	EB	<u>T</u>	<u>93.1</u>	<u>0.58</u>	<u>F</u>	<u>76.7</u>	<u>0.66</u>	E	<u>47.8</u>	<u>0.32</u>	<u>D</u>
Uwapo Road/		<u>R</u>	0.0	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
Kaiwahine	WB	L	<u>148.2</u>	<u>1.09</u>	<u>F</u>	<u>165.5</u>	<u>1.12</u>	<u>F</u>	<u>53.3</u>	<u>0.62</u>	<u>D</u>
Street		<u>T</u>	<u>65.0</u>	<u>0.20</u>	E	<u>63.1</u>	0.27	E	<u>44.5</u>	<u>0.17</u>	<u>D</u>
<u>Street</u>	NB	<u>L</u>	<u>64.9</u>	<u>0.14</u>	E	<u>59.7</u>	<u>0.33</u>	E	<u>30.7</u>	0.20	<u>C</u>
		T	<u>25.0</u>	<u>0.76</u>	<u>C</u>	<u>22.5</u>	0.97	<u>C</u>	<u>10.7</u>	0.80	B

#### Table No. 12: Future (2032) With Project Intersection Level of Service

Intersection		<u>nffic</u> ntrol	<u>AM I</u>	Peak H	our	<u>PM F</u>	Peak H	<u>our</u>	Weeken	d Peak	<u>Hour</u>
	Appr	<u>Mvmt</u>	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS	<u>Delay</u>	<u>v/c</u>	LOS
		<u>R</u>	0.0	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*
		L	<u>82.8</u>	<u>0.71</u>	<u>F</u>	<u>150.9</u>	<u>1.18</u>	<u>F</u>	<u>46.2</u>	<u>0.33</u>	<u>D</u>
	<u>SB</u>	<u>T</u>	<u>37.7</u>	<u>1.07</u>	<u>F</u>	<u>14.2</u>	<u>1.02</u>	<u>F</u>	<u>67.0</u>	<u>1.08</u>	<u>F</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
	Signa	alized	<u>26.0</u>	-	<u>C</u>	<u>45.1</u>	-	<u>C</u>	<u>23.1</u>	=	<u>C</u>
	EB	<u>LT</u>	<u>45.9</u>	<u>0.72</u>	<u>D</u>	<u>69.2</u>	<u>0.72</u>	<u>E</u>	<u>47.4</u>	<u>0.73</u>	<u>D</u>
		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
Pi'ilani	WB	<u>L</u>	<u>41.0</u>	<u>0.09</u>	<u>D</u>	<u>71.6</u>	<u>0.34</u>	<u>E</u>	<u>45.7</u>	<u>0.06</u>	<u>D</u>
Highway and	<u></u>	TR	<u>43.7</u>	<u>0.28</u>	<u>D</u>	<u>112.2</u>	<u>0.79</u>	<u>F</u>	<u>46.3</u>	<u>0.02</u>	<u>D</u>
North Kihei		L	<u>50.2</u>	<u>0.99</u>	<u>D</u>	<u>82.8</u>	<u>1.07</u>	<u>F</u>	40.4	<u>0.84</u>	<u>D</u>
Road	<u>NB</u>	<u>T</u>	<u>0.7</u>	<u>0.61</u>	<u>A</u>	<u>0.3</u>	<u>0.73</u>	<u>A</u>	<u>8.8</u>	<u>0.66</u>	<u>A</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	0.00	*	<u>0.0</u>	<u>0.00</u>	*
		<u>L</u>	<u>79.9</u>	0.52	<u>E</u>	<u>93.5</u>	<u>0.56</u>	<u>F</u>	<u>72.6</u>	<u>0.53</u>	E
	<u>SB</u>	<u>T</u>	<u>35.0</u>	<u>0.94</u>	<u>C</u>	<u>68.1</u>	<u>1.05</u>	<u>F</u>	<u>27.0</u>	<u>0.87</u>	<u>C</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
	Signa	alized	<u>19.0</u>	-	<u>B</u>	<u>23.0</u>	-	<u>C</u>	<u>21.4</u>	=	<u>C</u>
	EB	<u>T</u>	<u>14.1</u>	<u>0.53</u>	<u>B</u>	<u>21.2</u>	<u>0.78</u>	<u>C</u>	<u>16.8</u>	<u>0.66</u>	<u>B</u>
South Kihei		<u>R</u>	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*	<u>0.0</u>	0.00	*
Road and	WB	<u>L</u>	<u>30.6</u>	0.66	<u>C</u>	<u>35.2</u>	0.83	<u>D</u>	<u>34.7</u>	0.77	<u>C</u>
North Kihei		<u>T</u>	<u>5.8</u>	0.29	<u>A</u>	<u>4.7</u>	0.29	<u>A</u>	<u>4.6</u>	0.24	<u>A</u>
Road		<u>L</u>	<u>26.5</u>	<u>0.82</u>	<u>C</u>	<u>26.7</u>	<u>0.77</u>	<u>C</u>	<u>26.7</u>	<u>0.77</u>	<u>C</u>
	<u>NB</u>	<u>R</u>	<u>31.4</u>	<u>0.79</u>	<u>C</u>	<u>54.8</u>	<u>0.92</u>	<u>D</u>	<u>45.1</u>	<u>0.87</u>	<u>D</u>
	Sign	alized	<u>57.8</u>	-	<u>E</u>	<u>87.9</u>	-	F	<u>51.1</u>	<u>-</u>	<u>D</u>
	EB	L	<u>133.1</u>	<u>1.07</u>	F	<u>150.8</u>	<u>1.16</u>	F	<u>101.2</u>	<u>1.06</u>	<u>F</u>
<u>Pi'ilani</u>		<u>R</u>	0.0	0.00	*	0.0	<u>0.00</u>	*	0.0	0.00	*
<u>Highway and</u>	WB	<u>L</u>	<u>153.1</u>	<u>1.07</u>	<u>F</u>	<u>184.4</u>	<u>1.21</u>	<u>F</u>	<u>116.6</u>	<u>1.05</u>	<u>F</u>
Piikea Avenue	<u></u>	<u>T</u>	<u>9.0</u>	<u>0.65</u>	<u>A</u>	<u>35.7</u>	<u>0.99</u>	D	<u>15.3</u>	<u>0.74</u>	<u>B</u>
	SB	<u>T</u>	<u>75.2</u>	<u>1.09</u>	<u>F</u>	<u>118.8</u>	<u>1.18</u>	<u>F</u>	<u>16.1</u>	<u>1.03</u>	<u>F</u>
		<u>R</u>	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*	<u>0.0</u>	<u>0.00</u>	*
	Sign	<u>alized</u>	<u>44.7</u>	=	<u>D</u>	<u>204.6</u>	<u>=</u>	<u>F</u>	<u>101.2</u>	=	<u>F</u>
	EB	<u>L</u>	<u>69.5</u>	<u>0.47</u>	<u>E</u>	<u>54.8</u>	<u>0.31</u>	<u>D</u>	<u>55.0</u>	<u>0.33</u>	<u>E</u>
<u>Pi'ilani</u>		<u>T</u>	<u>77.2</u>	<u>0.77</u>	<u>E</u>	<u>127.6</u>	<u>1.06</u>	<u>F</u>	<u>117.9</u>	<u>1.02</u>	<u>F</u>
Highway and	WB	L	<u>69.2</u>	<u>0.62</u>	<u>E</u>	<u>118.3</u>	<u>1.07</u>	<u>F</u>	<u>129.7</u>	<u>1.10</u>	F
Kaonoulu		<u>T</u>	<u>75.4</u>	<u>0.76</u>	<u>E</u>	<u>126.7</u>	<u>1.05</u>	F	<u>81.1</u>	<u>0.86</u>	F
Street	NB	L	<u>275.9</u>	<u>1.33</u>	<u>F</u>	<u>327.9</u>	<u>1.47</u>	<u>F</u>	<u>131.5</u>	<u>0.96</u>	<u>F</u>
		<u>T</u>	<u>14.2</u>	0.66	<u>B</u>	<u>245.2</u>	<u>1.45</u>	<u>F</u>	<u>113.7</u>	<u>1.13</u>	<u>F</u>
	SB	<u>T</u>	<u>84.9</u>	0.72	<u>F</u>	<u>344.6</u>	<u>1.58</u>	<u>F</u>	<u>176.4</u>	<u>1.21</u>	<u>F</u>
		<u>R</u>	<u>46.1</u>	<u>1.02</u>	<u>F</u>	<u>178.4</u>	<u>1.30</u>	<u>F</u>	<u>49.1</u>	<u>0.93</u>	<u>D</u>
	Sign	alized	<u>16.4</u>	-	B	<u>45.8</u>	<u> </u>	<u>D</u>	<u>45.3</u>	<u>-</u>	<u>D</u>
South Kihei	WB	L	<u>39.6</u>	0.77	<u>D</u>	<u>116.7</u>	<u>1.02</u>	<u>F</u>	<u>67.1</u>	0.88	<u>E</u>
Road and		<u>R</u>	<u>33.8</u>	0.42	<u>C</u>	<u>56.7</u>	0.66	<u>E</u>	<u>39.9</u>	0.50	<u>D</u>
Kaonoulu Streat	NB	<u>T</u>	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
Street		<u>R</u>	<u>15.1</u>	0.81	<u>B</u>	<u>52.9</u>	<u>1.03</u>	<u>F</u>	<u>61.5</u>	<u>1.06</u>	<u>F</u>
	<u>SB</u>	L	<u>71.5</u>	<u>0.78</u>	<u>E</u>	<u>114.8</u>	<u>0.95</u>	<u>F</u>	<u>115.6</u>	<u>0.98</u>	<u>F</u>

Intersection	<u>Tra</u> Con	<u>ffic</u> trol	<u>AM P</u>	eak H	<u>our</u>	<u>PM P</u>	eak Ho	<u>our</u>	Weeken	d Peak	<u>Hour</u>
	Appr	Mvmt	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS
		<u>T</u>	<u>3.9</u>	0.43	A	7.2	0.65	A	7.7	0.64	A
	Sign	<u>alized</u>	<u>59.3</u>	-	E	52.7	=	D	<u>13.7</u>	=	B
	EB	L	<u>361.2</u>	<u>1.58</u>	F	<u>148.1</u>	<u>1.02</u>	F	<u>41.0</u>	0.56	D
	_	TR	0.0	0.00	*	0.0	0.00	*	0.0	0.00	*
<u>Pi'ilani</u>	WB	L	107.7	<u>0.96</u>	F	<u>58.6</u>	0.41	E	0.0	0.00	*
Highway and	<u>vvb</u>	TR	44.9	0.26	D	<u>55.6</u>	0.17	E	0.0	0.00	*
<u>Kulanihakoi</u>	<u>NB</u>	L	<u>118.0</u>	<u>0.83</u>	<u>F</u>	<u>188.3</u>	<u>1.03</u>	<u>F</u>	77.7	0.78	<u>E</u>
<u>Street</u>		<u>T</u>	17.4	<u>0.78</u>	B	<u>50.2</u>	<u>1.06</u>	<u>F</u>	<u>9.6</u>	0.86	A
		<u>R</u>	<u>9.7</u>	<u>0.30</u>	A	<u>3.8</u>	0.06	A	0.0	0.00	_
	<u>SB</u>	L	<u>79.0</u>	0.83	E	<u>107.1</u>	0.80	F	0.0	0.00	*
	_	T	72.3	<u>1.11</u>	F	<u>47.9</u>	<u>1.05</u>	F	<u>15.1</u>	0.89	B
	<u>Unsig</u>	<u>nalized</u>	=	-	=	=	-	=	=	=	=
	NB	L	<u>16.0</u>	0.07	<u>C</u>	50.4	<u>0.22</u>	F	<u>36.0</u>	<u>0.17</u>	<u>E</u>
Kenolio Road	IND	TR	10.7	0.10	B	16.4	0.19	<u>C</u>	15.8	0.18	C
and Kaonoulu	EB	L	<u>7.9</u>	<u>0.02</u>	A	<u>9.0</u>	0.06	<u>A</u>	8.5	0.04	A
<u>Street</u>	WB	L	7.8	0.03	A	8.8	0.08	A	<u>8.7</u>	0.06	A
	SB	<u>L</u>	31.7	<u>0.60</u>	D	<u>324.8</u>	<u>1.43</u>	F	<u>198.6</u>	<u>1.16</u>	F
	<u>50</u>	TR	11.7	0.04	B	22.6	0.14	<u>C</u>	<u>16.9</u>	0.09	<u>C</u>
<u>Kaonoulu</u>	Unsig	nalized	=	=	=	=	=	=	=	=	=
Street and	NB	LTR	13.5	0.06	B	<u>17.4</u>	0.09	<u>C</u>	17.5	0.11	<u>C</u>
<u>Alulike Street</u>	EB	L	<u>7.9</u>	0.04	A	8.7	0.08	A	8.3	0.04	A
	WB	L	<u>7.8</u>	0.01	A	8.6	0.03	A	<u>8.5</u>	0.02	A
	SB	LTR	<u>11.5</u>	0.13	B	22.4	0.28	<u>C</u>	18.7	0.30	C

SK.

Right turn channelization; Appr = Approach; Mvmt = Movement; v/c = volume to capacity ratio; NB = Northbound; EB = Eastbound; WB = Westbound; SB = Southbound; L = Left turn movement; R = Right turn movement; T = Through movement

The results of the Level-of-Service analysis of the project driveways are summarized in Table 10. Drive A, which is the only signalized driveway, will operate at Level-of-Service A during the morning peak hour, Level-of-Service D during the afternoon peak hour and Level-of-Service C during the Saturday. Drives B, C and D will operate at Level-of-Service A during all peak hours.

Table 10 2018 Levels-of-Service of Project Driveways

	A	<del>A Peak H</del>	our	р	' <del>M Peak He</del>	<del>nır</del>	Satu	<del>rdav Peak l</del>	Hour
		Vith Proje			With Project	-		With Projec	
		<del>Delay</del>							
Intersection and Movement	<del>V/C<sup>(1)</sup></del>	(2)	LOS (3)	<del>V/C</del>	<del>Delay</del>	LOS	<del>V/C</del>	<del>Delay</del>	LOS
<del>E. Kaonoulu Street at Drive A</del>	<del>0.13</del>	<del>7.6</del>	A	<del>0.63</del>	4 <del>5.5</del>	Ð	<del>0.76</del>	<del>35.0</del>	e
Eastbound Left	<del>0.15</del>	<del>8.0</del>	A	<del>0.72</del>	47.4	Ð	<del>0.94</del>	<del>54.9</del>	Ð
Eastbound Thru	<del>0.03</del>	7.3	A	<del>0.11</del>	<del>19.5</del>	B	<del>0.15</del>	<del>13.6</del>	₿
Eastbound Right	<del>0.06</del>	<del>7.6</del>	A	<del>0.22</del>	<del>87.3</del>	F	<del>0.32</del>	<del>14.9</del>	₿

Westbound Left	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
Westbound Thru & Right	<del>0.06</del>	7.4	A	<del>0.71</del>	<del>38.8</del>	Ð	<del>0.82</del>	<del>35.7</del>	Ð
Northbound Left	<del>0.07</del>	7.5	A	<del>0.68</del>	<del>36.6</del>	Ð	<del>0.91</del>	<del>46.3</del>	Ð
Northbound Thru & Right	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
Southbound Left	0.00	0.0	A	0.00	<del>0.0</del>	A	0.00	<del>0.0</del>	A
Southbound Thru & Right	0.04	<del>7.5</del>	A	<del>0.13</del>	<del>25.3</del>	e	<del>0.13</del>	<del>23.6</del>	e
E. Kaonoulu St at Drive B South	<del>nc</del>	<del>0.0</del>	A	<del>nc</del>	<del>0.0</del>	A	<del>nc</del>	<del>0.0</del>	A
Northbound Right	<del>nc</del>	<del>0.0</del>	A	ne	<del>0.0</del>	A	ne	<del>0.0</del>	A
E. Kaonoulu St at Drive B North	<del>nc</del>	<del>1.5</del>	A	<del>nc</del>	<del>2.2</del>	A	<del>nc</del>	<del>2.1</del>	A
Southbound Right	ne	<del>9.4</del>	A	ne	<del>18.0</del>	e	ne	<del>22.5</del>	e
<del>E. Kaonoulu Street at Drive C</del>	<del>nc</del>	<del>5.8</del>	A	<del>nc</del>	7.7	A	<del>nc</del>	<u>8.9</u>	A
Northbound Left	ne	<del>8.8</del>	A	ne	<del>11.4</del>	₿	ne	<del>13.8</del>	B
<del>E. Kaonoulu Street at Drive D</del>	<del>nc</del>	<del>5.1</del>	A	<del>nc</del>	<del>5.8</del>	A	<del>nc</del>	<del>5.8</del>	A
Northbound Left & Right	ne	<del>8.5</del>	A	ne	<del>8.7</del>	A	ne	<u>8.8</u>	A

#### NOTES: (1)

- Denotes volume-to-capacity ratio. Volume-to-capacity ratios are not calculated for the unsignalized intersections.

(2) Delay is in seconds per vehicle.

(3) LOS denotes Level of Service calculated using the operations method described in *Highway Capacity Manual*. Level of Service is based on delay.

(4) See Appendix D for Level-of-Service Analysis Worksheets.

(5) nc = not calculated.

The TIAR <u>update concludes the following</u>: has determined that proposed Pi'ilani Promenade project will warrant the following improvements: at the intersection of Pi'ilani Highway at Kaonoulu Street.

Existing (2016) conditions resulted in appropriate LOS conditions for all signalized intersections. Two unsignalized study intersections of Pi'ilani Highway at Kaonoulu Street and Pi'ilani Highway at Kulanihakoi Street resulted in individual turning movements with poor LOS. Signal warrants passed for these two intersections.

Future (2025) Without Project conditions resulted in appropriate intersection operations for signalized intersections and appropriate turning movement operations for unsignalized intersections. Future (2032) Without Project conditions resulted in all signalized intersections maintaining LOS D or better results except for the intersection of Pi'ilani Highway at Ohukai Road. All unsignalized intersection turning movements resulted in LOS C or better.

<u>A portion of East Kaonoulu Street is being constructed by the owner with the</u> <u>development of Pi'ilani Promenade by 2025. This will add a mauka leg to the intersection</u> <u>of Pi'ilani Highway and Kaonoulu Street. Additional intersection modifications include:</u>

• Install traffic signals and striped pedestrian crosswalks across Pi'ilani Highway.

- <u>Southbound approach will have double left turn lanes, two through lanes, and a channelized right turn lane.</u>
- Northbound approach will have a dedicated left turn lane, two through lanes, and <u>a channelized right turn lane.</u>
- Eastbound approach will have a left turn lane, a through lane, and a channelized right turn lane.
- Westbound approach will have dual left turn lanes, a through lane and channelized right turn lane with an acceleration lane.
- <u>The Project also includes the construction of a shared-use pedestrian and bike path</u> <u>along the mauka-side of Pi'ilani Highway, adjacent to the proposed development</u> <u>and within the project site, in addition to bike lanes on Pi'ilani Highway.</u>

Future (2025) With Project Mitigation Future (2025) With Project conditions resulted in all signalized intersection LOS maintaining LOS D or better results except the intersection of Pi'ilani Highway at Kaonoulu Street. Most unsignalized intersections resulted in LOS D or better for individual movements, except for the intersection of Kenolio Street at Kaonoulu Street.

Future (2032) With Project Mitigation Future (2032) With Project conditions, the signalized intersections of Pi'ilani Highway at Ohukai Road, Piikea Avenue, and Kulanihakoi Street operated at poor LOS E or F. The unsignalized intersection of Kenolio Street and Kaonoulu Street also resulted in poor LOS for some turning movements. Future roadway construction in the area will provide additional capacity which should alleviate the vehicle demand on Pi'ilani Highway and improve intersection LOS.

- 1. Modify eastbound approach to provide one left turn lane, one through lane and one right turn lane
- 2. Provide two southbound to eastbound left turn lanes
- 3. Provide two left turn lanes, one through lane and one right turn lanes along the westbound approach

Table 11 is summary of the recommended Mitigation Measures for the proposed project, and surrounding developments.

_			0	
		Mitigation Required to		
		Mitigate 2018 Background		
		Conditions	<b>Improvements</b>	Additional Mitigation
		(These improvements are to	Recommended As Part of	Required to Mitigate 2018
	<b>Location</b>	be implemented by others)	Pi'ilani Promenade Project	<b>Background Plus Project</b>

 Table 11
 Summary of Recommended Mitigation Measures



<del>Overall</del>			<ol> <li>Provide setbacks along East Kaonoulu Street at all project driveways for future right turn decelerations lanes. (Required by SDOT)</li> </ol>
<del>Pi'ilani Highway at</del> <del>Kaonoulu</del> <del>Street</del>	1. Install traffic signals	<ul> <li>1.<u>Install traffic signals</u></li> <li>2.Modify eastbound <ul> <li>approach to provide one</li> <li>left turn lane, one</li> <li>through lane and one</li> <li>right turn lane</li> </ul> </li> <li>3. Provide two southbound <ul> <li>to eastbound left turn</li> <li>lanes</li> </ul> </li> <li>4. Provide two left turn <ul> <li>lanes, one through lane</li> <li>and one right turn lanes</li> <li>along the westbound</li> <li>approach</li> </ul> </li> </ul>	<del>No additional mitigation</del> <del>required</del>
<del>Piʻilani</del> <del>Highway at</del> <del>Ohukai Street</del>	<ol> <li>Modify the westbound approach to provide a one left turn lane, one optional left or thru lane and one right turn lane.</li> <li>Modify the eastbound approach to provide one left turn lane, one thru lane and one right turn lane.</li> <li>Modify the southbound approach to provide an additional left turn lane. <u>Note: This improvement</u> work has been completed since the <u>DEIS publication</u></li> </ol>		No additional mitigation required

<del>Pi'ilani Highway at</del> <del>Kaiwahine St and Uwapo Road</del>	<ol> <li>Modify the eastbound approach to provide separate left, through and right turn lanes</li> <li>Modify the westbound approach to provide two left turn lanes, one through lane and one right turn lane.</li> <li>Modify the southbound approach to provide a second left turn lane.</li> </ol>		No additional mitigation required	
<del>South Kihei</del> <del>Road at</del> <del>Kaonoulu</del> <del>Street</del>	<ol> <li>Install traffic signals</li> <li>Provide southbound to         eastbound left turn lane         and northbound to         eastbound right turn         lane.</li> </ol>		<del>No additional mitigation</del> <del>required</del>	
<del>Piʻilani</del> <del>Highway at</del> <del>Kulanihakoi</del> <del>Road</del>			<del>No additional mitigation</del> <del>required</del>	

#### **Impacts of Pedestrians**

An assessment of the potential impacts of pedestrians on traffic conditions at the intersection of Pi'ilani Highway at Kaonoulu Street was performed. It is anticipated that t <u>There will be pedestrian traffic across Pi'ilani Highway at this intersection</u>. However, there are no pedestrian trip generation data to develop reliable estimates <u>for pedestrian</u> <u>use</u>. In order to assess the impacts of pedestrian traffic across Pi'ilani Highway, the level-of-service was rerun assuming that 100 pedestrians per hour would use the crosswalks across Pi'ilani Highway. The addition of 100 pedestrians per hour increased the intersection volume-to-capacity ratios and increased the overall intersection delays slightly but not enough to change the intersection level-of-service. It has been recommended that traffic conditions at this intersection be <u>re-</u>assessed at 65% occupancy.

Without additional connectivity and access, the resulting number of users likely to travel by foot, bike, or transit is relatively small and thus no factor was applied to the resulting volumes. However, improvements are being made to accommodate pedestrian and bicycle travel adjacent to and within the Project. Recognizing that the availability of existing off street pedestrian and bike pathways is limited in south Maui, and that there is a need for projects to offer options to vehicular traffic, a description of the pedestrian and bike pathway system adjacent to and within the project area is included in a figure in Appendix G of the TIAR update and Figure 15 "Conceptual Circulation Plan" of the FEIS. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016"). The red bike lane shown in the figure is located within the Pi'ilani Highway right of way. The blue system shown provides for a series of pedestrian and bike pathways with the project area and East Kaonoulu Road allowing for safe off street interconnectivity for the public using the various components of the land plan and providing for future connectivity to the areas north, south and east of the project area.

#### **Impacts on Emergency Services**

There is no indication within the TIAR that operation of emergency vehicles on the Pi'ilani Highway or the future improved section of the Kihei Upcountry Highway within the proposed Pi'ilani Promenade project will be impaired in any way. All the final levels-ofservice are within accepted standards. To the contrary, the traffic signal systems planned for the project will be designed to automatically prioritize emergency vehicle operations, subject to State of Hawaii Department of Transportation's approval of the plans. The roadways and intersections included in the TIAR <u>update</u> will operate within acceptable ranges of operation and there is no indication that development of the proposed project or roadway improvements will create a system that impairs the operation of emergency vehicles.

#### Impacts of Honua'ula

The Project and the Honua'ula Affordable Housing Project are two separate projects proposed by two different owners. However, the two project sites are both part of the Petition Area, until the LUC approves the Motion to Amend and the 1995 Decision and Order is amended and the Petition Area is bifurcated. Further, the timing of construction may be somewhat similar. For these reasons, explanation is offered.

This TIAR update treats Honua'ula Affordable Housing Project in the following way:

• Trip generation rates were calculated using trip generation equations for Apartment (125 units) and Residential Condominium/Townhouse (125 units) from the *Trip Generation, 8th Edition* (ITE, 2008). The results in Table 10 show that during the AM peak hour, 103outbound trips are generated and 24 inbound for a total of 127 trips. The PM peak hour has slightly more traffic generated, 104 in and 54 out movements for a total of 149 trips.

• Access for the Honua'ula Affordable Housing project is through a new mauka leg East Kaonoulu Street and assigned to that roadway. This roadway extension will be completed

as part of Pi'ilani Promenade. The traffic analysis for **With Project** includes both projects using East Kaonoulu Street. See Figures 14 to 16 in the TIAR update for project related trips associated with Pi'ilani Promenade and see Figure 17 in the TIAR update for project related trips associated with Honua'ula Affordable Housing Project. (**See**: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

In order to isolate the effects of Pi'ilani Promenade, Honua'ula Affordable Housing Project is treated as part of background traffic in the Without Project because East Kaonoulu Street is not assumed to be completed under this condition, traffic associated with Honua'ula Affordable Housing Project is assigned to use a possible temporary driveway access off of Ohukai Road. Ohukai Road temporary access is subsequently closed when East Kaonoulu Street is constructed and opened. See Figures 18 to 20 in the TIAR update.

The Honua'ula Affordable Housing Project is not part of the Pi'ilani Promenade Project, nor is it considered a related background project, because it cannot be constructed until after East Kaonoulu Road is completed, which will be done as part of the Pi'ilani Promenade project. Until this roadway is completed, there is no roadway to assign Honua'ula trips. However, if completed, Honua'ula Affordable Housing Project traffic would impact traffic along East Kaonoulu Road. Based on the LOS analysis, and the TIAR update does not recommend concludes that no additional mitigation is required to accommodate traffic generated by the Honua'ula Affordable Housing project.

#### Long Range Forecast

State of Hawaii Department of Transportation requested long-range forecasts of the intersections along Pi'ilani Highway that included traffic generated by the south Maui projects for the year 2025. <u>As part of the FEIS, a TIAR update was prepared to analyze Maui projects in years 2025 and 2032.</u> (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

The TIAR update was prepared by SSFM International Inc. to evaluate existing conditions, assess impacts to the surrounding area as a result of the proposed development and changes associated with anticipated surrounding area development. The TIAR update includes a LOS analysis and recommends mitigation measures.

The TIAR prepared for the DEIS by Phillip Rowell and Associates recommended a connection between Ohukai and East Kaonoulu Street to satisfy 2025 traffic impacts. This was a recommendation based on another TIAR prepared for the MRTP in which a mauka

roadway from Mokulele Highway to some point south of the MRTP is referenced. That TIAR also recommended that a future mauka roadway be constructed within the park to connect Lipoa Street in the Maui Research and Technology Park to the Kihei High School. Therefore it was recommended in the DEIS TIAR that the portion between Ohukai and East Kaonoulu Street be included in the DEIS. The TIAR update done for the FEIS does **not** recommend this connection be made.

The long range plan for construction of a mauka collector road between Mokulele highway and a point somewhere south of the MRTP intersecting with Pi'ilani Highway will be critical to north-south mobility in Kihei as it would provide additional capacity and divert regional trips away from Pi'ilani Highway. Because these issues are long range and of a regional nature, they must be addressed collectively by the State, the County, land owners, and other stakeholders as part of the long range highway planning process.

The *Kihei Master Traffic Plan Study*<sup>11</sup> contained morning and afternoon traffic forecasts for the intersections along Pi'ilani Highway that included traffic associated with the Upcountry Highway. The report also implies that the forecast include<u>d</u> traffic associated with major South Maui projects <u>such as known at the time, primarily Wailea, Makena and Honua'ula.</u>

The traffic forecasts in the *Kihei Master Traffic Plan Study* were also adjusted to include traffic from the following projects

- Kaiwahine Village
- Maui Lu Resort
- Kenolio 6 Residential
- Kihei Residential
- Kihei High School Phases 1 and 2
- Honua'ula Off site Affordable Housing
- Maui Research and Technology Park

The resulting morning and afternoon 2025 traffic projections are provided in the TIAR in Figures 29 and 30, respectively. The resulting peak hour projections along East Kaonoulu Street are shown on Figure 31. A level of service analysis was performed to confirm that the study intersections would operate at acceptable levels of service.

The level of service analysis confirmed that the following improvements should be implemented to satisfy 2025 traffic impacts:

1. The North-South Collector Road should be completed between Kaonoulu Street and Waipuilani Road.

<sup>&</sup>lt;sup>11</sup> Parsons Brinckerhoff Quade & Douglas, Kihei Master Traffic Plan Study, Honolulu, HI, September 2003



- 2. The mauka roadway should be completed between Ohukai Street and Lipoa Street. It should be noted that the connection between Lipoa Street and the proposed Kihei High School was recommended in the TIAR for the Maui Research and Technology Park and the connection between Ohukai Road and East Kaonoulu Street is recommended in this report.
- 3. The intersection of East Kaonoulu Street at Drive C should be signalized. This intersection provides access and egress to the proposed Honua'ula Affordable Housing project.

#### **Transportation Management Plan**

The purpose of the Transportation Management Plan (TMP) is typically to identify and describe transportation management strategies to reduce travel demand, primarily "single-occupancy private vehicles", or to redistribute demand in time. These strategies should accomplish the following:

- 1. Reduce the need for employees and customers of Pi'ilani Promenade to use "single-occupancy private vehicles" by encouraging the use of alternative modes of transportation, such as walking, biking, and public transportation and ride sharing.
- 2. Provide alternative modes and facilities for these alternative modes.
- 3. Coordinate the establishment of programs, such as carpools and other ride sharing programs that reduce the amount of traffic generated by the project.

#### **Transportation Management Plan Strategies**

- A Transportation Coordinator <u>will should</u> be designated by the developer or property manager. The Transportation Coordinator will be responsible for establishing, coordinating and managing the TMP strategies identified in the plan. The Transportation Coordinator <u>will should</u> also document <u>and respond to</u> any traffic related complaints received from the surrounding community.
- Employers should allow flexible work hours. Examples of flexible work hours are:
  - Start the work day such that employees get to work before or after the weekday commute peak hours.
  - Some employees have scheduled four 10-hour work days per week, with alternating Monday through Thursday and Tuesday through Friday work weeks. Every other week end is a four day weekend.

Employees are divided into two groups so that offices are always covered with half the staff on the alternating Monday and Fridays.

- The Transportation Coordinator should <u>will</u> establish and coordinate a ride sharing program for employees. Since the Transportation Coordinator is employed by the developer or property manager, employees of various employers of Pi'ilani Promenade can be brought into the program, not those from just a single major employer.
- The Transportation Coordinator <u>will</u> <del>should</del> coordinate with the Maui Department of Transportation to establish bus routes to provide service between the project, hotels and Kihei.
- Bus passes should be provided to employees free or at a subsidized price.
- Bus stops should be provided within the project <u>area</u> that will minimize walking distances to the various businesses in the project.
- The Transportation Coordinator <u>will should</u> coordinate with the hotels, especially those in Kihei and adjacent area<u>s</u>, to provide shuttle bus service between the hotels and Pi'ilani Promenade.
- A voucher program should be established for employees that participate in one of the ride sharing programs or bus pass programs and have to leave work for family emergencies.
- Preferential parking spaces <u>will should</u> be provided for employees that participate in ride sharing programs.
- Secure bicycle storage facilities <u>will should</u> be provided at several locations within the project. Showers for employees should also be considered.
- Pedestrian walkways <u>will</u> should be designated within the parking lot areas to encourage pedestrian circulation and enhance safety of pedestrians between the roadways and buildings.

#### **Recommended Project Mitigation Measures**

The Applicant is responsible for providing the following improvements at the intersection of Piilani Highway and Kaonoulu Street as part of Project:

- Install traffic signals and striped pedestrian crosswalks across Pi'ilani Highway.
- Southbound approach will have double left turn lanes, two through lanes, and a channelized right turn lane.
- Northbound approach will have a dedicated left turn lane, two through lanes, and a channelized right turn lane.
- Eastbound approach will have a left turn lane, a through lane, and a channelized right turn lane.
- Westbound approach will have dual left turn lanes, a through lane and channelized right turn lane with an acceleration lane.
- The Project also includes the construction of a shared-use pedestrian and bike path along the mauka-side of Pi'ilani Highway, adjacent to the Project and within the Project site, in addition to bike lanes on Pi'ilani Highway.

In consultation with the State DOT Highways Division, the authoritative State agency on the design of roads and highways in Hawaii, it was determined that a frontage road along Pi'ilani Highway was unnecessary. As part of the Project, Pi'ilani Highway will be widened and a striped pedestrian crosswalk will provide a safe route across Piilani Highway. Additionally a separated bicycle and pedestrian pathway will be provided along the property frontage to encourage pedestrian connectivity in Kihei.

In addition, Appendix N of the FEIS provides a list of the existing conditions in the 1995 Decision and Order and the amendments proposed by the Applicant.

The TIAR update provides the following mitigation recommendations to be provided by others for study area intersections. (See: Appendix M-1, "Traffic Impact Analysis Report Update dated December 20, 2016").

#### Kenolio Road and Kaonoulu Street

The unsignalized intersection of Kenolio Street and Kaonoulu Street resulted in poor LOS for the southbound left turn movement. Possible mitigation to be completed by the Maui Lu re-development project includes reconstructing as a single lane roundabout.

#### Pi'ilani Highway and Ohukai Road

The signalized intersection of Pi'ilani Highway at Ohukai Road will continue to operate at a poor LOS similar to Future (2032) Without Project conditions. Therefore, due to current conditions and other background growth possible mitigation includes providing additional left turn lanes for the westbound and southbound approaches.

#### Pi'ilani Highway and Piikea Avenue

<u>The signalized intersection of Pi'ilani Highway at Piikea Avenue also resulted in poor</u> LOS. Possible mitigation includes adding an additional eastbound left turn lane.

#### Pi'ilani Highway and Kulanihakoi Street

The signalized intersection of Pi'ilani Highway at Kulanihakoi Street resulted in poor LOS for Future (2032) With Project conditions. Possible mitigation measures include the construction of additional turning lanes for the northbound and southbound approaches.

#### Pi'ilani Highway and Kaiwahine Street

No project related traffic will be routed onto Kaiwahine Street. The singular access route into and out of the Project will be the first increment of the KUH. The TIAR update does not recommend mitigation measures for the intersection of Kaiwahine Street at the Piilani Highway.

#### 2. Drainage

*Existing Conditions.* A Preliminary Engineering Report was prepared by Warren S. Unemori Engineering, Inc. on in December 2013 (See: Appendix L, "Preliminary Engineering Report"). Elevations across the project area range from approximately 123 feet above Mean Sea Level (MSL) at the mauka (East) property boundary to approximately 30 feet MSL along the property's Pi'ilani Highway frontage. The project site has an average slope of 4 percent and includes a small unnamed natural drainageway (Drainageway "A") that runs in a northeast-to-southwest direction across the site before converging off site with the much larger Kulanihakoi Gulch *makai* of Pi'ilani Highway. This minor drainageway is not recognized as a regulated drainage way, there is no documented evidence of a name for the drainage. <del>yet individuals have referred to the minor drainage as a Kaonoulu Gulch. The offsite 1.0 MG water tank is located 234 feet above Mean Sea Level (MSL).</del>

**Offsite Storm Flows** Storm runoff from approximately 471 acres of undeveloped land east (*mauka*) of Pi'ilani Promenade is conveyed by Drainageway "A", to the eastern boundary of the project area. <u>The 100-year, 24-hour peak runoff conveyed in Drainageway</u> "<u>A" is 498 cfs.</u> Once across the eastern boundary, Drainageway "A" continues across the project area in an east-west direction to an existing 102-inch twin barrel culvert crossing

at Pi'ilani Highway. Once across Pi'ilani Highway, Drainageway "A" converges with the main stem of <u>the</u> much larger Kulanihakoi Gulch before reaching the Pacific Ocean.

Ohukai Subdivision, an existing residential development located to the northeast of Pi'ilani Promenade, discharges approximately 25 <u>cubic feet per second</u> (cfs) of stormwater runoff toward the project area from a drainage outlet located on the south side of Ohukai Road. Runoff discharged from Ohukai Subdivision's drainage culvert is conveyed southward by Drainageway "B" until it converges with Drainageway "A" which was described earlier (**See**: Appendix L, "Preliminary Engineering Report").

**Onsite Storm Flows** The existing, undeveloped project area generates approximately 85 cfs of surface runoff during a 50 year 1-hour storm. This runoff sheetflows in a westerly direction until it is intercepted by either 1) Kulanihakoi Gulch, 2) Drainageway "A", <u>3</u>) existing concrete drainage ditches along Pi'ilani Highway, or <u>4</u>) an existing 54-inch culvert at Pi'ilani Highway located near the northwest corner of the project area (**See** Figure 2-3 of the Preliminary Engineering Report) – all of which eventually drain to the main stem of Kulanihakoi Gulch before reaching the ocean (**See**: Appendix L, "Preliminary Engineering Report").

*Potential Impacts and Mitigation Measures.* Warren S. Unemori Engineering, Inc. has prepared a drainage plan to mitigate surface runoff caused by seasonal storm events.

**Offsite runoff:** Offsite runoff will be allowed to pass through the project area and will not be affected by the development of the Pi'ilani Promenade. Offsite surface runoff conveyed in Drainageways "A" and "B" will be routed via underground drainlines to a new diversion ditch constructed along the project's eastern boundary where an underground drain line along the future East Kaonoulu Street will convey the runoff to the existing 102-inch culvert crossing at Pi'ilani Highway (**See**: Appendix L, "Preliminary Engineering Report")

**Onsite runoff:** Once developed, the Pi'ilani Promenade project area is expected to produce a peak runoff volume of 292 cfs from a 50-year 1-hour storm. This represents a net increase of approximately 207 cfs attributable to development of the project area as shown in Table <u>No. <del>12</del></u> <u>13</u>.

Drainage	Pre-Development	Post-Development Flow	Net Change
Area	Flow	before Mitigation	_
Onsite	85 cfs	292 cfs	+207 cfs

#### TABLE 12-13 Increase in Runoff Attributable to Development of Pi'ilani Promenade

(See: Appendix L, "Preliminary Engineering Report")

**Proposed Improvements:** Surface runoff generated by Pi'ilani Promenade's buildings and pavement will be directed to drain inlets located throughout the development and then conveyed to stormwater detention facilities (by underground drainlines) in order to provide peak flow mitigation (**See:** Figure 2-4 of the Preliminary Engineering Report). In compliance with Maui County's Drainage Rules, underground detention chambers <u>on the southern portion of the Project site</u> within Promenade South and an open detention pond <u>on the northern portion of the Project site</u> within Promenade North, will provide a combined storage capacity of 7.6 acre-feet and will limit downstream stormwater discharges to a peak flow rate that does not exceed pre-development levels.

Both under- and above-ground stormwater detention basins will have sufficient capacity to accommodate the standard 50 year design storm required of new developments by the DPW. Should a larger storm event occur, stormwater in excess of the available basin capacity will overflow into the storm drainage systems located within East Kaonoulu Street and Pi'ilani Highway.

A subsurface investigation conducted in 2011 by a reputable geotechnical engineering firm performed 27 soil borings across portions of the Project site to depths ranging from 10 to 40 feet below the ground surface. No groundwater was encountered at any of the boring locations. (See: Appendix Q, "Soil Investigation Reports")

The Project does not propose any channeling or culvert work for Kulanihakoi Gulch. The smaller "Drainageway A" crossing the Project will be diverted to the KUH alignment with a *makai* terminus in the same location as the present. A FEA was prepared for the proposed affordable housing project located across Pi'ilani Highway, and that applicant retained environmental consultant Mr. Bob Hobdy to perform a Wetland Assessment to assess potential aquatic resources, and to determine if any wetlands or waters of the U.S. (as defined by the U.S. Army Corps of Engineers) were located on that property. The Wetland Assessment included analysis of surface vegetation and the digging of test pits to analyze soil and hydrology parameters, and identified Drainageway "A" as a tributary of the larger Kulanihakoi Gulch channel. Drainageway "A" is an ephemeral stream in a very dry part of Maui that flows for only about 1 day a year during the largest of whet U.S.

<u>Under current conditions, no riparian zone exists in the vicinity of Drainageway "A"</u> within the Project site.

The change in water flow due to the conversion of approximately 2,500 feet of Drainageway "A" to roughly 2,700 lineal feet of concrete-lined channel and largediameter pipe culvert (approximately 0.3%) is captured in the on-site drainage impact analysis, which examines the effect of urbanizing the Project site, including the portion of the natural drainage channel which passes through it. Consequently, the flow rate increases resulting from the overall Project improvements due to decreased permeability are compensated for by the proposed onsite peak flow mitigation measures.

Modifications to Drainageway "A" are also necessary as part of the engineering design and solution for the KUH as the grades for the roadway are much higher than the existing grades within Drainageway "A", requiring a design solution to allow drainage flow, which is accommodated in the project plan.

The post-development peak storm flow of the Project, after mitigation measures are implemented, is the same as the pre-development storm flow, which is equal to or less than 85 cfs. The Project will retain the increase in post development runoff generated by development, consistent with County of Maui regulations.

The Project will comply with the condition of the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

BMPs prepared in accordance with MCC Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits. In addition, since Project site work will exceed one acre, a NPDES will be obtained from the DOH's Clean Water Branch for the discharge of storm water associated with construction activities. The Applicant will meet all of the requirements set forth by the DOH's Clean Water Branch.

Low-impact development strategies, including a series of strategically located drainage retention basins and channels, are designed to mitigate downstream impacts to *makai* landowners. A Drainage Master Plan was designed to County standards, and includes measures that mitigate the increase in runoff generated from the development of impervious surfaces. On-site runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped area. Drain lines from the catch basins will convey the runoff to onsite detention basins or underground subsurface drainage systems.

The onsite drainage system will provide storage for the increase in stormwater runoff from a 50 -year, 1 -hour storm. The drainage system will be designed in compliance with Chapter 4 "Rules for the Design of Storm Drainage Facilities in the County of Maui" and Chapter 15-11 "Rules for the Design of Storm Water Treatment Best Management Practices."

#### Water Quality Measures

Maui County now requires the implementation of water quality control measures to reduce water pollution from stormwater runoff. Both "flow through" and "detention based" treatments will be employed by Pi'ilani Promenade to mitigate stormwater-related water pollution associated with the Promenade North and South development sites. "Flow through" treatment will be achieved by outfitting parking lot drain inlets with filters capable <u>of</u> removing up to 80 percent of Total Suspended Solids. "Detention based" treatment will be provided by providing additional storage volume in the subsurface detention chambers and surface detention pond to facilitate sediment removal in addition to peak flow mitigation.

The proposed stormwater detention improvements will accommodate and mitigate the increase in peak flow attributable to development while simultaneously providing water pollution control. Table <u>13</u> <u>14</u> summarizes the storage capacity within the stormwater detention system needed to achieve both of these objectives.

Storage Capacity Required to	Additional Storage Capacity	Total Storage Capacity		
Meet Water Quality Criteria	Required to Mitigate Peak Flow	to be Provided		
2.5 acft.	5.1 ac. –ft.	7.6 ac. –ft.		

TABLE 13 14 Drainage Detention S	ystem Capacity for Pi'ilani Promenade
TADLE 15 14 Dramage Detention 5	ystem Capacity for 11 main 110menade

Once the stormwater detention facilities are in place, the hydrologic impact on downstream properties resulting from the proposed development of Pi'ilani Promenade will be negligible because the pre-development peak flow is the same is as the post-development peak flow after mitigation as summarized in Table 14 15 below.

Drainage	Acreage	Pre-	Post-	Post-	Net
Area		Development	Development	Development	Change in
		Peak Flow	Peak Flow	Peak Flow	Peak
			Before	After	Runoff
			Mitigation	Mitigation	
North	30.1	31.2 cfs	107.7 cfs	9.6 cfs	-21.6 cfs
South	38.1	41.0 cfs	148.2 cfs	39.2 cfs	-1.8 cfs
Roads,	9.4	12.5 cfs	35.9 cfs	35.9 cfs	+23.4 cfs
Water Tank,					
Diversion					
Ditch					
TOTAL	77.6	84.7 cfs	291.8 cfs	84.7 cfs	0.0 cfs

#### 3. Water

*Existing Conditions.* The Pi'ilani Promenade lies within the Central Maui Water System's service area which falls under the jurisdiction of the Maui Department of Water Supply (DWS). Drinking water for the south Maui area currently comes from existing wells located in upper Waiehu and North Waihee which draws groundwater from the Iao and Waihee Aquifers. Drinking water from these wells is pumped into to an existing 1.0 million gallon (MG) capacity concrete water storage tank located in upper Waiehu, then conveyed across the isthmus by the Central Maui Water System's 36-inch diameter transmission main to consumers in South Maui. The existing DWS drinking water distribution system does not currently extend into the project area.

The Central Maui Water Transmission Line currently bisects the Honua'ula Parcel and the Project site diagonally and is proposed to be re-routed within an easement at the eastern (mauka) edge and continue underneath East Kaonoulu Street. The proposed transmission line realignment will create new bends in the pipe at the eastern (mauka) edge of East Kaonoulu Street and at the intersection of East Kaonoulu Street and Pi'ilani Highway as shown in figure 3-1 of the Preliminary Engineering Report prepared by Warren S. Unemori Engineering, Inc. The relocated waterline will be designed and engineered with proper materials to maintain the existing water flow to south Maui customers. In addition, the new 1.0 MG water tank to be constructed as part of the Project will create additional water storage capacity in south Maui. The County DWS, which has sole jurisdiction for the management of the Central Maui Water Transmission System, has already reviewed the specific construction.

The drinking water for the Project will come from the Central Maui Water System which is supplied by fresh water from the Iao and Waihee Aquifers. At the request of the DWS, the Applicant agreed to construct a 1.0 MG water storage tank to serve the future needs of the Project and South Maui. Three 3-inch domestic water meters have been approved and are available for the Project. The combined flow capacity of these meters is 1,050 gpm, which exceeds the approximately 600 gpm of required flow capacity for the Project. Therefore, there will be adequate flow capacity to build out the Project. Consequently, no additional drinking water sources beyond the County-issued water meters are anticipated in order to construct and operate the Pi'ilani Promenade.

The State Commission on Water Resource Management approved an irrigation well permit for a well built in 2011 at a wellhead elevation of 118 feet. The well has proven to be capable of producing 216,000 gallons of non-drinking water per day and a permanent pump (150 gpm) has since been installed. Construction of the distribution infrastructure for the landscape irrigation system is currently pending.

**Potential Impacts and Mitigation Measures.** <u>The Pi'ilani Promenade will consume on</u> <u>average of 252,000 gpd at build-out, including 171,000 gpd of drinking water for domestic</u> <u>uses and 81,000 gpd of non-drinking water for irrigation.</u> (See: Appendix L, "Preliminary <u>Engineering Report")</u>

As mentioned, the CWRM estimates that 0.421 MGD of groundwater can be allocated within the Iao Aquifer System. The Piilani Promenade drinking water demand is expected to withdraw 171,000 gpd and can be accommodated within the remaining 0.421 MGD of available groundwater. This limited amount of water is not anticipated to significantly impact the Iao Aquifer from recharging.

As mentioned, three 3-inch domestic water meters have been approved by the County DWS and are available for the project. The issuance of water meters for the project by the DWS carries the implicit approval by the DWS of Piilani Promenade's use of the Iao Aquifer System for drinking water.

The CWRM estimates that 11 MGD of groundwater can be developed within the Kamaole Aquifer System on a sustainable basis. (Water Resource Protection Plan, 2008). The irrigation well for landscaping is expected withdraw 81,000 gpd and this limited amount of water is not anticipated to significantly impact the Kamaole Aquifer from recharging. In the future, when the County reclaimed water line is extended north towards the Project site, the Applicant will connect to the R-1 water source for irrigation water eliminating the need for the brackish irrigation well.

The Pi'ilani Promenade Preliminary Engineering Report uses the estimating method prescribed by the DWS to compute drinking water demand. A different method prescribed by the Maui County Department of Environmental Management is used to calculate wastewater output. The use of prescribed methods allows each agency to more accurately evaluate project demands against its own systems' capabilities by using its own standard metrics.

As an example, the DWS estimates average daily domestic water consumption for a commercial building using a rate of 140 gallons per 1000 square feet of floor area. In comparison the Department of Environmental Management estimates average daily wastewater output for the same building using a rate of 100 gallons per 1000 square feet of floor area. Though they differ, the demand rates adopted by each agency are carefully considered to reflect needed "safety factors" and other adjustments which the agencies have found, based on their own experience, allow them to best manage the complex infrastructure under its control and reliably deliver the essential services to the community with which it is tasked.

The approximate 60,000 gallon mathematical difference between the two demand figures results from different estimating methods in computing drinking water and wastewater demand.

The Applicant is required to provide for a future connection to the County reclaimed water system as a condition of County Zoning for this project (Ordinance 2772, May 25, 1999). In the future, connecting the Project to the reclaimed water system will eliminate the need for the brackish irrigation well.

The Pi'ilani Promenade will be served by the water system improvements that the Applicant is required to construct in order to complete the subdivision improvements for the Kaonoulu Ranch Large-Lot Subdivision No. 2.17 (See: Figure 3-2 of Appendix L, "Preliminary Engineering Report"). These improvements will consist of:

1) Relocating a 2,500 ft. long segment of the Central Maui Water System's existing 36-inch diameter waterline from its present alignment, which currently crosses the project area, onto a new alignment along East Kaonoulu Street;

2) Constructing a new 1.0 MG capacity concrete water storage reservoir located 234 feet MSL which will be dedicated to the DWS upon completion;

3) Installing a 3,200 ft. long, 12-inch diameter transmission waterline from the Central Maui Water System's existing 36-inch transmission line to the new 1.0 MG storage reservoir for refilling the storage tank;

4) Installing a 5,500 ft. long, 16-inch diameter distribution main from the new 1.0 MG storage reservoir to and along East Kaonoulu Street which will deliver drinking water for domestic use and provide fire protection for the Pi'ilani Promenade project site; and

5) Installing a 1,100 ft. section of a 12-inch diameter distribution main across Pi'ilani Highway to a connection point at the 18-inch diameter waterline on Kenolio Road in order to provide water circulation and link the new water system improvements to the County water distribution system serving the Kihei area.

The foregoing improvements will be installed at the expense of the Applicant.

<u>The Honua'ula Affordable Housing Development is estimated to need a storage</u> <u>allowance of 210,000 gpd of water. 250 dwelling units x 560 gpd average daily</u> <u>consumption x 1.5 peaking factor = 210,000 gallons per day. This number was estimated</u> <u>by the project civil engineer using the formula provided by the County.</u>

#### 4. Wastewater

*Existing Conditions.* The project site is currently undeveloped and is not served by the County's wastewater collection system which is located to the west of the site across Pi'ilani Highway. Wastewater collected by the County's Kihei wastewater system is conveyed by a series of existing gravity lines, pump stations, and force mains along Kihei Road which transports the collected wastewater to the County's Kihei Wastewater Reclamation Facility (KWWRF) for processing and disposal.

**Potential Impacts and Mitigation Measures.** The Pi'ilani Promenade is expected to generate 114,000 gallons of wastewater per day. <u>The Apartment uses will generate 57,630</u> gpd, the Light Industrial uses will generate 2,879 gpd and the business commercial uses will generate 53,071 gpd. Wastewater service for the project will be provided by connecting the Pi'ilani Promenade to the existing County sewerage system at a connection point at the intersection of Kaonoulu and Alulike Streets (*makai* of Pi'ilani Highway)

where the County sewer system has sufficient capacity to accept the wastewater generated by the project (**See:** Figure 4-1 of Appendix L, "Preliminary Engineering Report")

The Wastewater Reclamation Division of the Maui Department of Environmental Management reports that available capacity at the KWWRF is approximately 4.6 milliongallons-per-day (mgd) of out of 8.0 mgd total treatment capacity based on measured average daily flows. As such, there should be ample treatment capacity available to accommodate the 114,000 gallon (0.1 mgd) daily wastewater flow which the Pi'ilani Promenade project is expected to generate. Additionally the proposed Honua'ula Affordable Housing Development wastewater generation of 63,750 gpd can also be accommodated at this time.

In a comment letter from the Department of Environmental Management, Wastewater Division, the County is requesting that the Applicant provide a 10,000 square foot lot for a future wastewater pump station and associated easement for transmission line that would service future development in north-central Kihei (See: Appendix A "EISPN Letters with Responses"). The Applicant is coordinating with the Department on the optimal location to provide for the 10,000 square foot lot and associated 20-foot wide easement.

At the time of publication of this FEIS, the Department of Environmental Management, Wastewater Division has not prepared designs for the sewer line or pump station and has not included the future sewer line or pump station in any capital improvement program (CIP) budget request for design. The Applicant will continue to cooperate with the Department of Environmental Management, Wastewater Division to set aside an area in the Project site for the pump station and sewer line.

As noted below, the Pi'ilani Promenade will be subject to <u>an</u> <del>two (2)</del>-impact fees levied by the County of Maui in order to cover the cost of wastewater collection and treatment infrastructure for the Kihei area.

- 1. <u>The</u> Regional Wastewater Treatment System Facility Expansion Assessment Fee, for treatment plant expansion, <del>which</del> is assessed at <u>a rate of</u> \$4.65 per gallon of project flow. The Pi'ilani Promenade will be assessed approximately **\$530,100** for the 114,000 gpd of wastewater flow which the project is expected to generate.
- 2. "Kihei Regional Wastewater Treatment System Collection/Transmission System Project Assessment Fee," for collection system upgrades, which is assessed at \$6.64 per gallon of project flow. The Pi'ilani Promenade will be assessed approximately

**\$756,960** for the 114,000 gpd of wastewater flow which the project is expected to generate. On April 27, 2015 the DPW discontinued collection of the Collection/Transmission System Project Assessment Fee, therefore this fee is no longer applicable to the proposed project.

The Honua'ula Affordable Housing Development is estimated to generate 63,750 gallons per unit per day of wastewater. 250 dwelling units x 255 gpd average daily generation = 63,750 gallons per day. This number was estimated using the formula provided by the County.

#### 5. Electrical

*Existing Conditions.* There are no existing Maui Electric Company (MECO) power sources in the immediate vicinity of the proposed development. The closest existing MECO power source is an overhead 69 <u>Kilovolt</u> (kV) and 12 kV pole line running through an existing subdivision just *makai* of Pi'ilani Highway. The 69 kV is part of MECO's transmission loop for the Island of Maui and is the nearest source of large power. The 12 kV pole lines provide distribution power to existing commercial and residential developments in the area.

**Potential Impacts and Mitigation Measures.** MECO will provide temporary power to serve the project during construction. MECO is planning a new substation to provide the additional capacity needed to accommodate further growth in the north Kihei mauka area. However,

MECO has advised that the existing 12 kV system, <u>based on current electrical use growth</u> <u>projections</u>, does not have sufficient spare capacity to accommodate the estimated 6,250 <u>kilo-volt-ampere</u> (kVA) of load required by the current Pi'ilani Promenade development plan. MECO has agreed to provide temporary power to the project until the substation is complete.

The new substation will be located in the northwest <u>northeast</u> corner of the Pi'ilani Promenade development, and will be fed by an overhead 69 kV line extension across Pi'ilani Highway, which will be tapped into MECO's transmission loop pole line below the highway. (See Figure 6-1 of Appendix L, "Preliminary Engineering Report"). The new MECO substation is a permitted use in the <u>Light Industrial</u> (LI) zoning district and subject to review and approval by the State Public Utilities Commission. The substation will contain two (2) MECO transformers to step down the voltage from 69 kV to 12 kV for willen.

local distribution. A new 12 kV concrete-encased underground ductline and manholes will be provided to extend power from the substation to a major ductline along the Kaonoulu Street extension. Stubouts for 12 kV distribution line will be provided at each bulk-lot for future onsite distribution. All power distribution serving uses within the project will be underground, including the wiring along East Kaonoulu Street for MECO's street lighting system. As of August 1, 2016 the <u>MECO substation eventually will be subdivided out of the project parcel once the offsite improvements are completed. MECO will apply for building and electrical permits as needed. MECO anticipates beginning construction in March 2017 and estimates completion by September 2017.</u>

The Applicant recognizes the importance of sustainability in planning, and in response to comments on the DEIS, the Project incorporates sustainability design elements such as solar photovoltaic panels for common areas and the vegetated detention basins located on site to intercept stormwater runoff closer to the source. The Applicant is exploring other renewable energy technologies and conservation measures to promote sustainability. Solar hot water heaters will be utilized throughout the residential portion of the Project. Occupants of the Pi'ilani Promenade will be encouraged to install photovoltaic energy systems where appropriate and feasible.

The Project will include a water and energy efficient landscaping irrigation system designed to conserve water.

#### 6. Communication and Cable TV Systems

*Existing Conditions.* Hawaiian Telcom (HT) and Oceanic Time Warner Cable (Oceanic) do not have any existing telecommunications facilities in the immediate vicinity of the proposed development. The closest source of telephone and <u>cable television (CATV)</u> service is MECO's 69 kV pole line which is *makai* of Pi'ilani Highway.

*Potential Impacts and Mitigation Measures.* To provide telephone and CATV service for the project, an underground ductline extension from the existing 69 kV pole line (across Pi'ilani Highway) and an underground installation along the Kaonoulu Street extension are proposed. Conduit stubouts will be provided for each bulk-lot for future onsite distribution. HT and Oceanic will provide the fiber optic cables for the ductlines on an "as-needed" basis. No central offices or electronic equipment pads are anticipated. However, small cross connects and CATV node pads may be required along Kaonoulu Street. As with MECO, all HT and Oceanic distribution lines serving uses within the project will be placed underground.

# IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND <u>CONTROLS</u>

#### A. CHAPTER 343 HAWAII REVISED STATUTES

This <u>FEIS</u> has been prepared in accordance with the provisions of Chapter 343, <u>Hawaii</u> <u>Revised Statutes ("HRS") (the "Environmental Impact Statement Law"</u>) and Title 11, Chapter 200, <u>Hawaii Administrative Rules ("HAR") (the "Environmental Impact</u> Statement Rules").

Section 343.5 343-5 HRS, establishes nine "triggers" that require <u>compliance with</u> the preparation of an Environmental Assessment (EA) or EIS Impact Statement Law. The trigger for the Pi'ilani Promenade includes work in the State Right of Way on Pi'ilani Highway. <u>The Applicant also agreed to preparation is the proposal of the use of State lands for roadway widening purposes.</u>

On August 14, 2013 the Applicant filed an Environmental Impact Statement Preparation Notice with the LUC consistent with Act 172, Session Laws of Hawaii 2012, to proceed directly to the preparation of the EIS itself rather than preparing an environmental assessment to determine whether an EIS is warranted. On September 10, 2013, the LUC entered an Order determining that the Project may have a significant impact upon the environment that warrants the preparation of an EIS, and agreeing that the LUC would be the accepting agency.

#### **B. STATE LAND USE**

<u>The State Land Use Law</u> Chapter 205, <u>Hawaii Revised Statutes</u>, relating to the Land Use Commission (LUC <u>HRS</u>), establishes <u>the LUC and</u> four (4) major land use districts in which all lands in the state are placed. These districts are designated as *Urban*, *Rural*,

*Agricultural*, and *Conservation*. The lands of the Pi'ilani Promenade lie within the State *Urban* district (**See**: Figure No. 5, "State Land Use Map").

The Applicant is not proposing a reclassification or amendment of the State Land Use District Boundaries; however the Applicant is proposing a use that the Commission has determined is different As discussed in more detail in Section II.C herein, the Project site was reclassified from Agricultural to Urban pursuant to the 1995 Decision and Order. While the Project proposes uses that are consistent with the Urban designation, the LUC has determined that the proposed uses differ from that which was represented to the Commission by the Original Petitioner to obtain the 1995 Decision and Order.

As previously described in the Background section herein, there is currently pending an Order to Show Cause proceeding, which has been stayed pending Applicant filing a Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order Dated February 10, 1995 ("Motion to Amend"). Applicant submitted its Motion to Amend to the LUC, however, without an Environmental Impact Statement ("EIS"), that Motion to Amend is considered incomplete by the LUC, and will not be set for hearing before the LUC until this <u>F</u>EIS has been completed and<del>/or</del> accepted by the LUC.

In the Motion to Amend, Applicant requests that the LUC issue a new docket sheet for that portion of the property subject to the LUC's 1995 Decision and Order that is owned by Applicant, that the Applicant be released from the conditions of the 1995 Decision and Order, and that the LUC issue new Findings of Fact, Conclusions of Law, and a Decision and Order specific to the planned Pi'ilani Promenade project that is the subject of this <u>FEIS</u>. Attached hereto as Appendix N is a review and analysis of the currently existing conditions in the 1995 Decision and Order that would be included in the new Findings of Fact, Conclusions of Law and Decision and Order and would apply only to the Pi'ilani Parcels, as sought by Applicant in the Motion to Amend (**See**: Appendix N, "Conditions of the Motion to Amend with Proposed Changes").

<u>Sec 15-15-18, Hawaii Administrative Rules</u>. The proposed Pi'ilani Promenade is consistent with the following standards of the Urban District, Sec 15-15-18, Hawaii Administrative Rules:

### 1. It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban and other related land uses.

#### Analysis:

The Pi'ilani Promenade project site is located in Kihei which is the urban center of South Maui. The project site is located immediately south and adjacent to existing commercial uses. Along the Project's southern boundary is the Kulanihakoi Gulch and future Kihei High School. Across Pi'ilani Highway and within close proximity of the project site are the Kihei Aquatic and Community Center, Pi'ilani Shopping Center and a variety of business and commercial services along with single-family and multi-family residential development.

### 2. Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;

#### Analysis:

The Pi'ilani Promenade is located within close proximity to one of three commercial nodes located in central Kihei. The Pi'ilani Shopping Center, Azeka Shopping Center, the Maui Research and Technology Park along with numerous professional and business services are all located a short distance from the Pi'ilani Promenade and generate substantial employment. In addition, the Kihei-Makena Community Plan <u>identifies the project site as (LI) Light Industrial</u> and the Maui Island Plan <u>identify</u> <u>identifies</u> the project in the Urban Growth Boundary.

3. Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection; and

#### Analysis:

Basic public services and facilities, such as transportation systems, sewer, water, drainage and public utility hook-ups are available in close proximity to the proposed project. All of the drainage improvements for the proposed development will comply with County of Maui standards. The County of Maui currently does not provide solid waste disposal service to multi-family residences in the area, therefore a private refuse company will be <u>contracted for solid waste disposal</u>. The Pi'ilani Promenade is also adjacent to Pi'ilani Highway, a major roadway serving the general Kihei area. A new roadway will be constructed to provide access from Pi'ilani Highway; this roadway will also become the future Kihei Upcountry Highway (KUH) connecting to Haleakala Highway in the future.

The lands of the project area have poor soil conditions, <u>limited suitable</u> topography, and are close to existing infrastructure making the subject property a suitable location for the proposed development. Section III.D (Infrastructure) details the preliminary engineering and drainage analyses conducted for the proposed development. Schools and several parks are located in close proximity to the Pi'ilani Promenade, such as <u>Waipuilani Park</u>, <u>Kalepolepo Park</u>, the three (3) Kamaole Beach Parks, Charley Young Park, Kalama Park and South Maui Community Park. Other recreational facilities include the Kihei Aquatic

Center and Community Center, both a short distance from the Pi'ilani Promenade. It should be noted that the proposed development will also include <u>landscaped</u> open space and a park, which will help to mitigate vehicular traffic to and from the subject property.

The State Department of Education's public school system in the Kihei region includes Kamalii and Kihei Elementary Schools (Grades K to 5), Lokelani Intermediate School (Grades 6 to 8) and Maui and Kihei Public Charter High School (Grades 9 to 12). The Kihei Charter School provides K-12 classes within close proximity of the project site at Lipoa Center and Kihei Commercial Center. The future Kihei High School is proposed for development adjacent to the Kulanihakoi Gulch, south of the subject property, along Pi'ilani Highway. and the State Department of Education is preparing and processing land use entitlements for this development. Once developed, the Pi'ilani Promenade will be within a short distance of an elementary, intermediate and high school.

Police protection for the Kihei area is provided by the Maui County Police Department, with the existing Kihei Station located approximately 1.5 miles from the Pi'ilani Promenade. Likewise, fire protection for the Kihei area, which encompasses fire prevention, suppression, rescue, and emergency services, is provided by the Maui County Fire Department, with the Kihei Fire Station located near Kalama Park on South Kihei Road, approximately 1.5 miles from the Pi'ilani Promenade. The proposed development will not result in any extension of the existing service area limits for these emergency services.

#### 4. Sufficient reserve areas for foreseeable urban growth.

#### Analysis:

The Kihei-Makena Community Plan region will have sufficient reserve areas for foreseeable urban growth. The Maui Island Plan, Directed Growth Plan identifies Planned Growth Areas for Central Kihei, mauka of Pi'ilani Highway that are ideal for a new community. The lands mauka of Pi'ilani Highway offer suitable topography for a new community, and is located outside of the tsunami inundation zone.

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

#### Analysis:

Elevations across the project area range from approximately 123 feet above Mean Sea Level (MSL) at the mauka (East) property boundary to approximately 30 feet MSL along the Pi'ilani Highway fronting the site. The average slope across the project site is 4%.

The site includes two soil types "Waiakoa extremely stony silty clay loam", 3 to 25 percent slopes, eroded (WID2) and Alae sandy loam, 3 to 7 percent slopes (AaB). These soils developed in volcanic ash and recent alluvium derived from basic igneous rock. Runoff is slow and the erosion hazard is slight therefore these soils are appropriate for development.

As indicated by the Flood Insurance Rate Map, the Pi'ilani Promenade is located within Zone X, which is outside of any flood hazard. The project site is not subject to tsunami, unstable soil conditions or other adverse environmental effects which would render it unsuitable or inappropriate for the proposed development.

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

#### Analysis:

As reflected on the State Land Use Classification map, the project site is already designated "Urban". In addition, the surrounding project is within the Maui Island Plan's Urban Growth Boundary and is also designated by the Kihei-Makena Community Plan for <del>urban</del> <u>Light Industrial</u> use.

As noted above, the project site is contiguous to existing urban areas, including a Gas station and light industrial/commercial uses, and the Kaonoulu Estates residential subdivision. In addition, the future Kihei High School is proposed on lands south of the project site. Just west of the project site, across Pi'ilani Highway, are commercial, civic, and residential developments within central Kihei.

# 7. It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the state and county general plans.

#### Analysis:

Given the Light Industrial (LI) designation of the property by the Kihei-Makena Community Plan and the placement of the Project area within the Urban Growth Boundary by the Maui Island Plan, the project site is in an appropriate location for new urban concentration and growth. Both of these plans support an urban use of the subject property, and with existing infrastructure and public facilities in close proximity, balancing employment with housing and services is a central tenet of smart growth.

- 8. May include lands which do not conform to the standards in paragraphs (1) to (5):
  - (A) When surrounded by or adjacent to existing urban development; and(B) Only when those lands represent a minor portion of this district;

#### Analysis:

The project site is located in the State Land Use Urban District and conforms to the standards in paragraphs (1) to (5).

9. It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services.

#### Analysis:

Development of the Project area will not contribute to scattered spot urban development. The property is located adjacent to, and will become part of, the existing urban uses mauka of Pi'ilani Highway and other residential and commercial subdivisions in the area. Recently approved development mauka of Pi'ilani Highway includes the Kihei High School, the MRTP and the A&B Kihei residential subdivision. The Project site is within the Maui Island Plan's Urban Growth Boundary and is also designated by the Kihei-Makena Community Plan for Light Industrial use.

The proposed development will not necessitate unreasonable public investment in infrastructure facilities or public services. The Applicant will be engaging in infrastructure improvements to mitigate any potential impacts of the proposed development.

10. It may include lands with a general slope of twenty per cent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state, or county agency, are adequate to protect the public health, welfare and safety, and the public's interests in the aesthetic quality of the landscape.

#### Analysis:

The project area is characterized by an average slope of four (4) percent.

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The site is not suitable for productive agricultural land use and is better suited for urban development. The proposed development would provide additional opportunities for housing and employment. Basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection are in close proximity to the site. The Pi'ilani Promenade is currently within the General Plan's Urban Growth Boundary.

Sec 15-15-24, Hawaii Administrative Rules. Permissible uses within the "U" Urban District.

The proposed Pi'ilani Promenade is located within the Urban District; therefore the project is in compliance with section 15-15-24 HAR.

#### C. HAWAII STATE PLAN

The Hawaii State Plan (Chapter 226, HRS), establishes a set of goals, objectives, and policies that serve to guide the long-term growth and development of the State. The Plan consists of three (3) parts. Part I includes its Overall Theme, Goals, Objectives, and Policies; Part II encompasses Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Since Part II of the State Plan covers its administrative structure and implementation process, comments relating to the applicability of Part II to the proposed project are not appropriate. In addition to sections of the State Plan that are applicable to the proposed project, a discussion of how the project conforms to the State Plan is included below. In response to comments received during the public comment period, the Applicant has revised the FEIS to include a review of HRS § 226-108 (Sustainability).

In addition, based on comments received during the public comment period, various goals, objectives and policies have been revised to more accurately reflect the Project as it relates to various government plans.

Hawaii State Plan, Chapter 226, HRS Part 1. Overall Themes, Goals,	S	N/S	N/A
Objectives and Policies			
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
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: 1. A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations. 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. 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. Analysis: The proposed Pi'ilani Promenade achieves the above-referenced goals by 1) creating a more conducive environment for the diversification of the State's economy; and 2) creating employment opportunities and affordable rental housing for Maui residents, thereby providing greater opportunity for self-reliance and self-determination. Moreover, the project will include contributions such as constructing a portion of the <u>Kihei</u> Upcountry Highway and dedication of a 1.0 MG drinking water tank for public use, and enhancing the County's infrastructure and public facilities.

Chapter 226-5, HRS, Objective 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:	S	N/S	N/A
(1) Manage population growth statewide in a manner that provides	$\checkmark$		
increased opportunities for Hawaii's people to pursue their physical,			
social, and economic aspirations while recognizing the unique needs			
of each county.			
(2) Encourage an increase in economic activities and employment	$\checkmark$		
opportunities on the neighbor islands consistent with community			
needs and desires.			
(3) Promote increased opportunities for Hawaii's people to pursue	$\checkmark$		
their socio-economic aspirations throughout the islands.			
(4) Encourage research activities and public awareness programs to			$\checkmark$
foster an understanding of Hawaii's limited capacity to			
accommodate population needs and to address concerns resulting			
from an increase in Hawaii's population.			
(5) Encourage federal actions and coordination among major			$\checkmark$
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.		
(6) Pursue an increase in federal assistance for states with a greater		$\checkmark$
proportion of foreign immigrants relative to their state's population.		
(7) Plan the development and availability of land and water	$\checkmark$	
resources in a coordinated manner so as to provide for the desired		
levels of growth in each geographic area. [L 1978, c 100, pt of §2; am		
L 1986, c 276, §4; am L 1988, c 70, §3; am L 1993, c 213, §3]		

Analysis: <u>The Project supports policy items 1-3 and 7. Policy item 4 is not applicable as the</u> <u>Project does not include public awareness programs or activities to understand concerns of</u> <u>population increase.</u> The proposed project includes a residential component that will help accommodate foreseeable population growth on Maui. The Pi'ilani Promenade incorporates current land use planning themes which encourages mixed use projects and incorporates a variety of compatible uses on the same property. <u>Given the Light Industrial (LI) designation</u> <u>of the property by the Kihei-Makena Community Plan and the placement of the Project site</u> within the Urban Growth Boundary by the Maui Island Plan, the Project site is in an <u>appropriate location for new urban concentration and growth. Both of these plans support an</u> <u>urban use of the Project site, and with existing infrastructure and public facilities in close</u> proximity, balancing employment with housing and services is a central tenet of smart growth.

The Pi'ilani Promenade will strengthen Maui's economy by creating jobs for Maui residents which will in turn have a positive impact on the rest of the Maui economy. The result will be an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires, which will promote increased opportunities for Hawaii.

Chapter 226 6 HDS Objectives and Policies for the Economy	in Conoral
Chapter 226-6, HRS, Objectives and Policies for the Economy	- III General

Objectives: Planning for the State's economy in general shall be directed toward achievement of the following objectives:

Objectives:	S	N/S	N/A
(1) Increased and diversified employment opportunities to achieve	$\checkmark$		
full employment, increased income and job choice, and improved			
living standards for Hawaii's people, while at the same time			
stimulating the development and expansion of economic activities			
capitalizing on defense, dual-use, and science and technology			
assets, particularly on the neighbor islands where employment			
opportunities may be limited.			

(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.	~		
Policies:	S	N/S	N/A
(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.	✓		
(2) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.	✓		
(3) Seek broader outlets for new or expanded Hawaii business investments.	$\checkmark$		
(4) Expand existing markets and penetrate new markets for Hawaii's products and services.	~		
(5) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.			~
(6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.	$\checkmark$		
(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.			<b>√</b>
(8) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.	$\checkmark$		
(9) Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.	~		
(10) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.	$\checkmark$		
(11) Maintain acceptable working conditions and standards for Hawaii's workers.	~		
(12) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.	~		
(13) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and	$\checkmark$		

technology assets, particularly on the neighbor islands where employment opportunities may be limited.		
(14) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy, particularly with respect to emerging industries in science and technology.	✓	
(15) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.	~	
(16) 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.		V
(17) Foster a business climate in Hawaiiincluding attitudes, tax and regulatory policies, and financial and technical assistance programsthat is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry. [L 1978, c 100, pt of §2; am L 1986, c 276, §5; am L 1988, c 70, §4; am L 1993, c 213, §4; am L 2009, c 167, §2]	~	

Analysis: The Project supports policy items 2, 3, 8-10, 14, 15, and 17. Given the Light Industrial (LI) designation of the property by the Kihei-Makena Community Plan and the placement of the Project site within the Urban Growth Boundary by the Maui Island Plan, the Project site is in an appropriate location for new urban concentration and growth. Both of these plans support an urban use of the Project site, and with existing infrastructure and public facilities in close proximity, balancing employment with housing and services is a central tenet of smart growth.

As discussed in Section III.B.3 (Economy) the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

Chapter 226-7 Objectives and policies for the economy-agriculture.

*Analysis:* As discussed in Section III.A.10 (Agricultural Resources) The LSB and ALISH classification systems indicate that the lands underlying the project site possess poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate; therefore Chapter 226-7 is not applicable to the proposed project.

Chapter 226-8 Objective 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.

*Analysis:* The Pi'ilani Promenade is not targeting the visitor industry; hotels, transient vacation rentals, timeshares, and bed and breakfast operations will be prohibited; however visitors may choose to visit the Pi'ilani Promenade to shop or dine at future retail and restaurant establishments.

Chapter 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.

*Analysis:* The Pi'ilani Promenade will not use federal funds or land nor will it require additional federal expenditures in the State. Therefore, Chapter 226-9 does not apply to the proposed project.

Chapter 226-10 Objective 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:	S	N/S	N/A
(1) Facilitate investment and employment growth in economic	$\checkmark$		
activities that have the potential to expand and diversify Hawaii's			
economy, including but not limited to diversified agriculture,			
aquaculture, renewable energy development, creative media, and			
science and technology-based sectors;			

(2) Expand Hawaii's capacity to attract and service international		
programs and activities that generate employment for Hawaii's		
people;		
(3) Enhance and promote Hawaii's role as a center for international		✓
relations, trade, finance, services, technology, education, culture,		
and the arts;		
(4) Accelerate research and development of new energy-related	$\checkmark$	
industries based on wind, solar, ocean, and underground resources		
and solid waste;		
(5) Promote Hawaii's geographic, environmental, social, and	$\checkmark$	
technological advantages to attract new economic activities into the		
State;		
(6) Provide public incentives and encourage private initiative to	$\checkmark$	
attract new industries that best support Hawaii's social, economic,		
physical, and environmental objectives;		
(8) Develop, promote, and support research and educational and		$\checkmark$
training programs that will enhance Hawaii's ability to attract and		
develop economic activities of benefit to Hawaii;		
(9) Foster a broader public recognition and understanding of the		$\checkmark$
potential benefits of new, growth-oriented industry in Hawaii;		
(10) Encourage the development and implementation of joint		$\checkmark$
federal and state initiatives to attract federal programs and projects		
that will support Hawaii's social, economic, physical, and		
environmental objectives;		
(11) Increase research and development of businesses and services	$\checkmark$	
in the telecommunications and information industries; and		
Analysis: The Pi'ilani Promenade will encompass a variety of pern	uitted land u	ses which are

*Analysis:* The Pi'ilani Promenade will encompass a variety of permitted land uses which are expected to attract a broad range of businesses because of this diversity. This mixture of light industrial, residential, commercial, and retail uses will make the Pi'ilani Promenade a more vibrant and attractive environment for businesses to setup shop and to grow their operations. The Pi'ilani Promenade supports policy items 1, 5, 6, 9 and 11 because the Project will facilitate the development of new businesses, including the opportunity for information industry which will provide employment opportunities for Maui residents.

Chapter 226-10.5 Objectives and policies for the economy-information industry.

**Objective:** Planning for the State's economy with regard to telecommunications and information technology shall be directed toward positioning Hawaii as a leader in broadband communications and applications in the Pacific Region.



*Analysis:* The mixture and variety of land uses within the Pi'ilani Promenade will provide opportunities for research and technology-based businesses and would complement the future uses of the property.

Chapter 226-11, HRS, Objectives and Policies for the Physical Environment – Land Based, Shoreline, and Marine Resources

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

Objectives:	S	N/S	N/A
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.	~		
(2) Effective protection of Hawaii's unique and fragile environmental resources.	~		
Policies:		1	
(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.	~		
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.	~		
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.	~		
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.	~		
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.	✓		<u> </u>
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.	~		
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.	4		<u> </u>
(8) Pursue compatible relationships among activities, facilities, and natural resources.	~		
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes. [L 1978, c 100, pt of §2; am L 1986, c 276, §10]			✓
Analysis: The Applicant has changed polices items 5 and 7 to "N/A"	as reque	ested by t	he South
Maui Citizens for Responsible Growth (SMCRG) since the issues	-	-	
Project. Policy 9 was already marked as N/A. Policies 1-4, 6 and 8 a			
Pi'ilani Promenade does not lie within the Hawaii Coastal Zone M	<del>lanagen</del>	<del>nent Area</del>	nor is it

**%**-

located within the Special Management Area for the island of Maui. No listed or endangered species of flora and fauna were identified on the property. During the construction and operational phases of the project, Best Management Practices (BMPs) will be implemented to mitigate non-point source pollution to coastal resources and mitigate the effects of fugitive dust. Through the public review process for the EIS, mitigation measures will be identified to help address any environmental impacts that may arise from the proposed project. As documented in Section II.H "potential impacts and mitigation measures" of the FEIS, the Project is not anticipated to result in significant impacts to the environmenta.

Chapter 226-12, HRS, Objective 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:	S	N/S	N/A
(1) Promote the preservation and restoration of significant natural	$\checkmark$		
and historic resources.			
(2) Provide incentives to maintain and enhance historic, cultural,	$\checkmark$		
and scenic amenities.			
(3) Promote the preservation of views and vistas to enhance the	$\checkmark$		
visual and aesthetic enjoyment of mountains, ocean, scenic			
landscapes, and other natural features.			
(4) Protect those special areas, structures, and elements that are an	$\checkmark$		
integral and functional part of Hawaii's ethnic and cultural			
heritage.			
(5) Encourage the design of developments and activities that	$\checkmark$		
complement the natural beauty of the islands. [L 1978, c 100, pt of			
§2; am L 1986, c 276, §11]			

Analysis: Policy items 1- 5 are supported by the Project. The Pi'ilani Promenade will complement the architectural character of South Maui as well as other developed properties in the area. As part of the environmental review process the Maui County Planning Department has requested to be involved in the design of the Project, which the Applicant has agreed to.

As discussed in Section III.A. 8 (Historical and Archaeological Resources) The proposed project will not impact Kulanihakoi Gulch and is not anticipated to significantly impact the physical environment. The project promotes the preservation of historic resources and the Applicant's <u>Archaeologist has submitted a Data Recovery Plan to</u> will work with the State Historic Preservation Division <u>that is currently under review</u>. to prepare a data recovery plan.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey <u>dated March 2014 revised August 26, 2015</u>").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the DFEIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing potential impacts to Kulanihakoi Gulch and the return of the petroglyph boulder that was previously removed from the project site by a former land owner, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and that the petroglyph boulder be returned to the property. The Applicant has discussed the possible return of the petroglyph boulder with the former land owner; however, the former owner rejected this request since the relocation plan was approved by State Historic Preservation Division (SHPD). In addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

As discussed in Section III.B.4 (Cultural Resources) the cultural impact statement (CIA) which was prepared for the proposed project reported that there were no visible cultural resources, (*i.e.* medicinal plants, shoreline resources, religious sites, or archeological resources) observed on the property. From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or any gatherings currently taking place on the site. The oral history interviews did not reveal any known gathering places on the subject property nor did any access concerns surface as a result of the proposed Project. In light of the foregoing, it can be concluded that development of the site will not impact cultural resources on the property or within its immediate vicinity.

As discussed in Section III.A.9 (Visual Resources) the Pi'ilani Promenade is not anticipated to have significant impacts on views from Pi'ilani Highway toward Haleakala. The property is setback 30 feet from Pi'ilani Highway and building heights are limited to 60 feet. The proposed project will complement the architectural character of South Maui as well as other developed properties in the area.

Chapter 226-13, Hawaii Revised Statutes, Objectives and Policies for the Physical Environment – Land, Air, and Water Quality

Objectives:	S	N/S	N/A
(1) Maintenance and pursuit of improved quality in Hawaii's land,	✓	7 -	$\checkmark$
air, and water resources.			_
(2) Greater public awareness and appreciation of Hawaii's environmental resources.	4		<u> </u>
Policies:	S	N/S	N/A
(1) Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.			~
(2) Promote the proper management of Hawaii's land and water resources.	$\checkmark$		
(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.	$\checkmark$		
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.	$\checkmark$		
(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.	~		
(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.	~		
<ul><li>(7) Encourage urban developments in close proximity to existing services and facilities.</li></ul>	$\checkmark$		
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.	~		

Analysis: The Applicant has changed objective items 1 and 2 in the FEIS to read "N/A" as the Piilani Promenade project is not promoting maintenance or greater public awareness and appreciation of Hawaii's environmental resources. Policy items 2-7 remain supportive. The proposed project is zoned for light industrial uses, including commercial and multi-family and is located adjacent to existing urban development and will utilize best management practices to limit impacts to the physical environment.

The Pi'ilani Promenade does not lie with the Hawaii Coastal Zone Management Area nor is it located within the Special Management Area for the island of Maui. No listed or endangered species of flora and fauna were identified on the subject property. During the construction and operational phases of the project, Best Management Practices (BMPs) will be implemented to mitigate non-point source pollution to coastal resources and mitigate the effects of fugitive dust. Through the public review process for the EIS, mitigation measures will be identified to help address any environmental impacts that may arise from the proposed project. From a site planning perspective, the design and layout of the project involved an evaluation of existing topographic conditions in order to create a viable development plan which would minimize potential impacts to the land form. To the extent practicable, the layout and orientation of future buildings will strive to preserve view planes toward the Pacific Ocean.

As discussed in Section III.A.6 (Air Quality), appropriate mitigation measures will be implemented during construction to minimize any temporary impacts on air quality. The proposed project will be developed in accordance with applicable Federal and/or State air quality standards.

As discussed in Section III.A.4 (Natural Hazards), the development of the Pi'ilani Promenade will not increase the possibility of natural hazards such as flooding, tsunami inundation, hurricanes, and earthquakes. The Pi'ilani Promenade will be constructed in compliance with County, State and Federal standards.

The New Urbanism concept is a globally successful design practice which will be utilized for the Pi'ilani Promenade. The design of the project will enhance the physical quality of the property by providing housing, development, and related infrastructure on the same site.

Chapter 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.

*Analysis:* The proposed Pi'ilani Promenade does not involve planning for the State's facility systems; therefore these objectives and policies are not applicable.

Chapter 226-15, Hawaii Revised Statutes, Objectives and Policies for Facility Systems - Solid and Liquid Waste.

**Objectives:** 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.

Objectives:	S	N/S	N/A
(1) Maintenance of basic public health and sanitation standards	$\checkmark$		
relating to treatment and disposal of solid and liquid wastes.			
(2) Provision of adequate sewerage facilities for physical and	$\checkmark$		
economic activities that alleviate problems in housing, employment,			
mobility, and other areas.			
Policies:	S	N/S	N/A

(1) Encourage the adequate development of sewerage facilities that	$\checkmark$	
complement planned growth.		
(2) Promote re-use and recycling to reduce solid and liquid wastes	$\checkmark$	
and employ a conservation ethic.		
(3) Promote research to develop more efficient and economical	$\checkmark$	
treatment and disposal of solid and liquid wastes. [L 1978, c 100, pt		
of §2; am L 1986, c 276, §14]		

*Analysis:* As discussed in Section III.D.5 (Wastewater), the Pi'ilani Promenade will connect to the Maui County sewer system and the Kihei Wastewater Reclamation Facility (KWWRF). The KWWRF was designed to accommodate future population growth in South Maui and has a sufficient capacity to accommodate the expected wastewater generated by Pi'ilani Promenade.

As discussed in Section III.C.5 (Solid Waste), the Pi'ilani Promenade will develop strategies for reducing solid waste delivered to the County landfill by providing options for recycling and promoting recycling practices among future residents and businesses.

Objective: Planning for the State's facility systems in genera	l shall be	directed	towards
achievement of the objective of water, transportation, waste	disposal,	and ener	rgy and
telecommunication systems that support statewide social, economi	c, and phy	vsical objec	tives.
Policies:	S	N/S	N/A
(1) Coordinate development of land use activities with existing and potential water supply.	$\checkmark$		
(2) Support research and development of alternative methods to	$\checkmark$		
meet future water requirements well in advance of anticipated			
needs.			
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.	✓		
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.	✓		
(5) Support water supply services to areas experiencing critical water problems.	$\checkmark$		
(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. [L 1978, c 100, pt of §2; am L 1986, c 276, §15]	√ 		

*Analysis:* As discussed in Section III.D.4 (Water), the drinking water source for the Pi'ilani Promenade is water provided by the Maui Department of Water Supply (DWS), while the source of non-drinking water is brackish water provided by an onsite well. The proposed project includes construction of a 1.0 MG water tank for public drinking water use.

In addition to developing its own onsite water source, the <u>developer Applicant</u> is committed to water conservation strategies for reducing consumption, conserving resources, and minimizing water demands, and implementing the water conservation measures of the DWS.

Objectives: Planning for the State's facility systems with regard	l to trans	sportation	shall be
directed towards the achievement of the following objectives:			
Objectives:	S	N/S	N/A
(1) An integrated multi-modal transportation system that services	✓		$\checkmark$
statewide needs and promotes the efficient, economical, safe, and			
convenient movement of people and goods.			
(2) A statewide transportation system that is consistent with and	≁		$\checkmark$
will accommodate planned growth objectives throughout the			
State.			
Policies:	•	-	1
(1) Design, program, and develop a multi-modal system in	≁		<u>~</u>
conformance with desired growth and physical development as			
stated in this chapter;			
(2) Coordinate state, county, federal, and private transportation	✓		<u> </u>
activities and programs toward the achievement of statewide			
objectives;			
(3) Encourage a reasonable distribution of financial	≁		$\checkmark$
responsibilities for transportation among participating			
governmental and private parties;			
(4) Provide for improved accessibility to shipping, docking, and			$\checkmark$
storage facilities;			
(5) Promote a reasonable level and variety of mass transportation	≁		<u> </u>
services that adequately meet statewide and community needs;			
(6) Encourage transportation systems that serve to accommodate	$\checkmark$		
present and future development needs of communities;			
(7) Encourage a variety of carriers to offer increased opportunities	✓		$\checkmark$
and advantages to interisland movement of people and goods;			

(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;	✓	<u> </u>	<u>/</u>
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;	<b>√</b>		
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;	V		
(11) Encourage safe and convenient use of low-cost, energy- efficient, non-polluting means of transportation;	~		
(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;	✓		
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency. [L 1978, c 100, pt of §2; am L 1986, c 276, §16; am L 1993, c 149, §1; am L 1994, c 96, §3]	✓		

*Analysis:* <u>The Applicant has changed items 1- 3, 5, 7, and 8 in the FEIS to read "N/A" because</u> the Applicant is not responsible for planning for the State's facility systems with regard to transportation. <u>The Project includes creation of a unified system of pedestrian and bicycle infrastructure which will provide connectivity between the residential and employment areas within the Project site.</u>

The Project will also provide a segment of the future KUH. Transportation demand and management strategies for the Project support methods such as bicycle and pedestrian use, ridesharing, and off-peak commuting.

As discussed in Section II.<del>E.3 and 4 <u>F</u> of the FEIS, the proposed project establishes a settlement pattern that is significantly more compact and mixed-use in character as compared to the previously approved 123-lot light industrial subdivision. This new site plan also reflects the creation of a unified system of pedestrian and bicycle infrastructure which will provide connectivity between the residential and employment areas within the project site.</del>

The proposed project will also provide a segment of the future Kihei Upcountry Highway (KUH). Transportation demand and management strategies for the Pi'ilani Promenade support methods such as ridesharing, bicycle and pedestrian use, off-peak commuting and

other measures discussed in the TIAR (See: Appendix M) <u>and TIAR update (See: Appendix M-1).</u>

Chapter 226-18, Hawaii Revised Statutes, 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:

Objectives:	<u>S</u>	<u>N/S</u>	<u>N/A</u>
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;	*		<u>~</u>
(2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;	√		
(3) Greater energy security and diversification in the face of threats to Hawaii's energy supplies and systems;	4		<u>✓</u>
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.	~		
Policies:	S	N/S	N/A
(1) Support research and development as well as promote the use of renewable energy sources;	<ul> <li>✓</li> </ul>		
(2) Ensure that the combination of energy supplies and energy- saving systems is sufficient to support the demands of growth;	~		
(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;			<u>✓</u>
(4) Promote all cost-effective conservation of power and fuel supplies through measures, including:	~		
(A) Development of cost-effective demand-side management programs;	*		<u>~</u>
(B) Education;	4		<u>~</u>
(C) Adoption of energy-efficient practices and technologies;	4		<u>~</u>
(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses	4		<u> </u>

the least-cost energy supply option and maximizes efficient		
technologies;		
(6) Support research, development, demonstration, and use of	✓	$\checkmark$
energy efficiency, load management, and other demand-side		
management programs, practices, and technologies;		
(7) Promote alternate fuels and transportation energy efficiency;	*	<u> </u>
(8) Support actions that reduce, avoid, or sequester greenhouse	$\checkmark$	
gases in utility, transportation, and industrial sector applications;		
(9) Support actions that reduce, avoid, or sequester Hawaii's	✓	$\checkmark$
greenhouse gas emissions through agriculture and forestry		
initiatives; and		
(10) Provide priority handling and processing for all state and	✓	$\checkmark$
county permits required for renewable energy projects. [L 1978, c		
100, pt of §2; am L 1986, c 276, §17; am L 1990, c 319, §2; am L 1994,		
c 96, §4; am L 2000, c 176, §1; am L 2007, c 205, §6; am L 2009, c		
155, §17 and c 156, §3]		

Analysis: Policies 4 and 8 were left as "S" because the Project will reduce greenhouse gas by incorporating renewable energy such as solar water heaters and photovoltaic panels when possible. Landscaping will be incorporated into the Project site that can help filter emissions and improve air quality. Items 9 and 10 were changed to "N/A" as there is no proposed action to reduce gas emissions through agriculture and forestry initiatives and no evidence that the Project will provide priority handling of energy permits, a government function.

As discussed in Section III.D.5 <u>"(Electrical)</u>," the Pi'ilani Promenade will include conservation measures to encourage the use of energy-efficient technology throughout the project, specifically in areas involving lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development. Occupants of the Pi'ilani Promenade will be encouraged to install Photovoltaic Energy Systems where appropriate and feasible.

In addition, the Pi'ilani Promenade is utilizing smart growth planning techniques that will help to reduce automobile trips. The design of the project will help minimize automobile trips by providing employment, goods, services and housing within walking or biking distance of each other. The design and layout of the Pi'ilani Promenade includes a unified pedestrian and bicycle system within the project site, as well as connections to areas of existing and future development. The pedestrian and bicycle system will provide future residents with an alternative to motorized transport within the Pi'ilani Promenade. In addition, the Applicant will work with the Maui Department of Transportation to provide a location for a Maui Bus stop.

Chapter 226-18.5 Objectives and policies for facility systems-telecommunications.

**Objectives:** (a) 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.

(b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand.

*Analysis:* The Pi'ilani Promenade does not involve any planning for the State's telecommunication systems; therefore, this objective is not applicable.

Chapter 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:

Objectives:	S	N/S	N/A
(1) Greater opportunities for Hawaii's people to secure reasonably	$\checkmark$		
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.			
(2) The orderly development of residential areas sensitive to	$\checkmark$		
community needs and other land uses.			
(3) The development and provision of affordable rental housing	$\checkmark$		
by the State to meet the housing needs of Hawaii's people.			
Policies:	S	N/S	N/A
(1) Effectively accommodate the housing needs of Hawaii's	$\checkmark$		
people.			
(2) Stimulate and promote feasible approaches that increase	$\checkmark$		
housing choices for low-income, moderate-income, and gap-			
group households.			
(3) Increase homeownership and rental opportunities and choices	$\checkmark$		
in terms of quality, location, cost, densities, style, and size of			
housing.			

(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.	≁	<u> </u>
(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.	~	
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.	$\checkmark$	
(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.	V	
(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii. [L 1978, c 100, pt of §2; am L 1986, c 276, §18; am L 1992, c 27, §2]	≁	<u> </u>

Analysis: The Project supports objective item 2 by providing residential units onsite as part of an orderly mixed use development. In addition, the Applicant believes that policy items 5 and 7 are "S" supported by the Project because onsite residential units will be constructed with accessibility to facilities and services in the surrounding areas. Item 7 is supported by the Project because the design of the Project will include collaboration with the Maui County Planning Department to ensure the design will foster a variety of Maui residents and their lifestyles. The Project is located within the Urban Growth Boundary of Kihei and is an appropriate location for urban development. The Applicant has changed items 4 and 8 in the FEIS to read "N/A" because the Project does not have existing housing, and will not promote research and development to reduce the cost of housing construction.

As discussed in Section III.B.2 (Housing), the Pi'ilani Promenade will offer multi-family housing to address the diverse housing needs of Maui residents. The multi-family housing will include affordable housing units in compliance with Maui County Code, Chapter 2.96 (Residential Workforce Housing Policy). Workforce homes will be subject to the requirements of Chapter 2.96, MCC to ensure that affordable homes are available for full-time Maui residents.

Chapter 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:

Objectives:	S	N/S	N/A
(1) Fulfillment of basic individual health needs of the general	≁		$\checkmark$
public.			

(2) Maintenance of sanitary and environmentally healthful	≁	$\checkmark$
conditions in Hawaii's communities.		

*Analysis:* The Applicant is supportive of advances in healthcare; however the Pi'ilani Promenade does not involve or require the advancement of a State initiative or program with regard to health. Based on the preceding, these objectives are not applicable. <u>Accordingly, the</u> <u>Applicant has changed objectives 1 and 2 in the FEIS to read "N/A"</u>.

Chapter 226-21, Hawaii Revised Statutes, Objectives for Socio-Cultural Advancement - Education.

**Objective:** 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.

*Analysis:* As discussed in Section III.C.4 (Schools), the Pi'ilani Promenade has not been designed to accommodate a public school site. However, the Hawai1i Legislature enacted Act 245 in 2007 as Section 302A, HRS, "School Impact Fees". The Pi'ilani Promenade is within the boundaries of the Department of Education's (DOE) Central Maui Impact District and is within the Makawao Cost Area of that district. Projects within the district and cost area are required to pay a construction fee and either a fee-in-lieu of land or a land donation (at the discretion of the DOE). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement.

Chapter 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.

*Analysis:* The proposed project does not require nor does it involve any State initiative or program for the advancement of social services. In this light, this objective is not applicable.

Chapter 226-23, Hawaii Revised Statutes, Objectives 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:	S	N/S	N/A
(1) Foster and preserve Hawaii's multi-cultural heritage through	$\checkmark$		
supportive cultural, artistic, recreational, and humanities-oriented			
programs and activities.			

(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.		
(3) Enhance the enjoyment of recreational experiences through	$\checkmark$	
safety and security measures, educational opportunities, and improved facility design and maintenance.		
(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.	V	
(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.	~	
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.	≁	<u> </u>
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.	~	
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.	≁	<u> </u>
(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.		~
(10) Assure adequate access to significant natural and cultural resources in public ownership. [L 1978, c 100, pt of §2; am L 1986, c 276, §22]	*	<u>~</u>
Auchoric Delicion 1 E 7 and left as "E" comparting. The Project prov	vidas a mai-l	howhood wert

Analysis: Policies 1-5, 7 are left as "S" supportive. The Project provides a neighborhood park and open spaces with pedestrian and bicycle pathways. Additionally, the Project is subject to, and will comply with, the provisions of Section 18.16.320, MCC which requires developers to provide land and/or money for park and playground purposes in the in the Kihei-Makena Community Plan region. The Applicant has changed items 6, 8 and 10 in the FEIS to read "N/A" because they are not applicable to the Project. The Applicant has kept policy item 9 as "N/A" because the Project is not developing creative expression in the artistic disciplines to enable all segments of Hawaii's population to participate in the creative arts.

As discussed in Section II.<del>D.F.5</del>, <u>E</u> the site plan for the Pi'ilani Promenade provides a neighborhood park and open spaces with pedestrian and bicycle pathways. Additionally, the Pi'ilani Promenade is subject to, and will comply with, the provisions of Section 18.16.320,

MCC which requires developers to provide land and/or money for park and playground purposes in the in the Kihei-Makena Community Plan region.

Chapter 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.

*Analysis:* The proposed project does not require or involve any State initiatives or programs for socio-cultural advancement relative to individual rights and personal well-being. As such, this objective is not applicable.

Chapter 226-25, Hawaii Revised Statutes, Objectives 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.

*Analysis:* The Pi'ilani Promenade does not require nor does it involve any State initiatives or programs for socio-cultural advancement with regard to culture. Accordingly, this objective is not applicable.

Chapter 226-26 Objectives and policies for socio-cultural advancement-public safety.

Objectives:	S	N/S	N/A
(1) Assurance of public safety and adequate protection of life and	$\checkmark$		
property for all people.			
(2) Optimum organizational readiness and capability in all phases of	$\checkmark$		
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.			
(3) Promotion of a sense of community responsibility for the welfare	4		$\checkmark$
and safety of Hawaii's people.			

*Analysis:* The Applicant has changed item 3 in the FEIS to read "N/A". The proposed project does not require or involve any State initiatives or programs for public safety; therefore, these objectives are not applicable.

Chapter 226-27 Objectives and policies for socio-cultural advancement-government.

Objectives: Planning the State's socio-cultural advancement with reg	gard to go	overnment shall be	
directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all	≁	$\checkmark$	
levels in the State.			
(2) Fiscal integrity, responsibility, and efficiency in the state	≁	$\checkmark$	
government and county governments.			
Analysis: The Applicant supports government responsibility and	d efficier	ncy; however the	
proposed project does not involve planning for the State's socio-o		-	
regard to government. In light of the foregoing, these object			
Accordingly, the Applicant has changed items 1 and 2 in the FEIS to read "N/A".			
		<u> </u>	

#### PART III. PRIORITY GUIDELINES

The priority guidelines of the Hawaii State Plan establish overall priority guidelines which address areas of State-wide concern. The Hawaii State Plan notes that the State shall strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in five (5) major areas of Statewide concern which merit priority attention: 1) economic development; 2) population growth 3) affordable housing; 4) crime and criminal justice; and 5) quality education (§226-102). The development of the Pi'ilani Promenade is supportive of the following priority guidelines of the Hawaii State Plan. In response to comments received during the public comment period, the Applicant has revised the FEIS to include a review of HRS § 226-108 (Sustainability).

In addition, based on comments received during the public comment period, various goals, objectives and policies have been revised to more accurately reflect the proposed Piilani Promenade as it relates to various government plans.

Hawaii State Plan, Chapter 226, HRS Part III. Priority Guidelines	S	N/S	N/A
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
HRS 226-101: Purpose. The purpose of this part is to establish overall priority g	uideli	nes to a	nddress
areas of statewide concern.			
HRS 226-102: Overall Direction. The State shall strive to improve the quality	of life	e for H	awaii's
present and future population through the pursuit of desirable courses of action	ı in fiv	ve majc	or areas
of statewide concern which merit priority attention: economic development, pop	ulatio	on grow	vth and

land resource management, affordable housing, crime and criminal justice, and c	lualit	y educa	tion. [L
1978, c 100, pt of §2; am L 1986, c 276, §29]			
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;			
Priority Guidelines:	S	N/S	N/A
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.	~		
(A) Encourage investments which:			
(i) Reflect long term commitments to the State;	$\checkmark$		
(ii) Rely on economic linkages within the local economy;	$\checkmark$		
(iii) Diversify the economy;	$\checkmark$		
(iv) Reinvest in the local economy;	$\checkmark$		
(v) Are sensitive to community needs and priorities; and	$\checkmark$		
(vi) Demonstrate a commitment to provide management opportunities to	$\checkmark$		
Hawaii residents.			
(2) Encourage the expansion of technological research to assist industry	$\checkmark$		
development and support the development and commercialization of			
technological advancements.			
(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.			V
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			~
(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.	~		
(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.			~
(7) Continue to seek legislation to protect Hawaii from transportation interruptions between Hawaii and the continental United States.			$\checkmark$

(8) Provide public incentives and encourage private initiative to develop and		
		$\checkmark$
attract industries which promise long-term growth potentials and which have	2	
the following characteristics:		
(A) An industry that can take advantage of Hawaii's unique location and		$\checkmark$
available physical and human resources.		
(B) A clean industry that would have minimal adverse effects on Hawaii's	; ✓	
environment.		
(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.		
(D) An industry that would provide reasonable income and steady	· 🗸	
employment.		
(9) Support and encourage, through educational and technical assistance	2	$\checkmark$
programs and other means, expanded opportunities for employee ownership	,	
and participation in Hawaii business.		
(10) Enhance the quality of Hawaii's labor force and develop and maintair	. ✓	
career opportunities for Hawaii's people through the following actions:		
(A) Expand vocational training in diversified agriculture, aquaculture	,	$\checkmark$
information industry, and other areas where growth is desired and feasible.		
(B) Encourage more effective career counseling and guidance in high schools	;	$\checkmark$
and post-secondary institutions to inform students of present and future career		
opportunities.		
(C) Allocate educational resources to career areas where high employment is	;	$\checkmark$
expected and where growth of new industries is desired.		
(D) Promote career opportunities in all industries for Hawaii's people by	· 🗸	
encouraging firms doing business in the State to hire residents.		
(E) Promote greater public and private sector cooperation in determining	5 ✓	
industrial training needs and in developing relevant curricula and on- the-job	,	
training opportunities.		
(F) Provide retraining programs and other support services to assist entry of		$\checkmark$
displaced workers into alternative employment.		
<u>Analysis:</u> The <del>purpose of the</del> updated Pi'ilani Promenade <u>supports priority</u>	guideli	ne items 1-1

<u>and the Project goal</u> is to provide an opportunity for a mix of uses for greater flexibility to attract a broader range of desirable businesses with a diversified offering. New Urbanism planning techniques and urban design strategies will make the Pi'ilani Promenade a more vibrant and attractive environment for businesses to locate and grow their operations. The Pi'ilani Promenade will expand Maui's employer base and increase employment and management opportunities for residents.

(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.       ✓         (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.       ✓         (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.       ✓         (4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.       ✓         (5) Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.       ✓         (6) Support and coordinate tourism promotion abroad to enhance Hawaii's share of existing and potential visitor markets.       ✓         (7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.       ✓         (8) Support law enforcement activities and provide a safer environment for both <i>✓</i> ✓         visitors and residents alike.       ✓       ✓         (9) Coordinate visitor industry activities and provide incentiques.       ✓       ✓         Analysis: The Applicant has changed priority guideline items 1, 8, and 9 in the FEIS to read "NA" because the Project is not promotin		1	1	-
Aloha Spirit and minimizes inconveniences to Hawaii's residents and visitors.       Image: Conversion of the second	Priority Guidelines:	S	N/S	N/A
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(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.       ✓       ✓         (2) Encourage the improvement of irrigation technology and promote the use of non-drinking water for agricultural and landscaping purposes.       ✓       ✓         (3) Increase the support for research and development of economically feasible alternative water sources.       ✓       ✓         (4) Explore alternative funding sources and approaches to support future water       ✓       ✓	(e) Priority guidelines for water use and development:			
water consumption rate.       Image: the improvement of irrigation technology and promote the use of non-drinking water for agricultural and landscaping purposes.       ✓       Image: the support for research and development of economically feasible of economical economi	Priority Guidelines:	S	N/S	N/A
(2) Encourage the improvement of irrigation technology and promote the use $\checkmark$ (2) Encourage the improvement of irrigation technology and promote the use $\checkmark$ (3) Increase the support for research and development of economically feasible $\checkmark$ (3) Increase the support for research and development of economically feasible $\checkmark$ (4) Explore alternative funding sources and approaches to support future water $\checkmark$	(1) Maintain and improve water conservation programs to reduce the overall	$\checkmark$		
of non-drinking water for agricultural and landscaping purposes.       (3)         (3) Increase the support for research and development of economically feasible alternative water sources.       (4)         (4) Explore alternative funding sources and approaches to support future water        (4)	water consumption rate.			
of non-drinking water for agricultural and landscaping purposes.       (3)         (3) Increase the support for research and development of economically feasible alternative water sources.       (4)         (4) Explore alternative funding sources and approaches to support future water        (4)	(2) Encourage the improvement of irrigation technology and promote the use	$\checkmark$		
alternative water sources.(4) Explore alternative funding sources and approaches to support future water $\checkmark$ $\checkmark$	of non-drinking water for agricultural and landscaping purposes.			
alternative water sources.       (4) Explore alternative funding sources and approaches to support future water ✓       ✓		≁		$\checkmark$
	alternative water sources.			
	(4) Explore alternative funding sources and approaches to support future water	4		$\checkmark$
	development programs and water system improvements.			

Analysis: The Applicant has changed items 3 and 4 in the FEIS to read "N/A"	becar	ise the	Project
is not involved with researching or developing alternative water sources			
exploring alternative funding sources for water system improvements.	not	is the	<u>110jece</u>
(f) Priority guidelines for energy use and development:			
Priority Guidelines:	S	N/S	N/A
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			$\checkmark$
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.	*		<u>~</u>
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.	*		<u>√</u>
(4) Encourage the development and use of energy conserving and cost-efficient	$\checkmark$		
transportation systems.			
transportation systems. Analysis: The Applicant has changed items 1-3 in the FEIS to read "N/A". Item	m 4 is	suppo	orted by
Analysis: The Applicant has changed items 1-3 in the FEIS to read "N/A". Item			
	servat	ion me	easures.
<u>Analysis:</u> The Applicant has changed items 1-3 in the FEIS to read "N/A". Item the Project because the Project will include energy-efficient design and cons	servat ogy tl	ion me nrough	easures.
<u>Analysis:</u> The Applicant has changed items 1-3 in the FEIS to read "N/A". Item the Project because the Project will include energy-efficient design and cons Specifically, the Applicant will encourage the use of energy efficient technol	servat ogy tl ar hot	ion me nrough water	easures. out the heaters
<u>Analysis:</u> The Applicant has changed items 1-3 in the FEIS to read "N/A". Item the Project because the Project will include energy-efficient design and cons Specifically, the Applicant will encourage the use of energy efficient technol Project, specifically, in lighting, air-conditioning, and building materials. Sola	<u>servat</u> ogy tl ar hot tion o	ion me nrough water f Photo	easures. Hout the heaters
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(4) Encourage the development or expansion of educational and training	$\checkmark$	
opportunities for residents in the information and telecommunications fields.		
(5) Encourage research activities, including legal research in the information	$\checkmark$	
and telecommunications fields.		
(6) Support promotional activities to market Hawaii's information industry	≁	$\checkmark$
services. [L 1978, c 100, pt of §2; am L 1984, c 236, §15; am L 1986, c 276, §30; am		
L Sp 1988, c 1, §6; am L 1989, c 250, §2]		

Analysis: The Applicant has changed item 6 to "N/A" and kept items 2-5 as "S". The purpose of the Project is to provide an opportunity for a mix of uses for greater flexibility to attract a broader range of desirable businesses with a diversified offering. The Project plan will encourage a tenant like a technology/business incubator. In addition, the Project will facilitate the development of new businesses, including the opportunity for information industry which will provide employment opportunities for Maui residents.

As discussed in Section III.D.65 (Electrical Utilities) the Pi'ilani Promenade will include energyefficient design and conservation measures. Specifically, the Applicant will encourage the use of energy efficient technology throughout the project, specifically, in lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development and installation of Photovoltaic Energy Systems will be encouraged in all areas of the Pi'ilani Promenade.

As discussed in Section III.B.3 (Economy) the construction of the Pi'ilani Promenade is projected to generate approximately \$212 million of new capital investment into the Maui economy and will provide an estimated 878 "worker years" of employment and \$66.5 million in total wages over a 12-15 year period. This will result in expenditures that will have a positive direct, indirect and induced impact on the County of Maui economy. During the operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The Pi'ilani Promenade will provide direct employment opportunities for Maui residents and contribute to the diversification and growth of the Island's and State's economies. After "stabilization" is estimated that the Promenade will support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

### Chapter 226-104, HRS, Population Growth and Land Resources Priority Guidelines

(a) Priority guidelines to effect desired statewide growth and distribution:

#### **Priority Guidelines:**

S N/S N/A

(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.	~		
(2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.	~		
(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.	~		
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.	≁		<u>✓</u>
(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.	~		
(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.			✓
(7) Support the development of high technology parks on the neighbor islands.	*		<u> </u>
<u>Analysis:</u> The Applicant has kept items 1-3 as "S" supportive because the P		-	
housing and employment opportunities for the growing population of the Kihei-Makena region.			

housing and employment opportunities for the growing population of the Kihei-Makena region. The Project site is located within the Maui Island Plan's Urban Growth Boundary and the Project site is designated for Light Industrial use in the Kihei-Makena Community Plan. Significant urban development and supporting infrastructure adjoin the Project site and existing urban development and future urban growth areas in Kihei are in close proximity.

The Applicant has changed item 4 to "N/A" as the Project is not encouraging major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.

The Applicant has changed item 7 to "N/A" as the Project is not a technology park.

(b) Priority guidelines for regional growth distribution and land resource	ce utilization:
--	-----------------

Priority Guidelines:	S	N/S	N/A
(1) Encourage urban growth primarily to existing urban areas where adequate	$\checkmark$		
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.			

20.00		
(2) Make available marginal or nonessential agricultural lands for appropria	te √	
urban uses while maintaining agricultural lands of importance in th	ne	
agricultural district.		
(3) Restrict development when drafting of water would result in exceeding th	ne ✓	
sustainable yield or in significantly diminishing the recharge capacity of ar	ıy	
groundwater area.	-	
(4) Encourage restriction of new urban development in areas where water	is ✓	
insufficient from any source for both agricultural and domestic use.		
(5) In order to preserve green belts, give priority to state capital-improvement	nt 🛩	<u>√</u>
funds which encourage location of urban development within existing urba	in	
areas except where compelling public interest dictates development of		
noncontiguous new urban core.		
(6) Seek participation from the private sector for the cost of building	ıg √	
infrastructure and utilities, and maintaining open spaces.	_	
(7) Pursue rehabilitation of appropriate urban areas.	≁	<u>√</u>
	-	
(8) Support the redevelopment of Kakaako into a viable residential, industria	ıl,	$\checkmark$
and commercial community.		
(9) Direct future urban development away from critical environmental areas of		
impose mitigating measures so that negative impacts on the environment woul	ld	
be minimized.		
(10) Identify critical environmental areas in Hawaii to include but not be limite	ed ≠	<u>✓</u>
to the following: watershed and recharge areas; wildlife habitats (on land and i		
the ocean); areas with endangered species of plants and wildlife; natural stream		
and water bodies; scenic and recreational shoreline resources; open space an	ıd	
natural areas; historic and cultural sites; areas particularly sensitive to reduction	m	
in water and air quality; and scenic resources.		
(11) Identify all areas where priority should be given to preserving run	al	✓
character and lifestyle.		
(12) Utilize Hawaii's limited land resources wisely, providing adequate land	to ✓	
accommodate projected population and economic growth needs while ensurir	ıg	
the protection of the environment and the availability of the shorelin	е,	
conservation lands, and other limited resources for future generations.		
(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resource	s.	$\checkmark$
[L 1978, c 100, pt of §2; am L 1984, c 236, §16; am L 1986, c 276, §31]		
Analysis: Items 1, 3 and 4 are supported "S" by the Project because significar	nt urban	development
and supporting infrastructure adjoin the site and existing urban developm	ent and	l future urban
<u>growth areas in Kihei are in close proximity.</u>		

The Applicant has changed items 5 and 7 to "N/A". Item 12 is supported because the Project will provide housing and employment opportunities for the growing population of the Kihei-Makena region. The Project site is located within the Maui Island Plan's Urban Growth Boundary and the Project site is designated for Light Industrial use in the Kihei-Makena Community Plan.

Item 9 is supported "S" by the Project as the development is not located in a critical environmental area. The LSB and ALISH classification systems indicate that the Project site possesses poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate. The Applicant has changed items 10 and 13 to "N/A" because these priority guidelines are not applicable to the Project.

As discussed in Section III.B.1 (Population) the Pi'ilani Promenade will provide housing and employment opportunities for the growing population of the Kihei-Makena region. The subject property is located within the Maui Island Plan's Urban Growth Boundary and the property is designated for Light Industrial use in the Kihei-Makena Community Plan. Significant urban development and supporting infrastructure adjoin the site and existing urban development and future urban growth areas in Kihei are in close proximity.

As discussed in Section III.D (Infrastructure), the Pi'ilani Promenade will be responsible for all required infrastructure improvements including water source and system improvements for drinking water use, onsite drainage improvements, a portion of regional traffic-related improvements attributable to the project, required on- and off-site wastewater system improvements, and utility upgrades as determined by the appropriate governmental agencies and public utility companies.

From a site planning perspective, the design and layout of the project involved an evaluation of existing topographic conditions in order to create a viable development plan which would minimize potential impacts to the land form. To the extent practicable, the layout and orientation of future buildings will strive to preserve view planes toward the Pacific Ocean.

As discussed in Section III.C.4 (Schools), the Pi'ilani Promenade has not been designed to accommodate a public school site. However, the Hawaii Legislature enacted Act 245 in 2007 as Section 302A, HRS, "School Impact Fees". The Pi'ilani Promenade is within the boundaries of the Department of Education's (DOE) Central Maui Impact District and is within the Makawao Cost Area of that district. Projects within the district and cost area are required to pay a construction fee and either a fee-in-lieu of land <u>or</u> a land donation (at the discretion of the DOE). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement.

As discussed in Section III.C.3 (Police and Fire protection services) increased tax revenues generated by the project will provide additional funds to the County for police and fire capital facility improvements and service upgrades. Additionally, the applicant will comply with any impact fee ordinances for police and fire.

As discussed in Section III.A.10 (Agricultural Resources) The LSB and ALISH classification systems indicate that the lands underlying the project site possess poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate.

The Pi'ilani Promenade does not lie with the Hawaii Coastal Zone Management Area nor is it located within the Special Management Area for the island of Maui. No listed or endangered species of flora and fauna were identified on the subject property. During the construction and operational phases of the project, Best Management Practices (BMPs) will be implemented to mitigate non-point source pollution to coastal resources and mitigate the effects of fugitive dust. Through the public review process for the EIS, mitigation measures will be identified to help address any environmental impacts that may arise from the proposed project.

Chapter 226-105 Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice:	S	N/S	N/A
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.	*		<u> </u>
<ul><li>(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.</li></ul>			<ul> <li>✓</li> </ul>
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.	*		<u>~</u>
(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.			✓
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			√
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization. [L 1978, c 100, pt of §2; am L 1984, c 236, §17; am L 1986, c 276, §32]			~
Analysis: The Applicant has changed items 1 and 3 to "N/A" because the principal statement of the second statement of the seco	iority	guidel	ines for

crime and criminal justice are not applicable to the Pi'ilani Promenade project.



Priority guidelines for the provision of affordable housing:	S	N/S	N/A
		190	
(1) Seek to use marginal or nonessential agricultural land and public land to	$\checkmark$		
meet housing needs of low- and moderate-income and gap-group households.			
(2) Encourage the use of alternative construction and development methods as	$\checkmark$		
a means of reducing production costs.			
(3) Improve information and analysis relative to land availability and	$\checkmark$		
suitability for housing.			
(4) Create incentives for development which would increase home ownership	$\checkmark$		
and rental opportunities for Hawaii's low- and moderate-income households,			
gap-group households, and residents with special needs.			
(5) Encourage continued support for government or private housing programs	$\checkmark$		
that provide low interest mortgages to Hawaii's people for the purchase of			
initial owner- occupied housing.			
(6) Encourage public and private sector cooperation in the development of	$\checkmark$		
rental housing alternatives.			
(7) Encourage improved coordination between various agencies and levels of	$\checkmark$		
government to deal with housing policies and regulations.			
(8) Give higher priority to the provision of quality housing that is affordable	$\checkmark$		
for Hawaii's residents and less priority to development of housing intended			
primarily for individuals outside of Hawaii. [L 1986, c 276, §33; am L 1989, c			
250, §3]			
Analysis: As discussed in Section III.B.2 (Housing), the Pi'ilani Promenae			
family housing to address the diverse housing needs of Maui residents	s. The	multi-	family
housing will include affordable housing units in compliance with Maui Co	ounty	Code, C	hapter
2.96 (Residential Workforce Housing Policy). Workforce homes will	be s	abject	to the
requirements of Chapter 2.96, MCC to ensure that affordable homes are av	ailabl	e for fu	ll-time
Maui residents.			
Chapter 226-107 Quality education.			
Priority guidelines to promote quality education:			
Priority Guidelines:	S	N/S	N/A
(1) Pursue effective programs which reflect the varied district, school, and			$\checkmark$
student needs to strengthen basic skills achievement;		1	

(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;		V
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;		~
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision making responsibilities;		~
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:		~
(A) The electronic exchange of information;		~
(B) Statewide electronic mail; and		~
(C) Access to the Internet.		~
Encourage programs that increase the public's awareness and understanding information technologies on our lives;	g of th	e impact o
(1) Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;		~
(2) Develop resources and programs for early childhood education;		✓
(3) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and		~
(4) Strengthen and expand educational programs and services for students with special needs. [L 1986, c 276, §34; am L 1999, c 178, §18]		✓

*Analysis:* As discussed in Section III.C.4 (Schools), the Pi'ilani Promenade has not been designed to accommodate a public school site. However, the Hawaii Legislature enacted Act 245 in 2007 as Section 302A, HRS, "School Impact Fees". The Pi'ilani Promenade is within the boundaries of the Department of Education's (DOE) Central Maui Impact District and is within the Makawao Cost Area of that district. Projects within the district and cost area are required to pay a construction fee and either a fee-in-lieu of land <u>or</u> a land donation (at the discretion of the DOE). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement.

Chapter 226-108 Sustainability priority. Priority guidelines to promote sustainability:			
(1) Encouraging balanced economic, social, community, and environmental priorities;	<u>✓</u>		
(2) Encourage planning that respects and promotes living within the natural resources and limits of the State;	<u>~</u>		
(3) Promote a diversified and dynamic economy;	<u>~</u>		
(4) Encouraging respect for the host culture;	<u>~</u>		
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;	<u>~</u>		
(6) Considering the principles of the ahupua'a system; and	<u>~</u>		
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable <u>Hawaii.</u> Analysis: The Project will provide greatly needed affordable and market rate re	<u>✓</u>		

<u>Analysis:</u> The Project will provide greatly needed affordable and market rate rental units in Kihei. Providing Affordable Housing for Maui residents is priority of Maui Island Plan, Kihei – Makena Community Plan and the Department of Housing and Human Concern. The Project also supports Hawaii State Plan Chapter 226, HRS 226-106 "Affordable Housing" which sets priority guidelines for the provision of affordable housing in the State of Hawaii.

The Project is a planned urban infill project that will complement the light industrial development to the north and the proposed Kihei High School to the south, and is an appropriate location for urban development. The Project is approximately 0.5 miles from commercial services located at the Pi'ilani Shopping Center and 0.4 miles from the commercial services located at Ohukai Road. The Project site is approximately 1 mile from the public beach access along South Kihei Road.

The proposed mixed use development will provide light industrial, commercial and rental housing opportunities for workforce residents. The allowable mix of permitted uses on the Project site, including rental opportunities support a dynamic economy by proving additional

light industrial, retail, commercial and housing options to Maui's workforce residents and visitors.

The Applicant has prepared a revised Cultural Impact Assessment to study and document cultural practices which may affect the project site. It was determined that the proposed project would not have an adverse impact on any cultural activities or significant historic sites. In addition an Archaeological Inventory was completed in 2015 as part of the Final EIS and the State Department of Land and Natural Resources, State Historic Preservation Division approved the AIS report in January 2016.

The Project can be described as urban infill that will complete an existing neighborhood and provide needed affordable rental units in the near future. The Applicant anticipates acceptance of the FEIS, which will document that the Project will not compromise the needs of future generations.

In the context of the Ahupua'a system, the Project will seek to improve the quality of storm water runoff as it travels towards the ocean through the implementation of the onsite drainage system which will provide storage for the increase in stormwater runoff in compliance with Chapter 4. "Rules for the Design of Storm Drainage Facilities in the County of Maui" and Chapter 15-11 Rules for the Design of Storm Water Treatment Best Management Practices." The *makai* Project site boundary fronts Pi'ilani Highway and is approximately 0.5 miles from the ocean.

The Applicant is providing the Project residents with a 2-acre park space in front of the apartment development to promote recreation opportunities. In addition, sidewalks and bike paths will be incorporated into the site plan to promote no-vehicular circulation on the site.

The Applicant recognizes the importance of sustainability in planning, and in response to comments on the DEIS, the Project incorporates sustainability design elements such as solar photovoltaic panels for common areas and the vegetated detention basins located on site to intercept stormwater runoff closer to the source. The Applicant is exploring other renewable energy technologies and conservation measures to promote sustainability. Solar hot water heaters will be utilized throughout the residential portion of the Project. Occupants of the Pi'ilani Promenade will be encouraged to install photovoltaic energy systems where appropriate and feasible.

Chapter 226-109 Climate change adaptation priority.

Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural



and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:

Priority Guidelines:	S	N/S	N/A
(1) Ensure that Hawaii's people are educated, informed, and aware of the impacts climate change may have on their communities;			~
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;			~
(3) Invest in continued monitoring and research of Hawaii's climate and the impacts of climate change on the State;			✓
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;			~
(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;	✓		
(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;			~
(7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;			~
(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;			~
(9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans; and			~
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy. [L 2012, c 286, §2			~
Analysis: Sea level rise will have adverse effects on all shoreline communities,			
our natural and cultural resources. The Pi'ilani Promenade does not lie <del>with</del>			
<del>Zone Management Area nor is it located</del> within the Special Management Ar Maui. The project site is located in an area identified for Urban, <u>Light Industri</u>			

is approximately one half mile from the ocean.

As discussed in Section III.A.10 (Agricultural Resources) The LSB and ALISH classification systems indicate that the Project site possesses poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate.

The Project will not impact the adjacent natural Kulanihakoi gulch, wetlands, streams, beaches, sand dunes and forest, therefore the Project is anticipated to have no significant adverse impact.

#### D. HAWAII STATE FUNCTIONAL PLANS

The Hawaii State Plan directs State agencies to prepare functional plans for their respective program areas. There are fourteen (14) State Functional Plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawaii State Plan. <u>In response to comments received on the DEIS</u>, various goals, objectives and policies have been revised to more accurately reflect the Project as it relates to various government plans. The functional plans which are pertinent to the proposed project, along with each plan's applicable objectives, policies, and actions are discussed below.

Hawaii State Functional Plans	S	N/S	N/A
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
State Functional Plan – Agriculture			
Objectives:	S	N/S	N/A
a. Achievement of increased agricultural production and growth through cultural and management practices.			$\checkmark$
b. Achievement of an orderly agricultural marketing system through product promotion and industry organization.			$\checkmark$
c. Achievement of increased consumption of and demand for Hawaii's agricultural products through consumer education and product quality.			<u> </u>
$\epsilon d$ . Achievement of optimal contribution by agriculture to the State's economy.			$\checkmark$
e. Achievement of adequate capital, and knowledge of its proper management, for agricultural development.			$\checkmark$
f. Achievement of increased agricultural production and growth through pest and disease controls.			$\checkmark$
g. Achievement of effective protection and improved quality of Hawaii's land, water, and air.			$\checkmark$

h. Achievement of productive agricultural use of lands most suitable and		$\checkmark$
needed for agricultural use.		
i. Achievement of efficient and equitable provision of adequate water for		$\checkmark$
agricultural use.		
j. Achievement of maximum degree of public understanding and support of		$\checkmark$
agriculture in Hawaii.		
k. Achievement of adequate supply of properly trained labor for agricultural		$\checkmark$
needs.		
1. Achievement of adequate transportation services and facilities to meet		$\checkmark$
agricultural needs.		
m. Achievement of adequate support services and infrastructure to meet		$\checkmark$
agricultural needs.		

*Analysis:* As discussed in Section III.A.10 (Agricultural Resources), the development of the Pi'ilani Promenade will not reduce the inventory of significant agricultural lands on Maui or in the State of Hawaii. The subject property is rated "E" by the Land Study Bureau (LSB) classification system which represents poor overall agricultural productivity. The majority of the project site is "Unclassified" (*i.e.*, unrated or residual land) by the maps which identify Agricultural Lands of Importance to the State of Hawaii (ALISH). Approximately three (3) acres located at the southwest corner of the site are classified as "Prime" by the ALISH maps.

State Functional Plan – Conservation Lands			
Objectives:	S	N/S	N/A
1a. Establishment of data bases for inventories of existing lands and resources.			~
1b. Establishment of criteria for management of land and natural resources.			~
2a. Establishment of plans for natural resources and land management.			~
2b. Protection of fragile or rare natural resources.			~
2c. Enhancement of natural resources.			~
2d. Appropriate development of natural resources designated for commercial development.			~
2e. Promotion and marketing of appropriate natural resources designated for commercial development.			~

2f. Increase enforcement of land and natural resource use laws and regulations.		$\checkmark$
3a. Develop and implement conservation education programs for the general public and visitors.		✓
3b. Increase access to land and natural resources data by the public and increase cooperation between agencies by making access to land and natural resource information more efficient.		✓

*Analysis:* The Pi'ilani Promenade is not located within the State Conservation District. While the southern boundary of the site is adjacent to Kulanihakoi Gulch, the proposed project is not expected to have an impact upon the gulch as future design schemes will incorporate generous landscape buffers along the portion of the site that borders the gulch. In connection with the preparation of the <u>FEIS</u>, a Flora and Fauna Assessment was prepared, and no rare, threatened, or endangered species of plant or animal life were identified on the property.

#### **State Functional Plan – Education**

Objectives:	S	N/S	N/A
A1. Academic Excellence. Emphasize quality educational programs in			$\checkmark$
Hawaii's institutions to promote academic excellence.			
A2. Basic Skills. Promote programs and activities that facilitate the acquisition			$\checkmark$
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.			
A3. Education Workforce. Initiate efforts to improve the quality of education			$\checkmark$
by improving the capabilities of the education workforce.			
A4. Services and Facilities. Ensure the provision of adequate and accessible			$\checkmark$
educational services and facilities that are designed to meet individual and			
community needs.			
B1. Alternatives for funding and delivery. Explore alternatives for funding and			$\checkmark$
delivery of educational services to improve the overall quality of education.			
B2. Autonomy and flexibility. Promote increased opportunities for greater			$\checkmark$
autonomy and flexibility of educational institutions in their decision making			
responsibilities.			
B3. Increase use of Technology. Increase and improve the use of information			$\checkmark$
technology in education and encourage programs which increase the public's			
awareness and understanding of the impact of information technologies on our			
lives.			

B4. Personal Development. Support education programs and activities that		$\checkmark$
enhance personal development, physical fitness, recreation, and cultural		
pursuits of all groups.		
B5. Students with Special Needs. Provide appropriate educational		$\checkmark$
opportunities for groups with special needs.		
C1. Early Childhood Education. Develop resources and programs for early		$\checkmark$
childhood education.		
C2.Hawaii's Cultural Heritage. Promote educational programs which enhance		$\checkmark$
understanding of Hawaii's cultural heritage.		
C3. Research programs and (Communication) Activities. Support research		$\checkmark$
programs and activities that enhance the education programs of the State.		
	-	

*Analysis:* As discussed in Section III.C.4 (Schools), the Pi'ilani Promenade has not been designed to accommodate a public school site. However, the Hawaii Legislature enacted Act 245 in 2007 as Section 302A, HRS, "School Impact Fees". The Pi'ilani Promenade is within the boundaries of the Department of Education's (DOE) Central Maui Impact District and is within the Makawao Cost Area of that district. Projects within the district and cost area are required to pay a construction fee and either a fee-in-lieu of land <u>or</u> a land donation (at the discretion of the DOE). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement.

#### **State Functional Plan – Employment**

Objectives:	S	N/S	N/A
a. Improve the qualifications of entry-level-workers and their transition to employment.	*		$\overline{\checkmark}$
b. Develop and deliver education, training and related services to ensure and maintain a quality and competitive workforce.			$\checkmark$
c. Improve labor exchange.			$\checkmark$
d. Improve the quality of life for workers and families.	$\checkmark$		
e. Improve planning of economic development, employment and training activities.	≁		<u>√</u>

*Analysis:* The Applicant has changed objective items a and e to "N/A". The Project supports item d by providing the opportunity to help improve the quality of life for employees and their families by providing affordable rental housing opportunities that are proximate to local services and centers of employment.

The proposed development of the Pi'ilani Promenade is in response to the needs of industrial users and other entrepreneurs, both large and small, who are seeking to open and/or expand businesses on Maui. This can be accomplished by creating greater flexibility in site planning and

building design to help reduce operational costs for employers and provide employees with a good working environment.

The Pi'ilani Promenade will help improve the quality of life for employees and their families by providing affordable rental housing opportunities that are proximate to local services and centers of employment.

#### **State Functional Plan – Energy**

Objectives:	S	N/S	N/A
a. Moderate the growth in energy demand through conservation and energy	$\checkmark$		
efficiency.			
b. Displace oil and fossil fuels through alternate and renewable energy	$\checkmark$		
resources.			
c. Promote energy education and legislation.			$\checkmark$
d. Support and develop an integrated approach to energy development and	4		$\checkmark$
management.			
e. Ensure State's ability to implement energy emergency actions immediately			$\checkmark$
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.			

*Analysis:* Items a and b are supported by the Project. The Pi'ilani Promenade will include conservation measures to encourage the use of energy-efficient technology throughout the Project, specifically in areas involving lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the Project. Occupants of the Pi'ilani Promenade will be encouraged to install photovoltaic energy Systems where appropriate and feasible. The Applicant has changed item d to "N/A" because the Applicant is not proposing to support and develop energy development and management as part of the Project.

As discussed in Section III.D.5 <u>"(Electrical),"</u> the Pi'ilani Promenade will include conservation measures to encourage the use of energy-efficient technology throughout the project, specifically in areas involving lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development. Occupants of the Pi'ilani Promenade will be encouraged to install Photovoltaic Energy Systems where appropriate and feasible.

#### **State Functional Plan – Health**

Objectives:	S	N/S	N/A
1. Health promotion and disease prevention. Reduction in the incidence,			$\checkmark$
morbidity and mortality associated with the preventable and controllable			
conditions.			
2. Prevention and control of communicable diseases. Reduction in the			$\checkmark$
incidence, morbidity, and mortality associated with infectious and			
communicable diseases.			
3. Health needs of special populations with impaired access to health care.			$\checkmark$
Increased availability and accessibility of health services for groups with			
impaired access to health care programs.			
4. Community hospitals system. Development of a community hospital system			$\checkmark$
which is innovative, responsive and supplies high quality care to the			
constituencies it serves.			
5. Environmental programs to protect and enhance the environment.			$\checkmark$
Continued development of new environmental protection and health services			
programs to protect, monitor, and enhance the quality of life in Hawaii.			
6. DOH leadership. To improve the Department of Health's ability to meet the			$\checkmark$
public health need of the State of Hawaii in the most appropriate, beneficial			
and economical way possible.			
Analysis: As previously mentioned, the Project will include bicycle and ped	estria	in path	ways as
illustrated in the circulation plan. (See: Figure 15 Conceptual Circulation Plan	<u>). Ho</u>	wever,	<u>because</u>
the The Pi'ilani Promenade does not propose the creation of any medical	or he	alth pr	ograms <del>;</del>
therefore, this Functional Plan is not applicable. The proposed project will pr			
for physicians, medical clinics, and other health care practitioners, services, and	nd fac	cilities t	o locate
to the Pi'ilani Promenade and help serve the needs of the community.			
State Functional Plan – Higher Education			
Objectives:	S	N/S	N/A
A. A number and variety of postsecondary education institutions sufficient to			$\checkmark$
provide the diverse range of programs required to satisfy individual and			
societal needs and interests.			

societal needs and interests.	L
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.	
C. Provide appropriate educational opportunities for all who are willing and	
able to benefit from postsecondary education.	l

 $\checkmark$ 

 $\checkmark$ 

f		$\checkmark$
educa	tion pr	ograms
S	N/S	N/A
$\checkmark$		
$\checkmark$		
$\checkmark$		
	<b>S</b> ✓ ✓	education pr

D. Provision of adequate facilities to preserve. $\checkmark$  $\checkmark$ E. The establishment of programs to collect and conserve historic records,<br/>artifacts, and oral histories and to document and perpetuate traditional arts,<br/>skills, and culture. $\checkmark$  $\checkmark$ F. Provision of better access to historic information. $\checkmark$  $\checkmark$  $\checkmark$ G. Enhancement of skills and knowledge needed to preserve historical<br/>resources. $\checkmark$  $\checkmark$ 

Analysis: The Project is supportive of objectives a-c, and in support thereof, the Applicant has completed an Archaeological Inventory Survey and a Cultural Impact Assessment report for the Project. Both the Archaeological Inventory Survey and Cultural Impact Assessment identify historic properties. In support of objectives b and c, the Applicant's Archaeologist is preparing a Data Recovery Plan in coordination with the DLNR SHPD recommendations for protection, management, and treatment of historic properties.

The project promotes the preservation of historic resources and the Applicant's Archaeologist submitted a data recovery plan that was received by the SHPD on June 17, 2016 and approval is pending. will work with the State Historic Preservation Division to prepare a data recovery plan.

The Applicant has changed items d-g to "N/A" because the Applicant is not proposing to establish programs to document historical records, provide better access to historic information or enhance skills needed to preserve historical resources.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey <u>dated March 2014, revised August 26, 2015</u>").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the DEIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. <u>As previously noted, the AIS was updated in 2015 and approved by SHPD in 2016.</u> In addition to discussing potential impacts to Kulanihakoi Gulch and the return of the petroglyph boulder that was previously removed from the project site by a former land owner, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and that the petroglyph boulder be returned to the property. The Applicant has discussed the possible return of the petroglyph boulder with the former land owner; however, the former owner rejected this request since the relocation plan was approved by State Historic Preservation Division (SHPD). In addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

### **State Functional Plan – Housing**

Objectives and Policies:	S	N/S	N/A
A. Homeownership for at least sixty percent, or roughly 248,500 households by			$\checkmark$
the year 2000.			
B. Sufficient amount of affordable rental housing units by the year 2000 so as	$\checkmark$		
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.			
C. Increased development of rental housing units for the elderly and other	$\checkmark$		
special needs groups to afford them an equal access to housing.			
D. Preservation of existing public and private housing stock.	$\checkmark$		
E. Acquire and designate land suitable for housing development in sufficient	$\checkmark$		
amount to locate the deficit in housing units by the year 2000.			
F. Maintain a statewide housing data system for use by public and private	$\checkmark$		
agencies engaged in the provision of housing.			
Analysis: The Applicant notes that the policies are targeting the year 2000 and	l need	to be	updated
to reflect a more current or future date. Notwithstanding the foregoing, the	Proje	ct supp	orts the

<u>objectives and policies of the State Functional Plan – Housing.</u> The Pi'ilani Promenade will help satisfy the growing demand for rental housing in Kihei by providing 226 apartment units which include affordable rental units in compliance with the County's Residential Workforce Housing Policy set forth in Chapter 2.96, MCC.

State Functional Plan – Human Services				
Objectives and Policies:	S	N/S	N/A	
A. To sustain and improve current elder abuse and neglect services.			$\checkmark$	
B. To increase cost-effective, high quality home and community based services.			$\checkmark$	
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.			~	
D. To address factors that contribute to child abuse and other forms of family violence.			~	
E. To provide affordable, accessible, and quality child care.			$\checkmark$	
F. To maximize efforts of self-sufficiency through provision of transitional medical care services.			$\checkmark$	
G. To provide AFDC recipients with a viable opportunity to become independent of the welfare system.			✓	
H. To facilitate client access to human services.			$\checkmark$	
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma	n ser	vice pr	√ ogram	
I. To eliminate organizational barriers which limit client access to human services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. State Functional Plan – Recreation	n ser	vice pr		
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. State Functional Plan – Recreation	n ser	vice pr		
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. <b>State Functional Plan – Recreation</b> <b>Objectives and Policies:</b> 1a. Address the problem of saturation of the capacity of beach parks and			ogram	
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. <b>State Functional Plan – Recreation</b> <b>Objectives and Policies:</b> 1a. Address the problem of saturation of the capacity of beach parks and nearshore waters.			ogram	
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. <b>State Functional Plan – Recreation</b> <b>Objectives and Policies:</b> 1a. Address the problem of saturation of the capacity of beach parks and nearshore waters. 1b. Reduce the incidence of ocean recreation accidents. 1c. Resolve conflicts between different activities at heavily used ocean			ogram N/A ✓	
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable. <b>State Functional Plan – Recreation</b> Objectives and Policies: 1a. Address the problem of saturation of the capacity of beach parks and nearshore waters. 1b. Reduce the incidence of ocean recreation accidents. 1c. Resolve conflicts between different activities at heavily used ocean recreation areas. 1d. Provide adequate boating facilities. Balance the demand for boating facilities against the need to protect the marine environment from potential			ogram N/A V	
<ul> <li>Services.</li> <li>Analysis: The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable.</li> <li>State Functional Plan – Recreation</li> <li>Objectives and Policies: <ol> <li>Address the problem of saturation of the capacity of beach parks and nearshore waters.</li> <li>Reduce the incidence of ocean recreation accidents.</li> <li>Resolve conflicts between different activities at heavily used ocean recreation areas.</li> <li>Provide adequate boating facilities. Balance the demand for boating facilities against the need to protect the marine environment from potential adverse impacts.</li> </ol> </li> <li>Plan, develop, and promote recreational activities and facilities in mauka</li> </ul>			ogram N/A V V	
services. <u>Analysis</u> : The Pi'ilani Promenade does not include the creation of huma therefore, this Functional Plan is not applicable.	S		ogram N/A V V	

3a. Prevent the loss of access to shoreline and upland recreation areas due to		$\checkmark$
new developments.		
3b. Resolve the problem of landowner liability that seriously hampers public		$\checkmark$
access over private lands.		
3c. Increase access to State Forest Reserve lands over federal property, leased		$\checkmark$
State lands, and other government lands.		
3d. Acquire, develop, and manage additional public access ways.	$\checkmark$	
4a. Promote a conservation ethic in the use of Hawaii's recreational resources.		$\checkmark$
4b. Prevent degradation of the marine environment.		$\checkmark$
4c. Improve the State's enforcement capabilities.		$\checkmark$
4d. Mitigate adverse impacts of tour helicopters on the quality of recreational		$\checkmark$
experiences in wilderness areas.		
5a. Properly maintain existing park and recreation areas.	$\checkmark$	
5b. Promote interagency coordination and cooperation to facilitate sharing of		$\checkmark$
resources, joint development efforts, clarification of responsibilities and		
jurisdictions, and improvements in enforcement capabilities.		
5c. Assure adequate support for priority outdoor recreation programs and		$\checkmark$
facilities.		L
6a. Increase recreational access and opportunities in Hawaii's wetlands.		$\checkmark$
6b. Develop and adequate information base to assist the County planning		$\checkmark$
departments and other regulatory agencies in making decisions regarding the		
wetlands.		
6c. Assure the protection of the most valuable wetlands in the State.		$\checkmark$
Analysis: As discussed in Section II DE5 E (Proposed Project Description)	tha si	te plan for t

<u>Analysis:</u> As discussed in Section II.<del>D.F.5</del> <u>E (Proposed Project Description)</u>, the site plan for the Pi'ilani Promenade will provide an approximately 2-acre neighborhood park and open spaces with pedestrian and bicycle pathways. In addition, the Pi'ilani Promenade is subject to, and will comply with, the provisions of Section 18.16.320, MCC which requires developers to provide land and/or money for park and playground purposes in the Kihei-Makena Community Plan region.

### **State Functional Plan – Tourism**

Objectives:	S	N/S	N/A
1a. Development, implementation and maintenance of policies and actions			$\checkmark$
which support the steady and balanced growth of the visitor industry.			
2a. Development and maintenance of well-designed visitor facilities and			$\checkmark$
related developments which are sensitive to the environment, sensitive to			

neighboring communities and activities, and adequately serviced by		
infrastructure and support services.		
3a. Enhancement of respect and regard for the fragile resources which comprise		$\checkmark$
Hawaii's natural and cultural environment. Increased preservation and		
maintenance efforts.		
4a. Support of Hawaii's diverse range of lifestyles and natural environment.		$\checkmark$
4b. Achievement of mutual appreciation among residents, visitors, and the		$\checkmark$
visitor industry.		
5a. Development of a productive workforce to maintain a high quality visitor		$\checkmark$
industry.		
5b. Enhancement of career and employment opportunities in the visitor		$\checkmark$
destination in specific desired market segments.		
6a. Maintenance of a high customer awareness of Hawaii as a visitor		$\checkmark$
destination in specific desired market segments.		

<u>Analysis</u>: The Pi'ilani Promenade is not targeting the visitor industry and there are no hotel uses proposed as part of the project; however, restaurants and retail opportunities within the Pi'ilani Promenade may attract visitors to the site.

### **State Functional Plan – Transportation**

Objectives:	S	N/S	N/A
1a. Expansion of transportation system.	$\checkmark$		
1b. Reduction of travel demand through zoning and decentralization initiatives.	~		
1c. Management of existing transportation systems through a program of transportation systems management (TSM).	~		
1d. Identification and reservation of lands and right-of-way required for future transportation improvements.	~		
1e. Planning and designing State highways to enhance inter-regional mobility.	$\checkmark$		
1f. Improving and enhancing transportation safety.	$\checkmark$		
1g. Improved transportation maintenance programs.			$\checkmark$
1h. Ensure that transportation facilities are accessible to people with disabilities.	~		
2a. Development of a transportation infrastructure that supports economic development initiatives.			$\checkmark$
3a. Expansion of revenue bases for transportation improvements.	$\checkmark$		
4a. Providing educational programs.			$\checkmark$

<u>Analysis:</u> As discussed in Section III.D (Infrastructure) the Pi'ilani Promenade will provide a variety of traffic-related improvements that will include improving the intersection of Pi'ilani Highway and Kaonoulu Street and constructing a segment of the future Upcountry Highway.

The Pi'ilani Promenade's non-vehicular transportation strategy includes: 1) compact and mixeduse development patterns, 2) pedestrian oriented streets integrating street trees, sidewalks, and traffic calming, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity to adjacent developments, such as the Kihei High School and uses *makai* of Pi'ilani Highway.

The transportation demand and management measures proposed for the project include encouraging alternate work schedules and off-peak hours for employment generators and supporting park and ride, ridesharing, carpooling, and van pooling. In addition, the Applicant will also meet with the Maui Department of Transportation to discuss the possibility of establishing bus stops within the project site.

State Functional Plan – Water Resources Development

Objectives:	S	N/S	N/A
a. Enunciate State water policy and improve management framework.	≁		$\checkmark$
b. Maintain the long-term availability of freshwater supplies, giving consideration to the accommodation of important environmental values.	*		<u>✓</u>
c. Improve management of floodplains.	4		$\checkmark$
d. Assure adequate municipal water supplies for planned urban growth.	≁		<u> </u>
e. Assure the availability of adequate water for agriculture.	4		$\checkmark$
f. Encourage and coordinate with other water programs the development of self-supplied industrial water and the production of water-based energy.	*		<u>√</u>
g. provide for the protection and enhancement of Hawaii's freshwater and estuarine environment.	*		<u>√</u>
h. Improve State grant and loan procedures for water program and projects.	≁		<u> </u>
i. Pursue water resources data collection and research to meet changing needs.	≁		<u> </u>

Analysis: The Applicant has changed items a-i to "N/A" as the Project is not response maintaining or enforcing water resource development.

The proposed project will be served by the County's public water system. The Applicant will dedicate a 1.0 million gallon water tank and associated infrastructure to Maui County to be used by the project and the public.



In developing the property, Best Management Practices will be incorporated to mitigate potential impacts during the construction phase. In compliance with applicable regulatory requirements, a drainage plan has been prepared to capture and retain the incremental increase in stormwater runoff on the project site. As such, no adverse impacts to Hawaii's freshwater and estuarine environment are anticipated.

### E. MAUI COUNTY GENERAL PLAN

#### 1. County-wide Policy Plan

The County-wide Policy Plan establishes a list (below) of county-wide goals, objectives, policies, and implementing actions related to key strategies. In response to comments received on the DEIS, various goals, objectives and policies have been revised to more accurately reflect the Project as it relates to various government plans.

Countywide Policy Plan	S	N/S	N/A		
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable					
A. Protect the Natural Environment					
Goal: Maui County's natural environment and distinctive open space	es will	be p	reserved,		
managed, and cared for in perpetuity.					
		110	<b>N</b> T/ A		
Objective:	S	N/S	N/A		
(1) Improve the opportunity to experience the natural beauty and native	≁		$\checkmark$		
biodiversity of the islands for present and future generations.					
Analysis: The Applicant has changed item 1 to "N/A" because the Project	site is a	not ide	ntified as		
a distinctive open space. The Pi'ilani Promenade is not located wit	hin the	State'	s Special		
Management Area and no listed or endangered species of flora and fauna	a were i	dentifi	ed on the		
property. During build-out and during the operation phase best manag	ement j	practice	es will be		
implemented to mitigate non-point source pollution to Maui's coastal	resourc	es as v	well as to		
mitigate fugitive dust impacts. In addition, through the environme	ental in	npact	statement		
application process, mitigation measures will be identified to help address any environmental					
impacts that may arise from the proposed project.					

**Objective:** 

Policies:	S	N/S	N/A
a. Protect and restore nearshore reef environments and water quality	$\checkmark$		
b. Protect marine resources and valued wildlife	$\checkmark$		
c. Improve the connection between urban environments and the natural	≁		$\checkmark$
landscape, and incorporate natural features of the land into urban design.			
d. Utilize land-conservation tools to ensure the permanence of valued open spaces.	*		<u> </u>
e. Mitigate the negative effects of upland uses on coastal wetlands, marine life, and coral reefs.	~		
f. Strengthen coastal zone management, re- naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.	~		
g. Regulate the use and maintenance of stormwater-treatment systems that incorporate the use of native vegetation and mimic natural systems.	~		<u> </u>
h. Advocate for stronger regulation of fishing, boating, cruise ship, and ecotourism activities.			~
i. Restore watersheds and aquifer-recharge areas to healthy and productive	≁		$\checkmark$
status, and increase public knowledge about the importance of watershed			
stewardship, water conservation, and ground water protection.			
Implementing Actions:			
a. Develop regulations to minimize runoff of pollutants into nearshore			<u> </u>
waters and reduce nonpoint and point source pollution.			
Analysis: The Applicant has changed items a-i to "N/A" as the Project s			
designated for urban growth and will be developed consistent with all app			-
regulations. The Project site is not located on environmentally sensitive land			
is not located within the State's Special Management Area and is not expecte		-	
or reef environments. During build-out and during the operation phase be		0	-
will be implemented to mitigate non-point source pollution to Maui's coasta			
through the EIS and entitlement application processes mitigation measures			-
address any environmental impacts that may arise from the project. The within an area of critical habitat and surveys have confirmed that no th			
when an area of critical habitat and surveys have commed that no th	reaterile	u or er	luangered

The Project supports policy items a, b, e and f. The Project will comply with the condition of the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-

rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

BMPs prepared in accordance with MCC Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits. In addition, since Project site work will exceed one acre, a NPDES will be obtained from the DOH's Clean Water Branch for the discharge of storm water associated with construction activities. The Applicant will meet all of the requirements set forth by the DOH's Clean Water Branch. (pg. 162 FEIS)

The Applicant has changed items c, d, g, i to "N/A" as the Project is not proposing to incorporate natural features of the land into urban design, does not utilize land conservation tools, and does not regulate the use and maintenance of stormwater treatment systems. The Project site is located in an area designated for urban growth and will be developed consistent with all applicable State and County regulations. The Project site is not located on environmentally sensitive land. The Pi'ilani Promenade is not located within the State's Special Management Area and is not expected to impact the shoreline or reef environments. During build-out and during the operation phase best management practices will be implemented to mitigate non-point source pollution to Maui's coastal resources. In addition, through the EIS and entitlement application processes mitigation measures will be identified to help address any environmental impacts that may arise from the project. The site itself is not located within an area of critical habitat and surveys have confirmed that no threatened or endangered species of flora or fauna are on the property.

**Objective:** 

(3) Improve the stewardship of the natural environment.

Policies:	S	N/S	N/A
a. Preserve and protect natural resources with significant scenic, economic,	≁		<u>√</u>
cultural, environmental, or recreational value.			
b. Improve communication, coordination, and collaboration among			$\checkmark$
government agencies, nonprofit organizations, communities, individuals,			
and land owners that work for the protection of the natural environment.			
c. Evaluate development to assess potential short-term and long-term	$\checkmark$		
impacts on land, air, aquatic, and marine environments.			

Pi'ilani	Promenade

d. Improve efforts to mitigate and plan for the impact of natural disasters,	≁		<u> </u>	
human influenced emergencies, and global warming.			,	
e. Regulate access to sensitive ecological sites and landscapes.	≁		$\overline{}$	
f. Reduce air, noise, light, land, and water pollution, and reduce Maui				
County's contribution to global climate change.				
g. Plan and prepare for and educate visitors and residents about the	≁		$\overline{\checkmark}$	
possible effects of global warming.				
h. Provide public access to beaches and shoreline for recreational and			$\checkmark$	
cultural purposes where appropriate.				
i. Educate the construction and landscape industries and property owners	$\checkmark$			
about the use of best management practices to prevent erosion and				
nonpoint source pollution.				
j. Support the acquisition of resources with scenic, environmental, and			$\checkmark$	
recreational value, and encumber their use.				
k. Improve enforcement activities relating to the natural environment.			$\checkmark$	
l. For each shoreline community, identify and prioritize beach conservation			$\checkmark$	
objectives, and develop action plans for their implementation.				
Implementing Actions:	S	N/S	N/A	
a. Document, record, and monitor existing conditions, populations, and	$\checkmark$			
locations of flora and fauna communities.				
b. Implement Federal and State policies that require a reduction of	≁		$\overline{}$	
greenhouse-gas emissions.				
c. Establish a baseline inventory of available natural resources and their			$\checkmark$	
respective carrying capacity.				
Analysis: The Applicant has changed items a and d to "N/A". Item b is not a	pplica	ble to th	e Project,	
and item c is supported by the various technical studies contained in the FEIS to evaluate short				
term and long term impacts resulting from the Project. The Applicant has changed item b to				
<u>"N/A". The implementation of government policies to improve gas emissions is not applicable to</u>				
the Project. The Applicant has changed items e and g to "N/A" because the Project site does not				
contain sensitive ecological sites and landscapes such as wetlands or h	abitats	for en	dangered	

<u>species.</u>

The Pi'ilani Promenade is not located within the State's Special Management Area and no listed or endangered species of flora and fauna were identified on the property. During build-out and during the operation phase best management practices will be implemented to mitigate non-point source pollution to Maui's coastal resources as well as to mitigate fugitive dust impacts. <u>In</u>

addition, through the EIS review process mitigation measures will be identified to help address any environmental impacts that may arise from the project.

As discussed in Section III.A.3 (Natural Hazards) the development of the Pi'ilani Promenade will not increase the possibility of natural hazards such as flooding, tsunami inundation, hurricanes and earthquakes. The Pi'ilani Promenade will be constructed in compliance with County, State and Federal standards.

As discussed in Section III.A.6 (Air Quality) the Pi'ilani Promenade may create short term impacts on air quality directly and indirectly during construction, however mitigation measures will be implemented. It is anticipated that the Pi'ilani Promenade does not violate Federal or State air quality standards.

As discussed in Section III.D.6 <u>5</u> (Utilities <u>Electrical</u>) the Pi'ilani Promenade will include energyefficient design and conservation measures specifically, in lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development and installation of Photovoltaic Energy Systems will be encouraged in all areas of the Pi'ilani Promenade.

In addition, the Pi'ilani Promenade is utilizing smart growth planning techniques that will help to reduce automobile trips and associated pollution. The design will help to minimize automobile trips by providing employment, goods, services and housing within walking or biking distance of each other. The Pi'ilani Promenade has a unified pedestrian and bicycle system within the project and will provide opportunities for connections to its existing and future surrounding uses.

Objective :	S	N/S	N/A
(4) Educate residents and visitors about responsible stewardship practices			$\checkmark$
and the interconnectedness of the natural environment and people.			
Policies:			
a. Expand education about native flora, fauna, and ecosystems.			~
b. Align priorities to recognize the health of the natural environment and the health of people.			$\checkmark$
c. Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.	*		<u> </u>
Analysis: The Applicant has changed item c to "N/A". The promotion of go	vernme	ent prog	rams and
incentives to improve environmental stewardship is not applicable to t	he Pro	j <u>ect.</u> Th	e Pi'ilani
Promenade is not located within the State's Special Management Area and no listed or			

endangered species of flora and fauna were identified on the property. During build-out and during the operation phase best management practices will be implemented to mitigate non-point source pollution. In addition, through the EIS and entitlement application processes mitigation measures will be identified to help address any environmental impacts that may arise from the project.

As discussed in Section II.E.<del>3 and 4</del> (Proposed Action Project Description) the Pi'ilani Promenade creates a development pattern that by its more compact and mixed-use character is less dependent on motorized transportation. The Pi'ilani Promenade also makes considerable investment into public water and roadway infrastructure. The project will include a unified pedestrian and bicycle system within the Pi'ilani Promenade with connections to its existing and future surroundings.

As discussed in Section III.D.6 <u>5</u>(Utilities <u>Electrical</u>) the Pi'ilani Promenade will include energyefficient design and conservation measures. Specifically, the design guidelines will encourage the use of energy efficient technology throughout the Pi'ilani Promenade, specifically, in lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development and installation of Photovoltaic Energy Systems will be encouraged in all areas of the Pi'ilani Promenade.

#### 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:	S	N/S	N/A
(1) Perpetuate the Hawaiian culture as a vital force in the lives of residents.	≁		<u>√</u>
Policies:	1	1	1
a. Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.	4		$\checkmark$
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.	≁		<u>~</u>
c. Promote the use of ahupua'a and moku management practices.			$\checkmark$

2010		
d. Encourage the use of traditional Hawaiian architecture and craftsmanship.	≁	<u>√</u>
• • • • • • • • • • • • • • • • • • •		 
e. Promote the use of the Hawaiian language.		v
f. Recognize and preserve the unique natural and cultural characteristics of	≁	$\checkmark$
each ahupua'a or district.		
g. Encourage schools to promote broader incorporation of Hawaiian and		$\checkmark$
other local cultures' history and value lessons into curriculum.		
h. Ensure the protection of Native Hawaiian rights.		$\checkmark$
i. Promote, encourage, and require the correct use of traditional place	≁	$\checkmark$
names, particularly in government documents, signage, and tourism		
industry.		
Implementing Actions:		
a. Establish alternative land use and overlay zoning designations that		$\checkmark$
recognize and preserve the unique natural and cultural characteristics of		
each ahupua'a or district.		
b. Develop requirements for all County applicants to perpetuate and use	≁	$\checkmark$
proper traditional place names in all applications submitted.		

Analysis: The Applicant has changed all items to "N/A". As discussed in Section III.A. 8 (Historical and Archaeological Resources) The proposed project will not impact Kulanihakoi Gulch and is not anticipated to significantly impact the physical environment. The project promotes the preservation of historic resources and the Applicant's will work with the State Historic Preservation Division to prepare a data recovery plan. The Project archaeologist submitted a data recovery plan to the SHPD on June 17, 2016, and it is currently under review.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the DFEIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing potential impacts to Kulanihakoi Gulch and the return of the petroglyph boulder that was previously removed from the project site by a former land owner, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and that the petroglyph boulder be returned to the property. The Applicant has discussed the possible return of the petroglyph boulder with the former land

-

owner; however, the former owner rejected this request since the relocation plan was approved by State Historic Preservation Division (SHPD). In addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

As discussed in Section III.B.4 (Cultural Resources) the cultural impact statement (CIA) <u>and the SCIA</u> which <u>was were</u> prepared for the proposed project reported that there were no visible cultural resources, (*i.e.* medicinal plants, shoreline resources, religious sites, or archeological resources) observed on the property. From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or any gatherings currently taking place on the site. The oral history interviews did not reveal any known gathering places on the subject property nor did any access concerns surface as a result of the proposed Project. In light of the foregoing, it can be concluded that development of the site will not impact cultural resources on the property or within its immediate vicinity.

Objective:	S	N/S	N/A
(2) Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.	✓		
Policies:	S	N/S	N/A
a. Acknowledge the Hawaiian culture as the host culture, and foster	$\checkmark$		
respect and humility among residents and visitors toward the Hawaiian people and their practices.			
b. Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.	~		
c. Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.	~		
d. Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.	~		
e. Protect and prioritize funding for recreational activities that support local cultural practices, such as surfing, fishing, and outrigger-canoe paddling.			~

<u>Analysis:</u> As discussed in Section III.B.4 (Cultural Resources) the cultural impact statement (CIA) which was prepared for the proposed project reported that there were no visible cultural resources, (*i.e.* medicinal plants, shoreline resources, religious sites, or archeological resources) observed on the property. From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or any gatherings currently taking place on the site. The oral history interviews did not reveal any known gathering places on the subject property



nor did any access concerns surface as a result of the proposed Project it can be concluded that development of the site will not impact property or within its immediate vicinity.	U		0 0
Objective:	S	N/S	N/A
(3) Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County. <b>Policies:</b>	<ul> <li>✓</li> </ul>		
a. Foster teaching opportunities for cultural practitioners to share their knowledge and skills.	<ul> <li>✓</li> </ul>		
b. Support the development of cultural centers.			$\checkmark$
c. Broaden opportunities for public art and the display of local artwork.	$\checkmark$		
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.	<ul> <li>✓</li> </ul>		
e. Support the perpetuation of Hawaiian arts and culture.	$\checkmark$		
f. Support programs and activities that record the oral and pictorial history of residents.			$\checkmark$
g. Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.			$\checkmark$
Implementing Actions:			
a. Establish incentives for the display of public art.			$\checkmark$
b. Establish centers and programs of excellence for the perpetuation of Hawaiian arts and culture.			~
Analysis: The Pi'ilani Promenade project will include an active pa opportunity for a variety of gatherings to celebrate the Aloha Spin Hawaiian arts, and to provide a place for practitioners to share their addition as the project is developed the owner can encourage the use o	rit, prov knowlee	ide edu dge and	cation on skills. In
Objective:	S	N/S	N/A
(4) Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.	$\checkmark$		
Policies:	S	N/S	N/A

b. Promote the rehabilitation and adaptive reuse of historic sites,			$\checkmark$
buildings, and structures to perpetuate a traditional sense of place.			
d. Protect and preserve lands that are culturally or historically significant.	$\checkmark$		
g. Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.	$\checkmark$		
i. Protect summits, slopes, and ridgelines from inappropriate development.	$\checkmark$		
j. Support the registering of important historic sites on the State and Federal historic registers.	$\checkmark$		
k. Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.	$\checkmark$		
l. Foster partnerships to identify and preserve or revitalize historic and cultural sites.	<b>√</b>		
Implementing Actions:	S	N/S	N/A
a. Identify, develop, map, and maintain an inventory of locally significant natural, cultural, and historical resources for protection.	~		
d. Nominate important historic sites to the State and Federal historic registers.	√		
	1		1

*Analysis:* The Project promotes the preservation of historic resources and the Applicant's Archaeologist submitted a data recovery plan that was received by the SHPD on June 17, 2016 and approval is pending. will work with the State Historic Preservation Division to prepare a data recovery plan.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the Đ<u>F</u>EIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing potential impacts to Kulanihakoi Gulch and the return of the petroglyph boulder that was previously removed from the project site by a former land owner, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and that the petroglyph boulder be returned to the property. The Applicant has discussed the possible return of the petroglyph boulder with the former land owner; however, the former owner rejected this request since the relocation plan was approved by State Historic Preservation Division (SHPD).

In addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

### C. Improve Education

Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.

**Objectives:** 

(1) Encourage the State to attract and retain school administrators and educators of the highest quality.

(2) Provide nurturing learning environments that build skills for the 21st century.

(3) Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.

Implementing Actions:	S	N/S	N/A
a. Develop safe walking and bicycling programs for school children.	$\checkmark$		

*Analysis:* As discussed in Section III.C.4 (Schools) the Pi'ilani Promenade proposes residential use on a portion of the property and is adjacent to the proposed Kihei High School. The Project site is being planned to accommodate a future pedestrian connection with the proposed Kihei High School. <u>The Project will include separated bicycle lanes along Kaonoulu Street and Pi'ilani</u> <u>Highway providing a critical component of overall connectivity in Kihei. As surrounding developments are constructed including the Kihei High School, the Project bike paths and sidewalks will become part of a larger non-vehicular network.</u>

D. Strengthen Social and Healthcare Services

Goal: Health and social services in Maui County will fully and comprehensively serve all segments of the population.

*Analysis:* The Pi'ilani Promenade does not include the creation of health or social services; therefore, this goal is not directly applicable. However, the Pi'ilani Promenade will allow medical services such as doctor's offices and ancillary services.

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.			
Policies:	S	N/S	N/A
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.			
b. Seek innovative ways to lower housing costs without compromising	$\checkmark$		
he quality of our island lifestyle.			
. Redevelop commercial areas with a mixture of affordable residential	$\checkmark$		
and business uses, where appropriate.			
k. Ensure residents are given priority to obtain affordable housing units	$\checkmark$		
developed in their communities, consistent with all applicable			
regulations.			
l. Establish pricing for affordable housing that is more reflective of Maui	$\checkmark$		
County's workforce than the United States Housing and Urban			
Development's median-income estimates for Maui County.			
m. Develop neighborhoods with a mixture of accessible and integrated	$\checkmark$		
community facilities and services.			
q. Support the opportunity to age in place by providing accessible and	$\checkmark$		
appropriately designed residential units.	de will	offer 2	26- renta
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda			
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing I	ble ren		
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena	ble ren		
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing F Objective:	ble ren		
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing F Objective:	ble ren		
Appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing H Objective: (3) Increase and maintain the affordable housing inventory.	ble ren		
Appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing H Objective: (3) Increase and maintain the affordable housing inventory. Policies:	ble ren Policy.	tal hous	ing unit
Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing F Objective: (3) Increase and maintain the affordable housing inventory. Policies: a. Recognize housing as a basic human need, and work to fulfill that	ble ren Policy.	tal hous	ing unit
Appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing F Objective: (3) Increase and maintain the affordable housing inventory. Policies: a. Recognize housing as a basic human need, and work to fulfill that need.	ble ren Policy.	tal hous	ing unit
appropriately designed residential units. Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing I	ble ren Policy. S ✓	tal hous	ing unit
<ul> <li>appropriately designed residential units.</li> <li>Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing I Objective: <ul> <li>(3) Increase and maintain the affordable housing inventory.</li> </ul> </li> <li>Policies: <ul> <li>a. Recognize housing as a basic human need, and work to fulfill that need.</li> <li>b. Prioritize available infrastructure capacity for affordable housing.</li> </ul> </li> <li>g. Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable</li> </ul>	ble ren Policy. S ✓	tal hous	ing unit
<ul> <li>appropriately designed residential units.</li> <li>Analysis: As discussed in Section III.B.2 (Housing) the Pi'ilani Promena housing units. The Pi'ilani Promenade will include the required afforda in compliance with Chapter 2.96, MCC Residential Workforce Housing I Objective: <ul> <li>(3) Increase and maintain the affordable housing inventory.</li> </ul> </li> <li>Policies: <ul> <li>a. Recognize housing as a basic human need, and work to fulfill that need.</li> <li>b. Prioritize available infrastructure capacity for affordable housing.</li> <li>g. Minimize the intrusion of housing on prime, productive, and</li> </ul> </li> </ul>	ble ren Policy. S ✓	tal hous	ing unit

*Analysis:* As discussed in Section III.B.2 (Housing) the Pi'ilani Promenade will offer 226 rental housing units. The Pi'ilani Promenade will include the required affordable rental housing units in compliance with Chapter 2.96, MCC Residential Workforce housing Policy. Workforce homes will be subject to the requirements of Chapter 2.96, MCC to ensure the affordable rentals are available for full time Maui residents.

As discussed in section III.A.10 (Agricultural Resources) the development of the Pi'ilani Promenade will not reduce the inventory of agriculturally significant lands therefore the proposed development is appropriate for the site.

**Objective:** 

(4) Expand access to education related to housing options, homeownership, financing, and residential construction.

*Analysis:* The Pi'ilani promenade does not directly expand access to education with regard to housing options, home-ownership, financing and residential construction; therefore this objective is 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.

Policies:	S	N/S	N/A
a. Support economic decisions that create long-term benefits.	$\checkmark$		
b. Promote lifelong education, career development, and technical training for existing and emerging industries.	$\checkmark$		
c. Invest in infrastructure, facilities, and programs that foster economic diversification.	$\checkmark$		
d. Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.	$\checkmark$		
e. Support programs that assist industries to retain and attract more local labor and facilitate the creation of jobs that offer a living wage.	$\checkmark$		
f. Encourage work environments that are safe, rewarding, and fulfilling to employees.	$\checkmark$		

g. Support home-based businesses that are appropriate for and in character with the community.		✓
h. Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.	✓	
i. Foster an understanding of the role of all industries in our economy.	$\checkmark$	
j. Support efforts to improve conditions that foster economic vitality in our historic small towns.		✓
k. Support and encourage traditional host-culture businesses and indigenous agricultural practices.		~
1. Support public and private entities that assist entrepreneurs in establishing locally operated businesses.	~	
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.		✓

Analysis: The Project could support several industries. The proposed updated Project responds to the most current trends in the development of mixed use industrial and commercial centers. The Pi'ilani Promenade will strengthen Maui's economy by providing a convenient location for a mixed use project with related/supportive businesses. These industries will create a diverse range of jobs for residents, which will benefit the rest of the economy. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires, which will promote increased employment and entrepreneurial opportunities for Maui's residents.

As discussed in Section III.B.3 (Economy) the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic



diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

**Objective:** 

(2) Diversify and expand sustainable forms of agriculture and aquaculture.

*Analysis:* The proposed Pi'ilani Promenade will not include agriculture or aquaculture operations; therefore this objective is not applicable.

**Objective 3:** 

Support a visitor industry that respects the resident culture and the environment.

Analysis: The Pi'ilani Promenade is not targeting the visitor industry; however visitors will likely shop at future retail uses proposed as part of the project.

Objective:

(4) Expand economic sectors that increase living-wage job choices and are compatible with community values.

Policies:	S	N/S	N/A
a. Support emerging industries, including the following:	$\checkmark$		
<ul> <li>Health and wellness industry;</li> </ul>			
<ul> <li>Sports and recreation industry;</li> </ul>			
• Film and entertainment industry;			
Arts and culture industry;			
<ul> <li>Renewable-energy industry;</li> </ul>			
<ul> <li>Research and development industry;</li> </ul>			
<ul> <li>High-technology and knowledge-based industries;</li> </ul>			
• Education and training industry;			
Ecotourism industry; and			
Agritourism industry.			

*Analysis:* The Pi'ilani Promenade project would support several of the above listed industries. The proposed updated project responds to the most current trends in the development of mixed use industrial and commercial centers. The Pi'ilani Promenade will strengthen Maui's economy by providing a convenient location for a mixed use project with related/supportive businesses. These industries will create a diverse range of jobs for residents, which will benefit the rest of the

economy. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires, which will promote increased employment and entrepreneurial opportunities for Maui's residents.

### 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.

Policies:	S	N/S	N/A
a. Protect, enhance, and expand access to public shoreline and	✓		<u>√</u>
mountain resources.			
b. Expand and enhance the network of parks, multi-use paths, and	$\checkmark$		
bikeways.			
c. Assist communities in developing recreational facilities that	$\checkmark$		
promote physical fitness.			
f. Encourage and invest in recreational, social, and leisure activities	$\checkmark$		
that bring people together and build community pride.			
g. Promote the development and enhancement of community centers,	$\checkmark$		
civic spaces, and gathering places throughout our communities.			
h. Expand affordable access to recreational opportunities that support	$\checkmark$		
the local lifestyle.			
Anglucic: The Applicant has changed item 12 to "N/A" because the Proje	at cita ic r	ant locato	d along

Analysis: The Applicant has changed item 1a to "N/A" because the Project site is not located along the shoreline and does not provide access to mountain resources.

As discussed in Section II.E.<del>3 and 4</del> (Proposed Action Project Description) the Pi'ilani Promenade plans to provide a 2-acre neighborhood park and a unified pedestrian and bicycle system within the property and opportunities for connections to its existing and future surroundings. The Pi'ilani Promenade is subject to the Department of Parks and Recreation Parks Assessment that requires the owner, to provide land or money in lieu of, for recreational and leisure space in the Kihei-Makena Community Plan region.

The New Urbanism design technique will provide a complete and vibrant community with employment opportunities, a range of housing types, parks and open spaces, and a bicycle and

pedestrian pathways. These elements encourage future residents to interact with each other, rely less on automobiles and enjoy the outdoors.				
Objective:				
(2) Improve the quality and adequacy of community facilities.				
Policies:	S	N/S	N/A	
a. Provide an adequate supply of dedicated shelters and facilities for disaster relief.			✓	
b. Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.			~	
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.	√			
d. Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.	V			
e. Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.			~	
Analysis: The Pi'ilani Promenade's-plans to provide a 2-acre active par	-		-	
spaces and bicycle and pedestrian networks will provide a variety of	recreati	onal optio	ns that	

spaces and bicycle and pedestrian networks will provide a variety of recreational options that create an enhanced community.

**Objective:** 

(3) Enhance the funding, management, and planning of public facilities and park lands.

*Analysis:* As discussed in Section II.<del>D</del>.F.5, <u>E (Proposed Project Description)</u> the site plan for the Pi'ilani Promenade will provide an approximately 2-acre neighborhood park and open spaces with pedestrian and bicycle pathways. In addition, the Pi'ilani Promenade is subject to, and will comply with, the provisions of Section 18.16.320, MCC which requires developers to provide land and/or money for park and playground purposes in the Kihei-Makena Community Plan region.

### H. Diversify Transportation Options

Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.

Objective:

environmentally sustainable. Policies:	S	N/S	N/A
a. Execute planning strategies to reduce traffic congestion.	$\checkmark$		
b. Plan for the efficient relocation of roadways for the public benefit.	≁		<u> </u>
c. Support the use of alternative roadway designs, such as traffic- calming techniques and modern roundabouts.	~		
d. Increase route and mode options in the ground-transportation network.	4		<u>√</u>
e. Ensure that roadway systems are safe, efficient, and maintained in good condition.	~		
f. Preserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.	4		<u> </u>
g. Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.	~		
h. Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.	~		
i. Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.	~		
j. Develop and expand an attractive, island-appropriate, and efficient public-transportation system.	~		
k. Provide and encourage the development of specialized transportation options for the young, the elderly, and persons with disabilities.	~		
l. Evaluate all alternatives to preserve quality of life before widening roads.	✓	<u> </u>	
m. Encourage businesses in the promotion of alternative transportation options for resident and visitor use.	~		
n. Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.	~		

a. Create incentives and implement strategies to reduce visitor dependence on rental cars.		✓
b. Establish efficient public-transit routes between employment centers and primary workforce residential areas.	~	
c. Create attractive, island-appropriate, conveniently located park-and- ride and ride-share facilities.	$\checkmark$	

*Analysis:* As discussed in Section III.D (Infrastructure) the Pi'ilani Promenade will provide a variety of traffic-related improvements that will include improving the intersection of Pi'ilani Highway and Kaonoulu Street and constructing a segment of the future Upcountry Highway.

The Applicant has changed policy item 1b to "N/A" because the Project does not involve the relocation of roadways. Item 1.d was changed to "N/A" because the Pi'ilani Promenade is not a transportation project. Item 1.f was changed to "N/A" because the Project does not involve preservation of historic or scenic roadway corridors. Item 1.l was changed to "N/S" because the Project will require widening of Pi'ilani Highway at the intersection with the future Kihei Upcountry Highway to accommodate additional turn lanes and a new signalized intersection.

The Pi'ilani Promenade's non-vehicular transportation strategy includes: 1) compact and mixeduse development patterns, 2) pedestrian oriented streets integrating street trees, sidewalks, and traffic calming, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity to adjacent developments, such as the Kihei High School and uses *makai* of Pi'ilani Highway.

The Project will include separated bicycle lanes along Kaonoulu Street and Pi'ilani Highway providing a critical component of overall connectivity in Kihei. As surrounding developments are constructed including the Kihei High School the Project bike paths and sidewalks will become part of a larger non-vehicular network.

The transportation demand and management measures proposed for the project include encouraging alternate work schedules and off-peak hours for employment generators and supporting park and ride, ridesharing, carpooling, and van pooling. In addition, the Applicant will also meet with the Maui Department of Transportation to discuss the possibility of establishing bus stops within the project site.

**Objective:** 

(2) Reduce the reliance on the automobile and fossil fuels by encourag	ing wa	lking, bi	cycling,
and other energy-efficient and safe alternative modes of transportation.	C	N/S	N/A
Policies:	S	11/5	IN/A
a. Make walking and bicycling transportation safe and easy between	$\checkmark$		
and within communities.			
b. Require development to be designed with the pedestrian in mind.	$\checkmark$		
c. Design new and retrofit existing rights-of-way with adequate	$\checkmark$		
sidewalks, bicycle lanes, or separated multi-use transit corridors.			
d. Support the development of a countywide network of bikeways,	$\checkmark$		
equestrian trails, and pedestrian paths.			
e. Support the reestablishment of traditional trails between			$\checkmark$
communities, to the ocean, and through the mountains for public use.			
f. Encourage educational programs to increase safety for pedestrians			$\checkmark$
and bicyclists.			
Implementing Actions:			
a. Design, build, and modify existing bikeways to improve safety and	$\checkmark$		
separation from automobiles.			
1			
b. Increase enforcement to reduce abuse of bicycle and pedestrian lanes	$\checkmark$		
by motorized vehicles.			
c. Identify non-motorized transportation options as a priority for new	$\checkmark$		
sources of funding.			
Analysis: The Pi'ilani Promenade's non-vehicular transportation strategy i	nclude	s: 1) comp	oact and
mixed-use development patterns, 2) pedestrian oriented streets integrating	g street	trees, sid	ewalks,
and traffic calming, 3) both striped and separated bike lanes in appro	priate 1	locations,	, and 4)

Objective:

of Pi'ilani Highway.

(3) Improve opportunities for affordable, efficient, safe, and reliable air transportation.

*Analysis:* The Pi'ilani Promenade does not include facilities for air transportation; therefore, this objective is not applicable.

supporting connectivity to adjacent developments, such as the Kihei High School and uses makai



(4) Improve opportunities for affordable, efficient, safe, and reliable ocean transportation.

# *Analysis:* The Pi'ilani Promenade is not located on the coastline and does not include facilities for ocean transportation; therefore, this objective regarding ocean transportation is not applicable.

#### **Objective:**

(5) Improve and expand the planning and management of transportation systems.

Policies:	S	N/S	N/A
a. Encourage progressive community design and development that will	$\checkmark$		
reduce transportation trips.			
b. Require new developments to contribute their <i>pro rata</i> share of local	$\checkmark$		
and regional infrastructure costs.			
c. Establish appropriate user fees for private enterprises that utilize	$\checkmark$		
public-transportation facilities for recreational purposes.			
d. Support the revision of roadway-design criteria and standards so that	$\checkmark$		
roads are compatible with surrounding neighborhoods and the			
character of rural areas.			
e. Plan for multi-modal transportation and utility corridors on each			$\checkmark$
island.			
f. Support designing all transportation facilities, including airport,			$\checkmark$
harbor, and mass-transit stations, to reflect Hawaiian architecture.			
g. Utilize transportation-demand management as an integral part of	$\checkmark$		
transportation planning.			
h. Accommodate the planting of street trees and other appropriate	$\checkmark$		
landscaping in all public rights-of-way.			

*Analysis:* As discussed in Section III.D (Infrastructure) the Pi'ilani Promenade will provide a variety of traffic-related improvements that will include improving the intersection of Pi'ilani Highway and Kaonoulu Street and constructing a segment of the future Kihei Upcountry Highway.

The Pi'ilani Promenade's non-vehicular transportation strategy includes: 1) compact and mixeduse development patterns, 2) pedestrian oriented streets integrating street trees, sidewalks, and traffic calming, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity to adjacent developments, such as the Kihei High School and uses *makai* of Pi'ilani Highway. The transportation demand and management measures proposed for the project include encouraging alternate work schedules and off-peak hours for employment generators and supporting park and ride, ridesharing, carpooling, and van pooling. In addition, the Applicant will also meet with the Maui Department of Transportation to discuss the possibility of establishing bus stops within the project site.

### 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.

Policies:	S	N/S	N/A
a. Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.	~		
b. Develop and fund improved water-delivery systems.	$\checkmark$		
c. Ensure a reliable and affordable supply of water for productive agricultural uses.			$\checkmark$
d. Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require drinking water.	$\checkmark$		
e. Retain and expand public control and ownership of water resources and delivery systems.	$\checkmark$		
f. Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.	$\checkmark$		
g. Explore and promote alternative water-source-development methods.			$\checkmark$
h. Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.	$\checkmark$		
Implementing Actions:			
a. Develop a process to review all applications for desalination.			$\checkmark$

*Analysis:* As discussed in Section III.D.4 (Water) the Pi'ilani Promenade's source of drinking water will be supplied by the County Department of Water Supply (DWS) and the non-drinking water is brackish water from an on-site well.

In addition the developer is committed to 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.

Objective:

(2) Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.

$\checkmark$

*Analysis:* As discussed in Section III.C.5 (Solid Waste), The Pi'ilani Promenade 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. The Pi'ilani Promenade will implement these strategies by providing options for recycling, such as collection systems and bin space, within the site, and promoting sound recycling practices among residents and businesses.

**Objective:** 

(3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.



Policies:	S	N/S	N/A
a. Promote the use of local renewable energy sources, and reward energy efficiency.	~		
b. Consider tax incentives and credits for the development of sustainable- and renewable-energy sources.			✓
c. Expand education about energy conservation and self-sufficiency.			<ul> <li>✓</li> </ul>
d. Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.	~		
e. Expand renewable-energy production.			$\checkmark$
f. Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.	*		<u> </u>
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.	~		
h. Encourage the use of sustainable energy to power vehicles.	$\checkmark$		
i. Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.	~		
j. Encourage green footprint practices.	$\checkmark$		
k. Reduce Maui County's dependence on fossil fuels and energy imports.			~
1. Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.	~		
m. Promote and support environmentally friendly practices in all energy sectors.	~		
Implementing Actions:			
a. Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.			✓
b. Adopt a Green Building Code, and support green building practices.			✓
<i>Analysis:</i> The Applicant has changed item f, to "N/A" because the Project develop public-private partnerships to increase energy efficiency.	is not j	proposing	<u>to</u>

As discussed in Section III.D.5 (Electrical) the Pi'ilani Promenade will include conservation measures to encourage the use of energy-efficient technology throughout the project, specifically in areas involving lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development. Occupants of the Pi'ilani Promenade will be encouraged to install Photovoltaic Energy Systems where appropriate and feasible.

#### **Objective:**

(4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.

Policies:	S	S N/S	
a. Capitalize on existing infrastructure capacity as a priority over	✓		
infrastructure expansion.			
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.			~
c. Utilize appropriate infrastructure technologies in the appropriate locations.	~		
d. Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.	~		
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.	~		
Implementing Actions:			
a. Develop a streamlining system for urban infill projects.	~		
b. Identify appropriate areas for urban expansion of existing towns where infrastructure and public facilities can be provided in a cost- effective manner.	~		
Analysis: The Pi'ilani Promenade is utilizing smart growth planning techn	iques.	The desi	gn of th

Analysis: The Pi'ilani Promenade is utilizing smart growth planning techniques. The design of the project will help minimize automobile trips by providing employment, goods, services and housing within walking or biking distance of each other. The design and layout of the Pi'ilani Promenade includes a pedestrian and bicycle network within the project site, as well as opportunities for future connections to areas of existing and future development. The pedestrian and bicycle system will provide future residents with an alternative to motorized transport within the Pi'ilani Promenade. The project's close proximity to Central Kihei brings residents into easy commuting distance of the region's multitude of public facility systems, including schools, police,

in rome	T

Objective:			
(5) Improve the planning and management of infrastructure systems.			
Policies:	S	N/S	N/ A
a. Provide a reliable and sufficient level of funding to enhance and maintain infrastructure systems.			~
b. Require new developments to contribute their <i>pro rata</i> share of local and regional infrastructure costs.	~		
c. Improve coordination among infrastructure providers and planning agencies to minimize construction impacts.	~		
d. Maintain inventories of infrastructure capacity, and project future infrastructure needs.			~
e. Require social-justice and -equity issues to be considered during the infrastructure-planning process.	~		
f. Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.	~		
g. Ensure that infrastructure is built concurrent with or prior to development.	~		
h. Ensure that basic infrastructure needs can be met during a disaster.			$\checkmark$
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.	<b>√</b>		
j. Promote the undergrounding of utility and other distribution lines for health, safety, and aesthetic reasons.	~		
Implementing Actions:			
a. Develop and regularly update functional plans for infrastructure systems.			$\checkmark$
b. Develop, adopt, and regularly update local or community-sensitive level-of-service standards for infrastructure systems.			$\checkmark$
<i>Analysis:</i> The implementation of the Master Plan Update <u>Project</u> will incrinfrastructure and facility systems. In response, mitigative mitigat implemented to address the impacts. For example, the Pi'ilani Promavailable for schools, parks, and other necessary public facilities. In ad contribute off-site infrastructure improvements as warranted. The A required impact fees for infrastructure and public facility systems, as law	<u>ion</u> mo lenade ldition, pplicar	easures v will mak the proje t will al	vill b te lan ect wi

### 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.

Policies:	S	N/S	N/A
a. Establish, map, and enforce urban- and rural-growth limits.			<ul> <li>✓</li> </ul>
b. Direct urban and rural growth to designated areas.			<u>√</u>
e. Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.	<b>v</b>		
g. Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.	$\checkmark$		
h. Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.	~		
j. Support the dedication of land for public uses.	≁		<u> </u>
l. Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.	$\checkmark$		

Analysis: As for objective 1, the Applicant has changed policies b and j to "N/A" because it is not the Applicant's responsibility to direct urban and rural growth to designated areas, nor dedicate land for public use.

The proposed development is located entirely within the Maui Island Plan's Urban Growth Boundary. The Project site is located in the Maui County Light Industrial District. The proposed project is in a location that is proximate to infrastructure and public facilities and existing employment. The Project site is not located within an area that is subject to natural hazards and no critical wildlife habitats are on the property.

**Objective**:

(2) Improve planning for and management of agricultural lands and rural areas.

*Analysis:* As discussed in Section III.A.11 (Agricultural Resources) the development of the Pi'ilani Promenade is located in the State Land Use Urban District therefore agricultural lands and rural areas will not be impacted by the proposed Pi'ilani Promenade project.

**Objective:** 

(3) Design all developments to be in harmony with the environm	nent and to	protect	each
community's sense of place. Policies:	S	N/S	N/ A
a. Support and provide incentives for green building practices.	$\checkmark$		
b. Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.			~
c. Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.	V		
d. Ensure that adequate recreational areas, open spaces, and public- gathering places are provided and maintained in all urban centers and neighborhoods.	V		
e. Ensure business districts are distinctive, attractive, and pedestrian- friendly destinations.	$\checkmark$		
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.	V		
g. Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.	V		
h. Ensure better connectivity and linkages between land uses.	$\checkmark$		
i. Adequately buffer and mitigate noise and air pollution in mixed- use areas to maintain residential quality of life.	✓		
j. Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.			v
k. Support small-town revitalization and preservation.			$\checkmark$
l. Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.	~		
Analysis: As previously mentioned, the proposed project will encourage practices for both employment and residential uses; incorporate infrastructure throughout; utilize street trees for beautification, he calming; and will ensure better connectivity and linkages between land through traditional suburban development practices. Objective:	bicycle a at reductio	nd pede	strian traffic
(4) Improve and increase efficiency in land use planning and manager	nent.		
Policies:	S	N/S	N/ A

a. Assess the cumulative impact of developments on natural	$\checkmark$	
ecosystems, natural resources, wildlife habitat, and surrounding		
uses.		
b. Ensure that new development projects requiring discretionary	$\checkmark$	
permits demonstrate a community need, show consistency with the		
General Plan, and provide an analysis of impacts.		
c. Encourage public and private partnerships to preserve lands of		$\checkmark$
importance, develop housing, and meet the needs of residents.		
d. Promote creative subdivision designs that implement best	$\checkmark$	
practices in land development, sustainable management of natural		
and physical resources, increased pedestrian and bicycle		
functionality and safety, and the principles of livable communities.		
e. Coordinate with Federal, State, and County officials in order to	$\checkmark$	
ensure that land use decisions are consistent with County plans and		
the vision local populations have for their communities.		
f. Enable greater public participation in the review of subdivisions.		$\checkmark$
g. Improve land use decision making through the use of land- and		 $\checkmark$
geographic-information systems.		
Implementing Actions:		
A. Institute a time limit and sunsetting stipulations on development		$\checkmark$
entitlements and their implementation.		
Analysis	•	

Analysis:

During the preparation of the EIS, a site analysis was conducted to ensure that urban development would mitigate impacts to the natural and cultural environment. The subject project is consistent with the County's General Plan and impacts have been analyzed in the subject <u>FEIS</u> including assessment of the cumulative impact of the development and its potential impacts to natural ecosystems, natural resources, wildlife habitat and surrounding land uses.

### K. Strive for Good Governance

Goal:

**Objective:** 

(1) Strengthen governmental planning, coordination, consensus building, and decision making.

(2) Promote civic engagement.

(3) Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.

(4) Adequately fund in order to effectively administer, implement, and enforce the General Plan.

(5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.

*Analysis:* The public participation program involved numerous participatory meetings with key stakeholders, community groups, neighboring property owners and governmental agencies at various stages of the planning process. These meetings provided opportunity for the public to ask questions and present concerns about the project prior to the submittal of the EIS <u>and FEIS</u>.

Further review of the proposed project will include review of this <u>FEIS</u> by the State Land Use Commission. 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.

The Pi'ilani Promenade will not directly improve government administration, programs, or plans; therefore these objectives <u>1-5</u> are not applicable <u>"N/A"</u>. However, the Pi'ilani Project build out will have a positive impact on the Maui County economy and will contribute to increased County revenues in the form of increased property taxes, general excise taxes, and income taxes, a portion of which could be used to help fund implementation of the General Plan.

The Pi'ilani Promenade will not directly improve government policies and practices; therefore this objective and these policies are not applicable. However, the Pi'ilani Project build out will have a significant positive impact on the Maui County economy and will contribute to increased County revenues in the form of increased property taxes, general excise taxes, and income taxes.

#### 2. Maui Island Plan

The Maui Island Plan, December 2012, serves as the regional plan for the Island of Maui. The Plan is comprised of the following ten elements: 1) Population; 2) Heritage Resources; 3) Natural Hazards; 4) Economic Development; 5) Housing; 6) Infrastructure and Public Facilities; 7) Land Use; 8) Directed Growth Plan; 9) Long Range Implementation Plan; and 10) Monitoring and Evaluation. Each element contains goals, objectives, policies and implementing actions. The Directed Growth Plan identifies the location of future development through 2030. The Directed Growth Plan is intended to guide the location and general character of future urban development and will direct future zoning changes and guide the development of the County's short-term and long-term capital improvement plan budgets.

The General Plan of the County of Maui refers to a hierarchy of planning documents that together set forth future growth and policy direction in the County. The General Plan is comprised of the following documents: 1) County-wide Policy Plan; 2) Maui Island Plan; and 3) nine community plans.

The County-wide Policy Plan was adopted in March 2010 and is a broad policy document that identifies a vision for the future of Maui County. It establishes a set of guiding principles and provides comprehensive goals, objectives, policies and implementing actions that portray the desired direction of the County's future. The County-wide Policy Plan provides the policy framework for the development of the Maui Island Plan and nine Community Plans.

The Maui Island Plan functions as a regional plan and addresses the policies and issued that are not confined to just one community plan area, including regional systems such as transportation, utilities and growth management, for the Island of Maui. Together, the Island and Community Plans develop strategies with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design and other matters related to development.

The Maui Island Plan is approved it will be used to guide the growth and development of Maui County. As indicated by the Planning Department's proposed Directed Growth Maps, the Pi'ilani Promenade lies within the limits of the proposed Urban Growth Boundary for Kihei.

The <u>FEIS</u> will discuss portions of Chapters 4 and 7 of the Maui Island Plan that are applicable to the development of the Pi'ilani Promenade. <u>In response to comments</u> received on the DEIS, various goals, objectives and policies have been revised to more accurately reflect the Project as it relates to various government plans.

#### **Chapter 4 Economic Development**

Maul Island Dian	C	NI/C	NT / A
Maui Island Plan	S	N/S	N/A
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
Economic Development			
Economic Diversification			
Goal: Maui will have a balanced economy composed of a variety of i	indus	tries th	at offer
employment opportunities and well-paying jobs and a business e	enviro	nment	
sensitive to resident needs and the island's unique natural and cultural	l reso	urces.	
	r		
Objective:	S	N/S	N/A

Objective 4.1.1: A more diversified economy.	$\checkmark$				
Policies:	S	N/S	N/A		
Policy 4.1.1.a: Encourage an economy that is driven by innovation, research and development, and human resource development.	$\checkmark$				
Policy 4.1.1.b: Support the creation of new jobs and industries that provide a living wage.	$\checkmark$				

<u>Analysis:</u> The updated Pi'ilani Promenade plan responds to the most current trends in the development of innovation centers nationwide. After build-out the Pi'ilani Promenade will strengthen Maui's economy and will create a diverse range of jobs for residents. This will in turn benefit the rest of the economy. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires, which will promote increased employment and entrepreneurial opportunities for Maui's residents.

As discussed in Section III.B.3 (Economy) the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

The project site is located within the Maui Island Plan's Urban Growth Boundary. The Project is being prepared pursuant to smart growth and New Urbanism planning principles, with a distribution of uses that provides housing, jobs, shopping for daily needs, open space and recreation areas in close proximity to each other.

Objective:						S	N/S	N/A		
Objective sustainabil		Increase	activities	that	support	principles	of	$\checkmark$		



Policies:	S	N/S	N/A
4.1.2.a: Support industries that are sustainable, and culturally and environmentally sensitive.	<ul> <li>✓</li> </ul>		
4.1.2.b: Encourage and support local businesses.	~		
4.1.2.e: Encourage all businesses to save energy, water and other resources.	$\checkmark$		

Analysis: The Pi'ilani Promenade supports the objective and policies to promote sustainability. The Project will strengthen Maui's economy and will create a diverse range of jobs for residents. The Applicant supports encouraging local businesses to locate within the Project, and all businesses within the Project will be encouraged to use energy efficient technology specifically in areas involving lighting, air conditioning and building materials. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires.

As discussed in Section III.D.5 (Electrical) the Pi'ilani Promenade will include conservation measures to encourage the use of energy-efficient technology throughout the project, specifically in areas involving lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development. Occupants of the Pi'ilani Promenade will be encouraged to install Photovoltaic Energy Systems where appropriate and feasible.

Objective:	S	N/S	N/A
Objective 4.1.3 Improve the island's business climate.	~		
Policies:	S	N/S	N/A
4.1.3.a: Upgrade, maintain the quality, and improve access to telecommunications infrastructure.	~		
4.1.3.b: Ensure an adequate supply of affordable workforce housing.	$\checkmark$		
4.1.3.c: Develop neighborhoods and communities that are attractive to the workforce of a diversified economy.	~		
4.1.3.e: Encourage employers to establish incentive programs such as telecommuting, flexible working hours, four-day work weeks, health incentives, and rebates for public transportation users.			

4.1.3.f: Assist community development organizations with revitalization		$\checkmark$
and development of neighborhoods and communities that are attractive		
to the workforce of a diversified economy.		

*Analysis:* The Project site is located within the Maui Island Plan's Urban Growth Boundary. The Project is being prepared pursuant to smart growth and New Urbanism planning principles with a distribution of uses that provides housing, jobs, shopping for daily needs, open space and recreation areas in close proximity to each other. Together, these elements of the proposed project will help to create communities that are attractive to the workforce of a diversified economy.

**Emerging Sectors** 

Goal: A diverse array of emerging economic sectors.

Objective:	S	N/S	N/A
Objective 4.4.1 Increase efforts to develop emerging industries.			$\checkmark$
Policies:	S	N/S	N/A
4.4.1.a: Support the development of and access to state-of-the-art voice, video, and data telecommunications systems.			~
4.4.1.b: Attract and assist industries to compete in high technology activities such as those related to renewable energy, green technologies, diversified agriculture, ocean sciences, health sciences, and other knowledge-based industries.	~		
4.4.1.c: Support new industries that are environmentally and culturally sensitive such as health and wellness, sports and outdoor activities, cultural activities, the arts, film-making, entertainment, and digital media.	~		
4.4.1.d: Support the continued development of the Maui Research and Technology Park in Kihei as a center for research and development and education.			~
4.4.1.e: Work with appropriate organizations to support the development of high technology clusters around renewable energy, diversified agriculture, ocean sciences, health sciences, and other knowledge-based industries.			✓
Analysis: The purpose of the updated Pi'ilani Promenade is to provide	an op	portun	ity for
mix of uses for greater flexibility to attract a broader range of desirab	le bu	sinesse	s with
diversified offering including emerging sectors, therefore the Proj	ect v	vould s	suppor
industries listed in Items 4.4.1.b and 4.4.1.c. It is anticipated t	hat 1	New U	rbanisr
planning techniques and urban design strategies will make the Pi'ilar	i Pro	menade	e a moi



vibrant and attractive environment for businesses to locate and grow their operations. The Pi'ilani Promenade will expand Maui's employer base and increase employment and management opportunities for residents.

Objective:	S	N/S	N/A
Objective 4.4.2 Increase the development of renewable energy technologies.			$\checkmark$
Policies:	S	N/S	N/A
4.4.2.a: Support the expansion of the renewable energy sector and the use of solar, wind, wave, and biofuel technologies.	~		
4.4.2.b: Provide incentives to encourage renewable energy development, the use of green energy technologies, and energy conservation.			$\checkmark$

*Analysis:* The Pi'ilani Promenade isn't targeted specifically to the renewable energy sector, however the Applicant will market the project as available to this sector of the employment. As discussed in Section III.D.6 <u>5</u> (Utilities Electrical) the Pi'ilani Promenade supports energy-efficient design and conservation measures. Specifically, the Applicant will encourage the use of energy efficient technology throughout the project, specifically, in lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development and installation of Photovoltaic Energy Systems will be encouraged in all areas of the Pi'ilani Promenade.

#### Chapter 7 Land Uses

#### **Urban** Areas

"Urban areas are characterized by a convergence of housing, jobs, civic activities, commercial services and shopping."

"The Maui Island plan will promote vibrant and sustainable communities, economize on infrastructure, and protect open space."

Maui Island Plan	S	N/S	N/A		
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable					
Land Use					
Urban Land Use Issues					
Goal: Maui will have livable human scale urban communities, an efficient and sustainable land					
use pattern, and sufficient housing and services for Maui residents.					



Objective:	S	N/S	N/A
Objective 7.3.1: Facilitate and support a more compact, efficient, human- scale urban development pattern.	~		
Policies:	s	N/S	N/A
Policy 7.3.1.a: Ensure higher density compact urban communities, infill and redevelopment of underutilized urban lots within Urban Growth Boundaries.	✓		
Policy 7.3.1c: Strengthen evaluation requirements for new urban expansion, new towns, and major urban infill projects within urban growth boundaries. Tailor submittal requirements to reflect the impact or scale of different projects.			~
Policy 7.3.1.f: Encourage the development and implementation of neighborhood design standards that are environmentally friendly such as LEED-ND standards.	✓ 		
Policy 7.3.1.g: Discourage future pyramid zoning within the industrial zoning districts, while allowing accessory commercial uses and grandfathering existing uses.			~
Policy 7.3.1.h: Promote agriculture by encouraging community gardening, community supported agricultural programs, and farmers' markets within and adjacent to urban areas.	4		<u>√</u>
Policy 7.3.1.i: Discourage land use and urban design that impedes inter- connectivity between adjacent communities.	~		
Analysis: The Pi'ilani Promenade supports Objective 7.3.1 because t	he Pi	ʻilani Pı	omenade
mixed use design includes residential, commercial and Light Industri			U
development which is expected to facilitate and support a more com	_		
scale urban development pattern. Pi'ilani Promenade is located on			
existing employment base with urban development and supporting in The subject property has been community planned for urban development			-
and is within the Maui Island Plan's Urban Growth Boundary. The	-		
being prepared pursuant to smart growth and New-Urbanism plan			
distribution of uses that provides housing, jobs, shopping for daily	0		
recreation areas in close proximity to each other. The residential area		-	-
communities; and design and appearance will be controlled by	neig	hborhoo	d desigr
standards to promote environmentally friendly neighborhoods.			

As discussed in this <u>FEIS</u> the Pi'ilani Promenade incorporates New Urbanism planning techniques and urban design strategies which help to create a settlement pattern that by its more compact and mixed-use character is less dependent on motorized transportation. This will facilitate a self-sufficient community and result in shorter commutes by offering multi-modal transportation opportunities. The project also makes considerable investment into infrastructure that supports a unified pedestrian and bicycle system within the project site. The system will connect the residential area, neighborhood park and employment areas. The result will be a more diverse and dynamic economy with increased employment opportunities for residents. In light of the above information, the Pi'ilani Promenade supports I t e m s 7.3.1a and 7.3.1c, 7.3.1g, and 7.3.1i. Policy item 7.3.1h has been changed to "N/A" since the Pi'ilani Promenade is not an agriculture project.

Objective:	S	N/S	N/A
Objective 7.3.2 Facilitate more self-sufficient and sustainable communities.	~		
Policies:	S	N/S	N/A
7.3.2.a: When developing new communities, provide sufficient lands for commercial, appropriate industrial, educational, spiritual and non-profit uses to serve the daily needs of community residents.	~		
7.3.2.b: Site community facilities such as schools, parks, libraries, and community centers within walking and biking distance of residences.	~		
<ul><li>7.3.2.c: Facilitate self-sufficient communities and shorten commutes by:</li><li>a. directing residential development to job-rich areas;</li><li>b. Allowing appropriate commercial development and community services to shorten commutes; and</li><li>c. Allowing home occupations that are compatible with surrounding neighborhoods.</li></ul>	~		
7.3.2.d: Ensure that major employment centers are located in areas that encourage affordable employee housing and multi-modal transportation opportunities.	$\checkmark$		
7.3.2.e: Discourage the establishment of bedroom communities where long commutes are required to employment centers.	~		

7.3.2.f: Facilitate development of housing by focusing projects in	$\checkmark$	
locations where land and infrastructure costs facilitate the development		
of affordably-priced housing.		
7.3.2.g: Provide incentives to facilitate the development of multi-family	$\checkmark$	
housing.		
7.3.2.h: Encourage the placement of rental housing projects in the same	$\checkmark$	
areas for-sale housing to facilitate mixed-income communities.		
7.3.2.i: Develop communities that provide sufficient parks, schools,	$\checkmark$	
libraries, and other essential public facilities and services to serve		
resident needs.		

*Analysis:* The Pi'ilani Promenade is strongly supportive of Objective 7.32 and its subordinate policies. Recognizing the importance of locating jobs near housing, the plan incorporates 226 rental housing units of. While the proposed housing won't create a complete equilibrium of jobs-housing, it will significantly alleviate the necessity for vehicular trips to and from the Pi'ilani Promenade. The Pi'ilani Promenade is centrally located close to regional recreation and educational facilities that together with retail and industrial uses will complement the larger Kihei community.

As discussed in Section II.E.<del>3</del> and 4 (Proposed Action Project Description) the proposed project incorporates New Urbanism planning techniques and urban design strategies which help to create a settlement pattern that by its more compact and mixed-use character is less dependent on motorized transportation. These techniques and strategies will facilitate a self-sufficient community and result in shorter commutes by offering multi-modal transportation opportunities. The Plan also makes considerable investment into infrastructure that supports a unified pedestrian and bicycle system within the project site and will provide opportunities for future connectivity to its existing and future surroundings.

Objective:	S	N/S	N/A
Objective 7.3.3 Strengthen the island's sense of place.	$\checkmark$		
Policies:	S	N/S	N/A
7.3.3.a: Protect and enhance the unique architectural and landscape	$\checkmark$		
characteristics of each community.			
7.3.3.b: Encourage Hawaiian Architecture and tropical building designs.	$\checkmark$		
7.3.3.d: Strongly encourage the preservation of buildings, structures, and	$\checkmark$		
sites of historic significance.			

7.3.3.e: Require Community-based Public Design Charrettes/Design	$\checkmark$	
Workshops for major new urban expansion, new towns, and major		
urban infill projects.		
7.3.3.f: Require design enhancement, landscaping, and integration of	$\checkmark$	
park and rides, bicycle parking areas and mass transit infrastructure to		
mitigate the effect of parking lots and structured parking on the urban		
landscape.		
7.3.3.g: Ensure that safe and attractive public spaces (e.g., plazas, parks,	$\checkmark$	
town/village squares) are provided throughout the island's urban areas.		

Analysis: The Pi'ilani Promenade updated plan was prepared with community input. Numerous meetings were conducted and presentation given to community stakeholders, including the Kihei Community Association, neighboring property owners, Urban Design Review Board and State and County agencies.

In order to create a sense of place, the Applicant proposes a diversification of uses within the Park. Creating a "place", a location which people are drawn to, involves a combination of factors. Among others, these factors include diversification of land uses and creation of an attractive and welcoming public realm. A satisfying and interesting place contains a variety of users and activities, and is friendly to people on foot. In order to create a place, the project proposes the creation of housing, retail, and open spaces to the site will add amenities for business attraction and retention and will create a true neighborhood in place of the vacant land that exists today. The combination of elements will create synergies beyond what all of these land uses would add up to as separated pods, and this added energy will drive development of employment of the Pi'ilani Promenade.

The Pi'ilani Promenade will provide open space that will be landscaped with native plants and shade trees. A core feature of the plan is a 2-acre park space adjacent to the proposed residential component of the project. Pedestrian walkways and bikeways will be landscaped and incorporated throughout the site.

Objective:	S	N/S	N/A
Objective 7.3.5 Ensure that Maui's Planning process becomes more	$\checkmark$		
transparent, efficient and innovative.			
Policies:	S	N/S	N/A
7.3.5.a: Encourage greater community involvement in land use planning	$\checkmark$		
and decision making.			
7.3.5.b: Establish a predictable and timely development review process	$\checkmark$		
that facilitates the approval of projects that meet planning and			
regulatory requirements.			

20 ANN			
7.3.5.c: Increase inter-agency coordination between the Department of	$\checkmark$		
Planning and all State and County agencies responsible for			
infrastructure and public facilities provision.			
7.3.5.d: Provide greater certainty and transparency in the development	$\checkmark$		
review process.			
7.3.5.e: Expand and maintain land use and geographic information			$\checkmark$
system databases for improved decisions and make data and products			
available to the public.			
Analysis: The Environmental Review process has and will continue to f	acilita	ate a grea	t deal of
community involvement in the decision making process for the propos	ed Pi'	ilani Proi	nenade.

#### F. KIHEI-MAKENA COMMUNITY PLAN

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas including infrastructure-related parameters.

The Pi'ilani Promenade is located within the Kihei-Makena Community Plan (KMCP) region. The KMCP was adopted by Ordinance No. 2641 on March 6, 1998. The property is designated for (LI) Light Industrial uses by the KMCP. The KMCP defines "Light Industrial (LI)" as follows: "This is for warehousing, light assembly, service and craft-type industrial operations." The County of Maui Planning Department has consistently interpreted the KMCP's LI designation consistent with the M-1 Light Industrial zoning classification, as the KMCP specifically states that the goals, objectives and policies of the KMCP are implemented and effectuated through various processes, including zoning. Consistent with the Maui County long-standing application of the KMCP, the proposed projects complies with the LI designation in the KMCP. This issue, and the possible alternative of seeking an amendment of the KMCP, is discussed further under section V. D. Unresolved Issues.

#### **Interregional Issues**

The Kihei Makena Community Plan identifies Major Public Facilities and Upcountry transportation connection as the two (2) primary Interregional Issues important to the South Maui community.

#### 1. Major Public Facility

The project will include the off-site development of a MECO substation to provide electrical power to the proposed project and anticipated future surrounding development. The Facility will be built and operated by MECO on land provided by the proposed project.

#### 2. Upcountry Transportation Connection

The Pi'ilani Promenade improvements will include construction of a portion of the future Kihei Upcountry Highway (KUH) which is planned to intersect Pi'ilani Highway at Kaonoulu Street and extend mauka towards Haliimaile intersection with Haleakala Highway. Subsequent to the adoption of the KMCP in 1998, the Hawaii Department of Transportation formalized the location of the KUH. The KUH is considered both a major public facility and interregional infrastructural element. The portion of the KUH that bisects the project Promenade project will be constructed by the project and will be subsequently dedicated to the State of Hawaii.

The goals, objectives, and policies of the KMCP that are relevant to the proposed project are discussed below. In response to comments on the DEIS various goals, objectives and policies have been revised to more accurately reflect the proposed project as it relates to various government plans.

Kihei Makena Community Plan	S	N/S	N/A
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
Land Use			
Goal: A well-planned community with land use and development patterns a efficient and timely provision of infrastructural and community needs while pro the unique character of Ma'alaea, Kihei, Wailea and Makena as well as the region marine resources and traditional shoreline uses.	eservii	ng and en	hancing
Objectives and Policies:	S	N/S	N/A
a. Acquire beachfront properties for public use.			$\checkmark$
b. Identify priority growth areas to focus public and private efforts on	$\checkmark$		
the provision of infrastructure and amenities to serve existing residents			
and to accommodate new growth.			
c. Upon adoption of this plan, allow no further development unless	≁		$\checkmark$

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development are available prior to or concurrent with the impacts of		
new development.		
d. Limit hotel uses to those areas presently planned for hotel use, and	≁	$\checkmark$
limit hotel development until adequate public facilities and services are		
established to meet existing needs.		
e. Establish a system of parks, utility easements, shoreline areas,	$\checkmark$	
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.		
f. Establish a distribution of land uses which provides housing, jobs,	≁	$\checkmark$
shopping, open space, and recreation areas in close proximity to each		
other in order to enhance Kihei's neighborhoods and to minimize		
dependence on automobiles.		
g. Encourage the establishment of single-family and multi-family land	$\checkmark$	
use designations which provide affordable housing opportunities for		
areas which are in close proximity to infrastructure systems and other		
urban services.		
h. Develop commercial services at the following locations to meet		$\checkmark$
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 <i>existing</i> commercially zoned areas along South		
Kihei Road in the vicinity of Kalama Park. 4) Along South Kihei Road		
opposite the Kamaole beach parks.		
i. Limit commercial services to neighborhood business uses or other low-	$\checkmark$	
key business activities with a residential scale on those properties which		
abut single-family residential areas.		
j. Locate resort-related retail commercial facilities at strategic points in		$\checkmark$
the Wailea and Makena destination areas.		
k. Provide for limited expansion of light industrial services in the area	$\checkmark$	
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.		

1. Preserve coastal vistas, open space and recreational opportunities	$\checkmark$		
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.			
m. Provide for limited residential expansion in Ma'alaea which			$\checkmark$
complements the existing natural and built environment.			
n. Maintain State Conservation District boundaries in the planning			$\checkmark$
region. However, State Conservation District reclassification of lands			
may be warranted to enhance environmental preservation.			
o. Establish a site for a future higher educational institution north of the			$\checkmark$
research and technology park project district.			
p. Prevent urbanization of important agricultural lands.	$\checkmark$		
q. Allow ohana units only where sufficient infrastructure is available.			~
r. Allow special permits in the State Agricultural Districts to			$\checkmark$
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.			
<u>Analysis:</u> The Applicant has changed items c, d and f to read "N/A". The	rema	ining ite	ems in
this section are supported by the Project.		0	
Implementing Actions:	S	N/S	N/A
a. Prepare a prioritized island-wide directed and managed growth			$\checkmark$
strategy to ensure that the location, rate and timing of development is			
consistent with the provision of infrastructure and public facilities and			
services.			
b. Include conditions of approval for new residential developments	≁		$\checkmark$
requiring that adequate school facilities shall be in place before a			
certificate of occupancy is issued.			
c. Prepare an Open Space Master Plan for the region to provide a		Ī	✓
unified system of non-motorized access to community resources, and to			
provide a planned program of resource stewardship. Establish standards			
	t	1	1

for the use of drainage ways, gulches, wetlands, and easements for		
public access. 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. 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.		
d. Control the timing and phasing of project district construction		$\checkmark$
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.		
e. Review, amend and adopt, as appropriate, zoning ordinances and	≁	$\checkmark$
maps to carry out the intent of the land use categories identified in the		
plan.		
f. Establish and enforce building height limits and densities <i>mauka</i> of	≁	$\checkmark$
Pi'ilani Highway which preserve significant <i>mauka</i> views and vistas.		
Analysis: The Applicant has changed items b, e, and f to read " $N/A$ ".		

The Pi'ilani Promenade is located in North Kihei, within the Maui Island Plan's Urban Growth Boundary. The proposed project will be developed in accordance with smart growth and New Urbanism planning principles, and will encompass a distribution of land uses that provide housing, jobs, neighborhood shopping, and open space and recreation areas in close proximity to each other (goals f and g). The project also incorporates rental housing that will provide affordable units for Maui residents.

As discussed in Section II.E.<del>3</del> and 4 (Proposed Action Project Description), the proposed project incorporates New Urbanism planning techniques and urban design strategies which help to create a settlement pattern that is more compact and mixed-use in character. This will facilitate a self-sufficient development and result in shorter commutes by offering multi-modal transportation opportunities. The proposed project will also make a considerable investment in infrastructure which will support a unified pedestrian and bicycle system within the project with opportunities for extending and connecting these systems to existing and future development in surrounding areas (goals b, c, and f).

As discussed in Section III.A.10 (Agricultural Resources), The LSB and ALISH classification systems indicate that the lands underlying the project site possess poor soil and low soil ratings for productive agricultural uses. As such, the utilization of these poorly-rated agricultural lands for urban use and development is deemed appropriate.

The proposed project will comply with the 60-foot maximum building height limit set forth by Chapter 19.24, MCC pertaining to M-1, Light Industrial zoning which will help minimize potential adverse impacts on mauka views toward Haleakala.

The subject property is located in North Kihei, south of Ohukai Road, and mauka of Pi'ilani Highway. This area was designated in the KMCP for light industrial use in order to encourage urban expansion in the area mauka of Pi'ilani Highway (goal k). The original conceptual plan of 123 light industrial lots, which fit squarely within that designation, is no longer desirable or economically viable. Since the KMCP was adopted in 1998, the proposed planning for that area has adjusted. Other developments south of Ohukai and mauka of Pi'ilani are predominantly retail, with only some instances of true light industrial uses. The community planning process has evolved since 1998, and the current Maui Island Plan indicates that the Pi'ilani Promenade is located within the Urban Growth Boundary, and is surrounded by areas currently not zoned for urbanization, but designated as "planned growth areas." The Maui Island Plan specifically cites the need for mixed-use neighborhood centers "to provide services and jobs within close proximity to where people live and provide a more efficient land use pattern." Maui Island Plan at 8-27.

The Pi'ilani Promenade project follows these more recent planning guidelines, providing a mixed use that fits within the existing M-1 zoning, and provides a mix of light industrial, retail, and residential uses. Therefore an updated plan was prepared for this EIS which responds to the most current trends in the development of multi-use retail-living centers nationwide. The proposed project will strengthen Maui's economy by making the Pi'ilani Promenade a more attractive location for the limited light industrial activities envisioned within the KMCP as well as much needed retail businesses. These businesses will create a diverse range of jobs for Maui residents which, in turn, will benefit the local and Statewide economy. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires, which will promote increased employment and entrepreneurial opportunities for Maui's residents. Thus, while the Pi'ilani Promenade project does not strictly support all of goal k in the KMCP, it meets other important competing planning criteria within the KMCP. The County of Maui has interpreted the Pi'ilani Promenade project as complying with the KMCP, as the KMCP provides that the goals and objectives are guidelines to the ultimate implementation of the plan. This issue, and the possible amendment of the KMCP, is discussed further in section VI.D. Unresolved Issues.

Environment

Goal: Preservation, protection, and enhancement of Kihei-Makena's unique and fragile environmental resources.

**Objectives and Policies:** 

S

a. Acquire beachfront properties for public use.		$\checkmark$
b. Preserve, protect, and restore unique natural areas with significant conservation values.		~
<ul> <li>conservation values.</li> <li>c. Require that new shoreline development respect shoreline resources and maintain public access:</li> <li>1) Existing dune formations are important elements of the natural setting and should remain intact.</li> <li>2) Indigenous or endemic strand vegetation should remain undisturbed; new development and landscaping should treat such vegetation as given conditions.</li> <li>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.</li> </ul>		
<ul> <li>replenishment shall be the preferred means of controlling erosion, as opposed to sole reliance on seawalls or other permanent shoreline hardening structures.</li> <li>4) Storm water run-off from proposed developments shall not adversely affect the marine environment and nearshore and offshore water quality.</li> <li>5) Planning, design, and layout for new development shall be integrated with public shoreline use and sound principles of resource management.</li> </ul>		
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.		<b>√</b>

e. Protect the quality of nearshore waters by ensuring that land-based	$\checkmark$		
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.			
f. Protect all wetland resources, such as those at Kealia Pond and near	$\checkmark$		
Road "C". These open space and wildlife habitat resources are important			
for flood control and for their natural beauty.			
g. Require the integration of wetlands and drainageways into an open			$\checkmark$
space, pedestrian pathway, and bikeway system within and around the			
Lipoa business district.			
h. Encourage such land uses as would serve to reduce hazardous fire	$\checkmark$		
conditions in the developed community plan areas.			
i. Discourage shoreline hardening structures where North Kihei Road			$\checkmark$
abuts the coastline. Instead, use soft approaches such as dune restoration			
and beach nourishment with or without supporting structures.			
Implementing Actions:	S	N/S	N/A
a. Implement programs to reduce the reliance on injection wells for		-	$\checkmark$
wastewater disposal.			
			$\checkmark$
b. Establish and maintain a monitoring program for nearshore waters.			v
c. Support the development of the Ma'alaea-Kealia bypass highway.	$\checkmark$		
d. Develop a master plan for a recreational coastline access along North			$\checkmark$
Kihei Road once the Ma'alaea-Kealia bypass is planned.			
e. Facilitate protection of valuable shoreline resources in the Open Space			$\checkmark$
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.			
f. Survey, map, and describe the mauka boundaries of the State Beach			$\checkmark$
1. Survey, map, and describe the maaka boundaries of the State Deach		1	1
Reserves to delineate between public and private property.			
Reserves to delineate between public and private property.			$\checkmark$
			<ul> <li>✓</li> </ul>

provide pedestrian lateral accesses to the Kihei-Makena shoreline, and to protect and maintain traditional shoreline access.		
h. Initiate a wetlands enhancement project with the Kihei Franks development in coordination with the enhancement of the County owned wetland adjacent to Saint Theresa's Church. Include a pedestrian and bike path to allow school children to access the beach and greenway.		V
i. Develop and implement a strategy for sand dune protection.		$\checkmark$
j. New studies should be commissioned that seek to better understand site-specific causes of coastal erosion.		~
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.		~

<u>Analysis</u>: The proposed project will not impact Kulanihakoi Gulch or any coastal wetlands. The increase between pre- and post-development stormwater volume generated by the project site will be captured and stored onsite which will minimize potential drainage impacts to downstream and neighboring properties.

The Pi'ilani Promenade is not located on the coastline; therefore policies regarding shoreline resources are not applicable. It should be noted, however, that Best Management Practices will be implemented during the construction and operation of the project to mitigate non-point source pollution to Maui's coastal resources. In addition, mitigation measures will be identified through the <u>F</u>EIS and regulatory review processes to help address any environmental impacts that may arise from the Project.

To mitigate the potential of wildfires occurring on the subject property, site work for the development of the Pi'ilani Promenade will involve the removal of existing surface vegetation (*e.g.*, buffelgrass) which could fuel fires. Additionally, the construction of buildings, roadways, and irrigated landscape plantings will help reduce the risk of wildfires.

In light of the foregoing, it can be concluded that development of the site will not impact environmental resources on the property or within its immediate vicinity.

#### Cultural Resources

Goal: Identification, preservation, enhancement, and appropriate use of cultural resources, cultural practice, and historic sites that:

	S	N/S	N/A
a. Provides a sense of history and defines a sense of place for the Kihei Makena region;	*		<u>√</u>
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).	*		<u>✓</u>
Objectives and Policies:	S	N/S	N/A
a. Identify, preserve, protect and restore significant historical and cultural sites.	~		
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.	✓ 		√
c. Encourage and protect traditional <i>mauka</i> and <i>makai</i> accesses, cultural practices and rural lifestyles.			v
d. Protect those areas, structures and elements that are a significant and functional part of Hawaii's ethnic and cultural heritage.			~
e. Encourage community stewardship of historic sites.			$\checkmark$
f. Preserve and restore historical roads and paths as cultural resources, and require such resources to be available to the public.			$\checkmark$
g. Recognize and respect family ancestral ties to certain sites.			$\checkmark$
h. Establish "cultural parks" and heritage corridors for visitation and education.			$\checkmark$
i. Establish cultural and educational programs to perpetuate Hawaiian and other ethnic heritages.			~
j. Develop a County ordinance for indigenous architecture.			$\checkmark$
<i>Analysis:</i> the items listed in the Objectives and Policies section are N/A valued cultural, historical, or natural resources in the Project site, and traditional and customary native Hawaiian rights exercised within documented in the CIA and SCIA prepared for the Project.	becau	use ther	e are no
Implementing Actions:	S	N/S	N/A
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.	*		<u>✓</u>

<ul> <li>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.</li> <li>c. Implement a historic or cultural district overlay ordinance to provide</li> </ul>	✓	✓
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.		
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. 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. Because of high public interest and the contiguous nature of the sites, consideration should be given to educational uses of the sites.		
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.		✓
<ul> <li>f. General sites that should be identified for preservation include, but are not limited to, the following:</li> <li>1) Ancient Trails/Old Government Roads</li> <li>2) Fishponds</li> <li>3) Landings</li> <li>4) Nearshore marine cultural resources</li> <li>5) Significant native vegetation zones</li> </ul>		×

S.C.	

<ul> <li>6) Plantation ditch systems</li> <li>7) Religious Structures (shrines, churches &amp; heiau)</li> <li>8) Old bridges</li> </ul>	
, , , , , , , , , , , , , , , , , , , ,	
8) Old bridges	
of one one of the of th	
9) Plantation camps	
10) Plantation era structures & homes	
11) Petroglyphs	
12) Burials	
g. Important sites and areas in the Kihei-Makena Community Plan $\checkmark$	
region include the following:	
1) Lahaina-Pali Trail	
2) McGregor's Landing	
3) Ma'alaea/McGregor Complex	
4) Ma'alaea Petroglyphs	
5) Kealia Pond	
6) Naval Air Station Pu`unene	
7) Kihei Landing	
8) Keolahou Church	
9) Kalepolepo Fishpond	
10) David Malo Church	
11) Waiohuli Kai Fishpond	
12) <i>Ko`a</i> at Waimahaihai, Kama`ole	
13) Kihei Regional Park Complex	
14) Kama`ole House Site	
15) Palauea Complex	
16) Makena Landing Area Sites	
17) Makena Complex	
18) Keawala`i Church	
19) Pu`u Olai	
20) Mo`omuku Ko`a	
21) Kanahena Landing Area	
22) Moanakala Village	
23) Kanahena Point Complex	
24) Kalaeloa Complex	
25) Keone`o`io Village	
26) Hoapili Trail	
27) Keawanaku Complex	
28) Wawaloa Complex	
29) Alaha Complex	
30) Waiakapuhi Complex	

31) Kalulu Complex	
The above list is not comprehensive. It represents some of the well	
known 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.	
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.	

<u>Analysis:</u> The Applicant has changed implementing action item a to read "N/A" because the project is not proposing to prepare a Kihei Makena specific cultural resources management plan.

As discussed in Section III.A. 8 (Historical and Archaeological Resources), the proposed project will not impact Kulanihakoi Gulch and is not anticipated to significantly impact the physical environment. The project promotes the preservation of historic resources and the Applicant's Archaeologist submitted a data recovery plan that was received by the SHPD on June 17, 2016 and approval is pending. will work with the State Historic Preservation Division to prepare a data recovery plan.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the <u>DFEIS</u>. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. There was discussion about how the known archaeological sites could be incorporated into the design of the project and/or landscaping plan. Due to the location of sites relative to infrastructure site development requirements preservation of sites is not possible; however, data recovery has been proposed for selected sites within the project area. In previous archaeological work done on the site a petroglyph stone was identified. Under the original ranch ownership this stone was relocated to more appropriate location in the Ahupua'a and a relocation report done, submitted and approved by SHPD for the relocation effort. It was suggested that perhaps the original landowner would be willing to relocate the stone to the property. The landowner was asked about this possibility and declined the request. In

addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

As discussed in Section III.B.4 (Cultural Resources) the cultural impact statement (CIA) <u>and</u> <u>the SCIA</u> which <u>was were</u> prepared for the proposed project reported that there were no visible cultural resources, (*i.e.* medicinal plants, shoreline resources, religious sites, or archeological resources) observed on the property. From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or any gatherings currently taking place on the site. The oral history interviews did not reveal any known gathering places on the subject property nor did any access concerns surface as a result of the proposed Project. In light of the foregoing, it can be concluded that development of the site will not impact cultural resources on the property or within its immediate vicinity.

#### **Economic Activity**

Goal: A diversified and stable economic base which serves resident and visitor needs while providing long-term resident employment.

Objectives and Policies:	S	N/S	N/A
a. Establish a sustainable rate of economic development consistent with	$\checkmark$		
concurrent provision of needed transportation, utilities, and public			
facilities improvements.			
b. Expand educational opportunities and encourage research and	≁		$\checkmark$
technological activities.			
c. Encourage research, development, and use of alternate energy sources.	$\checkmark$		
d. Establish balance between visitor industry employment and non	≁		$\checkmark$
visitor industry employment.			
e. Provide for the preservation and enhancement of important			$\checkmark$
agricultural lands for a variety of agricultural activities, including sugar			
cane, diversified agriculture and aquaculture.			
f. Increase the availability and variety of commercial services to provide	$\checkmark$		
for regional needs and strategically establish small scale commercial uses			
within, or in close proximity to, residential areas.			
Implementing Actions:	S	N/S	N/A
a. Seek State and private support for the establishment of a four-year			$\checkmark$
university in the Kihei-Makena region.			
b. Establish a comprehensive data base to analyze county and regional			$\checkmark$
economic statistics.			

c. Where feasible within the region, utilize alternate energy sources in all	$\checkmark$			
public structures, and encourage the same in private residences.				
Analysis: The Project site is located on the mauka side of Pi'ilani Highway and supports item				
a and f by creating the opportunity for economic development by permitting a variety				
commercial services within close proximity to the existing and proposed	reside	ential ar	eas. The	
Applicant has changed items b and d to read "N/A".				

As discussed in Section III.B.3 (Economy), the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

The proposed project will incorporate New Urbanism principles in a manner that will reduce the Project's environmental impacts while creating a more livable community. The design will enhance the physical quality of the property by providing housing and a variety of commercial facilities and services which are supported by commensurate infrastructure.

As discussed in Section III.D.6 <u>5</u>(Utilities <u>Electrical</u>), the Pi'ilani Promenade will include energy-efficient design and energy conservation measures; specifically, in areas such as lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion of the development and the installation of Photovoltaic Energy Systems will be encouraged where feasible and appropriate.

Goal: A variety of attractive, sanitary, safe and affordable homes for	or Ki	hei's ro	esidents,
especially for families earning less than the median income for familie	s wit	hin the	County.
Also, a built environment which provides complementary and ac	esthet	ically	pleasing
physical and visual linkages with the natural environment.			
Objectives and Policies:	S	N/S	N/A
a. Provide an adequate variety of housing choices and range of prices for	$\checkmark$		
the needs of Kihei's residents, especially for families earning less than			

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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.			
b. Require a mix of affordable and market-priced housing in all major	$\checkmark$		
residential projects, unless the project is to be developed exclusively as			
an affordable housing project.			
c. Preserve Kihei-Makena's significant views of the Pacific Ocean and the	$\checkmark$		
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.			
d. Provide for integration of natural physical features with future	$\checkmark$		
development of the region. New development shall incorporate features			
such as gulches and wetlands into open space and pedestrian pathway			
and bikeway systems.			
e. Implement landscaped setbacks for future multi-family and	$\checkmark$		
commercial areas. Developments shall provide space for landscaped			
pedestrian ways and bikeways.			
f. Incorporate the principles of xeriscaping in all future landscaping.	$\checkmark$		
g. Encourage the use of native plants in landscaping in the spirit of Act	$\checkmark$		
73, Session Laws of Hawaii, 1992.			
h. Recommend to the Maui County Arborist Committee for			$\checkmark$
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.			
Implementing Actions:	S	N/S	N/A
a. Develop a comprehensive strategy for housing assistance which	1		$\checkmark$
coordinates all available public and private resources and incorporates			
appropriate regulatory measures.			
b. Explore modifying zoning, building and subdivision codes to	$\checkmark$		
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.			
0	1	1	1

c. Plant appropriate trees, turfgrass, and ground covers along existing	$\checkmark$	
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.		
d. Provide landscaped buffer areas between Pi'ilani Highway and	$\checkmark$	
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.		
e. Provide an aesthetic landscaped entry-way and park at the north end		$\checkmark$
of Kihei, north of the future commercial area. Provide a similar Kihei		
entry-way at Road C.		
f. Develop Kihei-Makena Urban Design Guidelines to address	$\checkmark$	
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 Kama`ole Parks neighborhood.		 
g. Implement streetscape beautification through an "adoption" program	$\checkmark$	
for trees, sidewalks, street frontages, and intersections.		
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 Kama`ole Parks neighborhood. g. Implement streetscape beautification through an "adoption" program		

*Analysis:* As discussed in Section III.B.2 (Housing), the Pi'ilani Promenade will offer multifamily housing opportunities for Maui residents. The project will include affordable rental housing units in compliance with Chapter 2.96, MCC Residential Workforce housing Policy.

Park and open space areas within the Pi'ilani Promenade will be landscaped with droughttolerant native plant species, as well as shade trees to enhance and provide protective cover for the park. Street trees will be planted along the project's internal roadways and along its interior bicycle and pedestrian network. Landscape design will be mindful of irrigation water requirements and will use recycled water to the extent it is available. The Maui County Planting Plan will serve as a resource for the selection of landscape planting materials for the Project's parks, open space areas, and along its roadways.

### Physical and Social Infrastructure

Goal: 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, and fully support present and planned land uses, especially in the case of project district implementation.

Allow no development for which infrastructure may not be available concurrent with the
development's impacts.

Transportation			
Objectives and Policies:	S	N/S	N/A
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.	V		
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 <i>mauka</i> of Pi'ilani Highway.			
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.			
d. Support ridesharing, bicycle and pedestrian use, alternative work schedules, traffic signal synchronization, and/or other transportation demand management strategies.			
e. Support a new bypass highway <i>mauka</i> 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.			
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.	*		<u>✓</u>
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.	<ul> <li>✓</li> </ul>		
h. Encourage joint public/private participation in the planning, design and construction of roadway improvements, especially those identified in this plan.	~		

i. Support the planning and design of the Ma'alaea-Kealia bypass	≁	$\checkmark$
highway in order to address potential environmental concerns of North		
Kihei Road, and its proximity to the shoreline.		

*Analysis:* The Pi'ilani Promenade supports the Kihei Design Guidelines. The project's non-vehicular transportation strategy includes: 1) compact and mixed-use development patterns, 2) integrating pedestrian-oriented streets, street trees, sidewalks, and traffic calming features, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity to adjacent developments including Kihei High School and land uses *makai* of Pi'ilani Highway.

The Applicant has changed items f and i to read "N/A" because the Project does not protect and preserve the traditional rural scale and character of existing portions of old Makena Road because the Project is located in Kihei. Item i has been changed to "N/A" because the Project does not involve the planning and design of the Ma'alaea-Kealia bypass highway.

Implementing Actions:	S	N/S	N/A
a. Plan, design and construct a new Road "C", from South Kihei Road to			$\checkmark$
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.			
b. Plan, design and construct appropriate sections of a new North-South			$\checkmark$
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.			
c. Widen Pi'ilani Highway, between Mokulele Highway and Wailea Ike			$\checkmark$
Drive, to four lanes. In terms of roadway improvements within the			
community plan region, this shall be the third priority.			
d. Plan, design and construct a new Road "B", from South Kihei Road to			$\checkmark$
the new North-South Collector Road, to improve internal circulation in			
the Central Kihei area.			
e. Plan, design and construct a new Road "A", from Road "B" to Lipoa			$\checkmark$
Street, to provide increased circulation in the Lipoa business area.			

f. Provide clear signage with adequate lighting along Pi'ilani Highway	$\checkmark$	
to indicate Kihei access points. Also provide a landscape buffer and bike		
path on both sides of Pi'ilani Highway.		
g. Provide left turn storage lanes and acceleration/deceleration lanes on	$\checkmark$	
Pi'ilani Highway, and traffic signals at important intersections along		
South Kihei Road.		
h. Widen Mokulele Highway to four lanes.		$\checkmark$
i. Preserve and enhance the identity of Kihei's neighborhoods by		$\checkmark$
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/bike path to		
provide non-motorized public access along the full length of the road		
reserve. In sections where no roadway is built, the trail/greenway/bike		
path may be broadened to form a neighborhood park, public access, or		
open space area.		

*Analysis:* A Traffic Impact Analysis Report (TIAR) was prepared for the Project and is discussed in Section III.D.1 "Roadways" and in Appendix M. The TIAR identifies the impact of the proposed project on the region's roadways and identifies the necessary on- and off-site roadway improvements to mitigate project-related traffic impacts. These proposed improvements include planned State and County capital improvement projects (CIP), as well as improvements that will be initiated by the Pi'ilani Promenade and other participating landowners in response to their development proposals.

The gradual build-out of the project will increase traffic to and from the project site. As mentioned in Section III.D.1 "Roadways" and in Appendix M<u>-1</u>. The recommended mitigation measures as part of the proposed project include modification and expansion of the Pi'ilani Highway at Kaonoulu Street intersection to provide left turn, right turn, and through lanes. The intersection will be signalized as a part of surrounding developments.

Growth and development in the Kihei-Makena Community Plan region (independent of the Pi'ilani Promenade) will be the major cause of traffic impacts to the region's roadways in the future. The Pi'ilani Promenade will be an active partner in working with the State and County, as well as area developers to ensure that regional roadways operate at an acceptable levels-of-service.

The Pi'ilani Promenade supports the Kihei Design Guidelines. The project's non-vehicular transportation strategy includes: 1) compact and mixed-use development patterns, 2) integrating pedestrian-oriented streets, street trees, sidewalks, and traffic calming features, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity

to adjacent developments including Kihei High School and land uses makai of Pi'ilani Highway.

The Project is located in north Kihei close to residential areas adjacent to the Pi'ilani Highway and not located within close proximity to the existing public schools in Kihei, however it is anticipated that educational facilities in addition to the Kihei High School will be built mauka of Pi'ilani Highway, therefore this Project site will become an integral piece of future developments mauka of Pi'ilani Highway. The Project site will serve as a link between the existing neighborhoods surrounding Ohukai Road to the future Kihei High school. As mentioned a pedestrian easement will be provided from Ohukai Road into the Project site's network of sidewalks and bike paths.

From a regional perspective, as part of the Kihei High School project conditions of approval, the DOE must provide an over or underpass across Pi'ilani Highway to provide safe pedestrian access, which will likely become a primary pedestrian route connecting developments mauka and makai of Pi'ilani Highway. Furthermore there will be an opportunity to provide lateral access along Pi'ilani Highway across Kulanihakoi and Waipuilani Gulches to the MRTP.

The on-site pedestrian oriented improvements proposed as part of the Project will reduce the need for the automobile and create a healthier lifestyle for those who live there, and the off-site easement will expand the regional non-vehicular transportation network.

The transportation demand and management measures proposed for the project include encouraging alternate work schedules and off-peak hours for employment generators and supporting park and ride, ridesharing, carpooling, and van pooling. In addition, the Applicant will also meet with the Maui Department of Transportation to discuss the possibility of establishing bus stops within the project site. At the time of submittal of this FEIS, the Maui DOT is not planning a bus route to service the Project. As demand is created in South Maui, the Maui DOT will evaluate the need for additional bus stops mauka of Pi'ilani Highway.

Water Distribution			
Objectives and Policies:	S	N/S	N/A
a. Provide for appropriate water source and transmission improvements concurrent with planned growth of the Kihei-Makena region.	~		
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.	~		
c. Develop water conservation, reuse and educational programs.	$\checkmark$		

d. Encourage the use of non-drinking water for irrigation purposes and	$\checkmark$	
water features. Prohibit the use of drinking water in large water features		
or require substantial mitigation fees.		
e. Encourage the use of plants which have a relatively low need for	$\checkmark$	
water		

*Analysis:* A Preliminary Engineering Report (PER) was prepared for the Project and is discussed in Section D3-5 (Drainage, Water and Wastewater) and in Appendix L. The proposed project will be served by the County's public water system which is owned and operated by the Department of Water Supply (DWS). The PER describes the water source and transmission improvements which are required for the project and will be coordinated with the DWS.

The development of the Pi'ilani Promenade will involve the construction of a 1.0 MG water tank and associated infrastructure which will connect to the County water system and be used by the project and the public. The proposed water system improvements will be dedicated to the County upon completion.

The Project will incorporate water conservation measures to minimize drinking water demand. These measures may include the use of water conserving fixtures, the use of reclaimed and brackish water for irrigation, the use of drought-tolerant plant materials, and the use of efficient low-flow irrigation systems.

Liquid and Solid Waste			
Objectives and Policies:	S	N/S	N/A
a. Coordinate improvements to sewer transmission lines and wastewater reclamation 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.	~		
c. Reduce the reliance on injection wells for wastewater disposal. Require the use of reclaimed effluenta procedure which is safe, economical and environmentally soundfor irrigation of golf courses, parks and landscaped areas.			V
d. Encourage public awareness of the need to reduce, reuse, recycle and compost waste materials, and make composting facilities available to the public.	~		

*Analysis*: As discussed in Section III.D.3 (Wastewater), the Pi'ilani Promenade is expected to generate 114,000 gallons of wastewater per day. The development will connect to the existing County sewerage system at an appropriate location where the County's sewer system has sufficient capacity to accept the wastewater generated by the project.

A solid waste management plan will be coordinated with the Solid Waste Division of the Maui Department of Environmental Management (DEM), for the disposal of onsite and constructionrelated waste material. After construction, the Pi'ilani Promenade's Owners and Tenants Association will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills. Waste materials comprised of paper, aluminum, glass, and plastic products will be recycled to the extent possible. Waste that cannot be recycled will be sent to the Central Maui Landfill in the Pu`unene area.

Drainage
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Objectives and Policies:	S	N/S	N/A
a. Design drainage systems that protect coastal water quality by	$\checkmark$		
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.			
b. Construct necessary drainage improvements in flood prone areas.	$\checkmark$		
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.			
c. Support the implementation of flood control projects and sediment	$\checkmark$		
retention basins mauka of Pi'ilani Highway to address present problem			
areas.			
d. Minimize the increase in discharge of storm water runoff to coastal	$\checkmark$		
waters by preserving flood storage capacity in low-lying areas, and			
encouraging infiltration of runoff.			
e. Encourage the use of setbacks and flood protection areas as part of	$\checkmark$		
an open space pedestrian-way and bikeway network throughout the			
region.			

Implementing Actions:	S	N/S	N/A
a. Formulate a drainage master plan for Kihei-Makena that considers the	$\checkmark$		
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.			
b. Establish a comprehensive program of improvements to the storm	$\checkmark$		
drainage system; implement a maintenance program; and ensure that			
safety, property loss, pollutant removal, and the need for comprehensive			
planning, are considered.			
c. Revise the County drainage rules to require that drainage system	$\checkmark$		
design shall not adversely affect downstream and coastal water quality.			

*Analysis*: As discussed in Section III.D.2 (Drainage), stormwater runoff from the Pi'ilani Promenade is not expected to have a significant adverse effect upon groundwater, downstream properties, or marine waters. In accordance with the County's "Rules for the Design of Storm Drainage Facilities" all drainage improvements will be designed to retain the incremental increase in runoff generated by the project site.

Stormwater will be collected and managed through a drainage system that will include onsite surface and subsurface drainage basins or chambers. These systems will be designed so that there will be no increase in the peak rate of stormwater runoff leaving the property compared to existing conditions. Best Management Practices (BMPs) will be implemented during the construction and operational phases of project development to protect coastal water quality. Temporary construction measures include, but are not limited to, dust screens, silt fences, filter berms, fuel containment berms, and tire cleaning pads. Construction BMPs will comply with the provisions of Chapter 20.08, MCC pertaining to "Soil Erosion and Sediment Control."

Permanent BMPs are measures that are part of the project and will remain in place after the construction has been completed. Permanent measures are intended to reduce stormwater pollution generated from the development of the project site. The use of detention basins, grassed swales, and permanent grassing, and the landscaping of exposed areas will be implemented to provide a level of stormwater filtration and pollution control.

Energy and Public Utilities			
Objectives and Policies:	S	N/S	N/A
a. Promote energy efficiency as the energy resource of first choice, and	$\checkmark$		
increase energy efficiency in all sectors of the community.			
b. Locate goods, services, and employment in close proximity to	$\checkmark$		
residential centers to minimize energy expenditures for transportation.			

Support the development of communication infrastructure and promote			
telecommuting to minimize travel.			
c. Increase the use of renewable resources in all County-owned			$\checkmark$
buildings, facilities, and vehicles. Utilize renewable energy for water			
pumping or other energy services which can take advantage of			
intermittent energy resources.			
d. Promote environmentally and culturally sensitive use of renewable	$\checkmark$		
energy resources like biomass, solar, wind, and hydroelectric energy in			
all sectors of the community.			
e. Support the establishment of an alternate fuels distribution			$\checkmark$
infrastructure.			
f. Interface County planning with the energy utilities' integrated	$\checkmark$		
resource planning programs.			
g. Encourage the provision of public utilities which will meet community	$\checkmark$		
needs in a timely manner.			
h. Require proper site selection, facility construction and monitoring of	$\checkmark$		
power generation facilities in order to minimize adverse environmental			
impacts upon the Kihei-Makena community.			
i. Increase the energy security of community "lifeline" facilities and			$\checkmark$
improve energy emergency response capabilities.			
Implementing Actions:	S	N/S	N/A
a. Develop incentives and requirements for energy-efficient building	$\checkmark$		
design and site development practices through various approaches,			
including modifications to building, zoning, and subdivision codes.			
b. Develop, compile and disseminate information on new energy			$\checkmark$
technologies, policies, and programs that may prove helpful to the			
community's economy and environment.			
c. Initiate an integrated County energy resource planning program.			$\checkmark$
d. Use energy-efficient street lights and develop appropriate street	$\checkmark$		
lighting standards for agricultural and rural areas.			
Analysis: Item b is supported by the Project. The Project site will allo	w Ki	l hei resi	idents to
minimize energy expenditures for transportation by making commercia			
Kihei, thereby relieving the need to travel to Kahului for such services. T	-		
the project will provide utilities prior to or concurrent with developm		-	
Section $\oplus$ III.D.6 <u>5</u> (Utilities Electrical), the Pi'ilani Promenade will inc			
design and conservation measures; specifically, in street lighting, a		0.	
acoust and conservation measures, specifically, in succer lighting, a	COI	ianion	ing, and

design and conservation measures; specifically, in street lighting, air-conditioning, and building materials. Solar hot water heaters will be utilized throughout the residential portion

of the development and the installation of Photovoltaic Energy Systems will be encouraged where appropriate and feasible.

Recreation			
Objectives and Policies:	S	N/S	N/A
a. Provide high-quality recreational facilities to meet the present and	$\checkmark$		
future needs of residents of all ages and physical ability.			
b. Provide for a range of park sizes and types at neighborhood,	$\checkmark$		
community and regional scales. New residential developments shall			
provide recreational facilities on-site to meet the immediate needs of			
project residents.			
c. Plan, design and construct a regional park on approximately 100-150			$\checkmark$
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.			
d. Encourage the construction of public parks adjacent to schools to			$\checkmark$
provide for joint utilization of facilities by school and community.			
e. Improve recreation facilities and services through the integration of			$\checkmark$
public parking, vehicular drop-offs and turnarounds, and sanitation			
facilities with facility planning and design.			
f. Improve public access to shoreline and nearshore resources through			$\checkmark$
the following measures:			
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.			
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.			
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.			

4) Provide setback areas with landscaping to enhance recreational use			
and scenic 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			$\checkmark$
could be located at the park site adjacent to Lokelani Intermediate			
School.			
h. Provide for adequate parking at all park facilities. Many existing			$\checkmark$
parks lack sufficient parking and require substantial increases in parking			
spaces.			
i. Support the creation and promotion of overnight campsites within the			$\checkmark$
region.			
Implementing Actions:	S	N/S	N/A
a. Designate appropriate locations and provide for community and	$\checkmark$		
neighborhood parks within the Kihei-Makena region.			
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.			
c. Implement Makena-LaPerouse Park for nature-oriented recreation,			$\checkmark$
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.			
d. Provide adequate maintenance programs and enforce existing			$\checkmark$
regulations regarding littering and defacement of public property at all			
public facilities.			
e. Create a master plan to rehabilitate the existing beach parks in the			$\checkmark$
region, and to develop County-owned lands designated for park use.			
Analysis: As discussed in Section II.E. <sup>3</sup> and 4 (Proposed Action Pro	iect E	Descript	tion), the
revised Pi'ilani Promenade plan includes 226 apartment units, include		-	
park for active play along with a unified pedestrian and bicycle system	0	U	
the park with existing and future development in the surrounding a			
Pi'ilani Promenade is subject to, and will comply with, the provisions			
MCC which requires developers to provide land and/or money for t			



Health and Public Safety

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Objectives and Policies:	S	N/S	N/A
a. Improve and expand the delivery of health and public safety services			$\checkmark$
to Kihei-Makena residents and visitors.			
b. Provide for the establishment of a health clinic with full emergency			$\checkmark$
services.			
c. Support a new full-service hospital facility in the Kihei-Makena Region			$\checkmark$
to be constructed as growth in the region and the island warrants.			
Implementing Actions:	S	N/S	N/A
a. Provide a police station in the Kihei-Makena region.			$\checkmark$
b. Expand firefighting and rescue capabilities, including the acquisition			$\checkmark$
of a new ladder truck, and the provision of a fire and ambulance station			
in the Wailea area.			

*Analysis:* Build-out of the Pi'ilani Promenade includes a new 1 MG water tank that provides additional fire flow and public safety in Kihei. However the project will increase demands upon Maui's Police and Fire Departments. In response to the impact that new development has on these facilities, the County has initiated the preparation of an impact fee ordinance that will collect monies for police and fire capital improvements. These monies will be collected from developers at the time of building permit issuance. The Applicant will work with the County to pay any such fees as required by ordinance. In addition, the Pi'ilani Promenade will generate property tax revenue that will help fund County facilities. The primary funding source for Police and Fire facilities on Maui are property tax revenues that are deposited into the County's General Fund.

The Pi'ilani Promenade is zoned for M-1, Light Industrial uses. While medical clinics are allowed by M-1 zoning, no health clinic with full emergency services is proposed as part of this project.

Education			
Objectives and Policies:	S	N/S	N/A
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.			✓
b. Enhance the classroom learning environment through measures which would reduce excessive temperature and background noise problems.			$\checkmark$

c. Consider a third elementary school site of approximately 20 acres in			$\checkmark$
the North Kihei area.			
d. Build a high school to serve the Kihei region when required to			$\checkmark$
accommodate growth.			
e. Encourage the construction of child day care centers which are located			$\checkmark$
convenient to users, but which place minimal impact upon residential			
neighborhoods.			
Implementing Actions:	S	N/S	N/A
a. Enhance the classroom learning environment through such measures			$\checkmark$
as the installation of air-conditioning and ceiling fans.			
b. Require the construction of a playground and physical education			$\checkmark$
facilities east of 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			$\checkmark$
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.			
d. Plan and locate a site for a high school to serve the Kihei region.	$\checkmark$		
Analysis: As discussed in Section III.C.4 (Schools), The Project has r	not be	een des	igned to
accommodate a public school site. In 2007, the Hawaii Legislature enacted	ed Ac	t 245 as	Section
302A, HRS, "School Impact Fees". Based upon this legislation, the DO	E has	enacte	d impact
fees for residential developments that occur within identified school i	mpact	t distric	ts. The
Project is within the boundaries of the Central Maui Impact District and is	s with	in the N	Iakawao

either a fee-in-lieu of land or a land donation, at the DOE's discretion. The Economic Impact Assessment estimates the projects impact fee is \$535,846.00 \$553,926.00 (See: Appendix K, "Economic and Fiscal Impact Assessment"). At the appropriate time, the Applicant will contact the DOE to enter into an impact fee agreement that will help finance the construction of a school facilities in Kihei.

Cost Area of that district. Projects within the district and cost area pay a construction fee and

The Applicant had discussions with the DOE on the Project and is still designing the rental apartment portion of the Project and will enter into a written agreement with the DOE after the EIS and LUC review process has concluded.

#### Government

Goal: Efficient, effective and responsive government services in the Ki	hei-N	/lakena	region.
Objectives and Policies:	S	N/S	N/A
a. Improve the delivery of services by government agencies to the Kihei-			✓
Makena region.			
b. Continue to streamline the permit process, where appropriate,			$\checkmark$
through means such as consolidated public hearings and concurrent			
processing of applications.			
c. Continue to expedite the review and approval process for projects			$\checkmark$
which will result in public benefit by "fast-tracking" and the assignment			
of permit expediters.			
d. Use the County's real property tax assessment function as a			$\checkmark$
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.			
Implementing Actions:	S	N/S	N/A
a. Evaluate and modify present zoning and subdivision ordinances to			$\checkmark$
incorporate land use and design guidelines as well as other			
recommendations incorporated herein.			
b. Compile plans and studies to implement the recommendations of this			$\checkmark$
Plan, including water development, housing, local and regional			
circulation, drainage, solid waste, and other special studies as required.			
c. Continue to develop and utilize a computerized County planning			$\checkmark$
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.			
d. Continue to operate and fund mobile/satellite government facilities.			$\checkmark$
e. Implement tax incentives and/or disincentives that encourage			$\checkmark$
desirable private development or preservation.			
f. Adopt a beach/mountain access dedication ordinance pursuant to			$\checkmark$
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.			
Analysis: The construction and development of the Pi'ilani Promena	de w	vill imp	rove th
delivery of services by government agencies in the form of cash or land co	ntrib	utions f	or parks
schools, traffic improvements, and police and fire services.			

As discussed in Section III.B.3 (Economy), the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment, as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui. During its operational phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

In connection with proposed development of the Pi'ilani Promenade, a number of technical studies have been prepared for the <u>F</u>EIS. The data collected in these studies have been made available to the State and County for their use.

#### **Indigenous Architecture**

Goal: 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:	S	N/S	N/A
a. To legitimize indigenous architecture as viable spaces for living, work,			$\checkmark$
and recreation.			
Implementing Actions:	S	N/S	N/A
a. Develop a County ordinance for indigenous architecture.			$\checkmark$
b. Adopt standards for indigenous architecture.			$\checkmark$

Analysis: The Pi'ilani Promenade does not involve planning for the region's future implementation of indigenous architecture; therefore, this objective and policy are not applicable.

#### C. Planning Standards

Land Use Standards:	S	N/S	N/A
a. All zoning applications and/or proposed land uses and developments	$\checkmark$		
shall be consistent with the Land Use Map and Objectives and Policies			
of the Kihei-Makena Community Plan.			

b. Development of the Kihei Kalama Villages property identified as		$\checkmark$	
TMK3-9-03: portion of 08, approximately 0.6 acres in size, shall be			
limited in its use for parking purposes only.			
c. Development of the Pacific Warehouse properties identified as TMK		<ul> <li>✓</li> </ul>	
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.			
d. Road widening adjacent to the Stinson property, identified as TMK 3-		$\checkmark$	
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.			
e. Development of the "Changs Beach" property, identified as TMK		$\checkmark$	
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 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		$\checkmark$	
TMK 2-1-08:74, approximately 5.5 acres in size, shall be limited in its use			
for parking purposes only.			
Analysis: Although the County of Maui has determined that the proposed	Projec	ct complies w	vith

the KMCP, the Applicant recognizes that certain parties have asserted that an amendment to the KMCP is necessary for development of the Project to proceed. This issue may be resolved by the LUC during its consideration of the Applicant's Motion to Amend.

The subject property is located in North Kihei, south of Ohukai Road, and mauka of Pi'ilani Highway. This area was designated in the KMCP for light industrial use in order to encourage urban expansion in the area mauka of Pi'ilani Highway (goal k). The original conceptual plan of 123 light industrial lots, which fit squarely within that designation, is no longer desirable or economically viable. Since the KMCP was adopted in 1998, the proposed planning for that area as adjusted. Other developments south of Ohukai and mauka of Pi'ilani are predominantly retail, with only some instances of true light industrial uses. The community planning process has evolved since 1998, and the current Maui Island Plan indicates that the Pi'ilani Promenade is located within the Urban Growth Boundary, and is surrounded by areas currently not zoned for urbanization, but designated as "planned growth areas." The Maui Island Plan specifically cites the need for mixed-use neighborhood centers "to provide services and jobs within close

proximity to where people live and provide a more efficient land use pattern." Maui Island Plan at 8-27.

The Pi'ilani Promenade project follows these more recent planning guidelines, providing a mixed use that fits within the existing M-1 zoning, and provides a mix of light industrial, retail, and residential uses. Therefore an updated plan was prepared for this FEIS which responds to the most current trends in the development of multi-use retail-living centers nationwide. The proposed project will strengthen Maui's economy by making the Pi'ilani Promenade a more attractive location for the limited light industrial activities envisioned within the KMCP as well as much needed retail businesses. These businesses will create a diverse range of jobs for Maui residents which, in turn, will benefit the local and Statewide economy. The result will be an increase in economic activities and employment opportunities consistent with community needs and desires, which will promote increased employment and entrepreneurial opportunities for Maui's residents. Thus, while the Pi'ilani Promenade project does not strictly support all of goals in the KMCP, it meets other important competing planning criteria within the KMCP. The County of Maui has interpreted the Pi'ilani Promenade project as complying with the KMCP, as the KMCP provides that the goals and objectives are guidelines to the ultimate implementation of the plan. This issue, and the possible amendment of the KMCP, is discussed further in section V.D. Unresolved Issues.

#### **Urban Design Standards:**

a. Building Form	$\checkmark$	
1) Establish a maximum of thirty-five (35) feet in building height for new		
commercial facilities.		
2) Establish a maximum of forty-five (45) feet for multi-family		
development.		
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.		
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.			
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.			
b. Setbacks			$\checkmark$
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	$\checkmark$		
1) Establish design standards for new and existing residential,			
commercial, and hotel developments using the following guidelines:			
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.			
b. Establish building design standards which promote island			
architecture while at the same time providing related visual and physical			
characteristics for the Kihei region.			
c. Set uniform right-of-way standards for connector roads and South			
Kihei Road.			
Analysis: Where possible, design of the Promenade project will be consist			5
design concepts identified within the KMCP as well as the recently ado	pted ]	Light Ir	dustrial

# G. COUNTY ZONING

zoning district.

The comprehensive zoning provisions for the County of Maui are set forth in Article II of Title 19 of the Maui County Code. The purpose and intent of comprehensive zoning is to regulate the utilization of land in a manner encouraging orderly development in accordance with the land use directives of the Hawaii Revised Statutes, the charter of the County of Maui, and the general plan and community plans of the County, as well as to promote and protect the health, safety, and welfare of the people of the County. The subject property is zoned for "*M*-1, *Light Industrial District*" uses by the County of Maui,

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and land uses that are proposed for the Pi'ilani Promenade are allowable under "*M*-1, *Light Industrial*" zoning (**See:** Figure 6, "Maui County Zoning Map"). The M-1 light industrial zoning district allows, as of right, all of the commercial uses contained in the Maui County business districts, B-1, B-2 and B-3. This specifically includes the light industrial, commercial, and apartment uses proposed for the Promenade Project.

Although the County of Maui has determined that the proposed Project complies with the KMCP, the Applicant recognizes that certain parties have asserted that an amendment to the KMCP is necessary for development of the Project to proceed. This issue may be resolved by the LUC during its consideration of the Applicant's Motion to Amend.

The Planning Department believes that community plans and zoning play complimentary but different roles. Community plan land use designations are intended to depict what types of land uses are envisioned during the duration of the community plan. They are intended to guide decision-making for changes in zoning, subdivisions, budgeting and capital improvements, and developments in the special management area. They do not provide, nor are they intended to be, exclusive or complete lists of land uses allowed. They do not provide specific development standards. Zoning regulates land use; zoning provides exclusive and complete lists of land uses and specific development standards.

### H. COASTAL ZONE MANAGEMENT

<u>HRS Chapter 205 established the State of Hawaii CZM program (CZMP), which includes</u> the provisions establishing and governing of the Special Management Area (SMA). The Federal Coastal Zone Management Act of 1972 was adopted in response to competing development and preservation interests in U.S. coastal areas. Population growth and development in coastal areas were impacting marine resources, open space, view sheds, wildlife, and other important ecological, cultural, and historic resources. In response to this concern, Congress created a framework for managing and regulating the coastal zone and appropriated funds for <u>the</u> State-run coastal zone management programs (CZMP). The State's acceptance of the Federal funds necessitated compliance with federal CZMP standards.

The boundaries of Hawaii's coastal zone management program are defined by coastal waters and adjacent coastlands that are strongly influenced by each other. Coastal areas

which require special consideration due to their unique values or characteristics are called Special Management Areas (SMA) and must be designated by a management plan. Any development within these areas is subject to a special assessment process. This protocol provides a means to preserve, protect, and when possible, restore the natural resources of the coastal zone by controlling development with shoreline areas in order to avoid the permanent loss of valuable resources. As required by State law, maps showing the limits of the SMA have been prepared by each County. In the Kihei-Makena Community Plan region, Pi'ilani Highway serves as the SMA boundary for this part of the island.

The westernmost portion of the Pi'ilani Promenade site is approximately 0.5 miles (*mauka*) from the Pacific Ocean and is **not** located within the limits of the Special Management Area (SMA) for this part of the island.

The following section discusses the relationship of the proposed project to the objectives and policies of the Hawaii Coastal Zone Management Program pursuant to Chapter 205A, HRS.

#### 1. **Recreational Resources**

*Objective:* Provide coastal recreational resources accessible to the public. *Policies:* 

- (a) Improve coordination and funding of coastal recreational planning and management; and
- (b) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
  - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
  - (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 require reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;
  - (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
  - (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

- (v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having standards and conservation of natural resources;
- (vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
- (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing;
- (viii) Encourage 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, HRS.

*Analysis:* The proposed development of the Pi'ilani Promenade will not restrict public recreation opportunities along the coastline because the site is approximately 0.5 miles from the Pacific Ocean. As previously stated the Pi'ilani Promenade lies *mauka* of Pi'ilani Highway and will not directly affect the coastline. The design of the proposed drainage system will minimize the possibility of non-point source pollution from entering the marine environment. Kulanihakoi Gulch, which is south of, and adjacent to the project site, will not be impacted since stormwater runoff will be directed toward onsite retention basins which are strategically located throughout the site.

#### 2. Historical/Cultural Resources

**Objective:** 

*ive:* 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 archeological resources;
- (b) Maximize information retention through preservation of remains and artifacts or salvage operations; and
- (c) Support state goals for protection, restoration, interpretation, and display of historic structures.

*Analysis:* The project promotes the preservation of historic resources and the Applicant's Archaeologist submitted a data recovery plan that was received by the SHPD on June 17, 2016 and approval is pending. will work with the State Historic Preservation Division to prepare a data recovery plan.

The archaeological survey of the offsite water storage tank area was conducted on January 8 and 13, 2014. No significant materials or cultural remains were located on this previously

disturbed land during the 2014 archaeological survey. (See: Appendix F, "Archaeological Inventory Survey").

A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting have been included in the DEIS <u>and FEIS</u>. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing potential impacts to Kulanihakoi Gulch and the return of the petroglyph boulder that was previously removed from the project site by a former land owner, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and that the petroglyph boulder be returned to the property. The Applicant has discussed the possible return of the petroglyph boulder with the former land owner; however, the former owner rejected this request since the relocation plan was approved by State Historic Preservation Division (SHPD). In addition, the archaeological monitoring plan that was submitted to the SHPD for review has been approved and is referenced for all recent work on the site. The monitoring plan may be found in Appendix H and may be updated once project construction is initiated.

From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or gatherings currently taking place. The oral history interviews did not reveal any known gathering places on the subject property or any access concerns as a result of the proposed project. Therefore it can be concluded that development of the site will not impact cultural resources on the property or within its immediate vicinity (See: Appendix I "Cultural Impact Assessment Report dated December 2013, revised March and August 2016").

#### 3. 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;
- (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;
- (c) Preserve, maintain, and where desirable, improve and restore shoreline open space and scenic resources; and
- (d) Encourage those developments that are not coastal dependent to locate in inland areas.

*Analysis:* The site plan for the proposed project features open space areas, landscape plantings, and elevated viewpoints above Pi'ilani Highway. Pre-existing views from Upcountry to the Pacific Ocean will not be adversely affected by the project. Impacts to views of Haleakala from Pi'ilani Highway and other *makai* properties will be minimized by limiting the height of buildings to 60 feet. The plan will situate buildings and landscape plantings in areas which will help minimize building mass when viewed from Pi'ilani Highway and the East Kaonoulu Street extension. Parking and open space areas located between building clusters will provide view corridors throughout the site.

The project site is <u>adjacent</u> to the Pi'ilani Highway. Building heights within this area are limited to 60 feet. The site plan and building layout for the Pi'ilani Promenade will be designed to preserve the view towards Haleakala from Pi'ilani Highway. In addition, the project will be setback from Pi'ilani Highway <u>a minimum of 30 feet</u>, and the future KUH and will also be buffered by landscape planting <u>as noted in the approved Landscape Plan</u> for Kaonoulu Marketplace Subdivision (the name of the prior development project on the Project site). **(See:** Figure No. 17 "Landscape Plan").

The Project will include light industrial, business, commercial, and residential apartment structures. As shown in the approved Landscape Plan for the Project, a significant element of the landscape program is the inclusion of a 30-foot landscaping easement located adjacent to the Pi'ilani Highway. The landscaping easement will be planted with monkeypod trees, which when mature are expected to significantly buffer the transition between the Pi'ilani Highway and the Project, and to define the views from Pi'ilani Highway into the Project. (See: Figure 17 "Landscape Plan").

#### 4. 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;
- (b) Improve the technical basis for natural resource management;
- (c) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
- (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
- (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 non-point source water pollution control measures.

*Analysis:* The Pi'ilani Promenade is located approximately 0.5 miles from the shoreline; therefore the proposed project is expected to have minimal impact on the coastal ecosystem. The design of the proposed drainage system will minimize the possibility of non-point source pollution from entering the marine environment. Adjacent gulches will not be impacted since stormwater runoff will be directed toward onsite retention basins that are strategically placed throughout the site. Furthermore, the implementation of Best Management Practices will minimize the potential for short-term adverse impacts during construction of the project.

The Applicant retained Marine Research Consultants, Inc. to prepare a Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities. The purpose of the report was to assess potential impacts to groundwater and the marine environment as a result of the proposed project. In connection with this work, water quality testing was conducted and the underwater biotic composition along the Kihei coastline was analyzed. The findings of the report indicate that the proposed project will not have any significant negative effect on water quality.

#### 5. **Economic Use**

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;
- (b) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area;
- (c) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
  - Use of presently designated locations is not feasible; (i)
  - (ii) Adverse environmental impacts are minimized; and
  - (iii) The development is important to the State's economy.

Analysis: As discussed in Section III.B.3 (Economy) the construction of the Pi'ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the



economy of the County of Maui. During its operations phase, the Pi'ilani Promenade will increase the level of capital investment in the region which will create employment opportunities and economic stimulus for the region. The proposed project will provide direct employment opportunities for Maui residents and contribute to economic diversification and growth for both Maui and the State. After "stabilization," the Pi'ilani Promenade is envisioned to support 1,210 permanent jobs with an annual payroll of about \$ 36.6 million.

#### 6. 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 non-point source pollution hazards;
- (b) Control development in areas subject to storm wave, tsunami, flood, erosion, subsidence, and point and non-point pollution hazards;
- (c) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
- (d) Prevent coastal flooding from inland projects.

*Analysis:* According to Federal Insurance Rate Map (FIRM) Panels 1500030580F and 0586F dated September 19, 2012, the Pi'ilani Promenade parcels are located in Zone X, which represents an area beyond the limits of a flood hazard area.

A drainage system has been designed to collect stormwater runoff resulting from the development of the Pi'ilani Promenade. The increase in surface runoff volume between pre- and post-development conditions will be retained by onsite surface retention basins and gradually released at a rate not to exceed current flows. Therefore, the subject property is not anticipated to have an adverse impact on neighboring properties in terms of flood hazard potential.

### 7. 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;
- (b) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and



(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.

*Analysis:* The Pi'ilani Promenade is not a coastal development and is located approximately 0.5 miles from the Pacific Ocean and beyond the limits of the Special Management Area for this part of Maui. The proposed project is not expected to negatively impact the management of coastal resources in the SMA. The project team has conducted public informational meetings and will continue to do so in the future as part of their effort to facilitate public participation in the planning and review process.

#### 8. Public Participation

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

#### Policies:

- (a) Promote public involvement in coastal zone management processes;
- (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
- (c) Organize workshops, policy dialogues, and site-specific medications to respond to coastal issues and conflicts.

*Analysis:* To facilitate public participation in the planning and review process, the project team has held public informational meetings and will continue to do during the environmental review process.

#### 9. 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;
- (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
- (c) Minimize the construction of public erosion-protection structures seaward of the shoreline.

*Analysis:* The Pi'ilani Promenade is located approximately 0.5 miles (*mauka*) from the Pacific Ocean. As such, the proposed project is not expected to negatively impact beaches for public use or recreation.

### 10. 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;
- (b) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;
- (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;
- (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
- (e) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources. [L 1977, c 188, pt of §3; am L 1993, c 258, §1; am L 1994, c 3, §1; am L 1995, c 104, §5; am L 2001, c 169, §3]

*Analysis:* As previously stated, the Pi'ilani Promenade is located approximately 0.5 miles (*mauka*) from the Pacific Ocean. The proposed drainage system for the project will retain stormwater runoff in onsite, surface basins and in subsurface chambers to capture any incremental increase in run-off created by the development. Best Management Practices (BMPs) will be implemented during project construction and post-operation phases to protect coastal water quality. Construction BMPs and temporary drainage and erosion control measures will be installed prior to the start of construction and will be removed after the site has been stabilized and after permanent measures are in place.

The Applicant retained Marine Research Consultants, Inc. to prepare a Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities. The purpose of the report was to assess potential impacts to groundwater and the marine environment as a result of the proposed project. In connection with this work, water quality testing was conducted and the underwater biotic composition along the Kihei coastline was analyzed. The findings of the report indicate that the proposed project will not have any significant negative effect on water quality.

In addition, Waimea Water Services prepared an assessment of potential impacts from the pumping of the approved irrigation well. (See: Appendix R "Waimea Water Report") (Note: Waimea Water Services applied for and supervised the well drilling for the approved irrigation well described above). As a result of the analysis the subject well and projected pumping for irrigation use against other wells in the area and found that no probable impact from such a use.

Due to the proposed pumping rate of the newly constructed Kaonoulu Irrigation well, a 24-hour long term pump test was required by the state.

The test results suggest that the water quality and quantity were stable at the 175gpm pumping rate and prolonged pumping at this rate would not be likely to adversely affect the aquifer at this location. Our present estimate is that the sustained pumping rate of the well should not exceed 175 gpm, but it must be noted that this is only a best estimate based on available data.

Waimea Water Services recently performed a pump test and monitoring program in the Kihei area and we consider the results from this test pertinent to this discussion due to the proximity to the Kaonoulu Irrigation Well and the similar hydro-geological setting.

In summary, no recorded influences from the 96 hour pump test were observed in the surrounding monitoring wells. Tidal influences were expected and documented in all three surrounding monitoring wells in the form of water level changes related to the local tide. The data collected from the three monitoring wells also suggests that there are no subsurface geological barriers that would potentially impede water flow.

In an effort to further understand the hydro geology of the area surrounding the Kaonoulu Irrigation Well, Waimea Water Services performed an investigation into the available CWRM well data of the Kihei area. Twelve irrigation wells are located within 6,300 ft. of the Kaonoulu Irrigation Well yet, only three of which can be considered to be located downstream of the subject well. All three of these wells are located greater than 3,000ft away from the subject well and it is the opinion of Waimea Water Services, based upon our field experience in this location that adverse impacts would be highly unlikely to be detected in these wells as long as the Kaonoulu Irrigation well does not exceed the proposed 175gpm or 100,000gpd.

Furthermore, the data gathered thus far occurs over a very limited time span. Data over the long term operation of the wells in the Kihei area is needed for a true determination of the well's long term performance or impacts. It is absolutely essential that the water levels and the total chlorides in these wells be monitored on a regular basis to provide a real indication of what this aquifer can reliably produce on a sustainable basis.

# V. CONTEXTUAL ISSUES

# A. RELATIONSHIP BETWEEN SHORT-TERM USES AND MAINTENANCE OF LONG-TERM PRODUCTIVITY

Short-term uses and long-term productivity consists of short-term construction activities related to the build-out of the Pi'ilani Promenade and the long-term benefits of these activities.

Trade-offs among short-term and long term gains and losses: Potential short and long term environmental impacts will be offset by proposed mitigation measures. Construction activities would result in short-term impacts involving temporary and permanent alteration of land for grading, site work, infrastructure and building. Localized degradation of air quality and increased noise levels would also occur in the short-term due to construction-related activities. Many short-term impacts can be avoided or mitigated by implementation of construction BMPs. Applicable BMPs include implementing erosion control measures, directing storm water run-off to detention/retention basins, and preventing the release of fuel or other contaminants. The tradeoffs among these short-term impacts are the increase in employment and immediate economic benefits of construction-related activities.

In response to comments from the LUC and in accordance with section 11-200-17(j), HAR, a description of the relationship between local short-term uses of humanity's environment and the maintenance and enhancement of long-term productivity is provided in the context of the four specific areas of concern. Construction activities would result in short-term impacts involving temporary and permanent alteration of land for grading, site work, infrastructure and building. Localized degradation of air quality and increased noise levels would also occur in the short-term due to construction-related activities. Many short-term impacts can be avoided or mitigated by implementation of construction <u>Best Management Practices (BMPs)</u>. Applicable BMPs include implementing erosion control measures, directing storm water

run-off to detention/retention basins, and preventing the release of fuel or other contaminants. The tradeoffs among these short-term impacts are the increase in employment and immediate economic benefits of construction-related activities. These short-term impacts and benefits are documented in Section II<u>I</u>.B. <u>3</u> of the <u>F</u>EIS.

In the long-term, the infrastructure and building construction associated with the Pi'ilani Promenade would facilitate the diversification of Maui's economy. Economic diversification and the creation of "living wage jobs" are key objectives of the Maui Island Plan and County-wide Policy Plan.

Ultimately, the long-term build-out of the Pi'ilani Promenade will produce impacts that must be weighed against the Project's benefits. Increased development will lead to an increase in population of the immediate area, whether in the form of residents living within the Pi'ilani Promenade or employees commuting to the Pi'ilani Promenade during regular business hours. With the projected population increases, the volume of traffic coming in and out of the Pi'ilani Promenade will increase. This will affect regional traffic conditions by increasing volumes on the region's existing roadway network. As documented in Section III.D.1 of the Đ<u>F</u>EIS, creative strategies involving roadway improvements and upgrades, transportation demand-management counter-measures, and innovative urban design approaches are required to mitigate the Project's traffic impact. Likewise, an increase in population will produce greater demands upon the island's drinking water resources, wastewater systems and public facilities including parks, schools, police and fire. These impacts and the necessary mitigation counter-measures are thoroughly documented in Sections III.C and D of the Đ<u>F</u>EIS.

With regard to long-term productivity, this project utilizes the principles of New Urbanism and Smart Growth to transform the current, single-use large lot light industrial subdivision into a mixed-use project with employment opportunities in close proximity. Implementation of this vision will require a broadening of the development standards to allow a variety of lots sizes for the use of smaller firms and, professional services, restaurants, neighborhood serving retail, and housing.

The proposed Pi'ilani Promenade project will create jobs both temporary construction jobs and permanent long term employment. The economic impacts associated with the short and long-term implementation of the Pi'ilani Promenade are thoroughly documented in Section III.B.3 of the DEEIS.

**Forecloses future options:** Development of the Piilani Promenade would reduce future development options for the property, however the project has been designed to allow for

a mix of uses including Light Industrial, commercial/business, and multi-family. This mix of uses will provide the flexibility to accommodate the desired businesses for the growing South Maui community.

Narrows the range of beneficial uses of the environment: The proposed project would reduce the amount of land available for ranching by 68.19 acres of land. The property is poorly suited for agriculture and the Flora and Fauna reports did not identify any critical habitats such as wetlands on the property. The proposed project will include construction of a portion of a new Kihei-Upcountry Highway, rental housing, a location for a 1.0 Million gallon water tank and MECO substation to help provide housing, water storage, transportation and power to the growing South Maui Community.

Long-term risks to health and safety: The project is not expected to pose any such risk. The developer will comply with Federal, State and County regulations pertaining to grading codes, building codes, environmental health, etc. to ensure that risk to health and safety will be limited. No hazardous materials have been identified.

# B. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Implementation of the development will result in the irreversible and irretrievable commitment of certain natural and fiscal resources. Major resource commitments include the land and capital, construction materials, non-renewable resources, labor, and energy required for the Plan's implementation. Impacts represented by the commitment of these resources must be weighed against the positive socio-economic benefits that could be derived from the project versus the consequences of either taking no action or pursuing another less beneficial use of the area.

When fully built out, the development will be updated into an integrated and vibrant mixed-use community focused around a regional employment base.

As with any construction activity, nonrenewable resources such as fossil fuel and construction material will be irrevocably committed. Labor will be required for planning, engineering, and construction. New residential, commercial, or employment uses will generate increases in the demand for water, electricity, and sewer services. Similar types of developments proposed on other parts of Maui will also generate demand for these resources. Chapter III of the <u>FEIS</u> documents the Project's short- and long-term impacts.

In response to comments from the LUC, the commitment of resources will be provided by the Applicant. The Applicant will finance the construction of the project with private funds. The following responses quantifies the Applicant's commitment of resources as a result of the proposed project.

**Land:** the project site development parcels and roadway widening lots total 74.871 acres of land that will be irretrievable.

**Labor:** Construction is estimated to provide 878 "worker years" of direct on-site employment and \$66.5 million in total wages over a 12-15 year absorption period.

**Construction materials:** The cost of the project is estimated in Table No. 1a of the FEIS and the infrastructure for the project is estimated to cost approximately \$22 million dollars, the estimated vertical construction cost for Phase 2 is \$74,000,000.00 and Phase 3 is estimated at \$118,250,000.00.

**Energy:** The project is estimated to utilize 6,250 kVA of electricity. MECO will supply electricity to the project site and has been provided a lot within the proposed development to construct a new MECO substation to provide stable power to the project site and future development in the area.

There will be a permanent commitment of funds and resources from the developer to design, construct and operate the project.

# C. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined as the impact on the environment, which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

Secondary impacts are those that have the potential to occur later in time or farther in the future, but which are reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing transportation impediments to growth.

The build-out of the Pi'ilani Promenade is likely to affect the businesses and residents of Kihei. Implementation of the project, when added to other adopted and proposed

projects, may have a significant effect on a regional scale. <u>The Project will be subject to</u> the Maui County building permit process and the Project will be constructed as required by the LUC conditions and within the requirements of Maui County. The Applicant will be required to comply with mitigation measures as mandated by County and State law.

As described in Sections II.A and F of the <u>FEIS</u>, the entire property is designated Light Industrial (LI) by the Kihei-Makena Community Plan. The entire project area is located within the Maui Island Plan's Urban Growth Boundary. The Kihei area is expected to receive a substantial portion of the island's population and employment over the next 20 years.

There are several other projects planned for the Kihei-Makena area over the next decade, some of which are in close proximity of the proposed project. According to the *Maui County Data Book* (2012), the Maui resident population was 154,924 persons in 2010 and is forecasted to increase to 207,307 residents by 2030. Taken together, regional population growth will increase demand on natural resources, infrastructure and public facility systems. To better manage the island's growth and its related impacts, the County's Maui Island Plan identifies appropriate locations for development to occur. The Maui Island Plan may allow for the private and public sectors to better plan for and coordinate the delivery of infrastructure and public facilities systems in response to forecasted population growth.

As a precursor to preparing the Maui Island Plan, the County of Maui prepared the following infrastructure and public facility technical studies: Infrastructure and Public Facilities Issue Paper (September 2007), Public Facilities Assessment Update (March 2007) and Infrastructure Assessment Update (May 2003). These studies assess the impact of population growth on the island's infrastructure and public facility systems. In general, the studies conclude that on-going public and private sector investment will be necessary to accommodate growth through 2030.

This section identifies secondary and cumulative impacts that may result from the phased development of the Pi'ilani Promenade <u>and surrounding development projects</u>.

Existing and future development projects that were considered likely to be constructed in the central Kihei region were the basis for analyzing potential cumulative and secondary impacts. It is noted that most projects are not yet constructed. The developments listed below are the same as those identified in the TIAR update and includes the Maui Research and Technology Park (MRTP). (See: Table No. 16).

Development	Land Use	Number of Units/
		Development Area
<u>Kaiwahine Village</u>	Multi-Family Residential	120 affordable units
<u>Maui Lu Resort</u>	Hotel	788 hotel rooms
		<u>&amp; 154 affordable units</u>
	Existing Hotel	<u>174 rooms</u>
	(Demolished)	
<u>Kihei High School</u>	<u>School</u>	<u>215,000 Square Feet</u>
Kenolio Apartments	Multi-Family Residential	<u>186 units</u>
Kihei Residential	Single Family Residential	<u>400 units</u>
	Multi-Family Residential	<u>200 units</u>
	<u>Commercial</u>	7,000 Square Feet
<u>Downtown Kihei</u>	<u>Commercial</u>	258,000 Square Feet
	Hotel	<u>150 rooms</u>
Maui Research and	Multi-Family Residential	<u>500 units</u>
<u>Technology Park</u>	Single Family Residential	<u>750 units</u>
	Knowledge Industry/	2 million Square Feet
	Commercial / Business	
	Hotel	<u>500 rooms</u>
<u>Honua'ula Affordable</u>	Multi-Family Residential	<u>250 units</u>
Housing Development		

#### Table No. 16 Other Potential Projects

A brief description of each proposed development is provided as follows:

### Kaiwahine Village

The proposed Kaiwahine Village is located at the east end of Kaiwahine Street. This 100% affordable housing residential development will consist of 120 multi-family units with landscape planting, parking, infrastructure and utility improvements. The affordable housing development will positively impact the community by providing 120 affordable rental units in Kihei, where housing is needed, and will positively impact the economy by providing real property taxes and creating construction jobs. Construction of the affordable housing development will involve development of vacant land, and short-term air and noise impacts. Future residents of the project will increase local traffic to and from the site, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure. This project is anticipated to be completed by 2025.

#### Maui Lu Resort

Maui Lu Resort currently exists in the northeast quadrant of the intersection of South Kihei Road at Kaonoulu Street. Plans are for the existing resort to be demolished and a 400-unit timeshare constructed in its place along with related service and recreational amenities, and landscape planting, parking, infrastructure and utility improvements. The proposed action involves demolition and removal of the existing Maui Lu Resort complex on the mauka property. On the makai parcel, a two-story oceanfront structure parallel with South Kihei Road will be replaced with a single-story beach club. The other two existing buildings will be reduced in size and renovated. The redevelopment project will positively impact the local economy by generating revenue from visitors. Additionally, redevelopment will provide permanent employment opportunities at the project site in addition to construction jobs and enhancements to the shoreline area may include beach nourishment, sand dune stabilization, and/or improved public beach access. Construction will involve short-term air and noise impacts. Project site operations will increase local traffic to and from the site.

As part of the Maui Lu project, the intersection of South Kihei Road at Kaonoulu Street will be signalized. The proposed signalization had not been completed at the time of this report. Construction has started on the redevelopment of this resort with a proposed opening in 2017.

#### Kihei High School

The proposed Kihei High School will be located along the east side of Pi'ilani Highway, south of the proposed Pi'ilani Promenade development. According to the *Traffic Impact Report for Kihei High* School (WOC, 2012), the school will have a capacity of approximately 1,650 students serving grades 9 through 12.

Appropriately designed infrastructure will be incorporated into the project to support the campus facilities, operations, and occupants. Access to the proposed high school campus is planned via a new right-in right-out access road off Piilani Highway. The high school will be designed and constructed to incorporate sustainable design features. The project will positively impact the community through provision of a new educational facility and employment opportunities in the construction and education fields. Construction of the high school will involve development of vacant land, minor loss of agricultural land, visual impacts to views from Piilani Highway, and short-term air and noise impacts. School operations will increase local traffic to and from the school, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure. The development of the school will be in two phases with 800

students in Phase 1 and 850 students in Phase 2. Both phases are expected to be completed by 2025.

#### Kenolio Apartments

The Kenolio Apartments is located between Pi'ilani Highway and Kenolio Road in the southwest quadrant of the intersection of Kaonoulu Street at Pi'ilani Highway. The proposed project is a 100% affordable multi-family; residential development that will include construction of a total of 186 units including up to two (2) unrestricted on-site manager's units with necessary supporting infrastructure. The development will result in 63, 1-bedroom units, 100, 2-bedroom units and 23, 3-bedroom units.

The plan includes accessible walking paths and sidewalks throughout the site for residents to access common spaces and amenities within the development such as the Community Building (including fitness room, gathering area, computer center, common laundry and manager's office), pool, picnic areas, barbecue, trash and recycling areas. Additional sidewalk connectivity to the North South Collector Road (Kenolio Road) will be included in the final design.

Associated infrastructure improvements include paved roadways; concrete curbs, gutters and sidewalks; onsite parking, drainage systems, water system, sewer system, underground utilities, irrigation well for landscape planting, and offsite roadway improvements along Kenolio Road fronting a portion of the project site. It is anticipated that the project will be completed in 2017.

### Kihei Residential

The proposed Kihei Residential development is located on the east side of Pi'ilani Highway, north of Kaiwahine Street. The project includes 400 single-family units, 200 multi-family units, 3,000 square feet of commercial areas, 7,000 square feet of offices, and a 10 acre park. The proposed commercial area will allow for business uses, which will provide services for the convenience of the surrounding neighborhoods. Groundbreaking occurred in mid-January 2016. The mixed use development will positively impact the community providing a variety of new housing types within walking distance of small neighborhood commercial area that will provide permanent employment opportunities at the project site in addition to construction jobs. Construction of the mixed use development will involve development of vacant land, and short-term air and noise impacts. Project site operations will increase local traffic to and from the site, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure. It is anticipated that 25% of the project will be completed by 2025 and full build out will be by 2032.

#### Krausz Companies Commercial Mixed-Use Development (Downtown Kihei)

The proposed Krausz Companies commercial mixed-use development (referred as Downtown Kihei) is located along Piikea Avenue between Liloa Drive and South Kihei Road. The project includes 249,450 square feet of retail space, approximately 18,500 square feet of office space, and a 150-room hotel. Related improvements include grading, landscaping, underground utilities, drainage facilities, lighting, vehicle parking, and roadway improvements, including the reconstruction of Piikea Avenue. The mixed use development will positively impact the community providing new commercial, hotel and entertainment space that will provide permanent employment opportunities at the project site in addition to construction jobs. Construction of the mixed use development will involve development of vacant land, and short-term air and noise impacts. Project site operations will increase local traffic to and from the site, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure. The proposed completion is expected by 2025.

#### Maui Research and Technology Park

The Maui Research and Technology Park (MRTP) is located in Kihei, Maui, Hawaii. The Park is situated mauka (east) of Pi'ilani Highway and is accessible from Lipoa Parkway. The MRTP encompasses approximately 411 acres owned in fee simple by various land owners. MRTP was established in the 1980's to bring diversification to Maui's economy through investment in high technology. Today the Park has over 180,000 square feet of office space, with over 400 people working at over 20 high technology and professional services companies. The recently approved MRTP Master Plan Update proposes to utilize the principles of New Urbanism and Smart Growth to transform the current, single-use large lot research and technology campus into an integrated and vibrant mixed-use community focused around a regional knowledge-based industry employment base.

The mixed use development will positively impact the community providing new employment and housing opportunities in a compact walkable community. The development will provide permanent employment opportunities at the project site in addition to construction jobs. Construction of the mixed use development will involve development of vacant land, loss of agricultural land, and short-term air and noise impacts. Project site operations will increase local traffic to and from the site, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure.

The park will be developed in two phases. Phase 1, through 2024, will include a mixeduse village center, knowledge-industry employment core, residential neighborhoods, rome

schools and parks. Phase 2, through 2034, will include additional residential development and knowledge industry expansion campuses to the east and south. At build-out, in 2034, the Park will comprise knowledge industry, commercial, and civic uses totaling approximately 2 million square feet together with 1,250 single- and multi-family residences. It is estimated that 60% of the residential units will be single-family and 40% multi-family.

All of the necessary land use entitlements to fully implement the Plan were obtained and key infrastructure improvements are tied to each phase of development and as the improvements are warranted.

#### Honua'ula Affordable Housing Development

The proposed Honua'ula affordable housing development is located north of Pi'ilani Promenade. This development will include 125 units of affordable apartments and 125 owner-occupied units. Access to this development will be through East Kaonoulu Street. If construction of the Honua'ula affordable housing development commences prior to the construction of East Kaonoulu Street extension, temporary construction access to this development will be through a driveway off of Ohukai Road. Once the East Kaonoulu Street extension is open, all trips generated by this trip will use East Kaonoulu Street.

The affordable housing development will positively impact the community by providing 125 affordable rental units in Kihei, where housing is identified as major problem in the region. The proposed development will positively impact the economy by providing real property taxes and creating construction jobs. Construction of the affordable housing development will involve development of vacant land, and short-term air and noise impacts. Future residents of the project will increase local traffic to and from the site, increase the demand for drinking water and non-drinking water, and require extension of drinking water and wastewater infrastructure. An Environmental Assessment will be prepared for the proposed affordable housing development in the future to identify the potential impacts of the proposed development. This development is anticipated to be completed by 2025.

#### Impacts to Natural and Environmental Resources

Assuming all BMPs and mitigation measures documented in this D<u>FEIS are implemented</u> and all permit-induced requirements are complied with; no cumulative or secondary impacts are anticipated on the natural environment.

**Flora and Fauna.** Development of the Pi'ilani Promenade, together with other area projects, could have cumulative and/or secondary impacts on rare or endangered species

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of flora and fauna if natural habitats and/or species are directly or indirectly disturbed. As documented in Section III.A.5 of the  $\underline{DFEIS}$ , the Project will not impact rare or endangered flora and fauna species. Adjacent proposed developments will be required to conduct flora and fauna surveys prior to development. These surveys will be reviewed by the U.S. Fish and Wildlife Service and mitigation counter-measures will be required if warranted.

Of the projects listed in Table No. 16, the Downtown Kihei project will preserve 2 manmade wetlands and all of the other project sites do not contain wetlands or critical habitats and are therefore appropriate locations for urban development. The FEIS documents for the MRTP and the Kihei High School indicate that the Applicant will limit tree trimming during the months of June 1 to September 15. The FEA for the Maui Lu notes the project will provide down shielded lighting to limit light impacts to birds.

In consideration of existing State and Federal regulations to protect rare and endangered species, there should be no significant cumulative and/or secondary impacts to flora and fauna resources arising from planned growth in the area.

**Coastal Water Quality.** Development of the Pi'ilani Promenade, together with other area projects, could have significant cumulative impacts to coastal water quality if BMPs are not strictly adhered to. During the construction phase, BMPs must be implemented to mitigate runoff of bare soils and other construction contaminants into drainageways and culverts. If not properly mitigated, the cumulative impact of these contaminants could impact coastal water quality.

During the Project's operation phase, any increase in runoff will be maintained on site as required by the County's drainage rules (See: Section III.D.2) Maintaining runoff on-site, together with filtration of contaminants from runoff, will mitigate the Project's impact to coastal waters. Likewise, future developments in the area will be required to implement similar mitigation measures as part of their operation phase BMPs.

The projects listed in Table No. 16a have the following increase in estimated peak runoff identified in their respective applications. Note: Honua'ula affordable housing development application has not been prepared at the time of this FEIS.

<u>Development</u>	Increase in Runoff from	
	proposed projects (cubic	
	feet per second, cfs)	
Kaiwahine Village	<u>11.15 cfs</u>	
<u>Maui Lu Resort</u>	<u>10.6 cfs</u>	
Kihei High School	<u>60 cfs</u>	
Kenolio Apartments	<u>15.57 cfs</u>	
Kihei Residential	<u>96 cfs</u>	
Downtown Kihei	<u>10.6 cfs</u>	
Maui Research and	<u>525 cfs</u>	
Technology Park		
Honua'ula Affordable	unknown	
Housing Development		
<u>Total</u>	<u>728.92 cfs</u>	

Table No. 16a Other Potential Pro	iects: Drainage

The total increase in runoff as a result of the development of projects listed in Table No. 16a is 728.92 cfs. The total runoff amount will be retained by the individual projects in accordance with the Maui County drainage rules.

The specific mitigation measures identified for projects in Table No. 16a vary from above ground landscaped detention basins, underground basins within parking lots and roadways, vegetated swales and landscape planting to reduce the impacts associated with runoff. Water Quality will be maintained by the future drainage systems for surrounding projects including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution.

All surrounding projects will be required to implement the BMP's as required by the County and State. In addition, the Applicant understands that all other projects related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

The Applicant has reviewed the Guidance Document titled, *Stormwater Impact Assessments*, prepared by PBR Hawaii and Associates, Inc. for the Hawaii Office of Planning in May 2013. The purpose of the Guidance Document is to provide guidance on assessing stormwater impacts in the planning phase of project development.

"The Guidance Document suggests incorporating design concepts and mitigation measures into the planning phase of development to achieve compliance with existing ordinances, rules, and regulations. No new regulations are proposed with this Guidance Document."

As noted in the FEIS section V. C. (Cumulative and Secondary Impacts) the postdevelopment peak storm flow of the Project, after mitigation measures are implemented, is the same as the pre-development storm flow, which is equal to or less than 85 cfs. The Project will retain the increase in post development runoff generated by development, consistent with County of Maui regulations.

The Project will comply with the condition of the 1995 Decision and Order, which requires that the Applicant fund the design and construction of its pro-rata share of drainage improvements required as a result of the development of the Project site, including oil water separators and other filters as appropriate, and other BMPs as necessary to minimize non-point source pollution. The Applicant understands that all Project-related water discharges must comply with the State's Water Quality Standards, which are set forth in Chapter 11-54, HAR.

BMPs prepared in accordance with MCC Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the DPW for review and approval prior to the issuance of grubbing and grading permits. In addition, since Project site work will exceed one acre, a NPDES will be obtained from the DOH's Clean Water Branch for the discharge of storm water associated with construction activities. The Applicant will meet all of the requirements set forth by the DOH's Clean Water Branch.

Low-impact development strategies, including a series of strategically located drainage retention basins and channels, are designed to mitigate downstream impacts to *makai* landowners. A Drainage Master Plan was designed to County standards, and includes measures that mitigate the increase in runoff generated from the development of impervious surfaces. On-site runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped area. Drain lines from the catch basins will convey the runoff to onsite detention basins or underground subsurface drainage systems.

The onsite drainage system will provide storage for the increase in stormwater runoff from a 50 –year, 1 –hour storm. The drainage system will be designed in compliance with Chapter 4 "Rules for the Design of Storm Drainage Facilities in the County of Maui" and Chapter 15-11 "Rules for the Design of Storm Water Treatment Best Management Practices." Therefore the Project, together with other planned projects in the area, should not have a significant cumulative impact on coastal water quality if construction and operation phase BMPs are strictly adhered to. It is noted that only the Kihei Residential project has begun construction of those listed in Table No. 16.

**Agricultural Lands.** As documented in Section III.A.10 of the  $\underline{\text{PFEIS}}$ , the Pi'ilani Promenade is located on State designated Urban land, therefore, the Project is not expected to have a significant cumulative impact upon the long-term viability or growth of agriculture on Maui.

In regards to secondary impacts, urban development can impact agricultural land uses in two ways. First, in certain circumstances, urbanization of agricultural lands can cause agricultural lands prices to go higher making it more cost prohibitive for farmers to buy or lease land to farm. Second, urban development can create use conflicts between farmers and urban residents. In regards to the first issue, the establishment of Urban Growth Boundaries in the Maui Island Plan create more predictable development patterns and this will create more certainty in the urban and agricultural land markets; thereby, mitigating the escalation of agricultural land values. In regards to the second issue, HRS, Chapter 165 "Hawaii Right to Farm Act" protects farmers from lawsuits filed by residents living within close proximity of agricultural operations. Future residents of the Pi'ilani Promenade will continue to be notified prior to the purchase of property that ranching activities will occur on abutting agricultural lands. In addition, the Pi'ilani Promenade will establish landscape planting around the perimeter of the property with a buffer to mitigate potential agricultural use conflicts.

Of the projects listed in Table No. 16, the Kihei High School (76 acres), Kihei Residential (94.3 acres), MRTP (102 acres) required a State Land Use District Boundary Amendment from Agricultural to Urban. The total designation of Agricultural land to urban for surrounding developments is 272.3 acres. The 272.3 acres represents 0.098 percent of the approximately 246,000 acres of State Agricultural district lands on the island of Maui. Based on this minimal impact to agricultural lands the Project with other potential projects is not anticipated to have a significant impact on Agricultural resources.

<u>The remaining projects on Table No. 16 are located on land that is Urban and therefore no impacts to Agricultural resources are anticipated.</u>

**Drinking Water Resources.** The development of the Pi'ilani Promenade, together with other area projects, will increase the demand for drinking water. The Applicant is constructing a 1.0 million gallon water tank and supporting infrastructure to provide

water for the project and future south Maui water customers. The development of the 1.0 MG water tank will help support the drinking water needs for the future planned growth of South Maui. With these measures in place, significant cumulative and/or secondary impacts are not anticipated to threaten the long-term sustainability of the County's water resources. This 1.0 MG water tank will provide substantially more drinking water source storage than would be required both for the Pi'ilani Promenade Project, and for the Honua'ula affordable housing project, if that project is developed. Other proposed projects will be required to meet the requirements of the Department of Water Supply including but not limited to project specific improvements to the water transmission and storage systems.

Development	Drinking water Demand
	<u>(gallons per day)</u>
<u>Kaiwahine Village</u>	<u>67,200</u>
<u>Maui Lu Resort</u>	<u>148,800</u>
Kihei High School	<u>185,000</u>
Kenolio Apartments	<u>104,160</u>
Kihei Residential	<u>790,000</u>
Downtown Kihei	<u>48,500</u>
<u>Maui Research and</u> <u>Technology Park</u>	798,065
Honua'ula Affordable Housing Development	210,000
Total	2,351,725 gallons per day

It is estimated that the total drinking water demand for the projects listed in Table No. 16b is 2,351,725 gallons per day. As noted in the FEIS, 0.421 MGD of groundwater can be allocated from the Iao Aquifer System, therefore all proposed projects in Table No. 16b will not be able to utilize drinking water from the Iao Aquifer System. It is noted that only the Kihei Residential project has begun construction of those listed in Table No. 16b and as development occurs each individual project will need to provide a viable water source. Alternatives considered by the projects in Table No. 16b include but are not limited to drilling wells within the Kamaole Aquifer as a new water source.

**Air Quality.** The cumulative impact of the build-out of the Pi'ilani Promenade, together with other developments in Kihei, will increase the amount <u>of</u> pollutants entering the

atmosphere. These pollutants will be generated by an increase in demand for energy in the form of transportation fuels for automobiles and carbon-based fuels to power the Ma'alaea Power Plant. <u>Of the projects listed in Table No. 16, the Kihei High School and MRTP had air quality analysis conducted as part of their EIS documents. All other projects listed in Table No. 16 do not have an analysis to quantify air quality impacts. The conclusion of the MRTP and Kihei High School air quality reports is that implementing any air quality mitigation measures is unnecessary and unwarranted since the worst-case scenario carbon monoxide concentrations are projected to remain well within air quality standards.</u>

**Noise Quality.** The cumulative impact of the build-out of the Pi'ilani Promenade, together with other developments in Kihei, will increase the amount of noise generated primarily from vehicles. Of the projects listed in Table No. 16, the Kihei High School, MRTP and Honua'ula Affordable housing development had noise quality analysis conducted as part of their EIS documents. The Honua'ula impacts were analyzed as part of the Project FEIS. All other projects listed in Table No. 16 do not have an analysis to quantify noise quality impacts. The recommended mitigation measures for the MRTP and Honua'ula Affordable housing development is to place noise sensitive buildings adequately setback from roadways. The Kihei High School is setback at least 650 feet from Piilani Highway, where future noise levels are predicted to be acceptable at less than 55 DNL.

#### Impacts to the Socio-Cultural Environment

The development of the Pi'ilani Promenade, together with other developments in Kihei, will increase population, create jobs, and generate tax revenues. Together, these projects will also increase the demand for housing and place increasing demands on infrastructure and public facility systems both locally and island-wide.

Of the projects listed in Table No. 16, the Kihei High School, Downtown Kihei projects ae not proposing residential development. The activities of the School and the Downtown projects will require a population of students and teachers and employee and customers, however these facilities will serve people who already live in Kihei and are not expected to be population generations. The Maui Lu project and Honua'ula Affordable housing development are required to provide a total of 404 affordable units in the Kihei Makena plan region. It is unknown at this time what the unit size is for these two projects.

<u>Development</u>	Estimated population
Kaiwahine Village	<u>360</u>
<u>Maui Lu Resort</u>	<u>154 affordable units,</u> population not estimated in report
Kihei High School	<u>0</u>
Kenolio Apartments	<u>498</u>
Kihei Residential	<u>1,800</u>
Downtown Kihei	<u>0</u>
<u>Maui Research and</u> <u>Technology Park</u>	<u>2,756</u>
Honua'ula Affordable Housing Development	250 affordable units, population not estimated
<u>Total</u>	<u>5,414 people</u>

Table No. 16c Other Potential Pro	iects: Population
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Of the projects listed in Table No. 16c that provided population estimates, The following projects are estimated to generate 5,414 more people living in Kihei.

According to the Maui Island Plan, there will be a demand for an additional 34,637 housing units on Maui through 2030. The County of Maui's Land Use Forecast (November 2006) forecasted that there will be a demand for an additional 9,735 units in Kihei-Makena through 2030. The 226 units proposed at the project are approximately 2% of the forecasted Kihei-Makena demand. The proposed project together with other planned projects in Kihei, are a necessary source of housing to accommodate the forecasted population growth.

Development	Land Use	Number of Units/
		Development Area
Kaiwahine Village	Multi-Family Residential	120 affordable units
Maui Lu Resort	Hotel	788 hotel rooms
		& 154 affordable units
	Existing Hotel	<u>174 rooms</u>
	(Demolished)	
<u>Kihei High School</u>	<u>School</u>	<u>215,000 Square Feet</u>
Kenolio Apartments	Multi-Family Residential	<u>186 units</u>
Kihei Residential	Single Family Residential	<u>400 units</u>
	Multi-Family Residential	<u>200 units</u>
	<u>Commercial</u>	7,000 Square Feet
<u>Downtown Kihei</u>	<u>Commercial</u>	258,000 Square Feet
	<u>Hotel</u>	<u>150 rooms</u>
Maui Research and	Multi-Family Residential	<u>500 units</u>
Technology Park	Single Family Residential	<u>750 units</u>
	Knowledge Industry/	2 million Square Feet
	Commercial / Business	
	<u>Hotel</u>	<u>500 rooms</u>
<u>Honua'ula Affordable</u>	Multi-Family Residential	<u>250 units</u>
Housing Development		
<u>Total</u>	Single Family	<u>1,150 SF units</u>
	<u>Multi Family</u>	<u>1,410 MF units</u>
		2,560 total units

Table No. 16d Other Potential Pro-	iects: Housing
<u>Table 140. 100 Other I otential 110</u>	cets. mousing

The projects listed in Table No. 16d estimate construction of 2,560 multi-family and singlefamily units combined and represent approximately 26% of the forecasted demand for an additional 9,735 units in Kihei-Makena. The completion of the projects listed in Table No. 16d will support the goal of providing additional housing in the Kihei-Makena region to meet the demand of the growing community.

The continued build-out of Kihei will also change the area's urban design character and sense of place. Today, Kihei is a developing community with a number of undeveloped infill parcels intermixed with lower and medium-density residential, strip commercial, industrial, resort and public facility uses. In the coming years, pursuant to the land-use policies contained in the Maui Island Plan and Kihei-Makena Community Plan, Kihei will evolve to become a more unified and cohesive urban settlement. Urban development will

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likely become more compact, mixed-use and interconnected. Networks of open-space, parks, bikeways, trails and pedestrian-oriented streets will link districts and neighborhoods together. An increase in population, including population created by the Pi'ilani Promenade, may increase demand for coastal and inland active and passive recreation lands. The County's Infrastructure and Public Facilities Issue Paper (September 2007) recommends a pro-active public-sector strategy to acquire additional shoreline and inland park lands to accommodate the increasing demand for recreation and shoreline-based cultural activities. MCC Title 18.16.320 requires a park land dedication, or cash-in-lieu fee, to mitigate the impact of growth on park and recreation facilities.

Of the projects listed in Table No. 16e the Kihei Residential, the MRTP, and the Honua'ula Affordable Housing Development are subject to MCC Title 18.16.320 which requires a park land dedication, or cash-in-lieu fee, to mitigate the impact of growth on park and recreation facilities.

Development	Parks Contribution
Kaiwahine Village	<u>0</u>
<u>Maui Lu Resort</u>	<u>0</u>
Kihei High School	<u>0</u>
Kenolio Apartments	<u>0</u>
Kihei Residential	On site park with restrooms
	and parking will be provided
Downtown Kihei	<u>0</u>
Maui Research and	On site parks and open space
Technology Park	will be provided
Honua'ula Affordable	Cash-in-lieu fee to be paid to
Housing Development	<u>Maui County</u>

Table No. 16e Other Potential Projects: Recreation Facilities

The Kihei Residential, the MRTP, and the Honua'ula Affordable Housing Development are subject to MCC Title 18.16.320 and will therefore mitigate potential recreational impacts by providing park space in Kihei-Makena region.

With regard to the concern relative to sprawl, the proposed project is located immediately adjacent to an extensive and larger light industrial complex which is adjacent to a significant residential area in north Kihei. Immediately to the south of the proposed project is the proposed Kihei High School for which the State of Hawaii has acquired the land and is now in the process of design. The amount of residential or apartment zoned land in south Maui available for residential and especially apartment development is limited. The project site is County zoned Light Industrial and Apartments are a permitted use. The proposed project has been designated for urban development since 1995 and is located within the Maui Island Plan Urban Growth Boundary, an area determined to be the location of desired future urban development for south Maui. This mixed-use project will include light industrial, business / commercial and residential uses, active park space, pedestrian and bicycle connectivity within the site and along the frontage portions of the Kihei Upcountry Highway and Pi'ilani Highway to promote smart growth and less dependence on the automobile. In addition the project will provide an easement for pedestrian and bicycle connectivity from Ohukai Road to the mauka portion of the project site and the Applicant anticipates that there will be opportunities for future connection along Pi'ilani Highway with the Kihei High School. The onsite pedestrian oriented improvements will reduce the need for the automobile and create a healthier lifestyle for those who live there and the offsite easement will expand the regional non-vehicular transportation network.

The Applicant's for each proposed project will be required to comply with mitigation measures as mandated by County and State law.

#### **Infrastructure and Public Facilities**

The build-out of the Pi'ilani Promenade, together with other developments in Kihei, will increase population; thereby, increasing the demand for infrastructure and public facility systems, including water, wastewater, and roadways; solid waste, schools, and parks; and medical facilities, public transit and government offices. The County's Infrastructure and Public Facilities Issue Paper (September 2007) documents the impact of projected population growth on the County's infrastructure and public facility systems by region and identifies associated capital improvement projects to support this growth.

The TIAR update prepared for the project has examined and evaluated traffic impacts of the project, as well as the other potential projects identified on Table No. 16f. The projected trip generation impact of these projects is presented in table 10 in the TIAR update. As noted in the TIAR, these projects have been included in the traffic analysis, however some projects are in the planning and entitlement phase and for various reasons may not be constructed within the estimated completion date of this project.

<u>Development</u>	Trip Generation AM	Trip Generation PM
Kaiwahine Village	<u>66</u>	<u>80</u>
<u>Maui Lu Resort</u>	316	<u>363</u>
Kihei High School	<u>693</u>	<u>215</u>
Kenolio Apartments	<u>103</u>	<u>127</u>
Kihei Residential	<u>616</u>	<u>737</u>
Downtown Kihei	<u>230</u>	<u>393</u>
<u>Maui Research and</u> <u>Technology Park</u>	2120	<u>1713</u>
Honua'ula Affordable Housing Development	127	<u>158</u>
Total	<u>4271</u>	<u>3786</u>

#### Table No. 16f Other Potential Projects: Traffic

Of the projects listed in Table No. 16f the estimated traffic generation is 4,271 trips in the morning and 3,786 trips in the afternoon. The proposed traffic mitigation measures for the other potential developments are provided in Section D. 1 (Roadways) of the FEIS.

Development	Wastewater (gallons per
	<u>day)</u>
Kaiwahine Village	<u>76,500</u>
<u>Maui Lu Resort</u>	<u>116,500</u>
Kihei High School	210,000
Kenolio Apartments	<u>47,430</u>
Kihei Residential	<u>935,000</u>
Downtown Kihei	<u>177,800</u>
<u>Maui Research and</u> <u>Technology Park</u>	<u>1,850,000</u>
Honua'ula Affordable Housing Development	<u>63,750</u>
Total	3,476,980

#### Table No. 16g Other Potential Projects: Wastewater

Of the projects listed in Table No. 16g the estimated wastewater generation is 3,476,980 gallons per day and the available capacity at the KWWRF is approximately 4.6 million gallons per day, therefore the total of other developments listed can be accommodated.

Other developments will be required to pay assessment fees also and mitigate impacts to the County sewer and maintain system service.

Sewage generated by the Project will be treated at the KWRF. As indicated by the County DEM, wastewater capacity is available for the project. The Applicant will be required to make system improvements at the time of service and applicable assessment fees will be required.

As documented in Section III.D of the  $\overline{\text{DFEIS}}$ , the Pi'ilani Promenade will mitigate its impact on infrastructure and public facility systems through a variety of on- and off-site infrastructure and public facility counter-measures. One such counter measure, as documented in Section III.D.3 of the  $\overline{\text{DFEIS}}$ , is the development of a 1.0 MG drinking water storage tank to provide drinking water storage to accommodate the cumulative impact of projected population growth. Property taxes generated by the development, together with other planned projects in the area, will help fund County operations and capital improvement projects.

The mitigation of other projects potential adverse cumulative impacts resulting from infrastructure use will be provided during the course of development by providing additional facilities on-site and offsite such as park facilities, stormwater management, and water. Mitigation measures will also include required contribution of impacts fees such as school, traffic and wastewater.

The projects listed in Table No. 16 represent future potential developments identified, however the timeframe for these projects are dependent upon individual entitlement processes and market conditions which are not linked to the proposed Piilani Promenade project. It is in this context that Maui County has processes and mechanisms to ensure that mitigation measures attributable to cumulative impacts are provided.

#### Cumulative Impacts of Honua'ula Affordable Housing Development

The Preliminary Engineering Report (PER) was developed to address the engineering issues and impacts associated with the Promenade project in terms of utility service, drainage, access, grading and other aspects of site development. It is important to remember that the final subdivision map creating both the Promenade and Honua'ula Partners LLC (HPL) parcel was required to provide adequate utility service to each lot

(water, sewer, electrical, etc.). The subdivision map and associated civil construction plans provide for all of these services for each lot including the HPL parcel. All of the drainage work done to date has been completed to address the on and off site infrastructure development needed to serve all of the parcels including HPL. The Promenade PER specifically addresses the drainage concerns associated with development of that project only while the HPL parcel, when developed, will need to comply with the County of Maui drainage requirements as a separate project not impacting the assumptions already addressed in the subdivision and Promenade PER documents.

In addition to the above the HPL parcel is owned by a separate entity with development timing subject to both Chapter 343 compliance and processing of a Motion to Amend with the Commission. Therefore, its development timing is uncertain and there are no specific development plans yet developed to provide a basis for PER analysis other than the number of units.

AIS: the AIS includes the Honua'ula affordable housing development parcel in its Survey and no Historical Sites were identified on this project parcel outside of the Piilani Promenade.

**CIA:** The CIA included the Honua'ula parcel in its Assessment. Drainageway "A" was noted by some interviewees as having cultural importance however the CIA concludes that:

"Given the input received through the consultation process and a review of the archaeological data gathered in the project AIS we cannot conclude the minor drainageway "A" discussed within the project documents or consultation discussions has any relevant cultural significance. As part of the data recovery process proposed for the project area further information may reveal more about this drainage way and possible significance." In addition SCS has prepared a separate CIA for the Honua'ula Affordable Housing development parcel. (See: Appendix I-2 "Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017").

The cultural and historical background presented in the CIA prepared by Hana Pono, LLC and the SCIA prepared by SCS, in addition to the findings of prior archaeological studies in the project area and in the neighboring areas, support the findings of the CIA prepared for the Honua'ula offsite workforce housing project. The findings are that there are no specific valued cultural, historical, or natural resources within the project area. Nor are there any traditional and customary native Hawaiian rights being exercised within the project area. (**See:** Appendix I-2 "Cultural Impact Assessment for the proposed Honua'ula offsite workforce housing project dated April 2017"). **PER:** The PER does not identify the drainage and electrical impacts of the Honua'ula affordable housing development yet that parcel will be served by all major utility connections already established and shown in the subdivision improvement plans and all infrastructure has been sized to reflect the buildout of both Piilani and Honua'ula affordable housing development. Honua'ula's affordable housing development electrical requirements will be served from the new MECO substation and any drainage by Honua'ula affordable housing development will be required to meet Maui County Standards. The Applicant calculated the estimated Drinking Water Demand for both Piilani and Honua'ula affordable housing development by using Maui County Code Standards.

**TIAR: The estimated** Traffic generated by Honua'ula affordable housing development were analyzed as part of the TIAR update by SSFM. This traffic along with other background growth was used to understand the impacts of other projects, along with the proposed Piilani project.

**ECON:** The Study did not measure other projects economic impacts. The Study mentions the Honua'ula Affordable housing project in 2 places related to affordable housing. The statement is made that 125 units of the 250 will be rental with the remainder owner occupied. The positive social impact of the Affordable Housing Development can be identified in the FEIS.

Waimea Water Services Report: The irrigation well is located on Honua'ula Affordable Housing project parcel and will provide the water for construction dust control and temporary irrigation for the both Piilani and Honua'ula affordable housing development. The Waimea water services report has determined that during a test pumping of a well in the same area as the on property well, there was no change in the water level and quality at 3 observation wells. In addition the report noted that three irrigation wells are located downstream of the property, all of which are located at a distance of over 3000 feet from the well and it is the conclusion of the Waimea water services report that it is unlikely the proposed irrigation well will impact downstream irrigation wells.

Air Quality: The Air Quality Study included the Honua'ula affordable housing development, however the affordable project is separated from the Piilani Promenade project. Additionally, the essential data used for the air quality analysis is the data finalized within the TIAR update which includes the impacts of the Honua'ula affordable housing development. As previously mentioned, based on the review of the TIAR Update

dated December 2016 it is the opinion of the air quality consultant that re-analysis of the project air quality impacts due to project traffic would not yield significantly different results and the conclusions stated in the air quality study of August 2014 remain valid. (See: Appendix D-2 "Air Quality Report Update dated February 2, 2017")

**Noise Study:** Based on the review of the TIAR Update dated December 20, 2016 it is the opinion of the Acoustic Study consultant that any potential adverse noise impacts at the Honua'ula affordable housing project can be compared to the potential noise impacts as follows:

There should be less exposure to noise from the Piilani Promenade project's noise source since on the south side of the Honua'ula affordable housing project will face the Piilani Promenade business/commercial activities;

Piilani Promenade traffic on E. Kaonoulu Street fronting the Honua'ula affordable housing project should be less than Piilani Promenade traffic on E. Kaonoulu Street fronting the Piilani Promenade's 226 residential units. Total predicted traffic noise in 2032 at the Honua'ula affordable housing project should also be less than the 59 to 61 DNL predicted at the Piilani Promenade's 226 residential units. (**See:** Appendix E-2 "Acoustic Study dated January 23, 2017")

Shared infrastructure Irrigation Well: The irrigation well is intended to serve both the Piilani and HPL parcels and is designed to do so with the irrigation system located for future connection by all parcels. Additionally, this private system has been designed for conversion to reclaimed water when that service is available from the County of Maui consistent with the zoning conditions for the parcel.

**Kihei Up-Country Highway:** The Piilani Promenade will construct the increment of the Kihei/Upcountry Highway from its intersection with the Piilani Highway through to the eastern boundary of the property serving all four parcels with a fully improved roadway section including major utilities, drainage, off road bicycle and pedestrian paths, roadway and landscaped shoulders and median strips.

**Utilities**: The improvements proposed by Piilani Promenade will provide full utility service to all parcels in the subdivision including the HPL parcel. Water, sewer, electrical, roadway drainage will all be provided per the subdivision construction plans.

#### Secondary impacts

Secondary impacts are those that have the potential to occur later in time or farther in the future, but which are reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing transportation impediments to growth.

Secondary impacts could also result from investments into infrastructure and public facility improvements to support the Project. For example, development of the KUH could induce further growth mauka of Pi'ilani Highway. As documented in Section III.D.1 of the DFEIS, development mauka of Pi'ilani Highway is supported by the Maui Island Plan. The future growth of the KUH outside of the project area is unknown at this time.

While the project is anticipated to add to the resident population, the proportion of inmigrants is expected to be modest given the demand for apartment rental housing in Kihei. As previously noted, the project will result in construction-term expenditures, wages and taxes. Real property taxes will contribute to the County's revenue tax base to support the increase in public services. The project is not anticipated to have a significant adverse impact on the physical environment. As previously noted, no adverse impacts to historic properties, or rare threatened or endangered species are anticipated. Necessary infrastructure systems and services can be reasonably provided to serve the project. The proposed action is not anticipated to result in significant adverse secondary impacts.

### D. UNRESOLVED ISSUES

Issue	Parties Involved	Estimated
		Resolution
1. Motion for <del>o</del> Order Amending the	Applicant, LUC, Office	201 <del>5</del> 7
Findings of Fact, Conclusions of	of State Planning	
Law, and Decision and Order dated		
February 10, 1995 <u>(</u> Docket No. A-94-		
706)		
2. Compliance with the Kihei-	Applicant, County of	<del>2014-</del> 201 <del>5</del> 7
Makena Community Plan	Maui, Department of	
	Planning	
3. Preservation of Archaeological	Applicant, SHPD	201 <del>6</del> 7
Sites		

Table No. 17 Unresolved Issues

4. Future location of Wastewater	Applicant, County of	201 <u>58</u>
Pump Station	Maui, Department of	
	Environmental	
	Management	
5. Pedestrian Connectivity to the	Applicant, DOE, various	2017 <u>9</u>
Kihei High School	private land owners	
6. Army Corps of Engineers	Applicant, Army	<u>Unknown: the</u>
Jurisdictional determination if a		Applicant estimates
navigable waterway of the United		a response from the
States is located on property.		<u>Army in 2017</u>
7. Impact Fee Agreement with the	Applicant, DOE	Prior to construction
Department of Education (DOE)		of the Project
		<u>infrastructure,</u>
		which is estimated
		<u>to happen in 2018.</u>

# 1. Motion for <del>o</del>Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order dated February 10, 1995 (Docket No. A-94-706)

On February 10, 1995, the Land Use Commission issued its Findings of Fact, Conclusions of Law, Decision and Order, in Docket No. A94-706 (the "1995 Decision and Order"). The 1995 Decision and Order reclassified the Petition Area from Ag to Urban subject to conditions.

On September 10, 2010, Maui Industrial Partners<u>, LLC</u> sold the project parcels TMK's (2) 3-9-001:016, 170-174 to the Applicant. The project parcels comprise <u>approximately</u> 75 of the 88 acres contained within the Petition Area. The remaining 13 acres are owned by a third party (Honua'ula Partners) and are not part of the project area.

Applicant, through Eclipse Development Company, LLC, originally planned to develop a shopping complex known as "Pi'ilani Promenade" on the Pi'ilani Parcels. On April 11, 2012 and April 18, 2012, Maui County issued to Applicant two grading permits, placing Applicant in a position to begin construction of on-site and off-site infrastructure for the Pi'ilani Parcels. However, on May 23, 2012, Maui Tomorrow Foundation, Inc., South Maui Citizens for Responsible Growth, and Daniel Kanahele filed a Motion for a Hearing, Issuance of Order to Show Cause, and Other Relief with the Commission, which was granted on September 10, 2012 (the "Order to Show Cause"). At a meeting on February 7, 2013, a majority of the members of the Commission determined by oral vote that Applicant's proposed use of the Pi'ilani Parcels and Honua'ula' s proposed use of the

Honua'ula Parcel would violate Conditions 5 and 15 of the 1995 Decision and Order, and that Condition 17 had also been violated. No written order regarding the foregoing has been entered. Thereafter, Applicant moved for, and the LUC issued, a stay of the Order to Show Cause Proceeding, to allow the Applicant to file motion to amend the 1995 Decision and Order (the "Motion to Amend").

The Applicant filed a Motion to Amend requesting that the LUC issue a new docket number, release the project parcels from the conditions of the 1995 Decision and Order<sub>z</sub> and issue new Findings of Fact, Conclusion of Law, and a Decision and Order as to the Pi'ilani parcels applicable <u>and</u> only to the project <del>site</del>. If the Motion <u>to Amend</u> is granted, then it is the Applicant's position that the Order to Show Cause proceeding would be moot<del>, and should be dismissed</del>.

#### 2. Compliance with the Kihei-Makena Community Plan

The Pi'ilani Promenade is designated for (LI) Light Industrial uses by the KMCP. The KMCP defines "Light Industrial (LI)" as follows: "This is for warehousing, light assembly, service and craft-type industrial operations." The County of Maui Planning Department has consistently interpreted the KMCP's LI designation consistent with the M-1 Light Industrial zoning classification, as the KMCP specifically states that the goals, objectives and policies of the KMCP are implemented and effectuated through various processes, including zoning. The Applicant expects the Planning Department to provide written comment on this Draft EIS and we expect any concerns to be documented in their comment letter.

The subject property is located in North Kihei, south of Ohukai Road, and mauka of Pi'ilani Highway. This area was designated in the KMCP for light industrial use in order to encourage urban expansion in the area mauka of Pi'ilani Highway (goal k). Goal k of the KMCP seeks to "[p]rovide for limited expansion of light industrial services in the area south of Ohukai and mauka of Pi'ilani 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." The original conceptual plan of 123 light industrial lots, which fit squarely within that designation, is no longer desirable or economically viable. The KMCP specifically states that it is intended to guide decision making through the year 2010. See KMCP at 3. Since the KMCP was adopted in 1998, the proposed planning for that area has adjusted. Other developments south of Ohukai and mauka of Pi'ilani are predominantly retail, with only some instances of true light industrial uses. The community planning process has evolved since 1998, and the current Maui Island Plan indicates that the Pi'ilani Promenade is located within the Urban Growth



Boundary, and is surrounded by areas currently not zoned for urbanization, but designated as "planned growth areas." The Maui Island Plan specifically cites the need for mixed-use neighborhood centers "to provide services and jobs within close proximity to where people live and provide a more efficient land use pattern." Maui Island Plan at 8-27.

It is the Applicant's position, which it intends to advocate for on the pending Motion to Amend before the LUC, that the project falls within the Light Industrial designation of the KMCP, as that provision is implemented by the corresponding M-1 zoning designation, and that goal k of the Land Use section on page 18 of the KMCP is substantially met by the proposed project. In the event that the LUC does not agree with the Applicant's position in deciding the Motion to Amend, then, as an alternative, Applicant will seek any necessary amendment to the KMCP.

Although the County of Maui has determined that the proposed Project complies with the KMCP, the Applicant recognizes that certain parties have asserted that an amendment to the KMCP is necessary for development of the Project to proceed. This issue may be resolved by the LUC during its consideration of the Applicant's Motion to Amend.

#### 3. Preservation of Archaeological Sites

As stated in the DEIS, the property contains archaeological sites and the project Archaeologist has recommended a data recovery plan as the mitigation measure. The Applicant expects that SHPD will comment on the DEIS and provide guidance on preparation of an adequate data recovery plan as practical mitigation solution. Data recovery is now the recommended mitigation for twelve (12) Sites 3727-3729, 3732, 3735, 3736, Sites 3741 through 3745, and newly identified Site 8266 (See: Table No. 2). A data recovery plan has been prepared and submitted to SHPD in June 2016 and is currently under review by SHPD staff. In addition the SHPD issued a letter dated January 6, 2016 that accepts the AIS as final. (See: Appendix F-1, "SHPD acceptance letter dated January 6, 2016").

The Applicant is willing to continue meetings with the Aha Moku members as well as other members of the community during the site data recovery process to further understand the cultural and archaeological nature of the site and where possible, development of a preservation plan for those sites.

The Applicant is aware that no ground disturbing work can proceed until a formal agreement with the SHPD is complete.

#### 4. Development of Wastewater Pump Station

The County of Maui, Department of Environmental Management requested that the applicant locate a 10,000 square foot wastewater pump station on the project site. The Applicant met with the Department on May 6, 2014 to discuss the preferred location of the pump station. As a result of that meeting the Applicant will continue coordinating with the Department and the Project team's Civil Engineer during the environmental review process to determine the preferred location.

At the time of publication of this FEIS, the Department of Environmental Management, Wastewater Division has not prepared designs for the sewer line or pump station and has not included the future sewer line or pump station in any capital improvement program (CIP) budget request for design. The Applicant will continue to cooperate with the Department of Environmental Management, Wastewater Division to set aside an area in the Project site for the pump station and sewer line. The pump station is a large piece of infrastructure that will service the central Kihei region in the future and the construction timetable is unknown at this time.

#### 5. Pedestrian Connection to the Kihei High School

The Kulanihakoi Gulch separates the proposed project and future Kihei High School. The Applicant is willing to discuss connectivity opportunities with the SDOT to create pedestrian access between the school and Pi'ilani Promenade. The Kihei High School is required to construct an underpass or overpass across Pi'ilani Highway to provide pedestrian access. The DOE has not made a decision on which option is the most viable. The construction schedule for the school and appropriate funding sources for the pedestrian access are uncertain at this time. The connectivity issue will be resolved as the Kihei High School plans become finalized.

#### At the time of publication of this FEIS the issue remains unresolved.

However, the current Project plan includes off road pedestrian and bicycle routes along both East Kaonoulu Street, as well as through an access easement from Ohukai Street to East Kaonoulu Street. Additionally, the Project includes a separate pedestrian/bicycle pathway running parallel to the Pi'ilani right of way within the Project site as a preferred and safe route for south Maui residents traveling to and from the Project site. With regard to the Kulanihakoi Gulch crossing, the Applicant has offered to assist the State DOT in the design of a separate crossing facility located within the right of way and outside the roadway section for pedestrian and bicycle safety. All of the above proposed improvements are intended to facilitate safe walking and bicycling and to reduce the requirement for automobile use in order to access the development.

#### 6. Army Corps of Engineers Jurisdictional Determination

The Applicant is awaiting a jurisdictional determination by the Army Corps of Engineers whether a navigable waterway of the United States is located within the Project site. The Applicant met with the Army Corp of Engineers on the Project site on January 19, 2017. The Army Corp of Engineers is currently finishing review of the field notes and a determination is pending. The Applicant expects resolution of this issue in 2017.

#### 7. Impact Fee Agreement with the Department of Education (DOE)

The Applicant will enter into an Impact Fee Agreement with the DOE, which will be executed prior to construction of the Project infrastructure, which is estimated to happen in 2018.

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# VII. CONSULTATION AND REVIEW

## A. EARLY CONSULTATION

Prior to the preparation of the Draft EIS, consultation on the project was undertaken with the following agencies and groups:

Various Dates 2013	Meetings with Kihei Community Association to discuss the project and preparation of the EISPN (4/26, 6/4, 6/28, 9/10/13)
June 25, 2013	Maui Nutrition and Physical Activity Coalition (NPAC)
July 9, 2013	South Maui retail business owners meeting to discuss project design
September 10, 2013	Meeting with Maui Chamber of Commerce and Maui Contractors Association to discuss project design.
September 11, 2013	Native Hawaiian Chamber of Commerce
November 5, 2013	General Public Community Meeting, approximately 150 people from the public attended. The entire project team was present to answer questions from the Community.
February 25, 2014	Public Informational meeting on Archaeology, approximately 15 people attended. (a transcript of the meeting is located in Appendix F)
May 6, 2014	Consultation meeting with Maui County Department of Environmental Management to discuss location of a future wastewater pump station and associated easement.

After the preparation of the DEIS, consultation on the Project was undertaken with the following agencies and groups.

January 22, 2016 Site visit with individuals to review archaeological site.

February 19, 2016 Meeting with Planning Department to discuss the Project.

	Pi'ilani Promenade
<u>April 26, 2016</u>	Consultation phone call with Maui County Department of Environmental Management to discuss location of a future wastewater pump station and associated easement.
<u>April 27, 2016</u>	Consultation meeting with Aha Moku and other individuals to review cultural and archaeological concerns.

### B. EIS PREPARATION NOTICE DISTRIBUTION

The EISPN was published by the Department of Health, Office of Environmental Quality Control (OEQC) on September 23, 2013 and the 30-day public comment deadline was October 23, 2013. The EISPN was transmitted to the following agencies, and organizations, and individuals for review and comment. The agencies, organizations, and individuals with an asterisk \* provided comments (See: Appendix A, "EISPN Comments and Responses") The EISPN was transmitted to the Kihei Public Library for public review. No public comments were received.

#### Federal Agencies

U.S. Department of Agriculture, Natural Resources Conservation Service U.S. Army Engineer Division\* U.S. Fish and Wildlife Service

### State Agencies

Department of Agriculture Department of Accounting and General Services\* Department of Business, Economic Development & Tourism (DBEDT) DBEDT - Office of Planning\* Department of Education\* Department of Hawaiian Home Lands Department of Health- Environmental Planning Office\* Department of Health- Clean Water Branch\* Department of Health- Safe Drinking Water Branch\* Department of Health- Clean Air Branch\* Department of Health- Clean Air Branch\* Department of Health- Wastewater Branch\* Department of Health- Maui District\* Department of Human Services Department of Labor and Industrial Relations Department of Land and Natural Resources (DLNR) – Land Division\* DLNR – State Historic Preservation Division (SHPD) DLNR- Engineering Division\* DLNR- Commission on Water Resource Management\* Department of Transportation\* Hawaii Housing Financing and Development Corporation Office of Hawaiian Affairs University of Hawaii, Environmental Center

#### Maui County Agencies

Department of Environmental Management\* Department of Fire and Public Safety\* Department of Housing and Human Concerns\* Department of Parks and Recreation\* Department of Planning Department of Public Works\* Department of Transportation\* Department of Water Supply Police Department

#### Others

Maui Tomorrow\* Kihei Community Association\* South Maui Citizens for Responsible Growth\* Daniel Kanahele\* Elden Liu\* Michael Lee\* Lila Sherman\* Brian Naeole\* Edwin Lindsey (Maui Cultural Lands)\* <u>Clare Apana\*</u>

# C. COMMENTS ON THE DRAFT EIS

The DEIS was published by the Department of Health, Office of Environmental Quality Control (OEQC) on August 23, 2014 and the 45-day public comment deadline was October 7, 2014. The DEIS was transmitted to the following agencies, organizations, and individuals for review and comment. The agencies, organizations, and individuals with an asterisk \* provided comments (**See:** Appendix P, Comments on the Draft EIS)

#### **Federal Agencies**

U.S. Department of Agriculture, Natural Resources Conservation Service

Department of the Army, Army Corps of Engineers

U.S. Army Engineering District, Honolulu, Regulatory Branch

Department of Homeland Security, Coast Guard

U.S. Department of the Interior, National Park Service

U.S. Department of the Interior, USGS\*

U.S. Fish and Wildlife Service

U.S. Department of Commerce, National Marine Fisheries Service

Department of Transportation, Federal Aviation Administration

Department of Transportation, Federal Transit Administration

#### State Agencies

Department of Agriculture

Department of Accounting and General Services\*

Department of Business, Economic Development & Tourism, Office of Planning\*

Department of Business, Economic Development & Tourism, Strategic Industries Division

Department of Business, Economic Development & Tourism, Hawaii State Energy Office

Department of Defense

Department of Education\*

University of Hawaii, Water Resources Research Center

University of Hawaii, Environmental Center

Department of Hawaiian Homelands

Department of Health (DOH) Environmental Planning Office\*

DOH- Clean Air Branch\*

DOH- Clean Water Branch\*

DOH- Indoor & Radiological Health Branch

DOH- Maui District Health Office\*

DOH-Safe Drinking Water Branch\*

DOH\_Solid & Hazardous Waste Branch

DOH- Wastewater Branch\*

Department of Land and Natural Resources (DLNR) Land Division\*

**DLNR- Engineering Division\*** 

DLNR- Commission on Water Resource Management\*

DLNR- State Historic Preservation Division (SHPD)\*

DLNR-SHPD, Maui District Office

DLNR- Land Division

DLNR- Maui Land Division

Office of Hawaiian Affairs

Department of Transportation\* Department of Transportation, Planning Branch Department of Transportation, Maui Highways Division Land Use Commission\*

#### Maui County Agencies

Department of Environmental Management Department of Fire and Public Safety Department of Fire and Public Safety, Fire Prevention Bureau Department of Housing and Human Concerns\* Department of Parks and Recreation\* Department of Planning\* Maui Police Department Department of Public Works\* Maui Department of Transportation Department of Water Supply\* Maui Civil Defense Agency

#### **Elected Officials**

<u>United States Senator, Mr. Brian Schatz</u> <u>United States Senator, Ms. Mazie Hirono</u> <u>State Senator Rosalyn Baker</u> <u>State Representative Angus McKelvey</u>

#### Maui County Council Members

Don Guzman Gladys Coelho Baisa Robert Carroll Elle Cochran Donald G. Couch, Jr. G. Riki Hokama Michael P. Victorino Mike White Stacy Crivello

#### **Others**

<u>Maui News</u> <u>Hawaiian Telcom, Inc.</u> <u>Maui Electric Company, Ltd.</u> <u>Maui Planning Commission</u> Ms. Zandra Amaral\* Ms. Paula Baldwin\* Ms. Kellie Cruz\* Mr. Daniel Kanahele\* Mr. Michael Lee Mr. Elden Liu\* Ms. Desiree Lopes\* Ms. Joan Martin\* Mr. Dick Mayer\* Mr. Brian Naeole Mr. Brian Naeole Mr. David Reader\* Ms. Sharon Rose\* Ms. Millie Septimo\* Ms. Lila Sherman Ms. Gylian Solay\*

<u>Kihei Community Association\*</u> <u>Maui Chamber of Commerce\*</u> <u>Maui Cultural Lands Inc.</u> <u>Maui Tomorrow Foundation\*</u> <u>South Maui Citizens for Responsible Growth\*</u> <u>Tom Pierce, Attorney at Law LLLC</u>

### D. CONSULTANT LIST

The following consultants prepared technical studies in preparation of the Draft and Final Environmental Impact Statements.

#### **Primary Consultant / Planner**

<u>Chris Hart & Partners, Inc.</u> <u>115 North Market Street, Wailuku, Hawaii 96753</u> <u>Contact: Mr. Jordan E. Hart (808.242.1955)</u>

Traffic Phillip Rowell and Associates 47-273 'D' Hui Iwa Street, Kaneohe, Hawaii 96744 Contact: Mr. Phillip Rowell (808.239.8206)

<u>SSFM International Inc.</u> 501 Sumner Street, Suite 620, Honolulu, Hawaii 96817 Contact: Ms. Cheryl D. Soon (808.531.1308)

#### **Civil Engineering**

<u>Warren S. Unemori Engineering, Inc.</u> 2145 Wells Street, Suite 403, Wailuku, Hawaii 96793 Contact: Mr. Darren Unemori (808.249.6903)

#### Market & Econometric Analysis

<u>The Hallstrom Group, Inc.</u> <u>1003 Bishop Street, Suite 1350, Honolulu, Hawaii 96813</u> <u>Contact: Mr. Tom W. Holliday (808.526.0444)</u>

#### <u>Water</u>

Marine Research Consultants, Inc. 1039 Waakaua Pl., Honolulu, Hawaii 96817 Contact: Mr. Steve Dollar (808.988.5009)

<u>Waimea Water Services, LLC.</u> 65-1206 Mamalahoa Hwy., 1-206, Kamuela, Hawaii 96743 Contact: Mr. David Barnes (808.885.5941)

#### Botanical & Fauna

<u>Robert W. Hobdy Environmental Consultant</u> <u>Kokomo Road, Haiku, Hawaii 96708</u> <u>Contact: Mr. Robert W. Hobdy (808.573.8029)</u>

#### **Archaeology**

Xamanek Researches, LLC P.O. Box 880131, Pukalani, Hawaii 96788 Contact: Mr. Erik Fredericksen (808.572.6118)

#### <u>Cultural</u>

Hana Pono, LLC P.O. Box 2039, Wailuku, Hawaii 96793 Contact: Mr. Keli'i Tau'a (808.573.1643)

<u>Scientific Consultant Services Inc.</u> <u>1347 Kapiolani Blvd., Suite 408, Honolulu, HI 96814</u> <u>Contact: Ms. Cathleen A. Dagher (808.597.1182)</u>

#### <u>Environmental</u>

Malama Environmental, LLC P.O. Box 880487, Pukalani, Hawaii 96788 Contact: Mr. John S. Vuich, M.S. (808.573.0200)

#### **Geotechnical Engineering**

<u>Fewell Geotechnical Engineering, LTD.</u> <u>360 Papa Place, Suite 103, Kahului HI, 96732</u> <u>Contact: Mr. Alan Shinamoto, P.E. (808.873.0110)</u>

#### Air Quality

B.D. Neal & Associates P.O. Box 1808, Kailua-Kona, Hawaii 96745 Contact: Mr. Barry Neal (808.329.1627)

#### <u>Acoustic</u>

<u>Y. Ebisu & Associates</u> <u>1126 12<sup>th</sup> Avenue, Room 305, Honolulu, Hawaii 96816</u> <u>Contact: Mr. Yoichi Ebisu (808.735.1634)</u>

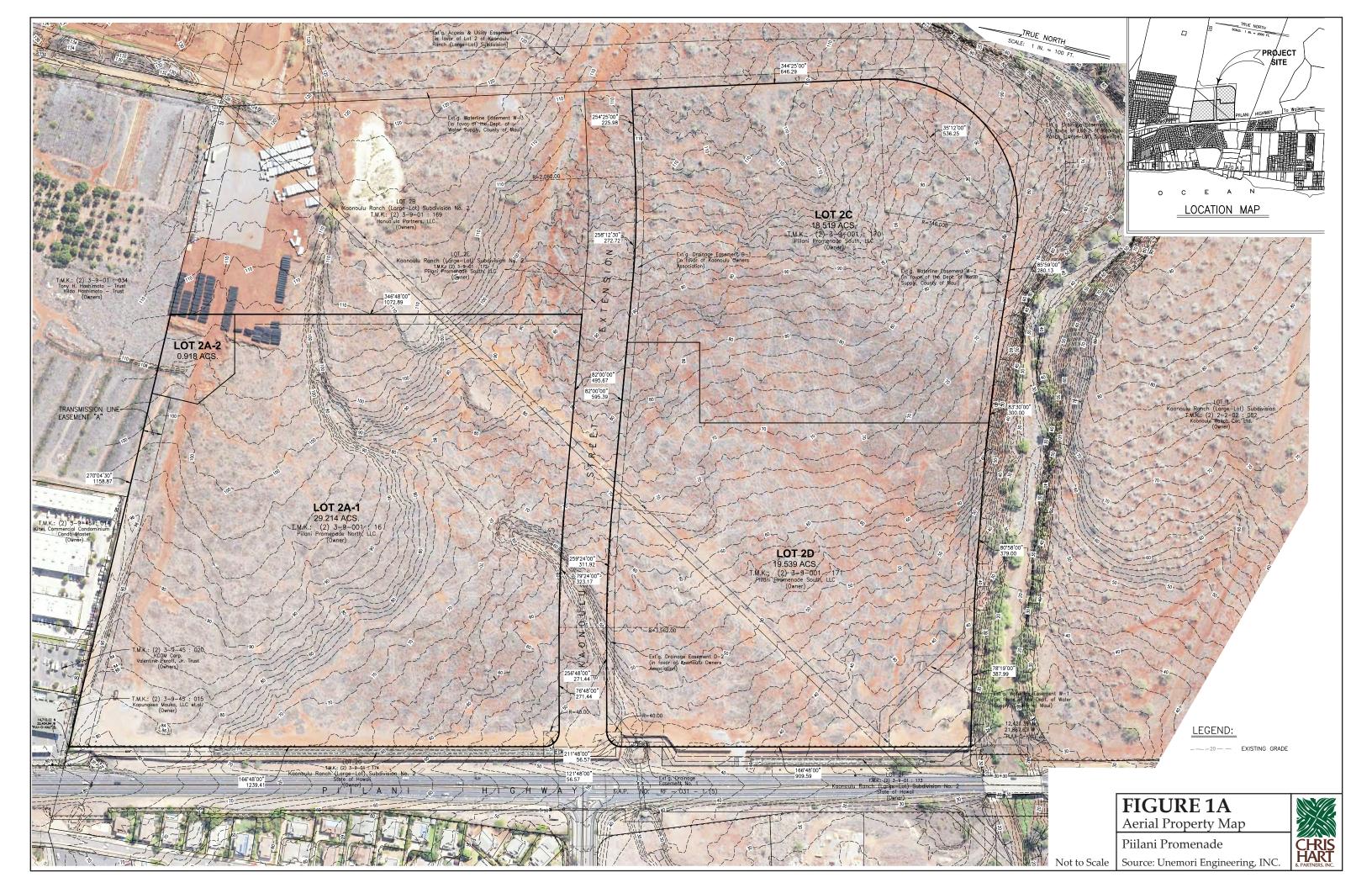
#### Architect/ View Analysis

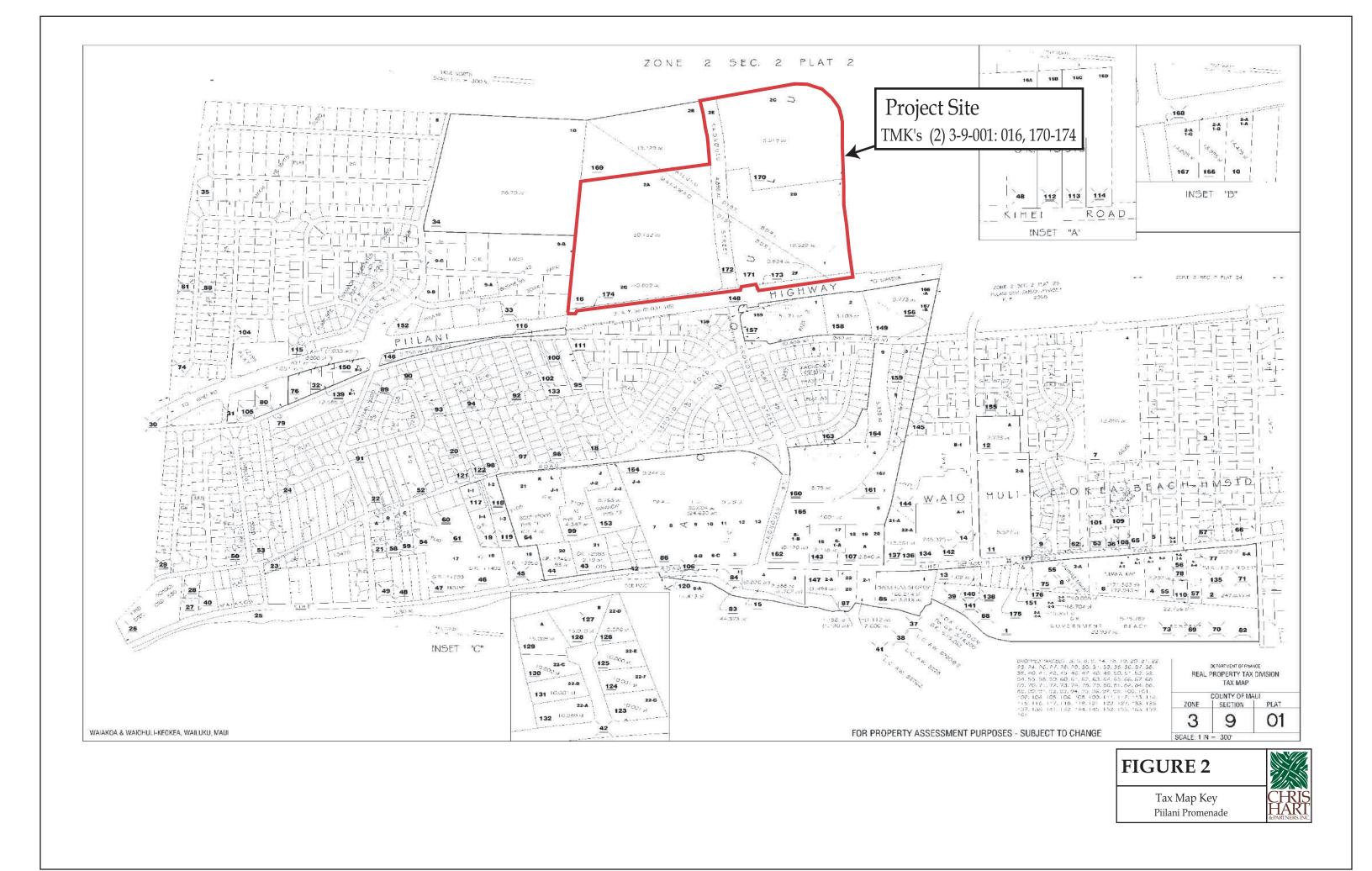
<u>Architects Orange</u> <u>144 N. Orange St., Orange CA 92866</u> <u>Contact: Mr. Jack Selman (714.639.9860)</u>

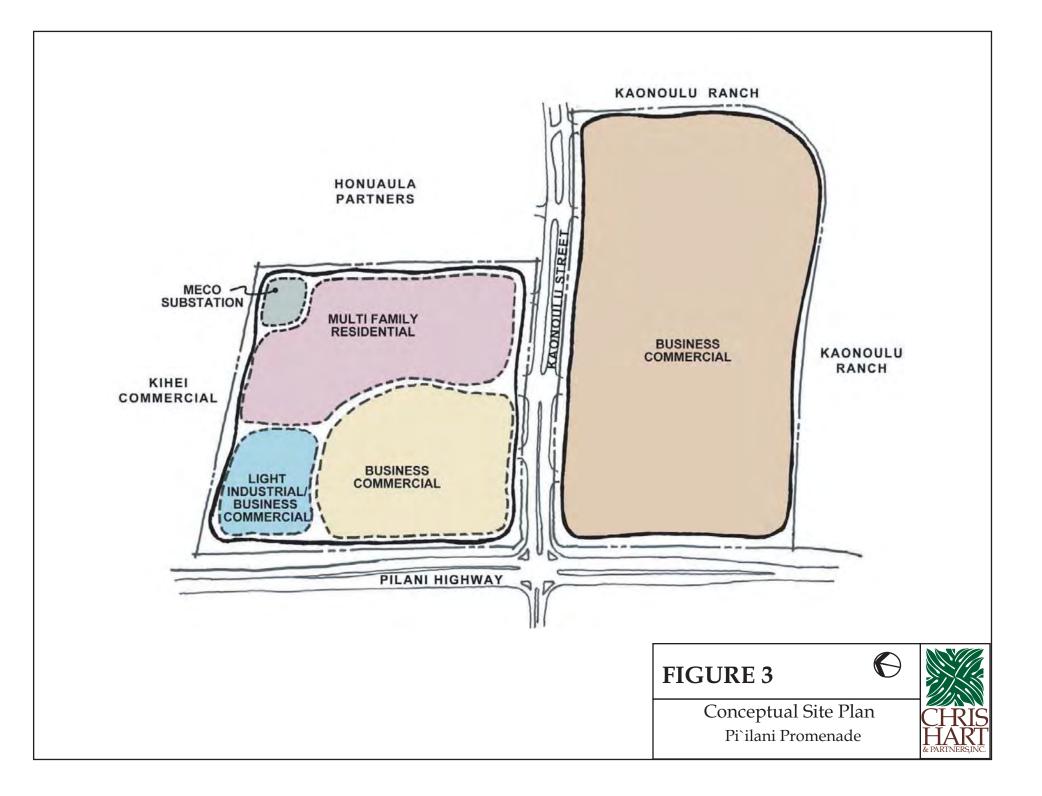
# **FIGURES**

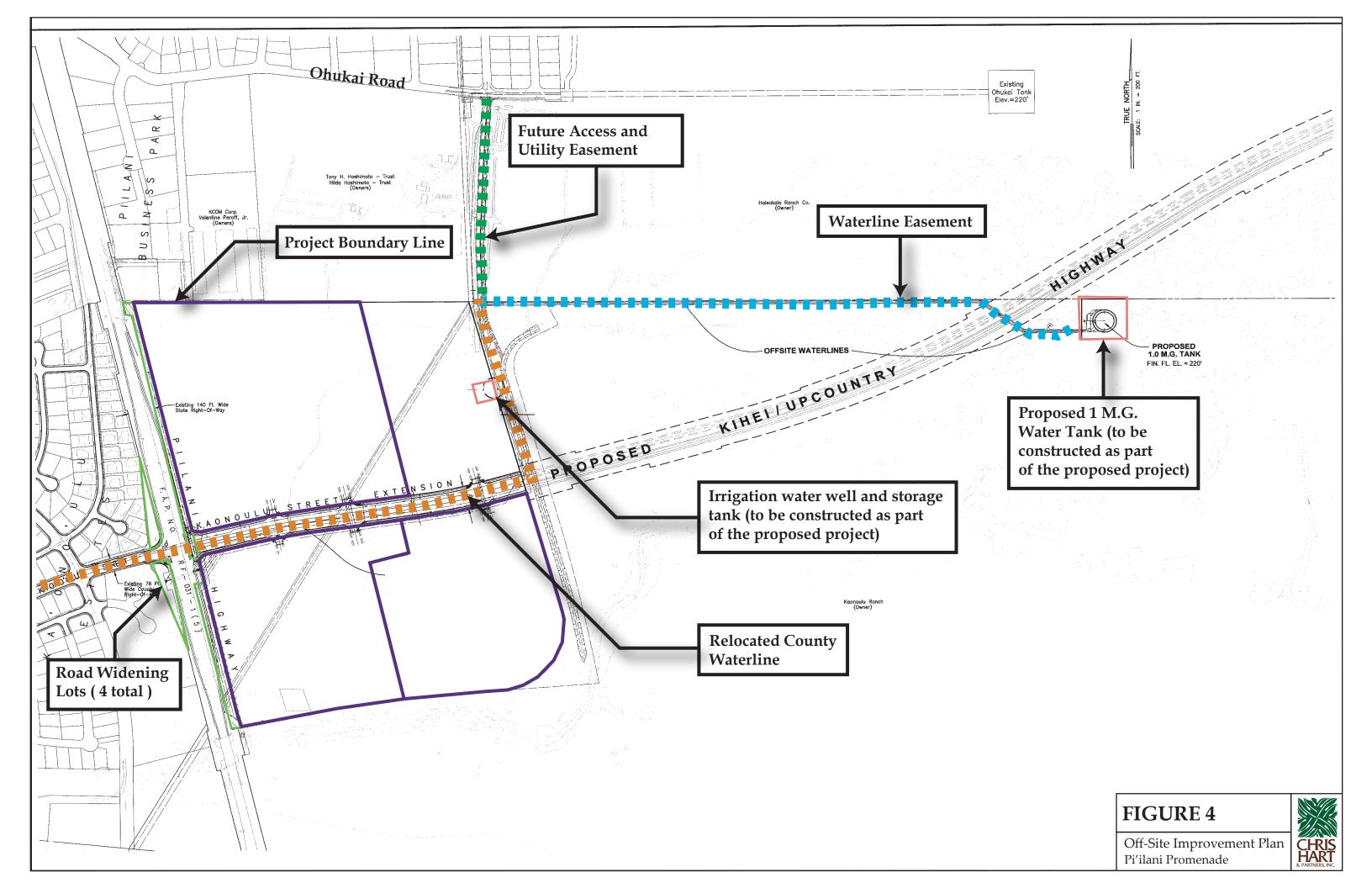
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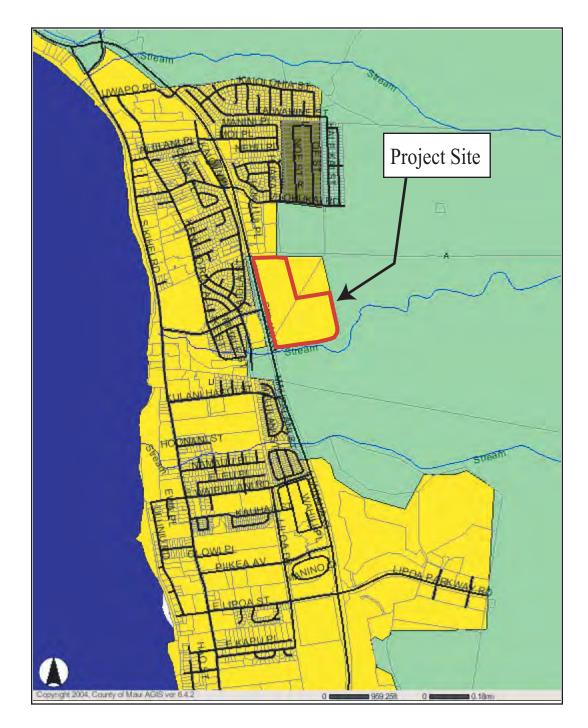












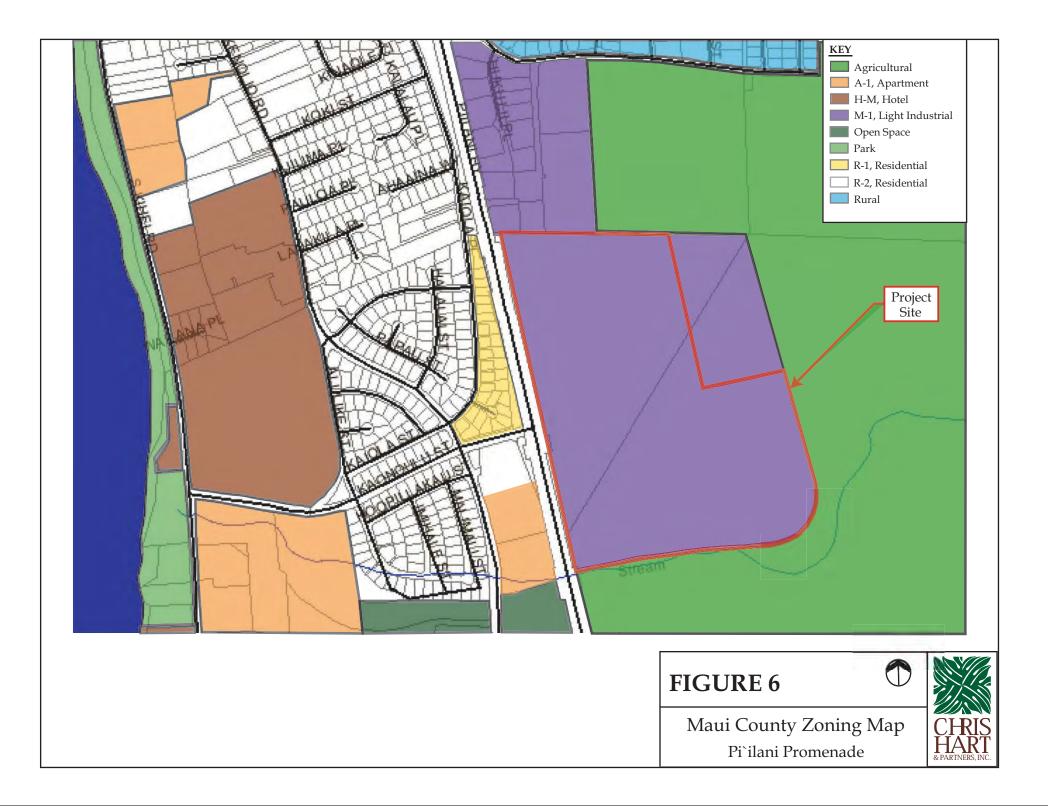
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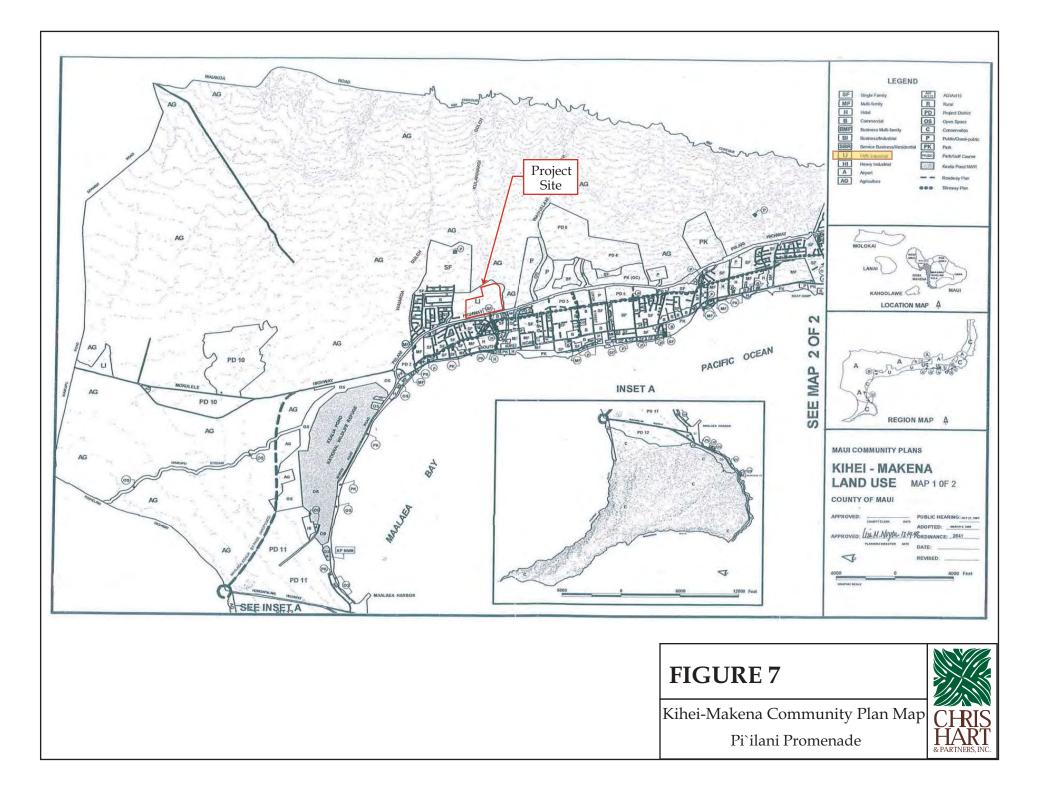




State Land Map Pi`ilani Promenade





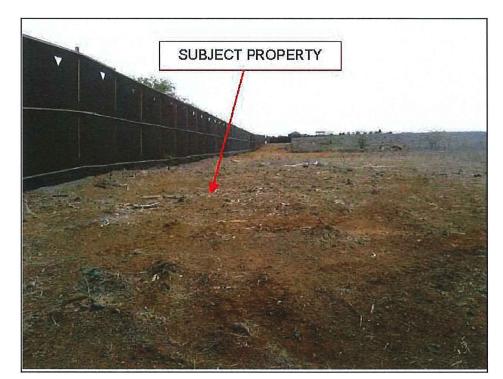




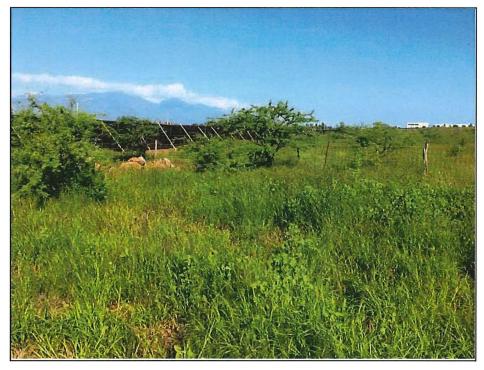
View of the property construction entrance from Piilani Highway.



View of concrete drainage culvert that runs along the western boundary of the subject property and under Piilani Highway.



North.



View of the subject property looking Northwest towards the adjacent commerical and light industrial uses.



View of Drainageway "A" located on the property.



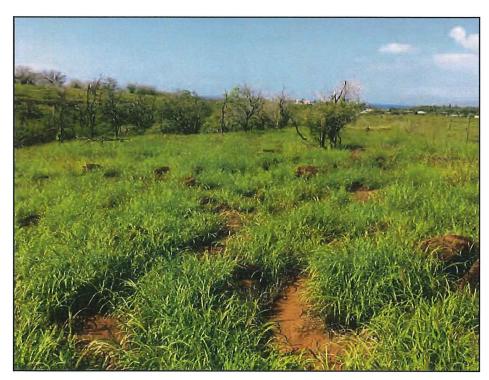
View of ranch enclosure located on Parcel 171.

View from the southwest corner of the subject property looking

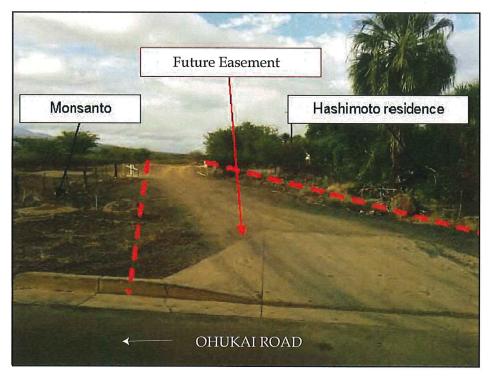
#### **FIGURE 8**

Site Photographs Pi'ilani Promenade

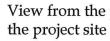




View from the proposed waterline easement located mauka of the project site looking west towards the Pacific Ocean.

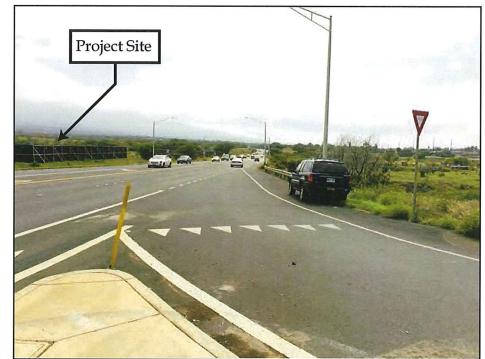


View of future roadway and electrical easement from Ohukai Road.





View of Intersection of Kaonoulu Street and Piilani Highway looking North. This will become a signalized intersection.



View of Intersection of Kaonoulu Street and Piilani Highway looking South. This will become a signalized intersection.





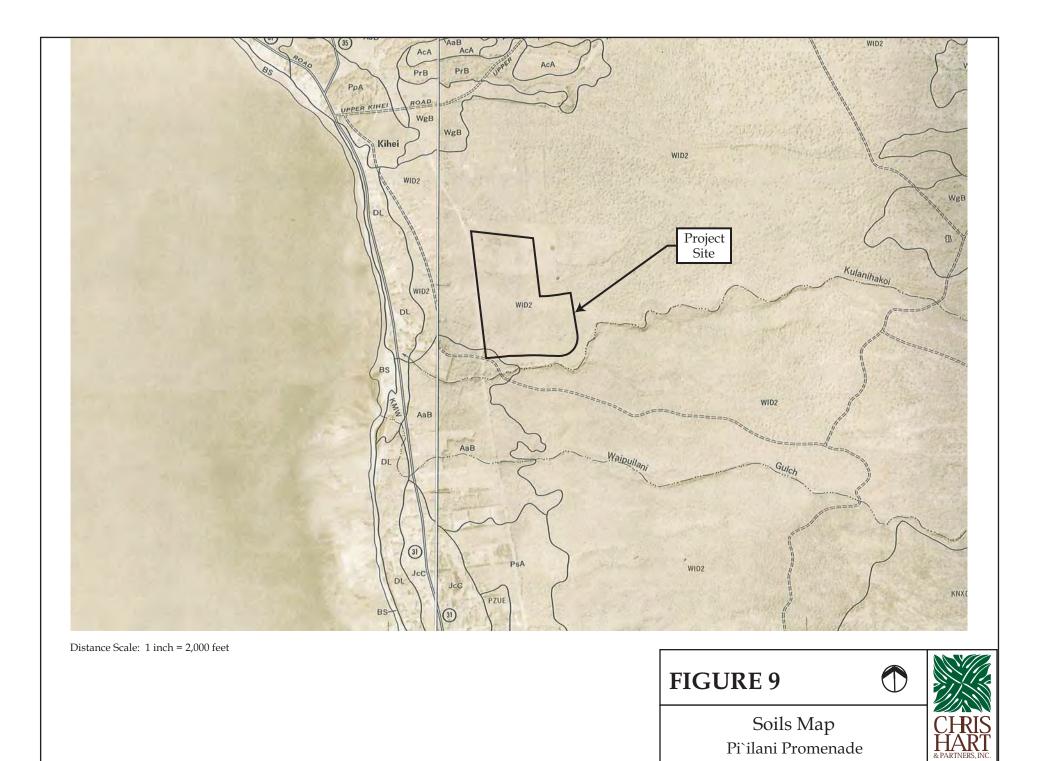
View from the proposed 1.0 MG water tank site located mauka of the project site looking west towards the Pacific Ocean.

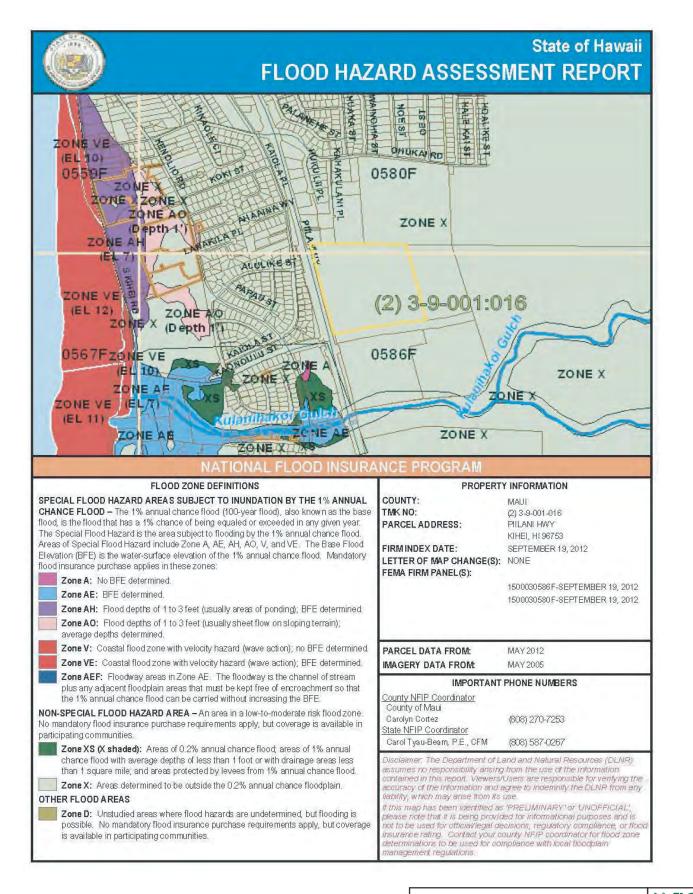
View of Piilani Highway with project dust fence in the background.

#### **FIGURE 8A**

Site Photographs Pi'ilani Promenade



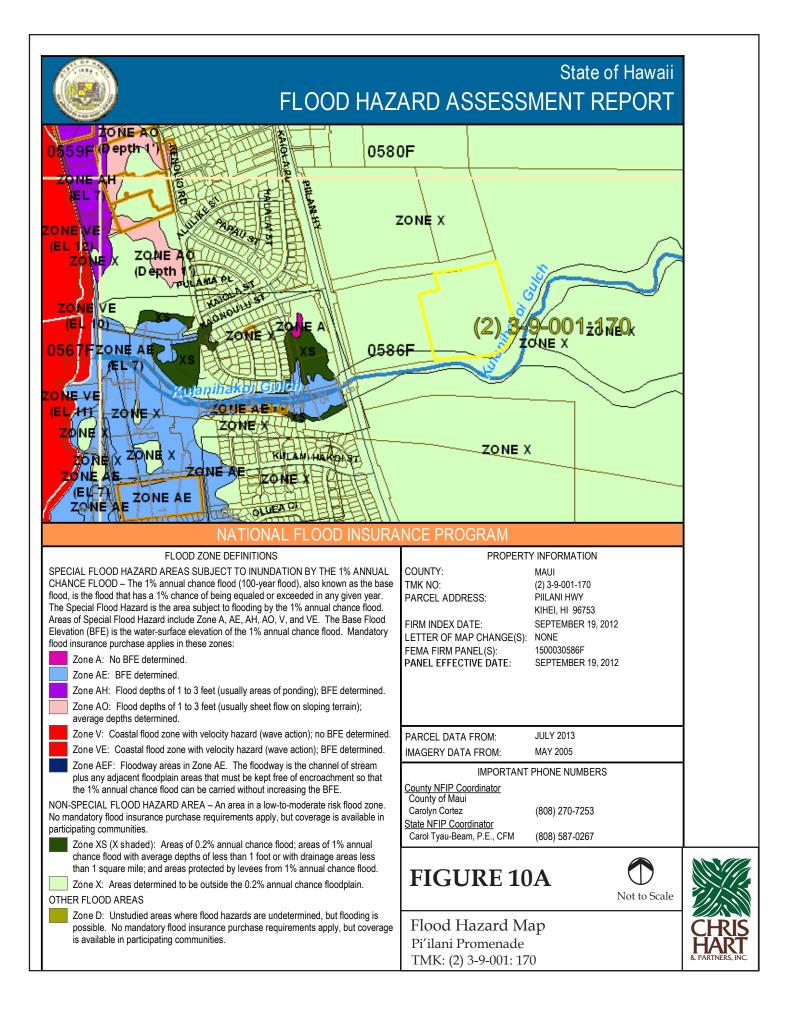


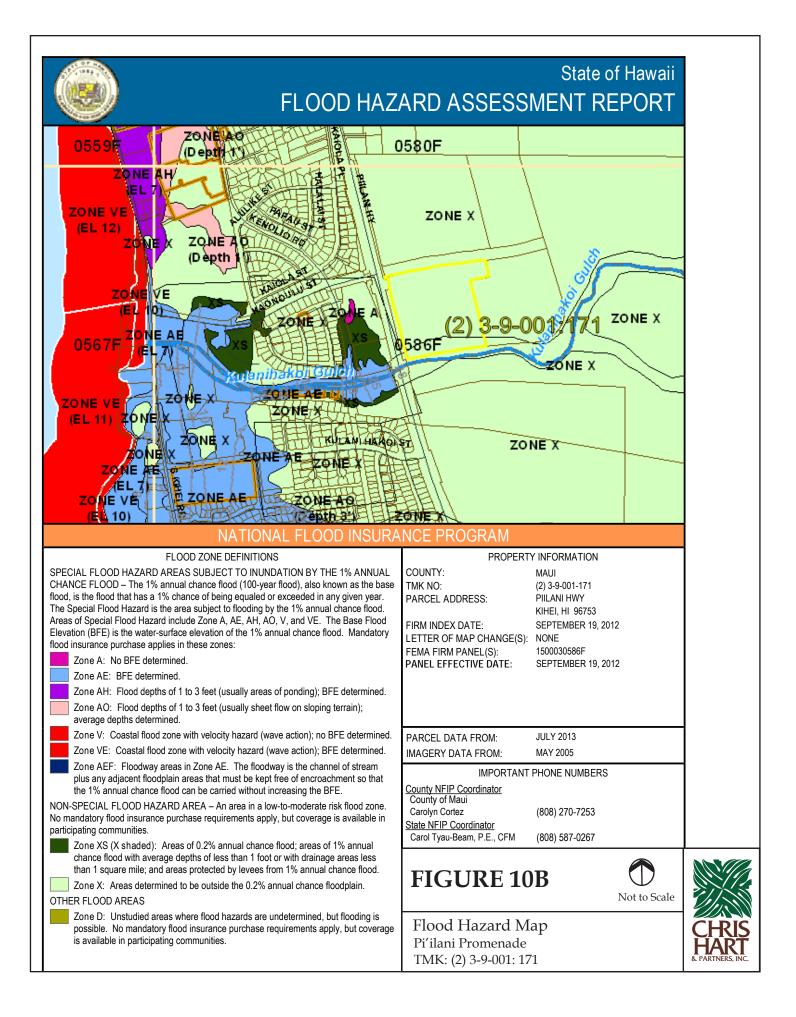


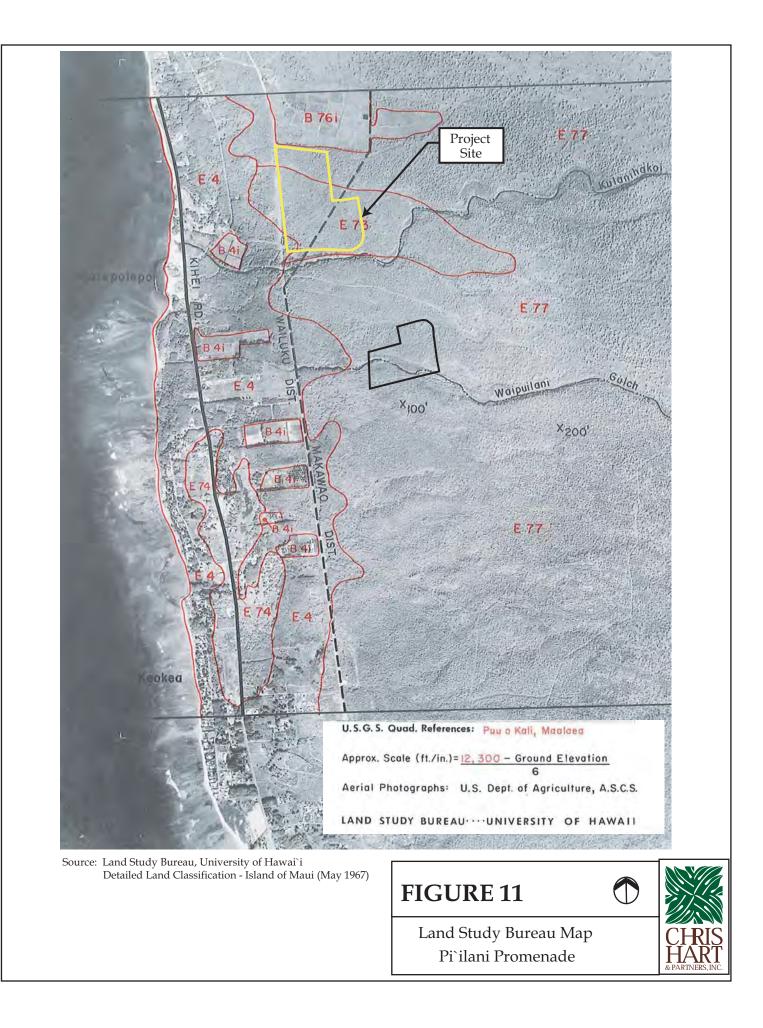


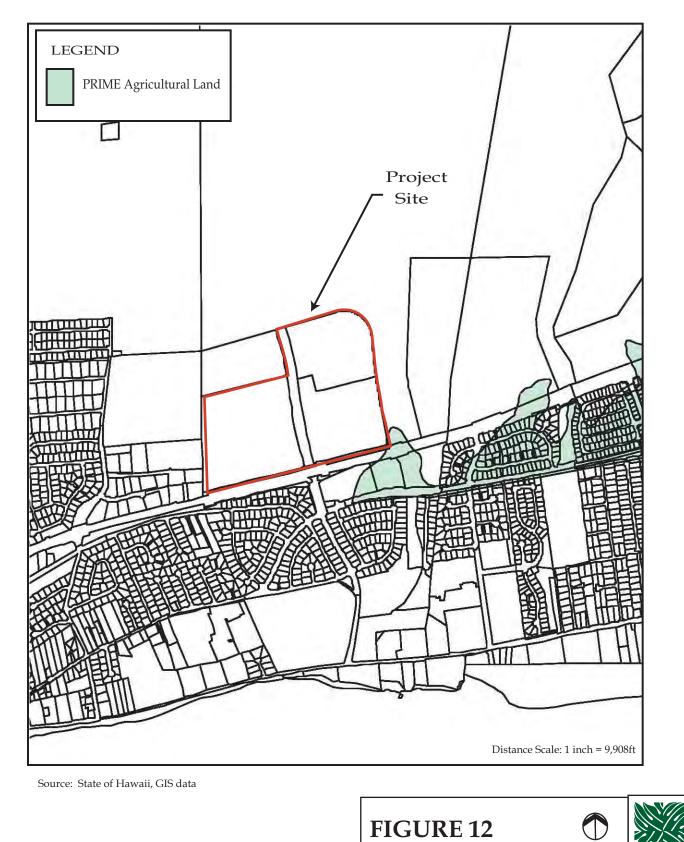
Flood Hazard Map Pi`ilani Promenade TMK (2) 3-9-001: 016

**FIGURE 10** 



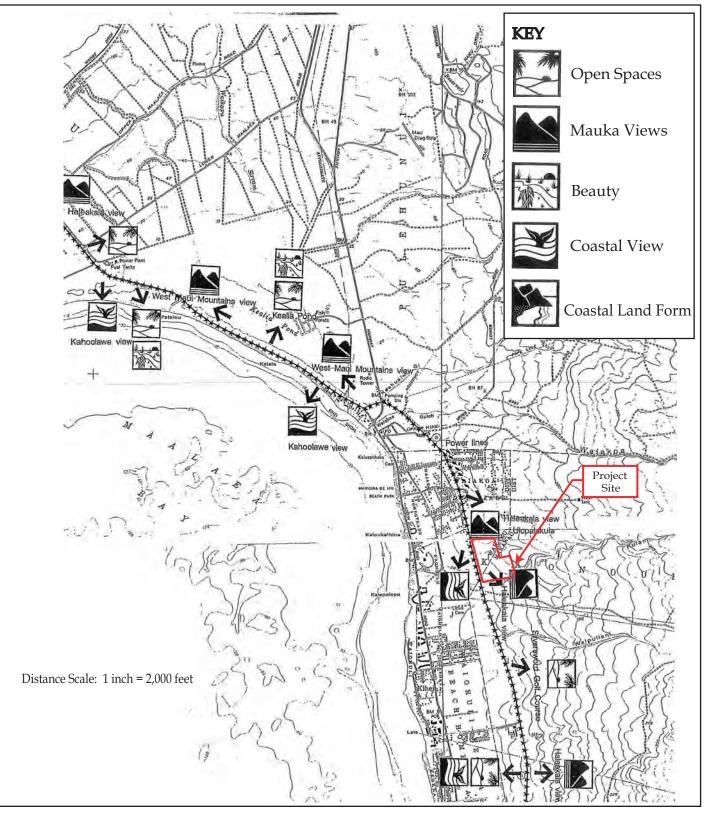






ALISH Map Pi`ilani Promenade





Source: Maui Coastal Scenic Resources Study (8/31/90)

#### FIGURE 13

P CH



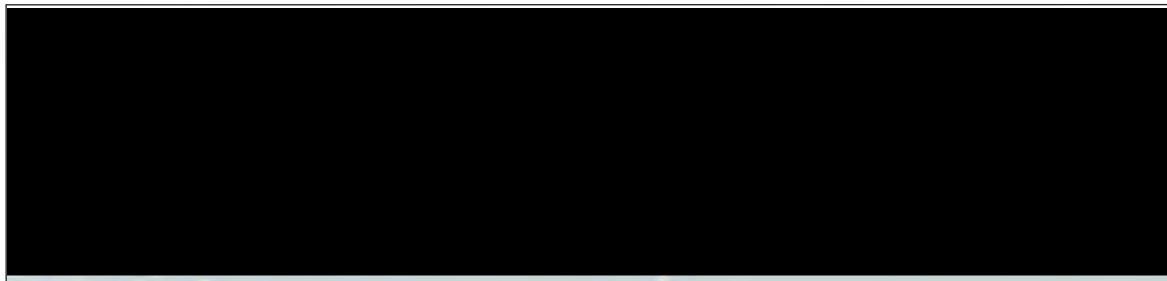


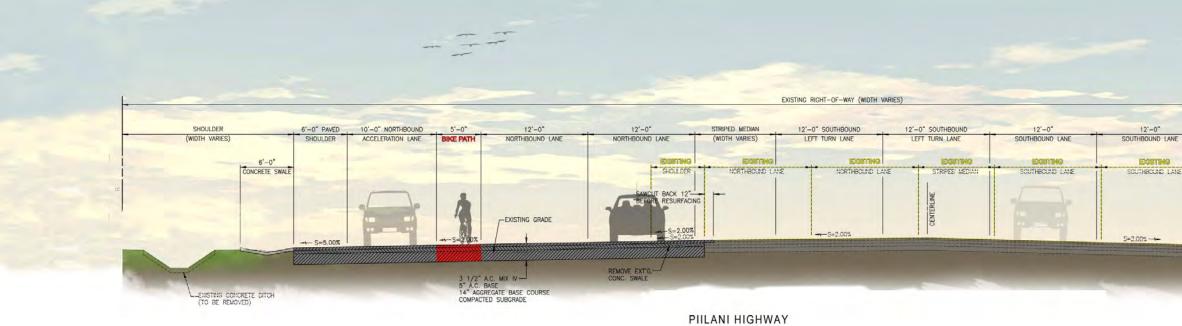
# Piilani Promenade

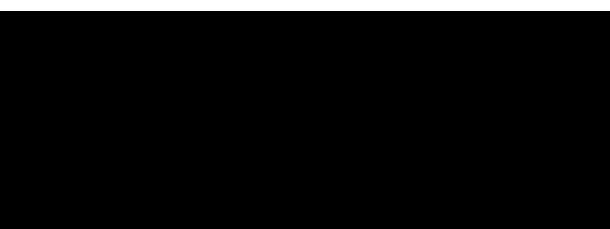
Maui, Hawaii

#### FIGURE 14 Kaonoulu Street Section











### Piilani Promenade Maui, Hawaii

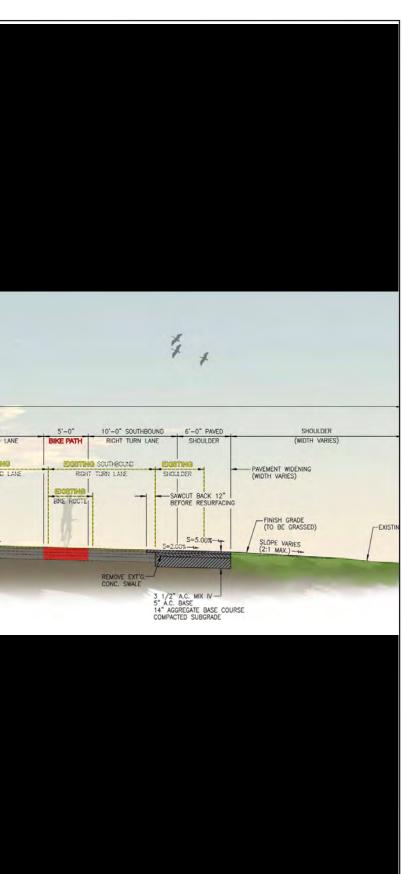


FIGURE 14A Piilani Hwy Existing Street Section



## Piilani Promenade

Maui, Hawaii

8'-0" BIKE PATH & PEDESTRIAN

### DEVELOPMENT PROPOSAL

SHOULDER (WIDTH VARIES)

6'-0" PAVED

SHOULDER

10'-0" NORTHBOUND

ACCELERATION LANE

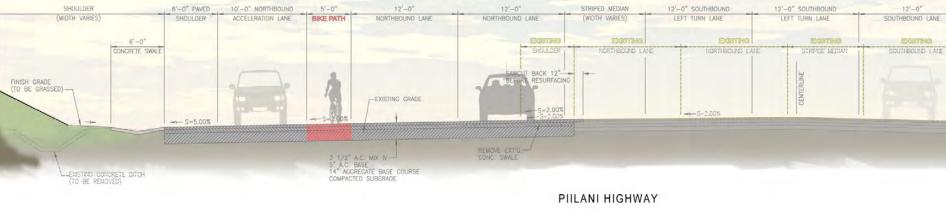
5'-0"

BIKE PATH

STRIPED MEDIAN (WIDTH VARIES)

12'-0" SOUTHBOUND LEFT TURN LANE

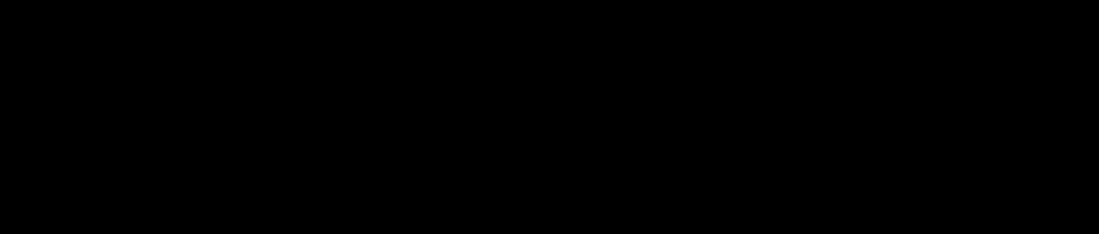
12'-0" SOUTHBOUND LANE

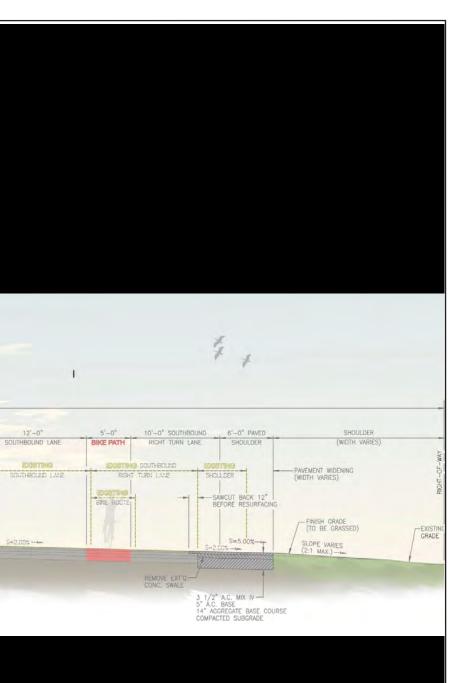


12'-0" NORTHBOUND LANE

11 EXISTING RIGHT-OF-WAY (WIDTH VARIES)

12"-0" NORTHBOUND LANE

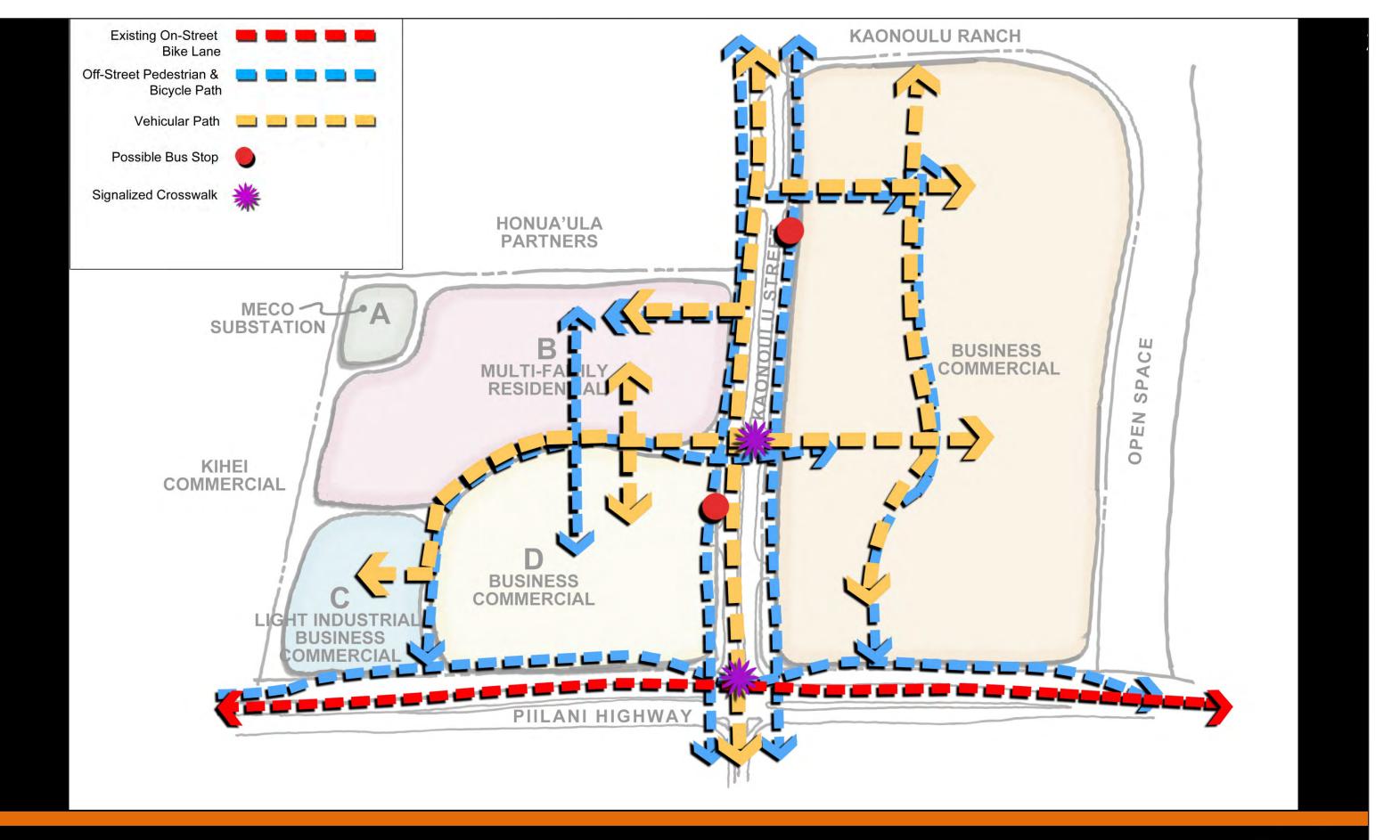




### **FIGURE 14B**

Piilani Hwy Proposed Street Section



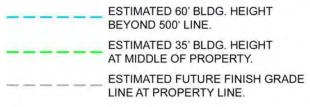


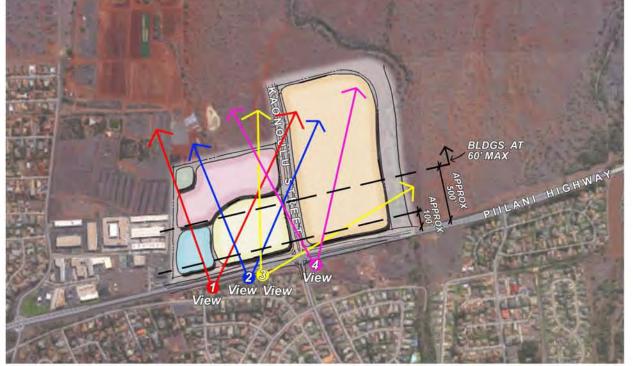
### Piilani Promenade Maui, Hawaii

#### **FIGURE 15** Conceptual Circulation Plan









Key Map

NA



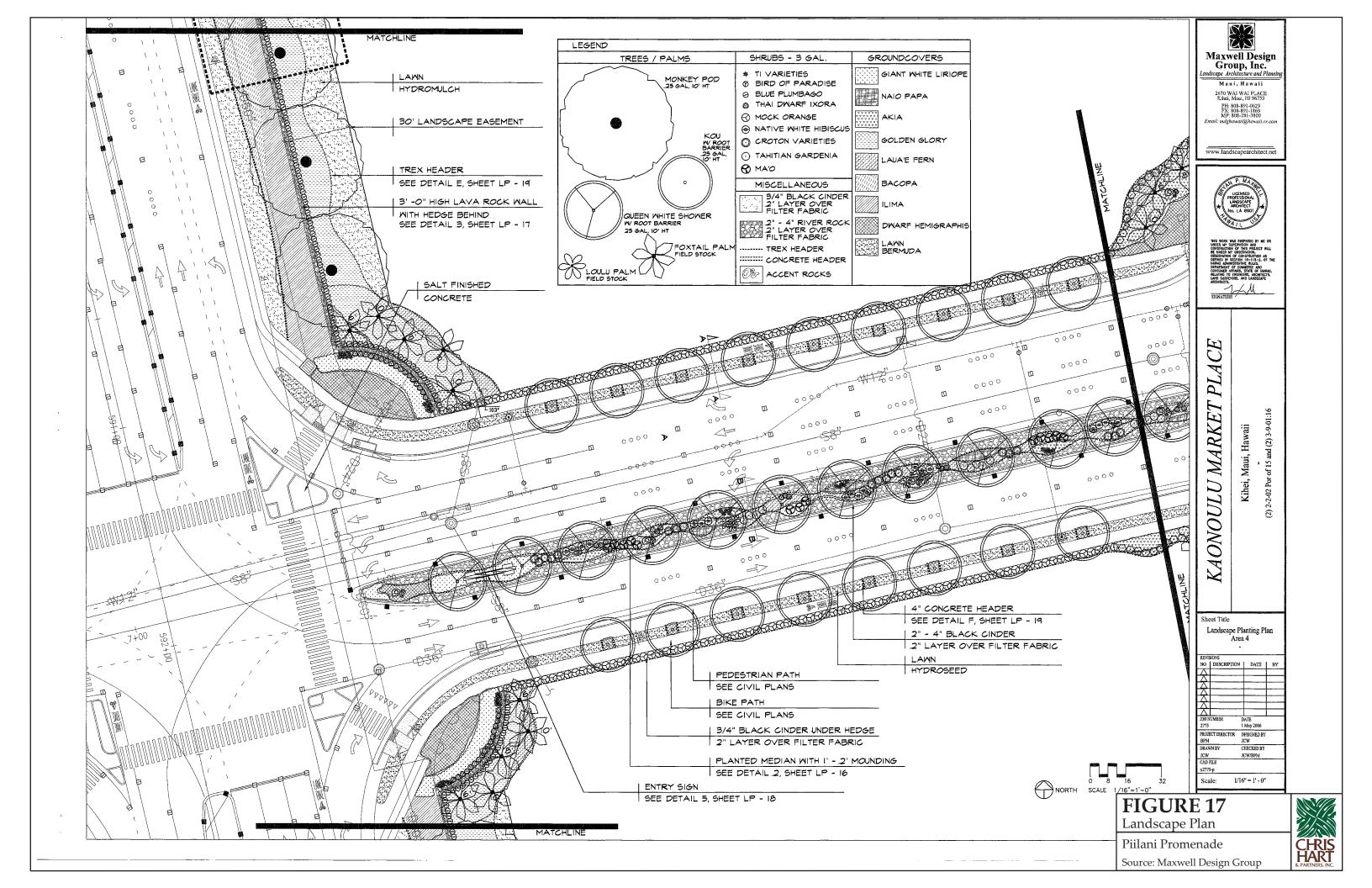




## VISUAL ANALYSIS





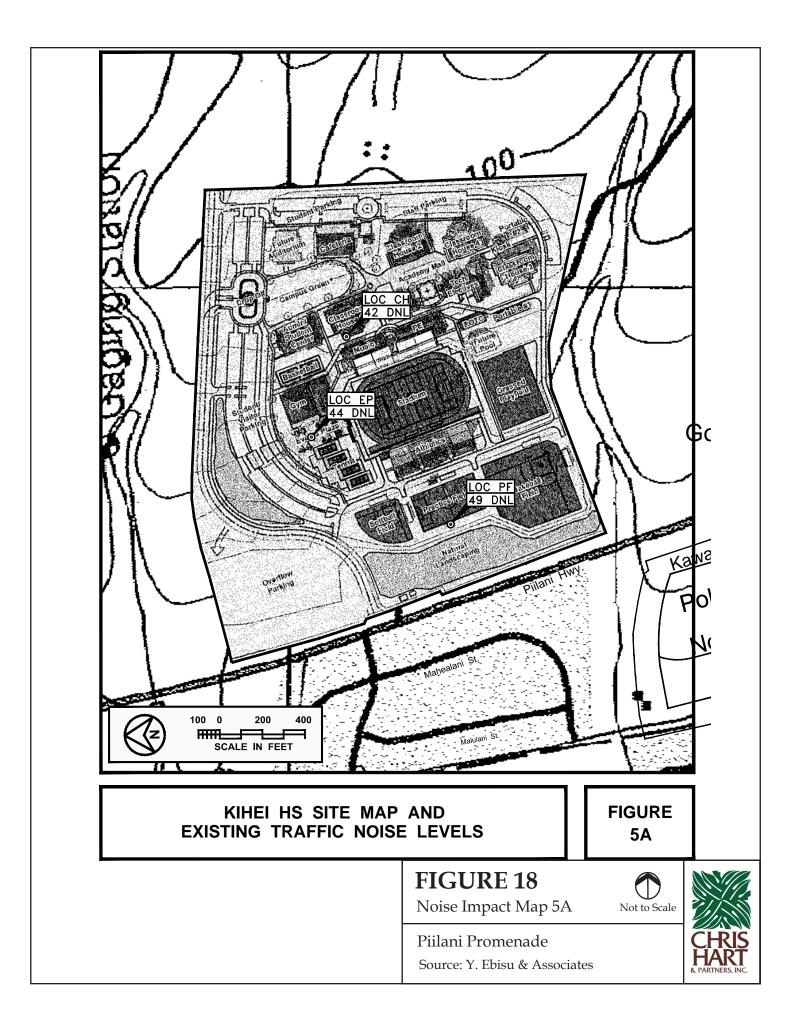


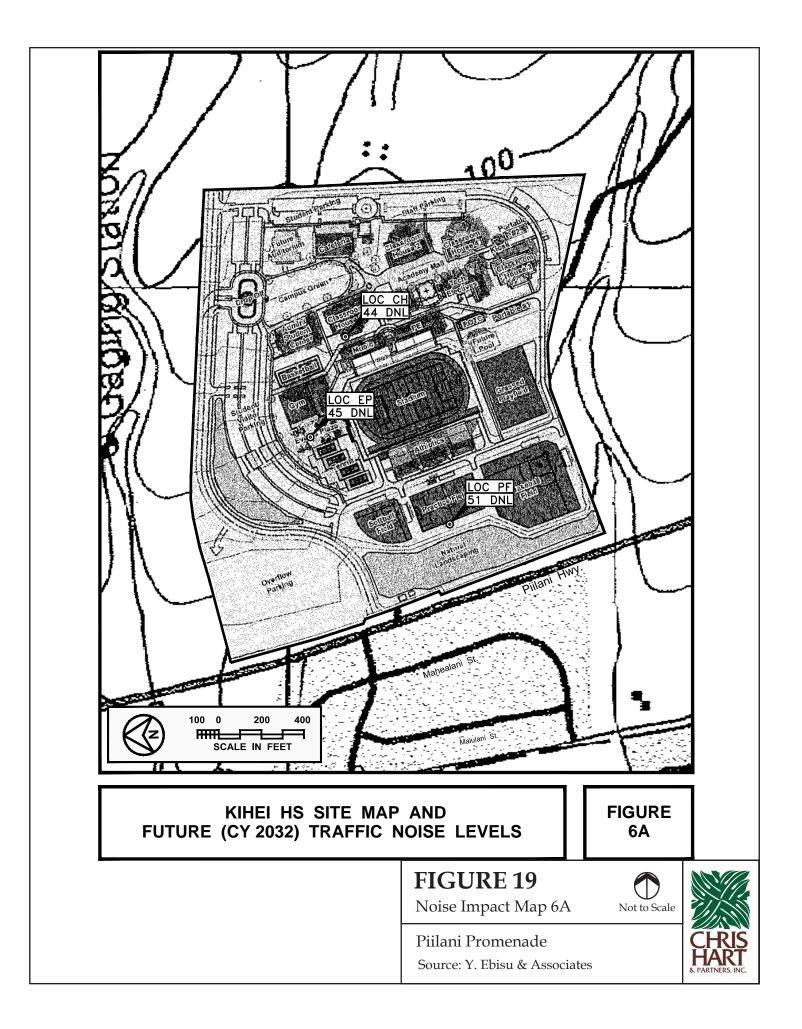


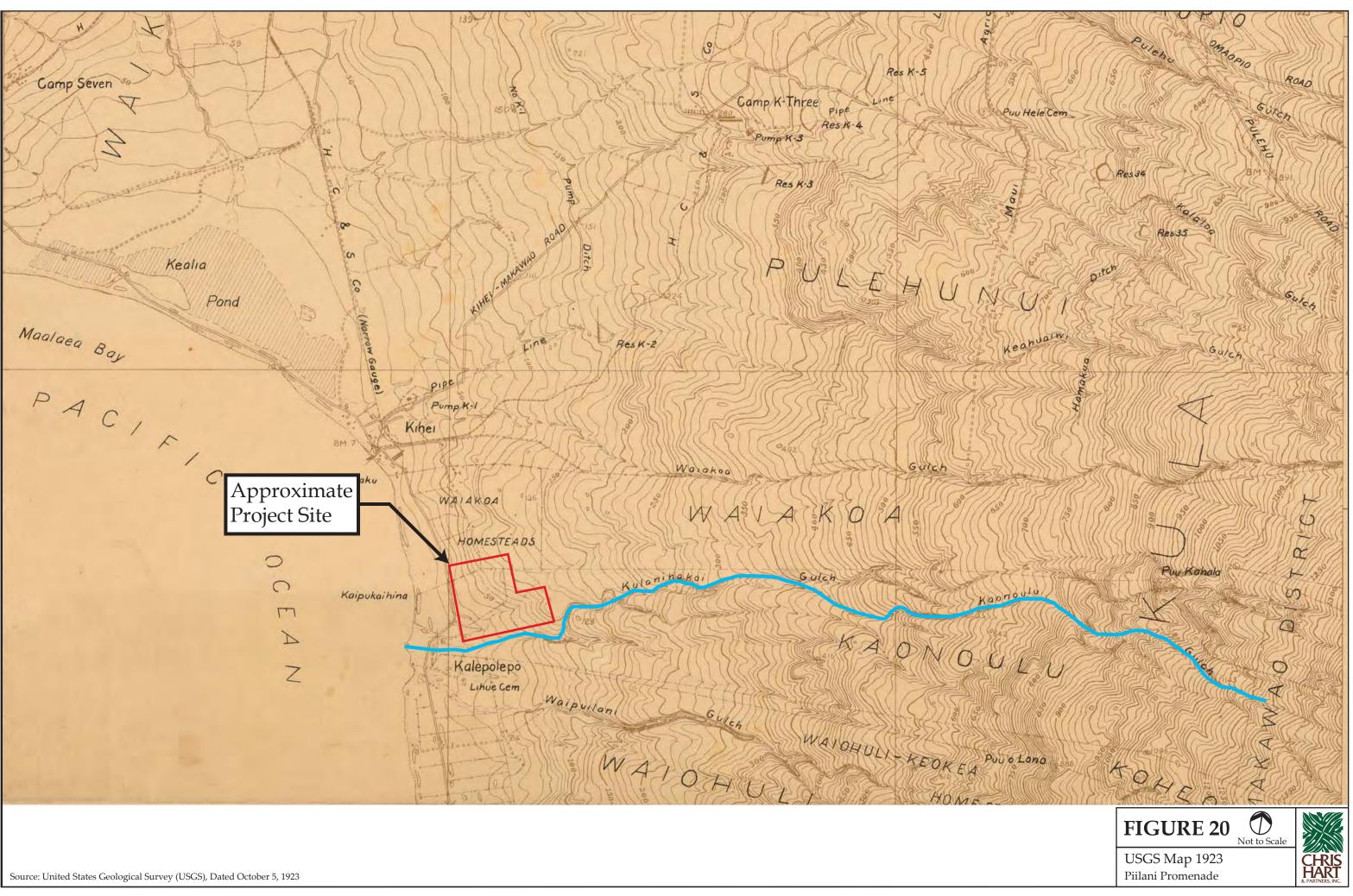
### Piilani Promenade Maui, Hawaii

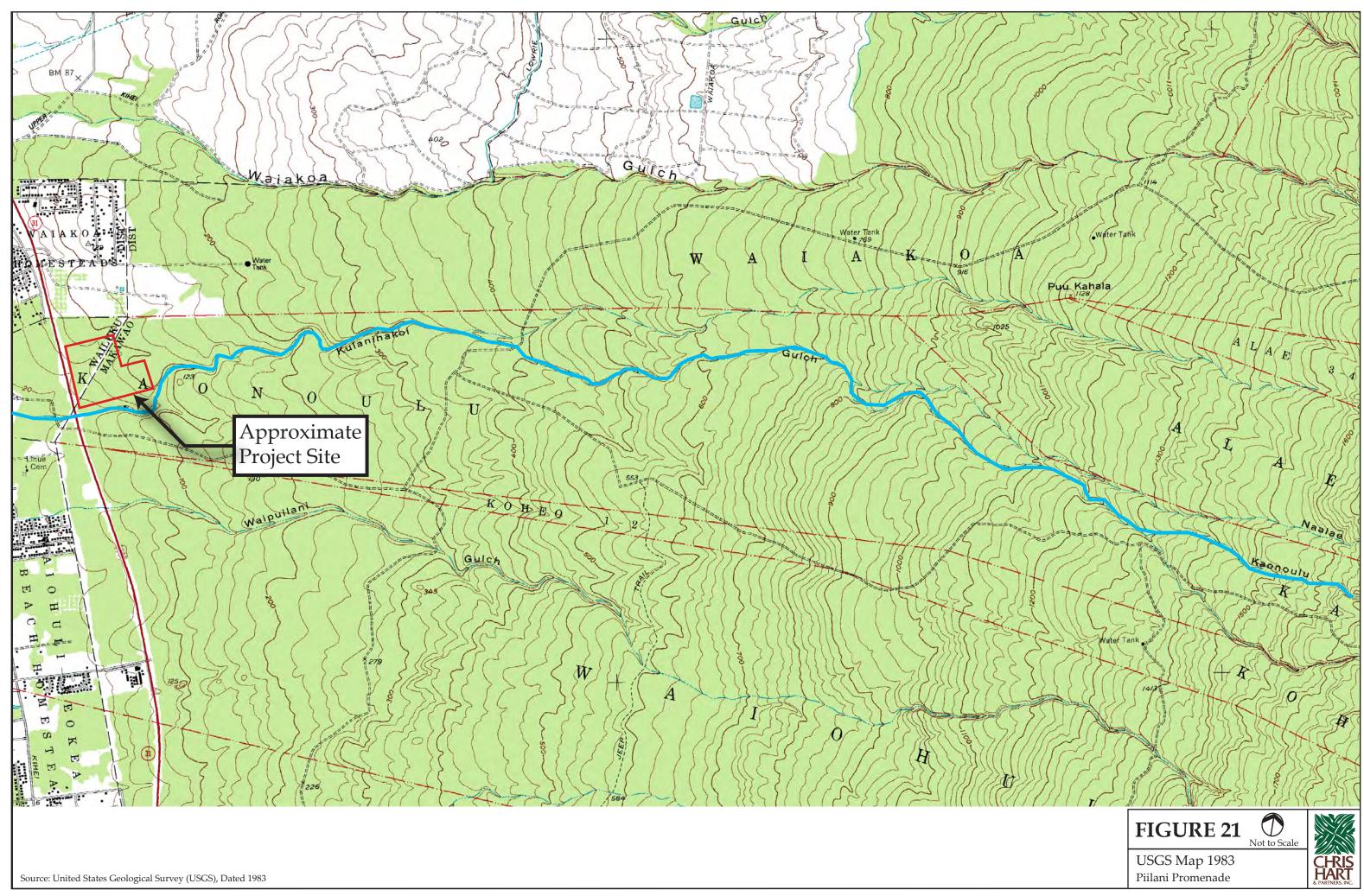
#### FIGURE 17A Landscape Rendering

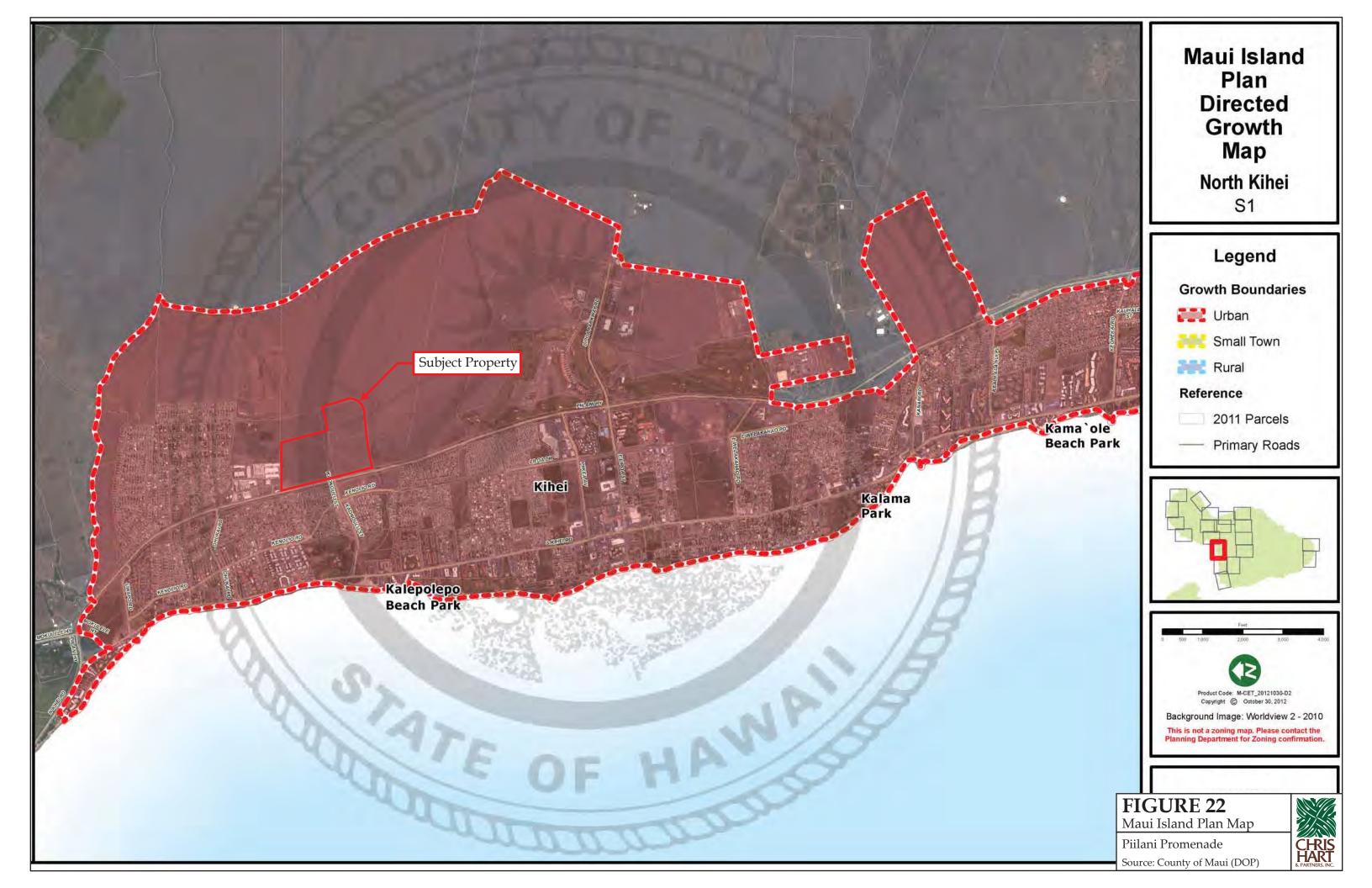














### **APPENDICES**

### **APPENDIX A** EISPN Consultation Letters with Responses

54



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

REPLY TO ATTENTION OF:

Chris Hart & Partners, Inc. Attn: Jordan Hart, President

115 North Market Street Wailuku, HI 96793 October 8, 2013

**Regulatory Branch** 

#### POH-2013-00172

#### RECEIVED

007 10 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning CC. Junder, Mrtth & Glein

13/029

Dear Mr. Hart:

This is in response to your September 20, 2013 request for the Department of the Army to review and comment on the EISPN for the proposed Piilani Promenade project at TMKs: (2) 3-9-001: 016, 170-174, Kihei, Island of Maui, Hawai'i. We have assigned the project the reference number **POH-2013-00172**. Please cite this reference number in any correspondence with us concerning this project. We have completed our review of the submitted document and have the following comments:

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, capacity, or condition of the waterbody. Some typical examples of structures or work requiring Section 10 permits within this jurisdictional area include beach nourishment, boat ramps, breakwaters, bulkheads, and dredging.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands. Fill material is any material that replaces a jurisdictional aquatic area with dry land or changes the bottom elevation of a waterbody. Fill may be temporary or permanent and often includes, but is not limited to, rock, sand, concrete, and sandbags. Projects involving discharges typically include placement of fill material for homes and landscaping, impoundments, road fills, dams and dikes, culverts, riprap, and beach nourishment. Section 404 also regulates discharges of dredged material incidental to certain activities such as grading, mechanized landclearing, ditching or other excavation activity, and the installation of certain pile-supported structures.

The Corps of Engineers has sole authority to determine if an aquatic feature is/is not a water of the U.S., potentially subject to regulation under Section 10 and/or Section 404. It is unclear at this time if there are any aquatic resources present on the property subject to Corps jurisdiction. Based on the submitted documents, Kulanihako'i Gulch bounds the Southern edge of the property proposed for development. Based on Figure 2, Aerial Location Map, of the submitted document, an unnamed tributary of Kulanihako'i Gulch may be present on the subject property. Please submit further documentation you may have in regards to proposed work in or adjacent to Kulanihako'i Gulch and its tributaries, along with any additional aquatic features that may be present on the property. Please submit drawings as outlined on our website (www.poh.usace.army.mil). Specifically, drawing recommendations must be on 8.5"x11" sheets of paper, show existing and proposed conditions, and show the Mean High Water Mark/Ordinary High Water Mark.

·\*\*\*

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Should you have any questions, please contact Kaitlyn Seberger of this office at the above address or telephone 808-835-4300 (FAX: 808-835-4301) or by E-Mail at Kaitlyn.R.Seberger@usace.army.mil. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <u>http://per2.nwp.usace.army.mil/survey.html</u>.

Sincerely

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



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

Dear Mr. Young,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174. POH 2013-00172

Thank you for your letter of October 8, 2013. The proposed project will not involve placement or discharge of dredged and or fill material into the Kulanihakoi Gulch. (Note: the previously proposed Kaonoulu Market Place (POH 2009-00306) planned to discharge stormwater into Kulanihakoi Gulch, and the ARMY required a DA permit at that time, however the project has changed and the new plan will not discharge or effect Kulanihakoi Gulch.)

The Applicant acknowledges that there is a minor unnamed tributary of Kulanihakoi Gulch on the subject property. The Applicant has not been able to further document the tributary as it has no name and does not appear to be a navigable water of the U.S. The tributary is not subject to the ebb and flow of the ocean tide, and does not meet the criteria of a wetland, therefore we anticipate that a DA permit is not required for the proposed project.

On behalf of the Applicant the State Land Use Commission will send your Branch a copy of the forthcoming Draft Environmental Impact Statement (EIS), for further review and comment.

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 \* Ph 808-242-1955 \* Fax 808-242-1956

www.chpmaui.com



#### OFFICE OF PLANNING STATE OF HAWAII

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

> JESSE K. SOUKI DIRECTOR OFFICE OF PLANNING

 Telephone:
 (808) 587-2846

 Fax:
 (808) 587-2824

 Web:
 http://hawaii.gov/dbedl/op/

No. P-14145

October 23, 2013

RECEIVED

OCT 2.4 2013

CHRIS HANT & PARTHERS, INC. Landscape Architecture and Manning CC: Jandan, Burth

+Glenn

13/029

Mr. Jordan E Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for Piilani Promenade, Kihei, Maui; TMK: (2) 3-9-001: 016, 170-174

Thank you for the opportunity to review the Piilani Promenade EISPN which proposes the development of a mix of light industrial and business commercial uses, 200 apartment units, and appurtenant on and offsite improvements on approximately 75 acres of land. The Petitioner plans to file for an Amendment of a previously approved Petition for Docket No. A94-706, Kaonoulu Ranch.

The following comments are provided which should be addressed in the forthcoming draft EIS.

 Due to the proposed project's proximity to Kulanihakoi Gulch, there may be coastal nonpoint pollution impacts from the project site. We recommend your review of the *Hawaii Watershed Guidance* (August 2010), which provides a summary and links to management measures that may be implemented to minimize coastal nonpoint pollution impact. Specifically, the sections on Watershed Protection (p.121) and Site Development (p. 122) may be useful when developing the section dealing with drainage in the Draft EIS.

The *Hawaii Watershed Guidance* document can be viewed on-line or downloaded at <u>http://hawaii.gov/dbedt/czm/initiative/nonpoint/HI Watershed Guidance Final.pdf</u>.

2. Additionally, when developing the drainage section of the Draft EIS, specifically with regard to stormwater, please review the Office of Planning's *Stormwater Impact Assessment*, to identify and evaluate information on hydrology (i.e., proximity to drainage ways, stream channels, sensitive ecosystems in receiving waters), stressors (i.e., water quality and pollutants), sensitivity of resources (i.e., aquatic resources and riparian resources), and management considerations.

Mr. Jordan E. Hart Page 2 October 23, 2013

This guidance document will assist in integrating stormwater impact assessment within your review process. The appendices of the guidance document include a list of data resources, best management practice techniques, and a review checklist that may be useful. The *Stormwater Impact Assessment* guidance document can be viewed online or downloaded at

http://files.hawaii.gov/dbedt/op/czm/initiative/stomwater\_imapct/final\_stormwater\_ impact\_assessments\_guidance.pdf.

3. Land Ownership and Project Applicant. Page 4. The document includes this statement: "The Applicant is the owner of the parcels comprising the project." The Applicant listed on the Executive Summary is Piilani Promenade North LLC, and Piilani Promenade South, LLC. However, page 5 of the EISPN indicates that the Applicant owns parcels 16, 170-174, and further states that the project comprises 75 out of the 88 acres within the Petition area. The remaining 13 acres are owned by Honuaula Partners and are not part of the project area. [Docket No. A94-706 Kaonoulu Ranch]

From previous Land Use Commission actions on this Petition, i.e., Motion to Show Cause hearings, Honuaula Partners proposed to develop the multi-family apartment units on the Petition area. It is not clear from the document whether the studies for this project will also include these apartment uses.

4. <u>Workforce Housing</u>. The EISPN briefly describes that the project will include workforce housing. The Draft EIS should include additional information regarding the breakdown for the number of affordable units and anticipated housing prices. It should be clarified whether the 200 multi-family apartments are within the Honuaula parcel or a new proposal not previously mentioned in A94-706.

Potential impacts and mitigation measures for the 200 apartments proposed for the project area, including traffic and other infrastructure both on and off-site should be included. The Petitioner plans to construct the apartments on two of the parcels encompassing the project area, parcels no. 169 and 16. The Draft EIS should indicate whether additional subdivision actions are proposed for the Petition area.

- 5. <u>Project Schedule</u>. The Draft EIS should include a project timetable for the development and infrastructure. The timetable should also include information on projections for the number of apartment units to be constructed per year and/or the floor area/square footage for each type of use, such as business, commercial, and light industrial.
- 6. <u>Sustainability and Resource Use</u>. The Hawaii State Plan sets out priority guidelines and principles for sustainability, as codified in HRS §226-108, Sustainability. In addition, Act 286, Session Laws of Hawaii 2012, set forth new priority guidelines in the Hawaii State Plan related to climate change adaptation. The Draft EIS should include a section that describes sustainable design and development measures the project will incorporate or consider in development of the project. A commitment to sustainable development practices will support State energy initiatives and the Administration's New

Day priorities to move toward clean energy, energy independence, and a green economy. The Draft EIS should also quantify the current energy use and projected energy requirements of the project, and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources. The Draft EIS should also discuss what measures could be taken to promote the use of alternative transportation modes, including identification of existing or planned county bus service in the area, and how the project will link into planned pedestrian paths and bikeways.

- 7. <u>Access easements</u>. A timeframe for obtaining the access easements and a discussion of progress in acquiring the easements should be provided.
- 8. <u>Previous Actions</u>. The Draft EIS should include a section on previous government permits and actions and approvals obtained previously on the Petition area, including the aforementioned A94-704, and actions leading to the current preparation of this EISPN document.

Specifically, the document should clarify that the original Petition was approved for a light industrial subdivision, and describe in detail the subsequent approvals and project changes that led to the Order to Show Cause proceedings, and the preparation of this EISPN before the Land Use Commission.

- 9. <u>**Traffic.**</u> The Traffic Impact Analysis Report (TIAR) should include all residential units within the Petition area, including the residential units within the Honuaula lot.
- 10. <u>Maps</u>. All maps should be to scale. In addition, if applicable, all maps should include a legend and the North arrow.
- 11. <u>Community Consultation</u>. The Draft EIS should describe any consultation with the community regarding the proposed project.

The Office of Planning looks forward to receiving the Draft EIS for the proposed project. Thank you for the opportunity to review this document. If you have any questions, please contact Lorene Maki of our Land Use Division at (808) 587-2888.

Sincerely,

Mary Ine Korzynki for

Jesse K. Souki Director

c: Land Use Commission



June 23, 2014

Mr. Leo Asuncion, Jr., AICP, Acting Director State of Hawaii, DBEDT Office of Planning PO. Box 2359 Honolulu, Hawaii 96804-2359

Dear Mr. Asuncion,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013. In responding to your comments on the EISPN, we would like to note the following.

**Comment 1.** Due to the proposed project's proximity to Kulanihakoi Gulch, there may be coastal nonpoint pollution impacts from the project site. We recommend your review of the Hawaii Watershed Guidance (August 2010), which provides a summary and links to management measures that may be implemented to minimize coastal nonpoint pollution impact. Specifically, the sections on Watershed Protection (p. 121) and Site Development (p. 122) may be useful when developing the section dealing with drainage in the Draft EIS.

The Hawaii Watershed Guidance document can be viewed on-line or downloaded at http://hawaii.gov/dbedt/czm/initiative/nonpoint/HI Watershed Guidance Final.pdf.

**Response 1:** The Applicant will review the provided information in preparation of the drainage sections for the forthcoming Draft EIS. Copies of this guidance document have also been provided the appropriate project consultants for their review and consideration.

Comment 2. Additionally, when developing the drainage section of the Draft EIS, specifically with regard to stormwater, please review the Office of Planning's Stormwater Impact Assessment, to identify and evaluate information on hydrology (i.e., proximity to drainage ways,

www.chpmaui.com

Mr. Leo Asuncion, Jr., Acting Director Office of Planning State of Hawaii Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 5

stream channels, sensitive ecosystems in receiving waters), stressors (i.e., water quality and pollutants), sensitivity of resources (i.e., aquatic resources and riparian resources), and management considerations.

This guidance document will assist in integrating stormwater impact assessment within your review process. The appendices of the guidance document include a list of data resources, best management practice techniques, and a review checklist that may be useful. The Stormwater Impact Assessment guidance document can be viewed online or downloaded at http://files.kawaii.gov/dbedt/op/czm/initiative/stormwater\_impact/final\_stormwater\_impact assessments\_guidance.pdf.

**Response 2:** The Applicant has reviewed the provided Stormwater Impact Assessment information and copies of this guidance document have also been provided to the appropriate project consultants for their review and consideration. The forthcoming Draft EIS will provide information on hydrology, identify sensitive resources, and provide management or mitigation considerations.

Comment 3. Land Ownership and Project Applicant. Page 4. The document includes this statement: "The Applicant is the owner of the parcels comprising the project." The Applicant listed on the Executive Summary is Piilani Promenade North LLC, and Piilani Promenade South, LLC. However, page 5 of the EISPN indicates that the Applicant owns parcels 16, 170-174, and further states that the project comprises 75 out of the 88 acres within the Petition area. The remaining 13 acres are owned by Honua'ula Partners and are not part of the project area. [Docket No. A94-706 Kaonoulu Ranch] From previous Land Use Commission actions on this Petition, i.e., Motion to Show Cause hearings, Honua'ula Partners proposed to develop the multifamily apartment units on the Petition area. It is not clear from the document whether the studies for this project will also include these apartment uses.

**Response 3:** The Draft EIS and the associated technical studies will include the nonproject apartment uses to be located in the future on the adjacent 13-acre parcel owned by Honua'ula Partners solely for impact analysis and as background information. The Applicant has pending a Motion to Amend before the Land Use Commission, which motion seeks, *inter alia*, to bifurcate and assign a separate Land Use Commission Docket Number that applies solely to the 75 acres owned by Applicant. Any approvals and additional necessary studies for the 13 acres owned by Honua'ula Partners will be handled separately by Honua'ula Partners.

Comment 4. Workforce Housing. The EISPN briefly describes that the project will include workforce housing. The Draft EIS should include additional information regarding the breakdown for the number of affordable units and anticipated housing prices. It should be clarified whether the 200 multi-family apartments are within the Honua'ula parcel or a new proposal not

Mr. Leo Asuncion, Jr., Acting Director Office of Planning State of Hawaii Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 5

previously mentioned in A94-706. Potential impacts and mitigation measures for the 200 apartments proposed for the project area, including traffic and other infrastructure both on and off-site should be included. The Petitioner plans to construct the apartments on two of the parcels encompassing the project area, parcels no. 169 and 16. The Draft EIS should indicate whether additional subdivision actions are proposed for the Petition area.

**Response 4:** The Draft EIS will include additional information regarding the breakdown for the number of affordable units and anticipated housing prices, as well as the potential impact and mitigation measures related thereto. The 200-multi family units referenced in the EISPN are within Parcel 16, and are different than those planned for the Honua'ula parcel. At some point in the future on the adjacent 13-acre parcel (Parcel 169) owned by Honua'ula Partners there will be additional multi-family units constructed, if Honua'ula Partners determines to proceed with that development.

Comment 5. Project Schedule. The Draft EIS should include a project timetable for the development and infrastructure. The timetable should also include information on projections for the number of apartment units to be constructed per year and/or the floor area/square footage for each type of use, such as business, commercial, and light industrial.

**Response 5:** To the extent such information is available, the Draft EIS will include a project timetable for development and infrastructure including projections on the number of apartment units to be constructed per year and/or the floor area/square footage for each type of use, such as business, commercial, and light industrial.

Comment 6. Sustainability and Resource Use. The Hawaii State Plan sets out priority guidelines and principles for sustainability, as codified in HRS 5226-1 08, Sustainability. In addition, Act 286, Session Laws of Hawaii 2012, set forth new priority guidelines in the Hawaii State Plan related to climate change adaptation. The Draft EIS should include a section that describes sustainable design and development measures the project will incorporate or consider in development of the project. A commitment to sustainable development practices will support State energy initiatives and the Administration's New Day priorities to move toward clean energy, energy independence, and a green economy. The Draft EIS should also quantify the current energy use and projected energy requirements of the project, and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources. The Draft EIS should also discuss what measures could be taken to promote the use of alternative transportation, modes, including identification of existing or planned county bus service in the area, and how the project will link into planned pedestrian paths and bikeways.

**Response 6:** The Draft EIS will include a discussion on the new priority guidelines in the Hawaii State Plan related to climate change adaptation. To the extent such information is available; the Draft EIS will provide a section on infrastructure including electrical

Mr. Leo Asuncion, Jr., Acting Director Office of Planning State of Hawaii Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 5

systems. The Draft EIS will describe energy use, conservation measures and projected electrical demand. The Draft EIS will include a Transportation section which includes a discussion of alternative transportation options and providing connection opportunities from the project to adjacent uses.

*Comment 7. Access easements. A timeframe for obtaining the access easements and a discussion of progress in acquiring the easements should be provided.* 

**Response 7:** To the extent such information is available; the Draft EIS will include a timetable for obtaining the access easements and a discussion of progress in acquiring the easements.

Comment 8. Previous Actions. The Draft EIS should include a section on previous government permits and actions and approvals obtained previously on the Petition area, including the aforementioned A94-704, and actions leading to the current preparation of this EISPN document. Specifically, the document should clarify that the original Petition was approved for a light industrial subdivision, and describe in detail the subsequent approvals and project changes that led to the Order to Show Cause proceedings, and the preparation of this EISPN before the Land Use Commission.

**Response 8:** The Draft EIS will include a section on previous government permits and actions and approvals obtained previously on the Petition area, including the aforementioned A94-704, and actions leading to the current preparation of this EISPN document.

*Comment 9. Traffic. The Traffic Impact Analysis Report (TIAR) should include all residential units within the Petition area, including the residential units within the Honua'ula lot.* 

**Response 9:** The Draft EIS will include a TIAR that analyzes the residential units within the Petition area, as well as, solely for the purposes of impact analysis, the residential units within the 13 acres owned by Honua'ula.

Comment 10. Maps. All maps should be to scale. In addition, if applicable, all maps should include a legend and the North arrow.

**Response 10:** The Draft EIS will include maps drawn to scale with legend and north arrow included when applicable.

Mr. Leo Asuncion, Jr., Acting Director Office of Planning State of Hawaii Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 5

Comment 11. Community Consultation. The Draft EIS should describe any consultation with the community regarding the proposed project.

**Response 11:** The Draft EIS will include a list of consulted community groups.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

lord, AR

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 NEIL ABERCROMBIE GOVERNOR



Dean H. Seki Comptroller

Maria E. Zielinski Deputy Comptroller

## STATE OF HAWAII DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES P.O. BOX 119, HONOLULU, HAWAII 96B10-0119

SEP 2 4 2013

(P)1217.3

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

Subject: Piilani Promenade Environmental Assessment/Environmental Impact Statement Preparation Notice

Thank you for the opportunity to provide comments for the subject project. This project does not impact any of the Department of Accounting and General Services' projects or existing facilities in this area, and we have no comments to offer at this time.

If you have any questions, your staff may call Mr. Alva Nakamura of the Planning Branch at 586-0488.

Sincerely,

1 Cuts

JAMES K. KURATA Public Works Administrator

AN:lnn

c: Mr. Daniel E. Orodenker, Executive Officer, DBEDT-Land Use Commission

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SEP 2 5 2013

CHRIS HAM & PARTNERS, MC Landscape Architecture and Planning CC Jorgton, Chenn Hordt



Mr. Dean H. Seki, State Comptroller State of Hawaii Department of Accounting and General Services P.O. Box 119 Honolulu, HI 96810-0119

Dear Mr. Seki,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your comment letter of September 24, 2013 which indicates that the proposed project will not have any effect upon your Department's projects or facilities in the area and that you have no further comments to offer at this time.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029

www.chpmaul.com

NEIL ABERCROMBIE GOVERNOR



GLENN M. OKIMOTO DIRECTOR

Deputy Directors FORD N. FUCHIGAMI RANDY GRUNE AUDREY HIDANO JADINE URASAKI

IN REPLY REFER TO:

HWY-PS 2.6634

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

February 26, 2014

PECEIVED

FEB 27 2014

CHRIS HART & PASTNERS, INC. Landscape Architecture and Planning Brett

13/029

Mr. Jordan E. Hart President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

Subject: Environmental Impact Statement Preparation Notice Piilani Promenade, Kihei, Maui, TMK: (2) 3-9-001:016, 170-174

Thank you for transmitting the subject document for our review of the proposed project to develop a mix of light industrial and business/commercial uses with 200 apartment units on a 75 acre property. The project proposes to improve the intersection of Piilani Highway (State Route 31) with Kaonoulu Street

We will provide our comments to the subject project when we review the revised Traffic Impact Analysis Report (TIAR). Please provide two copies of the revised TIAR to the Highways Division, Planning Branch and one copy to our Maui District Office.

If you have any questions, please contact Gary Ashikawa, Systems Planning Engineer, Highways Division, Planning Branch at (808) 587-6336.

Very truly yours,

Rum G. Jalusti

Alvin A. Takeshita Highways Administrator



Mr. Alvin A. Takeshita, Highways Division State of Hawaii, Dept. of Transportation 869 Punchbowl Street Honolulu, HI 96813-5097

Dear Mr. Takeshita,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of February 26, 2014 indicating that your department will provide comments after review of the TIAR. The Applicant will provide two copies of the TIAR to the Highways Division, Planning Branch and one copy to the Maui District Office.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

115 N. Marker Street, Walluku, Maul. Hawaii 96793-1717 \* Ph 808-242-1955 \* Fax 808-242-1956

www.chpmaul.com



STATE OF HAWAII DEPARTMENT OF HEALTH MAUI DISTRICT HEALTH OFFICE 54 HIGH STREET WAILUKU, HAWAII 96793

October 15, 2013

LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H. DISTRICT HEALTH OFFICER

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OCT 17 2013

CHRIS HART & PARTMERS, INC. Landscape Architecture and Planning Cl. Jordan, Brett &

Glenn 13/02g

Mr. Jordon E. Hart President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawai'i 96793

Dear Mr. Hart:

#### Subject: **Environmental Assessment/Environmental Impact Statement** Preparation Notice (EISPN) for Piilani Promenade TMK: (2) 3-9-001:016, 170-174

Thank you for the opportunity to review this project. We have the following comments to offer:

- 1. National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.
- 2. Please provide more information on whether the wastewater generated will be discharged into the county sewer or private wastewater treatment plant. If you have any questions, please call Roland Tejano, Environmental Engineer, at 808 984-8232.
- 3. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work. The Indoor & Radiological Health Branch should be contacted at 808 586-4700.

It is strongly recommended that the Standard Comments found at the Department's website: http://health.hawaii.gov/epo/home/landuse-planning-review-program/ be reviewed, and any comments specifically applicable to this project should be adhered to.

Mr. Jordon E. Hart October 15, 2013 Page 2

Should you have any questions, please call me at 808 984-8230 or E-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Fattikitlewshi

Patti Kitkowski District Environmental Health Program Chief

c: EPO



Ms. Patti Kitkowski, District Environmental Health Program Chief State of Hawaii Department of Health, Maui District 54 High Street Wailuku, HI 96793

Dear Ms. Kitkowski:

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 15, 2013, the following responses to your numerated comments are provided.

**Comment 1.** National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.

**Response 1.** The Applicant is aware that a NPDES permit is required and will work with the Clean Water Branch to obtain permit coverage for construction-related activities.

**Comment 2.** Please provide more information on whether the wastewater generated will be discharged into the county sewer or private wastewater treatment plant. If you have any questions please contact Roland Tejano, Environmental Engineer, at 808 984-8232.

**Response 2.** The wastewater system for the proposed project will connect to the County Sewer system.

Comment 3. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46,

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Ms. Patti Kitkowski, Chief DOH, Maui District Piilani Promenade DEIS June 18, 2014 Page 2 of 2

"Community Noise Control". A noise permit may be required and should be obtained before the commencement of work. The Indoor & Radiological Health Branch should be contacted at 808-586-4700.

**Response 3.** The development of the proposed project will comply with the applicable provisions of Chapter 11-46, Hawaii Revised Statutes, pertaining to "Community Noise Control".

**Unnumbered Comment.** It is strongly recommended that the Standard Comments found at the Department's website: http://health.hawaii.gov/epo/home/landuse-plaing-review-program be reviewed, and any comments specifically applicable to this project should be adhered to.

**Unnumbered Comment Response.** Copies of your letter, which included the website for the Department's Standard Comments have been furnished to the project team for their use during the detailed planning and design phase of the project.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 NEIL ABERCROMBIE GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

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

September 27, 2013

In reply, please refer to: File:

13-183 Piilani Promenade

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

# SUBJECT: Environmental Impact Statement Preparation Notice for Piilani Promenade Maui, TMK: (2) 3-9-001: 016, 170-174

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter regarding the above subject. Thank you for allowing us to review and comment on it. The document was routed to the Department of Health's Safe Drinking Water and Wastewater Branches. It was also sent to the Hazard Evaluation and Emergency Response Office and the County of Maui's District Health Office. They will provide specific comments to you if necessary. EPO recommends that you review the Standard Comments found on our website:

http://health.hawaii.gov/epo/home/landuse-planning-review-program/.

You are required to adhere to all Standard Comments specifically applicable to this application.

EPO suggests that you examine the many sources available on strategies to support the sustainable design of communities, including the:

- U.S. Environmental Protection Agency's report, "Creating Equitable, Health and Sustainable Communities: Strategies for Advancing Smart Grants, Environmental Justice, and Equitable Development" (Feb. 2013), http://www.epa.gov/smartgrowth/pdf/equitable-dev/equitable-development-report-508-011713b.pdf;
- U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability;
- U.S. Green Building Council's LEED program: www.new.usgbc.org/leed; and
- World Health Organization, <u>www.who.int/hia</u>.

The DOH encourages everyone to apply these sustainability strategies and principles early in the planning and review of projects. We also request that for future projects you consider conducting a Health Impact Assessment (HIA). More information is available at <u>www.cdc.gov/healthyplaces/hia.htm</u>. We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

We wish to receive notice of the environmental assessment's availability when it is completed. We request a written response confirming receipt of this letter and any other letters you receive from DOH in regards to this submission. You may mail your response to: 919 Ala Moana Blvd., Ste. 312, Honolulu, Hawaii 96814. However, we would prefer an email submission to <u>epo@doh.hawaii.gov</u>. We anticipate that our letter(s) and your response(s) will be included in the final document. If you have any questions, please contact me at (808) 586-4337.

Mahalo,

Laura Leialoha Phillips McIntyle, AICP Manager, Environmental Planning Office

c: Mr. Daniel D. Orodenker, Executive Officer, DBEDT

RECEIVED

007 - 3 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning

CC: Jordan, blenn & Brett



Ms. Laura Leialoha Phillips McIntyre, AICP Environmental Planning Office Manager State of Hawaii, Dept. of Health Environmental Planning Office P.O. Box 3378 Honolulu, HI 96801-3378

Dear Ms. Leialoha Phillips McIntyre:

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

We acknowledge the receipt of your letter dated September 27, 2013 and are responding to your comments.

Copies of your letter, including the data sources for the Standard Comments of the Department of Health (DOH) and the strategies and principles for sustainable design, have been furnished to our project team for their use during the detailed planning and design phase of the project.

Besides your Office, we have received comment letters from the following DOH Branches:

- 1. Clean Water Branch (letter dated 9/26/13).
- 2. Safe Drinking Water Branch (letter dated 10/8/13).
- 3. Maui District Health Office (letter dated 10/15/13).
- 4. Wastewater Branch (letter dated 10/24/13).
- 5. Clean Air Branch (letter dated 11/13/13).

In addition to this original letter, a copy will be e-mailed to you at epo@doh.hawaii.gov.

www.chpmaui.com

Ms. Laura Leialoha Phillips McIntyre, AICP, Manager DOH, EPO Piilani Promenade DEIS June 18, 2014 Page 2 of 2

In accordance with Chapter 11-200, Hawaii Administrative Rules pertaining to <u>Environmental Impact Statement Rules</u>, copies of all substantive comments and responses will be included in the Draft EIS, as well as a list of persons and/or agencies that have been consulted and had no comment.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

ENCLOSURES: (6)

- 1. DOH Maui District Health Office comment letter with response
- 2. DOH Clean Water Branch comment letter with response
- 3. DOH Safe Drinking Water Branch comment letter with response
- 4. DOH Wastewater Branch comment letter with response
- 5. DOH Clean Air Branch comment letter with response
- 6. DOH Wastewater Branch comment letter with response

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 NEIL ABERCROMBIE GOVERNOR OF HAWAII



STATE OF HAWAII DEPARTMENT OF HEALTH SAFE DRINKING WATER BRANCH 919 ALA MOANA BLVD., ROOM 308 HONOLULU, HI 96814-4920

October 8, 2013

LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

> In reply, please refer to: File: SDWB PillaniPromenade01.docx

RECEIVED

001 1 1 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Plenning

Cc: Jurdan, Glenn, - Brott-13/02a

Dear Mr. Hart:

Mr. Jordan E. Hart, President

Wailuku, Hawaii 96793-1717

Chris Hart & Partners, Inc.

115 North Market Street

SUBJECT: PI`ILANI PROMENADE ENVIRONMENTAL ASSESSMENT ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN), MAUI, TMK: (2) 3-9-001:016, 170-174

The Safe Drinking Water Branch (SDWB) has reviewed the subject document and has the following comments:

- 1. This project may qualify as a public water system if the project has a master meter from the County of Maui, Department of Water Supply and then sells water to individual units. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, "Rules Relating to Public Water Systems."
- 2. All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical, managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Section 11-20-29.5, "Capacity demonstration and evaluation."
- 3. Projects that propose development of new sources of drinking water serving or proposed to serve a public water system must comply with the terms of HAR Section 11-20-29, "Use of new sources of raw water for public water systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in HAR Section 11-20-29.

Mr. Jordan E. Hart October 8, 2013 Page 2

- 4. The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted.
- 5. All sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.
- 6. Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification in accordance with HAR Section 11-20-30, "New and modified public water systems." These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.
- 7. All public water systems must be operated by certified distribution system and water treatment plant operators as defined by Hawaii Administrative Rules, Title 11, Chapter 25, "Rules Relating to Certification of Public Water System Operators."
- 8. All projects which propose the use of dual water systems or the use of a nonpotable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed and operated to prevent the cross-connection of these systems and prevent 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. In addition backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning signs to prevent the inadvertent consumption on non-potable water. Compliance with Hawaii Administrative Rules, Title 11, Chapter 21, "Cross-Connection and Backflow Control" is also required.

Mr. Jordan E. Hart October 8, 2013 Page 3

- 9. All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.
- 10. For further information concerning the application of capacity, new source approval, operator certification, source water assessment, backflow/cross-connection prevention or other public water system programs, please contact the SDWB at (808) 586-4258.
- 11. If you plan to construct a new drainage injection well, or to operate an existing drainage injection well, you are first required to obtain written authorization from the Department of Health's Underground Injection Control (UIC) program. Written authorization is given either by an authorization letter or by a UIC permit, both of which represent the Department's approval to construct or to operate an injection well. Without written authorization, constructing or operating an injection well is a Chapter 23 violation. A Chapter 23 violation may results in a penalty and corrective action.

In order to obtain written authorization, apply for a UIC permit through the epermitting website at https://eha-cloud.doh.hawaii.gov/epermit/View/default.aspx.

If there are any questions, please call Ms. Jennifer Nikaido of the SDWB, Engineering Section, at (808) 586-4258.

Sincerely,

JOANNA L. SETO, P.E., CHIEF Safe Drinking Water Branch

JN:slm

c: EPO #13-183



Ms. Joanna L. Seto, P.E., Chief State of Hawaii, Dept. of Health Safe Water Drinking Branch Environmental Management Division 919 Ala Moana Blvd., Room 308 Honolulu, HI 96814 - 4920

Dear Ms. Seto,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 8, 2013 indicating that the Department has no comments.

**Comment 1.** This project may qualify as a public water system if the project has a master meter from the County of Maui, Department of Water Supply and then sells water to individual units. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, "Rules Relating to Public Water Systems."

**Response 1.** A Preliminary Engineering Report (PER) will be included in the Draft EIS. In addition to examining existing infrastructure systems in the project area, including the County water system, the PER will discuss the infrastructure system improvements that are proposed to be implemented for the project.

The <u>Rules Relating to Public Water Systems</u> are set forth in Chapter 11-20, Hawaii Administrative Rules (HAR) and encompasses applicability criteria, performance standards, and compliance measures for public water systems. The Applicant acknowledges that the water system for the proposed project may qualify as a public water system. Notwithstanding this, the proposed water system shall comply with the applicable provisions of Chapter 11-20, HAR

www.chpmaui.com

Ms. Joanna L. Seto, P.E. Chief Safe Drinking Water Branch Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 2 of 5

should it be deemed a public water system by the Department of Health, Safe Drinking Water Branch (SDWB).

**Comment 2.** All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical, managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Section 11-20-29.5, "Capacity demonstration and evaluation."

**Response 2.** If the water system for the proposed project is determined to be a public water system by the SDWB, the Applicant will demonstrate that the water system will have sufficient technical, managerial and financial capability to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Section 11-20-29.5, "Capacity Demonstration and Evaluation."

**Comment 3.** Projects that propose development of new sources of drinking water serving or proposed to serve a public water system must comply with the terms of HAR Section 11-20-29, "Use of new sources of raw water for public water systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in HAR Section 11-20-29.

**Response 3.** The proposed project plans to connect to the existing County (public) water system. However, if a new source of drinking water becomes necessary, the Applicant will comply with Section 11-20-29, HAR "Use of New Sources of Raw Water for Public Water Systems." The Applicant is also aware that all new public water system sources must be approved by the Director of Health prior to its use.

**Comment 4.** The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted. Ms. Joanna L. Seto, P.E. Chief Safe Drinking Water Branch Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 3 of 5

**Response 4**. Pursuant to Section 11-20-29, HAR, the Applicant acknowledges that an engineering report must be submitted to the SDWB for anyone proposing to use a new, natural water source to supply a public water system. As set forth in Subsection 11-2-29(b)(5), all potential sources of contamination must be identified and control measures for reducing potential contamination must be evaluated. In addition, the Applicant understands that a water quality analysis for all regulated contaminants must be submitted to the SDWB to evidence compliance with all drinking water standards.

**Comment 5.** All sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.

**Response 5.** The Applicant acknowledges that all public water system sources are subject to a source water assessment which will delineate a water source protection area.

**Comment 6.** Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification in accordance with HAR Section 11 - 20-30, "New and modified public water systems." These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.

**Response 6.** The Applicant understands that any new public water system must be approved by the Director of Health before construction can commence pursuant to Section 11-20-30, HAR pertaining to "New and Modified Public Water Systems".

**Comment** 7. All public water systems must be operated by certified distribution system and water treatment plant operators as defined by Hawaii Administrative Rules, Title 11, Chapter 25, "Rules Relating to Certification of Public Water System Operators."

**Response 7.** If deemed a public water system by the SDWB, the water system for the proposed project will be operated by qualified personnel in accordance with Title 11, Chapter 5, HAR entitled "Rules Relating to Certification of Public Water System Operators".

Ms. Joanna L. Seto, P.E. Chief Safe Drinking Water Branch Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 4 of 5

**Comment 8.** All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed and operated to prevent the cross-connection of these systems and prevent 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. In addition backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning signs to prevent the inadvertent consumption on non-potable water. Compliance with Hawaii Administrative Rules, Title 11, Chapter 21, "Cross-Connection and Backflow Control" is also required.

**Response 8.** The Applicant understands that separate drinking water and nonpotable systems need to be carefully designed and operated to prevent any crossconnections and potential backflow and that the dual system must be clearly labeled and physically separated to avoid drinking water contamination. The design and operation of this dual water system must comply with the provisions of Title 11, Chapter 21, entitled "Cross-connection and Backflow Control".

**Comment 9.** All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

**Response 9.** The Applicant acknowledges that all projects within a water source protection area that propose a potentially contaminating activity could affect an existing water source for a public water supply and that appropriate measures will need to be undertaken to prevent or reduce the potential for contamination of the drinking water source.

**Comment 10.** For further information concerning the application of capacity, new source approval, operator certification, source water assessment, backflow/cross- connection prevention or other public water system programs, please contact the SDWB at (808) 586-4258.

**Response 10.** Copies of the SDWB comment letter and contact information have been provided to the Applicant and the appropriate project consultants for their use if additional information is needed.

Ms. Joanna L. Seto, P.E. Chief Safe Drinking Water Branch Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 5 of 5

**Comment 11.** If you plan to construct a new drainage injection well, or to operate an existing drainage injection well, you are first required to obtain written authorization from the Department of Health's Underground Injection Control (UIC) program. Written authorization is given either by an authorization letter or by a UIC permit, both of which represent the Department's approval to construct or to operate an injection well. Without written authorization, constructing or operating an injection well is a Chapter 23 violation. A Chapter 23 violation may results in a penalty and corrective action.

**Response 11.** The Applicant is not proposing to construct an injection well or operate an existing injection well as part of the proposed project.

Thank you for participating in the environmental review process. Please feel free to call Mr. Brett Davis at (808) 242-1955 or email Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 NEIL ABERCROMBIE GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

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

September 26, 2013

Mr. Jordan E. Hart President 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

In reply, please refer to: EMD/CWB

09071PGH.13

RECEVED

SEP 27 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning

CC. Indan Broch

-+Glenn 13/529

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Piilani Promenade TMK: (2) 3-9-001:016, 170-174 Kihei, Island of Maui, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, which was received in our office on September 18, 2013, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:

http://health.hawaii.gov/epo/files/2013/05/CWB-standardcomment.pdf.

- 1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
- 2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the CWB

Mr. Jordan E, Hart September 26, 2013 Page 2

Individual NPDES Form through the e-Permitting Portal and the hard copy certification statement with \$1,000 filing fee. Please open the <u>e-Permitting Portal</u> website at: <u>https://eha-cloud.doh.hawaii.gov/epermit/View/home.aspx</u>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the "CWB Individual NPDES Form." Follow the instructions to complete and submit this form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at: <u>http://health.hawaii.gov/cwb/</u>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

In Wong

ALEC WONG, P.E., CHEF Clean Water Branch

GH:rh

c: Mr. Daniel E. Orodenker, DBEDT-LUC

NEIL ABERCROMBIE OVERNOR OF HAWA

Mr. Jordan E. Hart

115 North Market Street

Wailuku, Hawaii 96793-1717

President

Dear Mr. Hart:



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

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

October 9, 2013

. OCT 1 1 2013

CHRIS HART & PARTHERS, INC. Landscape Architectura and Planning

CC: Judan, Glenn + Bred

13/229

**Comments on the Environmental Impact Statement Preparation** SUBJECT: Notice (EISPN) for the Piilani Promenade TMK: (2) 3-9-001:016, 170-174 Kihei, Island of Maui, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, which was received in our office on September 18, 2013, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:

http://health.hawaii.gov/epo/files/2013/05/CWB-standardcomment.pdf.

- 1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
- 2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the CWB

In reply, please refer to: EMD/CWB

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Mr. Jordan E, Hart October 9, 2013 Page 2

Individual NPDES Form through the e-Permitting Portal and the hard copy certification statement with \$1,000 filing fee. Please open the <u>e-PermittingPortal</u> website at: <u>https://eha-cloud.doh.hawaii.gov/epermit/View/home.aspx</u>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the "CWB Individual NPDES Form." Follow the instructions to complete and submit this form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may <u>result</u> in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at: <u>http://health.hawaii.gov/cwb/</u>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

Danyl Lund men And

ALEC WONG, P.E., CHIEF Clean Water Branch

GH:rh

c: Mr. Daniel E. Orodenker, DBEDT-LUC



Mr. Alec Wong, P.E., Chief State of Hawaii, Dept. of Health Clean Water Branch P.O. Box 3378 Honolulu, HI 96801-3378

Dear Mr. Wong:

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of September 26, 2013 and for a copy of the letter dated October 9, 2013. We have provided the following responses to your numerated comments.

**Comment 1.** Any project and its potential impacts to State waters must meet the following criteria: a. Antidegradation policy (HAR, Section 11-54-1 .I), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected. b. Designated uses (HAR, Section 11 -54-3), as determined by the classification of the receiving State waters. c. Water quality criteria (HAR, Sections 1 1-54-4 through 1 1-54-8).

**Response 1**. The proposed project will comply with the applicable provisions of Chapter 11-54, Hawaii Administrative Rules (HAR) entitled <u>Water Quality</u> <u>Standards</u> and Chapter 11-55, HAR titled <u>Water Pollution Control</u>.

The proposed project will also be developed in accordance with the standards set forth by:

- a. Section 11-54-1.1, HAR (General Policy of Water Quality Antidegradation).
- b. Section 11-54-3, HAR (Classification of Water Uses).

Mr. Alec Wong, P.E., Chief DOH,CMB Piilani Promenade DEIS June 18, 2014 Page 2 of 3

c. The water quality criteria set forth in Sections 11-54-4 through 11-54-8, HAR.

**Comment 2**. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the CWB Individual NPDES Form through the e-Permitting Portal and the hard copy certification statement with \$1,000 filing fee. Please open the e-Permitting Portal website at: https://eha-cloud.doh.hawaii.gov/epermiWiew/home.aspx. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the "CWB Individual NPDES Form." Follow the instructions to complete and submit this form.

**Response 2.** The Applicant acknowledges that a National Pollutant Discharge Elimination System (NPDES) is required for discharges into Class A or Class 2 State waters.

- a. Prior to the commencement of construction, an application for an NPDES permit for storm water associated with construction activities will be submitted to the Clean Water Branch (CWB) for review and approval.
- b. No dewatering activities are anticipated at this time. However, if such work is required, an application for a NPDES permit for dewatering activities will be submitted to the CWB for review and approval.
- c. If necessary, an application for an NPDES permit for hydro-testing water effluent will be submitted to the CWB for review and approval.
- d. An application for an NPDES permit for storm water associated with industrial activity will be submitted to the CWB for review and approval as required.

**Comment 3.** If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements. Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401 (a)(l), a Section 401 Water Quality Certification (WQC) is required for "[any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters ..." (emphasis added). The term

Mr. Alec Wong, P.E., Chief DOH,CMB Piilani Promenade DEIS June 18, 2014 Page 3 of 3

"discharge" is defined in CWA, Subsections 5O2(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

**Response 3.** The U.S. Army Corps of Engineers was provided with a copy of the EISPN as part of the consultation process for the preparation of the Draft EIS.

**Comment 4.** Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

**Response 4.** Notwithstanding other permit requirements, the Applicant understands that all project-related discharges must comply with the State's Water Quality Standards as set forth in Chapter 11-54, HAR.

Thank you participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 NEIL ABERCROMBIE SOVERNOR OF HAWAI



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

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

November 13, 2013

Mr. Jordan E. Hart President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

SUBJECT: **Environmental Impact Statement Preparation Notice** Piilani Promenade, Kihei, Maui

The project must comply with all applicable Air Pollution Control Permit conditions and requirements. To have a determination made on whether your proposed project would require an air pollution control permit, please contact the Engineering Section of the Clean Air Branch at (808) 586-4200.

111 A significant potential for fugitive dust emissions exists during all phases of construction. The activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. We encourage the contractor to implement a dust control plan as described in your document in order to comply with the fugitive dust regulations. The plan, which does not require approval by the Department of Health, may include the dust control measures identified in your document and may add other measures including the following:

- a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water source at the site prior to start-up of construction activities;
- Landscaping and providing rapid covering of bare areas, including slopes, starting from C) the initial grading phase;
- d) Minimizing dust from shoulders and access roads;
- e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling dust from debris being hauled away from the project site. Also, controlling dust from daily operations of material being processed, stockpiled, and hauled to and from the facility.

If you have any questions, please contact Mr. Barry Ching of the Clean Air Branch at (808) 586-4200.

Sincerely,

Not S. April

NOLAN S. HIRAI, P.E. Manager, Clean Air Branch

In reply, please refer to: 13-970A CAB

RECEIVED

MOV 18 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning CC: Jurplan, glenn. A Mrcht 13/029



Mr. Nolan S. Hirai, Acting Manager State of Hawaii, Dept. of Health Clean Air Branch P.O. Box 3378 Honolulu, HI 96801-3378

Dear Mr. Hirai,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your comment letter of November 13, 2013. Please be assured that the proposed project will comply with the applicable provisions of Chapter 60.1, Hawaii Administrative Rules pertaining to <u>Air Pollution Control</u> and that dust control measures will be implemented during construction as required by Section 11-60.1-33, HAR (Fugitive Dust).

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 NEIL ABERCROMBIE OVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEAT TH

In reply, please refer to:

File:

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

October 24, 2013

LUD-2 3 9 001 010 EISPN Piilan	
2013 OCT 28 A 9:30	LAND USE CON HISSION STATE OF H AWAII

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

Subject: Environmental Impact Statement Preparation Notice for Piilani Promenande, Kaonoulu Ranch, Subdivision No. 2 451 Kaonoulu Street, Kihei, Maui 96753 TMK (2) 3-9-001: 016, 170-174

Thank you for allowing us the opportunity to review the subject document which requests comments on the Environmental Impact Statement Preparation Notice for the Pillani Promenande project. We have the following information and comments for the subject document.

The Piilani Promenade project is located in the critical wastewater disposal area as determined by the Maui County Wastewater Advisory Committee. Wastewater treatment and disposal have not been adequately addressed in the subject document; therefore, we cannot offer any substantial comments. If a County or Private sewer connection is not available, domestic wastewater generated by the project shall be handled by wastewater systems that comply with our chapter 11-62, Hawaii Administrative Rules, "Wastewater Systems".

We encourage the developer to connect to the County sewer service system if possible and utilize recycled water for irrigation and other non-potable water purposes such as dust control, open spaces or landscaping areas.

Should you have any questions, please contact Mr. Mark Tomomitsu of my staff at telephone (808) 586-4294 or fax (808) 586-4300.

Sincerely.

SINA PRUDER, P.E., CHIEF Wastewater Branch

LM/MST:Imj

Ms. Laura McIntyre, DOH-Environmental Planning Office (13-183 C: Mr. Roland Tejano, DOH-WWB's Maul Staff , Mr. Daniel E. Orodenker, Executive Officer



Mr. Sina Pruder, P.E., Chief State of Hawaii, Dept. of Health Wastewater Branch P.O. Box 3378 Honolulu, HI 96801-3378

Dear Mr. Pruder,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 24, 2013. In responding to your comments on the EISPN, we would like to note the following.

The Draft EIS will include a Preliminary Engineering Report which will examine the existing County wastewater system serving the project area and discuss proposed sewer system improvements which would provide for the collection and disposal of wastewater generated by the proposed project.

R-1 effluent, a by-product of the Kihei Wastewater Treatment Facility, is used for irrigation purposes by various users in the Kihei area that have access to this reclaimed water.

The existing R-1 network consists of a 1.0 million gallon storage reservoir and distribution lines that convey the reclaimed water to the Elleair Golf Club, Kalama Park, and along the North-South Collector Road alignment to Pi`ikea Street. Provisions for future R-1 connectivity will be examined during the detailed planning and design phase of the proposed project.

Mr. Sina Pruder, P.E. Chief Dept. of Health Wastewater Branch Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 2 of 2

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

(15/6

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 NEIL ABERCROMBIE GOVERNOR OF HAWAH



WILLIAM J. AILA, JR. CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT



### STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

October 25, 2013

Chris Hart & Partners, Inc. Attention: Mr. Jordan E. Hart, President 115 N. Market Street Wailuku, Hawaii 96793

State of Hawaii Department of Business, Economic Development & Tourism Land Use Commission Attention: Mr. Daniel E. Orodenker, Executive Officer P.O. Box 2359 Honolulu, Hawaii 96804-2359

Dear Mr. Hart & Mr. Orodenker;

SUBJECT: Pi'ilani Promenade

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments previously sent you on October 22 and October 23, 2013, enclosed are comments from the Commission on Water Resource Management on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely

Russell Y. Tsuji Land Administrator

Enclosure(s) cc: Central Files

RECENCED

OCT 2 9 2013

CHBIS HABI & PARTNERS, INC. Landscape Architecture and Planning CC: Jordan, BML 191000

NEIL ABERCROMBIE GOVERNOR OF HAWAII		WILLIA KAY LORETTA J. MIL JON	LIAM J. AILA CHAIRPEASON M D. BALFO MANA BEAN FUDDY, A.C TON D. PAV IATHAN STA D YAMAMUI	ur, Jr. Ier .s.w., M.p.H. Yao Arr
	STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT P.O. BOX 621 HONOLULU, HAWAII 96809 October 22, 2013			
TO: FROM:	Russell Tsuji, Administrator Land Division William M. Tam, Deputy Director Commission on Water Resource Management	JAND & SOURCES HAWAH	PM 2:09	VED VISION

SUBJECT: Piilani Promenade Commercial and Multi-Family Residential EIS Prep Notice Piilani, Maui

FILE NO.: N/A

TMK NO.: (2) 3-9-001:016, 170-174 Kihei, Maui

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

Our comments related to water resources are checked off below.

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

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

- 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <u>http://www.usgbc.org/leed</u>. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/.
- 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <a href="http://hawaii.gov/dbedt/czm/initiative/lid.php">http://hwwaii.gov/dbedt/czm/initiative/lid.php</a>.
- 6. We recommend the use of alternative water sources, wherever practicable.
- 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at <u>http://energy.hawaii.gov/programs/achieving-efficiency/green-business-program</u>

Russell Tsuji, Administrator Page 2 October 22, 2013

8.	We recommend adopting landscape irrigation conservation best management practices endorsed by the
	Landscape Industry Council of Hawaii. These practices can be found online at
	http://landscapehawaii.org/_library/documents/lich_irrigation_conservation_bmps.pdf

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

### Permits required by CWRM:

Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/info\_permits.htm.

10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.

- 11. A Well Construction Permit(s) is (are) required before any well construction work begins.
- 12. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- 13. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 14. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 15. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
- 16. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
- 17. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 18. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

### OTHER:

The project expects water service from Maui County Department of Water Supply (MDWS), whose potable water sources are in water management areas with limited supply. While MDWS allocations are near the limit of the sustainable yield, MDWS has extended service through its conservation savings. Alternative sources are highly recommended.

If there are any questions, please contact Charley Ice at 587-0218.



Mr. William M. Tam, Deputy Director State of Hawaii Department of Land and Natural Resources Commission on Water Resource Management PO Box 621 Honolulu, HI 96809

Dear Mr. Tam:

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 22, 2013, our responses to your numerated comments are provided below.

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

**Response 1**. Copies of the Draft EIS will be furnished to the Maui Planning Department and Maui Department of Water Supply (DWS) so that information about the proposed project can be incorporated into the County's Water Use and Development Plan.

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

www.chpmaui.com

Mr. William M. Tam, D. Director DLNR, CWRM Response Letter Piilani Promenade DEIS June 18, 2014 Page 2 of 3

**Response 4**. The Applicant has reviewed the EPA website and will implement water efficient practices wherever possible to reduce the demand on water resources as a result of the proposed project.

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

**Response 5.** Best Management Practices prepared in accordance with Maui County Code, Chapter 20.08 (*Soil Erosion and Sedimentation Control*) will be submitted to the Maui Department of Public Works for review and approval prior to the issuance of grubbing and grading permits. In addition, since site work for the project will exceed one acre, a National Pollutant Discharge Elimination System Permit will be obtained from the Hawaii Department of Health's Clean Water Branch for the discharge of storm water associated with construction activities.

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

**Response 6**. Alternative water sources will be considered for use to the extent that they are available and practicable.

**Comment 7**. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at <u>http://energy.hawaii.gov/programs/achieving-efficiency/green-business-program</u>.

**Response** 7. The Applicant has reviewed the Hawaii Green Business Program and is considering participation in the program.

**Comment 8.** We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at <u>http://landscapehawaii.org/library/documents/lich irrigation conservation\_bmps.pdf</u>

**Response 8**. The proposed project will include a water and energy efficient landscaping irrigation system designed to conserve water.

Mr. William M. Tam, D. Director DLNR, CWRM Response Letter Piilani Promenade DEIS June 18, 2014 Page 3 of 3

Other Comment 1. The project expects water service from Maui County Department of Water Supply (MDWS). Whose potable water sources are in water management areas with limited supply. While MDWS allocations are near the limit of sustainable yield, MDWS has extended service through its conversation savings. Alternative sources are highly recommended.

Other Comment Response 1. The Applicant is open to exploring alternative water sources based on availability and feasibility. However, preliminary meetings with the Department of Water Supply have determined that the proposed project will connect to the existing County water system.

Thank you again, for providing us with your letter. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 NEIL ABERCROMBIE GOVERNOR



KATHRYN S. MATAYOSHI SUPERINTENDENT

## STATE OF HAWAI'I DEPARTMENT OF EDUCATION

P.O. BOX 2360 HONOLULU, HAWAI`I 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

October 23, 2013

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793-1717

Dear Mr. Hart:

The Department of Education (DOE) is responding to your request for comments on the Pi`ilani Promenade project's Environmental Assessment/Environmental Impact Statement Preparation Notice (EISPN).

The DOE reviewed the EISPN and has only one concern at this point, we have not had any discussions with the developers of the project.

Pi`ilani Promenade North LLC and Pi`ilani Promenade South LLC, acknowledge their proposed project will be required to pay school impact fees. The school impact fee law, Chapter 302A-1601, Hawaii Revised Statutes (HRS), requires any developer of 50 or more residential units to have a written agreement with the DOE before the issuance of building permits, subdivision approval, and condominium property regime approval.

The EISPN states the applicant will coordinate with the DOE to determine the appropriate measure to be taken as required by Section 302A-1603(b), however that is the section that identifies the types of projects exempt from the law. We do not believe the Promenade project qualifies as an exempt project.

The DOE would like to know whether the project is located on lands formerly categorized as being in the Makawao Judicial District. That has bearing on which school impact fee cost area the project is in. Other details such as the acreage of the housing area and the size of the units would also be helpful.

If you have any further questions, please contact Heidi Meeker of the DOE's Facilities Development Branch at (808) 377-8301.

Respectfully,

Kenneth G. Maden Public Works Manager Planning Section.

KGM:jmb

c: Daniel E. Orodenker, Executive Officer, State Land Use Commission

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CET 25 203

CHRIS HART & PARTY 13 196. Landscape Architecture and Landscape

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



Mr. Kenneth G. Masden II, Public Works Manager Planning Section State of Hawaii, Department of Education P.O. Box 2360 Honolulu, HI 96804

Dear Mr. Masden,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013. In responding to your comments on the EISPN, we would like to note the following.

The Applicant acknowledges that there has not been discussion with the DOE on the proposed project. The Applicant is still designing the residential component of the project and will coordinate with DOE in the near future. The Applicant will enter into an agreement with the Department of Education (DOE) before the issuance of building permits, subdivision approval.

The EISPN mistakenly referenced Section 302A-1603(b) and we concur that the project does not qualify as exempt.

The Piilani Promenade project site contains land located within both the Makawao and Wailuku Judicial Districts. The District line bisects the project site diagonally. The residential component of the project will be located on lands in both the Wailuku and Makawao Districts. The Applicant will provide a detailed list of the number and size of the units as the site plan is refined and prior to an agreement with the DOE.

115 N. Market Street, Walulau, Maul, Hawaii 96793-1717 \* Ph 808: 242: 1955 \* Ko. 808-242: 1950

Mr. Kenneth G. Masden, II Public Works Manager Planning Section Dept. of Education Comment Response Letter Piilani Promenade EISPN June 18, 2014 Page 2 of 2

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 NEIL ABERCROMBIE GOVERNOR OF HAWAII



WILLIAM J. AILA, JR. CHAIRPERSON DOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

> POST OFFICE BOX 621 HONOLULU, HAWAII 96809

> > October 23, 2013

Chris Hart & Partners, Inc. Attention: Mr. Jordan E. Hart, President 115 N. Market Street Wailuku, Hawaii 96793

State of Hawaii Department of Business, Economic Development & Tourism Land Use Commission Attention: Mr. Daniel E. Orodenker, Executive Officer P.O. Box 2359 Honolulu, Hawaii 96804-2359

Dear Mr. Hart & Mr. Orodenker;

SUBJECT: Pi'ilani Promenade

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments previously sent you on October 22, 2013, enclosed are comments from the Engineering Division on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji Land Administrator

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DCT 2.8 2013

CHRIS HAPP & PAPTINERS, INC. Landscape Architecture and Planning CC: Jovelan, pratt 2-Glenn

Enclosure(s) cc: Central Files

13/029

NEIL ABERCROMBIE GOVERNOR OF HAWAD		WILLIAM J. Charrei Board of land and an Commission on water re	AILA, JR. ' ISON TURAL RESOUR SOURCE MANAG	Ces iement
	STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION			
State of Hawaii	POST OFFICE BOX 621 HONOLULU, HAWAII 96809	·• 7*	102	a •
	September 19, 2013	DEPT. O STATE	3 OCT 23	RECE
	<b>MEMORANDUM</b>			VE
TO: FR ' FROM: SUBJECT: LOCATION:	DLNR Agencies: Div. of Aquatic Resources Div. of Boating & Ocean Recreation X Engineering Division Div. of Forestry & Wildlife Div. of State Parks X Commission on Water Resource Management Office of Conservation & Coastal Lands X Land Division – Maui District X Historic Preservation Rusself Y. Tsuji, Land Administrator Pi'ilani Promenade Kihei, Island of Maui; TMK: (2) 3-9-001:016, 170-174	AND & SOURCES HAWAN	NM 9: 117	/EO //S/ON *135EP 20 PHO142 ENVINEERING
APPLICANT:	Pi'ilani Promenade North LLC & Pi'ilani Promenade So	outh LLC		

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by October 21, 2013.

Only one (1) copy of the CD is available for your review in Land Division office, Room 220.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

• . •

() We had	ve no objections.
() We had	ve no comments.
(7) Comm	ents are attached.
Signed: Print Name: Date:	Carty S/Chang, Chief Engineer

cc: Central Files

#### DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION

#### LM/LydiaMorikawa REF.:PiilaniPromenadeEISPN Maui: 610 COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zones D and X. The National Flood Insurance Program does not have any regulations for developments within Zones D and X.
- () Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is
- () Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- () Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of the City and County of Honolulu, Department of Planning and Permitting..
- () Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
- () Ms. Carolyn Cortez at (808) 270-7813 of the County of Maui, Department of Planning.
- () Mr. Stanford Iwamoto at (808) 241-4884 of the County of Kauai, Department of Public Works.

- () The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.
- () he applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update

() Additional Comments:

() Other:

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Y S CHANG, CHIEF ENGINEER Signed Date



Mr. Carty S. Chang, Chief Engineer State of Hawaii Department of Land and Natural Resources Engineering Division P.O. Box 621 Honolulu, HI 96809

Dear Mr. Chang,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013 which transmitted the comments of the Department's Engineering Division. As indicated by their comments, the Project Site is located in flood Zone D (areas of undetermined flood hazard where flooding is possible) and flood Zone X (areas determined to be outside the 0.2 percent annual chance floodplain). It was also noted that the National Flood Insurance Program does not have any regulations for developments within flood Zones D and X.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029

115 N. Market Street, Walluku, Maui, Hawaii 96793-1717 \* Ph 808-242-1955 \* Fax 808-242-1956

NEIL ABERCROMBIE GOVERNOR OF HAWAII



WILLIAM J. AILA, JR. CHARPIPUSON HOARD OF LAND AND NATURAL RESOURCES MINISSION ON WATER RESOURCE MANAGEMENT

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STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

> POST OFFICE BOX 621 HONOLULU, HAWAII 96809

> > October 22, 2013

Chris Hart & Partners, Inc. Attention: Mr. Jordan E. Hart, President 115 N. Market Street Wailuku, Hawaii 96793

State of Hawaii Department of Business, Economic Development & Tourism Land Use Commission Attention: Mr. Daniel E. Orodenker, Executive Officer P.O. Box 2359 Honolulu, Hawaii 96804-2359

Dear Mr. Hart & Mr. Orodenker;

SUBJECT: Pi'ilani Promenade

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, the DLNR has no comments to offer on the subject matter. If you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji Land Administrator

cc: Central Files



Mr. Russell Y. Tsuji, Land Administrator State of Hawaii Department of Land and Natural Resources Land Division P.O. Box 621 Honolulu, HI 96809

Dear Mr. Tsuji,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 22, 2013 which notes that the Land Division has provided copies of the EISPN to various Divisions within the Department for their review and comment.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E, Hart, President

CC: Mr. Charles Jencks, Ownership Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029

ALAN M. ARAKAWA Mayor KYLE K. GINOZA, P.E. Director MICHAEL M. MIYAMOTO Deputy Director



## COUNTY OF MAUI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

2200 MAIN STREET, SUITE 100 WAILUKU, MAUI, HAWAII 96793

October 24, 2013

TRACY TAKAMINE, P.E. Solid Waste Division ERIC NAKAGAWA, P.E. Wastewater Reclamation Division

# RECEIVED

OCT 2 5 2013

CHRIS HART & PARTNERS, INC. Landscape Archliecture and Planning (CI Jondan, Brich + Glenn

131029

Mr. Jordan Hart Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793

Dear Mr. Hart:

## SUBJECT: PI'ILANI PROMENADE ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN) TMK (2) 3-9-001:016, 170-174, KIHEI

We reviewed the subject application and have the following comments:

- 1. Solid Waste Division comments:
  - a. Solid waste issues are addressed.
- 2. Wastewater Reclamation Division (WWRD) comments:
  - a. Although wastewater system capacity is currently available as of the date of this letter, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
  - b. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project.
  - c. Wastewater contribution calculations are required before building permit is issued.
  - d. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees. The property is located in Kihei Sewer Service Area 3.
  - e. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.

- f. Show or list minimum slope of new sewer laterals.
- g. Plans should show the installation of a single service lateral and advanced riser for each lot. Any request for waiver of this requirement shall be made submitted in writing for approval by WWRD.
- h. Property sewer service manholes will be required near the property line for all commercial projects at the time of building permit application.
- i. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.
- j. Commercial kitchen facilities within the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.)
- k. Non-contact cooling water and condensate should not drain to the wastewater system.
- I. Provide an estimation of how much wastewater (gpd) will be generated from the development of the lots of the subject subdivision.
- m. Provide information on the proposed wastewater system improvements and how the wastewater from the subject subdivision will be discharged.
- n. Provide a 20 foot easement along Piilani Highway for future sewer transmission line.
- o. Provide 10,000 s.f. lot in the southwest corner of the development for future wastewater pump station.
- p. Provide for sewer connection for future development of adjacent parcel TMK (2) 3-9-001:034.

If you have any questions regarding this memorandum, please contact Michael Miyamoto at 270-8230.

Sincerely,

Muhaf A. Allegent

KYLE K. GINOZA, P.E. Director of Environmental Management



Mr. Kyle K. Ginoza, P.E., Director County of Maui, Department of Environmental Management 200 South High Street Wailuku, HI 96793

Dear Mr. Ginoza:

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 24, 2013. The responses to your comments are as follows.

Wastewater Reclamation Division

**Comment** a. Although wastewater system capacity is currently available as of the date of this letter, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.

**Response a**. The Applicant acknowledges that the wastewater system capacity cannot be ensured until the issuance of the building permit.

**Comment b.** Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project.

**Response b.** The proposed project is estimated to generate 114,000 gallons of wastewater per day. It is anticipated that the Kihei Wastewater Reclamation Facility will have ample treatment capacity to accommodate the proposed project. Additionally during the building permit application review process, construction drawings and calculations for the project's wastewater system will be submitted to the WWRD for review.

115 N. Market Street, Wailuku, Maui, Hawali 96793-1717 \* Ph 808-242-1955 \* Fax 808-242-1956

Mr. Kyle K. Ginoza, P.E., Director DEM Response Letter Piilani Promenade DEIS June 18, 2014 Page 2 of 5

Comment c. Wastewater contribution calculations are required before building permit is issued.

**Response c**. Wastewater contribution calculations will be submitted to the WWRD for their review as part of the building permit application review process.

**Comment d.** Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees. The property is located in Kihei Sewer Service Area 3.

**Response d**. The assessment fee for treatment plant expansion costs will be submitted in accordance with Chapter 14.34, Maui County Code (MCC) pertaining to Wastewater Assessment Fees for Facility Expansion and the Collection/Transmission System Upgrade for the Kihei Regional Wastewater Treatment System.

**Comment e.** Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.

**Response e.** The Applicant is the developer and will fund any necessary off-site improvements to collection system and wastewater pump stations pursuant to Chapter 14.34, MCC.

*Comment f. Show or list minimum slope of new sever laterals.* 

**Response f.** The minimum slope of all new sewer laterals will be shown on the construction drawings that are submitted as part of the building permit application review process.

**Comment g.** Plans should show the installation of a single service lateral and advanced riser for each lot. Any request for waiver of this requirement shall be made submitted in writing for approval by WWRD.

**Response g.** Single service laterals and advanced risers for each of the developable lots shall be shown on the construction drawings. The Applicant also understands that any waiver from this requirement must be made in writing and is subject to WWRD approval.

Mr. Kyle K. Ginoza, P.E., Director DEM Response Letter Piilani Promenade DEIS June 18, 2014 Page 3 of 5

**Comment h.** Property server service manholes will be required near the property line for all commercial projects at the time of building permit application.

**Response h.** For commercial projects, the Applicant acknowledges that sewer service manholes are required near the property line at the time the building permit applications are submitted.

*Comment i. Indicate on the plans of ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.* 

**Response i.** The ownership of each easement shall be shown on the construction drawings. In addition, the Applicant acknowledges that the County will not accept sewer easements that traverse private property.

**Comment j.** Commercial kitchen facilities within the proposed project shall comply with pretreatment requirements (including grease interceptors, sample boxes, screens etc.).

**Response j.** Should any commercial kitchen facilities be developed with the project area, commercial kitchen users must comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.).

**Comment k.** Non-contact cooling water and condensate should not drain to the wastewater system.

**Response k**. The Applicant acknowledges that non-contact cooling water and condensate cannot drain into the wastewater system.

**Comment 1**. Provide an estimation of how much wastewater (gpd) will be generated from the development of the lots of the subject subdivision.

**Response 1.** The Draft EIS includes a Preliminary Engineering Report (PER) which estimates the daily wastewater flow that the proposed project is expected to generate is 114,000 gpd.

**Comment m**. Provide information on the proposed wastewater system improvements and how the wastewater from the subject subdivision will be discharged.

Mr. Kyle K. Ginoza, P.E., Director DEM Response Letter Piilani Promenade DEIS June 18, 2014 Page 4 of 5

> **Response m.** The PER will include information about how the wastewater system for the proposed project will connect to the County sewer system for conveyance to the Kihei Wastewater Reclamation Facility. The proposed development will connect to the existing County sewerage system at a point approximately 1,400 feet west of project site at the intersection of Kaonoulu and Alulike Streets, makai of Piilani Highway, where the County's sewer system has sufficient capacity to accept the wastewater generated by the project. A 2,600 ft. long gravity sewer mainline consisting of 8 and 10-inch diameter pipe will extend eastward along Kaonoulu Street and across Piilani Highway from this connection point to the Piilani Promenade project site.

**Comment n.** Provide a 20 foot easement along Piilani Highway for future sewer transmission line.

**Response n.** The Applicant met with the Department on May 6, 2014 to discuss the location of a wastewater pump station and easement. The Applicant is committed to working with the department to coordinate the ideal location to provide a 10,000 square foot lot for a future wastewater pump station.

**Comment o.** Provide 10,000 s.f. lot in the southwest corner of the development for future wastewater pump station.

**Response o.** As mentioned, the Applicant met with the Department on May 6, 2014 to discuss the location of a wastewater pump station and easement. The Applicant is committed to working with the department to coordinate the ideal location to provide a 10,000 square foot lot for a future wastewater pump station.

*Comment p. Provide for sewer connection for future development of adjacent parcel TMK (2) 3- 9-001:034.* 

**Response p.** The Applicant will provide a sewer connection for the future development of adjacent parcel TMK (2) 3-9-001:034.

Mr. Kyle K. Ginoza, P.E., Director DEM Response Letter Piilani Promenade DEIS June 18, 2014 Page 5 of 5

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

RD

Jordan E. Hart, President

CC: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 ALAN M. ARAKAWA Mayor

DAVID C. GOODE Director

ROWENA M. DAGDAG-ANDAYA Deputy Director



GLEN A. UENO, P.E., P.L.S. Development Services Administration

CARY YAMASHITA, P.E. Engineering Division

BRIAN HASHIRO, P.E. Highways Division CC: Junun, glinn

200 SOUTH HIGH STREET, ROOM NO. 434, WAILUKU, MAUI, HAWAII 96793 Telephone: (808) 270-7845 • Fax: (808) 270-7955

COUNTY OF MAUL

DEPARTMENT OF PUBLIC WORKS

October 15, 2013

131051

Brett

Mr. Jordan E. Hart, President CHRIS HART & PARTNERS, INC. 115 North Market Street Wailuku, Maui, Hawaii 96793-1717

Dear Mr. Hart:

#### SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR PIILANI PROMENADE; TMK: (2) 3-9-001:016, 170-174

We reviewed the subject application and have the following comments:

- 1. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.
- 2. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.
- 3. As applicable, worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2009.

Please call Rowena M. Dagdag-Andaya at 270-7845 if you have any questions regarding this letter.

AVID C. GOODE

Director of Public Works

RECEVED

CET 2 3 2013

DCG:RMDA:ls

xc: Highways Division

Engineering Division S:\LUCA\CZM\piilani\_promenade\_eis\_prep\_39001016\_170\_thru\_174\_ls.wpd CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning



Mr. David Goode, Director County of Maui, Department of Public Works 200 South High Street Room No 434 Wailuku, HI 96793

Dear Mr. Goode,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 15, 2013. The responses to your numerated comments are as follows.

**Comment 1**. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.

**Response 1.** The Applicant will provide all required improvements as required by the Hawaii Revised Statutes, the Maui County Code and all other applicable rules and regulations.

**Comment 2.** As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

**Response 2.** The construction plans for the proposed project will be designed in accordance with the preceding standards and specifications as applicable.

Mr. David C. Goode, Director DPW Response Letter Piilani Promenade DEIS June 18, 2014 Page 2 of 2

**Comment 3**. As applicable, worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2009.

**Response 3.** The Applicant will provide worksite traffic-control plans/devices that conform to the Manual on Uniform Traffic Control Devices for Streets and Highways, 2009.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029 ALAN M. ARAKAWA Mayor



GLENN T. CORREA Director

BRIANNE SAVAGE Deputy Director

(808) 270-7230 FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION 700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793 ZOIJ OCT 2

October 21, 2013

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, Hawaii 96793

Dear Mr. Hart:

## SUBJECT: ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN) FOR THE PIILANI PROMENADE, TMK: (2) 3-9-001:016, 170-174

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice for the subject project. The Piilani Promenade project is subject to parks and playgrounds assessment requirements pursuant to Section 18.16.320, Maui County Code. The applicant should coordinate discussion with our Department on how these requirements will be satisfied.

Please feel free to contact me or Karla Peters, CIP Coordinator, at 270-7981, should you have any questions.

Sincerely,

Ovand Sa

GLENN T. CORREA Director of Parks and Recreation

c: Brianne Savage, Deputy Director Robert Halvorson, Chief of Planning and Development Daniel E. Orodenker, State of Hawaii Land Use Commission

GTC:RH:kp



 Mr. Glenn T. Correa, Director County of Maui, Department of Parks & Recreation 700 Hali'a Nakoa Street, Unit 2 Wailuku, HI 96793

Dear Mr. Correa,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your comment letter of October 21, 2013. In response to your comments, the Applicant will meet with the Parks Department to discuss how the parks and playgrounds assessment requirements for the proposed project can be satisfied in accordance with Section 18.16.320, Maui County Code.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029



JEFFREY A. MURRAY CHIEF

ROBERT M. SHIMADA DEPUTY CHIEF

#### COUNTY OF MAUI DEPARTMENT OF FIRE AND PUBLIC SAFETY FIRE PREVENTION BUREAU

313 MANEA PLACE + WAILUKU, HAWAII 96793 (808) 244-9161 + FAX (808) 244-1363

## September 30, 2013

To : Mr. Jordan E. Hart Chris Hart & Partners, Inc. 115 North Market Street Wailuku, HI 96793

#### Re : Piilani Promenade Environmental Impact Statement Preparation Notice (EISPN) Wailea Ike Drive, Wailea (2) 2-1-008: 121 Portion

Dear Brett:

Thank for the allowing the Department of Fire and Public Safety the opportunity to comment on the referenced subject. At this time, our office provides the following comments:

- Water supply for fire protection and access roads for fire apparatus access shall meet the requirements for the designated land-use and shall be in place prior to approval of building permits.
- Our office reserves the right to comment on all proposed buildings for this project during the building permit review process when fire department access, water supply for fire protection, and life safety requirements for each structure shall be addressed.

If there are any questions or comments, please feel free to contact me at 244-9161 ext. 23.

Sincerely,

Paul Haake Captain, Fire Prevention Bureau

Cc: Land Use Commission – Dept. of Business, Economic Development & Tourism Mr. Daniel E. Orendenker – Executive Officer

OCT - 2 2013 CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning CC: Jordan

RECEIVED

13/029



Mr. Paul Haake, Captain County of Maui, Department of Fire and Public Safety Fire Prevention Bureau 313 Manea Street Wailuku, HI 96793

Dear Captain Haake,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your Department's letter of September 30, 2013. The responses to your comments are as follows.

*Comment 1.* Water supply for fire protection and access roads for fire apparatus access shall meet the requirements for the designated land-use and shall be in place prior to approval of building permits.

**Response 1.** The Applicant will provide water supply for fire protection and the required access roads prior to approval of building permits.

*Comment* 2. Our office reserves the right to comment on all proposed buildings for this project during the building permit review process when fire department access, water supply for fire protection, and life safety requirements for each structure shall be addressed.

**Response 2.** The Applicant acknowledges that all buildings that are proposed for the project will be reviewed during the building permit review process to ensure that fire department access, water supply, and life safety requirements for each structure are addressed.

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 \* Ph 808-242-1955 \* Fax 808-242-1956

Mr. Paul Haake, Captain Fire Prevention Bureau Response Letter Piilani Promenade DEIS June 18, 2014 Page 2 of 2

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

42

Jordan E. Hart, President

CC: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029



ALAN M. ARAKAWA Mayor JO-ANN T. RIDAO Director JAN SHISHIDO Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

September 24, 2013

RECEIVED

SEP 3 0 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning

CC: Jonan, Brett Gun

13/051

Mr. Jordan E. Hart, President Chris Hart & Partners, Inc. 115 North Market Street Wailuku, HI 96793-1717

Dear Mr. Hart:

#### Subject: Environmental Impact Statement Preparation Notice (EISPN) for Pi'ilani Promenade of Maui, Hawaii. TMK's (2) 3-9-001:016, 170-174

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice for the subject property. Based on our review, we have determined that the subject project is subject to Chapter 2.96, Maui County Code that a Residential Workforce Housing agreement is required with the Department of Housing and Human Concerns. At the present time, the Department has no additional comments to offer.

Please call Mr. Veranio Tongson Jr. of our Housing Division at 270-1741 if you have any questions.

Sincerely,

Nayde V. Ohiro

WAYDE T. OSHIRO Housing Administrator

cc: Director of Housing and Human Concerns Land Use Commission



Mr. Wayde T. Oshiro, Housing Administrator County of Maui, Department of Housing and Human Concerns 35 Lunalilo St. Suite 102 Wailuku, HI 96793

Dear Mr. Oshiro,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your comment letter of September 24, 2013. The Applicant acknowledges that the proposed project is subject to Chapter 2.96, Maui County Code. As such, the Applicant will work with the Department of Housing and Human Concerns to coordinate and prepare a Residential Workforce Housing agreement for the project.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029

ALAN M. ARAKAWA Mayor



JO ANNE JOHNSON-WINER Director MARC 1. TAKAMORI Deputy Director Telephone (808) 270-7511

#### DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUL 200 South High Street Wailuku, Hawaii, USA 96793-2155

September 20, 2013

Mr. Jordan Hart Chris Hart & Partners Inc. 115 N Market Street Wailuku, Maui, Hawaii 96793

Subject: Piilani Promenade

Dear Mr. Hart,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Jo/Anne Johnson Winer

Director

RECEIVED

SEP 2.6 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning Cli Jordan Glenn + Brett

13/029



Mrs. JoAnne Johnson Winer, Director County of Maui Department of Transportation 200 South High Street Wailuku, HI 96793-2155

Dear Mrs. Johnson Winer,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your comment letter of September 20, 2013 indicating that the department does not have any comments on the EISPN at this time.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

Cc: Mr. Charles Jencks, Owner Representative Mr. Daniel E. Orodenker, DBEDT-LUC Project File 13-029

Kihei Community Association "Working together to shape our Community's future" RECEIVED

OCT 2 1 2013

CHRIS HART & PARTNERS, INC. Landscape Architecture and Planning CC: Jordan, Brotta

Jornan, Brott Glean 13/029

State of Hawaii, Land Use CommissionDepartment of Business, Economic Development and TourismState of HawaiiP.O. Box 2359Honolulu, HI 96804-2359

Jordan Hart Chris Hart and Partners 115 N. Market Street Wailuku, HI 96793

Piilani Promenade North LLC and Piilani Promenade South LLCC/O Sarofim Realty Advisors8115 Preston Rd, Ste 400Dallas Texas 75225

Subject: Docket No. A94-706/Ka'ono'ulu Ranch

Environmental Impact Statement Preparation Notice (EISPN) - Pi'lani Promenade; TMK 3-9-01:16 and 170-174

Gentlemen,

The Kihei Community Association has reviewed the subject EISPN and provides our comments in Enclosure 1.

We are especially concerned that the Note under the Community Plan Amendment section of the Entitlements and Approvals is incorrect. This proposed project has never been determined by the County to be consistent with the Kihei-Makena Community Plan. Zoning for an industrial park was determined to be consistent with the Community Plan, based on the Environmental review for the previous Industrial Park project. A proposed project similar to this one, was cleared for zoning, but never reviewed for consistency with the Community Plan.

This is a new project, so the process must require that the Community Plan be updated to reflect the proposed project, as was done with the original project. Furthermore, as identified in our comments, the changes to the Community Plan are not just to the land use map, but also to many of the textual requirements in the Goals, Objectives and Policies section of the

plan with which this project is not in compliance. Then the Zoning must be changed to ensure consistency with the Community Plan and the Final EIS.

We appreciate being involved during the early consultation process and look forward to continuing as a consulting agency in this process.

Sincerøly, Mike Moran

President

Copy to: Mayor Arakawa Council member Couch



Kihei Community Association "Working together to shape our Community's future"

## KCA Comments on the EIS Preparation Notice for Pi'ilani Promenade October 14, 2013

The Kihei Community Association (KCA) would like to submit comments on the following sections of the Pi'ilani Promenade EISPN dated August 15, 2013 and released on September 23, 2013.

# II. Affected Environment, Potential Impacts and Mitigation Measures A. Physical Environment 5. Flora and Fauna

The EISPN states that the project site is vacant land with minimal vegetation.

Please include in the draft EIS that this signifies limited rainfall at the site, and therefore the applicant's landscape design shall emphasize drought tolerant vegetation to limit irrigation required.

## **10. Visual Resources**

The EISPN states that the site offers views of the Pacific Ocean, Molokini Crater, Ko'olawe, Lanai, the West Maui Mountains, and Haleakala.

Please include in the draft EIS that the applicant will design the development to take advantage of and enhance these views that are crucial to our tourist industry and therefore to our economy.

## B. SocioEconomic Environment

## 3. Economy

The EISPN states that the County faces a challenge to increase living wage jobs and that development will increase long-term permanent employment.

Please include in the draft EIS an analysis of the potential jobs created by the project and identify potential mitigations that the applicant can use to provide long term employment that will maximize living wage jobs compared to the typical minimum-wage retail positions.

#### **C.** Public Services

## 6. Public Transportation

The EISPN states that the applicant will coordinate with the County on construction of future Maui bus stops.

Please include in the draft EIS potential mitigations that the applicant will include such as completely off-road bus turnouts or full-size bus stops within their site design.

#### D. Infrastructure

**1. Roadways** The EISPN states that the Traffic Impact Analysis Report (TIAR) that was prepared previously will be revised.

The TIAR should define the current traffic conditions without the project. It should then provide a cumulative traffic projection and its impacts from the fully developed project and all the Kihei road systems both existing and proposed from the fully developed project. The traffic analysis for the fully developed project should include the traffic from all of the approved developments to date and those that would be likely in the next 20 years.

The TIAR should at least include the following approved developments: The Makena Developments (3700+/- units), Honua'ula, Wailea Resort, Maui Research and Technical Park, Kihei Downtown Center, Kihei High School, Honua'ula Affordable Housing, Kihei Mauka, North Kihei Housing, Kaiwahine Village, PulehuNui Industrial Area, Entitled South Maui Infill Projects, and Partly Entitled South Maui Infill Projects.

The traffic Impact Analysis should assume the complete up country highway and include mitigation required for the improvement of the intersections of Kaonoulu Street and the Piilani Highway and of Kaonoulu Street and South Kihei Road.

Please nelude in the HAR the mitigation that the design of roadways within the development as well as public roads impacted by the development will meet the Hawaii State criteria for Complete Streets (providing for pedestrian and bicycle traffic in addition to motorized vehicles), the Kihei Road Design Standards\* and the Green Streets criteria.\*\*

Analyze roadway intersections with the intent to use roundabouts and mini roundabouts in lieu of signalized and stop sign intersections to conform to with Kihei-Makena Community Plan goals and implementing actions for a pedestrian oriented, walkable community.

Analyze the compliance of the project with the following section of the Kihei Design Guidelines:

Pedestrian and Community Safety and De-emphasis of the Automobile

New developments shall provide measures for pedestrian and biking safety and deemphasize the automobile. Roadway standards have been developed by the KCA for use in new developments that provide for a narrowing of roadway widths thereby reducing traffic speed and creating a smaller scale and sense of place suitable for small towns and neighborhoods, (The complete Roadway Standards are available upon request). All roadways shall have street shade trees and planted separations between walkways and the street curbs. Roadways shall incorporate tree planted bulb out areas where parallel parking is included. Neighborhood roads should provide connectivity to adjacent neighborhoods. Crosswalks through roadways should be slightly elevated as a table; a change in texture and color from asphalt is preferred. Neighborhood developments should not place garage door entrances in front yards near the streetscape and should incorporate front porches and/or high visibility of streetscape from homes. Privacy walls at streetscape are discouraged.\*\*\*

#### 2. Utilities

The EISPN states that potential impacts to utilities will be analyzed in a Preliminary Engineering Report.

Please include in the draft EIS the mitigation that all utilities on or crossing the site will be placed underground.

#### 3. Drainage

The EISPN states that the draft EIS will analyze existing site conditions and anticipated changes in storm-water runoff.

This project will result in less ground for the percolation of storm water into the ground water. The drainage from this project will likely contribute to additional flooding in North Kihei. The existing 100 yr flood flow from the flood channel serving the project causes downstream flooding, silt flow into the ocean, and damage to the ocean reefs and ecological systems.

Please discuss the cumulative effects per the Hawaii State Office of Planning document Stormwater Impact Assessments from the storm runoff and propose mitigation to lessen the impacts downstream and the summary of actions stipulated in the South Maui Watershed Plan II.\*\*\*\*

Please analyze the compliance of the project with the following section of the Kihei Design Guidelines:

# Open Space Drainage Ways and Flood Control

Major natural drainage ways shall remain undeveloped with a significant buffer to provide for visual open space and connectivity of neighborhoods to beaches, parks, schools, and commercial areas for pedestrians and bikers. Drainage ways left in a natural state or with native vegetation will aid in abating the serious flood problem that Kihei faces as a result of uncontrolled development. Detention and/or retention basins that may be required for maintaining the control of on-site runoff generated from proposed developments shall be substantially completed in their construction and improved with landscape and native vegetation prior to significant clearing, grubbing, grading, and building construction on the site. \*\*\*

#### 4. Water

The EISPN states that the draft EIS will analyze current water source and transmission requirements for the proposed project.

Please include in the report the cumulative impact of all identifiable future developments be included, specifically for Kihei High School and for Maui Technology Park additions. This development along with other increases in water demand in Kihei will cause further degradation of our aquifers with increased salinity. The mitigation for the rising salinity levels should be addressed.

In order to protect our water supply with new development, this project should consider as part of its mitigation the utilization of wastewater for irrigation.

## III Relationship to Governmental Plans, Policies and Controls D. Kihei-Makena Community Plan

The EISPN states that the applicant is considering applying for a Community Plan Amendment.

The Note under the Community Plan Amendment section of the Entitlements and Approvals is incorrect. This proposed project has never been determined by the County to be consistent with the Kihei-Makena Community Plan. Zoning for an industrial park was determined to be consistent with the Community Plan, based on the Environmental review for the previous Industrial Park project. A proposed project similar to this one, was cleared for zoning, but never reviewed for consistency with the Community Plan.

Since the previously proposed project did not comply with several conditions of the previous LUC approval, this is now a different project.

Please note that the EIS must consider it in that light. Furthermore, since this is a new project, the process will require that the Community Plan be updated to reflect the proposed project, as was done with the original project. Then the Zoning must be changed to ensure consistency with the Community Plan.

Please include in the draft EIS either specific plans to change the project land use to comply with the Kihei-Makena Community Plan or, if the project land use is to be as proposed, to apply for an amendment to the Community Plan and to apply for a change in zoning from Light Industrial to the proposed Commercial and Residential uses.

The Kihei-Makena Community Plan now states:

#### Environment

#### **Implementing Actions**

k. Provide for limited expansion of light industrial services in the area south of Ohukai and mauka of Pi'ilani Highway... These areas should limit retail business or commercial activities to the extent they are accessory or provide service to predominate light industrial use.

The proposed design does not meet these requirements. New design guidelines should be developed as part of the Community Plan amendment.

The published Kihei Design Guidelines currently support this type of development as follows:

#### **Commercial and High Density Developments**

Developments should orient building fronts toward the streetscape with parking in the rear or side of buildings away from the streetscape and pedestrian access ways. Wide sidewalks at streetscapes with ample canopy on buildings should be incorporated. Streetscapes and sidewalks should include benches and shade trees. Buildings should have a comfortable scale relationship with the streetscape and sidewalks. Buildings at streetscapes are preferred to be three stories maximum with a massing progression of setting back the third level from the lower two. Mixed use buildings are highly encouraged in order to integrate the residential community into commercial neighborhoods. There should be transition in scale of buildings and their appearance as commercial areas meet residential areas. Commercial zoned lots adjacent to residential shall be limited to two stories and incorporate residential style massing and detailing. Village type commercial areas encouraging pedestrian activity and walk ability within the community are given preference. Signage and building design should be geared toward the pedestrian and slow speed traffic not high speed traffic.\*\*\*

- \* http://www.getfitkauai.com/pdf/Hawaii\_Complete\_Streets\_report\_Dec-2011.pdf
- \*\* http://www.lowimpactdevelopment.org/greenstreets/
- \*\*\* http://www.gokihei.org/wp-content/nploads/2010/04/general-planning-guidelines-rev2.pdf
- \*\*\*\* http://www.mauiwatershed.org/project/



### KIHEI COMMUNITY ASSOCIATION POSITION STATEMENT ADDRESSING SOUTHWEST MAUI'S WATER SUPPLY

KCA is concerned about the integrity and sustainability of Maui's water supply and in particular Southwest Maui's water supply. In Southwest Maui development proceeds with no new water resources identified. Our present usage of water sources exceeds our ability to sustain the water supply; therefore, it is KCA's position that timely action needs to be undertaken as soon as practical. Items to address:

- 1. Update Maui County's 23 year old Water Use and Development Plan (WUPD) to be in touch with current circumstances, expected future demand and the effects of a changing (drier) climate.
- 2. Increase utilization of "waste water" in Southwest Maui as well as other areas of Maui.
- 3. Complete the Southwest Maui (Kihei) storm drain master plan. Attempt to capture storm runoff for use as water supply and/or to recharge our aquifers.
- 4. Develop and implement a water conservation plan for new development as well as existing uses.
- 5. Restrict new development that will cause further degradation of our aquifers with increased salinity and remediate the causes of rising salinity levels.
- 6. Continue to monitor salinity levels in our aquifers and take specific actions to stabilize them for the benefit of current and future users.

KCA's position is based on the following assumptions and facts:

- Southwest Maui is essentially a desert without its own independent water supply. Its water needs are currently met by access to water from the West Maui aquifer system.
- Southwest Maui sits on top of the Kamaole aquifer, a brackish aquifer at lower elevations. Confidence in its sustainable yield estimation is categorized at the lowest level of certainty.
- Salinity levels in the West Maui aquifer system have been rising consistently over a long period of time based on credible data provided by the USGS.
- Southwest Maui and other parts of the Hawaiian Islands have been in prolonged drought. Rainfall over the Hawaiian Islands has been in decline since 1978. This spring, 2013, rainfall in Maui County was the lowest recorded in modern history.

- Maui County's Water Use and Development Plan (WUPD) is 23 years old and is no longer a relevant planning document, both in terms of the current situation and the expected future.
- Significant development of Southwest Maui land looms both in terms of already approved developments and significant new developments, including expansion of the R&T Park, construction of a new high school, and development of the 88 acre Kaonoulu Industrial Park property, Makena Resort, and Honua'ula.

Mike Moran for KCA www.gokihei.org kca@gokihei.org



June 23, 2014

Mr. Mike Moran, President Kihei Community Association P.O. Box 662 Kihei, HI 96753

Dear Mr. Moran,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Pi`ilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 14, 2013. In response to your enumerated comments we would like to note the following.

**Comment 1.** Please include in the draft EIS that this signifies limited rainfall at the site, and therefore the applicant's landscape design shall emphasize drought tolerant vegetation to limit irrigation required.

**Response 1.** The Applicant is aware that the project site receives limited rainfall. The landscape design for the project will utilize drought-tolerant plant species and other water conservation measures. In addition the project will be using non-potable water for all irrigation uses.

**Comment 2.** Please include in the draft EIS that the applicant will design the development to take advantage of and enhance these views that are crucial to our tourist industry and therefore to our economy.

**Response 2.** The Draft EIS will include a section on Visual Resources. The proposed project will be designed to be mindful of open space views on the *mauka* side of Pi`ilani Highway. Building height limits for the Pi`ilani Promenade will be limited to 60 feet.

Comment 3. Please include in the draft EIS an analysis of the potential jobs created by the

Mr. Mike Moran, President Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 6

project and identify potential mitigations that the applicant can use to provide long term employment that will maximize living wage jobs compared to the typical minimum-wage retail positions.

**Response 3.** The Draft EIS will include an Economic Impact Analysis and Public Fiscal Assessment which will quantify the effect the proposed project is expected to have on the local and State economy.

**Comment 4.** Please include in the draft EIS potential mitigations that the applicant will include such as completely off-road bus turnouts or full-size bus stops within their site design.

**Response 4.** The Draft EIS will include a section on Public Transportation to address the location of public transportation within the Pi`ilani Promenade project site. In connection with the future occupancy and use of the project, the Applicant will meet with the Maui Dept. of Transportation to discuss the possibility of establishing bus stops within the project site.

**Comment 5.** The TIAR should define the current traffic conditions without the project. It should then provide a cumulative traffic projection and its impacts from the fully developed project and all the Kihei road systems both existing and proposed from the fully developed project. The traffic analysis for the fully developed project should include the traffic from all of the approved developments to date and those that would be likely in the next 20 years. The TIAR should at least include the following approved developments: The Makena Developments (3700+/- units), Honua'ula, Wailea Resort, Maui Research and Technical Park, Kihei Downtown Center, 'Kihei High School, Honua'ula Affordable Housing, Kihei Mauka, No& Kihei Housing, Kaiwahine Village, Pulehu Nui Industrial Area, Entitled South Maui Infill Projects, and Partly Entitled South Maui Infill Projects.

The traffic Impact Analysis should assume the complete upcountry highway and include mitigation required for the improvement of the intersections of Kaonoulu Street and the Pi`ilani Highway and of Kaonoulu Street and South Kihei Road.

Please include in the TIAR the mitigation that the design of roadways within the development as well as public roads impacted by the development will meet the Hawaii State criteria for Complete Streets (providing for pedestrian and bicycle traffic in addition to motorized vehicles), the Kihei Road Design Standards\* and the Green Streets criteria.\*\* Analyze roadway intersections with the intent to use roundabouts and mini roundabouts in lieu of signalized and stop sign intersections to conform to with Kihei-Makena Community Plan goals and implementing actions Mr. Mike Moran, President Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 6

#### for a pedestrian oriented, walkable community.

**Response 5.** The Draft EIS for the Pi ilani Promenade will include a TIAR for the proposed project. The TIAR will include an analysis of existing conditions and projected traffic impacts from the proposed project and surrounding developments. The Draft EIS will also describe the proposed pedestrian and bicycle network.

*Comment 6. Analyze the compliance of the project with the following section of the Kihei Design Guidelines:* 

New developments shall provide measures for pedestrian and biking safety and deemphasize the automobile. Roadway standards have been developed by the KCA for use in new developments that provide for a narrowing of roadway widths thereby reducing traffic speed and creating a smaller scale and sense of place suitable for small towns and neighborhoods, (The complete Roadway Standards are available upon request). All roadways shall have street shade trees and planted separations between walkways and the street curbs. Roadways shall incorporate tree planted bulb out areas where parallel parking is included Neighborhood roads should provide connectivity to adjacent neighborhoods: Crosswalks through roadways should be slightly elevated as a table; a change in texture and color from asphalt is preferred Neighborhood developments should not place garage door entrances in front yards near the streetscape and should incorporate front porches and or high visibility of streetscape from homes. Privacy walls at streetscape are discouraged. \*\*\*

**Response 6.** The Draft EIS will analyze and discuss the proposed project in relation to the above-referenced section of the Kihei Design Guidelines.

*Comment 7.* Please include in the draft EIS the mitigation that all utilities on or crossing the site will be placed underground.

**Response 7.** All onsite utility systems serving the Piilani Promenade will be placed underground.

**Comment 8.** Please discuss the cumulative effects per the Hawaii State Office of Planning document Storm Water Impact Assessments from the storm runoff and propose mitigation to lessen the impacts downstream and the summary of actions stipulated in the South Maui Watershed Plan II.\*\*\*\*

Mr. Mike Moran, President Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 6

**Response 8.** The Draft EIS will describe the cumulative and secondary impacts of the proposed project including storm water runoff.

*Comment 9.* Please analyze the compliance of the project with the following section of the Kihei Design Guidelines:

Open Space Drainage Ways and Flood Control Major natural drainage ways shall remain undeveloped with a significant buffer to provide for visual open space and connectivity of neighborhoods to beaches, parks, schools, and commercial areas for pedestrians and bikers. Drainage ways left in a natural state or with native vegetation will aid in abating the serious flood problem that Kihei faces as a result of uncontrolled development. Detention and/or retention basins that may be required for maintaining the control of on-site runoff generated from proposed developments shall be substantially completed in their construction and improved with landscape and native vegetation prior to significant clearing, grubbing, grading, and building construction on the site. \*\*\*

**Response 9.** Kulanihakoi Gulch lies south of and adjacent to the project site. This large, natural drainageway will remain in its existing state and no water will be diverted or discharged into the gulch. Underground drainlines and detention basins will control and capture onsite runoff generated from the proposed development. The underground detention basins will be constructed concurrently with other major infrastructure systems for the project.

**Comment 10.** Please include in the report the cumulative impact of all identifiable future developments be included, specifically for Kihei High School and for Maui Technology Park additions. This development along with other increases in water demand in Kihei will cause further degradation of our aquifers with increased salinity. The mitigation for the rising salinity levels should be addressed.

**Response 10.** The Draft EIS will include a section on cumulative impacts and will discuss the cumulative effect that readily identifiable future development could have on water source and availability.

**Comment 11.** Please include in the draft EIS either specific plans to change the project land use to comply with the Kihei-Makena Community Plan or, if the project land use is to be as proposed, to apply for an amendment to the Community Plan and to apply for a change in zoning from Light Industrial to the proposed Commercial and Residential uses.

Mr. Mike Moran, President Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 6

k. Provide for limited expansion of light industrial services in the area south of Ohukai and mauka of Pi'ilani Highway. These areas should limit retail business or commercial activities to the extent they are accessory or provide service to predominate light industrial use.

The proposed design does not meet these requirements. New design guidelines should be developed as part of the Community Plan amendment. 'The published Kihei Design Guidelines currently support this type of development as follows:

#### *Commercial and High Density Developments:*

Developments should orient building fronts toward the streetscape with parking in the rear or side of buildings away from the streetscape and pedestrian access ways. Wide sidewalks at streetscapes with ample canopy on buildings should be incorporated Streetscapes and Sidewalks should include benches and shade trees. Buildings should have a comfortable scale relationship with the streetscape and sidewalks. Buildings at streetscapes are preferred to be three stories maximum with a massing progression of setting back the third level from the lower two. Mixed use buildings are highly encouraged in order to integrate the residential community into commercial neighborhoods. There should be a transition in scale of buildings and their appearance as commercial areas meet residential areas. Commercial zoned lots adjacent to residential shall be limited to two stories and incorporate residential style massing and detailing. Village type commercial areas encouraging pedestrian activity and walk ability within the community are given preference. Signage and building design should be geared toward the pedestrian and slow speed traffic not high speed traffic. \*\*\*

**Response 11.** Your comments regarding the Kihei Makena Community Plan ("KMCP") are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance to the Kihei-Makena Community Plan. The forthcoming Draft EIS will include an analysis of how the proposed project meets the goals and objectives, and complies with the KMCP, including those sections cited in your letter. In addition, the Draft EIS will discuss, as a possible alternative, the amendment of the KMCP in the "unresolved issues" section of the Draft EIS.

As will be more extensively discussed in the Draft EIS, the Piilani Promenade supports the Kihei Design Guidelines. The project's non-vehicular transportation strategy includes: 1) compact and mixed-use development patterns, 2) integrating pedestrianoriented streets, street trees, sidewalks, and traffic calming, 3) both striped and separated bike lanes in appropriate locations, 4) supporting connectivity to adjacent developments including Kihei High School and land uses *makai* of Piilani Highway. Mr. Mike Moran, President Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 6 of 6

In addition, transportation demand management measures include: 1) encouraging alternate work schedules and off-peak hours for employment generators; 2) supporting park and ride, ridesharing, carpooling and van pooling; and 3) the Applicant will meet with the Maui Dept. of Transportation to discuss the possibility of establishing bus stops within the project site.

Thank you again, for providing us with your letter. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 I've been a resident of Maui for well over 20 years and have lived on Ahaaina Way, 1 block makai of Piilani Highway and a few blocks north of Kaonoulu... for 12 years. I am dismayed at the thought of a huge project disrupting this, primarily, residential neighborhood. This is not "light industrial" and minimal commercial use. I'm even more troubled by the fact that Kihei-Makena Community Plan, which, I understand, has legal precedence, can easily be thrown away and not even be discussed or considered. It must be dealt with as it is an integral part of this process. And --- when will the input of the community be considered???

Also – using 13 acres to build 250 "affordable housing" units, that was supposed to be part of the Wailea 670 project? And not taking that into consideration in the environmental study???? WRONG!!! NOT PONO! SAD!

What is being forced upon Kihei --- Maui – and our environment is NOT PONO! Forget water – there won't be any. Forget our ocean – and the impact of runoff. Forget the traffic and horrendous congestion it will cause. Remember the flooding in Kahana – with those developments?? Light industrial use would not cause these problems. (I think that was understood with the original permits ...which now mean nothing!)

YOU MUST make amending the Kihei-Makena Community Plan and the 13 acres proposed for Wailea 670 affordable housing (far from Wailea) part of your discussions!

#### AND NOW - FOR THE REST OF THE STORY!!

I've owned a business in Kihei for 22 years. We have Longs shopping center – Azeka shopping centers and many other shops on South Kihei Rd. THIS WILL HAVE A DIRECT NEGATIVE IMPACT ON EXISTING BUSINESSES..

You MUST take all the correct steps to be sure that due process is observed!

Thank you, Lila Sherman 172 Ahaaina Way Kihei.



June 19, 2014

Ms. Lila Sherman 172 Ahaaina Way Kihei, HI 96753

Dear Ms. Sherman,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your e-mail of October 23, 2013 providing comments on the proposed project. In responding to your comments, we would like to note the following.

A copy of the Draft EIS will be provided to you when it becomes available. The Draft EIS will evaluate potential impacts to the environment, including those identified in your letter, and will also include a discussion of the Kihei-Makena Community Plan.

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or e-mail Brett at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

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South Maui Citizens for Responsible Growth 4320 E. Waiola Loop Kihei, Hawaii 96753 <u>hydem001@hawaii.rr.com</u> (808) 344-3358

October 14, 2013

Applicant:
Pi'ilani Promenade North LLC & Pi'ilani Promenade South LLC
c/o Sarofin Realty Advisors
8115 Preston Road, Suite 400
Dallas, Texas 75225

Accepting Authority: Land Use Commission Department of Business & Economic Development State of Hawaii P.O. Box 2359 Honolulu, Hawaii 96804-2359

Consultant: Chris Hart & Partners, Inc. Attn: Jordan Hart 115 North Market Street Wailuku, Hawaii 96793

> Re: EISPN for Pi'ilani Promenade TKM: (2) 3-9-001: 016, 170-174

Dear Sirs and Madams,

South Maui Citizens for Responsible Growth (SMCRG) submits the following comments to the Environmental Impact Statement Preparation Notice (EISPN) for Piilani Promenade dated August 14, 2013. In addition, a series of questions are posed that are attached for which SMCRG seeks answers as part of the environmental review process.

1. The Proposed Action described in the EISPN does not comply with the 1998 Kihei Makena Community Plan (KMCP); the KMCP has the Force and Effect of Law and must be amended if the Proposed Action is to Proceed; All LUC Decisions and Orders Must Conform to the Hawaii State Plan (HRS 205-16); The Hawaii State Plan Includes County General and Community Plans

#### A. The KMCP Speaks to this Property

The KMCP speaks to the subject property in three instances, twice directly and once indirectly.

#### (1) The Land Use Map Attached to the KMCP designates the property "LI."

"LI" is defined on page 55 of the KMCP as follows: "Light Industrial (LI) This is for warehousing, light assembly, service and craft-type industrial operations." The definition is narrow and specific and does not include other uses, such as those proposed by PPN and PPS such as business and retail services and multi-family housing.

Other appropriate land uses are defined in the community plan that would accommodate the Proposed Action, such as "Business Commercial (B)" for the PPS parcels and "Project District (PD)" for the PPN parcel. However, the Applicant would have to seek and obtain a community plan amendment to gain such a conforming land use designation for its land.

Specific land use maps are required elements of every community plan. "For community plan areas on the island of Maui, a designation of specific land uses within the urban and rural growth areas" is mandated by Maui County Code section 2.80.070.E.8. Once land uses are embedded in community plans, they can only be changed by ordinance: "The county shall adopt revisions to the general plan by ordinances." (Maui County Charter Section 8-8-6.) The Maui County Code defines an explicit for amending community plans. Because PPN and PPS propose to use the subject property differently from that described in the community plan land use map, the owners must seek to amend the plan thereby

(1) giving citizens an opportunity to voice their concerns and/or support for the amendment and

(2) affording the county council an opportunity to assess the benefits and detriments of such an amendment, then

(a) to reject a proposed land use amendment,

(b) approve a proposed plan amendment with conditions, or

(c) approve a plan amendment outright.

## (2) The Text of the KMCP Specifically Restricts the Subject Property to Narrowly Defined Light Industrial Use

The KMCP states the following about the property now owned by PPN and PPS:

"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 transport arteries for the efficient movement of goods." (KMCP, p. 16, paragraph k.)

The Proposed Action described in the EISPN calls for PPS to develop its portion of the property into 100% retail use; PPN proposes to develop its property into 200 multi-family units, business commercial uses and a small portion for light industrial use. (See Figure 4.) These uses are at odds with the Land Use Map and the light industrial use clearly articulated for the property in the community plan.

## (3) The KMCP Calls for Development of Commercial Services in Four Distinct Districts, All *Makai* of Pi'ilani Highway.

The KMCP states the following about development of commercial services in the Kihei area:

"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." (KMCP, pp. 17-18.)

All four locations are *makai* of Pi'ilani Highway. The zones represent the community's desire to create community centers and avoid sprawl. The development described in the EISPN violates this key community plan concept and would necessarily lead to commercial sprawl to the detriment of the community and the wishes of its citizens that is imbedded in a lawfully adopted county ordinance that is law.

## B. The KMCP Has the Force and Effect of Law and Must be Amended if the Development is to Proceed

The Hawaii Supreme Court said the following about the KMCP in *Gatri v. Blane*:

"The KMCP was adopted after extensive public input and enacted into law by the Maui County Council on July 17, 1985 as an amendment to section 2.80.050 of the Maui County Code. It is part of the general plan of Maui County. Therefore, it has the force and effect of law and a proposed development which is inconsistent with the KMCP may not be awarded an SMA permit without a plan amendment."

The county has erroneously contended, and continues to contend, that *Gatri* only applies to properties subject to SMA rules and regulations. The words of the court quoted above are without this reservation, however. Furthermore, in a subsequent case, *Leone v*.

*County of Maui*, 128 Hawaii 183, decided in 2012, the Hawaii Circuit Court of Appeals stated the following about the 1998 KMCP with respect to property *not* subject to SMA rules and regulations:

"In the second issue before it, the supreme court held that the . . . Community Plan was adopted after extensive public input and enacted into law by the Maui County Council . . . . as an amendment to section 2.80.050 of the Maui County Code", "[i]t is part of the general plan of Maui County," and, [t]therefore, it has the force and effect of law . . . . Accordingly, the supreme count has determined that the Community Plan before us is a legislative enactment, with the full force and effect of law."

And, at footnote 8 to the opinion, the *Leone* court stated the following:

"We note that the developer in *GATRI* sought an SMA minor use permit for a proposed "development" under the CZMA, 88 Hawai'( at 109–10, 962 P.2d at 368–69. Here, by contrast, the proposed use-the construction of single-family residences-is not considered a "development" under the CZMA unless the authority finds a cumulative impact or significant environmental effects. HRS § 205A–22. Although the CZMA does not expressly require consistency for proposed land uses that are not considered "developments," the Maui County Code (MCC) renders the Community Plan binding on all county officials. MCC 2.80B.030(B) (2006). Under the express language of the code, neither the director nor the Planning Commission may approve land uses that are inconsistent with the Kihei–Makena Community Plan. *Id.; see also Pomo v. Malakai Ranch. Ltd.*, 119 Hawai'i 164, 192, 194 P.3d 1126, 1154 (App.2008) ("Under the MCC, before the [Department of Public Works and Waste Management] or any other county agency issues a permit, the agency must ensure that the project in question adheres to the specifications of the general plan and community plans of Maui County"), *abrogated on other grounds by County of Hawai'i v. Ala Loop Honeowners*, 123 Hawai'i 391, 235 P.3d 1103 (2010); *see also* MCC 19.04,015(A) (1991) (purpose of zoning is to regulate land usage in accordance with general and community plans); MCC 19.510.040(A)(4)(b) (1991) (change of zoning must comply with community plan)."

While *Gatri* and *Leone* are alone dispositive of the issue (both cases involved the KMCP *and* the County of Maui was a party to both actions), support for the lawful effect of the community plan is equally found in other quarters.

First, and as pointed out in both cases, the KMCP is literally the law of Maui County (Ordinance #2641; see Maui County Code section 2.80B.070.) Section 2.80B.070 of the Maui County Code also requires county agencies to prepare status reports "on its implementation and *enforcement* of the community plans . . . ." (Emphasis added.) Enforcement is consistent with certitude and lawfulness and is inconsistent with the KMCP being merely suggestive as the county erroneously maintains.

Second, adoption of community plans is encased in the county charter: Section 8-8-5 of the Maui County Charter speaks to the need to create a general and community plans that "shall set forth, in detail, land uses within the community plan regions of the county." Revisions to community plans, which are part of the county general plan, are to be amended by ordinances. (Maui County Charter, 8-8-6.1.) So, it takes an ordinance to amend an ordinance.

Third, the Maui County Code provides a process for amendment of community plans, consistent with the Charter. There would be no need for such a process if community plans are mere guidelines to be brushed aside at the will of the executive branch of local government, as the county maintains.

For all the above reasons, the proposed development cannot proceed unless the KMCP is amended to permit what would be a radical departure from the existing, lawful community plan.

# C. All LUC Decisions and Orders Must Conform to the Hawaii State Plan (HRS 205-16); The Hawaii State Plan Includes County General and Community Plans; PPN's and PPS's Proposed Property Uses Violate the KMCP and therefore Violate the Hawaii State Plan.

HRS 205-16 states: "No amendment to any land use district boundary *nor any other action by the land use commission* shall be adopted unless such amendment or other action conforms to the Hawaii state plan." (Emphasis added.)

The Hawaii State Plan includes county general plans. (See, for instance, State of Hawaii's Office of Planning's website description of the statewide planning system; also see HRS 226-58, which is part of the Hawaii State Planning Act.)

The KMCP is part of Maui County's General Plan. (Maui County Charter Section 8-8-5. subsection 6: "The community plans generated through the citizen advisory councils and adopted by the planning commission, council and mayor, are part of the general plan."

For these reasons, the LUC cannot accept any EIS, nor may it issue any order in this case, inconsistent with the explicit language of the KMCP that requires development of the land owned by PPN and PPS into a light industrial park.

## 2. The Proposed Action Described in the EISPN is Inconsistent with Light Industrial Zoning; a Change in Zoning is Required

The EISPN erroneously states "The proposed project will be developed in accordance with the requirements of the M-1 Light Industrial District." (EISPN, p. 16.) This is an impossibility because, according the Maui County Code and common sense, light industrial zones are designed to contain mostly typical light industrial uses:

"19.24.010 Purpose and Intent. The M-1 light industrial district is designed to contain **mostly** warehousing and distribution types of activity, and permits most compounding, assembly, or treatment of articles or materials with the exception of heavy manufacturing and processing of raw materials. Residential uses are excluded except for dwelling units located above okr below the first floor and apartments." (Emphasis added.)

Since PPS intends to develop its two parcels entirely into business and commercial uses (Figure 4), these uses clash with the Purpose and Intent clause contained in Maui County Code section 19.24.010. This is particularly true when one considers that zoning *must be consistent* with community plans and the KMCP specifically reserves the subject property for typical light industrial uses narrowly defined at page 55 of the plan.

While PPN's Proposed Action does potentially include a small area for light industrial use, it represents approximately 1/6<sup>th</sup> of the parcel that also includes multi-family housing and business and commercial uses that are inconsistent with the KMCP and M-1 zoning as defined as "mostly" customary light industrial uses. Words in statutes and ordinances are to be given their usual meaning. "Mostly" is defined in Webster's New World College Dictionary, Fourth Edition, as "1 for the most part, 2 chiefly; principally 3 usually; generally". The uses proposed by PPS and PPN's fail this simple test.

#### 3. The Proposed Action is Inconsistent with the Countywide Policy Plan

#### A. Smart Growth v. Sprawl

The Countywide Policy Plan calls for Smart Growth (p. 21) and eschews sprawl (p. 20), yet the development proposed by PPN and PPS represents just the opposite: it would destroy the community plan's directive to aggregate commercial services in four distinct area of Kihei, all of which are *makai* of Pi'ilani Highway, thereby eroding the community's effort to create a much-needed sense of place.

#### **B.** Core Principles

The Proposed Action, if developed in absence of the amendment process outlined in the Maui County Code, would also deny the people a voice reserved to them by law. This would violate several core principles articulated in the Countywide Policy Plan, such as:

- "Engagement and empowerment of Maui County residents" (p. iii), meaning that citizens have the right, minimally, to be heard in the community plan amendment process;
- "community-based decision making" (p. 79), meaning that people not only have a right to a say in the development of their community but their voice is deemed useful and important;
- ensuring that "laws, policies, and regulations are internally consistent and effectuate the intent of the General Plan" (p. 80), which entails enforcement of community plans since they are part of the county general plan; and
- "Strengthen the enforcement of County, State, and Federal land use laws" (p. 80), an acknowledgement of the importance of the rule of law.

#### C. Good Government

We have already seen the county embrace the proposed Pi'ilani Shopping Center projects that were recently found in violation of three provisions of the state's Land Use Commission's 1995 Order, and the County continues to assert that the KMCP is merely suggestive of where and what kind of development should proceed, even in the face of two court cases that say just the opposite, not to mention the wording of the Maui County Charter, the Maui County Code and Ordinance #2641 that create processes for adoption and amendment of community plans. By side-stepping well-defined legal processes specifically designed to engage the citizenry, people are left discouraged, sensing that

local government is bought, whether true or not. Democracy is a delicate thing, largely dependent on assiduous application of the rule of law and fair dealing.

#### 4. Economic Analysis Must Extend Beyond Discussion of Short Term Construction Jobs and Tax Revenue Arising From the Proposed Development

Any economic analysis done for the proposed development must include impact on existing retail shops and shopping centers, both in Kihei and central Maui. Vacancies abound in the nearby Azeka shopping centers, Kamaole Shopping Center, Kukui Mall, Wailea Town Center, Wailea Gateway Center, Wailea Shopping Center, and the Queen Kaahumanu Shopping Center. Experts predict that online shopping will continue to take greater portions of retail sales from brick and mortar stores in the future. How will this trend affect retail store and shopping center health? How will the development of the new Target store and the large A&B Park in Puunene/Kahului affect the south Maui commercial real estate market and existing retailers and shopping centers? Are retail sales ever-expandable simply by addition of more retail space, or is demand bounded by other factors? This needs to be explored and explained, particularly in light of the glut of vacant retail space existing in the area and the potential for real economic harm should the proposed development cannibalize retail sales and lessees from existing, ailing shopping centers and retailers.

Additionally, any economic analysis must assess the Proposed Action's impact on south Maui's ability to realize the explicit commercial concentration scheme identified in the KMCP.

- Will the addition of another commercial center outside the four identified zones lead to lower rents and greater vacancy rates among existing stores and shopping centers, making it difficult, if not impossible, to develop much needed town centers *makai* of the highway?
- Will commercial real estate values fall throughout south Maui if the community cannot realize the development design embedded in the KMCP? Many modern community planning experts believe that towns with a sense of place (i.e., lively downtowns that are walk-able and bike-able) produce greater real estate and economic value than those that are without. If south Maui cannot achieve the vision described in the KMCP, what will the economic effect be?
- Finally, does a government's inability to implement a community plan according to law inevitably lead to lower economic outcome? Is this the concept behind the Countywide Policy Plan's statement that good governance includes the ability to effectuate the General Plan and laws, county policies and regulations governing land use? What are the negative economic consequences when local governments will not implement lawfully created community plans?

#### 5. Safe Routes to School Need to Be Developed for Mauka Residences

The proposed development includes construction of 200 multi-family housing units that will undoubtedly be home to school-aged children. The same is true for Honua'ula's 250 proposed workforce housing units in addition to children already living in neighborhoods *mauka* of Pi'ilani Highway. The proposed development does not provide a safe route for these children to get from their homes to the new high school or to nearby elementary and intermediate schools. In fact, the only way to get from existing *mauka* and proposed neighborhoods is by means of Pi'ilani Highway, a high speed roadway with inadequate bike lanes and no sidewalks. Accordingly, discussion of schools must extend beyond just school fees and include how south Maui youth living in the proposed development's housing will safely get to and from school. Additionally, consideration should be given to ways to create connectivity between and among PPN's and PPS's properties, Honua'ula's proposed housing and existing *mauka* neighborhoods. Currently, none is proposed. Is this good community design and the best Maui County can do, or is this just all the developer wants to do to achieve its singular economic goals?

Assessment of the proposed development against criteria defined by the federal Safe Routes to School program should be undertaken, and mitigation strategies implemented to protect our children from injury or death on the highway. Furthermore, because walking and biking to school promotes overall health, will the proposed development's automobile-centricity contribute to ever-growing obesity rates that in turn produces higher incidences of diabetes, heart disease, loss of productivity, elevated health care costs and incumbent negative impact on quality of life? What are these additional burdens on the community?

#### 6. Elimination of the Kaonoulu Gulch

The proposed development includes elimination of a natural gulch that traverses the subject properties. Gulches are natural features of the land that could be saved and incorporated into the project plan for the benefit of generations to come. Impact inherent in the loss of this natural feature should be assessed, mitigated or avoided.

#### 7. The Project Background is Incomplete

The project background described at pages 4 and 5 of the EISPN is insufficient because it does not speak to the whole history of the project that began as a 123-lot light industrial park described in the Land Use Commission's 1995 Order.

The property owners, Pi'ilani Promenade North, LLC (PPN), and Pi'ilani Promenade South, LLC (PPS), were recently found in violation of the 1995 LUC Order for (a) failure to develop the property as represented to the Land Use Commission, (b) failure to construct a frontage road as ordered, and (c) failure to file annual reports with the Land Use Commission, the State Office of Planning and the County of Maui Planning Department.

Acknowledgement of these violations is critical to understanding the current situation.

#### 8. Specific Questions

#### A. Pedestrian Safety and Walk-ability

1. Honua'ula Partners (HP) plans to build 250 workforce housing units on its parcel adjacent to the parcels owned by Piilani Promenade North, LLC (PPN) and Piilani Promenade, LLC (PPS). By access to readily available demographic and other public data:

(a) How many school age children are estimated to reside in the proposed 250 workforce housing units to be built by HP?

(b) How many school age children are estimated to reside in the 200 apartments proposed to be built by PPN?

(c) How many school age children currently live in neighborhoods *mauka* of Piilani Highway at this time?

(d) Describe where these children (those currently living in *mauka* neighborhoods as well as those anticipated to live in HP's 250 units and PPN's 200 apartments, referred to collectively as "The Children" hereafter) are expected to attend school, including elementary, middle and high school; indicate the number of The Children expected to attend each of these schools based on answers above.

(e) Describe the routes The Children are expected to take to get to and from each of these schools? Please provide a map showing the expected routes.

(f) What percent of The Children do you estimate will get to and from the abovementioned schools by automobile?

(g) What percent of The Children do you estimate will get to and from the above mentioned schools by walking, biking or other means of transport other than by a motorized vehicle?

(h) Do you believe The Children currently living in neighborhoods *mauka* of Piilani Highway have, or in the case of those living in HPs and PPN.s units, will have, Safe Routes to School as defined by the federal Safe Routes to School Program?

(i) If any of The Children will not have Safe Routes to School as defined, what steps should be taken to give these youth safe routes to school?

(j) Does walking and biking to school, assuming safe means to do so, improve children's health (see U.S Centers for Disease Control and the U.C.L.A. school of public health studies and recommendations)? If so, what steps can be taken to encourage increased walking and biking to the schools mentioned above?

(k) Are the bike lanes on Piilani Highway immediately adjacent to the property (north and south of the land owned by PPN and PPS) in keeping with best bike lane practices and design? If not, how do they differ from best practices?

(1) Do the traffic and bike lanes immediately south of the PPN's and PPS's property narrow at the bridge? Does this narrowing pose any safety concern for walkers and bikers of all ages? See attached photograph.

(a) If so, why?

(b) What steps can be taken to mitigate the danger posed to those seeking to walk along the highway in this location to get to and from the development other than by automobile?

(m) What percent of retail sales emanating from PPN's and PPS's shopping centers are expected to derive from those accessing the shopping centers by automobile (as opposed to walking and biking).

(n) If walking to and from PPN's and PPS's development for any reason could be increased, would there be a positive effect on public health? What steps can be taken to improve the likelihood of walking and biking to and from PPN's and PPS's developments?

(o) Are you familiar with any walking and biking measurement tools that could be employed to assess the walk-ability and bike-ability of the developments proposed by PPN and PPS?

(1) What are these tools?

(2) Have you used them to score the proposed developments?

(3) What are the scores and how do they compare to best practices?

(p) Do studies show that neighborhoods and developments that have enhanced walking and biking capabilities have greater economic value?

#### **B. Economic Impact**

1. Given that the proposed development includes regional shopping complexes, what is the anticipated geographic catchment area for the Applicants' Project?

2. Identify the number and names of shopping centers within the catchment area of the shopping centers proposed by PPN and PPS.

3. What is the square footage of each of the above shopping centers?

4. What are the known or estimated vacancy rates of each of these competing shopping centers?

5. What impact will PPN's and PPS's shopping centers have on shopping centers located within the proposed development's catchment area?

a. What percent of expected retail sales arising from the Pi'ilani Projects' shopping centers are estimated or likely to be entirely new sales that will not cannibalize sales that would otherwise be made by existing shopping centers and retailers in the Projects' catchment area?

b. What percent of expected retail sales arising from the Applicant's proposed shopping centers are estimated or likely to be cannibalized from existing shopping centers and retailers in the development's catchment area?

c. With respect to cannibalized sales, what impact will this have on existing shopping centers and retailers in the Pi'ilani Projects' catchment area?

6. What percent of space within the shopping center proposed by PPS is planned or expected to be occupied by "Big Box" national retailers?

7. What economic effect will Big Box retailers have on existing local businesses and shopping centers located with the development's catchment area?

8. Does Big Box sales revenue re-circulate in a community different from that generated by local retailers? How are they different and why? Is there a recirculation formula that quantifies this difference and if so, what does it reveal? Is the different recirculation positive or negative for the local economy and community?

9. Are the wages, salaries and benefits typically earned by an employees of Big Box retail stores equal to income earned by small business owners?

(a) If it is different, what is the expected impact Big Box stores will have on the incomes of local retailers within the Projects' catchment area?

10. Studies show that online retail sales have steadily increased over time in the recent past and that the percentage of "Etail" is expected to grow considerably in the near future? Assuming this trend continues, what impact will this have on the need for more brick and mortar retail space in south Maui?

11. Are retail sales ever expandable and largely dependent on how many square feet of shopping space exists in a community, or is the retail market bounded and governed by other factors?

(a) What factors govern the quantity of retail sales that can be expected to arise from a given community?

(b) Does an industry standard predict how much retail space any given community can support? If so, how much retail space can south Maui support given all factors known to the Applicant, taking into account demographic trends, existing retail space, existing retail space and expected new retail development?

(c) Have you calculated the total amount of retail space existing on Maui at this time? If so, what is it?

(d) Have you calculated the amount of retail space that is anticipated to be added to Maui in the next 5 years, taking into consideration, without limitation, the multitude of centers currently opening in Kahului and Wailuku (e.g., Target, Safeway, Foodland, Longs Drug, Times Market, etc.) If so, what is the amount of additional square footage? How will this affect the success of the shopping centers proposed by PPN and PPS?

12. If the retail shopping centers proposed to be developed by PPN and PPS have a negative effect on existing shopping centers and retailers in Kihei and Wailea

(a) Would one of the expected negative effects be less tax revenue arising from existing south Maui shopping centers and retailers? Can you quantify the amount of this lost revenue, both in terms of lost sales tax, lower real estate values and consequent real property tax revenue accruing to local state government authorities?

(b) Would it have a negative effect on employment in the area? Please explain.

(c) Would it have negative impact economic success of existing family owned businesses in the development's catchment area?

l4. The 1998 Kihei Makena Community Plan (KMCP) restricts commercial growth to four distinct acres of Kihei *makai* of Piilani Highway..

(a) Do you acknowledge that the property owned by PPN and PPS *not* within one of these four zones?

(b) What is your understanding why the KMCP restricts commercial growth to four areas *makai* of Piilani Highway? Does the Applicant's Consultant have first hand knowledge of south Maui's need and desire to create viable and vibrant downtowns? Are PPN's and PPS's proposed developments consistent with this key community objective?

(c) If Kihei cannot achieve aggregation of commercial activity within the four areas designated *makai* of Piilani Highway as stated in the lawful Kihei Makena Community Plan, what will the likely economic and social effects be?

#### C. Smart Growth

1. Is it generally correct that sprawling communities produce less economic value than those that have vibrant downtowns and a "sense of place"?

2. Would you agree that the term "urban sprawl" includes, in part, the concept of development of new shopping centers on the outskirts of existing towns?

3. Are PPN's and PPS's projects on the outskirts of Kihei town, located in scrub ranchland and away from existing Kihei commercial centers and infrastructure, such as access to county water, county wastewater treatment, etc.

4. Aren't the shopping centers proposed by PPN and PPS largely automobile-centric and automobile-dependent? Can this be mitigated to bring the proposed projects into compliance with the Maui County General Plan, the Countywide Policy Plan, modern planning concepts and best community design practices?

#### **D.** Water

1. What is the source of potable water for the project?

2. If it is the Kamaole aquifer,

(a) What is the sustainable yield of the Kamaole aquifer?

(b) What is the state's level of confidence in the sustainable yield of the Kamaole aquifer?

(c) Is the sustainable yield calculation the same regardless of where a well is drilled in the Kamaole aquifer, for instance in north Kihei versus South Maui? If not, how it is the sustainable yield different in north Kihei compared to areas in south Maui?

(d) Are existing wells currently using the Kamaole aquifer for water?

i. If so, how many?

ii. Where are these existing wells located?

iii. What is the current peak draw by all these existing wells?

iv. Based on CWRM data and reports on file with the state, what is the peak draw, expressed in MGD, by the three Wailea golf courses and when does it occur during the calendar year?

v. Based on historical well use reports submitted to the CWRM by Makena Resort, what was the peak draw by the Makena golf courses, expressed in MGD, and when did that peak draw occur? vi. Will the draw by other existing wells have any impact on the capacity of the Kamaole aquifer to serve as the source of water for the Project for the foreseeable future? If not, why not? If so, please explain how they interrelate.

3. Aside from current users of the Kamaole aquifer, what other projects in the development pipeline that are known to the Applicant have expressed intent to rely upon the Kamaole aquifer for potable water? How many MGD do they proposed to use?

(a) Identify each known development, such as Honua'ula, the Research and Technology Park, etc.

(b) How many gallons of water per day does each of the above developments estimate will be drawn from the Kamaole aquifer to support their developments?

(c) Will the expected draw from these developments impact the availability of water for the Project to be drawn from the Kamaole aquifer? What will the impact be?

(d) Combining peak water draw from (1) the Kamaole aquifer, including historical usage by the Makena golf courses, and (2) with all other users in development who propose to obtain potable water from the Kamaole aquifer, what is the total expected peak draw from the Kamaole aquifer?

4. Will you use catchment as a water source for the project? If so,

(a) What is the expected amount of water that can be obtained through catchment?

(b) Is catchment available year-round?

i. If not available year-round, will catchment be available during dry months when peak draw upon the Kamaole aquifer is at its greatest?

5. Is the sustainable yield of the Kamaole aquifer the same in the winter months as it is in the summer months?

(a) Is an average sustainable yield the best measure of an aquifer's capacity or is seasonality of production and draw a better measure of sustainability?

6. Will the Project re-use wastewater emanating from the Project? If so,

(a) How will wastewater be re-used and how?

(b) Will the Project connect to the county's wastewater facility?

(c) If the Project's wastewater will not be treated at the county facility, where will it be treated?

7. What water conservation measures will be ingrained in the project?

8. If the Kamaole aquifer is insufficient to meet the water needs of the Project, what other source of water will be used?

9. Will potable water be readily available to the Project without some form of desalination? If not,

(a) What method of desalination will be used?

(b) Will residue from the desalination process be generated and if so, how will it be disposed of?

(c) Where will the desalination facility be located?

(d) When will the desalination facility be constructed in relationship to the overall Project plan?

10. Do you agree with the DLNR, the USGS and the University of Hawaii that rainfall in the Islands has been trending lower in recent past decades and that rainfall is expected to continue to decline in the future?

(a) If not, identify the data and information that supports your view that rainfall is not declining in the Hawaiian islands?

(b) If you agree that rainfall is declining, what impact will a drier climate have on the Kamaole aquifer and its reliability to serve as the source of potable water for the Project?

11. Have any test wells been drilled on the Project to determine the capacity of the Kamaole aquifer at the project site to serve the proposed development? If so,

(a) Has a well production assessment been made in terms of water quantity and quality?

(b) If well projection data is available, what does it show?

(c) If a test well has not been drilled, how will you determine the ability of the Kamaole aquifer at the project site to meet the water needs of the proposed development?

12. What are the projected water needs of (a) the proposed project in total and (b) of each of part, expressed in terms of MGD or fractions thereof?

13. Will draw from the Kamaole aquifer proposed by the Project have an affect on near-shore water quality and/or aquatic life? If so, what will that effect be?

(a) Is the flow of water from the mountain to the ocean part of the natural water cycle in the Hawaiian Islands?

#### E. Traffic

1. Which developments depicted in the attachment hereto should be included in the traffic study for the proposed development? If any should not be included, why not?

2. Given automobile speed, the degree of separation of the state highway from bike paths and the narrowing of the roadway and bike lanes at the bridge immediately south of the Project, is the Piilani Highway at and adjacent to the Project site safe for, and supportive of, pedestrians and bicycles uses? Is it safe?

(a) If not, what remediation is necessary and/or appropriate to make the highway safe for walking and biking to and from the development?

#### F. Zoning

1. What percent of leasable/useable square footage is anticipated to be used for typical light industrial uses by PPS as defined in Maui County Code section 19.24.010 as warehousing, distribution, compounding and assembly, and treatment of articles?

2. What percent of leasable/useable square footage is anticipated to be used for typical light industrial uses by PPN as defined in Maui County Code section 19.24.010 as warehousing, distribution, compounding and assembly, and treatment of articles?

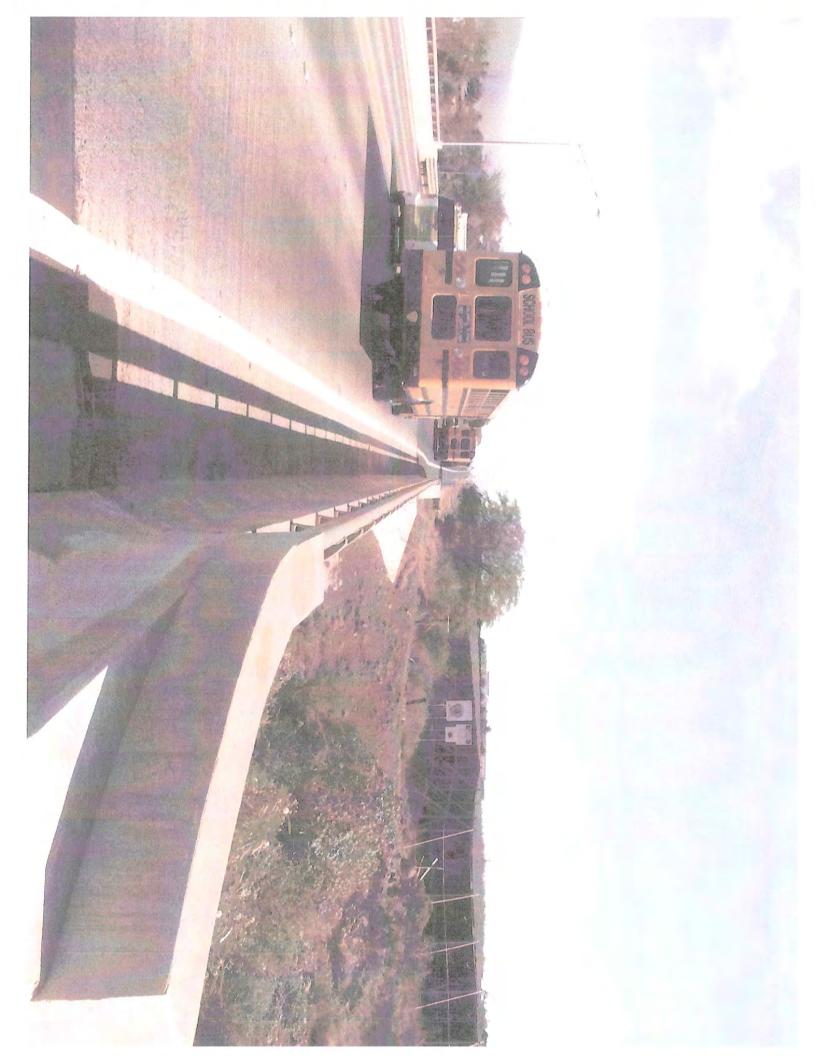
3. Is it certain/iron-clad that some portion of the development's leasable/useable square footage in either PPN's or PPS's project will be developed into typical light industrial use?

(a) If so, what percent of square footage is certain, without later deletion, to be developed into typical light industrial use as defined in Maui County Code section 19.24.010?

(b) If none of the space within PPN's and PPS's developments ultimately contain warehousing, distribution, compounding and assembly, and treatment of articles uses, is M-1 zoning appropriate for the developments?

Respectfully Submitted,

Mark G. Hyde, President, South Maui Citizens for Responsible Growth



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	North-South Collector Road	Mauka Hwy parallel to Pillani Mokulele Hwy to Maui Meadows	HIGHWAY S	Other PARTLY-Entitled South Maui Infill Projects	Other FULLY-Entitled South Maui Infill Projects	PulehuNui Industrial Area on Mokulele Highway	Kaiwahine Village	North Kihe' Housing (A&B)	Kihei Mauka (Haleakala Ranch)	Honua'ula Affordable Housing	Piilani Shopping Malls	Kihei High School	Kihei Downtown Center (Krausz)	Maui Research + Tech Park - Major Added development	Wailea Resort (A&B)	Wailea 670 (Honua'ula)	Makena - Mauka Lands	Makena - North Golf Course area	Makena - Rezoned in Dec-20080	Makena Resort - Hotel + Coastal	South Maui Projects (South to North)		POTENTIAL SOUTH MAU
\$200+			Cost	7	7	561 or 639	9.2	94.3	583	13.1	68.2	77.2	27.44	411	1,500 W/ 933 ZONED		684.5	350,9	603,3	152.4	ACRES		
The easy part has been done: EIS completed and design work done. The costs have significantly escalated and there seems to be no likely source. Furthermore the need for this hwy, has been greatly reduced with the completed 4 lanes for Haleakala, Mokulele and Pillani Highways. Rather than helping South Maui, this route may bring more upcountry traffic into the area.	Some segments are completed, but there would be a need to take a number of properties by 'emminent domain' and the county+state have been reluctant to do this. The County's Public Works Dept. Is now initiating a study on how to complete this road.	This route is on the Maui Island Plan as being a "Transit Corridor". If each development is required to put in its segment, the route will not be useable until ALL the segments are finished. Furthermore, there are no funds for the route nor mechanism to get the whole route built at once.	COMMENTS	1,350	1,262	7 Probably none	120	600	1,500	250	Possibly 200	o	All units will be in hotel.	1,250 + Ohanas + 150 Hotel Units	3,860 Residential (PLUS Hotel units)	1,150 on-site	intention of going that high.	3,758 units, but they have no	owners, they could have a maximum of	According to Makena Resort's	Potential Housing UNITS	ZIS	DEVELOPMENT
			ATS AND P	w/less than four units.	The two unit counts are underestimates and	Much development could be allowed	0	None	Commercial with no square footage limit	0	777	215,000 ft <sup>2</sup>	150 room hotel + 263,753 ft <sup>2</sup> commercial	2,000,000 ft <sup>2</sup> Offices, Retail + Light industrial	238,390 ft2 more commercial. Notice of new 200 room hotel.	100,000 ft <sup>2</sup> commercial			Commercial buildings.	Hotels and Shops	Non-Residential Buildings	m	1
			PROJECT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	Not Yet	YES	YES	YES	Maui Island Plan UGB	ENTI	SEPT 17, 2013
			STATUS	YES	YES	86 acres applied for	YES	YES	Not Yet	NO. Light Industrial	YES Light Industrial	YES	YES	NOT YET. Oct-2013 LUC	YES	YES	Not Yet	Not Yet	YES	YES	State Land Use URBAN	TLEME	NOTE
			1 - 1	?	YES	561 acres in Project District	YES	Not Yet	Not Yet	NO. Light Industrial	Yes Light Industrial	Not Yet. Planning Commission approval; soon to County Council.	Not Yet.	Not Yet	YES	YES	Not Yet		YES	YES	Kihei-Makena Community Plan	NTS (Is the	and DISCLAIMER
			ing that S	?	YES	Not Yet	YES	Not Yet	Not Yet	~	M1 Light Industrial	Planning 1 approval; nty Council.	Not Yet	Not Yet	YES	Partial	Not Yet	Not Yet	YES	YES	Zoning	(Is the project entitled?)	Compiled
			outh Kihei R	Not Yet	۲	NO Need	NO Need	Not Yet	NO Need	NO Need	NO Need	NO Need	Not Yet	NO Need	Not Yet	NO Need	NO Need	NO Need	Still Needed	Still Needed	SMA	ntitled?)	from multiple so ore, please veri
	ain' and the county+state have been reluctant to do this. The County's Public Works Dept. Is now		(Assumming that South Kihei Road along the coast cann't be widend further.)	The County's Long-range Planning Division recognizes that there are already many PARTIALLY ENTITLED units and projects in South Maui.	The County's Long-range Planning Division recognizes that there are already many FULLY ENTITLED units and projects in South Maul.	Multiple owners including Hawaiian Homelands, State and private. No agreement among owners on what should be developed here. Community Plan calls for a mix of recreational, government and industrial.	120 Affordable Units in 15 multi-family buildings.	Designated for 600 units within the Maui Island Plan Urban Growth Boundary.	Designated for 1,500 units within the Maui Island Plan Urban Growth Boundary.	when they got their 1995 Urban Land USe + 1998 County Light industrial community Man and Zoning. Also the housing seems to be incompatible with the State Land Use designation of "Light Industrial".	The land owners are preparing an Environmental impact Statement. The County and State LUC must decide how to handle any new effort by the new developer to avoid complying with the original representations	Needs to get County Council Community Plan amendment and zoning charge and complete traffic plan. Needs to provide an over or under passfor Plilani Hwy. Planned for 1,650 students and 206 staff.	The project needs to complete an updated traffic plan before going to the Planning Commission and County Council for a Community Plan amendment, zoning change and SMA review. 1,199 parking stalls.	EIS already accepted. Project will be before State LUC in Oct-2013 to reclassify 253 acres from the agricultural to urban district, and then in 2014 to Planning Commission and County Council for Kihei- Makena Community Plan amendment and zoning approvals. 750 Single Family + 500 Multi-Family Units.	A recent EIS indicated plans for an additional 1,150 residences, 660 hotel units, + 238,390 ft <sup>2</sup> commercial in Wailea by 2022. At its original 1973 approval, Wailea promised the County to provide 1/3 of its units for workforce housing and internal transportation within the resort.	Project would have1,400 units (1,150 on-site + 260 in North Kinel), however there is no Project District phase 2 approval. Its EIS has been chalenged and the developer is in negotiations with those challenging the EIS	Various past/present owners have indicated that this large parcel will eventually be developed, but for the near-term this could be a sliding scale ag sub-division with 34 lots.	The owners gained County Council approval to include this acerage within the Maui Island Plan's Urban Growth boundary. Part of this parcel includes the Makena North Golf course.	These lands were rezoned to comply with the owner's request. After weeks of testimony the lands were re- zoned for significant development, but with 44 important conditions.	Short-term: Convert existing 310 room hotel into 55 luxury condos; construct many large cottages and a new 70 room hotel; Longer-term: build an retail area and many condos along the coast.	PROJECT STATUS AND COMMENTS		NOTE and DISCLAIMER: Compiled from multiple sources with an effort made to be accurate. Please let me know if there are errors that need correction. dickmaver@earthlink.net Furthermore, please verify numbers and comments with Maui County and Hawaii State agencies and the respective developer.



June 23, 2014

South Maui Citizens for Responsible Growth 4320 E. Waiola Loop Kihei, HI 96753

Dear Mr. Hyde,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your email letter of October 23, 2013. The following responses to your comments are provided below:

1. The Proposed Action described in the EISPN does not comply with the 1998 Kihei Makena Community Plan (KMCP); the KMCP has the Force and Effect of Law and must be amended if the Proposed Action is to Proceed; All LUC Decisions and Orders Must Conform to the Hawaii State Plan (HRS 205-16); The Hawaii State Plan Includes County General and Community Plans

**Response 1:** Your comments regarding the Kihei Makena Community Plan ("KMCP") are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance to the Kihei-Makena Community Plan. The forthcoming Draft EIS will include an analysis of how the proposed project meets the goals and objectives, and complies with the KMCP, including those sections cited in your letter. In addition, the Draft EIS will discuss, as a possible alternative, the amendment of the KMCP in the "unresolved issues" section of the Draft EIS.

2. The Proposed Action Described in the EISPN is Inconsistent with Light Industrial Zoning; a Change in Zoning is Required

Response 2: Your comments regarding the Maui County Zoning are duly noted. The

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South Maui Citizens for Responsible Growth Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 5

Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance with the Maui County Zoning. The forthcoming Draft EIS will include an analysis of the project's compliance with the Maui County Zoning Ordinance. The proposed mix of Apartment, Retail, Commercial and

Light Industrial uses are permitted uses under Chapter 19.24, M-1 Light Industrial District zoning; therefore we do not anticipate that a change in zoning will be required

for the proposed project. However, if the Planning Department 's review of the DEIS indicates that a CIZ is necessary, the Applicant will seek the appropriate zoning change.

#### 3. The Proposed Action is Inconsistent with the Countywide Policy Plan

**Response 3:** The forthcoming Draft EIS will include an analysis of how the proposed project conforms to the goals polices and implementing actions of the County Wide Policy Plan.

The Piilani Promenade is utilizing smart growth planning techniques that will help to reduce automobile trips and associated pollution. The design will help to minimize automobile trips by providing employment, goods, services and housing within walking or biking distance of each other. The Piilani Promenade has a unified pedestrian and bicycle system within the project and will provide opportunities for connections to its existing and future surrounding uses.

The Applicant has begun the environmental review process, which will engage Maui County residents and allows the public to provide comment on the project.

4. Economic Analysis Must Extend Beyond Discussion of Short Term Construction Jobs and Tax Revenue Arising From the Proposed Development

**Response 4:** The forthcoming Draft EIS will include an extensive Market Study, Economic Impact Analysis and Public Fiscal Assessment of the proposed Piilani Promenade. The Assessment report will determine the demand in the Maui and Kihei-Makena commercial, industrial and residential real estates sectors. In addition the report will estimate the specific effects on the local economy as a result of the proposed project and will quantify the estimated gross tax receipts, public costs, and net benefits.

#### 5. Safe Routes to School Need to Be Developed for Mauka Residences

**Response 5:** The applicant supports the safe routes to school program and the project's non-vehicular transportation strategy includes supporting connectivity to adjacent developments including Kihei High School and land uses *makai* of Pi`ilani Highway.

South Maui Citizens for Responsible Growth Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 5

#### 6. Elimination of the Kaonoulu Gulch

**Response 6:** The forthcoming Draft EIS and the associated Preliminary Engineering Report will include a description of the proposed drainage improvement and the anticipated impacts of the proposed development.

7. The Project Background is Incomplete. The project background described at pages 4 and 5 of the EISPN is insufficient because it does not speak to the whole history of the project that began as a 123-lot light industrial park described in the Land Use Commission's 1995 Order. The property owners, Pi'ilani Promenade North, LLC (PPN), and Pi'ilani Promenade South, LLC (PPS), were recently found in violation of the 1995 LUC Order for (a) failure to develop the property as represented to the Land Use Commission, (b) failure to construct a frontage road as ordered, and (c) failure to file annual reports with the Land Use Commission, the State Office of Planning and the County of Maui Planning Department. Acknowledgement of these violations is critical to understanding the current situation.

**Response 7:** The forthcoming Draft EIS will have a more extensive discussion of the project background, including the proceedings before the Land Use Commission noted in your letter.

#### 8. Specific Questions

#### A. Pedestrian Safety and Walk-ability

**Response 8a:** The project's non-vehicular transportation strategy includes: 1) compact and mixed-use development patterns, 2) integrating pedestrian-oriented streets, street trees, sidewalks, and traffic calming features, 3) both striped and separated bike lanes in appropriate locations, and 4) supporting connectivity to adjacent developments including Kihei High School and land uses *makai* of Pi`ilani Highway.

The transportation demand and management measures proposed for the project include encouraging alternate work schedules and off-peak hours for employment generators and supporting park and ride, ridesharing, carpooling, and van pooling. In addition, the Applicant will also meet with the Maui Department of Transportation to discuss the possibility of establishing bus stops within the project site.

#### **B.** Economic Impact

**Response 8b:** The forthcoming Draft EIS will include a Market Study, Economic Impact Analysis and Public Fiscal Assessment of the proposed Piilani Promenade. The Assessment report will determine the demand in the Maui and Kihei-Makena South Maui Citizens for Responsible Growth Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 5

commercial, industrial and residential real estates sectors. In addition the report will estimate the specific effects on the local economy as a result of the proposed project and will quantify the estimated gross tax receipts, public costs, and net benefits. The construction of the Pi`ilani Promenade is expected to inject approximately \$212 million of new capital investment into the local economy and provide an estimated 878 "worker years" of employment as well as \$66.5 million in total wages over a 12 to 15 year period. The effect of these expenditures will have positive direct, indirect, and induced beneficial impacts on the economy of the County of Maui.

#### C. Smart Growth

**Response 8c:** the proposed project incorporates New Urbanism and Smart Growth planning techniques and urban design strategies which help to create a settlement pattern that is more compact and mixed-use in character. This will facilitate a selfsufficient development and result in shorter commutes by offering multi-modal transportation opportunities. The proposed project will also make a considerable investment in infrastructure which will support a unified pedestrian and bicycle system within the project with opportunities for extending and connecting these systems to existing and future development in surrounding areas

#### D. Water

**Response 8d:** The Pi`ilani Promenade will be served by the Maui County Water System and will construct the following required improvements:

1) Relocating a 2,500 ft. long segment of the Central Maui Water System's existing 36-inch diameter waterline from its present alignment, which currently crosses the project area, onto a new alignment along East Kaonoulu Street;

2) Constructing a new 1.0 MG capacity concrete water storage reservoir located 220 feet AMSL which will be dedicated to the DWS upon completion;

3) Installing a 3,200 ft. long, 12-inch diameter transmission waterline from the Central Maui Water System's existing 36-inch transmission line to the new 1.0 MG storage reservoir for refilling the storage tank;

4) Installing a 5,500 ft. long, 16-inch diameter distribution main from the new 1.0 MG storage reservoir to and along East Kaonoulu Street which

South Maui Citizens for Responsible Growth Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 5

> will deliver potable water for domestic use and provide fire protection for the Pi`ilani Promenade project site; and

> 5) Installing a 1,100 ft. section of a 12-inch diameter distribution main across Pi'ilani Highway to a connection point at the 18-inch diameter waterline on Kenolio Road in order to provide water circulation and link the new water system improvements to the County water distribution system serving the Kihei area.

#### E. Traffic

Response 8e: The forthcoming Draft EIS for the Pi`ilani Promenade will include a Traffic Impact Assessment Report for the proposed project. The TIAR will include an analysis of existing conditions and projected traffic impacts from the proposed project and surrounding developments. The Draft EIS will also include a section describing the proposed pedestrian and bicycle network.

#### F. Zoning

Response 8f: The proposed project will include approximately 5 acres of land dedicated to the type of light industrial uses described in your letter. The Draft EIS will provide a detailed breakdown of proposed square footage by use for the proposed project, and a discussion of how the project complies with the applicable zoning.

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at bdavis@chpmaui.com should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

October 23, 2013

To: State Land Use Commission POB 2359 Honolulu, HI 96804-2359

From: Daniel Kanahele POB 648 Kihei, HI 96753

Re: Docket A94-706 Ka'ono'ulu Ranch / Pi'ilani Promenade EISPN

TO WHOM IT MAY CONCERN:

I wish to submit the following comments to the Environmental Impact Statement Preparation Notice (EISPN) for the Pi'ilani Promenade dated August 14, 2013.

1. The proposed action described in the EISPN does not comply with the 1998 Kihei-Makena Community Plan (KMCP); the KMCP has the Force and Effect of law and must be amended if the Proposed Action is to Proceed: All LUC Decisions and Orders Must Conform to the Hawaii State Plan (HRS 205-16); The Hawaii State Plan includes County General and Community Plans.

I request that the Draft Environmental Impact Statement (DEIS) discuss the project submitting a Community Plan Amendment to the County of Maui.

2. The proposed action described in the EISPN is Inconsistent with Light Industrial Zoning; a change in zoning is required.

I request that the Draft Environmental Impact Statement (DEIS) discuss the project submitting a request for a zoning change to the County of Maui.

3. The 13-acre 250 unit affordable housing project that is part of the Honua'ula Development shares all the previous entitlement approvals with the Pi'ilani Promenade Project and is depended on this development for much of it's infrastructure needs and will have many similiar environmental impacts as the Pi'lani Promenade, yet has had no environmental review. I request that the Draft Environmental Impact Statement (DEIS) discuss the impacts of the 13-acre, 250 unit affordable housing project for the Honua'ula Development.

4. I request that the Draft Environmental Impact Statement (DEIS) thoroughly discuss the impacts of the proposed action on regional traffic, increase flooding downslope, existing businesses in the region, safety of students from Kihei High School and other schools walking or biking to the and from the Pi'ilani Promenade.

5. The elimination of Ka'ono'ulu Gulch.

The proposed action includes elimination of a natural gulches that crosses the project area. Gulches are natural and cultural features of the land that serve a variety of ecological and cultural purposes and are important topographical features that help to give the Kihei-Makena planning region it's sense of place and unigueness.

I request that the Draft Environmental Impact Statement (DEIS) discuss and assess the Impacts inherent in the loss of this natural and cultural feature and discuss mitigation or avoidance.

6. Protection of Traditional and Customary Practices.

Under the State Constitution of Hawaii traditional and customary gathering rights of native Hawaiians for subsistence living is protected. The gathering of limu and fishing are important subsistence practices of native Hawaiians along the Kihei coastline. Limu and fisheries in the affected area depend on the flow of freshwater from mauka to makai.

I request that the Draft Environmental Impact Statement (DEIS) discuss the impacts of the proposed action on the flow of freshwater to the nearshore ocean and the production of limu which is important to fisheries which are all vital to the perpetuation of subsistence living and native Hawaiian traditional practices.

7. Protection of Cultural Sites.

Cultural Sites should be incorporated into the proposed action and not simply processed for data recovery and then destroyed. To develop 75 acres and not include even one Hawaiian archaeological site in the proposed action is a sad commentary on how the developers view our Hawaiian history. The archaelogical survey and its recommendations for the 20 historic properties documented was done almost 20 years ago for the previous owner and a light industrial park project. Given the new ownership and proposed action I request that the Draft Environmental Impact Statement (DEIS) discuss the idea of revisiting the AIS and updating and incorporating some of the cultural sites into their project design.

I would also like to see discussed the return of the petroglyph that was removed from the property without authorization by SHPD , but then reviewed and after-the-fact approval by SHPD.

Thank you for the opportunity to offer comments on the Pi'ilani Promenade EISPN.

1

daniel kanahele 1100 Kupulau Dr. Kihei, Hawaii 96753



June 23, 2014

Mr. Daniel Kanahele PO Box 648 Kihei, HI 96753

Dear Mr. Kanahele,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 14, 2013. Below are the responses to your comments.

**Comment 1.** The proposed action described in the EISPN does not comply with the 1998 Kihei-Makena Community Plan (KMCP); the KMCP has the Force and Effect of law and must be amended if the Proposed Action is to Proceed: All LUC Decisions and Orders Must Conform to the Hawaii State Plan (HRS 205-16); The Hawaii State Plan includes County General and Community Plans.

I request that the Draft Environmental Impact Statement (DEIS) discuss the project submitting a Community Plan Amendment to the County of Maui.

**Response 1.** Your comments regarding the Kihei Makena Community Plan ("KMCP") are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance to the Kihei-Makena Community Plan. The forthcoming Draft EIS will include an analysis of how the proposed project meets the goals and objectives, and complies with the KMCP, including those sections cited in your letter. In addition, the Draft EIS will discuss, as a possible alternative, the amendment of the KMCP in the "unresolved issues" section of the Draft EIS.

Mr. Daniel Kanahele Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 5

*Comment 2.* The proposed action described in the EISPN is Inconsistent with Light Industrial Zoning; a change in zoning is required.

I request that the Draft Environmental Impact Statement (DEIS) discuss the project submitting a request for a zoning change to the County of Maui.

**Response 2.**: Your comments regarding the Maui County Zoning are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance with the Maui County Zoning. The forthcoming Draft EIS will include an analysis of the project's compliance with the Maui County Zoning Ordinance. The proposed mix of Apartment, Retail, Commercial and

Light Industrial uses are permitted uses under Chapter 19.24, M-1 Light Industrial District zoning; therefore we do not anticipate that a change in zoning will be required

for the proposed project. However, if the Planning Department's review of the DEIS indicates that a CIZ is necessary, the Applicant will seek the appropriate zoning change.

**Comment 3.** The 13-acre 250 unit affordable housing project that is part of the Honua'ula Development shares all the previous entitlement approvals with the Pi'ilani Promenade Project and is depended on this development for much of it's infrastructure needs and will have many similar environmental impacts as the Pi'ilani Promenade, yet has had no environmental review.

I request that the Draft Environmental Impact Statement (DEIS) discuss the impacts of the 13acre, 250 unit affordable housing project for the Honua'ula Development.

**Response 3.** The Draft EIS will include technical studies that address specific aspects of the Honua`ula affordable housing project solely for assessing potential impacts and as background information. The proposed development of Piilani Promenade is not dependent upon any entitlements of Honua'ula, nor the development of the 13-acre 250 affordable housing project. The Applicant has filed a Motion to Amend with the Land Use Commission, which is currently pending and which seeks, *inter alia*, to bifurcate and assign a separate Land Use Commission Docket Number that applies solely to the 75 acres owned by Applicant. Any approvals and additional necessary studies for the 13 acres owned by Honua'ula Partners will be handled separately by Honua'ula Partners and will be the subject of a separate action by the LUC. The Draft EIS will include a section on cumulative impacts and will discuss the cumulative effect that readily identifiable future development could have on water source and availability, as well as other public resources.

Mr. Daniel Kanahele Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 5

**Comment 4**. I request that the Draft Environmental Impact Statement (DEIS) thoroughly discuss the impacts of the proposed action on regional traffic, increase flooding downslope, existing businesses in the region, safety of students from Kihei High School and other schools walking or biking to the and from the Pi'ilani Promenade.

**Response 4.** The forthcoming DEIS will include technical studies including a Traffic Impact Assessment Report, a Preliminary Engineering and Drainage Report that discuss the potential impacts of the proposed project including regional traffic and drainage mitigation. The DEIS will also include an Economic Impact Study that analyzes the economic conditions in Maui County including existing businesses in the region. The Applicant is committed to working with the neighboring Kihei High School, Department of Education, SDOT and the adjacent landowner to provide an opportunity for safe pedestrian access between the school and Piilani Promenade.

## Comment 5. The elimination of Ka'ono'ulu Gulch.

The proposed action includes elimination of a natural gulches that crosses the project area. Gulches are natural and cultural features of the land that serve a variety of ecological and cultural purposes and are important topographical features that help to give the Kihei-Makena planning region it's sense of place and uniqueness.

I request that the Draft Environmental Impact Statement (DEIS) discuss and assess the Impacts inherent in the loss of this natural and cultural feature and discuss mitigation or avoidance.

**Response 5.** The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

## Comment 6. Protection of Traditional and Customary Practices.

Under the State Constitution of Hawaii traditional and customary gathering rights of native Hawaiians for subsistence living is protected. The gathering of limu and fishing are important subsistence practices of native Hawaiians along the Kihei coastline. Limu and fisheries in the affected area depend on the flow of freshwater from mauka to makai. Mr. Daniel Kanahele Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 5

I request that the Draft Environmental Impact Statement (DEIS) discuss the impacts of the proposed action on the flow of freshwater to the nearshore ocean and the production of limu which is important to fisheries which are all vital to the perpetuation of subsistence living and native Hawaiian traditional practices.

**Response 6.** The forthcoming DEIS will include various technical studies including an updated Archeological Inventory Survey and a Cultural Impact Assessment that will discuss traditional and customary practices in the area. In addition, the DEIS will include a Baseline Assessment of Marine Water Chemistry which examines potential impacts upon the flow of freshwater to the nearshore ocean.

#### Comment 7. Protection of Cultural Sites.

Cultural Sites should be incorporated into the proposed action and not simply processed for data recovery and then destroyed. To develop 75 acres and not include even one Hawaiian archaeological site in the proposed action is a sad commentary on how the developers view our Hawaiian history.

The archaeological survey and its recommendations for the 20 historic properties documented was done almost 20 years ago for the previous owner and a light industrial park project. Given the new ownership and proposed action I request that the Draft Environmental Impact Statement (DEIS) discuss the idea of revisiting the AIS and updating and incorporating some of the cultural sites into their project design.

I would also like to see discussed the return of the petroglyph that was removed from the property without authorization by SHPD, but then reviewed and after-the-fact approval by SHPD.

**Response 7.** A public information meeting for the proposed project was held on February 25, 2014. Transcripts from this meeting will be included in the DEIS. The focus of the meeting was to review the previous 1994 AIS and discuss the findings of the current 2014 AIS. In addition to discussing the return of the petroglyph boulder and potential impacts to Kulanihakoi Gulch, some of the participants suggested that the archaeological sites could be incorporated into the design of the project or into its landscaping and the previously removed petroglyph stone be returned to the property. Return of the petroglyph stone will be addressed in the Draft EIS.

Mr. Daniel Kanahele Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 5

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours, AD1

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 Brian Naeole 477 S. Kamehameha Ave Kahukui, HI 96732

PO Box 2359

Honolulu, Hawaiʻi 96804-2359 October 23, 2013

RECEIVED

OCT 2.5 2013

CHRIS HART & PARTNERS, INC. Landscope Architecture and Planning CC: Jordan, Britt +Gunn

13/029

Attention: Daniel Orodenker

Hawaii State Land Use Commission

RE: Comments on Pi'ilani Promenade EIS Prep Notice TMK (2) 3-9-001: 016; 170-174

Aloha Mr Orodenker:

My 'ohana are lineal descendants of the area of Ka'ono'ulu. Grant 11400, which shares a northern boundary with the Pi'ilani Promenade parcel, was given to our kupuna Ernest K. Naeole during Kingdom days. Both my parents families lived in the Ulupalakua area from the time of Kamehameha I.

While I lived in various places on Maui growing up, I spent a lot of time in Ka'ono'ulu when I worked as a cowboy for Ka'ono'ulu Ranch (1980's). My 'ohana and I gathered vana and fished along the shoreline in Ka'ono'ulu. It was a place rich in food from the sea and it is important to me that it stays that way.

I would like to see what ever happens to this parcel be something that also honors the history of this place and takes care of the land. The EIS needs to talk about different designs that can do that.

I attended the LUC site visit for the Pi'ilani Promenade project last year. I observed the small gulch that goes through the 88-acre parcel. It is my understanding that this gulch will be filled in throughout the whole property so the new access road can cross it. Then the water that used to come through the gulch will be sent somewhere else. I don't think this is a good idea.

I remember riding my horse in this area many years ago when I worked for Ka'ono'ulu Ranch and seeing that same gulch lined with trees on both sides. The trees were so thick, the gulch itself was not visible. The trees were the sign that there was water underground along that gulch. The gulch is an important part of this land.

The development plan for this parcel should work with the natural gulch. It is there because the water wanted to travel that way. It could be planted with native plants along the sides and help hold the rains when they come through.

It's important to know how strong the rains can come when they do. My uncle John Na'auo was a cowboy and rode the lands above Kihei. He told me stories of water during big storms in the 1950's coming up so high in the gulches that it was like a tidal wave.

Kulanihako'i Gulch that runs along the south side of this project is also a very culturally important place. I have walked in this gulch many times when I was growing up. The bottom of the gulch is now many feet lower than in those days, cut deeper by all the water flowing through. This project needs to avoid sending even more water through this gulch. Let it find its way into the ground and help the trees.

When I was at the LUC site visit for Pi'ilani Promenade I saw evidence that Hawaiians had lived on this parcel long ago. There were scattered pieces of shell and stone flakes from making tools and pieces of coral. I understand that the archaeology report found a number of Hawaiian sites. That report was done a long time ago, and it did not recommend that any sites be protected except one petroglyph rock, which then got taken away from the site.

As a person whose family history is connected to this land, I would like to see the archaeological study updated. The EIS should show a project design that shows some of the cultural sites protected. It would be good to consult with families from the area. The cultural sites can be included in landscaped areas, parks or other open space in the project. Also I would like to see the EIS discuss how native plants can be used throughout the site to cut down on demand for water.

We need to leave some cultural sites to tell the story of Ka'ono'ulu. It was an important place with a big fishpond that required a good sized community to build and maintain. We know that past centuries had strong weather. It makes sense that some families wanted to live further from the coast in a more protected area like the site that is proposed to be developed. We don't want their history to be lost.

The petroglyph stone that was found on this site also tells a story. It was marking something here: a pathway, an event or a place that was special to a family of the olden days. I would ask that the petroglyph be returned to this land when it can be safe there. It is good that it has been kept safe in the mauka part of Ka'ono'ulu, but it belongs where it was found.

I really appreciate a chance to share my mana'o with you all.

Aloha pumehana

Brian Naeole



June 23, 2014

Mr. Brian Naeole 477 S . Kamehameha Ave. Kahului, HI 96732

Dear Mr. Naeole,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013 providing comments on the proposed project. Our response is provided below.

### Response

The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

The proposed project will not divert stormwater to Kulanihakoi Gulch, therefore the gulch will not be impacted by the proposed project.

The DEIS will include an updated Archeological Inventory Survey (AIS) to re-analyze the proposed project and recommendation for mitigating impacts. The AIS recommends that a data recovery plan be developed for Sites 3727, 3728, 3735, 3736, and 3741-3745.

Return of the petroglyph stone will be addressed as well in the Draft EIS. In addition, an archaeological monitoring plan was submitted to SHPD for review and was approved and referenced for all recent work on the site. The monitoring plan may be found in forthcoming Draft EIS and may be updated once project construction is initiated.

Mr. Brian Naeole Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 2

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029 From: Elden Kapena Liu 75 Ululani St Kula, HI 96790

October 21, 2013

To: Department of Business Economic Development & Tourism State of Hawai'i, Land Use Commission PO Box 2359, Honolulu, Hawai'i 96804-2359 Attention: Daniel Orodenker  $\succ$ RE: Comments on Pi'llani Promenade EIS Prep Notice TMK (2) 3-9-001: 016cd 70-17 in the ahupua'a of Ka'ono'ulu  $\circ$  $\infty$ 

Aloha Mr. Orodenker and staff

I wish to comment on the EIS Prep notice for the Pi'llani Promenade project in Ka'ono'ulu as a lineal descendent of Hapakuka Hewahewa, who was awarded LCA 3237 (R.P. 7447) the entire Ahupua'a of Ka'ono'ulu in 1847.

Hewahewa died in Kaonoulu a few years later and his heirs did not give up the ahupua'a of Ka'onoulu to the foreigners, but that's how the records appear now. My 'ohana have papers proving that any transfer of "ownership" of these lands was fraudulent.

I understand that your commission does not consider challenges to ownership of a parcel, but I mention these things so that the Land Use Commission may hear my request knowing that it comes from a lineal descendent of this land.

It is my understanding that a number of historic properties were found on the proposed P'iilani Promenade project site including at least 10 sites that had evidence of pre-contact use. It is also my understanding that the state Historic division has approved an archaeological report that allows all of these sites to be destroyed with no further investigation with more modern methods.

It is my understanding further that the only remnant of many centuries of Hawaiian history and cultural use that will remain from this 88 acre parcel will be a petroglyph marked stone (site 3746) which was removed from the site for safekeeping to Mr. Rice's Ranch in 1998 or 99.

It is my understanding that this important property was removed from the site without proper consultation with lineal descendants. My 'ohana was never consulted, for example. While we appreciate the desire to protect he petroglyph, times have changed and it should be brought back to land and given appropriate protection. Likewise, some of the other cultrual sites on the land should be preserve to tell the story of my 'ohana and the thousands of other who have lived on these lands.

I request that the EIS for this project discuss a consultation process with lineal descendants (true landowners) and the former and current "landowners" to return the petroglyph stone and to also set aside several of the precontact cultural sites to be preserved and used for educational purposes to keep the Hawaiiian history of Ka'ono'ulu ahupua'a alive.

Mahalo for your consideration of my comments

Chen K- K



June 23, 2014

Mr. Elden Kapena Liu 75 Ululani St Kula, HI 96790

Dear Mr. Liu,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Pi`ilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013. In response to your enumerated comments we would like to note the following.

#### Comments

- I wish to comment on the EIS Prep notice for the Pi'ilani Promenade project in Ka'ono'ulu as a lineal descendent of Hapakuka Hewahewa, who was awarded LCA 3237 (R.P. 7447) the entire Ahupua'a of Ka'ono'ulu in 1847.
- Hewahewa died in Kaonoulu a few years later and his heirs did not give up the ahupua'a of Ka'onoulu to the foreigners, but that's how the records appear now. My 'ohana have papers proving that any transfer of "ownership" of these lands was fraudulent.
- I understand that your commission does not consider challenges to ownership of a parcel, but I mention these things so that the Land Use Commission may hear my request knowing that it comes from a lineal descendent of this land.
- It is my understanding that a number of historic properties were found on the proposed P'iilani Promenade project site including at least 10 sites that had evidence of pre-contact use. It is also my understanding that the state Historic division has approved an archaeological report that allows all of these sites to be destroyed with no further investigation with more modern methods.
- It is my understanding further that the only remnant of many centuries of Hawaiian history and cultural use that will remain from this 88 acre parcel will

Mr. Elden Liu Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 2

> be a petroglyph marked stone (site3746) which was removed from the site for safekeeping to Mr. Rice's Ranch in 1998 or 99. It is my understanding that this important property was removed from the site without proper consultation with lineal descendants. My 'ohana was never consulted, for example. While we appreciate the desire to protect he petroglyph, times have changed and it should be brought back to land and given appropriate protection. Likewise, some of the other cultural sites on the land should be preserve to tell the story of my 'ohana and the thousands of other who have lived on these lands.

 I request that the EIS for this project discuss a consultation process with lineal descendants(true landowners) and the former and current "landowners" to return the petroglyph stone and to also set aside several of the precontact cultural sites to be preserved and used for educational purposes to keep the Hawaiiian history of Ka'ono'ulu ahupua'a alive.

**Response:** The forthcoming Draft EIS includes an updated Archeological Inventory Survey (AIS) to re-analyze the proposed project and recommendation for mitigating impacts. The AIS recommends that a data recovery plan be developed for Sites 3727, 3728, 3735, 3736, and 3741-3745.

The Draft EIS will include an updated Archeological Inventory Survey (AIS) to reanalyze the proposed project and recommendation for mitigating impacts. Return of the petroglyph stone will be addressed as well in the Draft EIS.

Thank you again, for providing us with your letter. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

October 23, 2013

From: Michael K. Lee 91-1200 Keaunui Dr. unit 614 Ewa Beach, Hawaii 96706

To: Hawaii State Land Use Commission PO Box 2359 Honolulu, Hawai i 96804-2359

Attention: Daniel Orodenker

## RE: Comments on Pi'ilani Promenade EIS Prep Notice TMK (2) 3-9-001: 016; 170-174

Aloha Mr Orodenker, LUC staff and LUC Members,

I wish to offer these comments to the LUC staff and members regarding the proposed Pi'ilani Promenade project EISPN from my perspective as a cultural practitioner in the Ka'ono'ulu area. I lived on Maui as a child and was instructed in the traditional knowledge of limu and coral medicine practices by my maternal grandfather who was a kahuna la'au lapa'au.

I am recognized by LUC as native Hawaiian cultural practitioner for use of limu and coral medicine for a number of coastal areas on Maui. I regularly access the Ka'ono'ulu shoreline to gather limu for healing uses as well as for classes to instruct others in limu and coral medicine. These waters need to avoid further degradation and have improved bio-controls for upslope stormwater sediments or my traditional practice will be deeply affected. It is also important that the underground water system that connects to the Koi'ei'e fishpond from the uplands and lies under the subject property and lands mauka be properly understood and protected.

In this light, I request that the Draft EIS for this project include alternative designs, as required by *§11-200-17 HAR*, that address the following matters important to maintain the integrity of the natural systems and cultural properties that I and others depend upon to continue our traditional and customary use of the Ka'ono'ulu area.

The DEIS should include alternative design scenarios that:

- 1) Show a project design that does not fill in Ka'ono'ulu gulch, which transects the property, and instead enhances its ability to divert and retain storm waters and absorb runoff. Native plants, such as pili grass, should be considered as part of an expanded riparian habitat along the gulch designed into the project. Elimination of the gulch, as currently proposed in the plan design, is elimination of a culturally significant feature of the area and is inappropriate.
- 2) Show and discuss a project design where all hardened surfaces, such as parking areas or drainage culverts, utilize a semi permeable membrane surface to minimize collected runoff and allow natural infiltration into the underlying soil. Reason: concentrating volume of water during storm events and sending it to onsite underground storage areas as currently proposed, could impact natural karst systems and groundwater quality. This will eventually

impact reefs and cause eminent harm to the resource that sustains my cultural practice in Ka'ono'ulu.

- 3) Show alternative drainage plan designs where water flow calculations are based on known stormwater volumes in the last 20 years of storms of record in the Kihei area. I am concerned that the changes in drainage patterns from the proposed development will negatively impact the reefs and limu resources at the shore and affect my ability to gather traditional medicinal limu.
- 4) Show alternative project designs that include information from adequate testing for natural karst systems beneath the land. The new irrigation well proposed for the property could intersect with one of these natural formations. Its drilling log should be analyzed and that information included in Draft EIS. The presence of a traditional coastal fishpond and as well as historic descriptions of inland ponds in the Ka'ono'ulu area indicates presence of a natural karst system in the area. Well pumping in this area, which has historically never had any deeper mauka wells, could negatively impact the underground flows through the karst system. From a cultural perspective, the health of the coral reefs in the area is directly connected to upland activities and the knowledge of underground water flow patterns is an essential part of any environmental or cultural review to assess and mitigate any potential impacts.
- 5) Show alternative project designs that incorporate as many of the 20 recorded cultural sites (including probable habitation sites that have left midden scatters) on the land as possible into the project master plan design. This will create one-of-a-kind place for visitors and residents to experience a "sense of place" of the Ka'ono'ulu area. It is also very important that the EIS discuss return of the petroglyph stone found on the property and subsequently removed, when it can be safely protected and incorporated into the project design.
- 6) Discuss opportunities for the project to work with the army corps and others to mitigate the impact of stormwater flows in this extremely flood prone area. Mitigation of project impacts downslope could include enhancing wetlands down stream to protect overall shoreline habitat and provide resilency against sea level rise and its impacts. Wetlands surrounding Kulanikako'i gulch, main drainage channel for this project's offsite flows, are under private ownership and acquisition of a conservation easement and management plan for the wetlands could be an important mitigation action.

Mahalo for the opportunity to offer comments on the EISPN. I look forward to further dialogue on this project.

Michael Kumuokaoha Lee



June 23, 2014

Mr. Michael K. Lee 91-1200 Keaunui Dr. unit 614 Ewa Beach, Hawaii 96706

Dear Mr. Lee,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Pi`ilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 23, 2013. In response to your enumerated comments we would like to note the following.

## The DEIS should include alternative design scenarios that:

1) Show a project design that does not fill in Ka'ono'ulu gulch, which transects the property, and instead enhances its ability to divert and retain storm waters and absorb runoff. Native plants, such as pill grass, should be considered as part of an expanded riparian habitat along the gulch designed into the project. Elimination of the gulch, as currently proposed in the plan design, is elimination of a culturally significant feature of the area and is inappropriate.

**Response 1.** The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

2) Show and discuss a project design where all hardened surfaces, such as parking areas or drainage culverts, utilize a semi permeable membrane surface to minimize collected run off and allow natural infiltration into the underlying soil. Reason: concentrating volume of water during storm events and sending it to onsite underground storage areas as currently proposed, could impact natural karst systems and groundwater quality. This will eventually impact reefs and cause eminent harm to the resource that sustains my cultural practice in Ka'ono'ulu.

Mr. Michael Lee Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 4

**Response 2.** The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

3) Show alternative drainage plan designs where water flow calculations are based on known stormwater volumes in the last 20 years of storms of record in the Kihei area. I am concerned that the changes in drainage patterns from the proposed development will negatively impact the reefs and limu resources at the shore and affect my ability to gather traditional medicinal limu.

**Response 3.** Both "flow through" and "detention based" treatments will be employed by Pi`ilani Promenade to mitigate stormwater-related water pollution associated with the Promenade North and South development sites. "Flow through" treatment will be achieved by outfitting parking lot drain inlets with filters capable removing up to 80 percent of Total Suspended Solids. "Detention based" treatment will be provided by providing additional storage volume in the subsurface detention chambers and surface detention pond to facilitate sediment removal in addition to peak flow mitigation.

4) Show alternative project designs that include information from adequate testing for natural karst systems beneath the land. The new irrigation well proposed for the property could intersect with one of these natural formations. Its drilling log should be analyzed and that information included in Draft EIS. The presence of a traditional coastal fishpond and as well as historic descriptions of inland ponds in the Ka'ono'ulu area indicates presence of a natural karst system in the area. Well pumping in this area, which has historically never had any deeper mauka wells, could negatively impact the underground flows through the karst system. From a cultural perspective, the health of the coral reefs in the area is directly connected to upland activities and the knowledge of underground water flow patterns is an essential part of any environmental or cultural review to assess and mitigate any potential impacts.

**Response 4.** The State Commission on Water Resource Management approved an irrigation well permit for a well built in 2011 at a wellhead elevation of 118 feet. The well has proven to be capable of producing 216,000 gallons of non-drinking water per day and a permanent pump (150 gpm) has since been installed. The existing irrigation well is not anticipated to impact the groundwater resources.

Mr. Michael Lee Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 4

5) Show alternative project designs that incorporate as many of the 20 recorded cultural sites (including probable habitation sites that have left midden scatters) on the land as possible into the project master plan design. This will create one-of-a-kind place for visitors and residents to experience a "sense of place" of the Ka'ono'ulu area. It is also very important that the EIS discuss return of the petroglyph stone found on the property and subsequently removed, when it can be safely protected and incorporated into the project design.

**Response 5.** The Draft EIS will include an updated Archeological Inventory Survey (AIS) to re-analyze the proposed project and recommendation for mitigating impacts. Return of the petroglyph stone will be addressed as well in the draft EIS.

In addition, an archaeological monitoring plan was submitted to SHPD for review and approval, was approved and referenced for all recent work on the site. The monitoring plan may be found in forthcoming Draft EIS and may be updated once project construction is initiated.

6) Discuss opportunities for the project to work with the army corps and others to mitigate the impact of stormwater flows in this extremely flood prone area. Mitigation of project impacts downslope could include enhancing wetlands down stream to protect overall shoreline habitat and provide resiliency against sea level rise and its impacts. Wetlands surrounding Kulanikako'i gulch, main drainage channel for this project's offsite flows, are under private ownership and acquisition of a conservation easement and management plan for the wetlands could be an important mitigation action.

**Response 6.** The Applicant will work with Federal, State and county agencies to design an acceptable drainage system in order to mitigate the increase in peak flow attributable to development while simultaneously providing water pollution control. The proposed project will not impact Kulanihakoi Gulch, all project generated runoff will be detained onsite and is not anticipated to impact shoreline habitats or wetlands.

The proposed stormwater detention improvements will accommodate and mitigate the increase in peak flow attributable to development while simultaneously providing water pollution control.

Mr. Michael Lee Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 4

Thank you for participating in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

October 23, 2013

From: Maui Cultural lands, Inc. PO Box 122 Lahaina, HI 96767-0122

To: Department of Business Economic Development & Tourism State of Hawai'i, Land Use Commission PO Box 2359, Honolulu, Hawai'i 96804-2359

Attention: Daniel Orodenker

### RE: Comments on Pi'ilani Promenade EIS Prep Notice TMK (2) 3-9-001: 016; 170-174

Aloha Mr. Orodenker, LUC Members and Staff,

Mahalo for this opportunity to offer comments on the Pi'ilani Promenade EIS Prep Notice (EISPN). Maui Cultural Lands, Inc., (MCL) is a Maui-based grassroots land trust organization whose mission is to stabilize, protect, and restore Hawaiian cultural resources. MCL offers the following observations that we humbly ask be included as part of the information provided in the Draft EIS for the project.

#### **General Comments:**

The EISPN does not appear to include the 13-acre affordable housing project in the northeast corner of the original 88-acre project site as part of this environmental review. Lands under other ownership mauka of the 88-acres, which will have infrastructure supporting the proposed project appear to be discussed in the EISPN. The 13-acres will share that same project infrastructure and should be included in the EIS review even though they, too, have separate ownership.

It would also appear that this project would need a Community Plan Amendment. While its zoning allows for a broad range of uses, the Community Plan clearly describes a light industrial use for this specific area. Since the proposed use is housing and commercial with a small amount of light industrial, that concept, never discussed during the community plan process, should be openly reviewed through a Community Plan Amendment.

#### **Protection of Traditional Cultural Practices**

The Kihei-Makena Community Plan makes it clear that protection of cultural resources and traditional practices in the region is an important objective.

Ka'ono'ulu is a very culturally rich and important region of south Maui. It is the location of the Ko'ie'ie Loko I'a (also known as Ka'ono'ulu Kai or Kalepolepo Fishpond.) This historic site is attributed to the legendary Mehehune and was restored under the direction of many renowned chiefs over the last five centuries. Ko'ie'ie was constructed in this location because of the shape of the shoreline and the presence of freshwater input. Hawaiian cultural practitioners recognize the relationship of the fresh water coming into the near shore ocean to the production of limu that is essential to a healthy fishery.

The Kao'no'ulu area was known to have inland ponds as well. These too were fed by underground water sources. A good sized settlement was found along the coast in Ka'ono'ulu due to the presence of these fresh water sources, abundant fisheries, gathering opportunities, and arable lands mauka. Pollen core samples and subsurface research in the vicinity of Kalepolepo village in neighboring Waiohuli ahupua'a show cultural use of the land from around 1000 years ago or earlier. (Hammatt, et al, 2000; Pepalis & Kolb, 2000)

- It is very important that the EIS have adequate information about the impacts of the proposed improvements: well, drainage rerouting etc. on the underground flows of fresh water that still exist in this area. These groundwater flows are important to the perpetuation of traditional Hawaiian cultural practices in Ka'ono'ulu.
- Mr. Brian Naeole, Ms. Florence Lani and Mr. Michael Kumuokauoha Lee are knowledgeable about traditional gathering practices in Ka'ono'ulu from personal experience. Many others are likely informants as well. Their views should be sought out and included in the project planning process to avoid impacts to cultural resources.

#### **Protection of Cultural Sites**

The ahupua'a of Ka'ono'ulu was claimed in the Mahele by Hapakuka Hewahewa, a close associate of the Kamehameha dynasty. Hewahewa served as konohiki of Ka'ono'ulu, living there from the 1830's on. He died there in 1848. Other prominent families claimed house lots in the area during the Mahele, a sign that Ka'ono'ulu was an area of some importance. In spite of this rich historical legacy, the only remnant that currently remains of pre-contact Hawaiian history in this area is the Ko'ie'ie fishpond. While this is a very important feature, there should be more to connect to it and inform future generations. The Pi'ilani Promenade parcel has the opportunity to augment the cultural legacy of this ahupua'a through recognition and protection of cultural sites in the project area.

MCL volunteers have reviewed the 1994 Archaeological Inventory Survey (AIS) for the proposed project area. We note that 20 historic properties were recorded on this project site, including a petroglyph marked stone (site 3746, removed from site) and five surface midden/lithic scatter areas (Sites 3741-45).

We also note that two of these five surface scatter areas also had portable remains of precontact cultural use in found in subsurface test units. <u>This type of cultural remains, indicating</u> <u>pre-contact habitation and use in the area, is very uncommon in the disturbed grazing</u> lands immediately mauka of Piilani Hwy.

In fact, the 1994 AIS indicates that 11 of the 20 recorded sites had some sort of portable surface remains, almost all pre-contact. This land appears to hold remains of cultural sites that, in the light of current knowledge, are a valuable part of the "Ka'ono'ulu story" and "sense of place."

The original AIS and its recommendations are nearly twenty years old. The nature of the proposed project has changed significantly to be more "people oriented." The original decision to allow all historical sites to be eradicated from the land, since an industrial park was planned, should certainly be reviewed as the new plans emerge.

#### Our specific suggestions for the DEIS are:

- MCL asks, in the interest of history, that the DEIS discuss ways that several of these former habitation sites be protected by avoidance; incorporated into the open space element of the project design and given interpretive signage to indicate their past use. Artifacts could be put on display as part of a Ka'onoulu history display in the commercial area.
- MCL would like to see the parallel alignment possible "road" sections (sites 3737 and 3738) that are attributed to military construction have more in depth research and possible preservation. Several similar sections of rock edged trail or road appear to also exist further mauka on Ka'ono' ulu Ranch lands only more recently surveyed for cultural sites (Shefcheck et al, 2008). It is known that there was a traditional mauka-makai trail through Ka'ono'ulu to facilitate travel and trade. This may be part of that mauka-makai route. If the road did have military use, it is possible it was adapted from an older trail. Each section of road, as described in the 1994 AIS, had pre-contact portable remains located nearby.

• MCL also asks that the EIS discuss returning the petroglyph stone found on the site to a protected place of honor in as near to its original location as possible. It is an important cultural feature, that likely relates to other petroglyphs now known to exist, further mauka along Kulanihakoi Gulch and in nearby Waipuilani Gulch. While it is good that it has been kept safe, times have changed and lineal descendants of Ka'ono'ulu did not appear to be consulted about the decision to move it. It would be culturally appropriate to return it to the site in an area with appropriate protections, when the project is complete.

• The EISPN refers to a supplemental AIS done more recently to cover the areas beyond (mauka of) the project boundaries that are proposed to be utilized for drainage, roads and water storage facilities. We look forward to reviewing these.

We would ask that this survey also include a review of Kulanihakoi gulch itself in the immediate project area. We believe that there are cultural sites within the gulch which are part of the general cultural landscape of the project site. These may be impacted by future improvements associated with the proposed Pi'ilani Promenade project and should be documented and evaluated.

#### **Protection of Cultural Features**

It appears from the site map included in the EISPN that a traditional land form: labelled "Ka'ono'ulu Gulch" on some maps, is proposed to be filled in and eliminated within the boundaries of the project site.

**This part of the site plan should be reconsidered.** This gulch is a cultural as well as a natural feature. Old time residents report this undulating gulch was once edged with a thick band of very green trees--indicating the presence of underground water.

Enhancement of this natural drainage feature that is shown on the earliest USGS maps (1922 series) would be the greener alternative and minimize impacts to down slope properties caused by concentration of multiple drainage areas into one larger drainage discharge. Three of the five midden scatter sites (Sites 3741, 42 and 43-probable pre-contact habitation sites) are located in proximity to this gulch. This further supports the idea of cultural utilization of a natural feature. Its disappearance would be a loss of part of the area's history.

Mahalo once again for a chance to offer our comments. We look forward to working with the project to tell the story of Ka'ono'ulu ahupua'a as the project unfolds.

Edwin Lindsey

Edwin "Ekolu" Lindsey President, Maui Cultural Lands, Inc.



June 23, 2014

Maui Cultural Lands Inc. PO Box 122 Lahaina, HI 96767-0122

Dear Mr. Lindsey,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your email letter of October 23, 2013. The following responses to your comments are provided below:

#### General Comments:

The EISPN does not appear to include the 13-acre affordable housing project in the northeast corner of the original 88-acre project site as part of this environmental review. Lands under other ownership mauka of the 88-acres, which will have infrastructure supporting the proposed project, appear to be discussed in the EISPN. The 13-acres will share that same project infrastructure and should be included in the EIS review even though they, too, have separate ownership.

It would also appear that this project would need a Community Plan Amendment. While its zoning allows for a broad range of uses, the Community Plan clearly describes a light industrial use for this specific area. Since the proposed use is housing and commercial with a small amount of light industrial, that concept, never discussed during the community plan process, should be openly reviewed through a Community Plan Amendment.

**Response:** The Draft EIS and the associated technical studies will include the nonproject apartment uses to be located in the future on the adjacent 13-acre parcel owned by Honua'ula Partners solely for impact analysis and as background information. Any approvals and additional necessary studies for the 13 acres owned by Honua'ula Partners will be handled separately by Honua'ula Partners. The Draft EIS will include a section on cumulative impacts and will discuss the cumulative effect that readily Maui Cultural Lands Inc. Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 5

identifiable future development could have on water source and availability, as well as other public resources.

Your comments regarding the Kihei Makena Community Plan ("KMCP") are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance to the Kihei-Makena Community Plan. The forthcoming Draft EIS will include an analysis of how the proposed project meets the goals and objectives, and complies with the KMCP, including those sections cited in your letter. In addition, the Draft EIS will discuss, as a possible alternative, the amendment of the KMCP in the "unresolved issues" section of the Draft EIS.

## **Protection of Traditional Cultural Practices**

The Kihei-Makena Community Plan makes it clear that protection of cultural resources and traditional practices in the region is an important objective.

Ka'ono'ulu is a very culturally rich and important region of south Maui. It is the location of the Ko'ie'ie Loko I'a (also known as Ka'ono'ulu Kai or Kalepolepo Fishpond.) This historic site is attributed to the legendary Mehehune and was restored under the direction of many renowned chiefs over the last five centuries. Ko'ie'ie was constructed in this location because of the shape of the shoreline and the presence of freshwater input. Hawaiian cultural practitioners recognize the relationship of the fresh water coming into the near shore ocean to the production of limu that is essential to a healthy fishery.

The Kao'no'ulu area was known to have inland ponds as well. These too were fed by underground water sources. A good sized settlement was found along the coast in Ka'ono'ulu due to the presence of these fresh water sources, abundant fisheries, gathering opportunities, and arable lands mauka. Pollen core samples and subsurface research in the vicinity of Kalepolepo village in neighboring Waiohuli ahupua'a show cultural use of the land from around1000 years ago or earlier. (Hammatt, et al, 2000; Pepalis & Kolb, 2000)

It is very important that the EIS have adequate information about the impacts of the proposed improvements: well, drainage rerouting etc. on the underground flows of fresh water that still exist in this area. These groundwater flows are important to the perpetuation of traditional Hawaiian cultural practices in Ka'ono'ulu.

Mr. Brian Naeole, Ms. Florence Lani and Mr. Michael Kumuokauoha Lee are knowledgeable about traditional gathering practices in Ka'ono'ulu from personal experience. Many others are likely informants as well. Their views should be sought out and included in the project planning process to avoid impacts to cultural resources.

**Response:** The forthcoming Draft EIS and the associated Preliminary Engineering Report will include a description of the proposed drainage improvement and the anticipated impacts of the proposed development. The drainage system will include onsite detention basins and will not impact Kulanihakoi Gulch. In addition to this Maui Cultural Lands Inc. Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 5

analysis, the AIS for the project includes a transcript of the testimony of individuals familiar with the project area. Their knowledge of the project area, where appropriate, will be included in the draft EIS.

#### Protection of Cultural Sites

The ahupua'a of Ka'ono'ulu was claimed in the Mahele by Hapakuka Hewahewa, a close associate of the Kamehameha dynasty. Hewahewa served as konohiki of Ka'ono'ulu, living there from the 1830's on. He died there in 1848. Other prominent families claimed house lots in the area during the Mahele, a sign that Ka'ono'ulu was an area of some importance. In spite of this rich historical legacy, the only remnant that currently remains of pre-contact Hawaiian history in this area is the Ko'ie'ie fishpond. While this is a very important feature, there should be more to connect to it and inform future generations. The Pi'ilani Promenade parcel has the opportunity to augment the cultural legacy of this ahupua'a through recognition and protection of cultural sites in the project area.

MCL volunteers have reviewed the 1994 Archaeological Inventory Survey (AIS) for the proposed project area.

We note that 20 historic properties were recorded on this project site, including a petroglyph marked stone (site 3746, removed from site) and five surface midden/lithic scatter areas (Sites 3741-45).

We also note that two of these five surface scatter areas also had portable remains of precontact cultural use in found in subsurface test units. This type of cultural remains, indicating precontact habitation and use in the area, is very uncommon in the disturbed grazing lands immediately mauka of Piilani Hwy.

In fact, the 1994 AIS indicates that 11 of the 20 recorded sites had some sort of portable surface remains, almost all pre-contact. This land appears to hold remains of cultural sites that, in the light of current knowledge, are a valuable part of the "Ka'ono'ulu story" and "sense of place. "The original AIS and its recommendations are nearly twenty years old. The nature of the proposed project has changed significantly to be more "people oriented." The original decision to allow all historical sites to be eradicated from the land, since an industrial park was planned, should certainly be reviewed as the new plans emerge.

**Response:** The Draft EIS will include an updated Archeological Inventory Survey (AIS) to re-analyze the proposed project and recommendation for mitigating impacts. The AIS recommends that a data recovery plan be developed for Sites 3727, 3728, 3735, 3736, and 3741-3745.

#### *Our specific suggestions for the DEIS are:*

• MCL asks, in the interest of history, that the DEIS discuss ways that several of these former habitation sites be protected by avoidance; incorporated into the open space element of the project

Maui Cultural Lands Inc. Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 5

design and given interpretive signage to indicate their past use. Artifacts could be put on display as part of a Ka'onoulu history display in the commercial area.

**Response:** The Draft EIS will include the updated AIS along with recommendations for data recovery for selected sites within the project area. As part of the agency review of the draft EIS, SHPD will review the AIS and comment on the proposed data recovery plan and address its sufficiency.

• MCL would like to see the parallel alignment possible "road" sections (sites 3737 and 3738) that are attributed to military construction have more in depth research and possible preservation. Several similar sections of rock edged trail or road appear to also exist furthermauka on Ka'ono' ulu Ranch lands only more recently surveyed for cultural sites (Shefchecket al, 2008). It is known that there was a traditional mauka-makai trail through Ka'ono'ulu to facilitate travel and trade. This may be part of that mauka-makai route. If the road did have military use, it is possible it was adapted from an older trail. Each section of road, as described in the 1994 AIS, had pre-contact portable remains located nearby.

**Response:** The draft EIS will include the updated AIS along with recommendations for data recovery for selected sites within the project area. As part of the agency review of the draft EIS, SHPD will review the AIS and comment on the proposed data recovery plan and address its sufficiency.

• MCL also asks that the EIS discuss returning the petroglyph stone found on the site to a protected place of honor in as near to its original location as possible. It is an important cultural feature, that likely relates to other petroglyphs now known to exist, further mauka along Kulanihakoi Gulch and in nearby Waipuilani Gulch. While it is good that it has been kept safe, times have changed and lineal descendants of Ka'ono'ulu did not appear to be consulted about the decision to move it. It would be culturally appropriate to return it to the site in an area with appropriate protections, when the project is complete.

**Response: A relocation study for the stone was submitted and approved by SHPD.** The Draft EIS will include an updated Archeological Inventory Survey (AIS) to reanalyze the proposed project and recommendation for mitigating impacts. Return of the petroglyph stone will be addressed as well in the Draft EIS.

• The EISPN refers to a supplemental AIS done more recently to cover the areas beyond (mauka of) the project boundaries that are proposed to be utilized for drainage, roads and water storage facilities. We look forward to reviewing these.

We would ask that this survey also include a review of Kulanihakoi gulch itself in the immediate project area. We believe that there are cultural sites within the gulch which are part of the general cultural landscape of the project site. These may be impacted by future improvements associated with the proposed Pi'ilani Promenade project and should be documented and evaluated.

Maui Cultural Lands Inc. Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 5

**Response:** During the consultation process questions were raised as to the presence of historical sites within Kulanihakoi Gulch and the need for additional survey work to assess the presence of possible sites. In response to this request, the Applicant contacted Kaonoulu Ranch and received their approval to submit an SHPD accepted AIS (2008) done for the area south of the project boundary including the gulch area adjacent to and mauka of the project area. The 2008 AIS indicates that no historical or culturally significant artifacts were found in the area fronting the property on either side of the Kulanihakoi Gulch. The 2008 AIS will be included in the Draft EIS.

#### **Protection of Cultural Features**

It appears from the site map included in the EISPN that a traditional land form: labeled "Ka'ono'ulu Gulch" on some maps, is proposed to be filled in and eliminated within the boundaries of the project site.

This part of the site plan should be reconsidered. This gulch is a cultural as well as a natural feature. Old time residents report this undulating gulch was once edged with a thick band of very green trees--indicating the presence of underground water. Enhancement of this natural drainage feature that is shown on the earliest USGS maps (1922 series) would be the greener alternative and minimize impacts to down slope properties caused by concentration of multiple drainage areas into one larger drainage discharge. Three of the five midden scatter sites (Sites 3741, 42 and 43-probable pre-contact habitation sites) are located in proximity to this gulch. This further supports the idea of cultural utilization of a natural feature. Its disappearance would be a loss of part of the area's history.

**Response:** The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029



Protecting Maui's Future

October 2, 2013

State of Hawaii, Land Use Commission P.O. Box 2359 Honolulu, Hawaii 96804-2359

## Re: Piilani Promenade EIS Preparation Notice

Aloha Chair Chock, Commissioners, and Staff

Maui Tomorrow Foundation appreciates the opportunity to comment on the EISPN for Piilani Promenade. We believe this document does not include adequate discussion of several key areas:

- 1. Environmental review for the proposed 13-acre Honua'ula workforce housing project. While under separate ownership this project shares entitlement approvals and is dependent upon the proposed 75-acre Commercial/Residential project for basic infrastructure needs.
- The 13-acre Honua'ula site is included in the original LUC DBA approval for an 88-acre Light Industrial Park, and subject to all the LUC conditions adopted in 1995. In order to provide the LUC with adequate information on proposed project impacts and support the applicant's motion to amend the original DBA conditions, impacts associated with development of the 13acre workforce housing project must be included, regardless of ownership.
- Under the EISPN discussion of "Cumulative and Secondary Impacts," it is clear that cumulative impacts of the project must be discussed "regardless of what agency or person undertakes such other actions." As the 75-acre commercial project is providing the access road and other infrastructure that makes the 13-acre Honua'ula project possible, impacts of both must be included in the EIS as part of cumulative impacts.

## 2. Also not included is any alternative project design that could avoid alteration of Ka'ono'ulu gulch and cultural sites therein.

(HAR 11-200-17) requires that an EIS describe: "alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given

to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks... In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative."

- The EISPN does not refer to consideration of a project design that could avoid obliteration of Ka'ono'ulu gulch, a natural and cultural feature that is part of the "sense of place" for the region. Since the EISPN acknowledges the region's soil type is subject to "severe erosion hazard" a more natural project design should be considered and included in the Draft EIS.
- Alternative designs that would voluntarily preserve any cultural sites in an historically important region of Maui are not discussed, although the Kihei-Makena Community Plan has this as its main goal for Cultural Resources:

"Identification, preservation, enhancement, and appropriate use of cultural resources, cultural practice, and historic sites that: provides a sense of history and defines a sense of place for the Kihei- Makena region; "

• According to the site plan map included, none of the 20 historic sites already documented on the property will remain. An alternative plan should include a number of historic sites into the project design, including the return of the culturally significant petroglyph stone found in 1994.

## 3. The EISPN does not indicate the scope of the supplemental archeological review planned for the project site.

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.

The Kihei-Makena Community Plan requires: "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."

- The proposed project is bound on two sides by the Kulanihakoi Gulch which has documented cultural sites along its length further mauka. Knowledge of these cultural features was not available when the parcel had its archaeological review in 1994.
- The draft EIS should include a supplemental Archaeological Inventory Survey (AIS) that updates the 20-year-old survey of the project site and should include portions of the gulch and surrounding lands bordering the project area.
- Any Cultural Impact Assessment update should address impacts to nearshore practices such as limu (seaweed) and vana (sea urchin) gathering as these practices are affected by changes in upslope water quality.

#### 4. Proposed mitigation strategies for loss of mauka view planes

• The EISPN acknowledges that the project "will impact views" in the mauka direction yet no reference is made to mitigations to counter these impacts.

- The *mauka* view from Pi`ilani Highway represents a major view plane and significant views of the mountains should be preserved to the greatest extent practicable.
- Alternative project designs should be included in the DEIS to address impacts to view planes. Preservation of Ka'ono'ulu gulch and creation of an adjacent view plane corridor could be one such strategy.

## 5. The EISPN is lacking adequate information concerning impacts to public services and proposed mitigations

- **Drainage:** The EISPN does not clearly describe where onsite and offsite storm water drainage will end up and what impacts the project could have on the flood prone area immediately mauka. Will parking lots be made of pervious surfaces and rain gardens be built into the residential landscaping?
- **Recreational Facilities**: "Analyses" of the project's impact on recreational facilities is also not sufficient. 450 new residences (200 in Piilani Promenade commercial project and 250 for Honua'ula workforce housing) need to have appropriate recreational facilities.
- Fire and Police Personnel: Will fire and police staffing be need to be increased in order to service the 450 new housing units? If so, what will be the cost and phasing?
- Wastewater: What volume of wastewater will the two housing developments and the commercial use generate? Is there a commitment for service at the Kihei wastewater treatment facility?
- Water: Where will the project's water come from and how much will it use for potable consumption? What water conservation strategies are planned; such as R-1 water for landscaping? Will the County of Maui high pressure waterline be dug up and moved or will a new connection to existing line be made?
- **Solid Waste:** Please state estimate of waste to be generated by the project. Will commercial facilities have programs to reduce packaging materials associated with imported goods shipped to Maui?
- Energy: What is the anticipated energy usage of the proposed project? Are offset installations of renewable energy planned on site and what efficiencies will be incorporated into buildings and systems?
- **Transportation:** What traffic volume management plan does the project propose during and after construction since Level of Service in the area is already near capacity?

Additional connector roads leading to adjacent existing or proposed developments are described as "opportunities." The EISPN does not indicate whether these roads will be built or be part of alternative project designs analyzed in the EIS. Alternative designs that address connector roads beyond the project site should be included in the Draft EIS.

The EISPN does not include discussion of if or how the project would comply with the existing LUC condition of a frontage road as part of the project design. Alternative project designs that address this condition should be included in the Draft EIS.

- **Traffic:** The EISPN does not specify what level of traffic impacts the EIS will address. The TIAR for the Piilani Promenade project downplayed the overall amount of trips generated or traffic impacts from the adjoining 13-acre Honua'ula workforce housing project.
- 6. Factors that trigger a need for a Community Plan Amendment for all parcels in the original 88-acre project area.
- Kihei-Makena Community Plan "Land Use and Policy" section has specific language referring to the Ka'ono'ulu parcel ("south of Ohukai and mauka of Piilani Highway") setting its character as primarily "light Industrial."
- 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. <u>These areas should limit retail business or</u> <u>commercial activities to the extent that they are accessory or provide service to the</u> <u>predominate light industrial use.</u> These actions will place industrial use near existing and proposed transportation arteries for the efficient movement of goods. (emphasis added)
- The Draft EIS should acknowledge the need for a Community Plan Amendment since the project is now proposed as mostly commercial with a small amount of Light Industrial (exactly the opposite as is specified in the community plan) with 450 housing units that were not envisioned or approved in the community plan.

Mahalo for considering our comments. We look forward to reviewing the Draft EIS.

Rene Bowie

Irene Bowie Executive Director

55 N. Church St. Ste. A4, Wailuku, HI 96793 808.244.7570 director@maui-tomorrow.org



June 23, 2014

Ms Irene Bowie, Executive Director Maui Tomorrow Foundation 55 N. Church Street Ste. 4A Wailuku, HI 96793

Dear Ms. Bowie,

RE: Comments on the Environmental Impact Statement Notice (EISPN) for the Piilani Promenade, located in Kihei, Maui, Hawaii at TMK's: (2) 3-9-001:016,170-174.

Thank you for your letter of October 2, 2013. Below are the responses to your numerated comments.

Comment 1. Environmental review for the proposed 13-acre Honua'ula workforce housing project. While under separate ownership this project shares entitlement approvals and is dependent upon the proposed 75-acre Commercial/Residential project for basic infrastructure needs.

- The 13-acre Honua'ula site is included in the original LUC DBA approval for an 88-acre Light Industrial Park, and subject to all the LUC conditions adopted in 1995. In order to provide the LUC with adequate information on proposed project impacts and support the applicant's motion to amend the original DBA conditions, impacts associated with development of the 13-acre workforce housing project must be included, regardless of ownership.
- Under the EISPN discussion of "Cumulative and Secondary Impacts," it is clear that cumulative impacts of the project must be discussed "regardless of what agency or person undertakes such other actions." As the 75-acre commercial project is providing the access road and other infrastructure that makes the 13-acre Honua'ula project possible, impacts of both must be included in the EIS as part of cumulative impacts.

**Response 1.** The Draft EIS will include technical studies that address specific aspects of the Honua`ula affordable housing project solely for assessing potential impacts and as

Ms. Irene Bowie, Exec. Director Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 2 of 6

background information. The proposed development of Piilani Promenade is not dependent upon any entitlements of Honua'ula, nor the development of the 13-acre 250 affordable housing project. The Applicant has filed a Motion to Amend with the Land Use Commission, which is currently pending and which seeks, *inter alia*, to bifurcate and assign a separate Land Use Commission Docket Number that applies solely to the 75 acres owned by Applicant. Any approvals and additional necessary studies for the 13 acres owned by Honua'ula Partners will be handled separately by Honua'ula Partners and will be the subject of a separate action by the LUC.

The Draft EIS will include a section on cumulative impacts and will discuss the cumulative effect that readily identifiable future development could have on water source and availability, as well as other public resources.

# Comment 2. Also not included is any alternative project design that could avoid alteration of Ka'ono'ulu gulch and cultural sites therein.

(HAR 11-200-17) requires that an EIS describe: "alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks... In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative."

- The EISPN does not refer to consideration of a project design that could avoid obliteration of Ka'ono'ulu gulch, a natural and cultural feature that is part of the "sense of place" for the region. Since the EISPN acknowledges the region's soil type is subject to "severe erosion hazard" a more natural project design should be considered and included in the Draft EIS.
- Alternative designs that would voluntarily preserve any cultural sites in an historically important region of Maui are not discussed, although the Kihei-Makena Community Plan has this as its main goal for Cultural Resources:

"Identification, preservation, enhancement, and appropriate use of cultural resources, cultural practice, and historic sites that: provides a sense of history and defines a sense of place for the Kihei- Makena region; "

•According to the site plan map included, none of the 20 historic sites already documented on the property will remain. An alternative plan should include a number of historic sites into the project design, including the return of the culturally significant petroglyph stone found in 1994. Ms. Irene Bowie, Exec. Director Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 3 of 6

**Response 2:** The forthcoming DEIS will examine the topography, drainage conditions, and cultural resources of the project area and include a discussion of potential impacts and mitigation measures as appropriate.

The Draft EIS will include an updated Archeological Inventory Survey (AIS) analyzing both the on and off site project areas and providing recommendations on the further analysis of cultural sites.

*Comment 3. The EISPN does not indicate the scope of the supplemental archeological review planned for the project site.* 

- 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.
- The Kihei-Makena Community Plan requires: "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."
- The proposed project is bound on two sides by the Kulanihakoi Gulch which has documented cultural sites along its length further mauka. Knowledge of these cultural features was not available when the parcel had its archaeological review in 1994.
- The draft EIS should include a supplemental Archaeological Inventory Survey (AIS) that updates the 20-year-old survey of the project site and should include portions of the gulch and surrounding lands bordering the project area.
- Any Cultural Impact Assessment update should address impacts to nearshore practices such as limu (seaweed) and vana (sea urchin) gathering as these practices are affected by changes in upslope water quality.

**Response 3:** The Applicant has retained an Archaeologist to prepare are updated Archaeological Inventory Survey that will be included as part of the forthcoming Draft EIS. A Cultural Impact Assessment was also prepared and included in the Draft EIS.

Comment 4. Proposed mitigation strategies for loss of mauka view planes

• The EISPN acknowledges that the project "will impact views" in the mauka direction yet no reference is made to mitigations to counter these impacts.

Ms. Irene Bowie, Exec. Director Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 4 of 6

- The mauka view from Pi`ilani Highway represents a major view plane and significant views of the mountains should be preserved to the greatest extent practicable.
- Alternative project designs should be included in the DEIS to address impacts to view planes. Preservation of Ka'ono'ulu gulch and creation of an adjacent view plane corridor could be one such strategy.

**Response 4**: The project site is adjacent to the Piilani Highway. Building heights within this area are limited to 60 feet. The site plan and building layout for the Piilani Promenade will be designed to preserve the view towards Haleakala from Piilani Highway. In addition the project will be setback from Piilani Highway and the future KUH and will also be buffered by landscape planting.

Comment 5. The EISPN is lacking adequate information concerning impacts to public services and proposed mitigations

- **Drainage:** The EISPN does not clearly describe where onsite and offsite storm water drainage will end up and what impacts the project could have on the flood prone area immediately mauka. Will parking lots be made of pervious surfaces and rain gardens be built into the residential landscaping?
- Recreational Facilities: "Analyses" of the project's impact on recreational facilities is also not sufficient. 450 new residences (200 in Piilani Promenade commercial project and 250 for Honua'ula workforce housing) need to have appropriate recreational facilities.
- Fire and Police Personnel: Will fire and police staffing be need to be increased in order to service the 450 new housing units? If so, what will be the cost and phasing?
- Wastewater: What volume of wastewater will the two housing developments and the commercial use generate? Is there a commitment for service at the Kihei wastewater. treatment facility?
- Water: Where will the project's water come from and how much will it use for potable consumption? What water conservation strategies are planned; such as R-1 water for landscaping? Will the County of Maui high pressure waterline be dug up and moved or will a new connection to existing line be made?

Solid Waste: Please state estimate of waste to be generated by the project. Will commercial facilities have programs to reduce packaging materials associated with imported goods shipped to Maui?

Ms. Irene Bowie, Exec. Director Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 5 of 6

- Energy: What is the anticipated energy usage of the proposed project? Are offset installations of renewable energy planned on site and what efficiencies will be incorporated into buildings and systems?
- Transportation: What traffic volume management plan does the project propose during and after construction since Level of Service in the area is already near capacity?
- Additional connector roads leading to adjacent existing or proposed developments are described as "opportunities." The EISPN does not indicate whether these roads will be built or be part of alternative project designs analyzed in the EIS. Alternative designs that address connector roads beyond the project site should be included in the Draft EIS.
- The EISPN does not include discussion of if or how the project would comply with the existing LUC condition of a frontage road as part of the project design. Alternative project designs that address this condition should be included in the Draft EIS.
- Traffic: The EISPN does not specify what level of traffic impacts the EIS will address. The TIAR for the Piilani Promenade project downplayed the overall amount of trips generated or traffic impacts from the adjoining 13-acre Honua'ula workforce housing project.

**Response 5**: The forthcoming DEIS will include technical studies including a Traffic Impact Assessment Report, a Preliminary Engineering and Drainage Report that discuss the potential impacts of the proposed project on regional traffic, water and drainage issues. In addition an analysis of recreational impacts as well as impacts on local public services for fire, police and solid waste disposal will also be provided within the draft EIS document.

Comment 6. Factors that trigger a need for a Community Plan Amendment for all parcels in the original 88-acre project area.

- Kihei-Makena Community Plan "Land Use and Policy" section has specific language referring to the Ka'ono'ulu parcel ("south of Ohukai and mauka of Piilani Highway") setting its character as primarily "light Industrial."
- 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

Ms. Irene Bowie, Exec. Director Piilani Promenade EISPN Comment Response Letter June 23, 2014 Page 6 of 6

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. (emphasis added)

• The Draft EIS should acknowledge the need for a Community Plan Amendment since the project is now proposed as mostly commercial with a small amount of Light Industrial (exactly the opposite as is specified in the community plan) with 450 housing units that were not envisioned or approved in the community plan.

**Response 6**: Your comments regarding the Kihei Makena Community Plan ("KMCP") are duly noted. The Maui Planning Department has been consulted as part of the environmental review process for the preparation of the Draft EIS. The Planning Department is also expected to comment on the project's conformance to the Kihei-Makena Community Plan. The forthcoming Draft EIS will include an analysis of how the proposed project meets the goals and objectives, and complies with the KMCP, including those sections cited in your letter. In addition, the Draft EIS will discuss, as a possible alternative, the amendment of the KMCP in the "unresolved issues" section of the Draft EIS.

Thank you for participating the in the environmental review process. Please feel free to call me or Mr. Brett Davis at (808) 242-1955 or email at <u>bdavis@chpmaui.com</u> should you have any questions.

Sincerely yours,

Jordan E. Hart, President

CC: Mr. Charlie Jencks, Project Manager Mr. Daniel D. Orodenker, Executive Officer, DBEDT Project File 13-029

# **APPENDIX B** Environmental Site Assessment dated December 2013



# **Environmental Site Assessment:** *Phase I Investigation - Pi'ilani Promenade LLC*



<u>Survey Area:</u>

# Pi'ilani Highway and Kaonoulu Street Approximately 101 acres of vacant Ranch land

Pi'ilani Highway and Kaonoulu Street South of Ohukai Road Kihei, Maui T.M.K. (2) 3-9-001: 016, 169, 170 -174 T.M.K (2) 2-2-002:077 T.M.K. (2) 2-2-002:016 & 082 (portions) T.M.K. (2) 3-9-001:148 & (2) 3-9-048:122

Prepared for:

Sarofim Realty Advisors

8115 Preston Road, Ste. 400 Dallas, Texas 75225

Attention Mr. Robert Poynor, Vice President

Conducted and Compiled by:

Malama Environmental (MEV, LLC) MEV Project Number #1307-0292 December 17, 2013

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# Environmental Site Assessment: Phase I Investigation –

Property:



#### Pi'ilani Highway and Kaonoulu Street

Approximately 101 acres of vacant ranch land Pi'ilani Highway and Kaonoulu Street, South of Ohukai Road Kihei, Maui, Hawai'i 96753

T.M.K. (2) 3-9-001:016, 169, 170 -174 T.M.K (2) 2-2-002:077 T.M.K. (2) 2-2-002: 016 & 082 (portions) T.M.K. (2) 3-9-001:148 & (2) 3-9-048:122

**Prepared** for:

Sarofim Realty Advisors 8115 Preston Road, Suite 400 Dallas, TX 75225

Attention Mr. Robert Poynor, Vice President

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental professional* as defined in 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject property*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312.

Jeffrey R. King, B.S. Geology, Senior Geologist

Professional Geologist (Indiana)

Amy R. Mathis, B.S. Geology, Environmental Scientist/ Geologist

➢ Site Inspector

> Project Coordinator

<u>12-17-13</u> Date

12-17-13

Date

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# Disclosure

This document contains the results of services performed on this Project by Malama Environmental (MEV, LCC) pursuant to Agreement. The results represent the application of a variety of scientific and analytical disciplines that have been rendered using the standard of care, skill, and diligence normally provided by professionals in the performance of similar services under similar circumstances.

**MEV** assessments are intended to reduce, but not eliminate, uncertainty regarding recognized environmental conditions in connection with the Survey area, as conducted within reasonable limits of time and cost. A general consensus of EPA's guidance on landowner liability is that *no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property.* 

The use of this document and the results reported are limited to the services performed and areas examined as described in this document and no inferences are intended with respect to anything not described herein.

**MEV** is not responsible for conditions or consequences arising from relevant data, facts, and information that were concealed, missing, withheld, not fully disclosed, or not reasonably available at the time these services were performed. **MEV** is not responsible for any indirect, incidental, or consequential damages of any nature arising from any cause.

**MEV** has no beneficial economic interest in the Project other than as an independent professional organization performing the agreed services. **MEV**'s warranties are as described above and there are no other warranties of any kind, expressed or implied, regarding the services.

# **Executive Summary**

#### Introduction

This Phase I Environmental Site Assessment (ESA) has been prepared for Mr. Robert Poynor, Vice President of Sarofim Realty Advisors, and was conducted pursuant to Malama Environmental's (MEV's) written proposal and contract accepted by Mr. Poynor on July 12, 2013. This investigation and report format follows the guidelines of the American Society of Testing and Materials (ASTM) Publication E1527-05, which is recognized by 40 CFR Part 312 as an acceptable guidance document for satisfying the EPA's final "*All Appropriate Inquiries*" rule.

#### Site Description

The survey area encompasses approximately 101 acres in north Kihei, Maui, Hawaii, mostly located mauka (toward the mountain) of Pi'ilani Highway (State Highway 31), between the Kihei Commercial Center and Kulanihakoi Gulch and due east of Kaonoulu Street's eastern terminus. Proposed utility easements included in the survey area are located along a gravel lane south of Ohukai Road and extend farther east immediately south of the Monsanto Seed Farm site.

The survey area consists of various parcels of land in their entirety and portions of land parcels, with a total measurement of approximately 101 acres in total area, owned by separate parties.

The survey area encompasses the following Tax Map Key (TMK) parcels: (2) 3-9-001: 016 (Lot 2A), 169 (Lot 2B), 170 (Lot 2C), 171 (Lot 2D), 172 (Lot 2E), 173 (Lot 2F), and 174 (Lot 2G). The survey area also includes TMKs (2) 2-2-002: 077, por. 16, and por. 82 for easement and water tank purposes. Additionally, TMKs (2) 3-9-001: 148 and (2) 3-9-048: 122 (parts of the original larger parcel before subdivision) located across and adjacent to Pi'ilani Highway, are also included for minor improvement purposes.

The total combined parcels and portions of the preceding parcels shall hereby be referred to as the "survey area". The survey area consists of sparsely vegetated vacant land with gulch terrain historically used for cattle grazing and ranching.

Surrounding land use consists of vacant ranch land, agriculture, gulch terrain, retail, commercial, and residential properties. The site is situated on the western slopes of Haleakala Volcano. The community of Kihei surrounds the site to the north, south, and west, with vacant land between the site and the town of Kula further to the east.

#### **Intended Use of Property**

Lots 2A, 2C, and 2D are planned for the Pi'ilani Promenade, a proposed mixed-use development consisting of business/commercial, light industrial, multi-family, and public/quasi-public land uses. Lot 2E is a roadway lot for the future Kaonoulu Street (the first segment of the planned Upcountry Highway), while Lots 2F and 2G are road-widening lots along the Promenade's frontage with Pi'ilani Highway.

Offsite improvements for the Promenade will involve TMK (2) 3-9-001: por. 169 for an irrigation well and waterline easement, TMK (2) 2-2-002: 077 for a water tank site, TMKs (2) 2-2-002: por. 016 and por. 082 for access and utility easements. Additionally, minor improvements will be performed on TMKs (2) 3-9-001: 148 and (2) 3-9-048: 122 located across Pi'ilani Highway.

For example, the gravel lane located immediately south of Ohukai Road is a proposed access utility easement and the eastern extended area located south of the Monsanto Seed Farm is a proposed waterline easement and water tank site.

#### **Records Review**

The purpose of a records review is to obtain and review records that will help identify *recognized environmental conditions* in connection with the subject property. The services of Environmental Data Resources, Inc. (EDR) were utilized to compile the database listings.

Our records review did not discover any current investigation of the survey area under any programs conducted by a federal, state, or local environmental agency.

Four (4) potential risk sites, [two are listed as State Hazardous Waste Sites (SHWS) and two are listed as Underground Storage Tank sites (UST)] were identified within a 1-mile radius of the survey area.

The SWHS site Selland Construction, Inc. located at 454 Ohukai Road had a confirmed release in 1994 of diesel fuel and oil due to overfill, equipment maintenance and construction. This area, once called "Ohukai Baseyard", was likely the construction baseyard for the residential subdivision now located immediately north of Ohukai Road, just north of the northern boundary to the proposed utility/roadway easement of the subject property. According to the EDR and the HEER Office, the case number is 19940218 and was given a "low priority" site status. The initial assessment revealed "hazardous conditions" and as of 1994, the area was continually monitored by Haleakala Ranch. According to the HEER Office's response to MEV's inquiry, the case has been listed as "Site On-Scene Coordinator No Further Action" (SOSC NFA). This site did not likely impact the subject property.

Kihei Chevron, located at 1281 S. Kihei Road, is listed as a SHWS but as of 2004 has received a "No Further Action". MEV does not believe this site would have environmentally adversely affected the subject property due to the distance from the survey area and the down-gradient proximity.

The Kihei Minit Stop, located at 233 Piikea Avenue, currently has three (3) in-use diesel and gasoline tanks. Due to the condition of this site (not currently a leaking UST site), it is not expected that this site will negatively impact the environmental condition of the subject property.

The Kihei Shell gas station (NCT, LLC) is located immediately adjacent to the northwestern corner of the survey area. This UST facility was constructed in 2007 and is not listed as a LUST site. Due to the close proximity and the slightly higher elevation of the gas station with respect to the survey area, this facility may pose a negative impact to the environmental condition of the subject property if in the future a leak of the underground storage tanks should occur.

According to the EDR, five (5) historic auto stations exist within the searchable distance from the survey area. These sites did not likely negatively impact the subject property.

#### Site Reconnaissance

A site investigation focuses on obtaining information indicating the likelihood of identifying physical *recognized environmental conditions* in connection with the property and assessing the subject property in relation to surrounding land uses and natural surface features. It includes a physical inspection of the real property and any on-site facilities.

On July 23, 2013, MEV geologist, Ms. Amy Mathis conducted an overall site inspection of the survey area. Accessible areas of the property were visually and physically inspected.

The following are significant observations of field conditions: (Appendix A, See Figure 2: Site Plan)

- The majority of the subject property was historically used for cattle grazing and ranch land during the ownership of Kaonoulu Ranch. Networks of cattle grazing paths were noted throughout the site.
- The Monsanto Seed Farm is located immediately east and north of the proposed utility and waterline easements.

- A residential lot with diversified crop cultivation exists immediately west of the proposed utility easement south of Ohukai Road. This lot appears to have an associated residential well and retention basin.
- The Kulanihakoi Gulch forms the majority of the southern property boundary. One (1) off-site structure (stream gauging station) is located in Kulanihakoi Gulch approximately 1,000 feet east of Pi'ilani Highway and about 100 feet south of the southern property boundary. Upon inspection no petroleum-product leakage was noted, but the structure has limited loose and flakey paint that could be lead-based.
- Several small fenced corrals were noted on the premises near the southwest corner associated with the cattle ranching operation. Small cement structures and limited water line infrastructure were noted in the cattle corral area.
- A small portion of the survey area located at the northwest corner appeared to be grubbed and graded with a gravel cap. This 0.5-acre area was used in the past as a construction baseyard for the northern adjoining commercial properties and initial development of the Shell gas station.
- Several boulder debris piles were noted near the aforementioned historic baseyard lot. No hazardous substances were noted in these piles.
- A concrete stormwater diversion ditch exists along the western property boundary. Two off-site culverts run beneath Pi'ilani Highway.
- A small-unnamed gulch dissects the northern and central portion of the survey area. It is possible that limited chemical pesticide runoff from the Monsanto Seed Farm may migrate to the survey area via this gulch.
- One (1) on-site well is located immediately north of a sand stockpile in Lot 2B. This well is used for irrigational purposes.
- Two (2) vehicle tires (regulated items) were noted along the northern property boundary just south of the Kihei Commercial center.
- Numerous wind-blown debris consisting of seed cross-contamination bags were noted in the vicinity of Monsanto Seed farm, within the unnamed gulch and along the proposed waterline easement.
- Limited quantities of miscellaneous debris including household refuse, windblown trash and discarded furniture were noted near the northern boundary.
- A perimeter earthen/boulder berm was noted along the northern property boundary creating a 4-6 foot upgradient berm. A 6-foot to 10-foot boulder terrace is located in the central portion of the survey area.
- Two (2) derelict vehicles were noted along the proposed utility easement south of Ohukai Road.
- Electrical transmission lines run on the south side of Ohukai Road. Three (3) pole-mounted transformers exist just off-site along Ohukai Road. One (1) pole-mounted transformer exists along the distribution line leading to the off-site residential lot south of Ohukai Road. These transformers are non-PCB-containing (according to serial numbers) and are non-leaking.
- The Pi'ilani Promenade baseyard exists in the northeast corner of Lot 2B, just east of the Monsanto Seed farm. The majority of the baseyard consists of drain culvert and piping materials.
- No bulk hazardous/regulated substances are currently stored on-site.

#### Conclusions

**Recognized environmental conditions**, as defined by ASTM Standard E1527-05, are the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property, or into the ground, groundwater, or surface water of the property.

**Recognized environmental conditions** are described with regard to (1) the nature and extent of the environmental condition, (2) potential or actual environmental threat, (3) potential for transport (migration) of any environmental conditions, and (4) consideration for further investigation. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment

and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

MEV has performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of the ASTM Practice E 1527-05 for the subject property, mostly located mauka (towards the mountain) of Pi'ilani Highway (State Highway 31), due east of Kaonoulu Street, south of Ohukai Road and north of Kulanihakoi Gulch [TMK (2) 3-9-001, parcels 016, 169, 170 – 174, TMK (2) 2-2-002, parcel 077, and 016 & 082 (pors.), TMK (2) 3-9-001: 148 and TMK (2) 3-9-048: 122], in Kihei, Maui, defined as the subject property. Any exceptions to or deletions from this practice are described in Section 1.4, Limitations and Exceptions, of this report.

# This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property.

#### • Database Listings

The survey area is not listed.

The listed, nearby risk sites unlikely pose a significant concern to the subject property.

The northern adjoining Shell gas station does not at the present pose a significant environmental concern to the survey area. However, should this facility have any significant leakages occurring with USTs in the future, this site could adversely impact the subject property.

• Current and Historic Use or Storage of Hazardous and Regulated Substances

There is no evidence of any historic misuse or significant spills of hazardous or regulated substances on the subject property. The Hashimoto family historically cultivated crops north of Lot 2B and 2C. The Monsanto Seed Farm is located immediately north of the proposed waterline easement. The use of limited quantities of pesticides is likely associated with crops in these locations. A small, unnamed gulch transects the Monsanto Seed Farm and continues southwest dissecting the survey area in the north-central area and leads toward Pi'ilani Highway. It is possible that during a heavy rain event, runoff from this cultivated area may cause limited pesticide contaminants to enter the subject property.

Aerial photos indicate that agricultural activities occurred north of the subject property from the early 1960s up until the mid-2000s. Presently, limited diversified agricultural activities continue on the residential property located immediately west of the proposed utility/roadway easement off of Ohukai Road. It is unlikely that the operations of this cross-gradient property have significantly impacted the environmental condition of the subject property. Monsanto began seed farming in the late 1990s. All chemicals used by this facility are legal and are listed for farming use.

According to Hawaii Administrative Rules, Chapter 128D Environmental Response Law, the presence of agricultural chemicals, resulting from the legal application of a pesticide product, does not constitute a release of a hazardous substance and is not considered a *recognized environmental condition*.

While the use of pesticides and herbicides on the adjoining property will not necessarily result in adverse impacts to the environmental condition of the survey area, it is possible (yet unlikely) for residual amounts of these substances to accumulate to concentrations that present a potential threat to human health or the environment. However, due to the small scale size of agricultural activity on the northern adjoining lot, and its cross gradient location relative to the subject property, it is unlikely that pesticide levels on the subject property (soil or groundwater) are above regulated levels. Groundwater sampling and laboratory testing would provide additional information to evaluate potential environmental effects from these agricultural activities. A standard proactive procedure, which is recommended by the State Department of Health, would be to conduct such a survey prior to future development of this site, especially any residential development. There is, however, no regulatory requirement to conduct this sampling. Groundwater sampling and

laboratory analyses should be conducted if the groundwater resource is to be used for a potable water source in the future.

The concerns listed below may not be considered **recognized environmental conditions** by ASTM definition, however, they may be considered regulated under other environmental laws and ordinances and may present a potential liability to the property owner.

#### • Solid Waste Management

A very limited amount of dumping (special waste and miscellaneous debris) was evident on the subject property. Miscellaneous debris includes but is not limited to household refuse, discarded furniture and former irrigation piping. Numerous Monsanto seed cross-contamination prevention bags were noted along the proposed waterline easement and the northeastern portion of the unnamed on-site gulch. Regulated items requiring special management (automobile tires and derelict vehicles) were noted near the northern property boundary and along the proposed utility easement. Management of these wastes needs to be performed in a manner that complies with all local, state, and federal regulations as applicable to the waste type.

Several boulder debris berms and piles were noted on the survey area associated with the northern property boundary. Miscellaneous solid waste items were found within these berms/piles.

Due to limited areas of inaccessible terrain, the entire survey area and underlying soils were not visibly inspected. It is important to note that if additional clearing of the property commences and debris or unidentifiable substances (containers) are further discovered, proper waste identification, testing and applicable waste handling/disposal procedures are followed.

#### • Surface Water and Area Aquifer Protection

If future land use includes developing the land for residential or commercial use, the developer and property owner should be aware of the potential for contaminants to migrate into any adjacent and proximate drainage ways (including adjacent stormwater concrete culvert which leads west toward Pi'ilani Highway, the on-site unnamed gulch and Kulanihakoi Gulch). Products of concern relating to any future development project or land-clearing activity would be earthen material (silt), paints, oils, antifreezes, and other fluids from automobile or on-site machinery, or leaks from on-site stocked items.

Future land clearing of greater than one (1) acre will likely require both a County of Maui grading/grubbing permit and a National Pollution Discharge Elimination System (NPDES) General Permit (State of Hawaii, Department of Health).

The concerns listed above are presented as a matter of record. They, collectively or independently, do not have any significant impact on the environment, and are not considered by MEV to devalue the subject property at this time in any way.

The conclusions stated above should not be construed to mean that any regulatory agency would have the same opinion as this author, nor is any implication proposed therefrom.

The results of this environmental assessment are intended for general reference purposes only and are not intended as legal advice. The advice of legal counsel should be sought in regard to individual facts, circumstances and interpretation of environmental liability.

# **Environmental Site Assessment**

# Phase 1 Investigation

# **1.0 INTRODUCTION**

A Phase I Environmental Site Assessment (ESA) is conducted to determine if a site may be contaminated with hazardous or toxic substances or wastes resulting from current or past site activities, unauthorized dumping or disposal, or migration of contaminants from adjacent or nearby properties. Its goal is to identify *recognized environmental conditions* on a property that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products. These release conditions apply to structures on the property as well as the soil, groundwater, or surface water of the property. The American Society of Testing and Materials (ASTM) Standard 1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, is used to "…define good commercial and customary practices for conducting an environmental site assessment of a parcel of commercial real estate."

#### 1.1 Purpose

The study objectives are to characterize the environmental setting of the subject property, to identify any obvious activity of environmental concern that may have occurred at or near the site, and to evaluate potential migration pathways for any identified contaminants. It may also address any activities that affect future considerations for potential environmental impairment to the property.

Another function of this Phase I ESA is to conduct an *all appropriate environmental inquiry* in response to the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the EPA's final rule (40 CFR Part 312), and similar state and local regulations. An ESA "all appropriate inquiry" may provide the buyer, receiver, or lender making a loan secured by the subject real property with a basis to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser defense* should any legal action be initiated for environmental impairment to the property.

ASTM Publication E1527-05 is recognized by 40 CFR Part 312 as an acceptable guidance document for satisfying the EPA's final "*All Appropriate Inquiries*" rule.

#### **1.2 Detailed Scope of Services**

This Phase I Environmental Site Assessment (ESA) has been prepared for Mr. Robert Poynor, Vice President of Sarofim Realty Advisors, and was conducted pursuant to Malama Environmental's (MEV's) written proposal and contract accepted by Mr. Poynor on July 12, 2013.

There were no other additional services requested of MEV by the Client.

#### **1.3 Significant Assumptions**

The assessment of *recognized environmental conditions* relies on: 1) sources of actual knowledge, 2) thorough appropriate inquiry, 3) reviewing reasonably ascertainable documents and records, and 4) conducting a visual and olfactory reconnaissance. In conducting this ESA, MEV has relied on the truthfulness of its inquiry sources and the validity of reviewed records. If obvious indications or MEV actual knowledge contradicted the reported/reviewed information sources, it has been so stated in the appropriate sections of this report.

#### **1.4 Limitations and Exceptions**

The investigation performed for this report includes the components of an *all appropriate inquiry* regarding the potential for contamination to exist or have occurred at this site. This investigation is also the basis of an *all appropriate inquiry* into the presence or likely presence, release or threatened release, of hazardous substances and petroleum products at this real property. As indicated earlier, this Phase I Environmental Site Assessment was prepared according to guidelines presented in (ASTM E-1527-05).

Since no ESA can eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a property, the limiting intent of this investigation is to reduce the uncertainty to an appropriate level. Minimal requirements for the Phase I ESA include a review of historical records, a review of files and databases compiled by regulatory agencies, interviews with current owners and/or occupants of the property, and a field reconnaissance of the survey area and adjacent areas.

This ESA also takes into consideration the evaluation of other substances and products that are or may be interpreted as excluded under CERCLA. Commonly, these substances are of concern in commercial real estate transactions under current custom and usage and may include, but are not limited to, Radon, Lead-in-Drinking Water, and Special Environmental Resources. Where appropriate, MEV has considered environmental concerns of other federal, state, and local regulations.

Some database resources developed for Maui County are not readily attainable in a useful form or are not cross-referenced in a manner as to be readily discernible. The Maui County Fire Department maintains an electronic database that dates back to January 2000. Information and records prior to 2000 exist on file, as hardcopies, at the Department of Fire and Public Safety Office.

Databases and records utilized for this investigation were limited to those that are reasonably ascertainable; that is, they had to be publicly available, obtainable from its source within reasonable time and cost constraints, and practically reviewable with regard to volume, sorting, and organization. Additionally, the services of *Environmental Data Resources, Inc.* (EDR) were utilized to compile the environmental database listings. See Appendix B.

#### 1.5 Data Gaps

MEV did not encounter any significant *data gaps* during the course of this Phase I ESA Investigation that would affect the ability of the *Environmental Professional* to identify *recognized environmental conditions* pertaining to the subject property.

#### **1.6 Special Terms and Conditions**

As a standard practice, a confidential client privilege was initiated by MEV for the work performed and contents of this report. MEV shall ensure that its officers, employees, agents, and independent contractors do not disclose this report or any information contained therein to any person without the proper knowledge and written consent from the Client (or as otherwise required by law). MEV shall ensure that each of its officers, employees, agents, and independent contractors understand and obey these requirements.

The information and opinions provided herein are intended as background data and planning guidance to interested parties. This should not be construed to mean that any regulatory agency would have the same opinion as MEV, nor is any implication proposed.

MEV has performed this study in a competent and professional manner. Since there may be hidden or unknown conditions that may be missed during this inspection, MEV cannot warrant the actual site conditions described in this report.

**MEV, LLC** 

# 2.0 SITE AND REGIONAL DESCRIPTION

Refer to Figure 1, Regional Setting Map, in Appendix A, for a depiction of the general setting of the survey area in relation to topographic features. Also depicted are the projected groundwater flows, regional surface water flows, and locations of other significant physical features or structures. A regional aerial photo Figure 2 - Site Plan and Figure 3 - Tax Map Key are also located in Appendix A.

#### 2.1 Location and Legal Description

The majority of the survey area is located mauka and east of Pi'ilani Highway (State Highway 31), between the Kihei Commercial Center and Kulanihakoi Gulch and due east of Kaonoulu Street. The proposed utility easement is located due south of Ohukai Road. The proposed waterline easement located immediately south of the Monsanto Seed Farm extends farther east of the main portion of the survey area. The survey area is located in the northern portion of Kihei, Maui, Hawaii. The survey area encompasses the following Tax Map Key (TMK) parcels: (2) 3-9-001: 016 (Lot 2A), 169 (Lot 2B), 170 (Lot 2C), 171 (Lot 2D), 172 (Lot 2E), 173 (Lot 2F), and 174 (Lot 2G). The survey area also includes TMKs (2) 2-2-002: 077, por. 16, and por. 82, TMK (2) 3-9-001: 148, and TMK (2) 3-9-048: 122. Two property access points are associated with the survey area. One is located from the south side of Ohukai Road across from Hale Kai Street and the other is a gated entry, centrally located along the western property boundary, east of Pi'ilani Highway. (See Figure 3, Tax Map, Appendix A.)

#### 2.2 Site and Vicinity General Characteristics

The survey area consists of various parcels of land in their entirety and portions of parcels, with a total measurement of approximately 101 acres in total area.

The site is situated on the western slopes of Haleakala Volcano. The town of Kihei surrounds the site to the north, south, and west, with vacant ranch land between the site and Kula to the east. The Property consists of sparsely vegetated vacant land with gulch terrain historically used for cattle grazing and ranching.

Topography of the property is varied, but generally slopes from east to west. The survey area is at elevations ranging from 25 feet at the southwestern corner near Pi'ilani Highway to 75 feet in the northwest corner and rises to 137 feet along Ohukai Road and 230 feet at the far eastern boundary. The nearest prominent natural features are Kulanihakoi Gulch, which lies just south of the southern boundary and the Pacific Ocean which is located approximately 2,600 feet west of the survey area at its closest point. (See Figure 1, Appendix A.)

Surrounding land use consists of fallow agricultural land, a residential homesite, Kihei Commercial Center, Shell gas station and the Monsanto Seed Farm all located immediately north of the northern property boundary; undeveloped cattle ranch land to the east and south; Kulanihakoi Gulch to the south; and the Pi'ilani Highway to the west. Residential homes exist beyond Pi'ilani Highway farther to the west and north of Ohukai Road.

#### 2.3 Description of Structures, Roads, Other Improvements

The subject property is predominantly undeveloped vacant ranch land. A limited, unpaved road network exists on-site, most notably an unpaved road traversing from the southwestern corner to the northern portion of the eastern boundary. This road marks the division between Makawao District and Wailuku District. ("District" refers to a zone marked off for administrative or other purposes.) A secondary unpaved road runs along the western boundary line of the survey area and along the southern portion of the eastern boundary. Post and wire fences run along the southern property boundary and within the interior of

the survey area. A concrete stormwater diversion ditch exists along the western property boundary adjacent to Pi'ilani Highway. A grubbed/graded 0.5 acre portion located at the northwest corner and directly south of the off-site Shell gas station exists on the premises. This lot was historically used as a baseyard to support the construction activity that took place during the mid-2000s on the northern adjoining property. A cattle corral was noted in the southwestern portion of the property. Small cement structures and limited water line infrastructure were noted in the cattle corral area. One (1) irrigation well is located within Lot 2B just north of the stockpiled sand. A construction dust-prevention fence lies along the western property boundary, installed by Goodfellow Bros, Inc. for upcoming construction activities. An irrigation waterline was noted running parallel to the proposed utility/roadway south of Ohukai Road. This waterline likely supplies Monsanto with crop irrigation water provided by the County of Maui. Electrical transmission lines exist along the south side of Ohukai Road. The remainder of the subject property is predominately undeveloped and no significant structures were noted. See Figure 2: Site Map, Appendix A.

#### 2.4 Current Use of the Property

The survey area consists of approximately 101 acres of undeveloped grazing land, which consists predominately of sparse vegetation (mature trees, tall grasses, and small shrubs). Cattle were not noted by MEV at the time of the site visit and it appears that the survey area is no longer used for cattle ranching. Currently, the northeast corner of Lot 2B is used by Pi'ilani Promenade as a baseyard. Monsanto currently uses the proposed utility and waterline easements for seed farm site access.

#### 2.5 Current Uses of the Adjoining Properties

The current uses of the adjoining properties as observed by the investigator during the site reconnaissance are as follows (see also Figure 2 Site Plan, in Appendix A):

•	Northern Adjoining Property:	Shell gas station, Kihei Commercial Center (commercial building complex), fallow agricultural land, former cattle ranching land, residential agricultural land, and the Monsanto Seed Farm site. Residential properties are located north of Ohukai Road.		
•	Eastern Adjoining Property:	Undeveloped vegetated ranch land (cattle grazing).		
•	Southern Adjoining Property: Kulanihakoi Gulch and undeveloped ranch land (cattle grazing).			
•	Western Adjoining Property:	Pi'ilani Highway, beyond which lies residential homes, and vacant land. A residential homesite with limited diversified crop cultivation is located west of the proposed utility/roadway easement.		

#### **MEV, LLC**

# 3.0 USER PROVIDED INFORMATION

As a standard of practice, the following information was requested from the Client during the preliminary phases of this investigation:

- Title records and knowledge of environmental liens or activity and land use limitations (AULs);
- Personal, specialized knowledge or experience in regard to *recognized environmental conditions* concerning the property; and
- If applicable, actual knowledge of a significant, low purchase price for the property, and explanation for the lower price.

The purpose of this information is to help identify the possibility of *recognized environmental conditions* in connection with the property. These tasks do not require the technical expertise of an environmental professional and are generally not performed by environmental professionals performing the Phase I ESA. MEV submits a Preliminary Environmental Investigation questionnaire to the Client for this information. The completed questionnaire is attached in Appendix B.

According to information provided by the client-representative in the Preliminary Environmental Investigation, the client-representative is not aware of any environmental liens, proceedings, or investigations against the subject property as of the date of this ESA.

**MEV, LLC** 

# 4.0 RECORDS REVIEW

The purpose of a record review is to obtain and review records that will help identify *recognized environmental conditions* in connection with the subject property. The service of Environmental Data Resources, Inc. (EDR) was utilized to compile the database listings.

#### 4.1 Standard Environmental Record Sources

The subject property and properties within the minimum search distances were reviewed from the following record sources (see below). Risk sites, if any, that may be located on or adjacent to the subject property, or are within close proximity to the survey area are described. Refer to Appendix B, EDR Radius Map Report, for a complete listing and description of all sites located within the designated search distances, details, and government agency database release dates.

The EDR Report bases the location of the listed risk sites on longitude/latitude information provided by the respective government agency. MEV confirms the locations of risk sites within close proximity to the survey area during the site visit. When the MEV site visit contradicts the EDR Report, it has been so stated.

ASTM L-1527-05 LDR Sources and Recommended Search Distances					
EDR SOURCES	ASTM STANDARD SEARCH DISTANCES (miles)				
Federal NPL Site List	1.0				
Federal CERCLIS List	0.5				
Federal CERCLIS NFRAP Site List	0.5				
Federal RCRA CORRACTS Facilities List	1.0				
Federal RCRA Non-CORRACTS TSD Facilities List	0.5				
Federal RCRA Generators List	0.25				
Federal ERNS List	Target property only				
State & Tribal – Equivalent NPL	1.0				
State & Tribal – Equivalent CERCLIS	0.5				
State & Tribal Landfill and/or Solid Waste Disposal Sites	0.5				
State & Tribal LUST Sites	0.5				
State & Tribal UST Sites	0.25				

#### ASTM E-1527-05 EDR Sources and Recommended Search Distances

# THE TARGET PROPERTY (SURVEY AREA) IS NOT LISTED ON ANY OF THE FOLLOWING FEDERAL OR STATE DATABASE LISTINGS OF THE EDR REPORT.

#### Federal Database Listings

**National Priorities List (NPL or Superfund) and Proposed NPL, EPA.** The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. The Survey area is not listed as an NPL site. Additionally, the EDR report indicates no listings within a 1-mile radius of the Survey area.

**Comprehensive Environmental Response, Compensation and Liability Information System List** (CERCLIS), EPA. The CERCLIS list contains data on potentially hazardous waste sites that have been reported to EPA by states, municipalities, private companies and private persons, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to or on the NPL and sites, which are in the screening and assessment phase for possible inclusion on the NPL. The Survey area is not listed as an NPL site. Additionally, the EDR report indicates no listings within a 0.5-mile radius of the Survey area.

**CERCLIS** – **No Further Remedial Action Planned (NFRAP), EPA.** NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. The Survey area was not identified as a CERCLIS NFRAP site. Additionally, the database did not identify any CERCLIS NFRAP sites within a 0.5-mile radius.

**RCRA CORRACTS, EPA.** The CORRACTS report lists hazardous waste handlers with RCRA corrective action activity. The Survey area was not listed as a CORRACTS facility. There are no CORRACTS sites within the recommended search distance of 1-mile.

**RCRA** (Non-CORRACTS) TSD Facilities. The EPA's RCRA program identifies and tracks hazardous waste from the point of where it was generated to the point of final disposal. The RCRA Treatment, Storage or Disposal (TSD) facility database compiles those reporting facilities that treat, store, or dispose of hazardous waste. The Subject Property is not listed as a RCRA TSD facility. The database did not identify any RCRA TSD facility within the appropriate search radius of 0.5-mile.

**Resource Conservation and Recovery Information System (RCRIS), EPA/NTIS.** RCRIS includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). The Federal RCRA Generator list includes Large Quantity Generators (LQG), facilities which generate more than 1000 kilograms (kg)/month of hazardous waste, Small Quantity Generator (SQG), facilities which generate less than 1000 kg but more than 100 kg/month and Conditionally Exempt Small Quantity Generator (CESQG), facilities which generate less than 100 kg/month. The Survey area was not listed as a RCRA-LQG, SQG or CESQG. The database did not identify any RCRA generator facilities within the appropriate search radius of 0.25-mile.

**Emergency Response Notification System (ERNS), EPA/NTIS.** Records and stores information on reported releases of oil and hazardous substances. The database contains information regarding the discharger, release date, material, amount released, incident location and release action taken. The Survey area is not listed as an ERNS facility.

#### State of Hawaii Database Listings

**Sites List State Hazardous Waste Branch (SHWS), DOH.** A list of facilities, sites, or areas in which the Office of Hazard Evaluation and Emergency Response (HEER) has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites). The Survey area was not identified as a SHWS. The EDR report indicates two (2) SHWS facilities within the 1-mile search radius from the Target Property.

SHWS Review						
Distance (miles)/Direction	Discussion	Conclusion				
½-1 NE	This site had a confirmed release in 1994 of diesel fuel and oil due to overfill, equipment maintenance and construction. This area, once called "Ohukai Baseyard" was likely the construction baseyard for the residential subdivision now located approximately 0.25-mile north of the subject property. The initial site assessment found hazardous conditions and as of 1994, Haleakala Ranch monitored the site. Approximately 2-feet of gravel were to be removed and remediated. According to the EDR and the HEER Office, the case number is 19940218 and was given a "low priority" site status.	Due to the distance and the status with the DOH, it is unlikely that this facility has impacted the survey area and is not considered a REC at this time. According to the HEER Office's response to MEV's inquiry, the case has been listed as "Site On-Scene Coordinator No Further Action" SOSC NFA. This area now consists of a residential subdivision further indicating that the listed incident has been cleaned up.				
1-mile SSW	This site had a confirmed release of a petroleum product at the service station. As of February 2004, the site was properly remediated and awarded a "No Further Action, no hazard for unrestricted residential use".	Due to the distance, elevation status (lower gradient), and the status with the DOH, it is unlikely that this facility has impacted the survey area during the release and is not considered a REC at this time.				
	(miles)/Direction 1/2-1 NE	(miles)/Direction½-1 NEThis site had a confirmed release in 1994 of diesel fuel and oil due to overfill, equipment maintenance and construction. This area, once called "Ohukai Baseyard" was likely the construction baseyard for the residential subdivision now located approximately 0.25-mile north of the subject property. The initial site assessment found hazardous conditions and as of 1994, Haleakala Ranch monitored the site. Approximately 2-feet of gravel were to be removed and remediated. According to the EDR and the HEER Office, the case number is 19940218 and was given a "low priority" site status.1-mile SSWThis site had a confirmed release of a petroleum product at the service station. As of February 2004, the site was properly remediated and awarded a "No Further Action, no hazard for unrestricted residential				

**Permitted Landfills in the State of Hawaii (SWF/LF), DOH.** An inventory of solid waste disposal facilities or landfills in the State of Hawaii. These may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites. The Survey area is not listed. Additionally, the EDR report indicates no listings within the 0.5-mile search radius of the Survey area.

Leaking Underground Storage Tank (LUST) database, DOH. An inventory of reported leaking underground storage tank incidents. The Survey area is not listed as a LUST site. The EDR report indicates no listings within the 0.5-mile search radius of the Survey area.

**Underground Storage Tank (UST) database, DOH.** USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with DOH. The Subject Property is not listed as a UST facility. The EDR report currently has two (2) listed UST facilities located within the appropriate search radius of 0.25-mile from the Survey area.

✓ NCT LLC (Shell Station) – 30 Manao Place (Facility ID# 9-503832): This site is listed as having two (2) gasoline tanks (12,000 and 7,000 gallon tanks), and one (1) 4,000 gallon diesel tank. This site was constructed in 2007 and is located immediately adjacent to the northwestern corner of the survey area. Currently, this facility is not listed as a Leaking Underground Storage Tank (LUST) site. Due to the close proximity and the slightly higher elevation of the gas station with respect to

the survey area, this facility may pose a negative impact to the environmental condition of the subject property if in the future a leak of the underground storage tanks should occur.

✓ *Kihei Minit Stop* – 233 Piikea Avenue (Facility ID# 9-503629): This site is listed as having two (2) gasoline tanks (10,000 and 6,000 gallon tanks), and one (1) 4,000-diesel tank. This site is currently not listed as a LUST site. Due to the distance from the survey area and the current listing with the DOH, this site is not anticipated to negatively impact the subject property at this current time.

**EDR Exclusive Records.** EDR US Historical Auto Stats: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Five (5) Historical Auto Stations were found within the searchable distance compared to the survey area. Due to the current status of these historic stations (all non-LUST sites) and the distance from the subject property, these sites did not likely negatively impact the subject property.

#### 4.2 Additional Environmental Record Sources

The subject property and properties within the minimum search distances were reviewed from the following record sources. Refer to Appendix B, EDR Radius Map Report, for a complete listing and description of all sites located within the designated search distances, details, and database release dates.

#### Federal Database Listings

- ▼ Superfund (CERCLA) Consent Decrees (CONSENT), EPA Regional Offices. Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites.
  - The survey area is <u>not</u> listed.
  - The EDR Report indicates <u>no</u> listings within the one-mile search radius of the survey area.
- ▼ **Records of Decisions (ROD), EPA.** ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.
  - The survey area is <u>not</u> listed.
  - The EDR Report indicates <u>no</u> listings within the one-mile search radius of the survey area.
- ▼ National Priority List Deletions (De-listed NPL), EPA. A list of sites that have been deleted from the NPL where no further response is appropriate.
  - The survey area is <u>not</u> listed.
  - The EDR Report indicates <u>no</u> listings within the one-mile search radius of the survey area.
- ▼ Facility Index System/Facility Identification Initiative Program Summary Report (FINDS), EPA. Contains both facility information and 'pointers' to other sources that contain more detail.
  - The survey area is <u>not</u> listed.
- ▼ Hazardous Materials Information Reporting System (HMIRS) DOT. A list of hazardous material spill incidents reported to DOT.
  - The survey area is <u>not</u> listed.

- ▼ Material Licensing Tracking System (MLTS), Nuclear Regulatory Commission (NRC). A list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements.
  - The survey area is <u>not</u>listed.
- ▼ Mines Master Index File (MINES), Department of Labor, Mine Safety and Health Administration. Contains both facility information and 'pointers' to other sources that contain more detail.
  - The survey area is <u>not</u> listed.
  - The EDR Report indicates <u>no</u> listings within the <sup>1</sup>/<sub>4</sub>-mile search radius of the survey area.
- ▼ Federal Superfund Liens (NPL Liens), EPA. A list of properties whereby the EPA has filed liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.
  - The survey area is <u>not</u> listed.
- ▼ PCB Activity Database System (PADS). Identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify EPA of such activities.
  - The survey area is <u>not</u> listed.
- ▼ RCRA Administrative Action Tracking System (RAATS), EPA. A historical archived database containing records on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by EPA. The database was discontinued on September 30, 1995.
  - The survey area is <u>not</u> listed.
- ▼ Toxic Chemical Release Inventory System (TRIS), EPA. A list of facilities which release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313.
  - The survey area is <u>not</u> listed.
- ▼ Toxic Substances Control Act (TSCA), EPA. Identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list.
  - The survey area is <u>not</u> listed.
- ▼ Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/TSCA Tracking System (FTTS INSP and FTTS), EPA – Office of Prevention, Pesticides and Toxic Substances. FTTS tracks administrative cases, pesticide enforcement actions, and compliance activities related to FIFRA, TSCA, and Emergency Planning and Community Right-to-Know Act (EPCRA).
  - The survey area is <u>not</u> listed.

# State of Hawaii Database Listings

▼ **Release Notifications (SPILLS), DOH.** Releases of hazardous substances to the environment reported to the HEER Office. The following databases are included in the HEER Spill List:

Release Notification Report: a compilation of releases reported to HEER.

Hawaii Emergency Planning and Community Right-to-Know Act (HEPCRA): a list of facilities that have submitted Tier II and Form Rs as a reporting requirement.

- The survey area is <u>not</u> listed.
- The EDR Report indicates <u>no</u> listings within the one-mile search radius of the survey area.

#### ▼ **Registered Wells and Dry Wells, DLNR.** (See Section 5.5.6)

✓ One (1) registered well is listed for the subject property. The well is owned by Kaonoulu Ranch and is listed as "Kaonoulu Irrigation 1". This well is used for irrigational purposes only, and will remain in use for irrigation for the upcoming construction project.

According to the EDR, twenty-two (22) wells exist within the searchable distance of 1-mile from the survey area. Eighteen of these well are used for irrigation, one is used for agricultural purposes, one is unused at this time and two are listed as "other". (See the EDR in Appendix B for more details.)

- ▼ Air Quality Permit, DOH. Current activities conducted on-site do not require an air quality permit.
- ▼ Storm Water Discharge (NPDES) Permit, DOH-CWB. The proposed construction activities for the survey area require a NPDES permit. A concrete stormwater drainage diversion ditch exists on the survey area along the western property boundary indicating that stormwater runoff will enter navigable waters. The unnamed gulch on the survey area also leads toward the concrete ditch. The immediately adjacent Kulanihakoi Gulch also carries runoff toward the Pi'ilani Highway culvert system. Pi'ilani Promenade was awarded a NGPC (Notice of General Permit Coverage) from the DOH. This permit expired as of October 21, 2012. However, Pi'ilani Promenade has filed for an extension and this was granted by the DOH.

# County and Other Database Listings

Other local records of environmental interest that were reviewed or considered for review by MEV included:

- ▼ Fire Department, County of Maui. The Maui County Fire Department (MCFD) maintains file material that is not on a database. MCFD was contacted for an inquiry on the subject property. MEV did not receive a response from MCFD regarding any incidents on the survey area.
- ▼ Grading/Grubbing Permit, County of Maui. A grading permit is currently open for the subject property for (2) 3-9-001:016, 170 and 171. The permit number is G 20120039 and was issued April 12, 2012 and expires April 18, 2014. Future land clearing of greater than one (1) acre requires this County of Maui grading/grubbing permit.
- ▼ Hazardous Waste Disposal Documents. MEV did not review any hazardous waste disposal documents.
- ▼ Maui Electric Company. Maintains records on county power transformers regarding PCB-containing equipment and equipment maintenance. No pad or pole-mounted electrical transformers were observed on the subject property. Electrical transmission lines exist along the south side of Ohukai Road. Three (3) pole-mounted transformers are located along these lines immediately adjacent to the northern property boundary of the utility/roadway easement. One (1) pole-mounted transformer exists west of the utility/roadway easement, associated with a residential homesite. The transformers in question are not PCB-containing (according to serial identification numbers) and are not currently leaking.
- ▼ Other Environmental Reports. Environmental site assessment reports were previously completed by Vuich Environmental Consulting (VEC) for the subject property (VEC Phase I ESA dated August 2004 and April 2006). MEV conducted a Phase I ESA in close proximity to the survey area (MEV Phase I ESA Kihei North Master Plan dated April 2010). MEV reviewed all of these reports as valuable historic resources for the subject property and surrounding land.
- ▼ Planning & Zoning, County of Maui. According to the Maui County Department of Planning, the survey area's zoning for Lots 2A through 2D is M-1, "light industrial". The zoning for the remaining parcels is considered State Agricultural. The survey area is not within the boundaries of the Special Management Area (SMA). The SMA boundary in this area runs parallel to Pi'ilani Highway.

▼ Property Tax Office, County of Maui. The Maui County Property Tax Office maintains records of past ownership, maps, sketches and other information as it pertains to the subject property. (See also Section 8.0). According to Maui County Tax Office as of July 23, 2013, the current property owners are listed as the following:

(2) 3-9-001: 169 Lot 2B	Honua'ula Partners LLC
(2) 3-9-001:016 Lot 2A	Pi'ilani Promenade North LLC
(2) 3-9-001: 170-174 (Lots 2C thru 2G)	Pi'ilani Promenade South LLC
(2) 2-2-002: 016	Haleakala Ranch Company
(2) 2-2-002: 082, 077	Kaonoulu Ranch
(2) 3-9-001: 148	State Department of Transportation
(2) 3-9-048: 122	State Department of Transportation

▼ Wastewater Discharge Permit, County of Maui. MEV did not identify any wastewater discharge permits registered to the subject property.

#### 4.3 Physical Setting Source(s)

The following sources were reviewed for physical setting information (refer to Section 8.0 for a complete listing):

- Atlas of Hawaii;
- Civil Defense Tsunami Evacuation Map;
- Geologic and Topographic Map (Hawaii Atlas & Gazetteer);
- Groundwater Map and Water Quality Plan for State of Hawaii;
- U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, HI;
- U.S. Geological Survey, 7.5 Minute Topographic Map, Pu'u O Kali Hawaii 1983 & 1992.

These data sources were used to provide information regarding physical characteristics of the survey area and surrounding area. This information is typically used in analysis of potential geological trends, which might impact environmental conditions of the survey area. Note that this investigation is not intended to identify geologic hazards associated with the subject property.

#### 4.4 Historical Use Information Regarding the Property and Adjoining Properties

The following historical data sources were reviewed for this report (refer to Section 8.0 for a complete listing):

- Aerial Photographs;
- Department of Planning and Zoning, County of Maui;
- Maui County Fire Department (Fire Prevention Bureau / Hazardous Materials Division);
- Maui County Real Property Tax Records;
- Personal Interviews;
- Sanborn Maps (not available for this location);
- State of Hawaii, Department of Health, Environmental Management Division;
- Environmental Data Resources (EDR);
- Client-supplied survey area and regional vicinity maps;
- VEC Phase I ESA reports dated 2004 and 2006;
- MEV Phase I ESA Kihei North Master Plan report dated April, 2010.

#### Historic Aerial Photographs

A series of aerial photographs with coverage of the subject property and surrounding area were examined. See Figure 2 – Site Plan, Appendix A, for clarification of specific location. MEV did not observe any features on aerial photographs examined that would suggest the presence of significant vegetative stress, soil staining, or bulk storage of chemicals such as drums or tanks.

Table 1.0. Historical Aerial Photograph Analysis.					
Date		Aerial Photo Analysis			
2/28/1950	SS:	Undeveloped, vegetated land. An unnamed watercourse transects the property in a northeast to southwest direction. Kulanihakoi Gulch is visible along the southern property boundary;			
No Scale Provided	N, E, S, W:	Undeveloped, vegetated land;			
	RG:	Undeveloped, vegetated land; Kulanihakoi Gulch visible; South Kihei Road visible as an unpaved roadway. The sparsely populated community of Kihei is present west of the site.			
	SS:	No significant changes noted except that more vegetation appears to be present. Pi'ilani Highway established as an unpaved road west of the subject property.			
6/2/1964 No Scale Provided	N:	Ohukai Road exists as an unpaved lane. Agricultural development (orchards and diversified agriculture) and the addition of a small water tank and retention pond is located west of the proposed utility/roadway and north of Lots 2A and 2B. Rectangles resembling crop areas are present at the location of the present-day Monsanto corn farm located just north of the unnamed gulch. These crop rectangles are part of the Hashimoto residential diversified agricultural farm. Initial construction of a residential development is located farther to the north;			
	E, S, W:	No significant changes noted;			
	RG:	Two street loops and several homes have been constructed in the location of the present day Ohukai Road neighborhood. Agricultural parcels remain immediately west of the present-day Monsanto farm and north of the survey area.			
		The town of Kihei has expanded slightly west of the survey area and the addition of new roads is noted.			
	SS:	A Stormwater diversion ditch is noted along the western property boundary of Lot 2A. Two limited access unpaved roads are noted: one on the western boundary line, and the other transecting the subject property (northeast to southwest). The diagonally transecting dirt road is the division line between the Makawao District and the Wailuku District;			
10/25/1982	N:	Agricultural activities remain. The crop rectangles have been expanded south of the unnamed gulch and parallel the proposed waterline easement. Completed residential development noted further to the north;			
No Scale Provided	E:	No significant changes noted. Large water tank now located farther to the northeast;			
	S:	No significant changes noted;			
	W:	More residential and commercial structures noted west of Pi'ilani Highway;			
	RG:	The Ohukai Road neighborhood has been constructed with several streets and tens of homes.			
		The community of Kihei continues to expand west of the site.			
	SS:	A network of storm water infrastructure has been added near the western boundary of the subject property adjacent to Pi'ilani Highway. Corral enclosures are noted near the southwestern corner. The proposed waterline easement is not shown in this photo;			
10/27/90 No Scale Provided	N: E, S: W: RG:	Ohukai Road is now paved. The orchards once located in the northern adjoining property along Pi'ilani Highway appear fallow. Extensive commercial development noted in place of former crop areas. Diversified crop cultivation remains east of the commercial development zone. Crop rectangles east of the proposed utility easement appear fallow; No significant changes noted; No significant changes noted except for increased residential development; Increasing commercial and residential development; addition of new roads noted.			

9/27/96 No Scale	SS:	No significant changes noted except that the unpaved road that transected the subject property is more difficult to see;			
Provided	N:	Kihei Commercial Center is now complete. Agriculture activity remains just west of the proposed utility/roadway, but appears fallow farther west and east of this spot. The Ohukai Road neighborhood has been expanded with more streets and homes.			
	E, S:	No significant changes noted;			
	W:	Construction of residential subdivision west of Pi'ilani Highway is complete.			
	RG:	The town of Kihei continues to expand west of the site.			
	SS:	Gravel lot exists in the northwest corner of Lot 2A. The Pi'ilani Promenade baseyard is stationed in the northeast corner of Lot 2B. Numerous unpaved roads exist within the subject property. A sand stockpile is located just south of the baseyard. Boulder berms can be seen on the premises likely from remnant grubbing and grading.			
Google Earth <sup>™</sup> 2013	N:	Kihei Commercial Center and the Shell gas station. Agricultural activities remain to the north. Monsanto is actively seed farming the crop rectangles remnant from the Hashimoto farm located just north of the proposed waterline easement.			
	E, S:	No significant changes noted;			
	W:	Increased residential development;			
	RG:	The community of Kihei continues to develop.			
Notes:	-				
	ey area	S Southern Adjacent Property			
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# MEV, LLC

### 5.0 SITE RECONNAISSANCE

Information regarding the storm water flow, property layout, physical characteristics, and adjoining property conditions are presented in Figure 2, Site Plan, and site photographs located in Appendix A.

#### 5.1 Methodology and Limiting Conditions

A site investigation focuses on obtaining information indicating the likelihood of identifying *recognized environmental conditions* in connection with the property and assessing the subject property in relation to surrounding land uses and natural surface features. It includes a physical inspection of the real property and any on-site building structures.

On July 23, 2013, MEV geologist Ms. Amy Mathis conducted an overall site inspection of the survey area. The method used to observe the subject property included: (1) walking the approximate perimeter of the subject property where accessible, (2) inspecting the interior of the subject property, (3) inspecting the onsite gulch terrain, (4) conducting random and non-random traverses of the subject property and (5) inspecting all areas of potential storage areas for possible hazardous substances (baseyard). Some of the property perimeter boundaries were effectively defined by survey flags and boundary corner pins. Where boundaries were not physically defined, MEV was able to locate boundaries with the use of geographical features, aerial photos and GPS.

Certain physical obstructions limited the investigator from total property observations of native surface soils. Areas of dense vegetation located on-site, especially in the gulch areas, obscured the underlying surface soils. A limited portion of the survey area's total surface soils was not observable due to the presence of boulder and sand piles. Exposed soils that were observable did not exhibit evidence of gross surface contamination.

Any environmental conditions reported here are not intended to include minimal conditions that 1) generally do not present a material risk of harm to public health or the environment and 2) generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

#### **5.2 General Site Setting**

#### 5.2.1 Current and Past Use(s) of the Property

#### Current Uses

According to the Maui County Tax Office, the current property owners are listed as follows:

(2) 3-9-001: 169 Lot 2B	Honua'ula Partners LLC
(2) 3-9-001:016 Lot 2A	Pi'ilani Promenade North LLC
(2) 3-9-001: 170-174 (Lots 2C thru 2G)	Pi'ilani Promenade South LLC
(2) 2-2-002: 016	Haleakala Ranch Company
(2) 2-2-002: 082, 077	Kaonoulu Ranch
(2) 3-9-001: 148	State Department of Transportation
(2) 3-9-048: 122	State Department of Transportation

The survey area consists of approximately 101-acres of land combining the parcels and parcel portions listed above.

The land is predominately undeveloped and is no longer used for cattle grazing. A portion of the northeast corner of Lot 2B is currently being used as a baseyard for the Pi'ilani Promenade and contains the water well and small head tank. No hazardous/regulated materials are currently being stored within the baseyard. Pi'ilani Promenade Parcels 172 (proposed Kaonoulu Street), 173, and 174 (along Pi'ilani

Highway) will be dedicated to the State of Hawaii. The portion of Haleakala Ranch Parcel 016 will be used as the utility and access easement from Ohukai Road to the site. Monsanto currently uses the proposed utility and waterline easement (Kaonoulu Ranch Parcel 082 portion) for seed plot access. The State Department of Transportation (SDOT) Parcels 148 and Parcel 122 (across and adjacent to Pi'ilani Highway and adjacent to Kaonoulu Street) will have minor improvements performed. Information presented here represents those items visually or physically observed or identified in the interviews or records review.

#### Past Uses

Historically, the property was vacant dating back to at least 1950, the earliest aerial photograph reviewed. According to the County of Maui Real Property Tax information, Kaonoulu Ranch has owned portions of the survey area for many decades for the purpose of pastureland for cattle. An interview with the previous property owner, Mr. Doug Peterson of Kaonoulu Ranch, informed MEV that the subject property was owned by Kaonoulu Ranch since 1916 and had only been used for cattle grazing and ranch land since the 1800s. Haleakala Ranch owned other areas of the main portion of the survey area. In 2005, the property currently consisting of Lots 2A, 2C, 2D and 2E was sold to Maui Industrial Partners, LLC. In the mid-2000s, a 0.5 acre portion of the property (northwest corner) was used as a construction baseyard for the development of the Shell gas station. According to an interview with the former property owner, aerial photos and county records, this parcel of land was historically only used for ranch land which continued until recently.

#### 5.2.2 Current and Past Use(s) of the Adjoining Properties and Surrounding Area

MEV has researched current uses of adjoining properties and at its discretion, past uses of the adjoining properties and the surrounding areas. Information presented here represents those items visually or physically observed or identified in the interviews or records review. The information is described herein as items that may indicate *recognized environmental conditions* with adjoining properties and those conditions that may indicate a high probability of migration of hazardous substances or petroleum products to the subject property.

Adjoining Property	Period	Land/Property Use	Concerns	Comments
North of Survey area	Past	Agriculture activity.	Historical pesticide application leading to possible soil and groundwater contamination.	Agricultural activity has been active on this site for several decades. During this time, there may have been the use of agricultural pest control chemicals and fertilizers, which have long been recognized by the U.S. Environmental Protection Agency (EPA) for contributing to the potential contamination of surface soils and groundwater systems. Although chemicals used for agriculture could have been regularly used in significant quantities, they degrade with time in soil. Most agricultural chemical concerns typically arise when bulk (full strength) products leak or are spilled onto soils. However, it is possible that chemicals in long-term use remain at, or above, regulated levels.
				Due to this site's cross gradient location relative to the subject property (Hashimoto farm) and the limited rainfall in this area, it is unlikely that the Hashimoto farm or Monsanto has significantly impacted the subject property. Groundwater testing should be conducted if that resource is to be utilized for domestic purposes.
	Present	Commercial and agricultural activity.	Pesticide application leading to possible soil and groundwater contamination.	See comments above for the same concern. Currently, the Monsanto Seed Farm actively cultivates the portion of land immediately north of the proposed waterline easement. A small, unnamed gulch transects the seed farm and runs toward and onto the survey area. It is possible that limited chemical contamination from the use of pesticides on the Monsanto farm could have migrated onto the survey area via surface runoff during heavy rainfall events. This is a remote possibility given the amount of rainfall in Kihei, but still should be mentioned. It has been brought to MEV's attention that this drainage way will be routed across the top on Kaonoulu Ranch property and then down the right of way for East Kaonoulu Street to its current transition under Pi'ilani Highway. Monsanto uses chemicals that are legally listed and publically available for farm use.
East of survey	Past	Undeveloped, grazing land.	None.	None.
area	Present	Undeveloped, grazing land.	None.	None.

Adjoining Property	Period	Land/Property Use	Concerns	Comments
South of survey	Past	Undeveloped, grazing land.	None.	None.
area	Present	Undeveloped, grazing land.	None.	None.
West of survey area	Past	Undeveloped land.	None.	None.
	Present	Commercial and residential and Pi'ilani Highway.	None.	None.

The development of past uses of the adjoining properties was primarily interpreted from interviews, MEV site reconnaissance, and aerial photographs. Topographic maps and the Hawaii Atlas provided limited regional information.

### 5.2.3 Topography

The project site lies near the South Maui coastline on the western slope of Haleakala Volcano. The physiographic type feature of the survey area is described as Kula Slightly Dissected Upland.

Topography of the property is varied, but generally slopes from east to west. The survey area is at elevations ranging from 25 feet at the southwestern corner near Pi'ilani Highway to 75 feet in the northwest corner and rises to 137 feet along Ohukai Road and 230 feet at the far eastern boundary. Topographic relief for the property descends more steeply in the vicinity of the on-site gulches and drainages.

The nearest prominent natural features are Kulanihakoi Gulch, which lies just south of the southern boundary and the Pacific Ocean which is located approximately 2,600 feet west of the survey area at its closest point. See Figure 1, Appendix A.

#### 5.2.4 Geology and Soils

The Haleakala Volcanics have been divided into three series. The oldest are the Honomanu Volcanic Series, which is the primitive shield composed of Pahoehoe and aa flows of tholeiite, tholeiitic olivine basalt, and oceanite. Above sea level, later lavas have almost entirely buried this volcanic series. The Kula Volcanic Series overlies the Honomanu Volcanics and is composed predominantly of hawaiite with lesser amounts of alkalic olivine basalt and ankaramite. Near the summit of Haleakala Volcano, the Kula Series is at least 750 meters thick and near the shore only 15 to 60 meters thick. After a long period of erosion, renewal activity included the flows and cones of the Hana Volcanic Series, which are composed of the same rock type as of the Kula Series, but alkalic olivine basalts and basaltic hawaiites are predominant over the more siliceous types.

According to the U.S. Department of Agriculture, the following soil series underlies the survey area:

• Waiakoa extremely stony clay loam, 3 to 25% slopes, eroded (WID2).

The Waiakoa series consists of well-drained soils on uplands on the island of Maui. These soils developed in material weathered from basic igneous rock. The upper part of the profile is influenced by volcanic ash. These soils are gently sloping to moderately steep. The (WID2) soil type is eroded and stones cover 3 to 15% of the surface. In most areas about 50 percent of the surface layer has been removed by erosion. Runoff is medium and the erosion hazard is severe. This soil is used for pasture and wildlife habitat.

• The southwestern portion of the property may contain Alae sandy loam, 3 to 7 percent slopes (AaB). Alae Series soil consists of excessively drained soils on alluvial fans on the island of Maui. These soils

developed in volcanic ash and recent alluvium derived from basic igneous rock. Runoff is slow and the erosion hazard is slight. This soil is usually used for sugarcane and pasture.

Other common, surface geologic phenomena investigated in an environmental site assessment are faults, landslides, rock falls, earthquake zones and volcanic eruptions. In 1992, the USGS reevaluated the seismic hazards for the State of Hawaii, and Maui County was classified as Zone 2B. This indicates that in any given year within a 50-year period (average building life span) there is a 10% chance that 1/5 the force of gravity (ground acceleration) during an earthquake will be exceeded.

After examination of the relevant data, it has been determined by MEV that these geologic phenomena are not a factor to the survey area. However, it should be noted that this is not an investigation for geological hazards.

#### 5.2.5 Hydrology

The survey area has an annual average rainfall of approximately 10 inches. The average temperature range from the annual high to the annual low is 85 degrees and 65 degrees Fahrenheit, respectively. The predevelopment vegetation zone within this temperature and rainfall range is characterized as Kiawe and lowland shrubs. Characteristic plants consist of Kiawe, koa haole, finger grass, and pili grass.

A small unnamed gulch was identified on-site, running diagonally, in a southwesterly direction through the center of the subject property. The Kulanihakoi Gulch is approximately 40 feet deep and 50 feet wide, and runs close to the southern boundary line of the subject property. At the time of the site visit, both areas were dry and no water flow was observed.

On-site drainage is in a southwesterly direction toward the adjoining concrete storm water diversion ditch located along the western property boundary. (See Figure 2 - Site Plan, Appendix A.)

The pertinent Federal Insurance Rate Maps (FEMA FIRM MAP #15003 0580E dated September 25, 2009 and MAP #150003 0586E dated September 25, 2009), prepared by the United States Federal Emergency Management Agency, depicts the area as determined to be outside the 0.2 percent annual chance floodplain (Zone X).

The Civil Defense Tsunami Evacuation Maps indicate the subject property **is not** within the Tsunami reach-zone. The Pacific Ocean is located approximately 2,600 feet to the west of the site.

#### 5.2.6 Hydrogeology

As with all islands of the United States, Maui is regulated by the Coastal Zone Management Act of the Clean Water Act. These two designations require protective comprehensive plans for groundwater management and limit the extent of certain types of development and land use. One important management criterion is the disposal of wastewater. The State Commission on Water Resource Management has designated the groundwater management area as the **Kamaole Aquifer System** within the **Central Aquifer Sector**. The groundwater underlying the survey area is defined as follows:

	Table 2.0. Aquifer Classification of the survey area.							
	Status of Groundwater							
Aquifer	Aquifer Type: Hydrology & Geology	Development Stage	Utility	Salinity (mg/l Cl <sup>-</sup> )	Uniqueness	Vulnerability to Contamination		
Upper	Unconfined, high level aquifer occurring on an impermeable layer (Perched).	Potential Use	Drinking	Fresh <250	Replaceable	High		
Lower	Unconfined basal aquifer occurring in horizontally extensive lavas (Flank)	Used	Drinking	Low <250 - 1000	Irreplaceable	Moderate		

The following are descriptions of the aquifer classification codes, according to Water Quality Plan: *basal* – freshwater in contact with seawater; *high level* – freshwater not in contact with seawater; *unconfined* – water table is the upper surface of the saturated aquifer; *confined* – aquifer is bounded by impermeable or poorly permeable formations; and *confined or unconfined* – the actual condition is uncertain.

Aquifer Type Geology: flank, dike, flank/dike, perched, dike/perched, and sedimentary.

*Development Stage – currently used, potential use, no potential use:* Aquifers are differentiated according to those already being used (currently used), those with potential utility (potential use), and those having no potential developability.

*Utility – drinking, ecologically important, neither*: Identifies aquifers by use.

*Salinity – fresh, low, moderate, high, and seawater*: The gradation of groundwater from fresh to seawater is a feature of all basal aquifers in Hawaii. The upper limit of the standard for drinking water is 250 mg/l Chlorine (Cl<sup>-</sup>) (fresh) and true seawater has a chloride content of 18,980 mg/l.

*Uniqueness – irreplaceable and replaceable*: The classes irreplaceable and replaceable are direct EPA derivatives. Virtually all potable water in the state of Hawaii should be considered irreplaceable over the long term.

*Vulnerability to Contamination – high, moderate, low, none*: Because of the geographical limits of resources, interconnection among groundwater sources and the relatively rapid time of groundwater travel, aquifers can be described as being either vulnerable or not vulnerable to contamination.

The estimated depth to the basal groundwater varies throughout the survey area and is likely to be approximately 35 to 200 feet below the surface (depending on the location on the site) and is projected to flow in a westerly direction. Additionally, perched areas of groundwater may also be underlying the survey area.

The survey area is located makai (seaward) of the Underground Injection Control (UIC). The UIC line is the designated boundary that divides protected inland areas situated over drinking water sources from seaward areas located over non-potable water sources. Sites mauka of the UIC line are considered drinking water sources and permit limitations are imposed by the State Department of Health, Clean Water Branch (CWB).

# 5.2.7 Potable Water Supply and Sewage Disposal System

The subject property is undeveloped. No potable water or sewage disposal systems have been installed on the survey area.

# 5.3 Interior and Exterior Observations

# 5.3.1 Hazardous/Regulated Substances and Petroleum Products in Connection with Identified Uses.

No hazardous/regulated substances and/or petroleum products that are in connection with identified current uses as visually and physically observed on the property were noted at the time of the site visit. No bulk hazardous/regulated substances are currently used or stored on-site.

It should be stated that various amounts of miscellaneous debris were noted within debris boulder berms near the northwestern property boundary. It is possible that when groundbreaking activities commence, hazardous/regulated substances and/or petroleum products could be unearthed in this area (or elsewhere within the property). Should this occur, proper testing, removal and disposal procedures are to be followed.

# 5.3.2 Hazardous/Regulated Substances and Petroleum Products/Containers (not in connection with identified current uses).

There is no evidence of any historic misuse or significant spills of hazardous or regulated substances on the subject property. The Hashimoto family historically cultivated crops north of Lot 2B and 2C. The Monsanto Seed Farm is located immediately north of the proposed waterline easement. The use of limited quantities of pesticides is likely associated with crops in these locations. A small, unnamed gulch transects the Monsanto Seed Farm and continues southwest dissecting the survey area in the north-central area and leads toward Pi'ilani Highway. It is possible that during a heavy rain event, runoff from this cultivated area may cause limited pesticide contaminants to enter the subject property.

Aerial photos indicate that agricultural activities occurred north of the subject property from the early 1960s up until the mid-2000s. Presently, limited diversified agricultural activities continue on the residential property located immediately west of the proposed utility/roadway easement off of Ohukai Road. It is unlikely that the operations of this cross-gradient property have significantly impacted the environmental condition of the subject property. Monsanto began seeding operations during the late 1990s. According to the Land and Resource Manager for Monsanto, the chemicals used on the crop are labeled farm chemicals that are publically available for common use. Monsanto is not licensed for experimental crop use products.

According to Hawaii Administrative Rules, Chapter 128D Environmental Response Law, the presence of agricultural chemicals, resulting from the legal application of a pesticide product, does not constitute a release of a hazardous substance and is not considered a *recognized environmental condition*. However, it is common practice to conduct a limited soil sampling program on former agricultural lands to ensure residual pesticide concentrations (if any) are at acceptable levels. This is recommended (but not legally required) if residential development is to be undertaken.

MEV observed no hazardous/regulated substances and/or petroleum products not in connection with identified current uses as visually and physically observed on the property at the time of the site visit.

#### 5.3.3 Unidentified Substance Containers

MEV noted two (2) metal storage containers located within the baseyard area. These containers were locked during the time of site reconnaissance. According to Mr. Charlie Jencks, these containers hold general construction materials and do not contain hazardous/regulated materials at this time.

MEV did not observe any unidentified substances suspected of being possible hazardous/regulated substances or petroleum products as visually and physically observed on the property at the time of the site reconnaissance.

# 5.3.4 Storage Tanks

No indications regarding the historic or current presence of USTs on the survey area were obtained through our review of regulatory databases, interviews, or through MEV's site reconnaissance.

As noted in Section 4.1, the Shell gas station is located immediately adjacent to the northwestern corner of the survey area and has USTs currently in use. This facility was constructed in 2007 and according to the EDR and the DOH UST/LUST file provided by the Solid and Hazardous Waste Branch, this facility is not listed as a leaking UST site. Due to the close proximity and the slightly higher elevation of the gas station with respect to the survey area, this facility may pose a negative impact to the environmental condition of the subject property if in the future a leak of the underground storage tanks should occur.

One (1) water tanker trailer exists on the survey area associated with Pi'ilani Baseyard. During the time of MEV's reconnaissance, this taker was empty. This tanker does not appear to have ever held petroleum product or other substances besides water.

According to Mr. Dan Clegg, Land and Resource Manager for Monsanto, historically, one (1) 250-gallon diesel tank existed near the proposed waterline easement. No spills are known to have been associated with this tank and MEV found no evidence of the tank or any remnant spills on the premises.

#### 5.3.5 Odors

MEV identified no suspect odors on the subject property.

#### 5.3.6 Pools of Liquid

MEV did not observe any pools or sumps containing liquids suspect to be hazardous substances or petroleum products to the extent visually and/or physically observed on the subject property at the time of the site visit.

#### 5.3.7 Indications of PCBs

Pole or pad-mounted transformers numbered 7777 or above are considered non-PCB containing by the Maui Electric Company.

Electrical transmission lines run on the south side of Ohukai Road and distribution lines run toward the Hashimoto residence located just to the west of the central portion of the proposed utility/roadway easement. Three (3) pole-mounted transformers exist immediately east of the Ohukai Road survey area entrance. One (1) pole-mounted transformer is located at the end of the Hashimoto distribution line. None of the transformers in questions are leaking at this time and all are non-PCB-containing according to the listed serial numbers.

#### Background Information:

Polychlorinated biphenyls (PCBs) are groups of manufactured organic chemicals that contain 209 individual chlorinated chemicals (known as congeners) and were introduced in 1929. PCBs have been used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. Products containing PCBs are old fluorescent lighting fixtures, electrical appliances containing PCB capacitors, old microscope oil, and hydraulic fluids.

The manufacture of PCBs stopped in the United States in 1977 because of evidence that they build up in the environment and cause harmful effects. The distribution in commerce of PCB containing items was banned in 1979 (40 CFR 761.20). The EPA aggressively enforces regulations concerning PCB manufacturing, use, distribution, release and disposal under the Toxic Substance Control Act (TSCA). This federal agency extensively regulates the use, servicing, and disposal of PCBs in electrical equipment by enforcing marking, notification, inspection, and record keeping requirements.

#### **5.4 Interior Observations**

The subject property is essentially undeveloped with no permanent building structures. This section does not apply.

#### 5.5 Exterior Observations

#### 5.5.1 Pits, Ponds, and Lagoons

There were no areas identified as any man-made or natural depressions that are, or would have been, likely to hold waste liquids or sludge from industrial operations or other activities.

#### 5.5.2 Stained Soil or Pavement

No significant areas of soil staining that indicated gross soil contamination were observed at the time of MEV's site inspection.

If in the future the site should undergo development and a significant release occurs, (>25 gallons), the State of Hawaii is to be notified.

# 5.5.3 Stressed Vegetation

MEV observed no areas of significant stressed vegetation on the property at the time of the site visit that may have been caused from something other than insufficient water (or flooding).

### 5.5.4 Solid Waste

There were no indications of significant solid waste dumping or suspect fill materials, mounds, depressions or excavations observed on this property during the site reconnaissance, nor on historic aerial photographs.

The only solid waste items that were identified by MEV on the survey area at the time of the site reconnaissance consisted of the following: (See photos #4, 19, 20 and Figure 2, Appendix B)

- Miscellaneous items (i.e. plastic bags, household refuse and discarded furniture);
- Two automobile tires (2) (special waste) noted near the boulder berm near the northern property boundary;
- One (1) waste dumpster filled with construction materials;
- One landscape debris pile;
- Boulder piles located in the grubbed/graded lot near the northwestern corner. The contents beneath these piles are unknown;
- Perimeter earthen grubbing/grading boulder debris berms along the northern property boundary. Miscellaneous debris items including household refuse were noted within these berms. The contents of these berms are unknown beneath the surficial areas.
- Two (2) derelict vehicles (special waste) were noted immediately west of the central portion of the proposed utility/roadway. No surficial leaks were noted.
- Numerous wax paper bags used by Monsanto to prevent seed cross-fertilization were noted in the unnamed gulch and along the fence line of the proposed waterline easement.

Some wastes may be considered "Special Wastes" according to the Hawaii Administrative Rules (HAR) on Solid Waste, Title 11, Chapter 58.1. Special wastes are those wastes that do not fit in the mixed municipal solid waste (MMSW) category, either by general nature or because of special handling requirements. Special waste categories include: asbestos, sludge, medical waste, used oil, batteries, agricultural wastes, tires, derelict vehicles and white goods (i.e., appliances). Locally, the County of Maui, Department of Public Works, Solid Waste Division administers the disposal of these materials. These wastes need to be disposed of in a permitted solid waste landfill such as the Maui County Central Landfill. Special wastes' management needs to be performed in a manner that complies with all local, state, and federal regulations as applicable to the specific waste type.

# 5.5.5 Wastewater or Storm Water – Discharge Drains, Dry Wells, Drainage Ways, and Retention Basins

MEV noted a concrete stormwater drainage diversion ditch system near the western property boundary adjacent to Pi'ilani Highway. This drainage network handles the stormwater from the Pi'ilani Highway and the higher elevation surrounding area. (See photo 16, Appendix B)

The Hashimoto agricultural residence located just west of the proposed utility/roadway and north of Lot 2B has one (1) associated retention basin. This basin is located immediately west of the central area of the proposed utility easement. MEV also noted the presence of a residential well used for irrigation purposes next to this retention basin. The retention basin appeared on aerial photographs in the 1960s and was likely only used for diversified crop irrigation on the farm.

MEV did not identify any outdoor wastewater sumps, dry wells, discharge-drains or retention basins on the subject property.

Future developers should be aware of the potential for contaminants to enter nearby drainage ways (Kulanihakoi Gulch) or storm water discharge drains and drainage systems. Products of concern relating to any future development project would be earthen material (silt), oils, antifreezes and other fluids from automobile or on-site machinery, or leaks from on-site stocked items.

Any future grubbing or grading activity that may take place on the survey area (especially if > 1 acre of soil disturbance), both a Maui County Grading Permit and a Department of Health, Clean Water Branch, NPDES (National Pollutant Discharge Elimination System) permit will likely be required. A grading permit is currently open for the subject property for (2) 3-9-001:016, 170 and 171. The permit number is G 20120039 and was issued April 12, 2012 and expires April 18, 2014. The proposed construction activities for the survey area require a NPDES permit. A concrete stormwater drainage diversion ditch exists on the survey area along the western property boundary indicating that stormwater runoff will enter navigable waters. The unnamed gulch on the survey area also leads toward the concrete ditch. The immediately adjacent Kulanihakoi Gulch also carries runoff toward the Pi'ilani Highway culvert system. Pi'ilani Promenade was awarded a NGPC (Notice of General Permit Coverage) from the DOH. This permit expired as of October 21, 2012. However, Pi'ilani Promenade has filed for an extension and this was granted by the DOH.

#### 5.5.6 Wells

One (1) registered well is listed for the subject property. The well is owned by Kaonoulu Ranch and is listed as "Kaonoulu Irrigation 1". This well is used for irrigational purposes only and will be used for irrigation for the proposed construction project.

According to the EDR, twenty-two (22) wells exist within the searchable distance of 1-mile from the survey area. Eighteen of these well are used for irrigation, one is used for agricultural purposes, one is unused at this time and two are listed as "other". (See the EDR in Appendix B for more details.)

From MEV's observations and database search, there are no other production, domestic, abandoned, irrigation or monitor wells located on the survey area. See Figure 1, Appendix A and EDR with GeoCheck, Appendix B.

#### 5.5.7 Septic and Cesspool Systems

The subject property is essentially undeveloped. This section does not apply. MEV did not obtain evidence of any former septic or cesspool system located on the survey area.

#### 5.6 Non-Scope Considerations

The concerns listed below are not normally considered relevant under CERCLA, however, they may be considered regulated under other environmental laws and ordinances and may present a potential liability to the property owner.

# 5.6.1 Asbestos-Containing Materials (ACM)

The subject property did not have any permanent on-site building structures that would consist of asbestoscontaining materials. MEV was not made aware of any subsurface water lines that could be asbestoscontaining.

#### Background Information:

Asbestos was widely used in building materials and in fire retardant applications up through the 1980s. Asbestos use in the United States did not start to decline until the EPA banned the spray-applied materials

during 1973-1978. Further restrictions on U.S. manufactured asbestos products continued into the 1990s. The EPA ban rule and phase-out of all asbestos-containing materials (ACMs) was to be implemented in stages from 1990 to 1997, but the <u>Rule</u> was overturned in federal court.

Asbestos is a known health hazard causing progressive lung scarring and cancer. Asbestos related conditions usually develop within 15 to 40 years after exposure. Exposed smokers have an increased risk factor of 50 to 90 times that of the non-smoking population.

State and federal rules have established standards for the use and control of ACM. These standards apply to worker protection, notification procedures, renovation/demolition activities, and construction debris (waste) management.

Under the EPA's Asbestos Hazard Emergency Response Act (AHERA), 40CFR763, asbestos-containing material (ACM) is defined as any substance whose asbestos content exceeds one percent (1%) of the total volume as determined by Polarized Light Microscopy (PLM) analysis. Building inspector training, sampling procedures and laboratory analysis are also addressed under this rule. Some aspects of this rule have been extended to public and commercial buildings. The Hawaii Administrative Rules 11-502 have essentially adopted EPA's AHERA standard.

Current OSHA regulations for occupational exposure to asbestos hazards require commercial building owners to *presume* all thermal system insulation, sprayed or textured surfacing materials and asphaltic and vinyl flooring installed in buildings constructed before 1981 to contain ACM. The Federal Occupational Safety and Health Act (OSHA) Construction Standard for Asbestos requires that building owners communicate any potential or actual asbestos hazards (29CFR1926.1101(k)). Owner/Operators must inform in-house employees and any outside contractor (workers) who apply or bid for work in or adjacent to areas known or *presumed* to contain asbestos. Included asbestos materials are Thermal system insulation (TSI), sprayed or troweled-on surfacing materials, and asphalt or vinyl flooring material installed prior to 1981. Hawaii Occupational Safety and Health (HIOSH) under HAR 12-141.1 has adopted the federal standard.

Under EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) 40CFR Part 61, are requirements for renovation and demolition work involving ACM.

# 5.6.2 Lead-Based Paint

The subject property did not have any permanent on-site building structures that would consist of possible lead-based paint materials. MEV did not find any suspect lead-based paint debris within the survey area.

# Background Information:

Lead is a metal element in pure form but is found in other chemical compounds used within manufactured and formulated products. Among these are pipe solder, paint and other coatings and water pipes - items commonly found in older buildings and homes.

Lead becomes toxic to the human body even in low levels by chronic over exposure. The exposure may occur by breathing dust, eating dust (on food, tobacco, fingers, or eating paint chips (children)). Lead poisoning affects the brain and central nervous system; especially susceptible are young children. Lead is also known to impact kidney and liver functions.

The EPA/HUD defines lead-based paint as paint or other coatings containing lead equal to or in excess of 0.5% lead by weight or 1.0 mg/cm<sup>2</sup>. The prevalence of lead-based paint in housing built before 1940 is especially high according to research conducted by the U.S. Department of Housing and Urban Development (HUD). After 1940, its use diminished until 1972 when U.S. manufactured housing paint became regulated at 0.5 percent lead by weight and "banned" in 1978; this means that paint could not be

manufactured and sold for housing use if it contained lead above the U.S. Consumer Products Safety Commission's (CC) 0.06 percent by weight. The "ban" provided a basis for using the cut-off date of 1978 when disclosing the possibility of lead-containing paint in sales and rentals of housing units.

Any detected lead-level in paint below HUD and the CPSC's criteria remains an environmental concern under the U.S. Occupational Safety and Health Administration's (OSHA) Lead Standard for Construction Workers, 29CFR1926.62 and the HIOSH equivalent, HAR 12-148.1. Communication of lead-levels in paint is required for worker safety, when conducting renovation or demolition, and for construction debris (waste) management.

# 5.6.3 Arsenic-Containing Substances

MEV did not observe any on-site structures or any suspect arsenic-containing building materials or waste materials at the time of the site visit.

# Background Information:

Arsenic, like several other heavy metals, tends to accumulate in the body. Ingestion of a small dose may seemingly exert no adverse effect at all, while ingestion of multiple small doses could cause death. In lesser amounts, arsenic-containing compounds cause other health problems, like mottling of the skin, skin lesions, nervous disorder, and severe, irreversible liver damage. Arsenic is a human carcinogen, causing skin tumors when ingested and lung tumors when inhaled.

Arsenic-containing compounds were once used as components of some inorganic pesticides. In the 1940s, these pesticides were used to control insects and rodents.

To protect against exposure to high arsenic concentrations, OSHA requires workers to use air-purifying respirators and to wear protective clothing in areas where airborne arsenic compounds are known to exist.

The Resource Conservation and Recovery Act (RCRA), Subtitle C lists arsenic and arsenic-containing compounds as a hazardous waste. Therefore, construction/demolition debris (waste) management should be conducted in accordance with all Federal, State, and Local regulations. This typically requires waste segregation into construction material and dust/debris waste. Sampling using the Toxicity Leach Characteristic Procedure (TCLP) for arsenic is required for hazardous waste determination.

# 5.6.4 Radon

MEV did not identify any man-made products on the subject property that are known or suspected to emit radioactive decay elements.

# Background Information:

Radon is a colorless and odorless radioactive gas that can produce health effects such as cellular injury. Radon gas can occur in the natural environment as concentrations from certain rocks and geologic conditions have a high radon-emanation potential.

These surface rock types are not known to occur in Hawaii. It is possible that increased concentrations of Radon could occur in regions where geologic fault and volcanic rift zones may release gases from deeper earth sources. However, the State of Hawaii, Department of Health (DOH) has not addressed concerns for any significant levels of gas to occur anywhere in Hawaii. This was based on the 1992 and 1996 DOH investigations conducted in elementary schools throughout the State.

# 5.6.5 Lead in Drinking Water

The subject property is undeveloped. This section does not apply.

# 5.6.6 Ecological Resources, Endangered Species, Cultural and Historic Resources, and Wetlands

There are no known wetlands, critical habitats, or threatened and/or endangered species on the project site. The survey area is <u>not</u> located within the County of Maui's Special Management Area (SMA).

Rock piles were noted on the subject property, however, their significance, if any, is unknown to MEV. According to a Phase I ESA of the survey area conducted by VEC, in 1994 Xamanek Researchers and Munekiyo, Arakawa & Hiraga, Inc. conducted an archaeological inventory surveys, for the subject property. This report documented a total of twenty-one (21) archaeological sites, twenty (20) of which were assigned State Inventory of Historic Places numbers. Of these sites, nineteen (19) were deemed significant for information content and have had sufficient data collected rendering them complete with no further archaeological work necessary. One (1) petroglyph was found on the premises, removed and slated for permanent preservation in a separate location. Based on Munekio's findings, the subject property underwent a historic preservation review by the State Historic Preservation Division in 2007. This more recent investigation concluded that no historic properties will be affected by the proposed intended property use.

# 5.6.7 Indoor Air Quality

The subject property is undeveloped. This section does not apply.

# 5.6.8 High Voltage Transmission Lines

MEV did not identify any high voltage overhead transmission lines on the subject property. Electrical transmission lines run on the south side of Ohukai Road leading toward Pi'ilani Highway.

# MEV, LLC

# 6.0 INTERVIEWS

MEV conducts interviews with persons that may have specific knowledge on the subject property and any land use activities that may have operated on-site in the past or continue to currently operate on the subject property. Interviews are also an effective tool to better understand the overall historical regional and local setting of the survey area. Whenever possible, MEV attempts to interview the present and past owner(s), site manager, occupants, local government officials and other relevant contacts. See also Section 8.3.

# 6.1 Interview with the Property Owner

In MEV's 2010 Phase I Environmental site investigation of the subject property, information provided by the client representative in the Preliminary Environmental Investigation, Douglas Gray of Pi'ilani Promenade LLC c/o Eclipse Development Group was not aware of any environmental liens, proceedings, or investigations against the subject property as of the date of the 2010 ESA.

The property owner representative, Mr. Charlie Jencks, completed an updated environmental investigation form for this ESA. The completed questionnaire is attached in Appendix B.

# 6.2 Interview with Current Property Owner Representative

In 2010, MEV conducted a previous Phase I ESA on a portion of the current survey area. For the previous ESA, MEV spoke with Mr. Charlie Jencks of Maui Industrial Partners, LLC, (former owner) representative for the survey area. Mr. Jencks informed MEV that the survey area was purchased from Kaonoulu Ranch in 2005. To his knowledge, the historic baseyard located at the northwestern corner of the property did not have any significant spills and did not store bulk amounts of hazardous substances/materials.

Mr. Jencks provided valuable information for this current Phase I ESA. Mr. Jencks provided MEV with permit information, the on-site well information, a subdivision map and property boundary information. Mr. Jencks told MEV that a portion of the property is slated for the development of 200 residential units, a waterline easement and water tank, and a utility easement. Mr. Jencks also informed MEV that the on-site baseyard contains construction materials for Pi'ilani Promenade and that currently there is no bulk storage of petroleum products and/or hazardous materials on the premises. The on-site well was drilled with State permits and is intended for irrigation use in the project. As for the unnamed drainage way, the small one traversing the property will be routed across the top on Kaonoulu Ranch property and then down the right of way for East Kaonoulu Street to its current transition under Pi'ilani Highway. Mr. Jencks informed MEV in the updated Environmental Investigation that the he is not aware of any recognized environmental conditions on the survey area.

# 6.3 Interview with Previous Property Owner Representative

MEV spoke with Mr. Doug Peterson of Kaonoulu Ranch, the previous property owner representative. Mr. Peterson informed MEV that Kaonoulu Ranch purchased the survey area in 1916 from the Cornwell family. Mr. Peterson said that during Kaonoulu Ranch ownership, the subject property was only used for cattle grazing and ranch land. No above ground storage tanks, underground storage tanks or pesticides were used on the premises. Mr. Peterson also informed MEV that prior to their ownership the land was also used for cattle grazing and ranch land since the 1800s.

# 6.4 Interview with Adjoining Property Lessee

MEV spoke with Mr. Dan Clegg, the Land and Resource Manager with Monsanto. Mr. Clegg informed MEV that Monsanto began using the former Hashimoto agricultural plot located to the east of the proposed utility easement during the late 1990s. Mr. Clegg said that historically, one 250-gallon diesel tank was stored on the Monsanto seed farm site, but is no longer present. No spills have been associated with this

former tank. Mr. Clegg also mentioned that there were crop chemicals stored in a shipping container located on the northern side of the seed farm site. He is unsure if they are still present. All chemicals used are commercially available products specifically labeled for crops and commercially identified for farming. Monsanto is not licensed for experimental use product. Mr. Clegg is not aware of any spills or recognized environmental conditions associated with the seed farm site.

# **6.5 Other Persons Interviewed**

A list of any additional persons interviewed during the course of this investigation is located in Section 8.3. None of these persons interviewed had any specialized knowledge of the site relating to *Recognized Environmental Conditions* on the survey area.

# MEV, LLC

# 7.0 FINDINGS, OPINIONS, AND CONCLUSIONS

# 7.1 Recognized Environmental Conditions

*Recognized environmental conditions*, as defined by ASTM Standard E1527-05, are the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

**Recognized environmental conditions** are described with regard to (1) the nature and extent of the environmental condition, (2) potential or actual environmental threat, (3) potential for transport (migration) of any environmental conditions, and (4) consideration for further investigation. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

MEV has performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of the ASTM Practice E 1527-05 for the subject property, mostly located mauka (toward the mountain) of Pi'ilani Highway (State Highway 31), between the Kihei Commercial Center and Kulanihakoi Gulch and due east of Kaonoulu Street's eastern terminus. Proposed utility easements included in the survey area are located along a gravel lane south of Ohukai Road and extend farther east immediately south of the Monsanto Seed Farm site. The survey area is located in the northern portion of Kihei, Maui, Hawaii.

The site consists of eight (8) parcels of land in their entirety and portions of three (3) land parcels, with a total measurement of approximately 101 acres in total area. The site is further described on the Tax Maps of the State of Hawaii as follows:

Division 2, Zone 3, Section 9, Plat 1, Parcel 16 (Lot 2A), 169 (Lot 2B), 170 (Lot 2C), 171 (Lot 2D), 172 (Lot 2E), & 34 (portion). The site also includes Division 2, Zone 2, Section 2, Plat 2, Parcels 16 & 82 (portions) and parcel 77, Division 2, Zone 3, Section 9, Plat 1, Parcel 48, and Division 2, Zone 3, Section 9, Plat 48, Parcel 122.

Any exceptions to or deletions from this practice are described in Section 1.4, Limitations and Exceptions, of this report.

# This assessment has revealed <u>no</u> evidence of *recognized environmental conditions* in connection with the property.

# 7.1.1 Database Listings (See Section 4.0 & EDR Report, Appendix B)

# Findings/Concerns:

Our records review did not discover any current investigation of the survey area under any programs conducted by a federal, state, or local environmental agency.

Two (2) potential risk sites, listed as State Hazardous Waste Sites (SHWS) were identified within a 1-mile radius of the survey area.

Selland Construction, Inc. located at 454 Ohukai Road had a confirmed release in 1994 of diesel fuel and oil due to overfill, equipment maintenance and construction. This area, once called "Ohukai Baseyard" was likely the construction baseyard for the residential subdivision now located immediately northwest of the subject property. According to the EDR and the HEER Office, the case number is 19940218 and was given a "low priority" site status. The initial assessment revealed "hazardous conditions" and as of 1994, the area was continually monitored by Haleakala Ranch.

Kihei Chevron located at 1281 S. Kihei Road is listed as a SHWS due to a station spill.

Two (2) UST sites are located within the searchable distance of 0.25-mile from the survey area. *NCT LLC* (*Shell Station*) and *Kihei Minit Stop* both have in-use USTs.

# **Opinions/Conclusions:**

According to the HEER Office's response to MEV's inquiry regarding the Selland Construction incident, the case has been listed as "Site On-Scene Coordinator No Further Action" SOSC NFA. Based on the gathered information, MEV concludes that this incident did not have any adverse effect on the subject property. The area where this occurred is now a residential subdivision, further indicating that this site has indeed been cleaned up and properly managed.

The above-noted Kihei Chevron site is listed as of 2004 as having received a "No Further Action". MEV does not believe this site would have environmentally adversely affected the subject property due to the distance from the survey area and the down-gradient proximity.

Due to the distance from the survey area and the current listing with the DOH (non-LUST sites), the listed UST sites are not anticipated to negatively impact the subject property at this current time.

It should be noted that the Shell station was constructed in 2007 and is located immediately adjacent to the northwestern corner of the survey area. Currently, this facility is not listed as a LUST site. Due to the close proximity and the slightly higher elevation of the gas station with respect to the survey area, this facility may pose a negative impact to the environmental condition of the subject property if in the future a leak of the underground storage tanks should occur.

# **7.1.2 Current and Historic Use or Storage of Hazardous and Regulated Substances** (See Sections 5.3.1 & 5.3.2)

# Findings/Concerns:

There is no evidence of any historic misuse or significant spills of hazardous or regulated substances on the subject property. The Hashimoto family historically cultivated crops north of Lot 2B and 2C. The Monsanto Seed Farm is located immediately north of the proposed waterline easement. The use of limited quantities of pesticides is likely associated with crops in these locations. A small, unnamed gulch transects the Monsanto Seed Farm and continues southwest dissecting the survey area in the north-central area and leads toward Pi'ilani Highway. It is possible that during a heavy rain event, runoff from this cultivated area may cause limited pesticide contaminants to enter the subject property.

Aerial photos indicate that agricultural activities occurred north of the subject property from the early 1960s up until the mid-2000s. Presently, limited diversified agricultural activities continue on the residential property located immediately west of the proposed utility/roadway easement off of Ohukai Road. It is unlikely that the operations of this cross-gradient property have significantly impacted the environmental condition of the subject property. Monsanto began seeding operations during the late 1990s. According to the Land and Resource Manager for Monsanto, the chemicals used on the crop are labeled farm chemicals that are publically available for common use. Monsanto is not licensed for experimental crop use products.

MEV observed no hazardous/regulated substances and/or petroleum products not in connection with identified current uses as visually and physically observed on the property at the time of the site visit.

# **Opinions and Conclusions:**

According to Hawaii Administrative Rules, Chapter 128D Environmental Response Law, the presence of agricultural chemicals, resulting from the legal application of a pesticide product, does not constitute a release of a hazardous substance and is not considered a *recognized environmental condition*.

While the use of pesticides and herbicides on the adjoining property will not necessarily result in adverse impacts to the environmental condition of the survey area, it is possible (yet unlikely) for residual amounts of these substances to accumulate to concentrations that present a potential threat to human health or the environment. However, due to the small scale size of agricultural activity on the northern adjoining lot, and its cross gradient location relative to the subject property, it is unlikely that pesticide levels on the subject property (soil or groundwater) are above regulated levels. Groundwater sampling and laboratory testing would provide additional information to evaluate potential environmental effects from these agricultural activities. A standard proactive procedure, which is recommended by the State Department of Health, would be to conduct such a survey prior to future development of this site, especially any residential development. There is, however, no regulatory requirement to conduct this sampling. Groundwater sampling and laboratory analyses should be conducted if the groundwater resource is to be used for a potable water source in the future.

# 7.2 Other Environmental Concerns

The concerns listed below may not be considered *recognized environmental conditions* by ASTM definition. However, they may be considered regulated under other environmental laws and ordinances and may present a potential liability to the property owner.

# 7.2.1 Solid Waste Management (See Section 5.5.4)

# Findings/Concerns:

MEV observed limited solid waste dumping on the survey area. The majority of the solid waste material found consisted of limited amounts of household refuse, discarded furniture, plastic bags, wax paper seed bags, landscape debris piles, construction materials and several boulder piles/boulder berms. Regulated items found on the survey area included two (2) automobile tires and two (2) derelict vehicles.

# **Opinions and Conclusions:**

Any waste disposal should be in a permitted solid waste landfill or recycled/managed in a manner that complies with all local, state, and federal regulations as applicable to the specific waste type with special attention given to regulated items.

Some wastes may be considered "Special Wastes" according to the Hawaii Administrative Rules (HAR) on Solid Waste, Title 11, Chapter 58.1. Special wastes are those wastes that do not fit in the mixed municipal solid waste (MMSW) category, either by general nature or because of special handling requirements. Special waste categories include: asbestos, sludge, medical waste, used oil, batteries, agricultural wastes, tires, derelict vehicles and white goods (i.e., appliances). Locally, the County of Maui, Department of Public Works, Solid Waste Division administers the disposal of these materials. These wastes need to be disposed of in a permitted solid waste landfill such as the Maui County Central Landfill. Special wastes' management needs to be performed in a manner that complies with all local, state, and federal regulations as applicable to the specific waste type.

Regarding the boulder debris piles/berms, it is important to note that if additional clearing of the property commences and large amounts of construction debris or unidentifiable substances (containers/drums) are discovered, proper waste identification, testing and applicable waste handling/disposal procedures are followed.

# 7.2.2 Surface Waters and Area Aquifer Protection (See Section 5.5.6)

# Findings/Concerns:

The property owner should be aware of the potential for contaminants to migrate off-site and into nearby storm water drains. Products of concern would be silt, oils, antifreezes and other fluids from automobile or on-site machinery.

# **Opinions and Conclusions:**

In order to minimize the regulatory profiling of the survey area as a potential responsible party for any newly discovered groundwater or surface water contamination, property managers should consider implementing conservative, proactive environmental policies for the current and future tenants.

The conclusions stated above should not be construed to mean that any regulatory agency would have the same opinion as this author, nor is any implication proposed therefrom.

The results of this environmental assessment are intended for general reference purposes only and are not intended as legal advice. The advice of legal counsel should be sought in regard to individual facts, circumstances and interpretation of environmental liability.

**MEV, LLC** 

# 8.0 REFERENCES

# 8.1 Published References

- 1. American Standard of Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, E1527-05, 2005.
- 2. "Atlas of Hawaii", 2<sup>nd</sup> Edition, Department of Geography, University of Hawaii at Hilo, 1983, University of Hawaii Press.
- 3. "Atlas of Hawaii", 3<sup>rd</sup> Edition, Department of Geography, University of Hawaii at Hilo, 1998, University of Hawaii Press.
- 4. County of Maui, Real Property Tax Division, Historical Records for TMK Number (2) 3-9-001:34 (portion), (2) 3-9-001: 016, 169, 170, 171, 172, (2) 2-2-002: 016, 82 (portions), and (2) 2-2-002: 77.
- 5. Hawaii Administrative Rules, Title 11, Department of Health, Chapter 58.1, Solid Waste Management Control.
- 6. State of Hawaii, Department of Health, Solid and Hazardous Waste Branch, Underground Storage Tank Section, List of Leaking Underground Storage Tank Release Sites, April 2013.
- 7. State of Hawaii, Department of Health, Solid and Hazardous Waste Branch, Underground Storage Tank Section, List of Underground Storage Tank Facilities, April 2013.
- 8. State of Hawaii, Department of Health, Voluntary Response Program (VRP), List of Voluntary Response Program Sites, April, 2013.
- 9. State of Hawaii, Department of Health, Office of Hazard Evaluation and Emergency Response, List of Release Notifications, April, 2013.
- 10. State of Hawaii, Department of Health, Office of Hazard Evaluation and Emergency Response, List of Sites List, April 2013.
- 11. State of Hawaii, Department of Land and Natural Resources, Registered Wells and Dry Wells.
- 12. State of Hawaii, Department of Land and Natural Resources, "State of Hawaii Water Quality Plan and Groundwater Map", June 1990, Revised December 1991.
- 13. U.S. Department of Agriculture, Soil Conservation Service, "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii", 1972.

# 8.2 Map and Other References

- 1. Environmental Data Resources, Inc., "The EDR Radius Map<sup>TM</sup> Report with Geocheck<sup>®</sup>,", July 29, 2013.
- 2. Federal Emergency Management Agency, "Flood Insurance Rate Map", Numbers #15003 0580E dated September 25, 2009 and MAP #150003 0586E dated September 25, 2009.
- 3. Sanborn Maps (no coverage).
- 4. U.S. Geological Survey, 7.5 Minute Topographic Map, Pu'u O Kali Hawaii 1983 & 1992.
- 5. <u>http://www.mauipropertytax.com/Main/Home.aspx</u>

# 8.3 Record of Personal Communications

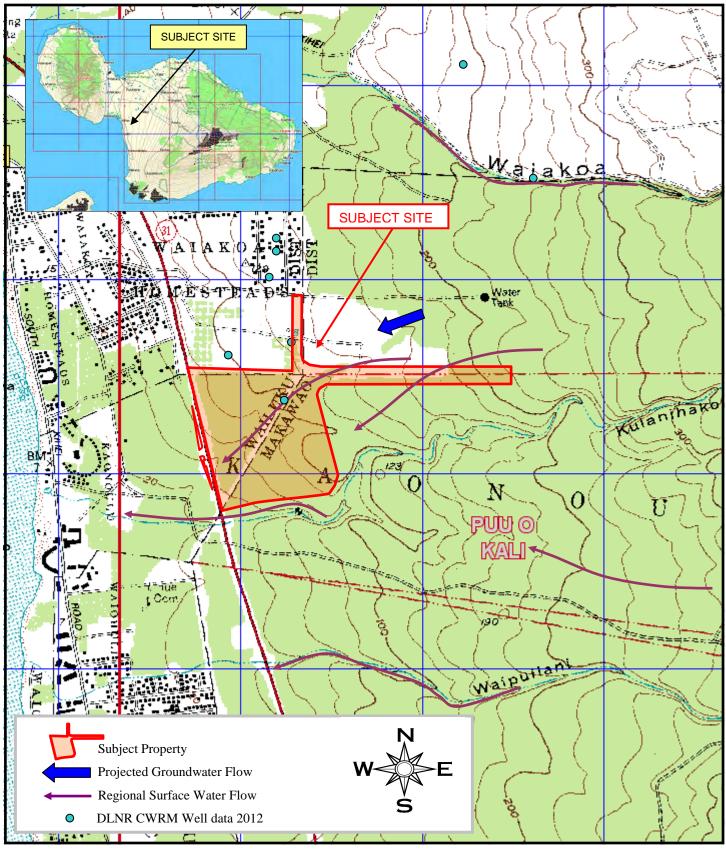
Table 3.0. List of personal Interviews conducted by MEV.				
Date	Interviewee	Title & Organization	Address	Phone Number
7/29/13	Mr. Charlie Jencks	Current property owner representative – Pi'ilani Promenade LLC	2111 Pi'ilani Highway Kihei, HI 96753	(808) 250-3178
8/2/13	DOH personnel	Clean Water Branch	919 Ala Moana Blvd., Rm 206 Honolulu, Hl 96814	(808) 586-4309
8/6/13	Mr. Dan Clegg	Monsanto Land and Resource Manager	2111 Pi'ilani Highway Kihei, HI 96753	(808) 283-4028
8/4/10	Mr. Douglas Gray	Client – Pi'ilani Promenade, LLC c/o Eclipse Development Group	17802 Sky Park Circle Suite 200 Irvine, CA 92614	(949) 251-1161
8/12/10	Mr. Charlie Jencks	Current property owner representative – Maui Industrial Partners, LLC	2111 Pi'ilani Highway Kihei, HI 96753	(808) 250-3178
8/12/10	Ms. Lauren Tokura	Clean Water Branch	919 Ala Moana Blvd., Rm 206 Honolulu, HI 96814	(808) 586-4309
3/25/10	HI DOH HEER Office	HEER personnel	919 Ala Moana Blvd., Rm 206 Honolulu, Hl 96814	(808) 586-4249

# **MEV, LLC**

# **Appendix A:**

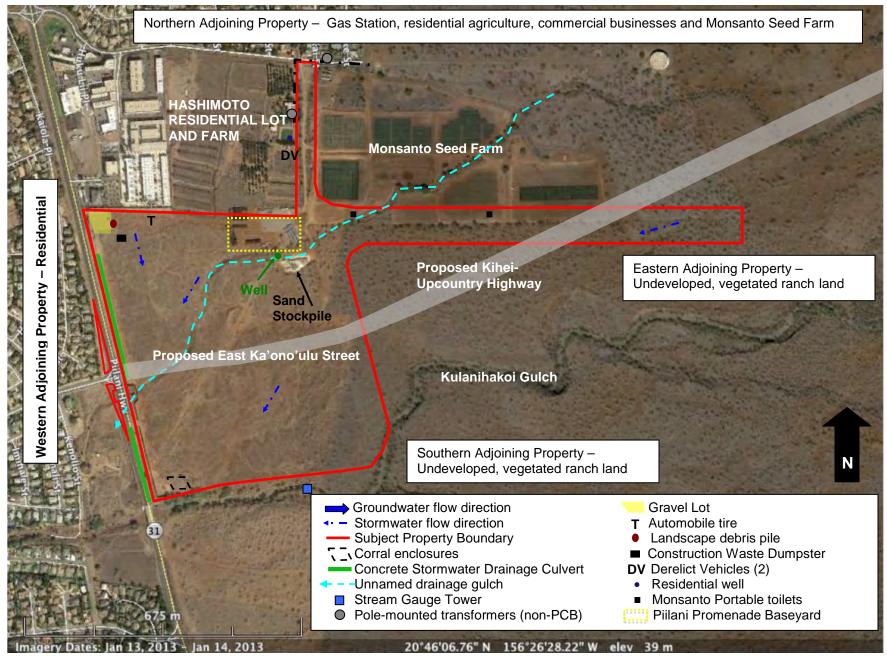
Maps, Plans, and Photographs

# FIGURE 1: REGIONAL SETTING MAP

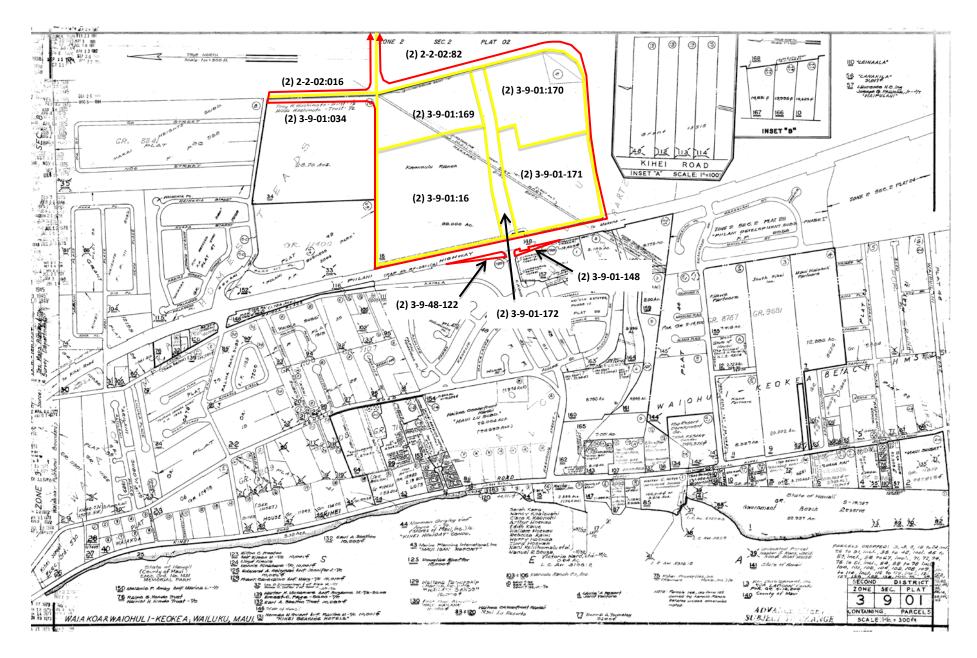


3 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS

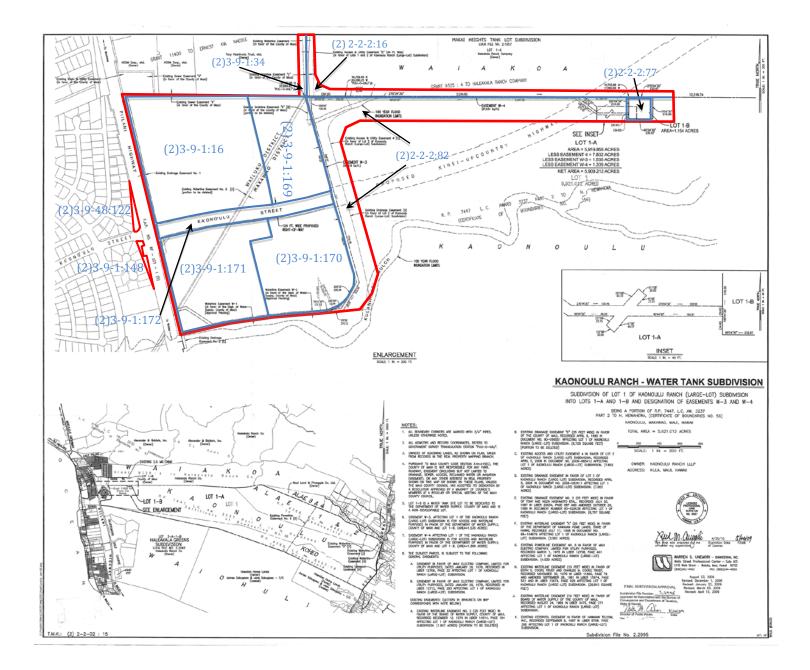
# FIGURE 2: SITE MAP



# FIGURE 3: TAX MAP KEY



# FIGURE 4: SUBDIVISION PLAT MAP



# <u>PHOTO 1</u>

Aerial view of the subject property and the immediate adjoining areas.

Photo source: Google Earth Photo date 2013.

# <u>PHOTO 2</u>

Easterly view of the west site access entrance off of Piilani Highway located along the western property boundary.

# <u>PHOTO 3</u>

Southerly view along the western boundary. This photo was taken from the gravel lot in the northwest corner of the main portion of the Subject Site. Goodfellow Bros., Inc. has installed a 12foot dust fence along the western property boundary in preparation for development.

SUBJECT PROPERTY



# <u>PHOTO 4</u>

Easterly view along the northern property boundary. This photo was taken from the gravel lot in the northwest corner of the subject site. The waste dumpster in the photo is filled with construction debris such as wood and cardboard and does not appear to contain any hazardous materials.



# <u>PHOTO 5</u>

Westerly view along the northern property boundary. This photo was taken from the northeast corner of Parcel 169. The construction materials in the back of the photo are part of the Piilani Promenade Baseyard. Baseyard materials consist of concrete drain blocks, iron and plastic irrigation piping, two meta storage containers, and one empty water tanker.

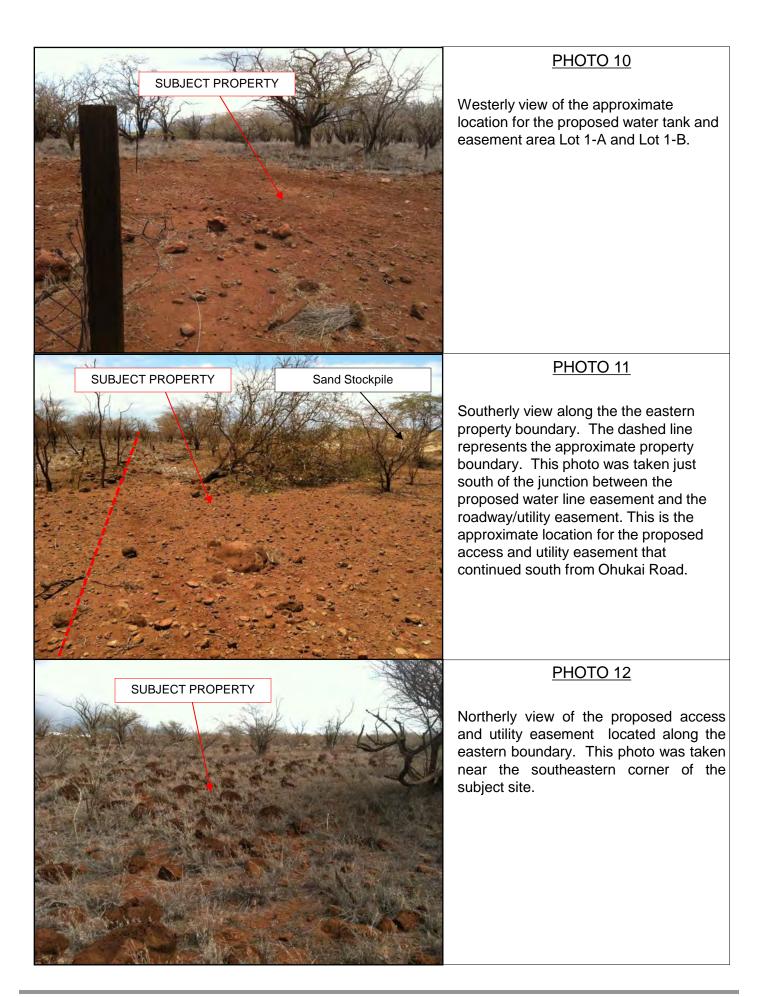


# <u>PHOTO 6</u>

Northerly view along the proposed roadway and utility easement that leads toward Ohukai Road. The Monsanto Seed Farm is located east of the gravel road. The Hashimoto residential/agricultural land is located to the west.



MEV PROJECT #1307-0292







# <u>PHOTO 16</u>

View of the concrete drain culvert located along the western property boundary. This culvert runs along the length of the western boundary and has two drainage areas leading beneath Piilani Highway.

# <u>PHOTO 17</u>

View of the Piilani Promenade Baseyard located in the northeast corner of Parcel 169. The baseyard consists of construction materials for water culvert and drain line installation.

# <u>PHOTO 18</u>

Above-ground storage tanker associated with the on-site baseyard. This tanker likely only contained water and is currently empty.



# <u>PHOTO 19</u>

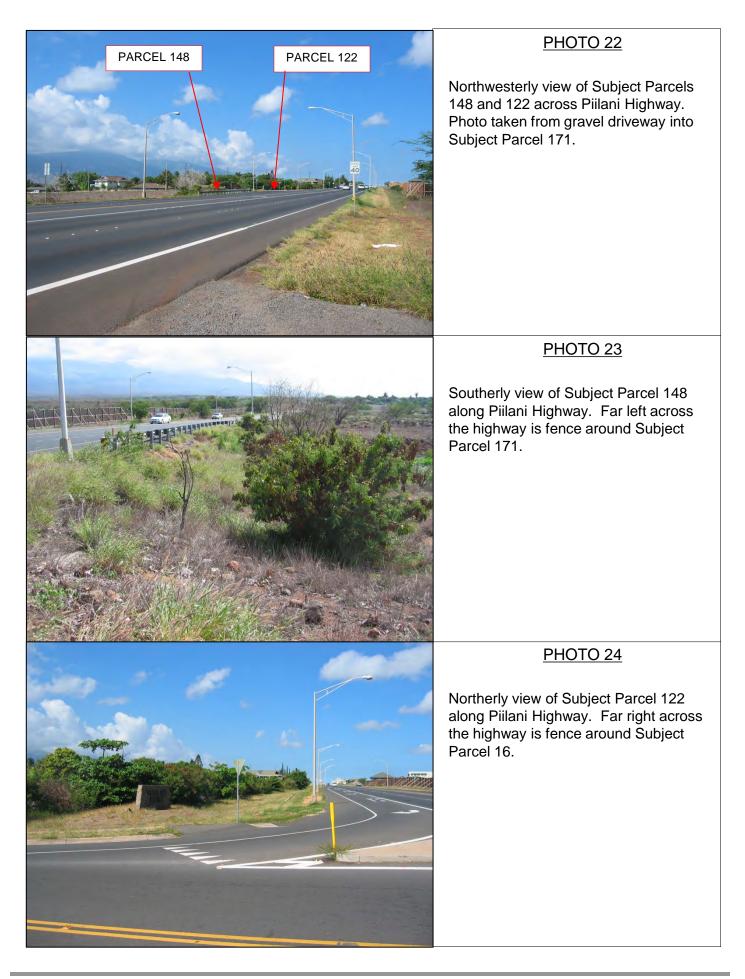
Westerly view along the proposed water line easement near the Monsanto Seed Farm. Note the paper bag debris collected near the barbed wire fence. These paper bags were used by Monsanto to prevent cross-fertilization in their seed crops. Large amount of these bags can be found along the southern boundary of the proposed water line easement.

# <u>PHOTO 20</u>

Derelict vehicles found immediately adjacent to the proposed roadway and utility easement south of Ohukai Road. These vehicles are likely associated with the adjoining residential/agricultural lot west of this easement. MEV did not note any surface staining on the subject –site associated with these vehicles.

# <u>PHOTO 21</u>

Water source located just north of the stockpiled sand near the northeast corner of Parcel 169.



MEV PROJECT #1307-0292

# **Appendix B:**

# Regulatory Records Documentation Site Specific Documentation



# PRELIMINARY INFORMATION FOR ENVIRONMENTAL INVESTIGATION

According to ASTM Standard 1527-05, the user's (or client's) responsibility in this investigation is to help identify the possibility of recognized environmental conditions in connection with the property. In order to qualify for one of the Land Owner Liability Protections (LLPs) offered by the small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Please assist us by responding to the following request for ASTM required data and other MEV requested information you may have, or of which you may have some specialized knowledge. This questionnaire will be included in the Appendices of the final report as an indication of user assistance.

	<ul> <li>Title Information (Current, and any previous ownership.)</li> <li>Property Legal Description (If <u>Title Information</u> is not available)</li> <li>Tax Map and/or Site Development Drawing/Plat</li> <li>Special Property Information (Well development data, endangered species listings, historical registration or environmental deed restrictions.)</li> <li>Real Estate Appraisal Report</li> </ul>
Pleas	se provide the following information to the best of your ability:
1.	Environmental clean-up liens that are filed or recorded against the site (40 CFR 312.25) Are you aware of any environmental clean up liens against the <i>property</i> that are filed or recorded under federal, tribal, state or local law?
2.	Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?
3.	Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). As the user of this ESA, do you have any specialized knowledge or experience related to the <i>property</i> or nearby

As the user of this ESA, do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?



# MALAMA Environmental

4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

5. Commonly known or reasonably ascertainable information about the property if it were not contaminated (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the property that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as user,

- a) Do you know the past uses of the property?
- b) Do you know of specific chemicals that are present or once were present at the property?\_\_\_\_
- c) Do you know of spills or other chemical releases that have taken place at the property?\_
- d) Do you know of any environmental cleanups that have taken place at the property?\_\_\_\_
- 6. The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?

# Additional Information Request:

- 1. Name of Current Owner: <u>SAROFIM REAUTY</u> ADVISORS
- 2. Name of Former Owner: MAUL INDUSTRIAL PAPTNERS, MC

NU

3. Environmental Site Assessments (ESA): Are you aware of any previous assessments: Phase I/II ESAs Cleanup Closure Reports, Permit Characterization Reports, etc. conducted on the subject site or within the immediate area? If yes, please supply details.

4. Local-State-Federal Inspections: Are you aware of any environmental inspections conducted by any regulatory agency, i.e., Hawaii Dept. of Health (Environmental Health Services), OSHA, U.S. Army Corps of Engineers, Department of Land & Natural Resources, Fish & Wildlife Services, HUD, EPA, or County Wastewater or Solid Waste Division of the Public Works/Waste Management Department etc.? If yes, please supply details.

5. Structures/Buildings: Are there any as-built or other construction drawings available for review? Contact Name and Telephone Number:\_\_\_\_\_ YES, CIVIL LONSTRUCTION PLANS, C. JE 250-31 Site improvements? (Renovation Date & Extent) \_\_\_\_\_ NONE 6.

7. Proceedings Against the Property: Are you aware of any administrative or legal proceedings against the property for environmental concerns i.e., Compliance Orders, Notices of Violation? If yes, please supply

MEV Environmental Investigation - Prelim Info..doc



details.\_\_

8. Specialized Historic Information: Are you aware of any previous owner, neighbor, business affiliate or other individual who might have knowledge of any special or unusual historic use of. and/or previous operations conducted on the subject property? Contact Name and Telephone Number:\_\_\_\_\_\_

# CHARLES JENCES 250-3178

This Phase I ESA Report is being prepared for: Attention: <b>ROBERT POYNOR</b>	(Please Print)	DENT		
Organization: SARUFIM REALTY	povisors			
Organization: GARUFIM REALTY Address: 8115 PRESTUN RD.	STE 400,	DALLAS, TX	75225	
Phone no.: (214) (92-9227	Fax no			
	1 dx 110	···		

Please List Other Organizations (Lenders) Who Will Require a Listing as "Also Prepared For:" on the Phase I ESA report cover and signature page.

(1) Attention:	N/A	
Organization:	·	
Address:		
(2) Attention:	N/A	
Organization:	•	
Address:		

We will submit 2 signed reports for each project. If additional copies are required, an additional fee will be charged for processing.

Who Prepared This Starter Package Information?

Print Name:	CHARLES JENCKS	Title: ONNER
Company:	GELOND & PECK READ ESTI	ste, uc
Address:	P.O. BOX 5107 KAHUWI,	
Tel. No.:	250-3176	Fax No.:
Signature:	Apr	Date: 7/31/13

# Piilani Promenade

Piilani Highway and Kaonoulu Street Kihei, HI 96753

Inquiry Number: 3679434.2s July 29, 2013

# The EDR Radius Map<sup>™</sup> Report with GeoCheck®

# Prepared using the EDR FieldCheck® System



440 Wheelers Farms Road Milford, CT 06461 Toll Free: 800.352.0050 www.edrnet.com

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# **GEOCHECK ADDENDUM**

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Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
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*Thank you for your business.* Please contact EDR at 1-800-352-0050 with any questions or comments.

# **Disclaimer - Copyright and Trademark Notice**

The EDR FieldCheck<sup>®</sup>System enables EDR's customers to make certain online modifications to the maps and text contained in EDR Radius Map Reports. As a result, the maps and text contained in this Report may have been so modified. EDR has not taken any action to verify any such modifications, and this report and the findings set forth herein must be read in light of this fact. The EDR FieldCheck System accesses user-modified records from previously submitted reports. Any user-modified record from a previous report that is plotted outside the search radius of this report may not be included in this report.

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A search of the environmental records was conducted by Environmental Data Resources, Inc. (EDR). MEV, LLC used the EDR FieldCheck System to review and/or revise the results of this search, based on independent data verification by MEV, LLC. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

# TARGET PROPERTY INFORMATION

# ADDRESS

PIILANI HIGHWAY AND KAONOULU STREET KIHEI, HI 96753

# COORDINATES

Latitude (North):	20.7684000 - 20° 46' 6.24''
Longitude (West):	156.4479000 - 156° 26' 52.44"
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	765714.1
UTM Y (Meters):	2298479.8
Elevation:	79 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: Most Recent Revision: 20156-G4 WAILUKU, HI Not reported

# TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

# DATABASES WITH NO MAPPED SITES

No sites were identified in following databases.

# STANDARD ENVIRONMENTAL RECORDS

# Federal NPL site list

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	

# Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

# Federal CERCLIS list

# Federal CERCLIS NFRAP site List

CERC-NFRAP...... CERCLIS No Further Remedial Action Planned

# Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

# Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

# Federal RCRA generators list

RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator

# Federal institutional controls / engineering controls registries

US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
LUCIS	Land Use Control Information System

# Federal ERNS list

ERNS\_\_\_\_\_ Emergency Response Notification System

# State and tribal landfill and/or solid waste disposal site lists

SWF/LF\_\_\_\_\_ Permitted Landfills in the State of Hawaii

# State and tribal leaking storage tank lists

LUST...... Leaking Underground Storage Tank Database INDIAN LUST...... Leaking Underground Storage Tanks on Indian Land

# State and tribal registered storage tank lists

INDIAN UST...... Underground Storage Tanks on Indian Land FEMA UST...... Underground Storage Tank Listing

# State and tribal institutional control / engineering control registries

# State and tribal voluntary cleanup sites

VCP..... Voluntary Response Program Sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

# State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Sites

# ADDITIONAL ENVIRONMENTAL RECORDS

# Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

# Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

# Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
CDL	Clandestine Drug Lab Listing
	National Clandestine Laboratory Register

# Local Land Records

LIENS 2\_\_\_\_\_ CERCLA Lien Information

# Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	
SPILLS 90	. SPILLS 90 data from FirstSearch

# Other Ascertainable Records

RCRA NonGen / NLR	. RCRA - Non Generators
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
	Radiation Information Database

RAATS. RMP. UIC. DRYCLEANERS. AIRS. INDIAN RESERV. SCRD DRYCLEANERS. COAL ASH EPA. COAL ASH DOE. PCB TRANSFORMER. US FIN ASSUR. EPA WATCH LIST. PRP.	Underground Injection Wells Listing Permitted Drycleaner Facility Listing List of Permitted Facilities Indian Reservations State Coalition for Remediation of Drycleaners Listing Coal Combustion Residues Surface Impoundments List Steam-Electric Plant Operation Data PCB Transformer Registration Database Financial Assurance Information EPA WATCH LIST Potentially Responsible Parties
	Potentially Responsible Parties Aerometric Information Retrieval System Facility Subsystem
2020 COR ACTION	. 2020 Corrective Action Program List . Lead Smelter Sites
Financial Assurance	Financial Assurance Information Listing

# EDR HIGH RISK HISTORICAL RECORDS

# EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

# SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed

Page numbers and map identification numbers refer to the EDR Radius Map report where details data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

# STANDARD ENVIRONMENTAL RECORDS

### State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Health.

An online review and analysis by MEV, LLC of the SHWS list, as provided by EDR, and dated 01/17/2013 has revealed that there are 2 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SELLAND CONSTRUCTION INC, KIHE	454 OHUKAI RD	N 0 - 1/8 (0.028 mi.)	2	8
Lower Elevation	Address	Direction / Distance	Map ID	Page
KIHEI CHEVRON DBA T.A. HUGHES	1281 S KIHEI RD	SSW 1/2 - 1 (1.000 mi.)	9	12

# State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health's Listing of Underground Storage Tanks.

An online review and analysis by MEV, LLC of the UST list, as provided by EDR, and dated 03/05/2013 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NCT LLC	30 MANAO KALA PLACE	NW 0 - 1/8 (0.024 mi.)	A1	7
Lower Elevation	Address	Direction / Distance	Map ID	Page

# EDR HIGH RISK HISTORICAL RECORDS

# **EDR Exclusive Records**

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

An online review and analysis by MEV, LLC of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 5 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	300 OHUKAI RD	N 0 - 1/8 (0.053 mi.)	3	9
Not reported	356 HUKU LII PL	NW 1/8 - 1/4 (0.187 mi.)	7	11
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	476 KAIOLA PL	NW 0 - 1/8 (0.076 mi.)	A4	10
Not reported	560 HALALAI ST	W 0 - 1/8 (0.118 mi.)	5	10
Not reported	43 KOKI PL	NW 1/8 - 1/4 (0.246 mi.)	8	12

Due to poor or inadequate address information, the following sites were not mapped. Count: 15 records.

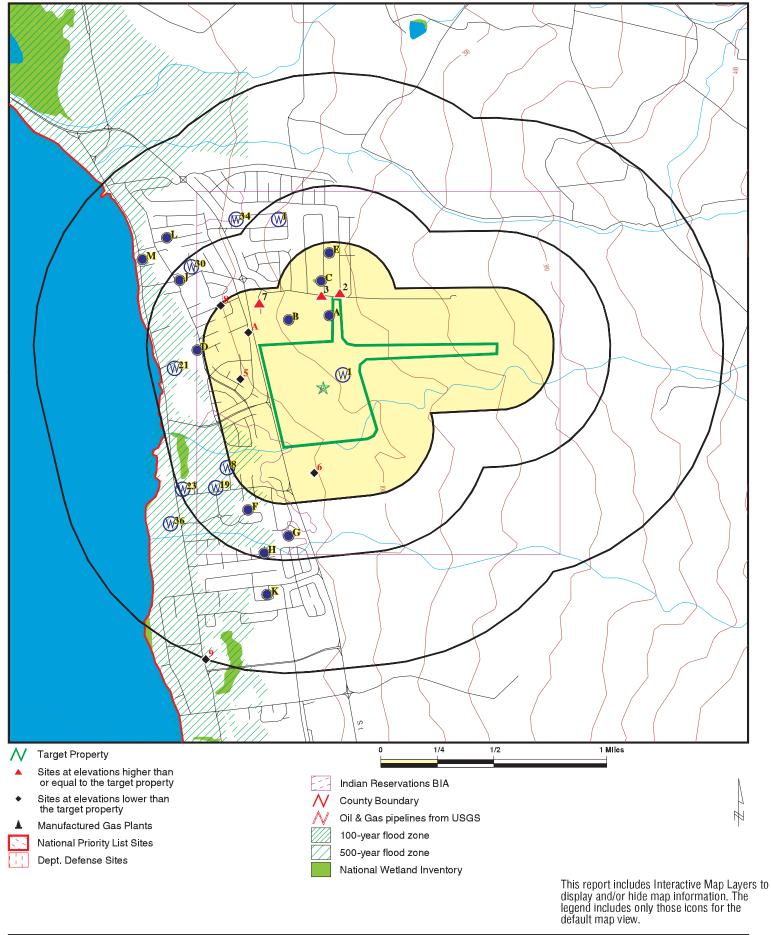
### Site Name

MECO PAD-MOUNT TRANSFORMER NO. 932 MECO PAD-MOUNT TRANSFORMER NO. 156 MAUI ELECTRIC - SUBSTATION 35, KIH MECO GENERATING STATION MAALAEA KIHEI SPS #5 (EAST WELAKAHAO) KIHEI WWTP KIHEI SPS #3 (MENEHUNE SHORES) KIHEI SPS #4 (YE'S ORCHARD) GTE HAWAIIAN TEL NORTH KIHEI REMOT MONSANTO COMPANY US NAVY KAHOOLAWE ISLAND RESERVE LOCATED IN HALE PIILANI PARK MONSANTO PIILANI GREENHOUSE BUILDI PIILANI HIGHWAY INTERIM WIDENING,

### Database(s)

SHWS, ENG CONTROLS, INST CONTROL SHWS SHWS SHWS, SPILLS LUST, UST LUST, UST, Financial Assurance UST UST UST UST UST, Financial Assurance RCRA-SQG RCRA-CESQG FINDS FINDS FINDS

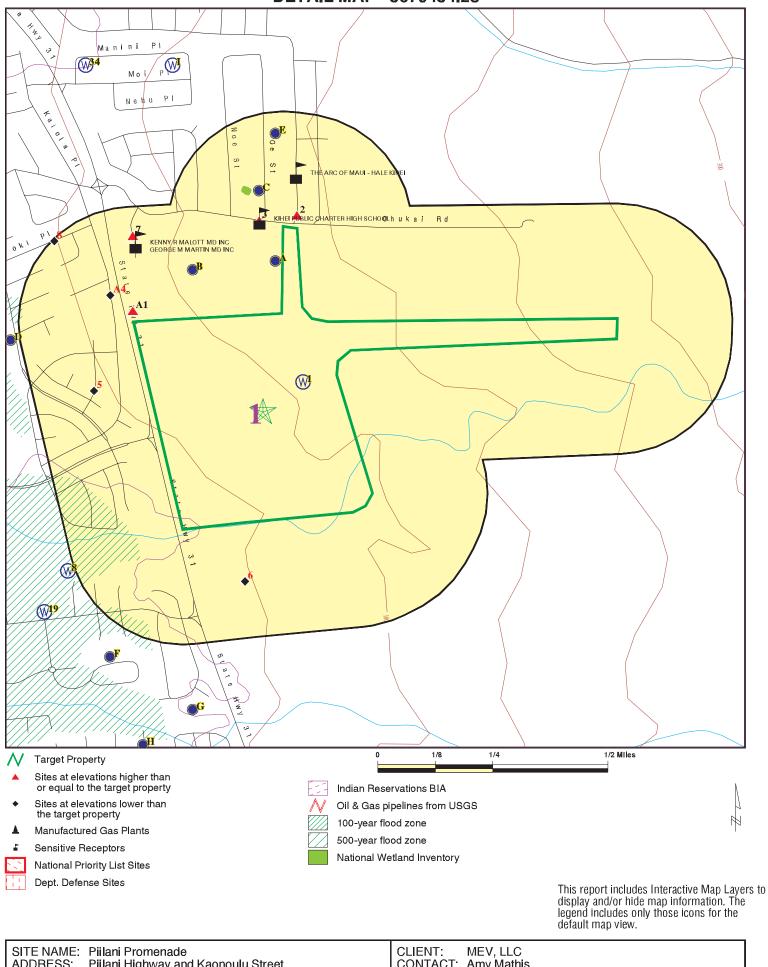
# **OVERVIEW MAP - 3679434.2s**



SITE NAME: Piilani Promenade ADDRESS: Piilani Highway and Kaonoulu Street Kihei HI 96753 LAT/LONG: 20.7684 / 156.4479 CLIENT: MEV, LLC CONTACT: Amy Mathis INQUIRY #: 3679434.2s DATE: July 29, 2013 7:23 pm

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DETAIL MAP - 3679434.2s



ADDRESS: Piilani Highway and Kaonoulu Street Kihei HI 96753 LAT/LONG: 20.7684 / 156.4479 CLIENT: MEV, LLC CONTACT: Amy Mathis INQUIRY #: 3679434.2s DATE: July 29, 2013 7:23 pm

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# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD fa	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls reg								
US ENG CONTROLS US INST CONTROL LUCIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		1	0	0	1	NR	2
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank li	ists						
LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal registere	ed storage tan	k lists						
UST	0.250		1	1	NR	NR	NR	2

# **MAP FINDINGS SUMMARY**

Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
0.250 0.250		0 0	0 0	NR NR	NR NR	NR NR	0 0
nal htrol registrie:	S						
0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
/ cleanup site	s						
0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
lds sites							
0.500		0	0	0	NR	NR	0
TAL RECORDS	<u>5</u>						
0.500		0	0	0	NR	NR	0
US BROWNFIELDS 0.500 0 0 0 NR NR 0 Local Lists of Landfill / Solid Waste Disposal Sites							0
0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
waste /							
TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports							
TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Records							
0.250 TP 1.000 1.000 1.000 0.500 0.250 TP		0 NR 0 0 0 0 0 0 0	0 NR 0 0 0 0 0 0 0	NR NR 0 0 0 0 NR NR	NR 0 0 0 NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 0 0
	Distance (Miles) 0.250 0.250 nal otrol registries 0.500 0.500 v cleanup site 0.500 1ds sites 0.500 1ds sites 0.500 tal RECORDS 0.500 0.250 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0.250 0 0 0 0.0000 0.0000 0.0000 0.000000	Distance (Miles)         Target Property           0.250	Distance (Miles)         Target Property         < 1/8           0.250         0           0.250         0           nal brol registries         0           0.500         0           0.500         0           0.500         0           v cleanup sites         0           0.500	Distance (Miles)         Target Property         < 1/8         1/8 - 1/4           0.250         0         0         0           0.250         0         0         0           0.250         0         0         0           0.250         0         0         0           0.250         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           0.500         0         0         0           TP <td>Distance (Miles)         Target Property         &lt; 1/8         1/8 - 1/4         1/4 - 1/2           0.250         0         0         0         NR           nal htrol registries         0         0         0         NR           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0</td> <td>Distance (Miles)         Target Property         &lt; 1/8         1/8 - 1/4         1/4 - 1/2         1/2 - 1           0.250         0         0         0         NR         NR           0.250         0         0         0         NR         NR           nal trol registries         0.500         0         0         0         NR           0.500         0         0         0         0         NR           0.500         0         0         0         NR           TP         NR         NR         NR</td> <td>Distance (Miles)         Target Property         &lt; 1/8         1/8         1/4         1/4         1/2         1/2         1         &gt; 1           0.250         0         0         0         NR         NR         NR         NR           0.250         0         0         0         NR         NR         NR         NR           nal         itrol registries         0.500         0         0         0         NR         NR           0.500         0         0         0         0         NR         NR           0.500         0         0         0         0         NR         NR           0.500         0         0         0</td>	Distance (Miles)         Target Property         < 1/8         1/8 - 1/4         1/4 - 1/2           0.250         0         0         0         NR           nal htrol registries         0         0         0         NR           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0         0           0.500         0         0         0	Distance (Miles)         Target Property         < 1/8         1/8 - 1/4         1/4 - 1/2         1/2 - 1           0.250         0         0         0         NR         NR           0.250         0         0         0         NR         NR           nal trol registries         0.500         0         0         0         NR           0.500         0         0         0         0         NR           0.500         0         0         0         NR           TP         NR         NR         NR	Distance (Miles)         Target Property         < 1/8         1/8         1/4         1/4         1/2         1/2         1         > 1           0.250         0         0         0         NR         NR         NR         NR           0.250         0         0         0         NR         NR         NR         NR           nal         itrol registries         0.500         0         0         0         NR         NR           0.500         0         0         0         0         NR         NR           0.500         0         0         0         0         NR         NR           0.500         0         0         0

## **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS RADINFO	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	Õ
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
US AIRS 2020 COR ACTION	TP		NR 0	NR	NR	NR NR	NR NR	0
LEAD SMELTERS	0.250 TP		NR	0 NR	NR NR	NR	NR	0 0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		3	2	NR	NR	NR	5
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0

## NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Database(s)

EDR ID Number EPA ID Number

A1 NW < 1/8 0.024 mi.	NCT LLC 30 MANAO KALA PLACE KIHEI, HI 96753		UST Financial Assurance	U004109528 N/A
126 ft.	Site 1 of 2 in cluster A			
Relative: Higher Actual:	UST: Facility ID: Owner:	9-503832 NCT LLC		
80 ft.	Owner Address: Ownder City,St,Zip:	370 Dairy Road Kihei, 96753 96753		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	1 Not reported <b>Currently In Use</b> Not reported 12000 Gasoline		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	2A Not reported <b>Currently In Use</b> Not reported 7000 Gasoline		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	2B Not reported <b>Currently In Use</b> Not reported 4000 Diesel		
	HI Financial Assurance: Alt Facility ID: Tank Id: Tank Status Desc: FRTYPE: Expiration Date: Alt Facility ID: Tank Id: Tank Status Desc: FRTYPE: Expiration Date: Alt Facility ID: Tank Id: Tank Status Desc: FRTYPE: Expiration Date:	9-503832 2B Currently in Use Insurance 06/12/2013 9-503832 1 Currently in Use Insurance 06/12/2013 9-503832 2A Currently in Use Insurance 06/12/2013		

Database(s)

EDR ID Number EPA ID Number

2 North < 1/8 0.028 mi. 147 ft.	SELLAND CONSTRUCTION INC, KI 454 OHUKAI RD KIHEI, HI 96753	HEI BASE Y/	ARD	SHWS SPILLS	S105262951 N/A
	Supplemental Loc. Text:CCase Number:1HID Number:NFacility Registry Id:1Lead and Program:HER:NUnits:SSubstances:ELess Or Greater Than:NNumerical Quantity:N	ame: on: ntamination: Dhukai Rd Bas 19940218-2 Not reported 10013779018 HEER EP&R Not reported	3 ruction Baseyard	HI 96814	

Map ID		MAP FINDINGS		
Direction Distance		Ч		EDR ID Number
Elevation	Site		Database(s)	EPA ID Number
		INC, KIHEI BASE YARD (Continued)		S105262951
	Activity Type:	Response		5105202551
	Activity Lead: Assignment End Date: Result: File Under:	Not reported Not reported Refer to ISST Selland Construction, Inc.		
3 North < 1/8	300 OHUKAI RD KIHEI, HI 96753		EDR US Hist Auto Stat	1015399780 N/A
0.053 mi. 281 ft.				
Relative:	EDR Historical Auto Statio			
Higher	Name: Year:	KIHEI AUTO CLINIC 2001		
Actual: 127 ft.	Address:	300 OHUKAI RD		
	Name:	KIHEI AUTO CLINIC		
	Year: Address:	2002 300 OHUKAI RD		
	Name: Year:	KIHEI AUTO CLINIC 2005		
	Address:	300 OHUKAI RD		
	Name:	KIHEI AUTO CLINIC		
	Year:	2006		
	Address:	300 OHUKAI RD		
	Name:	ERNIES KWIK LUBE AUTO REPAIR		
	Year: Address:	2007 300 OHUKAI RD		
	Name: Year:	ERNIES KWIK LUBE AUTO REPAIR 2008		
	Address:	300 OHUKAI RD		
	Name:	ERNIES KWIK LUBE AUTO REPAIR		
	Year:	2009		
	Address:	300 OHUKAI RD		
	Name:	ERNIES KWIK LUBEAUTO REPAIR		
	Year: Address:	2010 300 OHUKAI RD		
	Address.			
	Name:	ERNIES KWIK LUBE AUTO REPAIR		
	Year: Address:	2011 300 OHUKAI RD		
	Name:	ERNIES KWIK LUBE AUTO REPAIR		
	Year:	2012		
	Address:	300 OHUKAI RD		

Man ID		MAP FINDINGS		
Map ID Direction				
Distance Elevation	Site		Database(s)	EDR ID Number EPA ID Number
A4 NW < 1/8 0.076 mi. 402 ft.	476 KAIOLA PL KIHEI, HI 96753 Site 2 of 2 in cluster A		EDR US Hist Auto Stat	1015512720 N/A
Relative: Lower	EDR Historical Auto Stat Name:	ions: THE OLD GAS STATION INC		
Actual: 71 ft.	Year: Address:	2004 476 KAIOLA PL		
5 West < 1/8 0.118 mi. 623 ft.	560 HALALAI ST KIHEI, HI 96753		EDR US Hist Auto Stat	1015553459 N/A
Relative: Lower	EDR Historical Auto Stat Name:	ions: BP & CO INC		
Actual: 44 ft.	Year: Address:	2006 560 HALALAI ST		
6 South 1/8-1/4 0.127 mi. 673 ft.	KIHEI MINIT STOP 233 PIIKEA AVE233 PIIKE KIHEI, HI 96753	A AVE	UST Financial Assurance	U003762157 N/A
Relative: Lower Actual: 47 ft.	UST: Facility ID: Owner: Owner Address: Ownder City,St,Zip:	9-503629 MAUI PETROLEUM 385 HUKILIKE ST, SUITE 200 Kihei, 96753 96753		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	3 08/31/2000 <b>Currently In Use</b> Not reported 4000 Diesel		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	87 08/31/2000 <b>Currently In Use</b> Not reported 10000 Gasoline		
	Tank ID: Date Installed: <b>Tank Status:</b> Date Closed: Tank Capacity: Substance:	92 08/31/2000 <b>Currently In Use</b> Not reported 6000 Gasoline		

Database(s)

EDR ID Number **EPA ID Number** 

### **KIHEI MINIT STOP (Continued)**

HI Financial Assurance: Alt Facility ID: 9-503629 Tank Id: 3 Tank Status Desc: Currently In Use FRTYPE: Other Expiration Date: Not reported Alt Facility ID: 9-503629 Tank Id: 87 Tank Status Desc: Currently In Use FRTYPE: Other Expiration Date: Not reported 9-503629 Alt Facility ID: Tank Id: 92 Tank Status Desc: Currently In Use FRTYPE: Other Expiration Date: Not reported 9-503629 Alt Facility ID: Tank Id: 3 Tank Status Desc: Currently In Use FRTYPE: Insurance 11/01/2012 Expiration Date: Alt Facility ID: 9-503629 Tank Id: 87 Tank Status Desc: Currently In Use FRTYPE: Insurance 11/01/2012 Expiration Date: Alt Facility ID: 9-503629 Tank Id: 92 Tank Status Desc: Currently In Use FRTYPE: Insurance 11/01/2012 Expiration Date:

## 7

NW 356 HUKU LII PL 1/8-1/4 **KIHEI, HI 96753** 0.187 mi. 985 ft. EDR Historical Auto Stations: **Relative:** Name: **TESORO HAWAII CORP** Higher Year: 2004 Actual: Address: 356 HUKU LII PL 88 ft. **TESORO HAWAII CORP** Name: Year: 2006 356 HUKU LII PL Address: Name: 2 GO TESORO Year: 2007

Address: 356 HUKU LII PL **TESORO SOUTH PACIFIC PETRO** 

Name:

EDR US Hist Auto Stat 1015446291 N/A

U003762157

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

	(Continued)					1015446291
	Year: Address:	2008 356 HUKU LII P	L			
	Name: Year: Address:	TESORO SOUTI 2009 356 HUKU LII P	H PACIFIC PETROLEUM CO L			
	Name: Year: Address:	TESORO 2010 356 HUKU LII P	L			
8 NW 1/8-1/4 0.246 mi. 1298 ft.	43 KOKI PL KIHEI, HI 96753			EDR US Hist Au	uto Stat	1015491488 N/A
Relative: Lower Actual:	EDR Historical Auto Stati Name: Year: Address:		WITH MOBILE SVC			
48 ft.	Name: Year: Address:		WITH MOBILE SERVICE			
	Name: Year: Address:	FROGS REPAIR 2012 43 KOKI PL	WITH MOBILE SERVICE			
9 SSW 1/2-1 1.000 mi. 5279 ft.	KIHEI CHEVRON DBA T.A 1281 S KIHEI RD KIHEI, HI 96753	. HUGHES INC			SHWS SPILLS	S106818529 N/A
Relative: Lower Actual: 10 ft.	SHWS: Organization: Supplemental Location Island: Environmental Interess HID Number: Facility Registry Identi Lead Agency: Program: Project Manager: Hazard Priority: Potential Hazards And Organization: Island: Location Address Line Location Zip Suffix: Supplemental Location SDAR Environmental HID Number: Facility Registry Identi	t: fier: I Controls: 2: n Text: Interest Name:	Not reported Not reported Maui Kihei Chevron Not reported 110013770099 SHWB State Laura Young NFA No Hazard Not reported Maui Not reported Not reported Not reported Kihei Chevron Not reported 110013770099			

Database(s)

EDR ID Number **EPA ID Number** 

### KIHEI CHEVRON DBA T.A. HUGHES INC (Continued)

SHWB Lead Agency: Progran Name: State Potential Hazard And Controls: No Hazard Priority: NFA Assessment: **Response Necessary** Response: **Response Complete** Nature of Contamination: Not reported Nature of Residual Contamination: Not reported Use Restrictions: No Hazard Present For Unrestricted Residential Use **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported Site Closure Type: No Further Action Letter - Unrestricted Residential Use Document Date: 02/24/2004 2004-065-LY Document Number: Document Subject: Release Notification Letter, Kihei Chevron Service Station 1281 Kihei Road, Incident Case Number 200 Project Manager: Laura Young Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

#### HI SPILLS: Island:

ER:

Units: Substances:

Units:

Result:

File Under:

Case Number:

Facility Registry Id:

Lead and Program:

Less Or Greater Than:

Assignment End Date:

Numerical Quantity:

Activity Type: Activity Lead:

HID Number:

Maui Not reported Supplemental Loc. Text: 20030916-1430 Not reported 110013770099 HEER EP&R Not reported Kihei Chevron Service Station Release ID 200309161430 Unknown Not reported Not reported Not reported Response Curtis Martin Not reported SOSC NFA Chevron Products Company

### S106818529

### Count: 15 records.

#### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
KAHOʻOLAWE ISLAND	1001227536	US NAVY KAHOOLAWE ISLAND RESERVE	BASECAMP	96753	RCRA-CESQG
KIHEI	1008212074	LOCATED IN HALE PIILANI PARK	HALE PIILANI PARK		FINDS
KIHEI	U003155105	KIHEI SPS #5 (EAST WELAKAHAO)	N KIHEI RD	96753	LUST, UST
KIHEI	U003222170	KIHEI SPS #3 (MENEHUNE SHORES)	N KIHEI RD	96753	UST
KIHEI	U003222168	KIHEI SPS #6 (KIHEI FIRE HOUSE)	N KIHEI RD	96753	UST
KIHEI	U003222167	KIHEI SPS #4 (YE'S ORCHARD)	N KIHEI RD	96753	UST
KIHEI	S113230486	MECO PAD-MOUNT TRANSFORMER NO. 156	MAKENA SURF RESORT	96753	SHWS
KIHEI	U003732595	GTE HAWAIIAN TEL NORTH KIHEI REMOT	KA ONO ULU ESATE, LOT 15HALALA	96753	UST, Financial Assurance
KIHEI	1006818928	MONSANTO PIILANI GREENHOUSE BUILDI	2111 PIILANI HWY		FINDS
KIHEI	1015933228	PIILANI HIGHWAY INTERIM WIDENING,	PIILANI HIGHWAY FROM MOKULELEL		FINDS
KIHEI	1010316486	MONSANTO COMPANY	2111 PIILANI HWY	96753	RCRA-SQG
KIHEI	S113230474	MAUI ELECTRIC - SUBSTATION 35, KIH	SUBSTATION 35	96753	SHWS
KIHEI	U001236805	KIHEI WWTP	480 WELEKAHAO RD/PIILANI HWY	96753	LUST, UST, Financial Assurance
MAALAEA	S106819074	MECO GENERATING STATION MAALAEA	N KIHEI RD	96753	SHWS, SPILLS
WAILEA	S113230490	MECO PAD-MOUNT TRANSFORMER NO. 932	WAILEA POINT (MANAGER'S OFFICE	96753	SHWS, ENG CONTROLS, INST CONT

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### Federal NPL site list

#### NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/10/2013 Number of Days to Update: 62 Source: EPA Telephone: N/A Last EDR Contact: 05/09/2013 Next Scheduled EDR Contact: 07/22/2013 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

EPA Region 6

EPA Region 7

EPA Region 8

**EPA Region 9** 

Telephone: 214-655-6659

Telephone: 913-551-7247

Telephone: 303-312-6774

Telephone: 415-947-4246

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/10/2013 Number of Days to Update: 62 Source: EPA Telephone: N/A Last EDR Contact: 05/09/2013 Next Scheduled EDR Contact: 07/22/2013 Data Release Frequency: Quarterly

#### NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

TC3679434.2s Page GR-1

#### Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/10/2013 Number of Days to Update: 62 Source: EPA Telephone: N/A Last EDR Contact: 05/09/2013 Next Scheduled EDR Contact: 07/22/2013 Data Release Frequency: Quarterly

#### Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/04/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 03/13/2013 Number of Days to Update: 12 Source: EPA Telephone: 703-412-9810 Last EDR Contact: 05/29/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Quarterly

## FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 10/09/2012 Date Made Active in Reports: 12/20/2012 Number of Days to Update: 72 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 07/08/2013 Next Scheduled EDR Contact: 10/21/2013 Data Release Frequency: Varies

### Federal CERCLIS NFRAP site List

#### CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 03/13/2013 Number of Days to Update: 12 Source: EPA Telephone: 703-412-9810 Last EDR Contact: 05/29/2013 Next Scheduled EDR Contact: 05/09/2013 Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/21/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 6 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

## Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/15/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 12 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

### Federal RCRA generators list

## RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/15/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 12 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

## RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/15/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 12 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

#### RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/15/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 12 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/14/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/29/2013	Telephone: 703-603-0695
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/14/2013 Date Data Arrived at EDR: 03/29/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 42 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 06/10/2013 Next Scheduled EDR Contact: 09/23/2013 Data Release Frequency: Varies

## LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 31 Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 05/20/2013 Next Scheduled EDR Contact: 09/02/2013 Data Release Frequency: Varies

## Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/17/2013 Date Made Active in Reports: 02/15/2013 Number of Days to Update: 29 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

## State- and tribal - equivalent CERCLIS

#### SHWS: Sites List

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 01/17/2013	Source: Department of Health
Date Data Arrived at EDR: 02/28/2013	Telephone: 808-586-4249
Date Made Active in Reports: 04/09/2013	Last EDR Contact: 05/31/2013
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/09/2013
	Data Release Frequency: Semi-Annually

### State and tribal landfill and/or solid waste disposal site lists

#### SWF/LF: Permitted Landfills in the State of Hawaii

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/17/2012 Date Data Arrived at EDR: 04/03/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 37

Source: Department of Health Telephone: 808-586-4245 Last EDR Contact: 07/05/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/05/2013	Source: Department of Health
Date Data Arrived at EDR: 03/06/2013	Telephone: 808-586-4228
Date Made Active in Reports: 04/09/2013	Last EDR Contact: 06/03/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/16/2013
	Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012	Source: EPA Region 1
Date Data Arrived at EDR: 11/01/2012	Telephone: 617-918-1313
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 05/01/2013
Number of Days to Update: 162	Next Scheduled EDR Contact: 08/12/2013
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013	Source: EPA Region 4
Date Data Arrived at EDR: 02/08/2013	Telephone: 404-562-8677
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011 Date Data Arrived at EDR: 09/13/2011 Date Made Active in Reports: 11/11/2011 Number of Days to Update: 59

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/28/2013	Telephone: 913-551-7003
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.		
Date of Government Version: 08/27/2012 Date Data Arrived at EDR: 08/28/2012 Date Made Active in Reports: 10/16/2012 Number of Days to Update: 49	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly	
INDIAN LUST R9: Leaking Underground Storage T LUSTs on Indian land in Arizona, California, N		
Date of Government Version: 03/01/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 42	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly	
INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.		
Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 65	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly	

### State and tribal registered storage tank lists

#### UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/05/2013 Date Data Arrived at EDR: 03/06/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 34 Source: Department of Health Telephone: 808-586-4228 Last EDR Contact: 06/03/2013 Next Scheduled EDR Contact: 09/16/2013 Data Release Frequency: Semi-Annually

## INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012	
Date Data Arrived at EDR: 08/28/2012	
Date Made Active in Reports: 10/16/2012	
Number of Days to Update: 49	
Date Made Active in Reports: 10/16/2012	

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/28/2013	Telephone: 913-551-7003
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

	ndian Land database provides information about underground storage tanks on Indian )klahoma, New Mexico, Texas and 65 Tribes).
Date of Government Version: 05/10/2011 Date Data Arrived at EDR: 05/11/2011 Date Made Active in Reports: 06/14/2011 Number of Days to Update: 34	Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Semi-Annually
INDIAN UST R5: Underground Storage Tanks on I The Indian Underground Storage Tank (UST) land in EPA Region 5 (Michigan, Minnesota a	database provides information about underground storage tanks on Indian
Date of Government Version: 08/02/2012 Date Data Arrived at EDR: 08/03/2012 Date Made Active in Reports: 11/05/2012 Number of Days to Update: 94	Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies
	ndian Land database provides information about underground storage tanks on Indian rgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 02/08/2013 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 63	Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Semi-Annually
	ndian Land database provides information about underground storage tanks on Indian assachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal
Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 11/07/2012 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 156	Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/29/2013 Next Scheduled EDR Contact: 08/12/2013 Data Release Frequency: Varies
INDIAN UST R10: Underground Storage Tanks on The Indian Underground Storage Tank (UST) land in EPA Region 10 (Alaska, Idaho, Oregor	database provides information about underground storage tanks on Indian
Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 65	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly
	ndian Land database provides information about underground storage tanks on Indian waii, Nevada, the Pacific Islands, and Tribal Nations).
Date of Government Version: 02/21/2013 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/12/2013 Number of Days to Update: 45	Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Quarterly

Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground storage tanks.		
Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010 Number of Days to Update: 55	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 07/19/2013 Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Varies	
State and tribal institutional control / engineering	g control registries	
ENG CONTROLS: Engineering Control Sites A listing of sites with engineering controls in pl	ace.	
Date of Government Version: 01/17/2013 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 40	Source: Department of Health Telephone: 404-586-4249 Last EDR Contact: 05/31/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies	
INST CONTROL: Sites with Institutional Controls Voluntary Remediation Program and Brownfields sites with institutional controls in place.		
Date of Government Version: 01/17/2013 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 40	Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 05/31/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies	
State and tribal voluntary cleanup sites		
VCP: Voluntary Response Program Sites Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.		
Date of Government Version: 01/17/2013 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 40	Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 05/31/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies	
INDIAN VCP R1: Voluntary Cleanup Priority Listing A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.		
Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 10/02/2012 Date Made Active in Reports: 10/16/2012 Number of Days to Update: 14	Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 07/02/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies	
INDIAN VCP R7: Voluntary Cleanup Priority Lisitng A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.		
Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008 Number of Days to Update: 27	Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009 Next Scheduled EDR Contact: 07/20/2009	

State and tribal Brownfields sites

#### BROWNFIELDS: Brownfields Sites

With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 01/17/2013 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 40 Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 05/31/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies

## ADDITIONAL ENVIRONMENTAL RECORDS

## Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/10/2012 Date Data Arrived at EDR: 12/11/2012 Date Made Active in Reports: 12/20/2012 Number of Days to Update: 9 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 06/25/2013 Next Scheduled EDR Contact: 10/07/2013 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source:
Date Data Arrived at EDR: 05/07/2009	Telepho
Date Made Active in Reports: 09/21/2009	Last ED
Number of Days to Update: 137	Next Sc

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/26/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: No Update Planned

**ODI:** Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39 Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52 Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 05/03/2013 Next Scheduled EDR Contact: 08/19/2013 Data Release Frequency: Varies

### Local Lists of Hazardous waste / Contaminated Sites

#### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/04/2013	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/12/2013	Telephone: 202-307-1000
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/03/2013
Number of Days to Update: 59	Next Scheduled EDR Contact: 09/16/2013
	Data Release Frequency: Quarterly

#### CDL: Clandestine Drug Lab Listing A listing of clandestine drug lab site locations.

Date of Government Version: 08/04/2010 Date Data Arrived at EDR: 09/10/2010 Date Made Active in Reports: 10/22/2010 Number of Days to Update: 42 Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 06/03/2013 Next Scheduled EDR Contact: 09/16/2013 Data Release Frequency: Varies

## US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009 Number of Days to Update: 131 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 03/23/2009 Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

#### Local Land Records

## LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 04/25/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 15 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

## **Records of Emergency Release Reports**

HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 55

Source: U.S. Department of Transportation Telephone: 202-366-4555 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

#### SPILLS: Release Notifications

Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 01/31/2012 Date Data Arrived at EDR: 02/28/2012 Date Made Active in Reports: 04/04/2012 Number of Days to Update: 36 Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 05/31/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies

#### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 03/10/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013 Number of Days to Update: 39 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

## Other Ascertainable Records

### RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/12/2013 Date Data Arrived at EDR: 02/15/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 12 Source: Environmental Protection Agency Telephone: (415) 495-8895 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012 Number of Days to Update: 42 Source: Department of Transporation, Office of Pipeline Safety Telephone: 202-366-4595 Last EDR Contact: 05/07/2013 Next Scheduled EDR Contact: 08/19/2013 Data Release Frequency: Varies

#### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62 Source: USGS Telephone: 888-275-8747 Last EDR Contact: 07/19/2013 Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Semi-Annually

#### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 03/13/2013 Number of Days to Update: 15 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 06/10/2013 Next Scheduled EDR Contact: 09/23/2013 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2011	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 01/15/2013	Telephone: Varies
Date Made Active in Reports: 03/13/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012	Source: EPA
Date Data Arrived at EDR: 03/13/2013	Telephone: 703-416-0223
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 06/11/2013
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Annually

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 05/28/2013
Number of Days to Update: 146	Next Scheduled EDR Contact: 09/09/2013
	Data Release Frequency: Varies

#### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 04/18/2013	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/04/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 09/16/2013
	Data Release Frequency: Semi-Annually

#### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009	
Date Data Arrived at EDR: 09/01/2011	
Date Made Active in Reports: 01/10/2012	
Number of Days to Update: 131	

Source: EPA Telephone: 202-566-0250 Last EDR Contact: 05/29/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Annually

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 64 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 06/25/2013 Next Scheduled EDR Contact: 10/07/2013 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/28/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/09/2013
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/28/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/09/2013
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011 Number of Days to Update: 77 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011 Date Data Arrived at EDR: 11/10/2011 Date Made Active in Reports: 01/10/2012 Number of Days to Update: 61 Source: Environmental Protection Agency Telephone: 202-564-5088 Last EDR Contact: 07/01/2013 Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Quarterly

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012	Source: EPA
Date Data Arrived at EDR: 01/16/2013	Telephone: 202-566-0500
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/17/2013
Number of Days to Update: 114	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Annually

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/14/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/20/2013	Telephone: 301-415-7169
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/10/2013
Number of Days to Update: 112	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

#### **RADINFO: Radiation Information Database**

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/11/2013	Telephone: 202-343-9775
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013 Date Data Arrived at EDR: 03/21/2013 Date Made Active in Reports: 07/10/2013 Number of Days to Update: 111 Source: EPA Telephone: (415) 947-8000 Last EDR Contact: 06/13/2013 Next Scheduled EDR Contact: 09/23/2013 Data Release Frequency: Quarterly

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

#### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012 Date Data Arrived at EDR: 05/25/2012 Date Made Active in Reports: 07/10/2012 Number of Days to Update: 46 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 07/24/2013 Next Scheduled EDR Contact: 11/11/2013 Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013 Number of Days to Update: 52 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 05/30/2013 Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Biennially

UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 02/07/2013 Date Data Arrived at EDR: 02/12/2013 Date Made Active in Reports: 04/09/2013 Number of Days to Update: 56 Source: Department of Health Telephone: 808-586-4258 Last EDR Contact: 06/03/2013 Next Scheduled EDR Contact: 09/16/2013 Data Release Frequency: Varies

### DRYCLEANERS: Permitted Drycleaner Facility Listing A listing of permitted drycleaner facilities in the state.

Date of Government Version: 12/31/2012	Source: Department of Health
Date Data Arrived at EDR: 01/25/2013	Telephone: 808-586-4200
	•
Date Made Active in Reports: 02/28/2013	Last EDR Contact: 07/18/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Varies

AIRS: List of Permitted Facilities A listing of permitted facilities in the state.		
Date of Government Version: 04/24/2013 Date Data Arrived at EDR: 04/25/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 15	Source: Department of Health Telephone: 808-586-4200 Last EDR Contact: 07/18/2013 Next Scheduled EDR Contact: 10/21/2013 Data Release Frequency: Varies	
INDIAN RESERV: Indian Reservations This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.		
Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 34	Source: USGS Telephone: 202-208-3710 Last EDR Contact: 07/19/2013 Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: Semi-Annually	
SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.		
Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011 Number of Days to Update: 54	Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 07/18/2013 Next Scheduled EDR Contact: 11/04/2013 Data Release Frequency: Varies	
2020 COR ACTION: 2020 Corrective Action Program List The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.		
Date of Government Version: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012 Number of Days to Update: 7	Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 05/17/2013 Next Scheduled EDR Contact: 08/26/2013 Data Release Frequency: Varies	
LEAD SMELTER 2: Lead Smelter Sites A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust		
Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36	Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned	
LEAD SMELTER 1: Lead Smelter Sites A listing of former lead smelter site locations.		
Date of Government Version: 01/29/2013 Date Data Arrived at EDR: 02/14/2013 Date Made Active in Reports: 02/27/2013 Number of Days to Update: 13	Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 07/03/2013 Next Scheduled EDR Contact: 10/21/2013 Data Release Frequency: Varies	

#### Financial Assurance: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/18/2013	Source: Department of Health
Date Data Arrived at EDR: 03/19/2013	Telephone: 808-586-4226
Date Made Active in Reports: 04/09/2013	Last EDR Contact: 06/13/2013
Number of Days to Update: 21	Next Scheduled EDR Contact: 09/30/2013
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/03/2011	Telephone: N/A
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 06/14/2013
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 07/19/2013
Number of Days to Update: 76	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Varies

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 05/03/2013
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/12/2013
	Data Release Frequency: Varies

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/15/2013	Telephone: 202-566-1917
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 05/20/2013
Number of Days to Update: 56	Next Scheduled EDR Contact: 09/02/2013
	Data Release Frequency: Quarterly

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 02/18/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 81

Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 05/10/2013 Next Scheduled EDR Contact: 08/26/2013 Data Release Frequency: Quarterly

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/18/2012 Date Data Arrived at EDR: 04/04/2013 Date Made Active in Reports: 07/10/2013 Number of Days to Update: 97 Source: EPA Telephone: 202-564-6023 Last EDR Contact: 07/03/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Quarterly

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 100 Source: EPA Telephone: 202-564-5962 Last EDR Contact: 06/25/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

## FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Source: U.S. Geological Survey

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 339

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

> Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013 Number of Days to Update: 100

## EDR HIGH RISK HISTORICAL RECORDS

## EDR Exclusive Records

## EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

Telephone: 888-275-8747 Last EDR Contact: 07/19/2013 Next Scheduled EDR Contact: 10/28/2013 Data Release Frequency: N/A

Source: EPA Telephone: 202-564-5962 Last EDR Contact: 06/25/2013 Next Scheduled EDR Contact: 10/14/2013 Data Release Frequency: Annually

#### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: N/A Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

### **OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## STREET AND ADDRESS INFORMATION

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# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

## TARGET PROPERTY ADDRESS

PIILANI PROMENADE PIILANI HIGHWAY AND KAONOULU STREET KIHEI, HI 96753

## TARGET PROPERTY COORDINATES

Latitude (North):	20.7684 - 20° 46' 6.24''
Longitude (West):	156.4479 - 156° 26' 52.44''
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	765714.1
UTM Y (Meters):	2298479.8
Elevation:	79 ft. above sea level

## USGS TOPOGRAPHIC MAP

Target Property Map:	20156-G4 WAILUKU, HI
Most Recent Revision:	Not reported

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

## **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

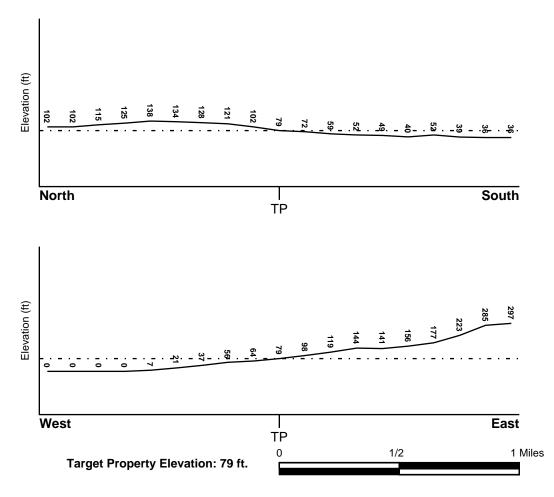
## **TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## FEMA FLOOD ZONE

Target Property County MAUI, HI	FEMA Flood <u>Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	1500030265C - FEMA Q3 Flood data
Additional Panels in search area:	1500030255B - FEMA Q3 Flood data
NATIONAL WETLAND INVENTORY	NWI Electronic
NWI Quad at Target Property NOT AVAILABLE	<u>Data Coverage</u> YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW**®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

> MAP ID Not Reported

LOCATION FROM TP

**GENERAL DIRECTION GROUNDWATER FLOW** 

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

## **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

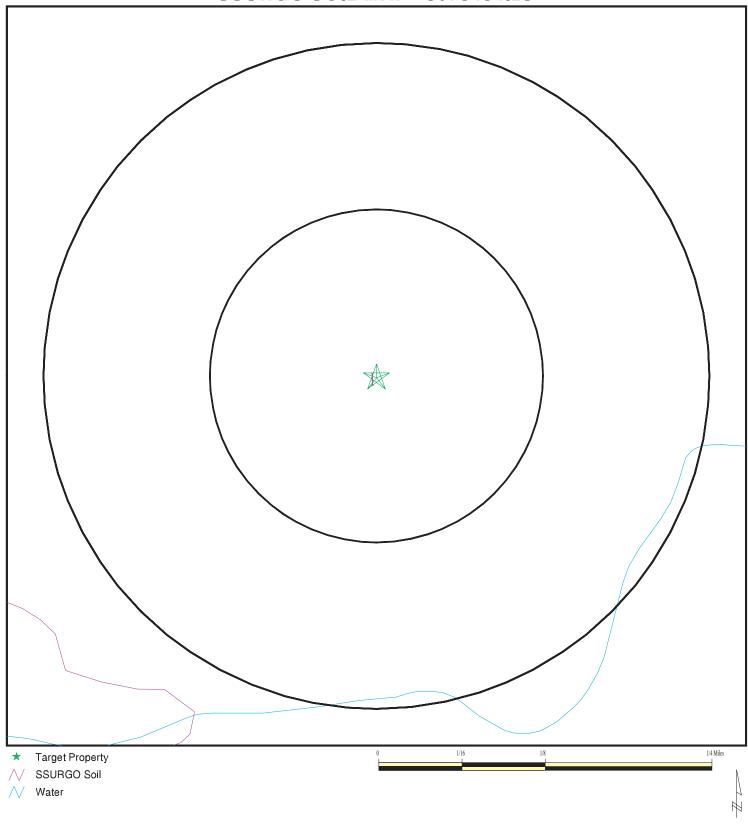
Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

## **ROCK STRATIGRAPHIC UNIT**

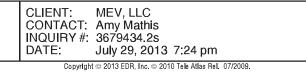
### **GEOLOGIC AGE IDENTIFICATION**

Era:	- Category:	-
System:	-	
Series:	-	
Code:	N/A (decoded above as Era, System & Series)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).



SITE NAME:	Piilani Promenade Piilani Highway and Kaonoulu Street
ADDITE 33.	Kihei HI 96753
LAT/LONG:	20.7684 / 156.4479



# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

#### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1	
Soil Component Name:	Waiakoa
Soil Surface Texture:	extremely stony silty clay loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 71 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Bou	indary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	0 inches	extremely stony silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:
2	0 inches	20 inches	extremely stony silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:
3	20 inches	27 inches	stony silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:
4	27 inches	31 inches	bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

#### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

#### WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

#### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A3	USGS40000268873	1/4 - 1/2 Mile North
B5	USGS40000268872	1/4 - 1/2 Mile NNW
C7	USGS40000268876	1/4 - 1/2 Mile North
D9	USGS40000268869	1/2 - 1 Mile WNW
E12	USGS40000268879	1/2 - 1 Mile North
D14	USGS40000268870	1/2 - 1 Mile WNW
F15	USGS40000268867	1/2 - 1 Mile SSW
E18	USGS40000268882	1/2 - 1 Mile North
G20	USGS40000268864	1/2 - 1 Mile SSW
H24	USGS40000268863	1/2 - 1 Mile SSW
125	USGS40000268886	1/2 - 1 Mile NNW
127	USGS40000268887	1/2 - 1 Mile NNW
J29	USGS40000268875	1/2 - 1 Mile NW
30	USGS40000268878	1/2 - 1 Mile NW
J32	USGS40000268877	1/2 - 1 Mile NW
34	USGS40000268888	1/2 - 1 Mile NNW
K35	USGS40000268861	1/2 - 1 Mile SSW
K38	USGS40000268860	1/2 - 1 Mile SSW
L39	USGS40000268883	1/2 - 1 Mile NW
M42	USGS40000268880	1/2 - 1 Mile NW

#### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

#### STATE DATABASE WELL INFORMATION

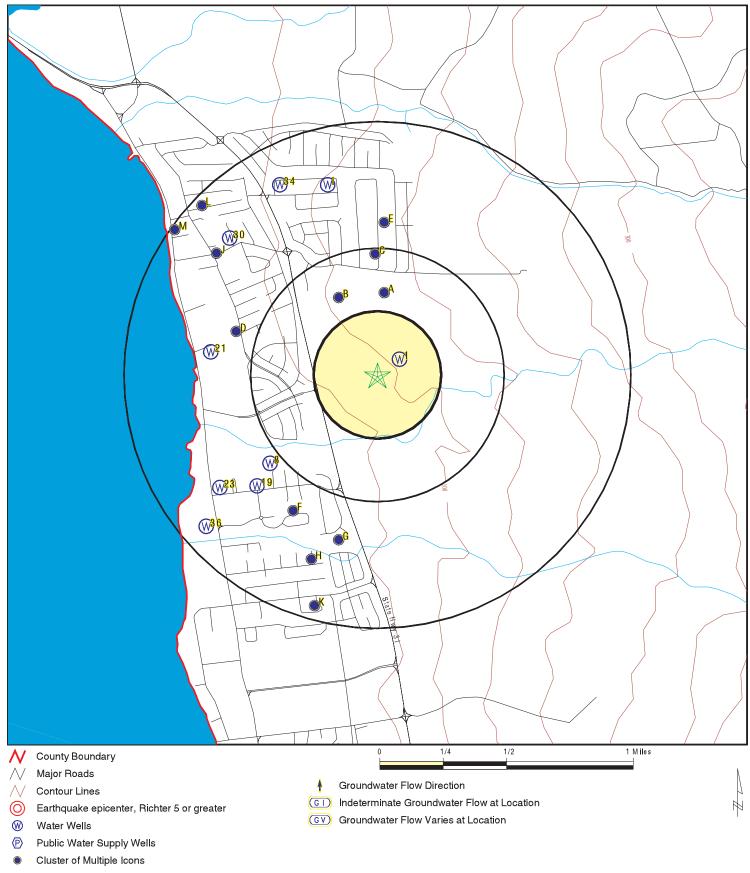
MAP ID	WELL ID	LOCATION FROM TP
1	HI8000000001116	0 - 1/8 Mile NE

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

#### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	HI8000000001123	1/4 - 1/2 Mile North
B4	HI800000001122	1/4 - 1/2 Mile NNW
C6	HI800000001129	1/4 - 1/2 Mile North
8	HI800000001112	1/2 - 1 Mile SW
D10	HI800000001118	1/2 - 1 Mile WNW
E11	HI800000001132	1/2 - 1 Mile North
D13	HI800000001119	1/2 - 1 Mile WNW
E16	HI800000001134	1/2 - 1 Mile North
F17	HI800000001109	1/2 - 1 Mile SSW
19	HI800000001111	1/2 - 1 Mile SW
21	HI800000001117	1/2 - 1 Mile West
G22	HI800000001107	1/2 - 1 Mile SSW
23	HI800000001110	1/2 - 1 Mile SW
H26	HI800000001106	1/2 - 1 Mile SSW
J28	HI800000001126	1/2 - 1 Mile NW
J31	HI800000001128	1/2 - 1 Mile NW
J33	HI800000001130	1/2 - 1 Mile NW
36	HI800000001108	1/2 - 1 Mile SW
L37	HI800000001135	1/2 - 1 Mile NW
K40	HI800000001104	1/2 - 1 Mile SSW
M41	HI800000001131	1/2 - 1 Mile NW

### **PHYSICAL SETTING SOURCE MAP - 3679434.2s**



SITE NAME:	Piilani Promenade
ADDRESS:	Piilani Highway and Kaonoulu Street
LAT/LONG:	Kihei HI 96753 20.7684 / 156.4479

	MEV, LLC Amy Mathis 3679434.2s July 29, 2013 7:24 pm	
Copyrigh	t © 2013 EDR, Inc. © 2010 Tele Atlas Rel. 07	/2009.

/lap ID Direction				
Distance Elevation			Database	EDR ID Numbe
E			HI WELLS	HI8000000001116
- 1/8 Mile igher				
Objectid:	3044	Wid:	6-4626-002	
Island:	Maui	Well name:	Kaonoulu Irr 1	
Old name:	Not Reported			
Yr drilled:	2012			
Driller:	Moreira			
Quad map:	0			
Long83dd:	-156.44655			
Lat83dd:	20.7693			
Gps:	0	Utm:	0	
Owner user:	Charles Jenks	Old number:	Not Reported	
Well type:	ROT	Casing dia:	10	
Ground el:	118	5		
Well depth:	133			
Solid case:	123	Perf case:	133	
Use:	IRR - Irrigation (non-dor	nestic, nor <b>Uagriædt</b> ure)	Not Reported	
Init head:	1.12	Init head2:	Not Reported	
Init head3:	Not Reported		·	
Init cl:	180			
Test date:	1/17/2012	Test gpm:	179	
Test ddown:	2.46	Test chlor:	180	
Test temp:	73.5	Test unit:	F	
Pump gpm:	150			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	Not Reported			
Pump yr:	2012			
Draft yr:	Not Reported	Bot hole:	-15	
Bot solid:	-5	Bot perf:	-15	
Spec capac:	Not Reported			
Pump mgd:	.216			
Draft mgd:	Not Reported	Pump elev:	-8	
Pump depth:	128	Tmk:	(2) 3-9-001:169	
Aqui code:	60304			
Latest hd:	Not Reported	Wcr:	02/23/2012	
Pir:	2/23/2012	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI8000000001116	
2 orth			HI WELLS	HI8000000001123
/4 - 1/2 Mile ligher				
Objectid:	3058	Wid:	6-4627-014	
Island:	Maui	Well name:	Tmk 3-9-01-34	
Old name:	Not Reported			
Yr drilled:	1969			
Driller:	OCEAN VIEW			
Quad map:	8			
Long83dd:	-156.4475			
Lat83dd:	20.7730555556			
Gps:	0	Utm:	-1	
Owner user:	Hashimoto T	Old number:	226-	

Well type: Ground el:	ROT 130	Casing dia:	Not Reported
Well depth:	200		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic, r	onUagriceature)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	24	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	-70
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	Not Reported
Aqui code:	60304		
Latest hd:	Not Reported	Wcr:	01/01/1969
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001123
	·		

#### A3 North 1/4 - 1/2 Mile Higher

FED USGS USGS40000268873

Org. Identifier:	USGS-HI				
Formal name:	USGS Hawaii Water Science Center				
Monloc Identifier:	USGS-204635156270101				
Monloc name:	6-4627-14 Waiakea Homesteads	6-4627-14 Waiakea Homesteads, Maui, HI			
Monloc type:	Well				
Monloc desc:	former local no. W226				
Huc code:	20020000	Drainagearea value:	Not Reported		
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported		
Contrib drainagearea units:	Not Reported	Latitude:	20.7731899		
Longitude:	-156.447459	Sourcemap scale:	24000		
Horiz Acc measure:	1	Horiz Acc measure units:	seconds		
Horiz Collection method:	Interpolated from map				
Horiz coord refsys:	NAD83	Vert measure val:	130.00		
Vert measure units:	feet	Vertacc measure val:	10		
Vert accmeasure units:	feet				
Vertcollection method:	Interpolated from topographic ma	p			
Vert coord refsys:	HILOCAL	Countrycode:	US		
Aquifername:	Not Reported				
Formation type:	Not Reported				
Aquifer type:	Not Reported				
Construction date:	19690101	Welldepth:	200		
Welldepth units:	ft	Wellholedepth:	200		
Wellholedepth units:	ft				

levation			Database	EDR ID Numbe
4 NW 4 - 1/2 Mile igher			HI WELLS	HI8000000001122
Objectid:	3052	Wid:	6-4627-008	
Island:	Maui	Well name:	Tmk 3-9-01-33	
Old name:	Not Reported			
Yr drilled:	1948			
Driller:	MULLIN			
Quad map:	8			
Long83dd:	-156.450277778			
Lat83dd:	20.772777778			
Gps:	0	Utm:	-1	
Owner user:	Hashimoto T	Old number:	225-	
Well type:	Not Reported	Casing dia:	6	
Ground el:	Not Reported	3		
Well depth:	116			
Solid case:	85	Perf case:	Not Reported	
Use:	IRR - Irrigation (non-dom	estic. nort-Jaenice.atture)	Not Reported	
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	100	
Test ddown:	Not Reported	Test chlor:	435	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0			
Draft mgy:	12	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	TK			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	Not Reported	200 000		
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	Not Reported	
Aqui code:	60304	THUX.	Not Reported	
Latest hd:	Not Reported	Wcr:	01/01/1948	
Pir:	Not Reported	Surveyor:	Not Reported	
ги. Т:	Not Reported	Site id:	HI800000001122	

#### B5 NNW 1/4 - 1/2 Mile Higher

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-204634156271101		
Monloc name:	6-4627-08 W225		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20020000	Drain	
Drainagearea Units:	Not Reported	Cont	
Contrib drainagearea units:	Not Reported	Latitu	
Longitude:	-156.4502367	Sour	

Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Not Reported Not Reported 20.7729122 24000

FED USGS

USGS40000268872

Horiz Acc measure: Horiz Collection method:	1 Interpolated from map	Horiz Acc measure units:	seconds
Horiz coord refsys:	NAD83	Vert measure val:	105.00
,			
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ip	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	116
Welldepth units:	ft	Wellholedepth:	116
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1 Feet below Feet to

Date Surface Sealevel

-----

1973-07-16 92.28

C6	
North	
1/4 - 1/2 Mile	
Higher	

ingriei			
Objectid:	3059	Wid:	6-4627-015
Island:	Maui	Well name:	Tmk 3-9-26-43
Old name:	Not Reported		
Yr drilled:	1969		
Driller:	OCEAN VIEW		
Quad map:	8		
Long83dd:	-156.448055556		
Lat83dd:	20.7752777778		
Gps:	0	Utm:	-1
Owner user:	Neubauer A	Old number:	227-
Well type:	ROT	Casing dia:	4
Ground el:	Not Reported		
Well depth:	110		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	IRR - Irrigation (non-dom	estic, nor <b>Uagrice.at</b> ure)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		

HI800000001129

HI WELLS

Draft mgd: Pump depth: Aqui code: Latest hd: Pir: T:	Not Reported Not Reported 60304 Not Reported Not Reported Not Reported	Pump elev: Tmk: Wcr: Surveyor: Site id:	Not Reported Not Reported 01/01/1969 Not Reported HI8000000001129	
C7 North 1/4 - 1/2 Mile Higher			FED USGS	USGS40000268876
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units:	-156.4480145 1 Interpolated from map NAD83 feet	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported Not Reported 20.7754119 24000 seconds 130.00 10	
Vert accmeasure units: Vertcollection method: Vert coord refsys: Aquifername: Formation type: Aquifer type: Construction date: Welldepth units: Wellholedepth units:	feet Interpolated from topographic ma HILOCAL Not Reported Not Reported Not Reported 19690101 ft Not Reported	ap Countrycode: Welldepth: Wellholedepth:	US 110 Not Reported	

8 SW 1/2 - 1 Mile Lower			HI WELLS	HI800000001112
Objectid:	3034	Wid:	6-4527-018	
Island:	Maui	Well name:	Kaonoulu 5	
Old name:	Not Reported			
Yr drilled:	2007			
Driller:	Not Reported			
Quad map:	6			
Long83dd:	-156.45444444			
Lat83dd:	20.7633333333			
Gps:	-1	Utm:	0	
Owner user:	Not Reported	Old number:	Not Reported	

Well type:	ROT	Casing dia:	6
Ground el:	18	5	
Well depth:	50		
Solid case:	20	Perf case:	50
Use:	IRR - Landscape/Water Features	Use year:	Not Reported
Init head:	3.14	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	184		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	60		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	тк		
Pump yr:	2006		
Draft yr:	Not Reported	Bot hole:	-32
Bot solid:	-2	Bot perf:	-32
Spec capac:	Not Reported		
Pump mgd:	.086		
Draft mgd:	Not Reported	Pump elev:	-28
Pump depth:	46	Tmk:	(2) 3-9-001:161
Aqui code:	60304		
Latest hd:	Not Reported	Wcr:	04/16/2007
Pir:	9/16/2009	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001112

FED USGS USGS40000268869

#### D9 WNW 1/2 - 1 Mile Lower

Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc:	USGS-HI USGS Hawaii Water Science Cer USGS-204626156273301 6-4627-11 W220 Well Not Beauted	nter	
Huc code:	Not Reported 20020000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	•	Latitude:	20.7706902
Longitude:	-156.4563476	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	18.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	р	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19490101	Welldepth:	19
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ilevation 10 /NW /2 - 1 Mile ower Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth: Solid case:	3055 Maui Not Reported 1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome: Not Reported	Wid: Well name: Utm: Old number: Casing dia: Perf case: stic. notlaggicgature)	Database HI WELLS 6-4627-011 Tmk 3-9-01-99	EDR ID Numbe
2 - 1 Mile ower Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	Maui Not Reported 1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Well name: Utm: Old number: Casing dia: Perf case:	6-4627-011 Tmk 3-9-01-99 -1 220- 8	HI800000001118
Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	Maui Not Reported 1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Well name: Utm: Old number: Casing dia: Perf case:	Tmk 3-9-01-99 -1 220- 8	
Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	Maui Not Reported 1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Well name: Utm: Old number: Casing dia: Perf case:	Tmk 3-9-01-99 -1 220- 8	
Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	Not Reported 1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Utm: Old number: Casing dia: Perf case:	-1 220- 8	
Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	1949 MULLIN 6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Old number: Casing dia: Perf case:	220- 8	
Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	MULLIN 6 -156.4563888889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-domes	Old number: Casing dia: Perf case:	220- 8	
Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	6 -156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome:	Old number: Casing dia: Perf case:	220- 8	
Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	-156.456388889 20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome:	Old number: Casing dia: Perf case:	220- 8	
Lat83dd: Gps: Owner user: Well type: Ground el: Well depth:	20.7705555556 0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome:	Old number: Casing dia: Perf case:	220- 8	
Gps: Owner user: Well type: Ground el: Well depth:	0 Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome:	Old number: Casing dia: Perf case:	220- 8	
Owner user: Well type: Ground el: Well depth:	Alo S Not Reported Not Reported 19 18 IRR - Irrigation (non-dome	Old number: Casing dia: Perf case:	220- 8	
Well type: Ground el: Well depth:	Not Reported Not Reported 19 18 IRR - Irrigation (non-dome:	Casing dia: Perf case:	8	
Ground el: Well depth:	Not Reported 19 18 IRR - Irrigation (non-dome	Perf case:		
Well depth:	19 18 IRR - Irrigation (non-dome			
•	18 IRR - Irrigation (non-dome			
	IRR - Irrigation (non-dome		Not Reported	
Use:			Not Reported Not Reported	
Init head:	NULIVEPUILEU	Init head2:	Not Reported	
Init head3:	Not Reported	init neauz.	Not Reported	
Init cl:				
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:		rest unit.	Not Reported	
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	THO	Wint Officit.	Not Reported	
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	Not Reported			
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	Not Reported	
Aqui code:	60304			
Latest hd:	Not Reported	Wcr:	01/01/1949	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI800000001118	
1 orth 2 - 1 Mile			HI WELLS	HI8000000001132
gher				
Objectid:	3060	Wid:	6-4627-016	
Island:	Maui	Well name:	Tmk 3-9-26-67	
Old name:	Not Reported			
Yr drilled:	1969			
Driller:	OCEAN VIEW			
Quad map:	8			
Long83dd:	-156.4475			
Lat83dd:	20.77666666667			
Gps:	0	Utm:	-1	
Owner user:	Batoon A	Old number:	228-	

Well type: Ground el:	ROT Not Reported	Casing dia:	4
Well depth:	161		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic,	norl-Jagnice.atture)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	Not Reported
Aqui code:	60304		
Latest hd:	Not Reported	Wcr:	01/01/1969
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001132

E12 North 1/2 - 1 Mile Higher

FED USGS USGS40000268879

USGS-HI Org. Identifier: Formal name: USGS Hawaii Water Science Center Monloc Identifier: USGS-204648156270101 6-4627-16 W228 Monloc name: Monloc type: Well Monloc desc: Not Reported Huc code: 20020000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 20.7768007 Contrib drainagearea units: Not Reported Latitude: Longitude: -156.447459 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds 1 Horiz Collection method: Interpolated from map Horiz coord refsys: NAD83 Vert measure val: 140.00 Vert measure units: feet Vertacc measure val: 10 Vert accmeasure units: feet Vertcollection method: Interpolated from topographic map Vert coord refsys: HILOCAL Countrycode: US Not Reported Aquifername: Not Reported Formation type: Not Reported Aquifer type: Construction date: 19690101 Welldepth: 161 Welldepth units: ft Wellholedepth: Not Reported Wellholedepth units: Not Reported

listance levation			Database	EDR ID Numbe
13 /NW /2 - 1 Mile ower			HI WELLS	HI8000000001119
Objectid:	3047	Wid:	6-4627-003	
Island:	Maui	Well name:	Tmk 3-9-01-54	
Old name:	Not Reported			
Yr drilled:	1947			
Driller:	VENTURA J			
Quad map:	6			
Long83dd:	-156.456666667			
Lat83dd:	20.7711111111			
Gps:	0	Utm:	-1	
Owner user:	Ting L	Old number:	230-	
Well type:	Not Reported	Casing dia:	10	
Ground el:	Not Reported			
Well depth:	29			
Solid case:	26	Perf case:	Not Reported	
Use:	Other	Use year:	Not Reported	
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QD			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	Not Reported			
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	Not Reported	
Aqui code:	60304			
Latest hd:	Not Reported	Wcr:	01/01/1947	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI800000001119	

#### D14 WNW 1/2 - 1 Mile Lower

Org. Identifier: USGS-HI USGS Hawaii Water Science Center Formal name: Monloc Identifier: USGS-204628156273401 Monloc name: 6-4627-03 W230 Monloc type: Well Monloc desc: Not Reported 20020000 Huc code: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Longitude: -156.4566253

Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale:

Not Reported Not Reported 20.7712457 24000

FED USGS

#### USGS40000268870

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	18.00
Vert measure units:	feet	Vertacc measure val:	3
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ар	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19470101	Welldepth:	29
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

#### F15 USGS40000268867 SSW FED USGS 1/2 - 1 Mile Lower Org. Identifier: USGS-HI Formal name: USGS Hawaii Water Science Center USGS-204550156272101 Monloc Identifier: Monloc name: 6-4527-06 W210 Monloc type: Well Monloc desc: Not Reported 20020000 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported 20.760691 Latitude: Longitude: -156.4530145 Sourcemap scale: 24000 Horiz Acc measure: 1 Horiz Acc measure units: seconds Interpolated from map Horiz Collection method: Horiz coord refsys: NAD83 20.00 Vert measure val: Vert measure units: feet Vertacc measure val: 5 Vert accmeasure units: feet Interpolated from topographic map Vertcollection method: HILÓCAL US Vert coord refsys: Countrycode: Not Reported Aquifername: Formation type: Not Reported Aquifer type: Not Reported 19480101 Welldepth: 28 Construction date: Wellholedepth: Welldepth units: Not Reported ft Wellholedepth units: Not Reported

E16 North 1/2 - 1 Mile Higher			HI WELLS	HI800000001134
Objectid:	3061	Wid:	6-4627-017	
Island:	Maui	Well name:	Tmk 3-9-26-66	
Old name:	Not Reported			
Yr drilled:	1969			
Driller:	OCEAN VIEW			
Quad map:	8			
Long83dd:	-156.4475			
Lat83dd:	20.7775			
Gps:	0	Utm:	-1	
Öwner user:	Tavares H	Old number:	229-	

Well type:	ROT	Casing dia:	4
Ground el:	Not Reported		
Well depth:	120		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic,	non <b>Jagrjædt</b> ure)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	Not Reported
Aqui code:	60304		
Latest hd:	Not Reported	Wcr:	01/01/1969
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001134

#### HI800000001109 **HI WELLS**

Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd:	3026 Maui Not Reported 1948 MULLIN 8 -156.453055556 20.7605555556	Wid: Well name:	6-4527-006 Tmk 3-9-01-9
Gps:	0	Utm:	-1
Owner user:	Teruya E	Old number:	210-
Well type:	Not Reported	Casing dia:	6
Ground el:	Not Reported		
Well depth:	28		
Solid case:	25	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic, r	onUagriceature)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	42
Test ddown:	Not Reported	Test chlor:	541
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	ТК		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		

F17 SSW 1/2 - 1 Mile Lower

Draft mgd: Pump depth: Aqui code: Latest hd: Pir: T:	Not Reported Not Reported 60304 Not Reported Not Reported Not Reported	Pump elev: Tmk: Wcr: Surveyor: Site id:	Not Reported (2) 3-9-001:009 01/01/1948 Not Reported HI8000000001109	
E18 North 1/2 - 1 Mile Higher			FED USGS	USGS40000268882
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units:	USGS-HI USGS Hawaii Water Science Ce USGS-204651156270101 6-4627-17 W229 Well Not Reported 20020000 Not Reported Not Reported -156.447459 5 Interpolated from map NAD83 feet feet	nter Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported Not Reported 20.777634 24000 seconds 140.00 10	
Vertcollection method: Vert coord refsys: Aquifername: Formation type: Aquifer type: Construction date: Welldepth units:	Interpolated from topographic ma HILOCAL Not Reported Not Reported Not Reported 19690101 ft	ap Countrycode: Welldepth: Wellholedepth:	US 120 Not Reported	

Ground-water levels, Number of Measurements: 0

20.762039

Not Reported

0

Lat83dd:

Owner user:

Gps:

19 SW 1/2 - 1 Mile Lower			HI WELLS	HI800000001111
Objectid:	3036	Wid:	6-4527-020	
Island:	Maui	Well name:	Haleakala Gardens	Irrigation
Old name:	Not Reported			-
Yr drilled:	2012			
Driller:	Not Reported			
Quad map:	0			
Long83dd:	-156.455236			

Utm	1:
Old	number:

0 Not Reported

Well type: Ground el:	Not Reported	Casing dia:	6
	11.41		
Well depth:	60	Derf eeee	Nat Danastad
Solid case:	35	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic, r	•••	Not Reported
Init head:	2.65	Init head2:	2.65
Init head3:	2.92		
Init cl:	120	_	
Test date:	9/17/2012	Test gpm:	90
Test ddown:	0.9	Test chlor:	120
Test temp:	73	Test unit:	F
Pump gpm:	90		
Draft mgy:	71	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Qa		
Pump yr:	2012		
Draft yr:	Not Reported	Bot hole:	-48.59
Bot solid:	-23.59	Bot perf:	Not Reported
Spec capac:	100	·	·
Pump mgd:	.13		
Draft mgd:	Not Reported	Pump elev:	-12.59
Pump depth:	24	Tmk:	(2) 3-9-044:041
Aqui code:	60304		()
Latest hd:	Not Reported	Wcr:	11/08/2012
Pir:	11/8/2012	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001111
••		0.10 .0.	

G20 SSW 1/2 - <sup>-</sup> Lowe

FED USGS USGS40000268864

2	-	1	Mile
٥v	Ve	۶r	

Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc:	USGS-HI USGS Hawaii Water Science Ce USGS-204544156271101 6-4527-08 PIILANI Well Not Reported	nter	
Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure:	20020000 Not Reported	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported Not Reported 20.7590244 24000 seconds
Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units:	Interpolated from map NAD83 feet feet	Vert measure val: Vertacc measure val:	35.75 .1
Vertcollection method: Vert coord refsys: Aquifername: Formation type:	Level or other surveying method HILOCAL Not Reported Not Reported	Countrycode:	US
Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported 19900426 ft ft	Welldepth: Wellholedepth:	66 66

Ground-water levels, Number of Measurements: 1 Feet below Feet to Sealevel Date Surface

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1990-04-26 35.25

21 West 1/2 - 1 Mile Lower

/2 - 1 Mile .ower			
Objectid:	3062	Wid:	6-4627-019
Island:	Maui	Well name:	Maui Lu
Old name:	Not Reported		
Yr drilled:	1956		
Driller:	GIBSON		
Quad map:	8		
Long83dd:	-156.458055556		
Lat83dd:	20.7697222222		
Gps:	0	Utm:	-1
Owner user:	Maui Lu Resort	Old number:	Not Reported
Well type:	DUG	Casing dia:	Not Reported
Ground el:	Not Reported	•	
Well depth:	0		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	IRR - Landscape/Water Features	Use year:	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	600		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	(2) 3-9-001:086
Aqui code:	60304		
Latest hd:	Not Reported	Wcr:	12/30/1899
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI800000001117

G22 SSW 1/2 - 1 Mile Lower

HI WELLS

HI WELLS

HI800000001117

HI800000001107

Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd:
Lat83dd: Gps:
Owner user:
Well type:
Ground el:
Well depth:
Solid case:
Use:
Init head:
Init head3:
Init cl:
Test date:
Test ddown:
Test temp:
Pump gpm:
Draft mgy:
Max chlor:
Geology:
Pump yr: Draft yr:
Bot solid:
Spec capac:
Pump mgd:
Draft mgd:
Pump depth:
Aqui code:
Latest hd:
Pir:
T:

3028 Maui Not Reported 1990 DAVID PICO 8 -156.450277778	Wid: Well name:	6-4527-008 Kihei-Piilani
20.7588888889		
0 Blackfield Hawaii ROT 41 71	Utm: Old number: Casing dia:	-1 Not Reported 10
38	Perf case:	58
IRR - Irrigation (non-domestic, no		Not Reported
0.75 Not Reported 0	Init head2:	Not Reported
4/26/1990	Test gpm:	25
0.3	Test chlor:	420
23.3	Test unit:	С
40		
Not Reported	Head feet:	Not Reported
Not Reported TK 1997	Min chlor:	Not Reported
Not Reported	Bot hole:	-30
3	Bot perf:	-17
83		
.057		
Not Reported 50	Pump elev: Tmk:	-9 (2) 2-2-002:042
60304		05/04/4000
Not Reported 1/16/1997	Wcr:	05/01/1990 Not Reported
Not Reported	Surveyor: Site id:	Not Reported HI8000000001107
Not reputed		1100000001107

23 SW 1/2 - 1 |

1/2 - 1 Mile Lower

> Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth: Solid case: Use: Init head: Init head3: Init cl: Test date: Test ddown:

#### 3029 Wid: 6-4527-010 Maui Well name: Kihei-Koa Not Reported 1992 OWNER 6 -156.4575 20.761944444 Utm: 0 -1 Koa Res Assoc Old number: Not Reported DUG Casing dia: 24 7 14 7 Perf case: 12 IRR - Landscape/Water Features Use year: Not Reported Not Reported Init head2: Not Reported Not Reported 335 8/6/1992 Test gpm: 20 1.8 Test chlor: 697

HI WELLS HI800000001110

Test temp:	24.4	Test unit:	С	
Pump gpm:	30			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QD			
Pump yr:	1992			
Draft yr:	Not Reported	Bot hole:	-7	
Bot solid:	0	Bot perf:	-5	
Spec capac:	11			
Pump mgd:	.043			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(2) 3-9-001:134	
Aqui code:	60304		(_) 0 0 00 0 .	
Latest hd:	Not Reported	Wcr:	07/24/1992	
Pir:	8/8/1992	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI8000000001110	
1.	Not Reported		110000000001110	
H24				
SSW			FED USGS	USGS40000268863
1/2 - 1 Mile				
Lower				
Org. Identifier:	USGS-HI			
Formal name:	USGS Hawaii Water Science Cer	nter		
Monloc Identifier:	USGS-204540156271701			
Monloc name:	6-4527-07 W207			
Monloc type:	Well			
Monloc desc:	Not Reported			
Huc code:	20020000	Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:		Latitude:	20.7579134	
Longitude:	-156.4519034	Sourcemap scale:	24000	
Horiz Acc measure:	5	Horiz Acc measure units:	seconds	
Horiz Collection method:	Interpolated from map	honz Acc measure units.	3000103	
Horiz coord refsys:	NAD83	Vert measure val:	25.00	
Vert measure units:	feet	Vertacc measure val:	5	
Vert accmeasure units:	feet	venace measure val.	5	
Vertcollection method:				
	Interpolated from topographic ma HILOCAL		US	
Vert coord refsys:		Countrycode:	03	
Aquifername:	Not Reported			
Formation type:	Not Reported			
Aquifer type:	Not Reported 19490101		40	
Construction date:	TAAAAAAAA	Welldepth:	42	
Welldepth units:		•		
•	ft	Wellholedepth:	Not Reported	
Wellholedepth units:		•		

Ground-water levels, Number of Measurements: 0

l25 NNW 1/2 - 1 Mile Higher

FED USGS USGS40000268886

Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc:	USGS-HI USGS Hawaii Water Science Ce USGS-204657156271301 6-4627.CA IWS Well Not Reported	nter			
Huc code:	20020000	Drainagearea value:	Not Reported		
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported		
Contrib drainagearea units:	Not Reported	Latitude:	20.7793005		
Longitude:	-156.450792	Sourcemap scale:	24000		
Horiz Acc measure:	1	Horiz Acc measure units:	seconds		
Horiz Collection method:	Interpolated from map				
Horiz coord refsys:	NAD83	Vert measure val:	110.00		
Vert measure units:	feet	Vertacc measure val:	10		
Vert accmeasure units:	feet				
Vertcollection method:	Interpolated from topographic ma	ар			
Vert coord refsys:	HILOCAL	Countrycode:	US		
Aquifername:	Not Reported				
Formation type:	Not Reported				
Aquifer type:	Not Reported				
Construction date:	19740917	Welldepth:	30		
Welldepth units:	ft	Wellholedepth:	30		
Wellholedepth units:	ft				

Ground-water levels, Number of Measurements: 1 Feet below Feet to Sealevel

Date Surface \_\_\_\_\_

1974-09-17

Note: The site was dry (no water level recorded).

H26 SSW 1/2 - 1 Mile Lower			HI WELLS	HI800000001106
Objectid:	3027	Wid:	6-4527-007	
Island:	Maui	Well name:	Tmk 3-9-23-30	
Old name:	Not Reported			
Yr drilled:	1949			
Driller:	MULLIN			
Quad map:	8			
Long83dd:	-156.451944444			
Lat83dd:	20.757777778			
Gps:	0	Utm:	-1	
Owner user:	Uyeno H	Old number:	207-	
Well type:	Not Reported	Casing dia:	8	
Ground el:	Not Reported			
Well depth:	42			
Solid case:	42	Perf case:	Not Reported	
Use:	UNU - Unused	Use year:	Not Reported	
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	

Toot tomp	Not Doported	Test unit:	Not Doportod	
Test temp: Pump gpm:	Not Reported 0	rest unit.	Not Reported	
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	TK	WITT CHIOT.	Not Reported	
0,	0			
Pump yr:	Not Reported	Dat hala:	Not Doportod	
Draft yr: Bot solid:	Not Reported	Bot hole:	Not Reported Not Reported	
	•	Bot perf:	Not Reported	
Spec capac:	Not Reported			
Pump mgd:	0 Nat Danastad	Duran alaur	Net Demented	
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(2) 3-9-023:030	
Aqui code:	60304		04/04/4040	
Latest hd:	Not Reported	Wcr:	01/01/1949	
Pir:	Not Reported	Surveyor:	Not Reported	
Т:	Not Reported	Site id:	HI800000001106	
7 NW 2 - 1 Mile igher			FED USGS	USGS40000268887
Org. Identifier:	USGS-HI			
Formal name:	USGS Hawaii Water Science	Center		
Monloc Identifier:	USGS-204657156271401			
Monloc name:	6-4627.BA IWS			
Monloc type:	Well			
Monloc desc:	Not Reported			
Huc code:	20020000	Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:	•	Latitude:	20.7793005	
Longitude:	-156.4510699	Sourcemap scale:	24000	
Horiz Acc measure:	1	Horiz Acc measure units:	seconds	
Horiz Collection method:	Interpolated from map		00001100	
Horiz coord refsys:	NAD83	Vert measure val:	110.00	
Vert measure units:	feet	Vertacc measure val:	10	
Vert accmeasure units:	feet	Venace measure val.	10	
Vertcollection method:	Interpolated from topographic	man		
	HILOCAL	-	US	
Vert coord refsys:		Countrycode:	03	
Aquifername:	Not Reported			
Formation type:	Not Reported			
Aquifer type: Construction date:	Not Reported 19740916	Walldaath	22	
Construction date:		Welldepth:	23	
Mallalanth		Wellholedepth:	23	
Welldepth units:	ft ft			
Welldepth units: Wellholedepth units:	ft			
Wellholedepth units: Ground-water levels, Numb	ft er of Measurements: 1			
Wellholedepth units:	ft			

1974-09-16

Note: The site was dry (no water level recorded).

J28 NW 1/2 - 1 Mile Lower

HI WELLS HI800000001126

Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth: Solid case: Use: Init head: Init head3: Init cl: Test date: Test ddown: Test temp: Pump gpm: Draft mgy: Max chlor: Geology: Pump yr: Draft yr: Bot solid: Spec capac: Pump mgd: Draft mgd: Pump depth: Aqui code: Latest hd: Pir: T:

3056 Maui Not Reported 1950 MULLIN 6 -156.45777778 20.775	Wid: Well name:	6-4627-012 Tmk 3-9-15-12
0	Utm:	-1
Fedalizo C	Old number:	235-
Not Reported	Casing dia:	8
Not Reported	eachig dai	C C
31		
31	Perf case:	Not Reported
IRR - Irrigation (non-domes	stic, nort-Jaerice.atture)	Not Reported
Not Reported	Init head2:	Not Reported
Not Reported		
0		
Not Reported	Test gpm:	Not Reported
Not Reported	Test chlor:	Not Reported
Not Reported	Test unit:	Not Reported
0		
Not Reported	Head feet:	Not Reported
Not Reported THO	Min chlor:	Not Reported
0		
Not Reported	Bot hole:	Not Reported
Not Reported	Bot perf:	Not Reported
Not Reported		
0		
Not Reported	Pump elev:	Not Reported
Not Reported	Tmk:	Not Reported
60304		
Not Reported	Wcr:	01/01/1950
Not Reported	Surveyor:	Not Reported
Not Reported	Site id:	HI800000001126

J29 NW 1/2 - 1 Mile Lower

FED USGS USGS40000268875

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Ce	nter	
Monloc Identifier:	USGS-204642156273801		
Monloc name:	6-4627-12 W235		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20020000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	20.7751343
Longitude:	-156.4577364	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	18.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ар	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported	-	
Formation type:	Not Reported		

Org. Identifier:       USGS-HI         Formal name:       USGS Hawaii Water Science Center         Monico demittife:       USGS-204640156273501         Monico came:       6-4627-011 W237         Monico desc:       Not Reported         Huc code:       20020000         Drainagearea Units:       Not Reported         Longitude:       156.456903         Sourcemap scale:       20.7762453         Longitude:       1         Horz Colection method:       Interpolated from map         Horz Colection method:       Interpolated from map         Horz Colection method:       Interpolated from topographic map         Vert accmeasure units:       Feet         Vert accmeasure units:       Not Reported         Graund-water levels, Number of Measurements: 0       US         MW       Multic       Welldopth:       Not Reported         Vert accmeasure units:       Not Reported       Welldopth units:       Not Reported         Ground-water levels, Number of Measurements: 0<	Aquifer type: Construction date: Welldepth units: Wellholedepth units:	Not Reported 19500101 ft Not Reported	Welldepth: Wellholedepth:	31 Not Reported	
NW Lower     FED USGS     USGS 40000268       Crg. Identifier:     USGS 5-2046/40156273501     USGS 40000268       Monico cidentifier:     USGS 5-2046/40156273501     USGS 40000268       Monico cidentifier:     USGS 5-2046/40156273501     Not Reported       Monico cidentifier:     USGS 5-2046/40156273501     Not Reported       Monico cidentifier:     USGS 5-2046/40156273501     Not Reported       Drainagearea Units:     Not Reported     Contrib drainagearea:     Not Reported       Contrib drainagearea Units:     Not Reported     Contrib drainagearea:     Not Reported       Contrib drainagearea units:     Not Reported     Contrib drainagearea     Not Reported       Contrib drainagearea units:     Not Reported     Contrib drainagearea     Not Reported       Contrib drainagearea units:     Not Reported     Sourcemap scale:     24000       Horiz Acc measure:     1     Horiz Acc measure units:     seconds       Horiz Coord refsys:     NAD83     Vert neasure val:     3       Vert accomeasure units:     feet     Vertacc measure val:     3       Vert accomeasure units:     Not Reported     Countrycode:     US       Aquifer inpre:     Not Reported     Welldepth:     Not Reported       Construction date:     Not Reported     Well depth:     Not Reported   <	Ground-water levels, Numb	er of Measurements: 0			
1/2 - 1 Mile       USGS Hil         Formal name:       USGS Hawaii Water Science Center         Monico Identifier:       USGS Hawaii Water Science Center         Monico tame:       6-4627-01 W237         Monico desc:       Not Reported         Huc code:       2002000         Drainagearea units:       Not Reported         Contrib drainagearea units:       Not Reported         Longitude:       -156.456903         Sourcemap scale:       24000         Horiz Acc measure:       1         Horiz Acc measure:       1         Horiz Acc measure:       3         Vert measure units:       teet         Vert measure units:       teet         Vert measure units:       teet         Vert measure units:       teet         Vert collection method:       Interpolated from topographic map         Vert collection method:       Interpolated from topographic map         Vert collection method:       Not Reported         Ground-water levels, Number of Measurements: 0       0         Jii       Mile         Mile       Maui         Vert descret levels, Number of Measuremetts: 0       1         Mile       Maui       Weil name:       Tmk 39-15-14					1150540000269979
Formal name:       USGS Hawaii Water Science Center         Monico Identifier:       USGS 204646158273501         Monico type:       Well         Monico type:       Not Reported         Contrib drainagearea units:       Not Reported         Longitude:       -1564.55903         Sourcemap scale:       24000         Horiz Collection method:       Interpolated from map         Horiz Collection method:       Interpolated from topographic map         Vert coord refsys:       NAD Reported         Vert coord refsys:       Not Reported         Vert coord refsys:       Not Reported         Construction date:       Not Reported         Construction date:       Not Reported         Ground-water levels, Number of Measurements: 0       Velidepth units:       Not Reported         Velidepth units:       Not Reported       Well name:       Tmk 3-9-15-14         Vidit       1950       Umr:       -1         Objecitd:       3057       Wid:       -6-4627-013         Island:       Muli				FED 0303	030340000200070
Formal name:       USGS Hawaii Water Science Center         Monico Identifier:       USGS 204646158273501         Monico type:       Well         Monico type:       Not Reported         Contrib drainagearea units:       Not Reported         Longitude:       -1564.55903         Sourcemap scale:       24000         Horiz Collection method:       Interpolated from map         Horiz Collection method:       Interpolated from topographic map         Vert coord refsys:       NAD Reported         Vert coord refsys:       Not Reported         Vert coord refsys:       Not Reported         Construction date:       Not Reported         Construction date:       Not Reported         Ground-water levels, Number of Measurements: 0       Velidepth units:       Not Reported         Velidepth units:       Not Reported       Well name:       Tmk 3-9-15-14         Vidit       1950       Umr:       -1         Objecitd:       3057       Wid:       -6-4627-013         Island:       Muli	Lower				
Formal name: USGS Hawaii Water Science Center Monico Idemifier: USGS 240464758273501 Monico rame: 6-4627-01 W237 Monico type: Well Monico desc: Not Reported Luc code: 20020000 Drainagearea value: Not Reported Drainagearea units: Not Reported Latitude: 2007262453 Longitude: -156.456903 Sourcemap scale: 24000 Horiz Acc measure: 1 Horiz Acc measure units: seconds Horiz Collection method: Interpolated from top orgaphic map Vert measure units: feet Vert coord refsys: NAD83 Vert measure val: 23.00 Vert measure units: feet Vert coord refsys: NAD83 Vert measure val: 3 Vert accmeasure units: feet Vert coord refsys: NAD83 Vert measure val: 3 Vert accmeasure units: feet Vert coord refsys: Not Reported Construction method: Interpolated from topographic map Vert coord refsys: Not Reported Construction date: Not Reported Construction date: Not Reported Construction date: Not Reported Multiclepth units: Not Reported Wellholedepth units: Not Reported Wellholedepth units: Not Reported Sround-water levels, Number of Measurements: 0	Org. Identifier:	USGS-HI			
Monlace name:       6-4627-01 W237         Monlace byce:       Well         Monlace desc:       Not Reported         Hac code:       2002000       Drainagearea value:       Not Reported         Drainagearea units:       Not Reported       Contrib drainagearea:       Not Reported         Contrib drainagearea units:       Not Reported       Latitude:       20.7762453         Longitude:       1-166.456903       Sourcemap scale:       24000         Hotz Calcetion method:       Interpolated from map       Hotz Calcetion method:       Not Reported         Vert accmeasure units:       feet       Vertacce measure val:       3.00         Vert accmeasure units:       feet       Countrycode:       US         Vert ocord refsys:       HILOCAL       Countrycode:       US         Aguifername:       Not Reported       Countrycode:       US         Aguifer type:       Not Reported       Welldepth:       Not Reported         Gonstruction date:       Not Reported       Well Moledepth:       Not Reported         Well mane:       Not Reported       Well mame:       Tmk 3-9-15-14         Well dogth:       Not Reported       Well mame:       Tmk 3-9-15-14         Odd name:       Not Reported       Casing di	-	USGS Hawaii Water Science Cer	nter		
Monico: type:       Well         Monico: desc:       Not Reported         Huc code:       2002000       Drainagearea value:       Not Reported         Contrib drainagearea:       Not Reported       20.7762453         Contrib drainagearea:       Not Reported       20.7762453         Longitude:       -165.456903       Sourcemap scale:       24000         Horiz Acc measure:       1       Horiz Acc measure units:       seconds         Horiz Acc measure:       1       Horiz Acc measure vali:       3         Vert measure units:       feet       Vert measure vali:       3         Vert decord refsys:       Not Reported       Countrycode:       US         Aquifername:       Not Reported       Countrycode:       US         Aquifer and:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Wellholedepth units:       Not Reported       Welldepth:       Not Reported         Soft       Will       Well Molecopth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Wellnotedpth:       Not Reported	Monloc Identifier:	USGS-204646156273501			
Monico diese:       Not Reported         Huc code:       2002000         Drainagearea Units:       Not Reported         Contrib drainagearea units:       Not Reported         Longitude:       165.455903         Horiz Acc measure:       1         Horiz Collection method:       Interpolated from map         Horiz Collection method:       Interpolated from topographic map         Vert accmeasure units:       feet         Vert accmeasure units:       feet         Vert coord refsys:       HLOCAL         Construction date:       Not Reported         Construction date:       Not Reported         Vertocord refsys:       Not Reported         Ground-water levels, Number of Measurements: 0       Not Reported         Weilholedepth units:       Not Reported         Weil       3057       Wid:       6-4627-013         Stand:       1950       Tmk 3-9-15-14         Objectid:       3057       Wid:       6-4627-013         Objectid:       3057       Wid:         Conseruse:       <	Monloc name:	6-4627-01 W237			
Huc code: 2002000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported Latitude: 20.7752453 Longitude: -156.455903 Sourcemap scale: 24000 Horiz Acc measure: 1 Horiz Acc measure: 1 Horiz Collection method: Interpolated from map Horiz Collection method: Interpolated from topographic map Vert accmeasure units: feet Vertacc measure val: 3 Vert accmeasure units: feet Vertacc measure val: 0 Aquifername: Not Reported Aquifer main type: Not Reported Ground-water levels, Number of Measurements: 0	Monloc type:	Well			
Drainagearea Units:       Not Reported       Contrib drainagearea:       Not Reported         Longitude:       -156.456903       Sourcemap scale:       24000         Horiz Acc measure:       1       Horiz Acc measure units:       seconds         Horiz Collection method:       Interpolated from map       23.00         Vert measure units:       feet       Vert measure val:       23.00         Vert accreasure units:       feet       Vertacc measure val:       3         Vert accreasure units:       feet       Vertacc measure val:       3         Vert coord refsys:       HLDCAL       Countycode:       US         Aquifer type:       Not Reported       Countycode:       US         Aquifer type:       Not Reported       Weildepth:       Not Reported         Construction date:       Not Reported       Weildepth:       Not Reported         Weildepth units:       Not Reported       Weildepth:       Not Reported         Ground-water levels, Number of Measurements: 0       HI WELLS       Hi800000000111         Jointier:       Mai       Weil name:       Tmk 3-9-15-14         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Weil name:       Tmk 3-9-15-14	Monloc desc:	Not Reported			
Contrib drainagearea units: Not Reported Latitude: 207762453 Longitude: -156.456903 Sourcemap scale: 24000 Horiz Acc measure units: seconds Horiz Collection method: Interpolated from map Horiz cord refsys: NAD83 Vert measure val: 23.00 Vert measure units: feet Vertacc measure val: 3 Vert accmeasure units: feet Vert coord refsys: HILOCAL Countrycode: US Aquifername: Not Reported Formation type: Not Reported Ground-water levels, Number of Measurements: 0		20020000	Drainagearea value:	Not Reported	
Longitude: 166.466903 Sourcemap scale: 24000 Horiz Acc measure: 1 Horiz Acc measure units: seconds Horiz Collection method: Interpolated from map Horiz coord refsys: NAD33 Vert measure val: 23.00 Vert measure units: feet Vert accmeasure units: Not Reported Countrycode: US Aquifer type: Not Reported Construction date: Not Reported Wellholedepth units: Not Reported Well name: Not Reported Well name: Trik 3-9-15-14 It WELLS HI80000000011: 172 - 1 Mile Lower Objectid: 3057 Wid: 6-4627-013 It action 3057 Wid: 16-4627-013 It action 3057 Vid: 16-4627-013 It action 100 Vid: 16-4627-013 Vid: 16-4627-013 V			Contrib drainagearea:	Not Reported	
Horiz Acc measure:       1       Horiz Acc measure units:       seconds         Horiz Collection method:       Interpolated from map       23.00         Vert measure units:       feet       Vert measure val:       3         Vert acc measure units:       feet       Vert measure val:       3         Vert acc measure units:       feet       Vertacc measure val:       3         Vert coord refsys:       HILOCAL       Countrycode:       US         Aquifermame:       Not Reported       Countrycode:       US         Aquifer type:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Ground-water levels, Number of Measurements: 0       It wells       HIB00000000112         J31       Not Reported       Well name:       Tmk 3-9-15-14         NW       Maui       Well name:       Tmk 3-9-15-14         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Ground ang:       6         Long83dd:       -156.457777778       Casing dia:       8         Ground el:       20       U		Not Reported	Latitude:		
Horiz Collection method:       Interpolated from map         Horiz coord refsys:       NAD83       Vert measure val:       3         Vert accmeasure units:       feet       Vertaccmeasure val:       3         Vert accmeasure units:       feet       Vertaccmeasure val:       3         Vert accmeasure units:       feet       Vertaccmeasure val:       3         Vert coord refsys:       HILOCAL       Countrycode:       US         Aquifername:       Not Reported       Countrycode:       US         Aquifer type:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Welldepth:       Not Reported         T12 - 1 Mile       Maui       Well name:       Tmk 3-9-15-14         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Gasing dia:       8         Yr drilled:       1950       Oid number:       236-         Dinlier:       MULIN       Gasing dia	Longitude:	-156.456903	•	24000	
Horiz coord refsys:       NAD83       Vert measure val:       23.00         Vert measure units:       feet       Vertacc measure val:       3         Vert accmeasure units:       feet       Vertacc measure val:       3         Vert accmeasure units:       feet       Countrycode:       3         Vert coord refsys:       HILOCAL       Countrycode:       US         Aquifermame:       Not Reported       Countrycode:       US         Aquifermame:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Gorourd-water levels, Number of Measurements: 0       It wellsoledepth units:       Not Reported         J31       MW       Well       Hiso000000011:         Vert       20.57       Wid:       6-4627-013         Island:       Maui       Well ame:       Tmk 3-9-15-14         Old name:       Not Reported       Yr anilet:       1950         Driller:       MULLIN       Utrm:       -1         Quad map:       6       Casing dia:       8         Ground ei:       20       Vert       236-         Well depth:       29       Solid case:       20       Not	Horiz Acc measure:		Horiz Acc measure units:	seconds	
Vert measure units:       feet       Vert accmeasure val:       3         Vert accmeasure units:       feet       Vert accmeasure val:       3         Vert coold refsys:       HILOCAL       Countrycode:       US         Aquifername:       Not Reported       Fermation type:       Not Reported         Formation type:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth units:       Not Reported         Welldepth units:       Not Reported       Welldepth:       Not Reported         Ground-water levels, Number of Measurements: 0       HI WELLS       Hi800000000112         J31       WW       Well name:       Tmk 3-9-15-14         WW       Maui       Well name:       Tmk 3-9-15-14         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Fmk 3-9-15-14         Yr drilled:       1950       Driller:       MULLIN         Quad map:       6       Casing dia:       8         Ground ei:       20       Oid number:       236-         Well depth:       29       Solid case:       20					
Vert accmeasure units:       feet         Vert cool refsys:       Interpolated from topographic map         Vert cool refsys:       HILOCAL       Countrycode:       US         Aquifer refsys:       Not Reported       Countrycode:       US         Aquifer type:       Not Reported       Keported       Keported         Construction date:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Welldepth:       Not Reported         J31       Not Reported       Wellholedepth       Not Reported         J31       Not Reported       Wellholedepth       Not Reported         J31       Not Reported       Well       HiB0000000011:         J2 - 1 Mile       Jana       HiB0000000011:       HiB0000000011:         Lower       Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14       Old name:         Objectid:       1950       Umm:       -1       Objectid:       20.7752777778         Gps:       0       Umm:       -1       Owner user:       Bosque J       Old number:       236-         Well type:       Not Reported       Casing dia:       8	•				
Vertcollection method:       Interpolated from topographic map         Vert coord refsys:       HILOCAL       Countrycode:       US         Aquifermame:       Not Reported       Construction date:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Welloledepth units:       Not Reported       Wellholedepth:       Not Reported         J31       NW       HWELLS       Hi8000000011:         WW       Muit       Well name:       Tmk 3-9-15-14         Lower       Objectid:       3057       Wid:       6-4627-013         Vertice:       Not Reported       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Yr drilled:       1950         Driller:       MULLIN       Utrn:       -1         Quad map:       6       Long83dd:       20.7752777778         Lat83dd:       20.7752777778       236-       Vel depth:         Lat83dd:       20       Vel depth:       8         Ground ei:       20       Vel case:       Not Reported         Vel i depth:       29       Solid case:       20       <			Vertacc measure val:	3	
Vert coord refsys:       HILÓCAL       Countrycode:       US         Aquifername:       Not Reported       Formation type:       Not Reported         Aquifer type:       Not Reported       Welldepth:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Welldepth:       Not Reported         Ground-water levels, Number of Measurements: 0					
Aquifername:       Not Reported         Formation type:       Not Reported         Aquifer type:       Not Reported         Construction date:       Not Reported         Welldepth units:       Not Reported         Wellholedepth units:       Not Reported         Wellholedepth units:       Not Reported         Ground-water levels, Number of Measurements: 0         HI WELLS         J31         WW         Dbjectid:       3057         Wid:       6-4627-013         Island:       Maui         Well name:       Tmk 3-9-15-14         Objectid:       1950         Drille:       MULLIN         Quad map:       6         Long33dd:       -16.45777778         Lat83dd:       20.775277778         Gps:       0         Uwer:       Not Reported         Casing dia:       8         Ground et:       20         Well type:       Not Reported         Casing dia:       8         Ground et:       21         Solid case:       20         Well type:       Not Reported         Use:       IRR - Irrigation (non-domestic, nonWagripastur			•		
Formation type:       Not Reported         Aquifer type:       Not Reported         Construction date:       Not Reported         Welldepth units:       Not Reported         Wellholedepth units:       Not Reported         Ground-water levels, Number of Measurements: 0			Countrycode:	05	
Aquifer type:       Not Reported         Construction date:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Wellholedepth:       Not Reported         Ground-water levels, Number of Measurements: 0	•				
Construction date:       Not Reported       Welldepth:       Not Reported         Welldepth units:       Not Reported       Wellholedepth:       Not Reported         Ground-water levels, Number of Measurements: 0					
Welldepth units:       Not Reported       Wellholedepth:       Not Reported         Ground-water levels, Number of Measurements: 0			Walldapth	Not Poported	
Wellholedepth units:       Not Reported         Ground-water levels, Number of Measurements: 0       HI WELLS         J31 NW T2 - 1 Mile Lower       HI WELLS       HI80000000011:         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Yr drilled:       1950         Driller:       MULLIN       Utm:       -1         Quad map:       6       Long83dd:       20.7752777778         Gps:       0       Utm:       -1         Owner user:       Bosque J       Old number:       236-         Well type:       Not Reported       Casing dia:       8         Ground el:       20       Verif case:       Not Reported         Use:       IRR - Irrigation (non-domestic, nort-long/igature)       Not Reported         Use:       IRR - Irrigation (non-domestic, nort-long/igature)       Not Reported         Init head3:       Not Reported       Init head2:       Not Reported         Init head3:       Not Reported       Test gpm:       Not Reported			•		
Ground-water levels, Number of Measurements: 0  J31 NW 1/2 - 1 Mile Lower  Objectid: 3057 Wid: 6-4627-013 Island: Maui Well name: Tmk 3-9-15-14 Old name: Not Reported Yr drilled: 1950 Driller: MULLIN Quad map: 6 Long83dd: -156.457777778 Lat83dd: 20.7752777778 Gps: 0 Utm: -1 Owner user: Bosque J Old number: 236- Well type: Not Reported Casing dia: 8 Ground el: 20 Well depth: 29 Solid case: 20 Perf case: Not Reported Use: IRR - Irrigation (non-domestic, notWagrjadature) Not Reported Init head: 3.1 Init head2: Not Reported Init head3: Not Reported Init head3: Not Reported Test date: Not Reported Test gpm: Not Reported	•	•	Weinfoledeptif.	Not Reported	
J31 NW 12 - 1 Mile Lower       HI WELLS       HI800000001113         Objectid:       3057       Wid:       6-4627-013         Island:       Maui       Well name:       Tmk 3-9-15-14         Old name:       Not Reported       Tmk 3-9-15-14         Old name:       Not Reported       Tmk 3-9-15-14         Yr drilled:       1950       Tmk 3-9-15-14         Ouad map:       6       6         Long83dd:       -156.457777778       236-         Lat83dd:       20.7752777778       236-         Gps:       0       Utm:       -1         Owner user:       Bosque J       Old number:       236-         Well type:       Not Reported       Casing dia:       8         Ground el:       20       Perf case:       Not Reported         Use:       IRR - Irrigation (non-domestic, nort/Jagrjædture)       Not Reported         Use:       IRR - Irrigation (non-domestic, nort/Jagrjædture)       Not Reported         Init head3:       Not Reported       Init head2:       Not Reported         Init head3:       Not Reported       Test gpm:       Not Reported					
NW 1/2 - 1 Mile LowerHI WELLSHI80000000111Objectid:3057Wid:6-4627-013Island:MauiWell name:Tmk 3-9-15-14Old name:Not ReportedTmk 3-9-15-14Yr drilled:1950TmlDriller:MULLINFranceQuad map:6Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JOdn ares:Not ReportedVell type:Not ReportedCasing dia:8Ground el:20Vell depth:29Solid case:20Vell depth:3.1Init head1:3.1Init head3:Not ReportedInit head3:Not ReportedInit head3:Not ReportedTest date:Not ReportedTest date:Not ReportedTest date:Not Reported					
Island:MauiWell name:Tmk 3-9-15-14Old name:Not ReportedYr drilled:1950Driller:MULLINQuad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JBosque JOld number:Quel depth:20Well depth:29Solid case:20Use:IRR - Irrigation (non-domestic, norUserjæatrure)Not ReportedNot ReportedInit head3:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest date:Not ReportedTest gpm:Not Reported	NW 1/2 - 1 Mile			HI WELLS	HI8000000001128
Island:MauiWell name:Tmk 3-9-15-14Old name:Not ReportedYr drilled:1950Driller:MULLINQuad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JBosque JOld number:Quel depth:20Well depth:29Solid case:20Use:IRR - Irrigation (non-domestic, norUserjæatrure)Not ReportedNot ReportedInit head3:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest date:Not ReportedTest gpm:Not Reported	Objectid:	3057	Wid	6-4627-013	
Old name:Not ReportedYr drilled:1950Driller:MULLINQuad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JBosque JOld number:Vell type:Not ReportedGround el:20Vell depth:29Solid case:20Ves:IRR - Irrigation (non-domestic, nortegricature)Init head3:Not ReportedInit head3:Not ReportedInit head3:0Test date:Not ReportedTest date:Not ReportedTest gpm:Not Reported					
Yr drilled:1950Driller:MULLINQuad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JBosque JOld number:236-Well type:Not ReportedCasing dia:8Ground el:2020Perf case:Solid case:20Vell depth:29Solid case:20Ves:IRR - Irrigation (non-domestic, nortugerjocatrure)Init head1:3.1Init head2:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest gam:Not Reported			ttoi numo.		
Driller:MULLINQuad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JDowner user:Bosque JVell type:Not ReportedCasing dia:8Ground el:20Vell depth:29Solid case:20Vell type:IRR - Irrigation (non-domestic, nort-Jagrigeature)Not ReportedNot ReportedInit head2:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest gpm:Not Reported					
Quad map:6Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:Owner user:Bosque JBosque JOld number:236-Well type:Not ReportedCasing dia:8Ground el:20Well depth:29Solid case:20Veril type:IRR - Irrigation (non-domestic, nort/agrigeature)Not Reported3.1Init head2:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest gpm:Not Reported					
Long83dd:-156.45777778Lat83dd:20.775277778Gps:0Utm:-1Owner user:Bosque JOld number:236-Well type:Not ReportedCasing dia:8Ground el:20Vell depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, nort/agricature)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedTest gpm:Not Reported					
Lat83dd:20.775277778Gps:0Utm:-1Owner user:Bosque JOld number:236-Well type:Not ReportedCasing dia:8Ground el:20Vell depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, nort/agricature)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedTest gpm:Not Reported	•				
Owner user:Bosque JOld number:236-Well type:Not ReportedCasing dia:8Ground el:20Vell depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, nort/Jagn/ged/ture)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedNot ReportedInit cl:0Test gpm:Not Reported	-				
Well type:Not ReportedCasing dia:8Ground el:2020Well depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, nort/Jagn/gadture)Not ReportedInit head2:3.1Init head2:Not ReportedInit head3:Not ReportedNot ReportedInit cl:0Test gpm:Not Reported	Gps:	0	Utm:	-1	
Well type:Not ReportedCasing dia:8Ground el:2020Well depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, nort/Jagn/gadture)Not ReportedInit head2:3.1Init head2:Not ReportedInit head3:Not ReportedNot ReportedInit cl:0Test gpm:Not Reported	•	Bosque J	Old number:	236-	
Well depth:29Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, norl/Jagrigeature)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedInit head2:Not ReportedInit cl:0Test gpm:Not Reported	Well type:		Casing dia:	8	
Solid case:20Perf case:Not ReportedUse:IRR - Irrigation (non-domestic, norl/agriceature)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedInit head2:Not ReportedInit cl:0Test gpm:Not Reported					
Use:IRR - Irrigation (non-domestic, nortUagrigedature)Not ReportedInit head:3.1Init head2:Not ReportedInit head3:Not ReportedInit cl:0Init cl:0Test gpm:Not Reported	Well depth:				
Init head:3.1Init head2:Not ReportedInit head3:Not ReportedInit cl:0Test date:Not ReportedTest gpm:Not Reported	Solid case:				
Init head3:Not ReportedInit cl:0Test date:Not ReportedTest gpm:Not Reported					
Init cl: 0 Test date: Not Reported Test gpm: Not Reported			Init head2:	Not Reported	
Test date: Not Reported Test gpm: Not Reported					
			<b>-</b> <i>i</i>		
Lest adown: Not Reported Lest chlor: Not Reported					
	i est adown:	Not Reported	i est chior:	Not Reported	

Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm: Draft mgy:	0 Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	ТНО		Not Reported	
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	-9	
Bot solid:	9	Bot perf:	Not Reported	
Spec capac:	Not Reported	Dorpolit	nornoponou	
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	Not Reported	
Aqui code:	60304			
Latest hd:	Not Reported	Wcr:	01/01/1950	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI800000001128	
J32 NW 1/2 - 1 Mile Lower			FED USGS	USGS40000268877
Org. Identifier:	USGS-HI			
Formal name:	USGS Hawaii Water Science Cer	nter		
Monloc Identifier:	USGS-204643156273801			
Monloc name:	6-4627-13 W236			
Monloc type:	Well			
Monloc desc:	Not Reported			
Huc code:	20020000	Drainagearea value:		
Drainagearea Units:		Dialilayearea value.	Not Reported	
	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:	Not Reported	Contrib drainagearea: Latitude:	Not Reported 20.775412	
Contrib drainagearea units: Longitude:	Not Reported -156.4577364	Contrib drainagearea: Latitude: Sourcemap scale:	Not Reported 20.775412 24000	
Contrib drainagearea units: Longitude: Horiz Acc measure:	Not Reported -156.4577364 1	Contrib drainagearea: Latitude:	Not Reported 20.775412	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method:	Not Reported -156.4577364 1 Interpolated from map	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported 20.775412 24000 seconds	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys:	Not Reported -156.4577364 1	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val:	Not Reported 20.775412 24000 seconds 20.00	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported 20.775412 24000 seconds	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported 20.775412 24000 seconds 20.00	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vertcollection method:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported 20.775412 24000 seconds 20.00 2	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported 20.775412 24000 seconds 20.00	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vertcollection method: Vert coord refsys: Aquifername:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL Not Reported	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported 20.775412 24000 seconds 20.00 2	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert collection method: Vert coord refsys: Aquifername: Formation type:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL Not Reported Not Reported	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val:	Not Reported 20.775412 24000 seconds 20.00 2	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert collection method: Vert coord refsys: Aquifername: Formation type: Aquifer type:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL Not Reported Not Reported Not Reported	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val: p Countrycode:	Not Reported 20.775412 24000 seconds 20.00 2 US	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert collection method: Vert coord refsys: Aquifername: Formation type: Aquifer type: Construction date:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL Not Reported Not Reported Not Reported Not Reported 19500101	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val: p Countrycode: Welldepth:	Not Reported 20.775412 24000 seconds 20.00 2 US 29	
Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert collection method: Vert coord refsys: Aquifername: Formation type: Aquifer type:	Not Reported -156.4577364 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma HILOCAL Not Reported Not Reported Not Reported	Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val: p Countrycode:	Not Reported 20.775412 24000 seconds 20.00 2 US	

Ground-water levels, Number of Measurements: 0

J33 NW 1/2 - 1 Mile Lower

HI WELLS HI800000001130

Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd: Gps: Owner user: Well type: Ground el: Well depth: Solid case: Use: Init head: Init head3: Init cl: Test date: Test ddown: Test temp: Pump gpm: Draft mgy: Max chlor: Geology: Pump yr: Draft yr: Bot solid: Spec capac: Pump mgd: Draft mgd: Pump depth: Aqui code: Latest hd: Pir: T:

3045 Maui Not Reported 0 Not Reported 6 -156.4575 20.7761111111 0 Uehara T Not Reported Not Reported 0 Not Reported Other Not Reported Not Reported 0 Not Reported Not Reported Not Reported 0 Not Reported Not Reported THO 0 Not Reported Not Reported Not Reported 0 Not Reported Not Reported 60304 Not Reported Not Reported Not Reported

Wid: Well name: Utm: Old number:

> Perf case: Use year: Init head2:

Casing dia:

Test gpm: Test chlor: Test unit:

Head feet: Min chlor:

Bot hole: Bot perf:

Pump elev: Tmk:

Wcr: Surveyor: Site id: Not Reported Not Reported Not Reported

-1 237-

Not Reported Not Reported

Not Reported

Not Reported

6-4627-001

Tmk 3-9-01-24

Not Reported Not Reported

Not Reported Not Reported

Not Reported Not Reported

12/30/1899 Not Reported HI8000000001130

34 NNW 1/2 - 1 Mile Lower

#### FED USGS USGS40000268888

Org. Identifier: USGS-HI Formal name: USGS Hawaii Water Science Center Monloc Identifier: USGS-204657156272401 6-4627.AA IWS Monloc name: Well Monloc type: Monloc desc: Not Reported Huc code: 20020000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 20.7793005 Contrib drainagearea units: Not Reported Latitude: Longitude: -156.4538476 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds 1 Horiz Collection method: Interpolated from map NAD83 Horiz coord refsys: Vert measure val: 58.00 Vert measure units: feet Vertacc measure val: 10 Vert accmeasure units: feet Vertcollection method: Interpolated from topographic map US Vert coord refsys: HILOCAL Countrycode: Not Reported Aquifername: Formation type: Not Reported

Aquifer type:	Not Reported			
Construction date:	19730720	Welldepth:	28	
Welldepth units:	ft	Wellholedepth:	28	
Wellholedepth units:	ft			
Ground-water levels, Nun				
Feet below				
Date Surface	Sealevel			
1973-07-20	(no water level recorded).			
K35 SSW 4/2 1 Mile			FED USGS	USGS40000268861
1/2 - 1 Mile Lower				
Org. Identifier:	USGS-HI			
Formal name:	USGS Hawaii Water Science	ce Center		
Monloc Identifier:	USGS-204533156271701			
Monloc name:	6-4527.AA IWS			
Monloc type:	Well			
Monloc desc:	Not Reported			
Huc code:	20020000	Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea unit		Latitude:	20.7559691	
Longitude:	-156.4519034	Sourcemap scale:	24000	
Horiz Acc measure:	1	Horiz Acc measure units:	seconds	
Horiz Collection method:	Interpolated from map			
Horiz coord refsys:	NAD83	Vert measure val:	19.00	
Vert measure units:	feet	Vertacc measure val:	10	
Vert accmeasure units:	feet		-	
Vertcollection method:	Interpolated from topograph	nic map		
Vert coord refsys:	HILOCAL	Countrycode:	US	
Aquifername:	Not Reported	· · · · · · · · · · · · · · · · · · ·		
Formation type:	Not Reported			
Aquifer type:	Not Reported			
Construction date:	19741109	Welldepth:	60	
Welldepth units:	ft	Wellholedepth:	60	
Wellholedepth units:	ft			
Ground-water levels, Nun	nber of Measurements: 0			
36 SW 1/2 - 1 Mile Lower			HI WELLS	HI8000000001108
Objectid:	3031	Wid:	6-4527-014	
Island:	Maui	Well name:	Kauhale Makai	
	Net Demented			

Island:	Maui	Well name:	Kauhale Makai	
Old name:	Not Reported			
Yr drilled:	2001			
Driller:	WAILANI DRLG			
Quad map:	6			
Long83dd:	-156.458333333			
Lat83dd:	20.7597222222			
Gps:	0	Utm:	-1	
Owner user:	Kauhale Makai	Old number:	Not Reported	

Well type: Ground el: Well depth: Solid case: Use: Init head: Init head3: Init cl: Test date: Test ddown: Test temp: Pump gpm: Draft mgy: Max chlor: Geology: Pump yr: Draft yr: Bot solid: Spec capac: Pump mgd: Draft mgd: Pump depth: Aqui code: Latest hd: Pir:

ROT 9 86 57 IRR - Parks 1.69 Not Reported 2518 3/7/2001 5.77 74 150 Not Reported Not Reported Not Reported 2001 Not Reported -48 17 .216 Not Reported 24 60304 Not Reported Not Reported

4552

Perf case: Use year: Init head2:

Casing dia:

Test gpm: Test chlor: Test unit:

Head feet: Min chlor:

Bot hole: Bot perf:

Pump elev: Tmk:

Wcr: Surveyor: Site id: Not Reported Not Reported

100

2897

F

6

Not Reported

Not Reported

Not Reported

-77 Not Reported

-15 (2) 3-9-001:075

12/30/1899 KIRK T TANAKA HI800000001108

#### HI WELLS HI800000001135

NW 1/2 - 1 Mile Lower

L37

T:

Objectid: Island: Old name: Yr drilled: Driller: Quad map: Long83dd: Lat83dd:	3053 Maui Not Reported 1948 MULLIN 6 -156.458611111 20.7780555556	Wid: Well name:	6-4627-009 Tmk 3-9-01-50
Gps:	0	Utm:	-1
Owner user:	Gusukuma T	Old number:	238-
Well type:	Not Reported	Casing dia:	4
Ground el:	Not Reported		
Well depth:	35		
Solid case:	35	Perf case:	Not Reported
Use:	IRR - Irrigation (non-domestic, no	onUagnjædture)	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	THO		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		

	Draft mgd:	Not Reported	Pump elev:	Not Reported	
	Pump depth:	Not Reported	Tmk:	Not Reported	
	Aqui code:	60304			
	Latest hd:	Not Reported	Wcr:	01/01/1948	
	Pir:	Not Reported	Surveyor:	Not Reported	
	T:	Not Reported	Site id:	HI800000001135	
S	38 SW			FED USGS	USGS40000268860
	/2 - 1 Mile ower				
	Org. Identifier:	USGS-HI			
	Formal name:	USGS Hawaii Water Science Cer	nter		
	Monloc Identifier:	USGS-204529156271601			
	Monloc name:	6-4527-01 W200			
	Monloc type:	Well			
	Monloc desc:	Not Reported			
	Huc code:	20020000	Drainagearea value:	Not Reported	
	Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
	Contrib drainagearea units:	Not Reported	Latitude:	20.7548581	
	Longitude:	-156.4516257	Sourcemap scale:	24000	
	Horiz Acc measure:	1	Horiz Acc measure units:	seconds	
	Horiz Collection method:	Interpolated from map			
	Horiz coord refsys:	NAD83	Vert measure val:	18.00	
	Vert measure units:	feet	Vertacc measure val:	3	
	Vert accmeasure units:	feet			
	Vertcollection method:	Interpolated from topographic ma	ıp		
	Vert coord refsys:	HILOCAL	Countrycode:	US	
	Aquifername:	Not Reported	-		
	Formation type:	Not Reported			
	Aquifer type:	Not Reported			
	Construction date:	19450101	Welldepth:	30	
	Welldepth units:	ft	Wellholedepth:	Not Reported	
	Wellholedepth units:	Not Reported			

Ground-water levels, Number of Measurements: 0

#### L39 NW 1/2 - 1 Mile Lower

FED USGS USGS40000268883

Org. Identifier: USGS-HI Formal name: USGS Hawaii Water Science Center Monloc Identifier: USGS-204653156274101 6-4627-09 W238 Monloc name: Monloc type: Well Monloc desc: Not Reported Huc code: 20020000 Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported Longitude: -156.4585696

Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale:

Not Reported Not Reported 20.7781896 24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	25.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic m	ар	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	35
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

K40 SSW 1/2 - 1 Mile Lower			HI WELLS	HI800000001104
Objectid:	3021	Wid:	6-4527-001	
Island:	Maui	Well name:	TMK 3-9-02-36	
Old name:	Not Reported			
Yr drilled:	1945			
Driller:	MULLIN			
Quad map:	8			
Long83dd:	-156.451666667			
Lat83dd:	20.7547222222			
Gps:	0	Utm:	-1	
Owner user:	Akina R	Old number:	200-	
Well type:	Not Reported	Casing dia:	6	
Ground el:	Not Reported	-		
Well depth:	30			
Solid case:	22	Perf case:	Not Reported	
Use:	AGR - Crops and Processing	Use year:	Not Reported	
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	250	
Test ddown:	2	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	120			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	ТК			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	125			
Pump mgd:	.17			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(2) 3-9-002:036	
Aqui code:	60304			
Latest hd:	Not Reported	Wcr:	01/01/1945	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI800000001104	

Map ID Direction Distance				
Elevation			Database	EDR ID Number
M41 NW 1/2 - 1 Mile Lower			HI WELLS	HI800000001131
Objectid:	3054	Wid:	6-4627-010	
Island:	Maui	Well name:	Tmk 3-9-06-06	
Old name:	Not Reported			
Yr drilled:	1948			
Driller:	MULLIN			
Quad map:	6			
Long83dd:	-156.460277778			
Lat83dd:	20.77666666667			
Gps:	0	Utm:	-1	
Owner user:	Fujimoto I	Old number:	239-	
Well type:	Not Reported	Casing dia:	7	
Ground el:	Not Reported	eachig ala.	·	
Well depth:	19			
Solid case:	19	Perf case:	Not Reported	
Use:	IRR - Irrigation (non-dom		Not Reported	
Init head:	Not Reported	Init head2:	Not Reported	
Init head3:	Not Reported			
Init cl:	0			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0	rest diff.	Not Reported	
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	THO		Not Reported	
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	Not Reported	Dorponi	Not Reported	
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	Not Reported	
Aqui code:	60304	i i i i i i i i i i i i i i i i i i i	Not Reported	
Latest hd:	Not Reported	Wcr:	01/01/1948	
Pir:	Not Reported	Surveyor:	Not Reported	
ги. Т:	Not Reported	Site id:	HI800000001131	
1.	Not Reported	Site iu.	1100000001131	

#### M42 NW 1/2 - 1 Mile

Lower

Org. Identifier: USGS-HI USGS Hawaii Water Science Center Formal name: Monloc Identifier: USGS-204648156274701 Monloc name: 6-4627-10 W239 Monloc type: Well Monloc desc: Not Reported 20020000 Huc code: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: Longitude: -156.4602363

Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Not Reported Not Reported 20.7768008 24000

FED USGS

#### USGS40000268880

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	10.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ар	
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	19
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

#### AREA RADON INFORMATION

Federal EPA Radon Zone for MAUI County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96753

Number of sites tested: 10

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.010 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Well Index Database
 Source: Commission on Water Resource Management
 Telephone: 808-587-0214
 CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii

#### **OTHER STATE DATABASE INFORMATION**

RADON

Area Radon Information Source: USGS Telephone: 703-356-4020 The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STREET AND ADDRESS INFORMATION

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## Piilani Promenade

Piilani Highway and Kaonoulu Street Kihei, HI 96753

Inquiry Number: 3679434.3 July 29, 2013

## **Certified Sanborn® Map Report**



440 Wheelers Farms Road Milford, CT 06461 800.352.0050 www.edrnet.com

## **Certified Sanborn® Map Report**

Site Name:	Client Name:	
Piilani Promenade Piilani Highway and Kaonoulu Kihei, HI 96753	MEV, LLC P.O. Box 880487 Pukalani, HI 96788	EDR® Environmental Data Resources Inc
EDR Inquiry # 3679434.3	Contact: Amy Mathis	

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by MEV, LLC were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

#### Certified Sanborn Results:

Site Name: Address: City, State, Zip: Cross Street:	Piilani Promenade Piilani Highway and Kaonoulu Street Kihei, HI 96753
P.O. # Project:	1307-0292 Piilani Promenade
Certification #	72AB-40AE-9149

#### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



7/29/13

Sanborn® Library search results Certification # 72AB-40AE-9149

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

Library of Congress
 University Publications of America
 EDR Private Collection

The Sanborn Library LLC Since 1866™

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July 18, 2013

State of Hawaii Department of Health Environmental Management Division 919 Ala Moana Boulevard, Room 308 Honolulu, HI 96814 Attn: Safe Drinking Water Branch

Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir/Madam:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion) (2) 2-2-2: 82 (portion) (2) 3-9-1: 16,169, 170, 171,	(2) 2-2-2: 77 (2) 3-9-1: 34 (portion) 172
Address:	East of Piilani Highway, ea south of Ohukai Road Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	<ul> <li>(2) 2-2-2: 16 (portion)</li> <li>(2) 2-2-2: 77 &amp; 82 (portion)</li> <li>(2) 3-9-1: 34 (portion)</li> <li>(2) 3-9-1: 170, 171, 172</li> <li>(2) 3-9-1: 16</li> <li>(2) 3-9-1: 169</li> </ul>	Haleakala Ranch Company Kaonoulu Ranch Harry H. Hashimoto Trust Piilani Promenade South Piilani Promenade North Honua'ula Partners LLC
Former Owner:	Unknown	
Current Occupant:	Unoccupied	

Type of Business: Vacant land

Tax Map Keys are enclosed.

Sincerely,

my R. Ken

Jeffrey R. King

```
>Jeffrey
>
Regarding MEV Project Number 1307-0292, there are no UIC records
>associated with any of the 9 properties.
>
Norris Uehara
>
Supervisor, Groundwater Pollution Control Section
>
Safe Drinking Water Branch
>
808 586-4258
```



July 18, 2013

Hawaii State Department of Health 919 Ala Moana Blvd., Room 203 Honolulu, HI 96814 Attn: Wastewater Branch

Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion)	(2) 2-2-2: 77
	(2) 2-2-2: 82 (portion)	(2) 3-9-1: 34 (portion)
	(2) 3-9-1: 16,169, 170, 171,	172
Address:	East of Piilani Highway, ea south of Ohukai Road Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	(2) 2-2-2: 16 (portion)	Haleakala Ranch Company
	(2) 2-2-2: 77 & 82 (portion)	Kaonoulu Ranch
	(2) 3-9-1: 34 (portion)	Harry H. Hashimoto Trust
	(2) 3-9-1: 170, 171, 172	Piilani Promenade South
	(2) 3-9-1: 16	Piilani Promenade North
	(2) 3-9-1: 169	Honua'ula Partners LLC
Former Owner:	Unknown	
Current Occupant:	Unoccupied	

Type of Business: Vacant land

Tax Map Keys are enclosed.

Sincerely,

they R. King

Jeffrey R. King



July 18, 2013

State of Hawaii Department of Health Environmental Management Division 919 Ala Moana Boulevard, Room 309 Honolulu, HI 96814 Attn: Clean Air Branch

## Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir/Madam:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion) (2) 2-2-2: 82 (portion) (2) 3-9-1: 16,169, 170, 171,	(2) 2-2-2: 77 (2) 3-9-1: 34 (portion) 172
Address:	East of Piilani Highway, ea south of Ohukai Road Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	<ul> <li>(2) 2-2-2: 16 (portion)</li> <li>(2) 2-2-2: 77 &amp; 82 (portion)</li> <li>(2) 3-9-1: 34 (portion)</li> <li>(2) 3-9-1: 170, 171, 172</li> <li>(2) 3-9-1: 16</li> <li>(2) 3-9-1: 169</li> </ul>	Haleakala Ranch Company Kaonoulu Ranch Harry H. Hashimoto Trust Piilani Promenade South Piilani Promenade North Honua'ula Partners LLC
Former Owner:	Unknown	
Current Occupant:	Unoccupied	

Type of Business: Vacant land

Tax Map Keys are enclosed.

Sincerely,

effrez R. King

Jeffrey R. King



July 18, 2013

State of Hawaii Department of Health Environmental Management Division 919 Ala Moana Boulevard, Room 301 Honolulu, HI 96814 Attn: Clean Water Branch

Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir/Madam:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion) (2) 2-2-2: 82 (portion) (2) 3-9-1: 16,169, 170, 171,	(2) 2-2-2: 77 (2) 3-9-1: 34 (portion) 172
Address:	East of Piilani Highway, ea south of Ohukai Road Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	<ul> <li>(2) 2-2-2: 16 (portion)</li> <li>(2) 2-2-2: 77 &amp; 82 (portion)</li> <li>(2) 3-9-1: 34 (portion)</li> <li>(2) 3-9-1: 170, 171, 172</li> <li>(2) 3-9-1: 16</li> <li>(2) 3-9-1: 169</li> </ul>	Haleakala Ranch Company Kaonoulu Ranch Harry H. Hashimoto Trust Piilani Promenade South Piilani Promenade North Honua'ula Partners LLC

Unknown

Former Owner:

Current Occupant: Unoccupied

Type of Business: Vacant land

Tax Map Keys are enclosed. Sincerely,

they R. King

Jeffrey R. King

PO Box 880487, Pukalani, Hawaii 96788-0487 • Phone (808) 876-0500 • Fax (808) 876-1900 Email: <u>info@malamaenvironmental.com</u> • Web: www.malamaenvironmental.com



July 18, 2013

State of Hawaii Department of Health Environmental Management Division 919 Ala Moana Boulevard, Room 206 Honolulu, HI 96814 Attn: HEER Office

Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir/Madam:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion)	(2) 2-2-2: 77
	(2) 2-2-2: 82 (portion)	(2) 3-9-1: 34 (portion)
	(2) 3-9-1: 16,169, 170, 171,	172
Address:	East of Piilani Highway, ea south of Ohukai Road Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	(2) 2-2-2: 16 (portion)	Haleakala Ranch Company
	(2) 2-2-2: 77 & 82 (portion)	Kaonoulu Ranch
	(2) 3-9-1: 34 (portion)	Harry H. Hashimoto Trust
	(2) 3-9-1: 170, 171, 172	Piilani Promenade South
	(2) 3-9-1: 16 (2) 3-9-1: 169	Piilani Promenade North Honua'ula Partners LLC
	(2) 5-9-1. 109	
Former Owner:	Unknown	
Current Occupant:	Unoccupied	
Type of Business:	Vacant land	

Tax Map Keys are enclosed.

Sincerely,

my R. Ken

Jeffrey R. King



July 18, 2013

State of Hawaii Department of Health Environmental Management Division 919 Ala Moana Boulevard, Room 212 Honolulu, HI 96814 Attn: Solid & Hazardous Waste Branch

Subject: REQUEST FOR PUBLIC RECORDS

Dear Sir/Madam:

We are requesting a search for any past or pending <u>environmental permits</u>, <u>licenses</u>, <u>citations</u>, <u>releases</u>, or <u>other information</u> pertaining to the site(s) described below.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion)	(2) 2-2-2: 77
	(2) 2-2-2: 82 (portion)	(2) 3-9-1: 34 (portion)
	(2) 3-9-1: 16,169, 170, 171,	172
Address:	East of Piilani Highway, ea south of Ohukai Road  Kih	st of Ka'ono'ulu Street and ei, HI 96753
Current Owners:	(2) 2-2-2: 16 (portion)	Haleakala Ranch Company
	(2) 2-2-2: 77 & 82 (portion)	Kaonoulu Ranch
	(2) 3-9-1: 34 (portion)	Harry H. Hashimoto Trust
	(2) 3-9-1: 170, 171, 172	Piilani Promenade South
	(2) 3-9-1: 16	Piilani Promenade North
	(2) 3-9-1: 169	Honua'ula Partners LLC

Former Owner: Unknown

Current Occupant: Unoccupied

Type of Business: Vacant land

Tax Map Keys are enclosed.

Sincerely,

effrez R. Key

Jeffrey R. King

PO Box 880487, Pukalani, Hawaii 96788-0487 • Phone (808) 876-0500 • Fax (808) 876-1900 Email: <u>info@malamaenvironmental.com</u> • Web: www.malamaenvironmental.com



July 18, 2013

Maui County Fire Department Hazardous Materials Division 200 Dairy Road Kahului, Hawaii 96732 <u>Attn: Acting Officer</u>

#### **RE: Request for Public Records**

Dear Sir/Madam:

MEV is requesting any past or present information of environmental concern pertaining to the subject site and adjacent sites from the Maui County Fire Department's database. This could include information on environmental releases (spills), permits, citations, inspections, fires, etc.

## SITE INFORMATION:

MEV Project Number:	1307-0292	
Tax Map Key No.:	(2) 2-2-2: 16 (portion)	(2) 2-2-2: 77
	(2) 2-2-2: 82 (portion)	(2) 3-9-1: 34 (portion)
	(2) 3-9-1: 16,169, 170, 171,	172
Address:	East of Piilani Highway, ea of Ohukai Road Kihei, HI	ast of Ka'ono'ulu Street and south 96753
Current Owners:	(2) 2-2-2: 16 (portion)	Haleakala Ranch Company
	(2) 2-2-2: 77 & 82 (portion)	Kaonoulu Ranch
	(2) 3-9-1: 34 (portion)	Harry H. Hashimoto Trust
	(2) 3-9-1: 170, 171, 172	Piilani Promenade South
	(2) 3-9-1: 16	Piilani Promenade North
	(2) 3-9-1: 169	Honua'ula Partners LLC
Former Owner:	Unknown	
Current Occupant:	Unoccupied	
Type of Business:	Vacant land	

Thank you for your assistance.

Sincerely yours,

my R. Ken

Jeffrey R. King

NEIL ABERCROMBIE GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H. DIRECTOR OF HEALTH

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

In reply, please refer to: DOH/CWB

## R10D273.EXT.12

October 15, 2012

Mr. Douglas Gray President Piilani Promenade South LLC 178022 Sky Park Circle #200 Irvine, California 92614

Dear Mr. Gray:

Subject: Administrative Extension of Notice of General Permit Coverage (NGPC) Kaonoulu Market Place / Piilani Promenade Kihei, Island of Maui, Hawaii File No. HI R10D273

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your renewal Notice of Intent (NOI) and \$500 filing fee for coverage under the National Pollutant Discharge Elimination System general permit provisions, in accordance with the Hawaii Administrative Rules (HAR), Section 11-55-34.08.

The DOH is unable to complete the processing of your NOI prior to the current NGPC expiration date. Therefore, in accordance with HAR, Section 11-55-34.09(d), the DOH hereby administratively extends the subject NGPC until a notice of renewed coverage under the applicable general permit is issued or until notified by the DOH, whichever occurs first. Please note that the DOH may request you submit additional information in order to complete the processing of your NOI for renewed coverage.

The Permittee shall not be held in violation of Hawaii Revised Statutes, Chapter 342D-6(h), and HAR, Chapter 11-55, during the pendency of its renewal NOI, so long as it acts consistently with the NGPC presently granted. **Note: The Permittee shall continue any sampling required by the current NGPC.** Any non-compliance with the conditions of the administratively extended NGPC may be subject to penalties of up to \$25,000 per violation per day.

It is the Permittee's responsibility to ensure that anyone working under this administrative extension of your NGPC understands and complies with the terms and conditions therein.

R10D273.EXT.12

Mr. Douglas Gray October 15, 2012 Page 2

If you have any questions, please contact Ms. Kris Poentis of the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

Sum

STUART YAMADA, P.E., CHIEF Environmental Management Division

Enclosure: Receipt No. 41339 for \$500 Filing Fee

 c: Mr. Douglas Gray, Piilani Promenade South LLC (w/o encl.) [via e-mail <u>dgray@eclipsedevelopmentgroup.com]</u> Mr. Charles Jenks, Piilani Promenade South LLC (w/o encl.) [via e-mail <u>charliej@pacificrimland.com]</u> Mr. Derek Ono, Warren S. Unemori Engineering (w/o encl.) [via e-mail <u>dono@wsui.com]</u> Amy, attached find the questionnaire you requested. The following addresses your questions:

1. Could you please tell me what the intended use is for the property? Will some of it be residential? At the present time there is a residential component of 200 rental units proposed for the project.

2. When I was walking around the baseyard, I noted 2 metal storage containers that were locked. Can you tell me what is inside of the containers?

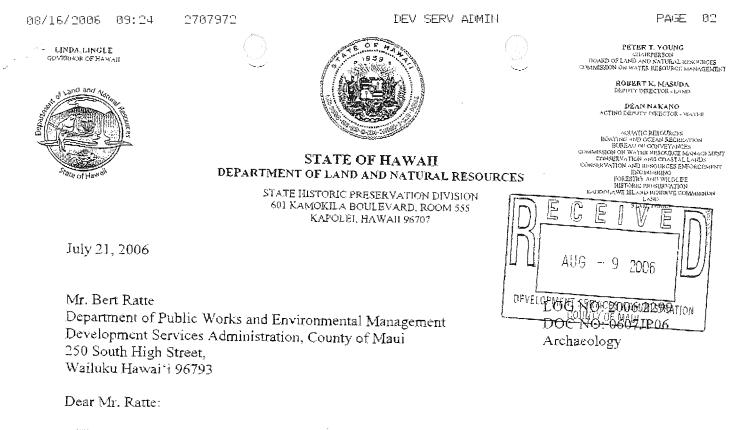
General construction materials associated with the material already purchased and stored on site such as valves, fasteners, etc.

3. Are there any petroleum projects within the baseyard that you are aware of? <u>Not at present</u>

4. Has there been a recent archaeological inspection conducted on the premises? If so, can I take a look at it?

Yes, the AIS was done in the early 90's and I have attached to this email.

CJ



SUBJECT: Chapter 6E-42 Historic Preservation Review [County/DSA] – Construction Plan Review and Drainage Report (File No: 2.2795) for the Proposed Ka'onu'ulu Marketplace AKA Ka'onu'ulu Ranch Large Lot Subdivision Ka'onu'ulu Ahupua'a, Wailuku District, Island of Maui <u>TMK: (2) 2-2-002:015 & 3-9-001:016</u>

The proposed undertaking involves Lot 2 of Ka'onu'ulu Ranch (Large-Lot) Subdivision. Proposed plans involve the development of approximately eighty-eight (88) acres that includes a commercial center consisting of four (4) light industrial lots numbered 1 through 4. Development will include asphalt paved roadways, concrete curbing and gutters, concrete sidewalks, and landscaping. Utility improvements will consist of underground sewer, drainage, water, and electrical and telephone distribution center.

We have previously provided comments involving the subject parcel (LOG NO: 2004.3636/ DOC NO: 0412CD19; LOG NO: 2004.1249/ DOC NO: 0404CD42). We commented on the preliminary plat review that summarized the status of the subject parcel (LOG NO: 2003.2065/ DOC NO: 0310CD33). In 1994, Xamanek Researches conducted an archaeological inventory survey and documented twenty-one (21) historic sites that were issued twenty (20) State Inventory of Historic Places (SIHP) numbers 50-50-10-3727 through -3746. Of these sites, nineteen (19) were deemed significant for information content and have had sufficient data collected therefore no further archaeological work is necessary. One (1) site (petroglyph) was removed from the original location and slated for permanent preservation at a different location [TMK: (2) 2-2-006:009]. The present location of the petroglyph is specified in the preservation plan (after-the-fact) that was submitted by Xamanek for Munekiyo and Arakawa in 1994 (LOG NO: 1998.21157/ DOC NO: 9802BD21).

At the time of the preliminary plat review, we requested that no action be taken of the subdivision until we have received a site plan with the original and permanent locations of SIHP 50-50-10-3746

Mr. Bert Ratte Page 2

clearly demarcated by a licensed surveyor (LOG NO: 2003.2065/ DOC NO: 0310CD33). Our records indicate that we have not yet received a location map for the petroglyph.

We concur that no historic properties will be affected by this undertaking because:

- Intensive cultivation has altered the land
- Residential development/urbanization has altered the land
- Previous grubbing/grading has altered the land

An accepted archaeological inventory survey (AIS) found no historic properties

- SHPD previously reviewed this project and mitigation has been completed
  - Other: We have previously investigated the subject property and documented twenty (20) historic archaeological sites. SIHP 50-50-10-3746 (petroglyph) was slated for permanent preservation and has an accepted preservation plan. It is unlikely that any historic properties will be affected by the proposed undertaking considering the specifics of the preservation plan are implemented.

In the event that historic resources, including human skeletal remains, are identified during routine construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Maui Section, needs to be contacted immediately at (808) 243-5169.

Aloha,

inistrator State Historic Preservation Division

JP:kf:gvf

Michael Foley, Director, Department of Planning, FAX 808-270-7634
 Maui Cultural Resources Commission, Dept. of Planning, 250 S. High St., Wailuku, HI 96793

# **Appendix C:**

## Qualifications of Environmental Professionals



## MALAMA Environmental

STATEMENT OF QUALIFICATIONS		
for Amy Mathis, Environmental Scientist		
Company Position	Environmental Scientist (Geologist)	
<i>Responsibilities and Duties:</i>	<ul> <li>Project Coordinator on Phase I &amp; II Environmental Site Assessments/Investigations</li> <li>Project Coordinator on Phase III Remediation Projects</li> <li>Assist on Underground Storage Tank (UST) Closures</li> <li>Asbestos Inspections and Sampling</li> <li>Assist on Lead-Based Paint Inspections</li> <li>Indoor Air Quality Investigations and Sampling</li> <li>Erosion Control Plan (BMP) Development</li> <li>QA/QC Officer for Sampling Projects</li> </ul>	
<i>Experience</i> :	<ul> <li>Soil Investigations/Remediation</li> <li>UST Removal and Closure</li> <li>Hazardous Materials Management</li> <li>Asbestos and Lead-Based Paint Projects (Inspections &amp; Sampling)</li> <li>Air Quality Sampling for Particulate and Microbiological Contaminants</li> <li>Wetland Delineations</li> <li>Environmental Report Writing and Compilation</li> <li>Ornithological counts/data collections</li> <li>Entomological counts/data collections</li> <li>Chemical technician specializing in wet chemical methods, analytical instrumentation and sample preparation.</li> <li>Geological mapping</li> <li>Vegetation mapping</li> </ul>	
Training & Education	<ul> <li>Bachelor of Science, Geology with Environmental Science Option New Mexico Institute of Mining and Technology, 1996-1999.</li> <li>Bachelor of Fine Arts, Music with minors in Fine Art and Theater Kutztown University Pennsylvania 1991-1995.</li> <li>Registered Environmental Assessor I REA I - 30347</li> <li>40-hr OSHA HAZWOPER Course</li> <li>AHERA Asbestos Building Inspector HIASB-3044</li> <li>Asbestos Air Quality Project Monitor</li> <li>Asbestos Contract Supervisor</li> <li>Lead-Based Paint Inspector PB-0446</li> </ul>	



## MALAMA Environmental

STATEMENT OF QUALIFICATIONS	
	for Leffred D. King Manager Technical Commission
	Jeffrey R. King, Manager-Technical Services
Company Position:	Manager – Technical Services
Responsibilities and Duties:	<ul> <li>Phase I &amp; II Environmental Site Assessments/Investigations</li> <li>Soil and Groundwater Investigation and Remediation Projects</li> <li>Underground Storage Tank (UST) Projects</li> <li>Asbestos, Lead-Based Paint, Hazardous Materials Inspections and Sampling</li> <li>Storm Water and Indoor Air Quality Investigations and Sampling</li> <li>Waste Management and Regulatory Compliance Projects</li> <li>Proposals, Contracts, Marketing</li> </ul>
<i>Experience</i> :	<ul> <li>Soil and Groundwater Investigations/Remediation</li> <li>UST Investigations, Removal, and Closure</li> <li>Subsurface Investigations with Various Drill Rig Technologies</li> <li>Environmental Site Assessments, Property Condition Assessments</li> <li>Environmental Report Writing, Review, and Authorization</li> <li>Environmental Health and Safety</li> <li>Regulatory Compliance/Permitting</li> <li>Emergency Response</li> </ul>
Training & Education:	<ul> <li>Bachelor of Science, Geology, University of California, Los Angeles, 1979</li> <li>Graduate Courses in Hazardous Materials Management, Wayne State University, Detroit, Michigan, 1988-89</li> <li>40-hr OSHA HAZWOPER Course and current 8-hour refresher</li> <li>Certified Hazardous Materials Manager (CHMM) Overview Course, CHMM- Michigan</li> <li>Michigan Risk-Based Corrective Action (RBCA) Course</li> <li>Licensed Professional Geologist #1795, Indiana</li> <li>Certified Asbestos Inspector #HIASB-3545, Hawaii</li> <li>Certified Lead Risk Assessor #PB-0663, Hawaii</li> </ul>

# **Appendix D:**

## **Acronyms and Abbreviations**

Abbreviation	Definition
AST	Aboveground Storage Tank
AHERA	(Federal) Asbestos Hazard Emergency Response Act
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BLM	Bureau of Land Management
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CAA	Clean Air Act: Regulates Air Quality
CAMU	Corrective Action management Unit
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act: Federal Superfund
	for Cleanup of Environmental Contamination (1980, 1986)
CERCLIS	CERCLA Information System (data base)
CESQG	Conditionally Exempt SQG: Hazardous Waste Generator less than 100 kg/mo.
C.F.R.	Code of Federal Regulations: National Standard Regulations
COLIWASA	Composite Liquid Waste Sampler
CRC	Chlorofluorocarbon
CMU	Concrete Masonry Unit
CWA	Clean Water Act: Regulates Water Quality (1972, 1987)
CZMA	Coastal Zone Management Act
DLNR	Department of Land and Natural Resources
DOT	Department of Transportation: Administers hazardous Waste Containers-Marking-Labeling-
	Placarding and Transportation Procedures.
DOH	Department Of Health (State Of Hawaii)
DRASTIC	EPA Standardized System for Evaluating Groundwater Pollution Potential Using Hydrogeologic
	Settings.
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency: Administers CERCLA, RCRA and SARA
FID	Flame Ionization Detector
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act: Regulates Pesticides (1972, 1988)
FSP	Field Sampling Plan
FWPCA	Federal Water Pollution Control Act
HAP	Hazardous Air Pollutant
HCS	(OSHA) Hazard Communication Standard
HSWA	(Federal) Hazardous and Solid Waste Amendments of 1984
LEL	Lower Explosive Limit
LQG	Large Quantity Generators; Hazardous Waste Generator in Excess of 100 kg/mo.
LUST	Leaking Underground Storage Tank.
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MSDS	Material Safety Data Sheets: Hazard Information Required for Chemical Substances by OSHA
NAAQS NEPA	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act National Emission Standards for Hazardous Air Pollutants (Under CAA Regulations)
NPDES	National Emission Standards for Hazardous Air Pollutants (Under CAA Regulations) National Pollutant Discharge Elimination System
NPDES	National Priorities List
O&M	Operating and Maintenance
OCS	Outer Continental Shelf
OCS	Occupational Safety and Health Act: Established Hazard Communication Program and
	Employee Right-to-Know Law (1970)
OVA	Organic Vapor Analyzer
PCB	Polychlorinated Biphenyls: Toxic Substance Used in Electric-Device Cooling.
PCi/I	Picocuries Per Liter
PEL	Permissible Airborne Exposure Level
PID	Photoionization Detector
POTW	Publicly Owned Treatment Works
FUIW	r ubility Owned Treatment WOINS

ppb	parts per billion			
ppm	parts per million			
PWP	Project Work Plan			
PRPs	Potentially Responsible Parties			
QA/QC	Quality Assurance/Quality Control			
QAPP	Quality Assurance Project Plan			
RBCA	Risk Based Corrective Action and Decision-Making at Sites with Contaminated Soil and			
	Groundwater. (Hawaii DOH)			
RCRA	Resource Conservation and Recovery Act: Federal Hazardous Waste Management Law.			
	Regulates Waste Generation, Transportation, Treatment, Storage or Disposal Sites (1976,			
	1984)			
RQ	Reportable Quantity			
RUST	Registry of Underground Storage Tanks			
SAP	Sampling & Analysis Plan			
SARA	Superfund Amendments and Reauthorization Act: Amends CERCLA and includes Community			
	Right to Know Law. Requires facilities report their chemical inventories and emissions (1986).			
SDWA	Safe Drinking Water Act: Establishes maximum contaminant levels for drinking water (1974,			
	1986).			
SHSP	Site Health & Safety Plan			
SIC	Standard Industrial Classification			
SIP	State implementation plan			
SPCC	Spill Prevention Control and Countermeasure			
SQG	Small Quantity Generator: Hazardous Waste Generator between 100-1000 kg/mo.			
TCLP	Toxicity Characteristic Leaching Procedure: A toxicity test for certain substances declared			
	hazardous by the EPA.			
ТМК	(Hawaii ) Tax Map Key			
ТРН	Total Petroleum Hydrocarbons			
TPQ	Threshold Planning Quantity			
TSCA	Toxic Substances Control Act: Regulates PCBs in electrical devices and chromium in			
	evaporative cooling towers, asbestos in schools. (1976)			
TSD	Treatment, Storage, and Disposal			
UEL	Upper Explosive Limit			
UIC	Underground Injection Control			
USGS	United States Geological Survey			
UST	Underground Storage Tank			
VOA	Volatile Organic Analyses			
VOC	Volatile Organic Compound: EPA listed toxic or carcinogenic organic substances.			
Minimal, Minor or	1) An unlikely or remote event, i.e., possible, but not anticipated under current conditions and			
Not Significant	observed features. 2) Insignificant when compared to regulatory acceptance levels, guideline			
	action levels or when compared to background and/or baseline conditions of the local			
	environment. 3) Any potential effect or impact attributed to the subject factor may be			
	considered as the least likely source among a number of potentially responsible factors. 4) Any			
	potential effect may not be measurable or detected by current technology. 5) Education,			
	experience, and background of the investigator were utilized to conclude the situation or			
	condition as trifle.			



## **APPENDIX B-1** Environmental Site Assessment update letter dated January 18, 2017



January 18, 2017

Mr. Robert Poynor, Vice President Sarofim Realty Advisors 8115 Preston Road, Suite 400 Dallas, Texas 75225

RE: Update Letter for Environmental Site Assessment: Phase I Investigation – Piilani Promenade LLC, MEV Project Number 1307-0292, dated December 17, 2013 (the "<u>Report</u>"), prepared by Malama Environmental (MEV, the "<u>Consultant</u>") MEV Project No. T17-006

Dear Mr. Poynor:

The Consultant prepared the Report as of the date noted above. The Report was prepared in accordance with the applicable ASTM standards that were required at the time the Report was written.

Under ASTM standards, a Phase I Environmental Site Assessment may be considered out of date if not conducted within the prior 180 days. As a result, the Owner requested that we update the Report. To complete the update, on January 13, 2017, professional staff members of Consultant conducted a follow-up site visit at the sites covered by the Report, located on the island of Maui, Hawaii (the "Project Site"). The site visit entailed a reconnaissance of the Project Site in order to ascertain any visible changes that may have occurred specific to the Report. Also, current State of Hawaii Department of Health database information was obtained and reviewed by the Consultant to determine if listed nearby risk sites pose an environmental concern to the Project Site. Results of the site visit and database review showed no visible evidence of changes in conditions specific to existing recognized environmental conditions. Consultant did not identify, and concludes that there have been no new recognized environmental conditions, and does not have any changes to the conclusions or recommendations set forth in the Report, based on the work performed.

Consultant states that: (1) the Report represents Consultant's professional opinion with respect to the Project as of the date hereof; and (2) since the date of the Report and the date of the subsequent site visit referenced in this letter, nothing has come to Consultant's attention which would cause it to change any matter or opinion set forth in the Report, based on the work performed.

The undersigned states that, to the best of our knowledge, neither our firm nor its principals have any interest in the subject property and are not affiliated with the property Owner, buyer(s), or lender(s) of the subject property.

Sincerely,

Malama Environmental

Jeffrey R. King

Jeffrey R. King, CPG Manager - Technical Services



## **APPENDIX C** Botanical Flora and Fauna Report dated July 2013

## BOTANICAL AND FAUNA SURVEYS

## PI'ILANI PROMENADE PROJECT

## KIHEI, MAUI, HAWAII

ROBERT W. HOBDY ENVIRONMENTAL CONSULTANT Kokomo, Maui July 2013

Prepared for: Sarofim Realty Advisors

## BOTANICAL AND FAUNA SURVEY THE PI'ILANI PROMENADE - KIHEI, MAUI

### INTRODUCTION

The Pi'ilani Promenade Project lies on approximately 80 acres of undeveloped land in upper Kihei, Maui. On its lower edge is Pi'ilani Highway. On its northern edge are commercially zoned properties. Its east and south edges border pasture lands of Ka'ono'ulu Ranch. This survey was initiated by the owners in fulfillment of environmental requirements of the planning process.

## SITE DESCRIPTION

The project area was formerly a dry, seasonal pasture situated on gently sloping lands above the coastal plain in north Kihei. Elevations range from 15 feet along Pi'ilani Highway up to 220 feet on the top of the project. One large, rocky gulch, Kūlanihako'i, runs just south of the project area, and one small, unnamed gully runs through the project. Soils are all classified as Waiakoa Extremely Stony Silty Clay Loam, eroded (WID2) which is a light brown, well-drained soil with extensive surface rock (Foote et al, 1972). Rainfall averages a scant 8 - 10 inches per year, in this driest part of Maui (Armstrong, 1983). The vegetation consists of dry Savannah with scattered kiawe trees (*Prosopis pallida*) and an extensive, sparse grassland of buffelgrass (*Cenchrus ciliaris*).

## SURVEY OBJECTIVES

This report summarizes the findings of a flora and fauna survey of the proposed Pi'ilani Promenade Project which was conducted in July 2013. The objectives of the survey were to:

- 1. Document what plant, bird and mammal species occur on the property or may likely occur in the existing habitat.
- 2. Document the status and abundance of each species.
- 3. Determine the presence or likely occurrence of any native flora and fauna, particularly any that are Federally listed as Threatened or Endangered. If such occur, identify what features of the habitat may be essential for these species.
- 4. Determine if the project area contains any special habitats which if lost or altered might result in a significant negative impact on the flora and fauna in this part of the island.

## **BIOLOGICAL HISTORY**

Originally this area would have been a dry native forest/shrubland with such trees as wiliwili (*Erythrina sandwicensis*), 'ohe makai (*Reynoldsia sandwicensis*) and hao (*Rauvolfia sandwicensis*), shrubs such as 'a'ali'i (*Dodonaea viscosa*), ma'o (*Gossypium tomentosum*), 'ilima (*Sida fallax*) and grasses and vines such as pili (*Heteropogon contortus*), kalamalō (*Eragrostis deflexa*), huehue (*Cocculus orbiculatus*) and 'āwikiwiki (*Canavalia pubescens*).

For the past 150 years this area has been grazed by livestock, usually seasonally, following winter rains when the vegetation responds with a flush of growth. This land use has resulted in the gradual loss of native plants species and their replacement with hardy pasture grasses and weeds. During the past 40 years two other environmental disturbances have influenced conditions on the property. Introduced axis deer (*Axis axis*) have built up sizeable herds within this part of Maui. These animals are able to access steeper sites than cattle and have eliminated additional species of native plants. Also fires have swept through this area a number of times over the years. Charred stumps were encountered throughout the property. Fires, over time, eliminate species not adapted to this type of catastrophic environmental disturbance.

Today few plants species occur on the property and those that do tend to dominate. Few of these are native.

## BOTANICAL SURVEY REPORT

#### SURVEY METHODS

A walk-through botanical survey method was used following routes to ensure maximum coverage of the many areas of this large property. Areas most likely to harbor native or rare plants such as gulches or rocky outcroppings were more intensively examined. Notes were made on plant species, distribution and abundance as well as terrain and substrate.

## DESCRIPTION OF THE VEGETATION

The vegetation on this large property was dominated by just two species: kiawe (*Prosopis pallida*) and buffelgrass (*Cenchrus ciliaris*). These two species make up more than 95% of the plant cover. The kiawe trees create an open woodland across the entire property with denser growth along the rocky gully. The buffelgrass forms an almost uniform grassland under and between the trees. All other plant species were uncommon to rare on the property. Small parts of the property had no vegetation only bare patches of soil and surface stones.

A total of 10 species of plants were recorded during the survey. Of these 2 were native Hawaiian species, 'ilima (*Sida fallax*) and 'uhaloa (*Waltheria indica*). Both are indigenous to Hawaii as well as other countries and both are widespread and of common occurrence in Hawaii.

#### DISCUSSION AND RECOMMENDATIONS

The vegetation throughout the project is dominated by just two non-native plant species, kiawe and buffelgrass. The two native Hawaiian plant species recorded, 'ilima and 'uhaloa, although of uncommon or rare occurrence on the property, are widespread and common in Hawaii in general.

No Federally listed Endangered or Threatened native plants (USFWS, 2013) were encountered during the course of the survey nor were any species that are candidate for such status seen. No special habitats or rare plant communities were seen on the property, although there is a large protected reserve three to four miles up-slope near Pu'u o Kali containing some Endangered dryland plant species.

Because the vegetation is dominated by non-native plants, and no rare or protected species occur on or adjacent to the property, there is little of botanical concern and the proposed land uses are not expected to have a significant negative impact on the botanical resources in this part of Maui.

Because much of Kihei is a flood plain and because the soils on the property are subject to erosion, it is recommended that during any land clearing work special care be taken to use accepted contouring and terracing techniques to avoid significant soil runoff.

It is also recommended that native dryland plants known to occur in this area be incorporated into the landscape design of the completed project. The Maui County Planting Plan can be consulted for ideas. Following is a checklist of all those vascular plant species inventoried during the field studies. Plant families are arranged alphabetically within each of two groups: Monocots and Dicots. Taxonomy and nomenclature of the flowering plants (Monocots and Dicots) are in accordance with Wagner et al. (1999).

For each species, the following information is provided:

- 1. Scientific name with author citation
- 2. Common English or Hawaiian name.
- 3. Bio-geographical status. The following symbols are used:

endemic = native only to the Hawaiian Islands; not naturally occurring anywhere else in the world.

indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).

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non-native = all those plants brought to the islands intentionally or accidentally after western contact.
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Polynesian = all those plants brought to the islands by the Hawaiians during the course of their migrations.

4. Abundance of each species within the project area:

abundant = forming a major part of the vegetation within the project area. common = widely scattered throughout the area or locally abundant within a portion of it.

- uncommon = scattered sparsely throughout the area or occurring in a few small patches.
- rare = only a few isolated individuals within the project area.

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
MONOCOTS			
POACEAE (Grass Family)			
Cenchrus ciliaris L.	buffelgrass	non-native	abundant
Eragrostis pectinacea (Michx.) Nees	Carolina lovegrass	non-native	rare
DICOTS			
AMARANTHACEAE (Amaranth Family)			
Amaranthus spinosus L.	spiny amaranth	non-native	rare
EUPHORBIACEAE (Spurge Family)			
Ricinus communis L.	Castor bean	non-native	rare
FABACEAE (Pea Family)			
Acacia farnesiana (L.) Millsp.	klu	non-native	uncommon
Desmanthus pernambucanus (L.) Thellung	slender mimosa	non-native	rare
Leucaena leucocephala (Lamarck) de Wit	koa haole	non-native	uncommon
Prosopis pallida (Humb. & Bonpl. ex Willd.) Kunth			
	kiawe	non-native	common
MALVACEAE (Mallow Family)			
Sida Fallax Walp.	'ilima	indigenous	rare
Waltheria indica L.	'uhaloa	indigenous	uncommon

## FAUNA SURVEY REPORT

## SURVEY METHODS

A walk-through survey method was conducted in conjunction with the botanical survey. All parts of the project area were covered. Field observations were made with the aid of binoculars and by listening to vocalizations. Notes were made on species abundance, activities and location as well as observations of trails, tracks scat and signs of feeding. In addition an evening visit was made to the area to record crepuscular activities and vocalizations and to see if there was any evidence of occurrence of the Endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) in the area.

#### RESULTS

#### MAMMALS

Four non-native mammal species were observed in the project area during two site visits. Taxonomy and nomenclature follow Tomich (1986).

The axis deer (axis axis) was abundant throughout the area. These herbivores spend the day bedded down in secluded areas, then come out during the evening to feed under cover of darkness. While not seen, their tracks, droppings and antler rubbings were everywhere.

Signs of domestic cats (*Felis catus*) and dogs (*Canis familiaris*) were seen sporadically. Old cattle (*Bos Taurus*) droppings were seen from former grazing in this area.

Other mammals that likely occur on the property, but which were not seen, include rats (*Rattus* spp.), mice (*Mus domesticus*) and mongoose (*Herpestes auropunctatus*). Rats and mice feed on seeds and herbaceous vegetation and mongoose hunt for the rodents as well as birds.

A special effort was made to look for the native Hawaiian hoary bat by making an evening survey on two areas of the property. These bats are known to occur sporadically across much of Maui.. When present in an area they can be easily identified as they forage for insects, their distinctive flight patterns clearly visible in the glow of twilight. In addition an electronic bat detector (Batbox IIID) was employed, set to the frequency of 27,000 Hertz that these bats are known to emit when echolocating for nocturnal flying insect prey. No bats were detected at either location using this device.

## BIRDS

Birdlife was rather sparse in this dry habitat with few food resources. Seven species of birds were seen during two site visits. Taxonomy and nomenclature follow American Ornithologists' Union (2011). Two non-native bird species were of common occurrence: the zebra dove (*Geopelia striata*) and the gray francolin (*Francolinus pondicerianus*). The other five species were of uncommon to rare occurrence.

One flock of six nēnē or Hawaiian geese (*Branta sandvicensis*) were seen flying south above the project area. These endemic and Endangered geese are powerful and wide-ranging fliers that are capable of reaching anywhere on the island within an hour in their search for water and succulent herbaceous vegetation resources. They did not come from or land on the project area as there are no habitats or resources here to attract them. They were observed for about three minutes at which point they had covered about two miles and disappeared from sight.

A few other non-native birds could occasionally visit this project area such as the house finch (*Carpodacus mexicanus*), African silverbill (*Lonchura cantans*), nutmeg mannikin (*Lonchura punctulata*), northern cardinal (*Cardinalis cardinalis*), Japanese white-eye (*Zosterops japonicus*) and the northern mocking bird (*Mimus polyglottos*) although none of these were seen.

The habitat is also unsuitable for Hawaii's native forest birds which are presently restricted to higher elevation native forests beyond the range of mosquitoes and the deadly avian diseases they carry and transmit.

## INSECTS

Insect life was sparse throughout the project area. Just six insect species were observed in five Orders. Taxonomy and nomenclature follow Nishida et al (1992). Two species were found to be common, the blowfly (*Lucilia sericata*) and the globe skimmer dragonfly (*Pantala flavescens*). The other four species were all rare. The two dragonfly species, the globe skimmer and the green darner (*Anax junius*) are native species. Both are indigenous and common throughout Hawaii and are also found in other parts of the world.

One native sphingid moth, Blackburn's sphinx moth (*Manduca blackburni*) has been put on the Federal Endangered species list and this designation requires special focus (USFWS 2000). Blackburn's sphinx moth is known to occur in parts of East Maui and Central Maui. Its native host plants are species of 'aiea (*Nothocestrum* spp.) and nonnative alternative host plants are tobacco (*Nicotiana tabacum*) and tree tobacco (*Nicotiana glauca*). None of these plants were found on the property, and no Blackburn's sphinx moth or their larvae were seen.

#### CONCLUSIONS AND RECOMMENDATIONS

Diversity of species in this project area was generally low with just a few species dominating the landscape. Axis deer were abundant and zebra doves, gray francolins, blow flies and the globe skimmer dragonfly were common. This pattern mirrors the situation in the plant life with low diversity and just two hardy species dominating. This lack of species has resulted from the inordinate grazing pressure of deer and cattle, the effects of periodic wildfires and several years of severe drought that has plagued leeward Maui. Only the hardiest species are able to survive.

The two native dragonfly species are both widespread and common in Hawaii as well as in other parts of the world and are of no special conservation concern.

The sighting of six Endangered nēnē geese flying over the project area was recorded in the inventory, but has to be considered tangential in nature and not an indication of use of this habitat by these birds. There are no food or water resources that would lure these birds to feed or rest here.

No Hawaiian bats were recorded on the project area. These bats are wide ranging and opportunistic to spikes in insect activity. The general lack of insect food resources here does not promote the use of this habitat by these bats.

No Blackburn's sphinx moths or their larvae were found. The total lack of their required host plant species on the project area effectively prohibits their use of this habitat.

No native bird species were found on the property during two site visits and none are to be expected in this habitat. Nonetheless, there are native seabirds, the Endangered Hawaiian petrel (*Pterodroma sandwichensis*) and the Threatened Newell's shearwater (*Puffinus newelli*) that fly over these lowlands on the way to their burrows high in the mountains. These seabirds, and especially the fledglings, are attracted to bright lights in the evenings and early dawn hours and can become disoriented and crash. They are then vulnerable to injury, vehicle strikes and predators. It is recommended that any significant outdoor lighting in any proposed development on this property be shielded to direct the light downward to minimize disorientation of these protected seabirds.

No other issues are anticipated with wildlife species.

## ANIMAL SPECIES LIST

Following is a checklist of the animal species inventoried during the field work. Animal species are arranged in descending abundance within three groups: Mammals, Birds and Insects. For each species the following information is provided:

- 1. Common name
- 2. Scientific name
- 3. Bio-geographical status. The following symbols are used:

endemic = native only to Hawaii; not naturally occurring anywhere else in the world.

- indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).
- migratory = all species that spend part of their annual life cycle in Hawaii and part of it elsewhere. Migrant birds typically spend their spring and summer months breeding in the arctic and their fall and winter months in Hawaii.

non-native = all those animals brought to Hawaii intentionally or accidentally after western contact.

4. Abundance of each species within the project area:

abundant = many flocks or individuals seen throughout the area.

common = a few flocks or well scattered individuals throughout the area.

uncommon = only one flock or several individuals seen within the project area.

rare = only one or two seen within the project area.

SCIENTIFIC NAME <b>MAMMALS</b>	COMMON NAME	STATUS	ABUNDANCE
Axis axis Erxleben	axis deer	non-native	abundant
Felis catus L.	domestic cat	non-native	rare
<i>Canis familiaris</i> L.	domestic dog	non-native	rare
Bos taurus L.	domestic cattle	non-native	rare
BIRDS			
Geopelia striata	zebra dove	non-native	common
Francolinus pondicerianus Gmelin	gray francolin	non-native	common
Streptopelia chinensis Scopoli	spotted dove	non-native	uncommon
Acridotheres tristis L.	common myna	non-native	uncommon
Branta sanvicensis Vigors	nēnē, Hawaiian goose	endemic	rare
Zenaida macroura L.	mourning dove	non-native	rare
Francolinus francolinus L.	black francolin	non-native	rare

SCIENTIFIC NAME <b>INSECTS</b> Order DIPTERA - flies CALL IPHONIDAE (DL. EL.E. il.)	COMMON NAME	STATUS	ABUNDANCE
CALLIPHORIDAE (Blow Fly Family) Lucilia sericata Meigen	blow fly	non-native	common
Order HETEROPTERA - true bugs APHIDIDAE (Aphid Family) <i>Aphis craccivora</i> Koch	cowpea aphid	non-native	rare
	cowpea apind	non-nauve	Tare
Order LEPIDOPTERA - butterflies & moths PAPILIONIDAE (Swallowtail Butterfly Family) <i>Papilio xuthus</i> L.	Asian swallowtail	non-native	rare
Order ODONATA )dragonflies & damselflies AESHNIDAE (Darner Dragonfly Family) <i>Anax junius</i> Drury	green darner	indigenous	rare
LIBELLULIDAE (Skimmer Dragonfly Family)	green damer	margenous	Tate
Pantala favescens Fabricius	globe skimmer	indigenous	common
Order ORTHOPTERA - grasshoppers & crickets ACRIDIDAE (Grasshopper Family)			
Oedaleus abrubtus Thunberg	short-horned grasshopper	non-native	rare



Figure 1. Project Area – view south from northeast corner.



Figure 2. Project Area – view west from the northeast corner.



Figure 3. Waterline Corridor – view west showing area denuded of grass.



Figure 4. Waterline Corridor – view east showing denuded rocky landscape.

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# **APPENDIX D** Air Quality Study dated February 2014

SK

# Draft

## AIR QUALITY STUDY

## FOR THE PROPOSED

## PIILANI PROMENADE PROJECT

KIHEI, MAUI, HAWAII

**Prepared for:** 

Sarofim Realty Advisors

August 1, 2014



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#### 1.0 SUMMARY

Sarofim Realty Advisors is proposing the Piilani Promenade Project in Kihei on the island of Maui. The proposed project will consist of 103,201 square feet of commercial/retail space, 5 acres of light industrial uses, 226 affordable residential apartments and other related improvements. This study examines the potential short- and long-term air quality impacts that could occur as a result of construction and use of the proposed facilities and suggests mitigative measures to reduce any potential air quality impacts where possible and appropriate.

Both federal and state standards have been established to maintain ambient air quality. At the present time, seven parameters are regulated including: particulate matter, sulfur dioxide, hydrogen sulfide, nitrogen dioxide, carbon monoxide, ozone and 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.

Regional and local climate together with the amount and type of human activity generally dictate the air quality of a given location. The climate of the project area is very much affected its elevation near sea level and by nearby mountains. by Haleakala partially shelters the area from the northeast trade and local winds (such land/sea winds, as breezes and upslope/downslope winds) may affect the wind flow in the area some of the time. Temperatures in the project area are generally very consistent and warm with average daily temperatures ranging from about 63°F to 86°F. Rainfall in the project area is minimal with an average of only about 12 inches per year.

Except for periodic impacts from volcanic emissions (vog) and possibly occasional localized impacts from traffic congestion and local agricultural sources, the present air quality of the project area is believed to be relatively good. There is very little air quality monitoring data from the Department of Health for the project area, but the limited data that are available suggest that concentrations are well within state and national air quality standards.

If the proposed project is given the necessary approvals to proceed, there may be some short- and/or long-term impacts on air quality that may occur either directly or indirectly as a consequence of project construction and use. Short-term impacts from fugitive dust could occur during the project construction phase. To a lesser extent, exhaust emissions from stationary and mobile construction equipment, from the minor disruption of traffic, and from workers' vehicles may also affect air quality during the period of construction. State air pollution control regulations require that there be no visible fugitive dust emissions at the property line. Hence, an effective dust control plan must be implemented to ensure compliance with state regulations. Fugitive dust emissions can be controlled to a large extent by watering of active work areas, using wind screens, keeping adjacent paved roads clean, and by covering of open-bodied trucks. Other dust control measures to consider include limiting the area that is any given time and/or mulching or chemically disturbed at stabilizing inactive areas that have been worked. Paving and landscaping of project areas early in the construction schedule will also reduce dust emissions. Exhaust emissions can be

mitigated by moving construction equipment and workers to and from the project site during off-peak traffic hours.

То assess the potential long-term impact of emissions from project-related motor vehicle traffic operating on roadways in the project area after construction is completed, a computerized air quality modeling study was undertaken. The air quality modeling study estimated current worst-case concentrations of carbon monoxide at selected intersections in the project vicinity and predicted future levels both with and without the proposed During worst-case conditions, model results indicated project. that present 1-hour and 8-hour worst-case carbon monoxide concentrations are well within both the state and the national ambient air quality standards. In the year 2018 without the project, worst-case carbon monoxide concentrations were predicted nearly unchanged or decrease to remain slightly, and concentrations would remain well within standards. With the project in the year 2018, estimated worst-case carbon monoxide concentrations indicated only minimal or no impact compared to the without project case. Concentrations would remain well within standards. Due to the negligible impact the project is expected to have, implementing mitigation measures for long-term traffic-related air quality impacts is unnecessary and unwarranted.

At this time, the specific tenants of the light industrial area associated with the project have not been identified, and the detailed information needed to assess any air quality impacts is not available. However, the types of facilities that are expected to locate within the project are not significant sources of air pollution. Before any air pollution sources can be built anywhere

in the state, an application must be submitted to the Department of Health for a permit to construct the facility, and detailed information concerning any air pollution emissions will need to be provided in the application. The Department of Health may at that time may request a detailed air quality impact assessment.

#### 2.0 INTRODUCTION

Sarofim Realty Advisors is proposing the Piilani Promenade Project in Kihei on the island of Maui (see Figure 1 for project The project site is located along the mauka (east) location). side of Piilani Highway opposite Kaonoulu Street in the Kihei area of Maui. Primary access to and egress from the project will be provided by the extension of Kaonoulu Street mauka of Piilani Highway. The extension of Kaonoulu Street will divide the project into two parcels. The north parcel will consist of 103,201 square feet of commercial uses, 226 affordable residential apartments and 5 acres of light industrial uses. The south parcel will consist of 430,500 leasable square feet of commercial floor area. The project is expected to be completed and occupied in 2018.

The purpose of this study is to describe existing air quality in the project area and to assess the potential short- and long-term direct and indirect air quality impacts that could result from construction and use of the proposed facilities as planned. Measures to mitigate project impacts are suggested where possible and appropriate.

#### 3.0 AMBIENT AIR QUALITY STANDARDS

Ambient concentrations of air pollution are regulated by both and state ambient air quality standards national (AAQS). National AAQS are specified in Section 40, Part 50 of the Code of Federal Regulations (CFR), while State of Hawaii AAQS are defined in Chapter 11-59 of the Hawaii Administrative Rules. Table 1 summarizes both the national and the state AAQS that are specified in the cited documents. As indicated in the table, national and state AAQS have been established for particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone and The state has also set a standard for hydrogen sulfide. lead. National AAQS are stated in terms of both primary and secondary standards for most of the regulated air pollutants. National primary standards are designed to protect the public health with an "adequate margin of safety". National secondary standards, on the other hand, define levels of air quality necessary to protect the public welfare from "any known or anticipated adverse effects Secondary public welfare impacts may include of a pollutant". such effects as decreased visibility, diminished comfort levels, or other potential injury to the natural or man-made environment, e.g., soiling of materials, damage to vegetation or other econom-In contrast to the national AAQS, Hawaii State AAQS ic damage. are given in terms of a single standard that is designed "to protect public health and welfare and to prevent the significant deterioration of air quality".

Each of the regulated air pollutants has the potential to create or exacerbate some form of adverse health effect or to produce environmental degradation when present in sufficiently high concentration for prolonged periods of time. The AAQS specify a maximum allowable concentration for a given air pollutant for one

or more averaging times to prevent harmful effects. Averaging times vary from one hour to one year depending on the pollutant and type of exposure necessary to cause adverse effects. In the case of the short-term (i.e., 1- to 24-hour) AAQS, both national and state standards allow a specified number of exceedances each year.

The Hawaii AAQS are in some cases considerably more stringent than the comparable national AAQS. In particular, the Hawaii 1-hour AAQS for carbon monoxide is four times more stringent than the comparable national limit.

The national AAQS are reviewed periodically, and multiple revisions have occurred over the past 30 years. In general, the national AAQS have become more stringent with the passage of time and as more information and evidence become available concerning the detrimental effects of air pollution. Changes to the Hawaii AAQS over the past several years have tended to follow revisions to the national AAQS, making several of the Hawaii AAQS the same as the national AAQS.

#### 4.0 REGIONAL AND LOCAL CLIMATOLOGY

Regional and local climatology significantly affect the air quality of a given location. Wind, temperature, atmospheric turbulence, mixing height and rainfall all influence air quality. Although the climate of Hawaii is relatively moderate throughout most of the state, significant differences in these parameters may occur from one location to another. Most differences in regional

and local climates within the state are caused by the mountainous topography.

The topography of Maui is dominated by the great volcanic masses of Haleakala (10,023 feet) and the West Maui Mountains (5,788 feet). The island consists entirely of the slopes of these mountains and of a connecting isthmus. Haleakala is still considered to be an active volcano and last erupted about 1790. The project site is located on the lower western slope of Haleakala at an elevation of about 100 feet.

Maui lies well within the belt of northeasterly trade winds generated by the semi-permanent Pacific high pressure cell to the north and east. Because the project area is located on the western side of Haleakala, it is partially sheltered from the northeast trade winds. When the trade winds are more northerly, the winds will sweep through the valley between the mountains and into the Kihei area. Local winds such as land/sea breezes and/or upslope/downslope winds also influence the wind pattern for the area. During winter, occasional strong winds from the south or southwest occur in association with the passage of winter storm systems.

Air pollution emissions from motor vehicles, the formation of photochemical smog and smoke plume rise all depend in part on air Colder temperatures tend to result in temperature. higher emissions of contaminants from automobiles but lower concentrations of photochemical smog and ground-level concentrations of air pollution from elevated plumes. In Hawaii, the annual and daily variation of temperature depends to a large

degree on elevation above sea level, distance inland and exposure to the trade winds. Average temperatures at locations near sea level generally are warmer than those at higher elevations. Areas exposed to the trade winds tend to have the least temperature variation, while inland and leeward areas often have the most. The project site's lower elevation and leeward location results in warmer temperatures compared with many other parts of the island. At Puunene, which is a few miles to the north of the project area and at an elevation of about 130 feet, average daily minimum and maximum temperatures are 63°F and 86°F, respectively [1]. Temperatures at the project site can be expected to be similar to this.

Small scale, random motions in the atmosphere (turbulence) cause air pollutants to be dispersed as a function of distance or time from the point of emission. Turbulence is caused by both mechanical and thermal forces in the atmosphere. It is often measured and described in terms of Pasquill-Gifford stability class. Stability class 1 is the most turbulent and class 6 is the least. Thus, air pollution dissipates the best during stability class 1 conditions and the worst when stability class 6 prevails. In the Kihei area, stability classes 5 or 6 typically occur during the nighttime or early morning hours when temperature inversions form due to radiational cooling or to drainage flow from the nearby mountains. Stability classes 1 through 4 occur during the daytime, depending mainly on the amount of cloud cover and incoming solar radiation and the onset and extent of the sea breeze.

Mixing height is defined as the height above the surface through which relatively vigorous vertical mixing occurs. Low mixing

heights can result in high ground-level air pollution concentrations because contaminants emitted from or near the surface can become trapped within the mixing layer. In Hawaii, minimum mixing heights tend to be high because of mechanical mixing caused by the trade winds and because of the temperature moderating effect of the surrounding ocean. Low mixing heights may sometimes occur, however, at inland locations and even at times along coastal areas early in the morning following a clear, cool, windless night. Coastal areas also may experience low mixing levels during sea breeze conditions when cooler ocean air rushes in over warmer land. Mixing heights in Hawaii typically are above 3,000 feet (1,000 meters).

Rainfall can have a beneficial effect on the air quality of an area in that it helps to suppress fugitive dust emissions, and it also may "washout" gaseous contaminants that are water soluble. Rainfall in Hawaii is highly variable depending on elevation and on location with respect to the trade wind. The climate of the project area is relatively dry due to the leeward location. Historical records from Kihei show that this area of Maui averages about only 12 inches of precipitation per year with the summer months being the driest [1].

#### 5.0 PRESENT AIR QUALITY

Present air quality in the project area is mostly affected by air pollutants from vehicular, industrial, natural and/or agricultural sources. Table 2 presents an air pollutant emission summary for the island of Maui for calendar year 1993. This is the most recent year for which an island-wide emission inventory is available. The emission rates shown in the table pertain to

manmade emissions only, i.e., emissions from natural sources are not included. As suggested in the table, most of the manmade particulate and sulfur oxides emissions on Maui originate from such as power plants and other fuel-burning point sources, industries. Nitrogen oxides emissions are roughly equally divided between point sources and area sources (mostly motor vehicle The majority of carbon monoxide emissions occur from traffic). area sources (motor vehicle traffic and sugar cane burning), while hydrocarbons are emitted mainly from point sources. Emissions today are probably higher than those shown in the table, but the proportional relationships are likely about the same.

The largest sources of air pollution in the immediate project area are most likely agricultural operations and automobile traffic using local roadways. Emissions from these sources consist primarily of particulate, carbon monoxide and nitrogen oxides. Power plants burning diesel fuel are located several miles away. These sources mostly emit sulfur dioxide, nitrogen oxides and particulate. Volcanic emissions from distant natural sources on the Big Island also affect the air quality at times during kona wind conditions. By the time the volcanic emissions reach the project area, they consist mostly of fine particulate sulfate.

The State Department of Health operates a network of air quality monitoring stations at various locations around the state, but only very limited data are available for Maui Island. The only air quality data for the project area consists of particulate measurements collected at Kihei. Table 3 summarizes the data from the Kihei monitoring station. The annual second-highest 24-hour PM-10 particulate concentration (which is most relevant to the air quality standard) was 60  $\mu$ g/m<sup>3</sup> in 2008. The average annual

concentration was 20  $\mu$ g/m<sup>3</sup>. Prior to 2008, occasional exceedances of the state PM-10 standard have been recorded. These were generally due to either agricultural tilling operations or brush fires in the area. Monitoring of PM-10 at the Kihei monitoring station was discontinued in 2009.

As indicated in Table 3, PM-2.5 particulate is also monitored at the Kihei monitoring station. Annual 24-hour  $98^{th}$  percentile PM-2.5 particulate concentrations (which are most relevant to the air quality standards) ranged from 13 to 16 µg/m<sup>3</sup> between 2008 and 2012. Average annual concentrations ranged from 4 to 6 µg/m<sup>3</sup>. No values above 35 µg/m<sup>3</sup> (which relates to the national standard) were recorded during this period.

Given the limited air pollution sources in the area, it is likely that air pollution concentrations are near natural background levels most of the time, except possibly for locations adjacent to agricultural operations or near traffic-congested intersections. Present concentrations of carbon monoxide in the project area are estimated later in this study based on computer modeling of motor vehicle emissions.

## 6.0 SHORT-TERM IMPACTS OF PROJECT

Short-term direct and indirect impacts on air quality could potentially occur due to project construction. For a project of this nature, there are two potential types of air pollution emissions that could directly result in short-term air quality impacts during project construction: (1) fugitive dust from

vehicle movement and soil excavation activities; and (2) exhaust emissions from on-site construction equipment. Indirectly, there also could be short-term impacts from slow-moving construction and from the project equipment traveling to site, from a temporary increase in local traffic caused by commuting construction workers, and from the disruption of normal traffic flow caused by roadway lane closures.

Fugitive dust emissions may arise from the grading and dirt-moving activities associated with site clearing and preparation work. The emission rate for fugitive dust emissions from construction activities is difficult to estimate accurately. This is because of its elusive nature of emission and because the potential for its generation varies greatly depending upon the type of soil at the construction site, the amount and type of dirt-disturbing activity taking place, the moisture content of exposed soil in work areas, and the wind speed. The EPA [2] has provided a rough for uncontrolled fugitive dust estimate emissions from construction activity of 1.2 tons per acre per month under conditions of "medium" activity, moderate soil silt content (30%), and precipitation/evaporation (P/E) index of 50. Uncontrolled fugitive dust emissions at the project site could be somewhere near that level, depending on the amount of rainfall that occurs. In any case, State of Hawaii Air Pollution Control Regulations [3] prohibit visible emissions of fugitive dust from construction activities at the property line. Thus, an effective dust control plan for the project construction phase is essential.

Adequate fugitive dust control can usually be accomplished by the establishment of a frequent watering program to keep bare-dirt surfaces in construction areas from becoming significant sources

In dust-prone or dust-sensitive areas, other control of dust. measures such as limiting the area that can be disturbed at any given time, applying chemical soil stabilizers, mulching and/or using wind screens may be necessary. Control regulations further stipulate that open-bodied trucks be covered at all times when in motion if they are transporting materials that could become Haul trucks tracking dirt onto paved streets from airborne. is often a significant source of dust unpaved areas in construction areas. Some means to alleviate this problem, such as road cleaning or tire washing, may be appropriate. Paving of parking areas and/or establishment of landscaping as early in the construction schedule as possible can also lower the potential for fugitive dust emissions.

On-site mobile and stationary construction equipment also will emit air pollutants from engine exhausts. The largest of this equipment is usually diesel-powered. Nitrogen oxides emissions from diesel engines can be relatively high compared to gasolinepowered equipment, but the annual standard for nitrogen dioxide is not likely to be violated by short-term construction equipment emissions. Also, the new short-term (1-hour) standard for nitrogen dioxide is based on a three-year average; thus it is unlikely that relatively short-term construction emissions would exceed the standard. Carbon monoxide emissions from diesel engines are low and should be relatively insignificant compared to vehicular emissions on nearby roadways.

Project construction activities could obstruct the normal flow of traffic for short periods of times such that overall vehicular emissions in the project area could temporarily increase. The only means to alleviate this problem will be to attempt to keep

roadways open during peak traffic hours and to move heavy construction equipment and workers to and from construction areas during periods of low traffic volume. Thus, most potential shortterm air quality impacts from project construction can be mitigated.

### 7.0 LONG-TERM IMPACTS OF PROJECT

#### 7.1 Roadway Traffic

After construction is completed, use of the proposed facilities may result in increased motor vehicle traffic in the project area, potentially causing long-term impacts on ambient air quality. Motor vehicles with gasoline-powered engines are significant sources of carbon monoxide. They also emit nitrogen oxides and other contaminates.

Federal air pollution control regulations require that new motor vehicles be equipped with emission control devices that reduce emissions significantly compared to a few years ago. In 1990, the President signed into law the Clean Air Act Amendments. This legislation required further emission reductions, which have been phased in since 1994. More recently, additional restrictions were signed into law during the Clinton administration, and these began to take effect during the next decade. The added restrictions on emissions from new motor vehicles will lower average emissions each year as more and more older vehicles leave the state's roadways. It is estimated that carbon monoxide emissions, for example, will go down by an average of about 20 percent per vehicle during the next 10 years due to the replacement of older vehicles with newer models.

To evaluate the potential long-term ambient air quality impact of motor vehicle traffic using the proposed new roadway facilities, computerized emission and atmospheric dispersion models can be used to estimate ambient carbon monoxide concentrations along roadways within the project area. Carbon monoxide is selected for modeling because it is both the most stable and the most abundant of the pollutants generated by motor vehicles. Furthermore, carbon monoxide air pollution is generally considered to be a microscale problem that can be addressed locally to some extent, whereas nitrogen oxides air pollution most often is a regional issue that cannot be addressed by a single project.

For this project, three scenarios were selected for the carbon monoxide modeling study: (1) year 2013 with present conditions, (2) year 2018 without the project, and (3) year 2018 with the project (and including the Honuaula Project). To begin the modeling study of the three scenarios, critical receptor areas in the vicinity of the project were identified for analysis. Generally speaking, roadway intersections are the primary concern because of traffic congestion and because of the increase in vehicular emissions associated with traffic queuing. For this study, five of the key intersections identified in the traffic study [4] were selected for air quality analysis. These included the following intersections:

- Piilani Highway at Kulanihakoi Road
- Piilani Highway at Kaonoulu Street
- South Kihei Road at Kaonoulu Street
- Piilani Highway at Ohukai Street

• Piilani Highway at North Kihei Road.

The traffic impact report for the project [4] describes the existing and projected future traffic conditions and laneage configurations of the study intersections in detail. In performing the air quality impact analysis, it was assumed that all recommended traffic mitigation measures would be implemented.

The main objective of the modeling study was to estimate maximum 1-hour average carbon monoxide concentrations for each of the three scenarios studied. To evaluate the significance of the estimated concentrations, a comparison of the predicted values for each scenario can be made. Comparison of the estimated values to the national and state AAQS was also used to provide another measure of significance.

Maximum carbon monoxide concentrations typically coincide with peak traffic periods. The traffic impact assessment report evaluated morning and afternoon weekday peak traffic periods and the Saturday (midday) peak hour. The traffic analysis indicates that at the five intersections selected for air quality analysis that the weekday afternoon traffic conditions are generally more congested than during the Saturday midday peak hour.

Vehicular carbon monoxide emissions for each year studied were calculated using EPA's Motor Vehicle Emission Simulator (MOVES) computer model [5]. MOVES was configured for a project-level analysis specifically for Hawaii. Assumptions included an urban, unrestricted road type, default fuel supply and fuel formulation, default vehicle age distribution and ambient temperature of 68 F. MOVES emission factors were generated both for idling and for moving traffic. It should be noted that emission estimates provided by MOVES are generally lower than emission estimates obtained from previous EPA emission models for motor vehicles.

After computing vehicular carbon monoxide emissions through the use of MOVES, these data were then input to an atmospheric EPA air quality modeling guidelines [6] dispersion model. currently recommend that the computer model CAL3QHC [7] be used carbon monoxide concentrations to assess at roadway intersections, or in areas where its use has previously been established, CALINE4 [8] may be used. Several years ago, CALINE4 was used extensively in Hawaii to assess air quality impacts at roadway intersections. In December 1997, the California Department of Transportation recommended that the intersection mode of CALINE4 no longer be used because it was thought the model had become outdated. Studies have shown that CALINE4 may tend to over-predict maximum concentrations in some situations. Therefore, CAL3QHC was used for the subject analysis.

CAL3OHC was developed for the U.S. EPA to simulate vehicular movement, vehicle queuing and atmospheric dispersion of vehicular emissions near roadway intersections. It is designed to predict pollutant concentrations 1-hour average near roadway intersections based on input traffic and emission data, roadway/receptor geometry and meteorological conditions.

Although CAL3QHC is intended primarily for use in assessing atmospheric dispersion near signalized roadway intersections, it can also be used to evaluate unsignalized intersections. This is

accomplished by manually estimating queue lengths and then applying the same techniques used by the model for signalized intersections. Currently, three of the existing study intersections (Piilani Highway at Kaonoulu Street, Kaonoulu Street at South Kihei Road and Piilani Highway at Kulanihakoi Street) are unsignalized. For the future scenarios studied, with or without project, in accordance with the traffic report, these intersections were assumed to become signalized.

Input peak-hour traffic data were obtained from the traffic study cited previously. This included vehicle approach volumes, saturation capacity estimates, intersection laneage and signal timings. All emission factors that were input to CAL3QHC for free-flow traffic on roadways were obtained from MOVES based on assumed free-flow vehicle speeds corresponding to the posted or design speed limits.

Model roadways were set up to reflect roadway geometry, physical dimensions and operating characteristics. Concentrations predicted by air quality models generally are not considered valid The roadway-mixing within the roadway-mixing zone. zone is usually taken to include 3 meters on either side of the traveled portion of the roadway and the turbulent area within 10 meters of a cross street. Model receptor sites were thus located at the edges of the mixing zones near all intersections that were studied for all three scenarios. All receptor heights were placed at 1.8 meters above ground to simulate levels within the normal human breathing zone.

Input meteorological conditions for this study were defined to provide "worst-case" results. One of the key meteorological inputs is atmospheric stability category. For these analyses, atmospheric stability category 6 was assumed for the morning cases, while atmospheric stability category 4 was assumed for the These are the most conservative stability afternoon cases. categories that are generally used for estimating worst-case pollutant dispersion within suburban areas for these periods. A surface roughness length of 100 cm and a mixing height of 1000 meters were used in all cases. Worst-case wind conditions were defined as a wind speed of 1 meter per second with a wind direction resulting in the highest predicted concentration. Concentration estimates were calculated at wind directions of every 5 degrees.

Existing background concentrations of carbon monoxide in the project vicinity are believed to be at low levels. Thus, background contributions of carbon monoxide from sources or roadways not directly considered in the analysis were accounted for by adding a background concentration of 0.5 ppm to all predicted concentrations for 2013. Although increased traffic is expected to occur within the project area within the next few years with or without the project, background carbon monoxide concentrations from motor vehicles are forecast to decrease with time. Hence, a background value of 0.5 ppm was assumed to persist for the future scenarios studied.

### Predicted Worst-Case 1-Hour Concentrations

Table 4 summarizes the final results of the modeling study in the form of the estimated worst-case 1-hour weekday morning and

afternoon and Saturday midday ambient carbon monoxide concentrations. These results can be compared directly to the state and the national AAQS. Estimated worst-case carbon monoxide concentrations are presented in the table for three scenarios: year 2013 with existing traffic, year 2018 without the project and year 2018 with the project. The locations of these estimated worst-case 1-hour concentrations all occurred at or very near the indicated intersections.

As indicated in the table, the highest estimated 1-hour concentration within the project vicinity for the present (2013) case was 2.2 ppm. This was projected to occur during the weekday morning peak traffic hour near the intersection of Piilani Highway and Ohukai Street. Concentrations at other locations and times studied were 1.9 ppm or lower. All predicted worst-case 1-hour concentrations for the 2013 scenario were within both the national AAQS of 35 ppm and the state standard of 9 ppm.

In the year 2018 without the proposed project, the highest worstcase 1-hour concentration was predicted to occur during the weekday morning peak traffic hour at the intersection of Piilani Highway and Kulanihakoi Road. A value of 1.8 ppm was predicted to occur at this location and time. Peak-hour worst-case values at the other locations and times studied for the 2018 without project scenario ranged between 0.8 and 1.7 ppm. Compared to the existing case, concentrations mostly remained about the same or decreased slightly, and all projected worst-case concentrations for this scenario remained well within the state and national standards.

In the year 2018 with the project (and with Honuaula), the highest worst-case 1-hour concentration was predicted to occur during the weekday morning both at the intersections of Piilani Highway at Kulanihakoi Road and Piilani Highway at Ohukai Street with a value of 1.8 ppm. Other concentrations for this alternative ranged between 0.9 and 1.7 ppm. The with-project alternative generally resulted in slightly higher concentrations compared to without the project, but the values remained well within the state and federal standards.

#### Predicted Worst-Case 8-Hour Concentrations

Worst-case 8-hour carbon monoxide concentrations were estimated by multiplying the worst-case 1-hour values by a persistence factor of 0.5. This accounts for two factors: (1) traffic volumes averaged over eight hours are lower than peak 1-hour values, and (2) meteorological conditions are more variable (and hence more favorable for dispersion) over an 8-hour period than they are for a single hour. Based on monitoring data, 1-hour to 8-hour persistence factors for most locations generally vary from 0.4 to 0.8 with 0.6 being the most typical. One study based on modeling [9] concluded that 1-hour to 8-hour persistence factors could typically be expected to range from 0.4 to 0.5. EPA guidelines [10] recommend using a value of 0.7 unless a locally derived persistence factor is available. Recent monitoring data for locations on Oahu reported by the Department of Health [11] suggest that this factor may range between about 0.2 and 0.6 depending on location and traffic variability. Considering the location of the project and the traffic pattern for the area, a 1-hour to 8-hour persistence factor of 0.5 will likely yield reasonable estimates of worst-case 8-hour concentrations.

The resulting estimated worst-case 8-hour concentrations are indicated in Table 5. For the 2013 scenario, the estimated worstcase 8-hour carbon monoxide concentrations for the five locations studied ranged from 0.8 to 1.1 ppm with the highest occurring during the weekday morning at the intersection of Piilani Highway and Ohukai Street. The estimated worst-case concentrations for the existing case were well within both the state standard of 4.4 ppm and the national limit of 9 ppm.

For the year 2018 without project scenario, worst-case concentrations generally remained about the same or decreased slightly. All predicted concentrations remained within the standards.

For the year 2018 with the project, worst-case concentrations were predicted to remain about the same or increase slightly compared to the without project case. All predicted 8-hour concentrations for the with-project alternative were within both the national and the state AAQS.

#### Conservativeness of Estimates

The results of this study reflect several assumptions that were made concerning both traffic movement and worst-case meteorological conditions. One such assumption concerning worstcase meteorological conditions is that a wind speed of 1 meter per second with a steady direction for 1 hour will occur. A steady wind of 1 meter per second blowing from a single direction for an hour is extremely unlikely and may occur only once a year or less.

With wind speeds of 2 meters per second, for example, computed carbon monoxide concentrations would be only about half the values given above. The 8-hour estimates are also conservative in that it is unlikely that anyone would occupy the assumed receptor sites (within 3 m of the roadways) for a period of 8 hours.

## 7.2 Light Industrial Facilities

Air pollution emissions from light industrial sources locating within the proposed project could potentially result in direct impacts on air quality. While the specific industrial residents of the proposed project have not yet been identified, it is expected these will not have the potential to emit significant amounts of air pollution. It is assumed that the industrial land uses within the proposed project will be consistent with the M-1 Light Industrial District (Chapter 19.24 of the Maui County Code) and may include warehousing and distribution businesses as well as retailing, light manufacturing, research facilities, offices and other uses.

Without specific information concerning stack heights and stack gas temperatures, exit velocities and emission rates, air quality impacts from the potential light industrial facilities locating within the proposed project cannot be quantitatively estimated. At the present time, such detailed information is not available. However, Hawaii air pollution control rules [3] require that any activity that causes air pollution must obtain written approval from the director of the Hawaii Department of Health. This written approval generally involves applying for both a permit to construct and a permit to operate. At the time of application, detailed information must be provided by the applicant concerning

the type and nature of any air pollution emissions and the emission control technology that would be utilized. Depending on the magnitudes of the project emissions and other factors, air quality impact analyses and/or air quality monitoring may be required before the application to construct/operate is approved. Thus, even though an assessment of potential direct impacts from project air pollution emissions cannot be done at this time, state rules may require that such analyses be performed at a later date when specific businesses that emit air pollution apply to locate at the proposed project.

#### 8.0 CONCLUSIONS AND RECOMMENDATIONS

Although very little ambient air quality data are available to characterize existing conditions, it is likely that state and federal ambient air quality standards are currently being met in the project area, except perhaps for occasional exceedances of the particulate standards due to dust or smoke from nearby agricultural sources. Volcanic emissions from distant sources on the island of Hawaii may sometimes affect air quality, reducing visibility and causing discomfort for sensitive individuals.

Potential short-term impacts on air quality could occur from the emission of fugitive during project construction. dust Uncontrolled fugitive dust emissions from construction activities could amount to about 1.2 tons per acre per month, depending on rainfall. To control dust, active work areas and any temporary unpaved work roads should be watered at least twice daily on days Use of wind screens and/or limiting the area without rainfall. that is disturbed at any given time will also help to contain fugitive dust emissions. Wind erosion of inactive areas of the

site that have been disturbed could be controlled by mulching or by the use of chemical soil stabilizers. Dirt-hauling trucks should be covered when traveling on roadways to prevent windage. A routine road cleaning and/or tire washing program will also help to reduce fugitive dust emissions that may occur as a result of trucks tracking dirt onto paved roadways in the project area. Establishment of landscaping early in the construction schedule will also help to control dust.

During construction phases, emissions from engine exhausts (primarily consisting of carbon monoxide and nitrogen oxides) will also occur both from on-site construction equipment and from vehicles used by construction workers and from trucks traveling to and from the project. Increased vehicular emissions due to disruption of traffic by construction equipment and/or commuting construction workers could occur and can be alleviated by moving equipment and personnel to the site during off-peak traffic hours.

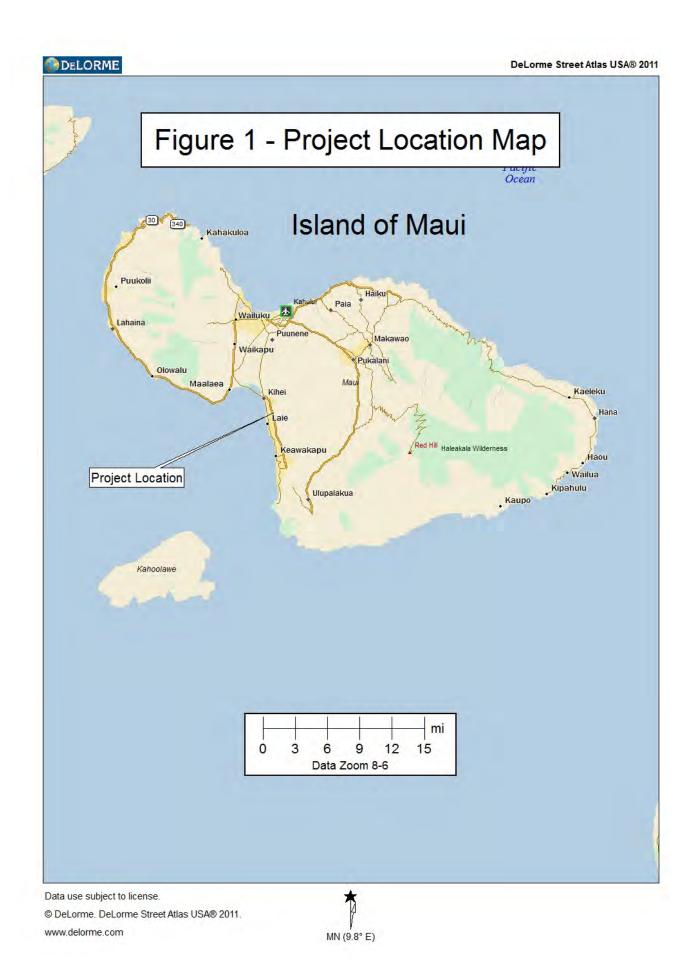
After the proposed project is completed, any long-term impacts on air quality in the project area due to emissions from projectrelated motor vehicle traffic should be negligible. Worst-case concentrations of carbon monoxide should remain well within both the state and the national ambient air quality standards. Implementing any air quality mitigation measures for long-term traffic-related impacts is unnecessary and unwarranted.

At this time, sufficient detail is not available describing the facilities that may be located within the light industrial area included in the project to perform any quantitative impact assessments. However, the types of facilities currently being

considered do not emit significant amounts of air pollution. In any case, before any air pollution sources can be built anywhere in the state, an application must be submitted to the Department of Health for a permit to construct the facility, and detailed information concerning any air pollution emissions will need to be provided in the application. If deemed necessary, the Department of Health may require the applicant to assess the air quality impact of the proposed emissions.

#### REFERENCES

- 1. "Climatic Summary of the United States, Supplement for 1951 through 1960, Hawaii and Pacific", U.S. Department of Commerce, Weather Bureau, Washington, D.C., 1965.
- 2. <u>Compilation of Air Pollutant Emission Factors</u>, Volume I: <u>Stationary Point and Area Sources</u>, Fifth Edition, AP-42, U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1995.
- 3. State of Hawaii. Hawaii Administrative Rules, Chapter 11-60, Air Pollution Control.
- 4. Phillip Rowell and Associates, <u>Traffic Impact Analysis Report</u> for Piilani Promenade, June 6, 2014.
- 5. User Guide for Motor Vehicle Emission Simulator, MOVES2010b, U.S. Environmental Protection Agency, Office of Transportation and Air Quality, Assessment and Standards Division, Ann Arbor, Michigan, June 2012, EPA-420-B-12-001b.
- 6. <u>Guideline on Air Quality Models (Revised), Including</u> <u>Supplements A and B</u>, EPA-450/2-78-027R, U.S. Environmental Protection Agency, Research Triangle Park, NC, July 1986.
- 7. User's Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections, U.S. Environmental Protection Agency, November 1992.
- 8. <u>CALINE4 A Dispersion Model for Predicting Air Pollutant</u> <u>Concentrations Near Roadways</u>, FHWA/CA/TL-84/15, California State Department of Transportation, November 1984 with June 1989 Revisions.
- 9. "Persistence Factors for Mobile Source (Roadway) Carbon Monoxide Modeling", C. David Cooper, <u>Journal of the Air &</u> Waste Management Association, Volume 39, Number 5, May 1989.
- 10. Guideline for Modeling Carbon Monoxide from Roadway Intersections, U.S. Environmental Protection Agency, EPA-454/R-92-005, November 1992.
- 11. <u>Annual Summaries, Hawaii Air Quality Data, 2008-2012</u>, State of Hawaii Department of Health.



## SUMMARY OF STATE OF HAWAII AND NATIONAL AMBIENT AIR QUALITY STANDARDS

		Augusta	Maximum Allowable Concentration				
Pollutant	Units	Averaging Time	National Primary	National Secondary	State of Hawaii		
Particulate Matter	$\mu g/m^3$	Annual	-	-	50		
(<10 microns)		24 Hours	150 <sup>ª</sup>	150 <sup>ª</sup>	150 <sup>b</sup>		
Particulate Matter	$\mu$ g/m <sup>3</sup>	Annual	15 <sup>°</sup>	15 <sup>°</sup>	-		
(<2.5 microns)		24 Hours	35 <sup>d</sup>	35 <sup>d</sup>	-		
Sulfur Dioxide	ppm	Annual	-	_	0.03		
		24 Hours	-	-	0.14 <sup>b</sup>		
		3 Hours	-	0.5 <sup>b</sup>	0.5 <sup>b</sup>		
		1 Hour	0.075 <sup>e</sup>	-	-		
Nitrogen Dioxide	ppm	Annual	0.053	0.053	0.04		
		1 Hour	0.100 <sup>f</sup>	-	-		
Carbon Monoxide	ppm	8 Hours	9 <sup>b</sup>	-	4.4 <sup>b</sup>		
		1 Hour	35 <sup>b</sup>	-	9 <sup>b</sup>		
Ozone	ppm	8 Hours	0.075 <sup>g</sup>	0.075 <sup>g</sup>	0.08 <sup>g</sup>		
Lead	$\mu$ g/m <sup>3</sup>	3 Months	0.15 <sup>h</sup>	0.15 <sup>h</sup>	-		
		Quarter	1.5 <sup>i</sup>	1.5 <sup>i</sup>	1.5 <sup>i</sup>		
Hydrogen Sulfide	ppm	1 Hour	-	-	0.035 <sup>b</sup>		

a Not to be exceeded more than once per year on average over three years.

 $\overset{\mbox{b}}{\mbox{Not}}$  to be exceeded more than once per year.

 $^{\rm C}_{\rm Three-year}$  average of the weighted annual arithmetic mean.

d 98th percentile value of the 24-hour concentrations averaged over three years.

e Three-year average of annual fourth-highest daily 1-hour maximum.

f 98th percentile value of the daily 1-hour maximum averaged over three years.

 ${\ensuremath{^{\rm g}}}_{\rm Three-year}$  average of annual fourth-highest daily 8-hour maximum.

h Rolling 3-month average.

i Quarterly average.

## AIR POLLUTION EMISSIONS INVENTORY FOR ISLAND OF MAUI, 1993

Air Pollutant	Point Sources (tons/year)	Area Sources (tons/year)	Total (tons/year)
Particulate	63,275	7,030	70,305
Sulfur Oxides	6,419	nil	6,419
Nitrogen Oxides	7,312	8,618	15,930
Carbon Monoxide	4,612	20,050	24,662
Hydrocarbons	1,991	234	2,225

Source: Final Report, "Review, Revise and Update of the Hawaii Emissions Inventory Systems for the State of Hawaii", prepared for Hawaii Department of Health by J.L. Shoemaker & Associates, Inc., 1996

#### ANNUAL SUMMARIES OF AIR QUALITY MEASUREMENTS FOR MONITORING STATIONS NEAREST PIILANI PROMENADE PROJECT

Parameter / Location	2008	2009	2010	2011	2012			
Particulate (PM-10) / Kihei								
24-Hour Averaging Period:								
No. of Samples	331	-	-	-	-			
Highest Concentration $(\mu g/m^3)$	78	-	-	-	-			
$2^{nd}$ Highest Concentration (µg/m <sup>3</sup> )	60	-	-	-	-			
No. of State AAQS Exceedances	0	-	-	-	-			
Annual Average Concentration $(\mu g/m^3)$	20	-	-	-	-			
Particulate (PM-2.5) / Kihei	Particulate (PM-2.5) / Kihei							
24-Hour Averaging Period:								
No. of Samples	58	358	332	301	337			
Highest Concentration $(\mu g/m^3)$	16	26	24	15	18			
$98^{\text{th}}$ Percentile Concentration $(\mu\text{g}/\text{m}^3)$	15	16	14	13	14			
No. of values greater than 35 $\mu\text{g}/\text{m}^3$	0	0	0	0	0			
Annual Average Concentration $(\mu g/m^3)$	6	4	5	6	б			

Source: State of Hawaii Department of Health, "Annual Summaries, Hawaii Air Quality Data, 2008 - 2012"

### ESTIMATED WORST-CASE 1-HOUR CARBON MONOXIDE CONCENTRATIONS ALONG ROADWAYS NEAR PIILANI PROMENADE PROJECT (parts per million)

	Year/Scenario								
Roadway	2013/Present		2018/Without Project			2018/With Project <sup>#</sup>			
Intersection	AM	PM	Sat.	AM	PM	Sat.	AM	PM	Sat.
Piilani Highway at Kulanihakoi Road	1.5	1.1	0.9	1.8	1.1	0.9	1.8	1.2	1.1
Piilani Highway at Kaonoulu Street	1.5	1.1	0.9	1.4	1.1	0.9	1.5	1.4	1.4
South Kihei Road at Kaonoulu Street	1.2	0.9	0.9	1.1	0.8	0.8	1.1	1.0	0.9
Piilani Highway at Ohukai Street <sup>*</sup>	2.2	1.3	1.0	1.7	1.2	0.9	1.8	1.3	1.1
Piilani Highway at North Kihei Road	1.9	1.6	1.1	1.6	1.2	1.0	1.7	1.3	1.2

Hawaii State AAQS: 9 National AAQS: 35

<sup>#</sup>Includes Honuaula Project

<sup>\*</sup>2018 without-project scenario includes mitigation specified in traffic report

## ESTIMATED WORST-CASE 8-HOUR CARBON MONOXIDE CONCENTRATIONS ALONG ROADWAYS NEAR PIILANI PROMENADE PROJECT (parts per million)

	Year/Scenario					
Roadway Intersection	2013/Present	2018/Without Project	2018/With Project <sup>#</sup>			
Piilani Highway at Kulanihakoi Road	0.8	0.9	0.9			
Piilani Highway at Kaonoulu Street	0.8	0.7	0.8			
South Kihei Road at Kaonoulu Street	0.6	0.6	0.6			
Piilani Highway at Ohukai Street <sup>*</sup>	1.1	0.8	0.9			
Piilani Highway at North Kihei Road	1.0	0.8	0.8			

Hawaii State AAQS: 4.4 National AAQS: 9

<sup>#</sup>Includes Honuaula Project

<sup>\*</sup>2018 without-project scenario includes mitigation specified in traffic report

# APPENDIX D-1 Air Quality Study Update dated March 11, 2016



## **B.D. NEAL & ASSOCIATES**

Applied Meteorology • Air Quality • Computer Science

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PACIFIC RIM LAND, INC. MAUI MAIN

RECEIVED

March 11, 2016

Piilani Promenade North LLC & Piilani Promenade South LLC c/o Sarofim Realty Advisors Attn: Mr. Robert Poynor, Vice President 8115 Preston Road, Ste. 400 Dallas, Texas, 75225

Subject: Piilani Promenade Project Update of Air Quality Study

Dear Mr. Poynor:

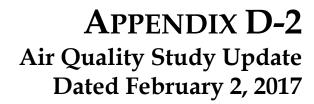
In accordance with your request, we have reviewed the revised traffic impact analysis report (TIAR) for the subject project dated March 4, 2016 as it relates to the air quality study we prepared for this project in August 2014. Although the revised TIAR has many substantial differences compared to the original TIAR, in our judgment, re-analysis of the project air quality impacts due to project traffic would not yield significantly different results. Our air quality study from August 2014 indicated that "With the project in the year 2018, estimated worst-case carbon monoxide concentrations indicated only minimal or no impact compared to the without project case. Concentrations would remain well within standards." The revised TIAR evaluates the years 2025 and 2032 instead, but in our opinion, the conclusions stated in the air quality study of August 2014 remain valid.

Please call me if you have any questions concerning the information presented herein or if you wish to discuss this matter further.

Very truly yours,

Darry D. Neal

Barry D. Neal Certified Consulting Meteorologist





**B.D. NEAL & ASSOCIATES** 

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February 2, 2017

Piilani Promenade North LLC & Piilani Promenade South LLC c/o Sarofim Realty Advisors Attn: Mr. Robert Poynor, Vice President 8115 Preston Road, Ste. 400 Dallas, Texas, 75225

Subject: Piilani Promenade Project Update of Air Quality Study

Dear Mr. Poynor:

In accordance with your request, we have reviewed the revised traffic impact analysis report (TIAR) for the subject project dated December 20, 2016 as it relates to the air quality study we prepared for this project in August 2014. Although the revised TIAR has many substantial differences compared to the original TIAR, in our judgment, re-analysis of the project air quality impacts due to project traffic would not yield significantly different results. Our air quality study from August 2014 indicated that "With the project in the year 2018, estimated worst-case carbon monoxide concentrations indicated only minimal or no impact compared to the without project case. Concentrations would remain well within standards." The revised TIAR evaluates the years 2025 and 2032 instead, but in our opinion, the conclusions stated in the air quality study of August 2014 remain valid.

Please call me if you have any questions concerning the information presented herein or if you wish to discuss this matter further.

Very truly yours,

Sorry D. Mal

Barry D. Neal Certified Consulting Meteorologist