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April 10, 2019

Scott Glenn, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Mr. Glenn:

Final Environmental Assessment (FEA)

Applicant: Lili'uokalani Trust

Request: Makalapua Project District

**TMK: (3) 7-4-008: Portion of 002; 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and
7-4-010:009 and 010, North Kona, Hawai'i**

The County of Hawai'i Planning Department has reviewed the comments received during the 30-day comment period on the draft environmental assessment that ended 30 days after March 8, 2017 (date the project was posted in the OEQC Environmental Notice). We have determined that the project will not have significant environmental effects and have issued a Finding of No Significant Impact (FONSI) for the above referenced project district.

Please publish notice of availability for this project in the April 23, 2019 OEQC Environmental Notice.

One hard copy each of the completed OEQC Publication Form with the project summary and the FEA will be hand delivered to your office today along with a disk containing that information.

If you have any questions regarding the above, please contact Jeff Darrow of this department at (808) 961-8158.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Yee".

MICHAEL YEE
Planning Director

JWD:mad

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Scott Glenn, Director
Office of Environmental Quality Control
Page 2
April 10, 2019

cc: Ms. Tessa Munekiyo Ng, AICP, Vice President, Munekiyo Hiraga
Mr. Michael Shibata, AICP, Lili'uokalani Trust

APPLICANT PUBLICATION FORM

Project Name:	Makalapua Project District
Project Short Name:	Makalapua Project District
HRS §343-5 Trigger(s):	Use of County Lands or Funds
Island(s):	Hawai'i
Judicial District(s):	Kona
TMK(s):	TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-025:001, 002, 003, 005, 015, 021, 999 (por.), and (3) 7-4-010:009, 010
Permit(s)/Approval(s):	State Land Use District Boundary Amendment, NPDES Permit, Community Noise Permits, as applicable, Change of Zone/Project District, Planned Unit Development, Special Management Area Use Permit, Subdivision Approval, Construction Approvals, and Right to Perform Work Within a County Right-of-Way
Approving Agency:	County of Hawai'i Department of Planning
Contact Name, Email, Telephone, Address	Jeffrey W. Darrow, Planner Jeff.Darrow@hawaiicounty.gov (808) 961-8158 101 Pauahi Street, Suite 3 Hilo, HI 96720
Applicant:	Lili'uokalani Trust
Contact Name, Email, Telephone, Address	Michael Shibata MPD@onipaa.org (808) 203-6150 1100 Alakea Street, Suite 1100 Honolulu, Hawaii 96813
Consultant:	Munekiyo Hiraga
Contact Name, Email, Telephone, Address	Yukino Uchiyama planning@munekiyohiraga.com (808) 983-1233 305 High Street, Suite 104 Wailuku, HI 96793

Status (select one)☐ DEA-AFNSI**Submittal Requirements**

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.

☒ FEA-FONSI

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.

☐ FEA-EISPN

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.

☐ Act 172-12 EISPN
("Direct to EIS")

Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.

☐ DEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.

☐ FEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC

publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

- ☐ **FEIS Acceptance Determination** The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
- ☐ **FEIS Statutory Acceptance** The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.
- ☐ **Supplemental EIS Determination** The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
- ☐ **Withdrawal** Identify the specific document(s) to withdraw and explain in the project summary section.
- ☐ **Other** Contact the OEQC if your action is not one of the above items.

Project Summary

Provide a description of the proposed action and purpose and need in 200 words or less.

The Lili'uokalani Trust (LT) proposes the development, enhancement, and refinement of approximately 67.21 acres of land in Kailua-Kona on the island of Hawai'i as the Makalapua Project District. The proposed Makalapua Project District will include residential, hotel, retail, commercial, office, and civic/community uses. The Project District will be organized around an interconnected, pedestrian oriented street network where homes, businesses, and entertainment are intermingled to provide a diverse experience for residents and visitors. The proposed mixed-use project will include approximately 300 residential units, 220 rooms across two (2) hotels, a 50,000 square foot community performance facility, 470,000 square feet of commercial use, and a variety of open space features.



Final Environmental Assessment

MAKALAPUA PROJECT DISTRICT

Volume I of II

Prepared for:

LILI'UOKALANI TRUST

Approving Agency:

County of Hawai'i
Planning Department

April 2019

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Final Environmental Assessment

MAKALAPUA PROJECT DISTRICT

Volume I of II

Prepared for:

LILI'UOKALANI TRUST

Approving Agency:

**County of Hawai'i
Planning Department**

April 2019

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MUNEKIYO HIRAGA

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Appendix F. Archaeological Assessment Letter

Appendix G. Cultural Impact Assessment Report

Appendix H. Traffic Impact Analysis Report

Appendix I. Previous Permits and Approvals

List of Acronyms

A-5a	Agricultural Zoning District
AFNSI	Anticipated Finding of No Significant Impact
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai'i
AM	Morning peak hour
AMP	Archaeological Monitoring Plan
amsl	Above mean sea level
BMPs	Best Management Practices
CC	Charter Communications
CDP	Census Designated Place
cfs	cubic feet per second
CIA	Cultural Impact Assessment
DBA	District Boundary Amendment
DBEDT	Department of Business and Economic Development
DEM	Department of Environmental Management
DLNR	Department of Land and Natural Resources
DOE	Department of Education
DOFAW	Division of Forestry and Wildlife
DOH	Department of Health
DWS	Department of Water Supply
EA	Environmental Assessment
EIS	Environmental Impact Statement
FIRM	Flood Insurance Rate Map
gpd	gallons per day
HAR	Hawai'i Administrative Rules
HCZMP	Hawai'i Coastal Zone Management Program
HELCO	Hawaiian Electric Light Company
HHSC	Hawai'i Health Systems Corporation
HPD	Hawai'i Police Department
HRS	Hawai'i Revised Statutes
HTCO	Hawaiian Telcom
KCDP	Kona Community Development Plan
KLWRA	Keahuolū Lands Water Resources Development Agreement
LID	Low Impact Development
LOS	Level of Service
LSB	Land Study Bureau
LT	Lili'uokalani Trust
LUC	Land Use Commission
LUPAG	Land Use Pattern Allocation Guide
MBC	Makalapua Business Center
MCX	Industrial-Commercial Mixed Zoning District
MG-1a	General Industrial Zoning District
mg	million gallons
mgd	million gallons per day
mph	Miles per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System

PM	Afternoon peak hour
ppm	Parts Per Million
PUC	Public Utilities Commission
PUD	Planned Unit Development
rLW	Pāhoehoe lava flows
SHPD	State Historic Preservation Division
SMA	Special Management Area
SO ₂	Sulfur Dioxide
SOEST	School of Ocean and Earth Science Technology
SPS	Sewage Pump Station
TIAR	Traffic Impact Assessment Report
TMK	Tax Map Key
TOD	Transit Oriented Development
UA	Urban Area
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WE	Saturday mid-day peak hour
WHSL	West Hawai'i Sanitary Landfill
WWTP	Wastewater Treatment Plant

Executive Summary

Project Name: Makalapua Project District

Type of Document: Final Environmental Assessment

Legal Authority: Chapter 343, Hawai'i Revised Statutes
Chapter 200-11, Hawai'i Administrative Rules

Anticipated Determination: Finding of No Significant Impact (FONSI)

Applicable Environmental Assessment review "Trigger": Use of State or County Lands or Funds

Location: Island of Hawai'i
TMK Nos. (3)7-4-008:002 (por.), (3)7-4-025:001, 002, 003, 005, 015, 021, 999 (por.), and (3)7-4-010:009 and 010

Landowner: Lili'uokalani Trust
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Contact: Michael Shibata, Director of Real Estate
Phone: (808) 203-6150

Applicant: Lili'uokalani Trust
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Approving Agency: County of Hawai'i, Planning Department
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Contact: Michael Yee, Director
Phone: (808) 961-8288

Consultant: Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawai'i 96793
Contact: Yukino Uchiyama, Associate
Phone: (808) 983-1233

Project Summary:

The Lili'uokalani Trust (LT) proposes the development, enhancement, and refinement of approximately 67.21 acres of land in Kailua-Kona on the island of Hawai'i as the Makalapua Project District. LT is a nonprofit public benefit organization dedicated to improving the welfare of orphan and other destitute children in Hawai'i. LT manages its landholdings to provide a financial foundation for the perpetual benefit of its beneficiaries.

The proposed Makalapua Project District will include residential, hotel, retail, commercial, office, and civic/community uses. The Project District will be organized around an interconnected, pedestrian oriented street network where homes, businesses, and entertainment are intermingled to provide a diverse experience for residents and visitors. The proposed mixed-use project will include approximately 300 residential units; 220 rooms across two (2) hotels; a 50,000 square foot community performance facility; 470,000 square feet of commercial use (retail, employment); and a variety of open space features.

The majority of the project site for the proposed Makalapua Project District is designated "Urban" by the State Land Use Commission (LUC), with the remaining 14.45 acres designated as "Agricultural". The Hawai'i County General Plan's Land Use Pattern Allocation Guide (LUPAG) designates the Project District area as "Industrial" and "Urban Expansion". The lands are classified as "General Industrial" (MG-1a), "Industrial-Commercial Mixed" (MCX), and "Agricultural District" (A-5a) by Hawai'i County Zoning.

Implementation of the proposed Makalapua Project District involves improvements and connections to County roadways and may also involve use of County funds through the possible establishment of a Community Facilities District (CFD) or other financing mechanism. The use of County lands or funds is a trigger for the preparation of an Environmental Assessment (EA) pursuant to Chapter 343, Hawai'i Revised Statutes (HRS) and Section 11-200-6, Hawai'i Administrative Rules (HAR). The EA will serve as a technical supporting document for the permit and entitlement process for the proposed project.

PROJECT OVERVIEW



I. PROJECT OVERVIEW

The Lili'uokalani Trust (LT) is a private operating foundation founded in 1909 by Queen Lili'uokalani, Hawai'i's last reigning monarch. LT's mission is to serve orphan and destitute children, with preference given to Native Hawaiian children. LT serves approximately 12,000 children annually, providing individual casework, counseling, and assistance through direct and group services and indirectly reaches thousands more through a variety of group and community building projects and collaborations with other community partners.

The number of children needing LT's services and support continues to grow. Native Hawaiians lag behind all other major ethnic groups in the areas of health, education, housing, and employment rates. When it comes to Native Hawaiian children, 16.8 percent of school-age children were living in poverty in 2010. For those missing a parent, 26.9 percent in single-parent family households live in poverty.

Over the last ten (10) years LT has steadily increased their spending and services to orphan and destitute Native Hawaiian children. These programs and services are supported by revenue derived from LT's real estate holdings and investments. LT does not charge any fees for the services provided to beneficiary children and their families.

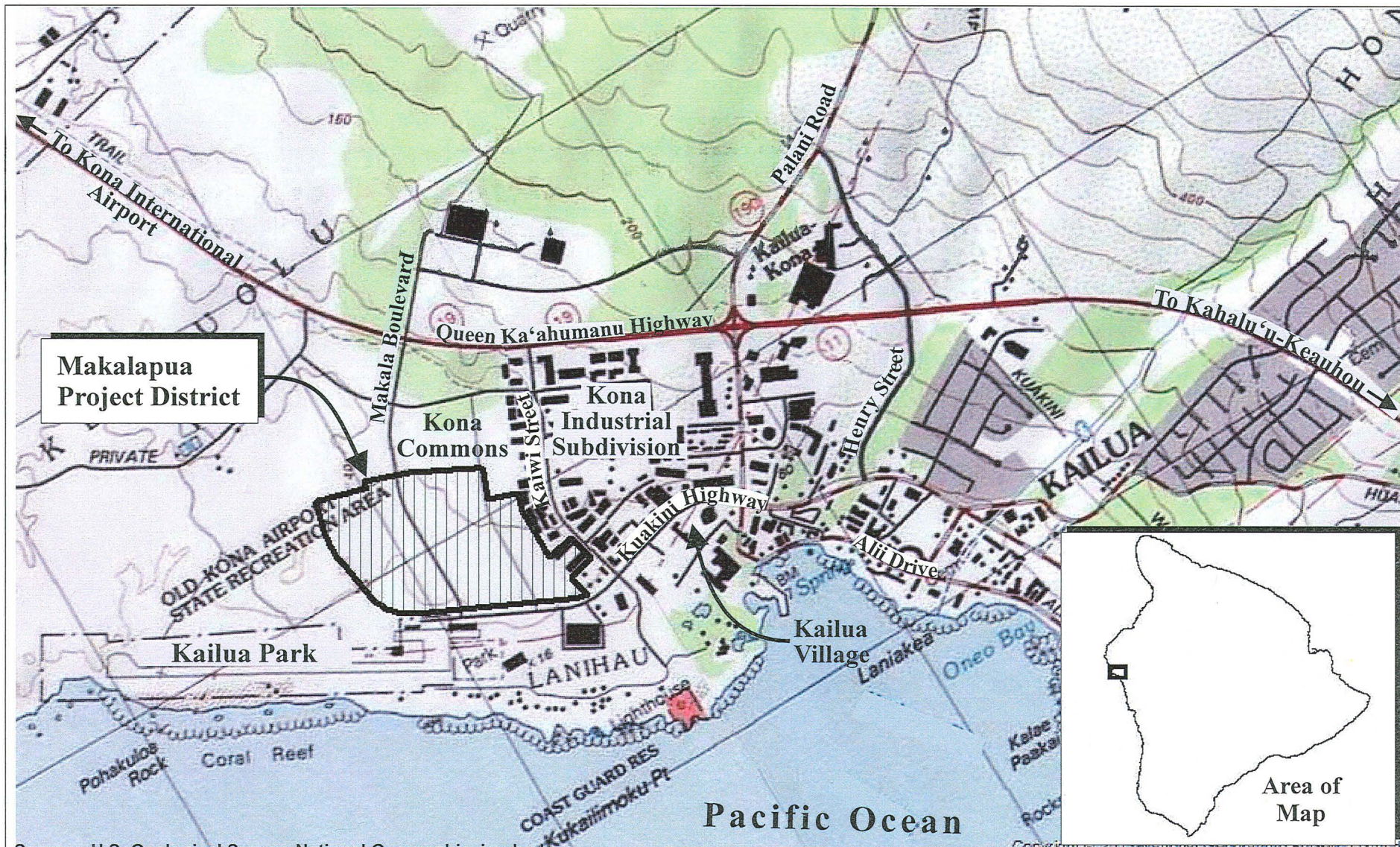
Successful planning and development of LT's projects, such as the Makalapua Project District, will provide revenues that will be used to expand the reach of the programs and services offered. As mentioned previously, the need for these services for Native Hawaiian children continues to grow.

A. PROJECT LOCATION AND EXISTING USE

LT proposes the development, enhancement and refinement of approximately 67.21 acres of land in Kailua-Kona on the island of Hawai'i as the Makalapua Project District. The Makalapua Project District is proposed northwest of Kailua Village and makai of the existing Kona Commons Shopping Center. See **Figure 1**. It is located in the Keahuolū ahupua'a on land owned by LT and identified as Tax Map Key (TMK) Nos. (3)7-4-008:002 (por.), (3)7-4-025:001, 002, 003, 005, 015, 021, 999 (por.)¹, and (3)7-4-010:009 and 010. See **Figure 2**.

The Makalapua Project District is located in the corridor that the Kona Community Development Plan (KCDP) designates as a Regional Commercial Center ("Makaeo Village"), and is also immediately adjacent to another Regional Commercial Center, Kailua Village, under the KCDP. The significance of this designation is the intent to

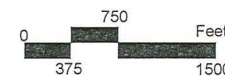
¹ County of Hawai'i Roadway Parcel (formerly TMK (3)7-4-025:012, 017, and 022).



Source: U.S. Geological Survey, National Geographic, i-cubed

Figure 1

Makalapua Project District Regional Location Map



Prepared for: Lili'uokalani Trust

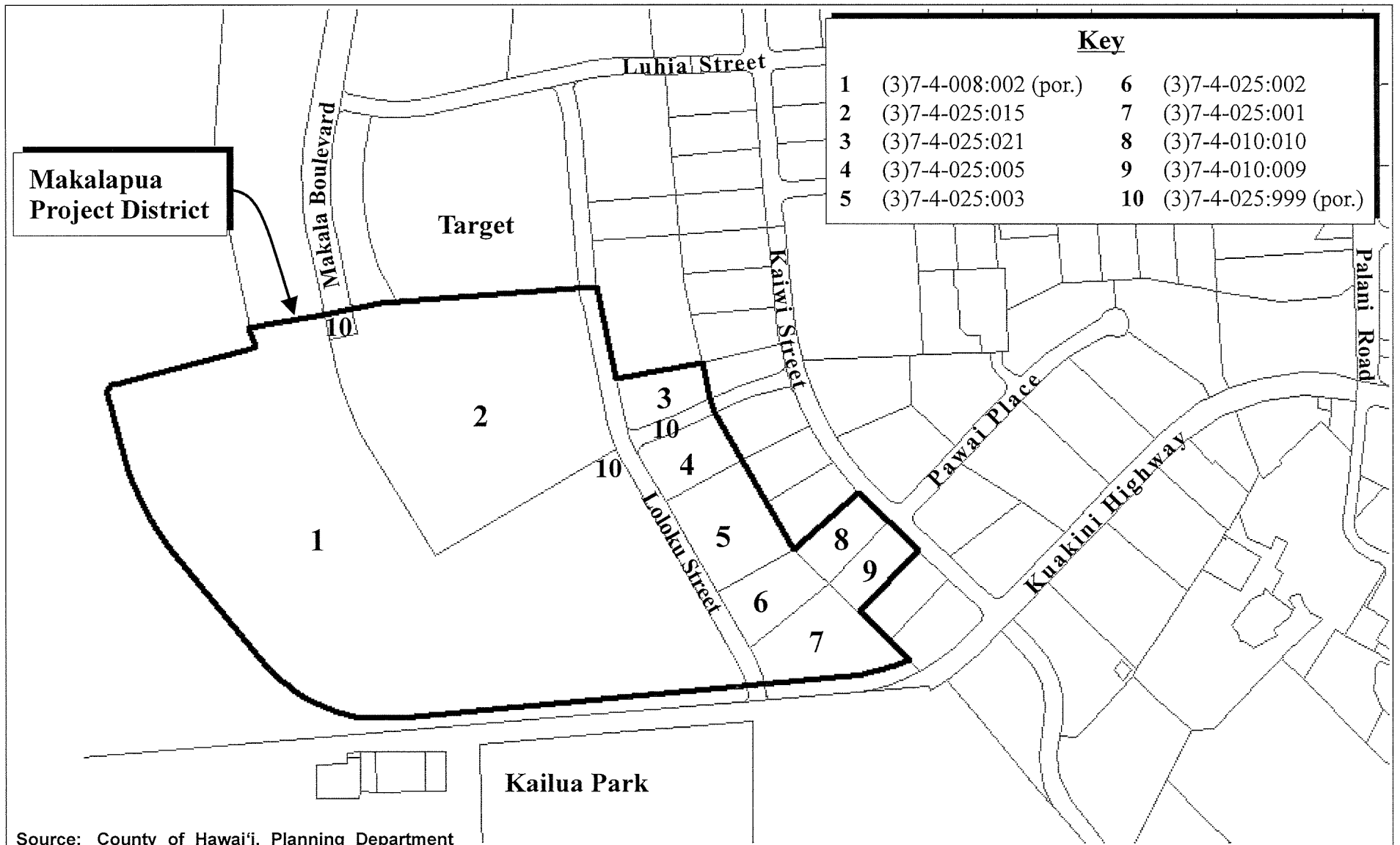
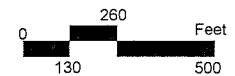


Figure 2

Makalapua Project District Parcel Map



organize and intensify new development (both in form and density) to support a mix of uses, commercial centers, pedestrian activity, and transit (i.e., neighborhood circulators, bus rapid transit) when it becomes available. The KCDP directs future growth toward compact villages to preserve Kona's rural, diverse, and historical character, while also reducing reliance on automobiles as the only form of transportation.

The Makalapua Project District is bordered by the Kona Commons Shopping Center to the northeast, vacant lands to the north, the existing Kona Industrial Subdivision to the east, and the County's Kailua Park (also referred to as Old Airport Park) to the south and west. The Makalapua Project District area is currently vacant and undeveloped with the exception of a former recreational sports facility on Makala Boulevard, a BMW car dealership and temporary storage and staging areas on Loloku Street, and light industrial warehouses on Kaiwi Street.

The majority of the Makalapua Project District is designated "Urban" by the State Land Use Commission (LUC), with the remaining 14.45 acres designated as "Agricultural". The Hawai'i County General Plan's Land Use Pattern Allocation Guide (LUPAG) designates the Makalapua Project District area as "Industrial" and "Urban Expansion". The lands are classified as General Industrial (MG-1a), Industrial-Commercial Mixed (MCX), and Agricultural District (A-5a) by Hawai'i County Zoning.

B. LAND OWNERSHIP

The proposed Makalapua Project District site is owned by LT. LT is a nonprofit public benefit organization dedicated to improving the welfare of orphan and other destitute children in Hawai'i. LT manages its landholdings in Keahuolū to provide a financial foundation for the perpetual benefit of its beneficiaries.

Queen Lili'uokalani inherited approximately 4,000 acres of land at Keahuolū from her mother, Anale'a Keohokālole. It is with these and other legacy lands that the Queen established LT. In 1909, Queen Lili'uokalani executed a Deed of Trust which established the legal and financial foundation of an institution dedicated to the welfare of orphan Hawaiian children. She amended her Deed of Trust in 1911 to include destitute children. The Deed of Trust states that *"all the property of the Trust Estate, both principal and income...shall be used by the Trustees for the benefit of orphan and other destitute children in the Hawaiian Islands, the preference given to Hawaiian children of pure or part-aboriginal blood"* (The Lili'uokalani Trust, 2016). The proposed Makalapua Project District is intended to create long-term value for the Trust and provide financial support for its programs for future generations.

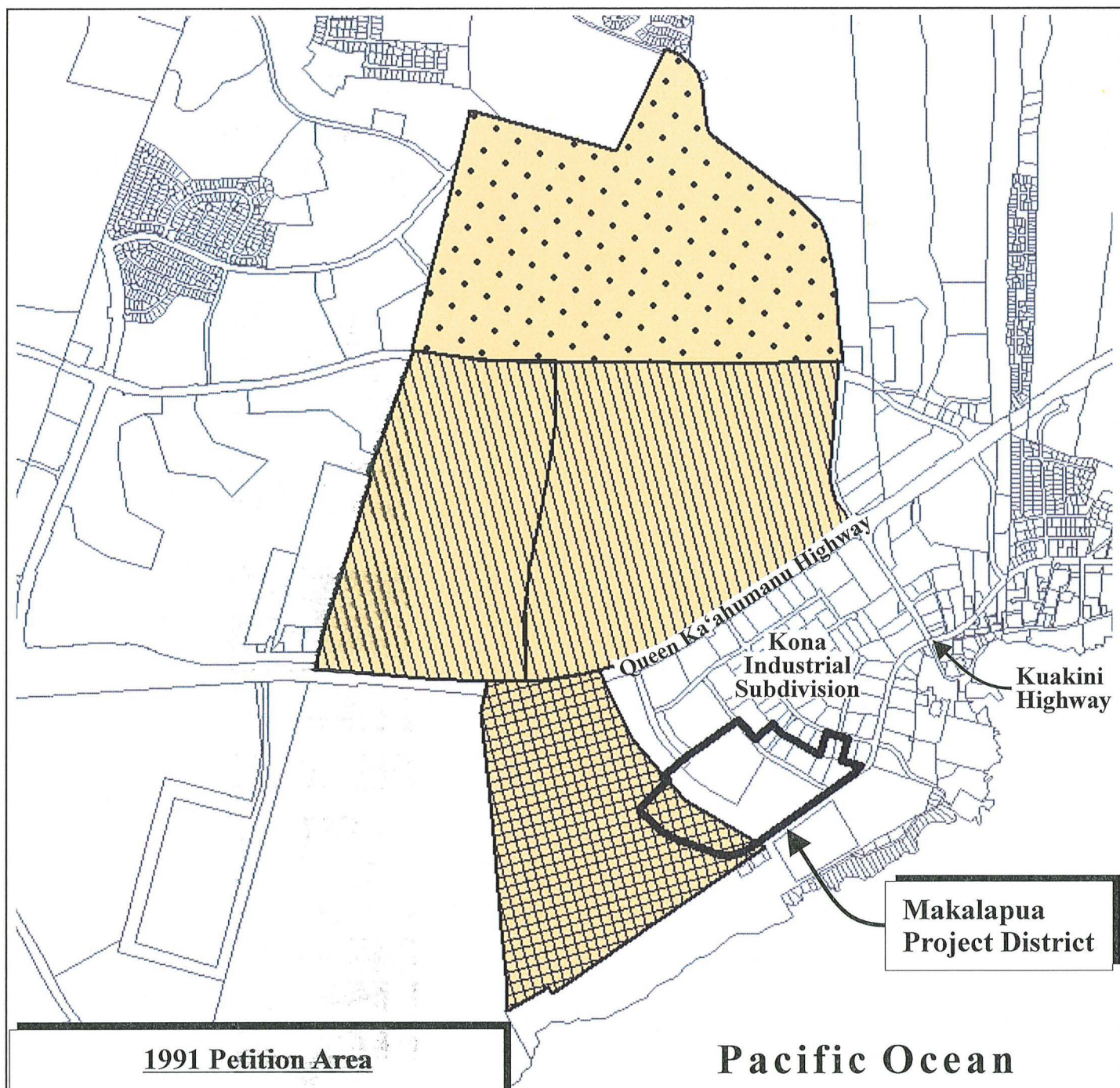
C. PROJECT BACKGROUND

LT prepared a previous land plan for a portion of its lands in Keahuolū in 1990 (hereafter referred to as the “1990 Land Plan”). The 14.45-acre portion of the Makalapua Project District that is within the State “Agricultural” district was included as part of the petition area in the 1990 Land Plan proceedings before the LUC.

The 1990 Land Plan included centers for urban activity, government, regional shopping, professional practices, a regional-serving hospital, business park and light industrial area, business-serving hotel complex, a college campus for West Hawai‘i, and a historic preserve area. An Environmental Impact Statement (EIS) was prepared for the 1990 Land Plan and was accepted by the LUC. The LUC granted a District Boundary Amendment (DBA) from “Conservation” and “Agricultural” to “Urban” for the 1990 Land Plan under a phased and incremental redistricting approach in 1991 (Docket No. A89-646, referred to as 1991 LUC Decision and Order). LT’s lands between Queen Ka‘ahumanu Highway and Ane Keohokālole Highway were reclassified to “Urban” for two (2) phases of development (Phase I and Phase II), while 212 acres (Phase III) of “Agricultural” land, makai of Queen Ka‘ahumanu Highway were subject to incremental reclassification upon substantial completion of the first increment. See **Figure 3**.

Due to changing market conditions, LT was not able to substantially complete development of Phase I and Phase II of the 1990 Land Plan, despite its best efforts. LT has since revised its land plan for Keahuolū to better fit the current market demands and other needs of the community. The new land plan provides a broad range of mixed-housing choices that will appeal to different age groups and levels of affordability.

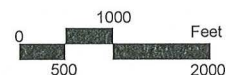
Because Phase I and Phase II of the 1990 Land Plan were not substantially developed, Phase III, which includes 14.45 acres of the western portion of the Makalapua Project District, remained in the “Agricultural” district, subject to incremental reclassification to the “Urban” district under the 1991 LUC Decision and Order. In August 2015, LT submitted a motion to amend the 1991 LUC Decision and Order to remove the Phase III lands from the effect of that order and shift 14.45 acres of Phase III lands into a separate project (i.e., Makalapua Project District development). On March 24, 2016 the LUC granted LT’s motion to amend the 1991 LUC Decision and Order by releasing the Phase III lands from its order. See **Appendix “A”**. LT will now be seeking to reclassify the aforementioned 14.45-acre portion of the Phase III lands from the “Agricultural” district to the “Urban” district so that it can be included within the Makalapua Project District development.



Source: State Land Use Commission

Figure 3

Makalapua Project District 1991 District Boundary Amendment



Prepared for: Lili'uokalani Trust

The balance of lands remaining in Phase III “Agricultural” land (197.55 acres) will remain as part of LT’s new Keahuolū Land Plan petition, which LT anticipates submitting to the LUC for a DBA by 2020. The Keahuolū Land Plan is separate from and independent of the proposed Makalapua Project District development.

D. PROJECT VISION, GOALS, AND OBJECTIVES

The vision for the Makalapua Project District is to:

‘create a mixed-use, walkable, village center where families can feel safe, gather freely and connect with the spirit of Queen Lili’uokalani. A community that is of this place, and offers opportunities – large and small; formal and informal, programmed and spontaneous – for people to connect with one another and with the spirit of this place we call Kona’

The Makalapua Project District is guided by five (5) core principles:

- Fulfill the legacy of Queen Lili’uokalani – by carefully shaping the form and character of development to allow people to connect, live life more fully and have healthier lives
- Foster Regional Economic Resilience – by increasing opportunities for small and large businesses to develop, expand and thrive
- Improve Regional Transportation – by providing critical regional linkages while introducing new forms of transport that reduce the need for everyone to have an automobile
- Instill Diversity – by providing choices of housing options for different incomes and life stages; employment opportunities for various skills and economic levels, and transportation
- Malama Our Resources – through thoughtful and intelligent design and operation, reduce dependencies on energy, water and fossil fuel based transportation, while also protecting important natural resources such as our shoreline, groundwater and air

The five (5) guiding principles for the Makalapua Project District are supported by Smart Growth Network’s principles, which have been incorporated into the project:

- Strengthen and direct development towards existing communities
- Foster distinctive, attractive communities with a strong sense of place
- Mix land uses

- Provide a variety of transportation choices
- Create walkable neighborhoods
- Create a range of housing opportunities and choices
- Take advantage of compact building design
- Preserve open space, farmland, natural beauty, and critical environmental areas
- Encourage community and stakeholder collaboration in development decisions

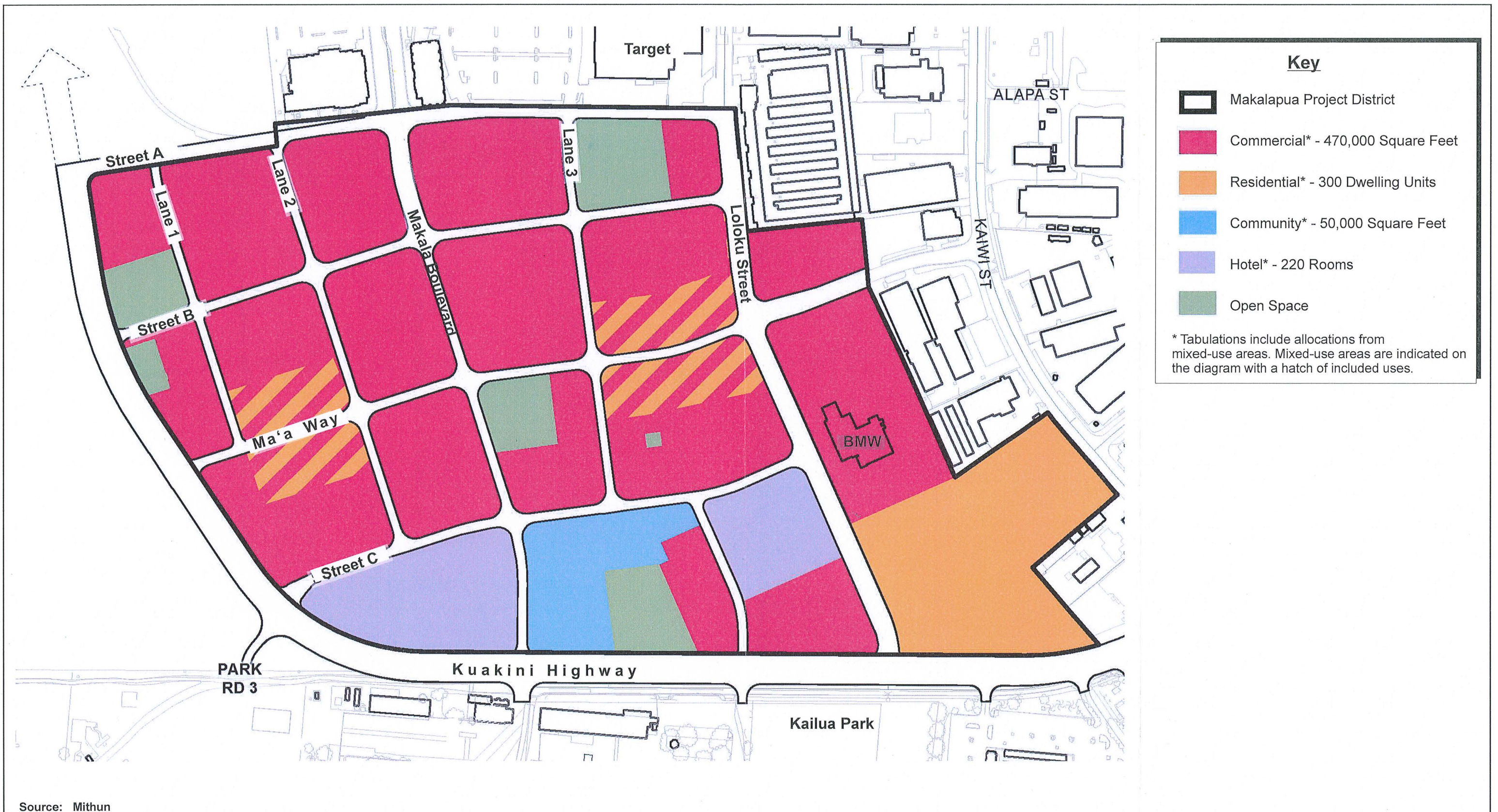
(www.smartgrowth.org, accessed November 2017)

E. PROPOSED ACTION

The Makalapua Project District includes a diverse range of uses planned in close proximity of each other to support the livability of the North Kona region, while helping to expand the offerings of the region as a destination. Anchored by a major retail center, the Project District will be organized around an interconnected, pedestrian oriented street network where homes, businesses, and entertainment are intermingled to provide a diverse experience for residents and visitors.

The Makalapua Project District will include residential, hotel, retail, commercial, office, and civic/community uses. Approximately 300 residential units; 220 rooms across two (2) hotels; a 50,000 square foot community performance and educational facility; 470,000 square feet of commercial use (retail, employment); and a variety of open space features are proposed.

Since publication of the Draft Environmental Assessment (EA) in the Office of Environmental Quality Control's Environmental Notice on March 8, 2017, LT has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS, resulting in modifications to roadway alignments, which has resulted in minor changes to the project boundary. This resulted in a change of the project area from 69.1 acres to 67.21 acres. **Figure 4** provides the revised conceptual site plan for the Makalapua Project District, including how proposed uses may be configured and the modified road alignments to protect the expanded preservation area.



Source: Mithun

Figure 4



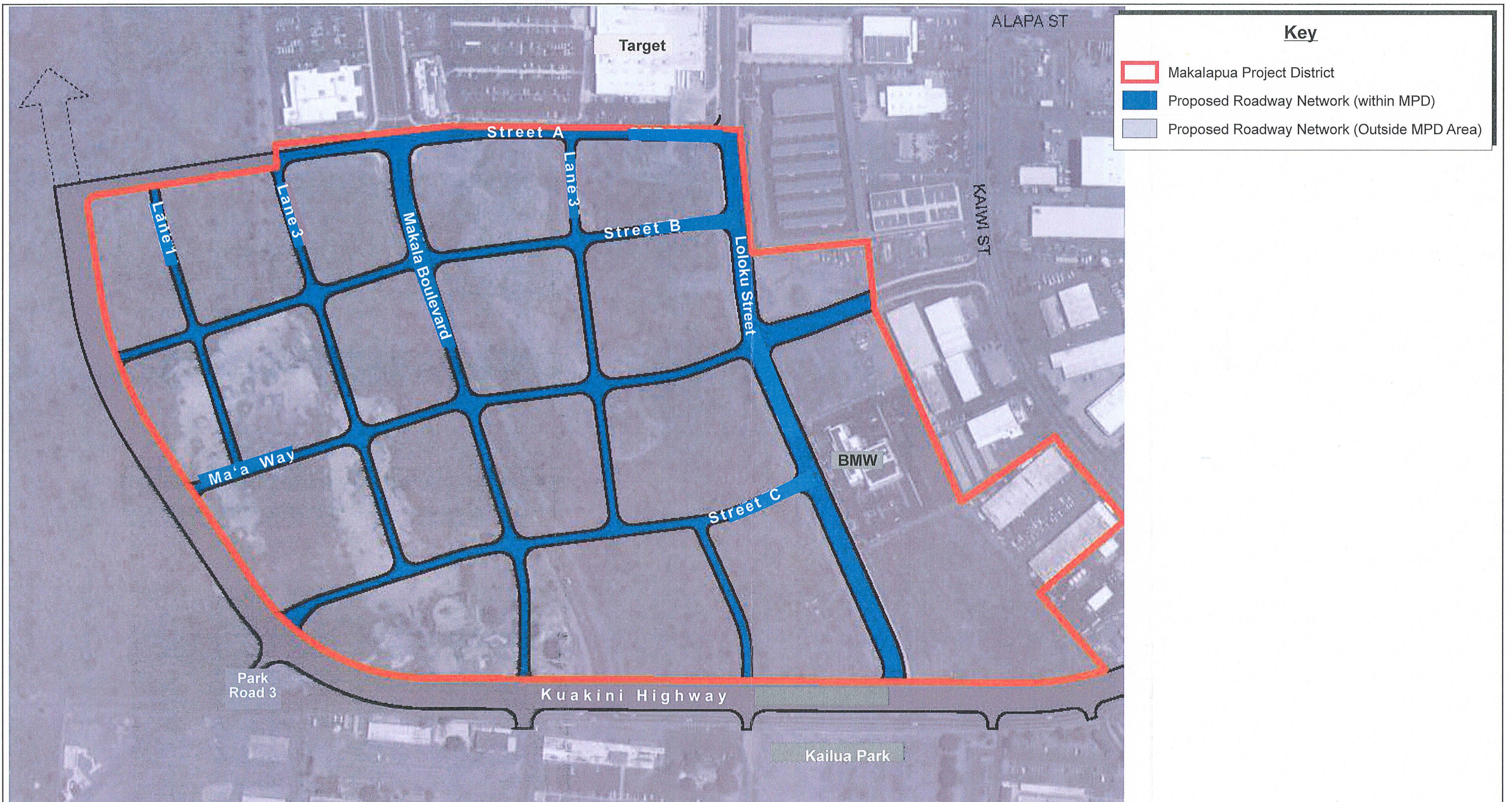
Makalapua Project District Conceptual Site Plan

NOT TO SCALE

An application will be submitted to change the zoning of the project site to “PD, Project District”. In accordance with Hawai‘i County Code Section 25-6-40, a project district development is intended to provide quality developments by allowing a flexible, creative planning approach instead of specific land use designations. It also allows for flexibility in locations of specific uses and mixes of structural alternatives. As such, while overall densities are not anticipated to change, specific locations for the proposed uses within the Makalapua Project District may be refined as planning progresses through the rezoning process. Potential refinements in the proposed locations of specific uses are not anticipated to affect the overall assessment of impacts and mitigation measures for the Makalapua Project District, given that the total unit count or square footage for each use will not change. It is noted that the modifications to the conceptual site plan to accommodate the expanded preservation area do not affect proposed land uses and densities. The project will be developed at the same densities as proposed and assessed in the Draft EA.

Residential products will be designed to meet the needs of a variety of new and existing households, with the primary objective of creating a rich diversity of residents by providing a wide range of choices. These will include medium- to high-density residential units in multi-family formats for rent and/or ownership. The Makalapua Project District is also envisioned to create ‘incubator’ opportunities for new businesses to start, while continuing to provide support for existing businesses to remain and flourish as the Project District and region grows.

The Makalapua Project District is designated as a regional center transit oriented development (TOD) in the Kona Community Development Plan (KCDP). The Project District is planned to be aligned with TOD and walkable district principles, as a high density and mixed use center that supports more frequent transit. Organized around an interconnected street network that fulfills recent State and County policies and best practice objectives for Complete Streets, the Makalapua Project District will be designed to support a variety of transportation options with multi-modal design. Makala Boulevard is envisioned as a walkable main street with on-street parking, serving as the focus for pedestrian oriented retail, social activity, and public strolling within the Project District. Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park before curving north, as envisioned in the KCDP. Three (3) access routes to Kailua Park from Kuakini Highway, consistent with the Kailua Park Master Plan, will provide mauka-makai connections. Ma’a Way will be continued from the Kona Industrial Subdivision, providing connections through the Project District. See **Figure 5**. Offsite roadway improvements associated with the proposed project, including improvements to Kuakini Highway, Kaiwi Street, and Queen Ka’ahumanu Highway, will also be implemented to mitigate traffic impacts generated by the project. Given the pace of growth in Kona and the need to carefully shape the Makalapua Project District, LT is



Source: Mithun

Figure 5



Makalapua Project District Proposed Roadway Network and Improvements

NOT TO SCALE

Prepared for: Lili'uokalani Trust

taking a long-term view towards its realization. The proposed project leverages a combination of undeveloped land and existing uses/users, with the thoughtful incorporation of additional uses/users that are consistent with the overall vision of the Makalapua Project District. Ultimate build-out is anticipated to be completed in approximately 15 years, with a significant portion of the project expected to be completed in the first ten (10) years.

F. PROJECT NEED

The West Hawai'i region has been growing at a faster rate than the County and State as a whole. With population growth comes the demand for housing, retail, commercial, recreational, and public service facilities. Between 2000 and 2010, resident population in Kailua-Kona increased by 21.3 percent, compared to just 12.3 percent in the State (U.S. Census, 2010). Between 2010 and 2040, Hawai'i County's population is expected to grow by 59.8 percent, compared to 25.3 percent statewide (State DBEDT, 2012). The population growth projected for the County indicates the need for new urban land uses to support this increasing resident population base.

The proposed Makalapua Project District responds to the need to provide housing and economic growth opportunities for the County's growing population. The project will serve to meet the varied housing and commercial needs of the region at an attractive growth location adjacent to Kailua-Kona. As envisioned by the KCDP, the project will serve as a natural extension of Kailua Village.

G. CHAPTER 343, HAWAI'I REVISED STATUTES COMPLIANCE

Implementation of the proposed Makalapua Project District involves improvements and infrastructure connections to County roadways, which may also involve use of County funds through the establishment of a Community Facilities District (CFD) or other financing mechanism. The use of County lands and funds are triggers for the preparation of an EA, pursuant to Chapter 343, Hawai'i Revised Statutes (HRS) and Section 11-200-6, Hawai'i Administrative Rules (HAR). The EA will serve as a technical supporting document for the permit and entitlement process for the proposed project. Based on coordination between agencies, it has been determined that the County of Hawai'i, Planning Department will serve as the approving agency for the EA.

It is noted that the western portion of the Makalapua Project District was previously assessed in a Chapter 343, HRS EA prepared for the Kona Commons Shopping Center. The Final EA and Finding of No Significant Impact for the Kona Commons project, which included approximately 40 acres of the 67.21-acre Makalapua Project District, were published in the March 23, 2008 Office of Environmental Quality Control Environmental Notice.

The EA for the Kona Commons project assessed three (3) phases of commercial/retail use. The first two (2) phases have been built out with the Kona Commons Shopping Center and Target off of Makala Boulevard. The third phase of Kona Commons assessed in the EA consisted of 40 acres south of Target and Kona Commons Shopping Center. Phase III of Kona Commons has not been developed and remains vacant. These lands are included in the Makalapua Project District, and include a mixture of uses that were not originally envisioned as part of the 2008 Kona Commons Shopping Center EA.

H. LAND USE APPROVALS REQUIRED

The proposed project will require the following regulatory compliance and approvals:

1. Chapter 343, HRS, Environmental Assessment

As discussed above, use of County lands and funds for roadway improvements is a trigger for Chapter 343, HRS analysis. As such, this EA has been prepared in accordance with Chapter 343, HRS and Chapter 200-11, HAR.

2. State Land Use Commission District Boundary Amendment

The Makalapua Project District consists of 52.76 acres of land within the State "Urban" district and 14.45 acres in the State "Agricultural" district for a total of 67.21 acres. As previously discussed, LT will submit a Petition for a DBA for the 14.45-acre portion of the Project District that is designated as "Agricultural" by the LUC. Refer to **Figure 3** and **Figure 4**. The DBA petition area is less than 15 acres; therefore, pursuant to Chapter 205, HRS, Section 205-3.1, will be processed through the County of Hawai'i reclassification process. The approving body for the DBA petition will be the Hawai'i County Council.

3. County Change of Zone

The Makalapua Project District falls into three (3) main zoning districts: MG-1a, General Industrial; MCX, Industrial-Commercial Mixed; and A-5a, Agricultural District. A Change of Zone application will be submitted by LT to the County of Hawai'i Planning Department to change the zoning of the project site to "PD, Project District". As mentioned previously, Hawai'i County Code Section 25-6-40 notes that a project district development is intended to provide quality developments by allowing a flexible, creative planning approach instead of specific land use designations. It allows for flexibility in locations of specific uses and mixes of structural alternatives. As such, while overall densities are not anticipated to change, specific locations for the proposed uses within the Makalapua Project District may be refined as planning progresses through the

rezoning process. The approving body for the Change of Zone application is the Hawai'i County Council.

4. Planned Unit Development

A Planned Unit Development (PUD) application will also be filed for the project to ensure that the proposed development is compatible with the surrounding community. The PUD encourages comprehensive planning and allows diversification in the relationship of various uses, buildings, structures, open spaces and yards, building heights, and lot sizes in planned building groups, while insuring the intent of the zoning designation is observed. The approving body for the PUD is the Leeward Planning Commission of the County of Hawai'i.

5. Special Management Area Use Permit

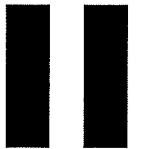
The Makalapua Project District falls within the County's Special Management Area (SMA). As such, a SMA Use Permit will be required from the Leeward Planning Commission.

Other permits that may be required for the proposed Makalapua Project District include a National Pollution Discharge Elimination (NPDES) Permit, Community Noise Permit (as applicable), Subdivision Approval, Construction Approvals (Grading/Building Permits), and a Right to Perform Work Within a County Right of Way.

I. PROJECT COST AND IMPLEMENTATION SCHEDULE

The project will have an anticipated development timeframe of approximately 15 years, with a significant portion of the project anticipated to be completed in the first ten (10) years. The total estimated infrastructure construction costs for the proposed project is approximately \$65 million.

**DESCRIPTION OF THE EXISTING
CONDITIONS, POTENTIAL
IMPACTS, AND PROPOSED
MITIGATION MEASURES**



II. DESCRIPTION OF THE EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

a. Existing Conditions

The proposed Makalapua Project District is located north of the Kailua-Kona village core. It is bordered by the Kona Commons Shopping Center to the northeast, vacant lands to the north, the existing Kona Industrial Subdivision to the east, and the County's Kailua Park to the south and west. The project area is currently vacant and undeveloped with the exception of a former recreational sports facility on Makala Boulevard, a BMW car dealership and temporary storage and staging areas on Loloku Street, and light industrial warehouses on Kaiwi Street.

b. Potential Impacts and Proposed Mitigation Measures

The proposed Makalapua Project District is located adjacent to and in the immediate vicinity of existing urban development and will complement surrounding land uses. It is located in the corridor that the Kona Community Development Plan (KCDP) designates as a transit-oriented development regional commercial center ("Makaeo Village"), and is also immediately adjacent to Kailua Village, another Regional Commercial Center under the KCDP.

Compatibility and connectivity with surrounding land uses were considered in the planning and design for the Project District. The existing BMW car dealership will be consistent with the uses permitted within the Project District and will be integrated into the proposed new development, while the former recreational sports facility and temporary storage and staging areas will be redeveloped. The internal street network, as well as the extension of Kuakini Highway, will improve connectivity with the adjacent developed areas. Special attention was paid to the relationship between the proposed Makalapua Project District and the neighboring Kailua Park, and access routes to the Park will be provided, consistent with the Kailua Park Master Plan. The proposed Project District will complement neighboring areas. As such, significant adverse impacts to surrounding land uses are not anticipated.

2. Climate

a. Existing Conditions

The island of Hawai'i is characterized by a semi-tropical climate containing a multitude of individual microclimates. According to the 2015 County of Hawai'i Data Book, the climate in Kailua is generally mild with an average temperature of about 72 degrees Fahrenheit. The average annual rainfall in the region is approximately 61.9 inches (County of Hawai'i, Department of Research and Development, 2015).

b. Potential Impacts and Proposed Mitigation Measures

Because the proposed Makalapua Project District consists of new construction, there is significant opportunity to incorporate energy conservation and efficiency measures in the project. Passive energy conservation strategies that are being considered include architectural shading for reducing heat gain, maximizing natural daylighting of interior spaces, building orientation and fenestration for natural ventilation, and landscape strategies to provide summer shade. Open space areas will also be integrated into the Makalapua Project District. It is anticipated that these mitigation measures will serve to offset the potential heat island effect of the residences and related impervious surfaces in the project district. As a result, significant adverse impacts to temperature, precipitation, and wind patterns are not anticipated.

3. Climate Change

a. Existing Conditions

Hawai'i Act 286: Climate Change Adaptation Priority Guidelines, adopted in July 2012, calls for planning for the impacts of climate change to Hawai'i's human and natural systems. Accordingly, the climate change adaptation priority guidelines were established and added to the Hawai'i State Plan as HRS 226-109. Impending climate change may result in increased rainfall intensity, but with reduction to overall precipitation; sea level rise and potential impacts to the shoreline proximate site; and increased heat and associated health impacts. With respect to sea level rise, the University of Hawai'i School of Ocean and Earth Science Technology (SOEST) states that current research indicates that global mean sea level may rise by one (1) foot by mid-century and by 2.5 to 6.2 feet by 2100 (University of Hawai'i, SOEST, 2016).

b. Proposed Mitigation

Planning for the Makalapua Project District incorporates mitigation for potential impacts from climate change through design techniques related to stormwater management (both quantity attenuation and quality of runoff); reducing heat impacts through building orientation and fenestration for natural ventilation, and use of architectural shading, as well as incorporation of open space areas and landscaping; and consideration of potential sea level rise impacts. The National Oceanic and Atmospheric Administration's (NOAA) Sea Level Rise mapping data was reviewed to assess potential impacts associated with a 1-foot and 6-foot sea level rise. Because the proposed Makalapua Project District is located inland from the coast and at an elevation higher than six (6) feet above mean sea level, the project parcels are not anticipated to experience sea level rise inundation under the 1-foot and 6-foot sea level rise scenarios (NOAA, 2016).

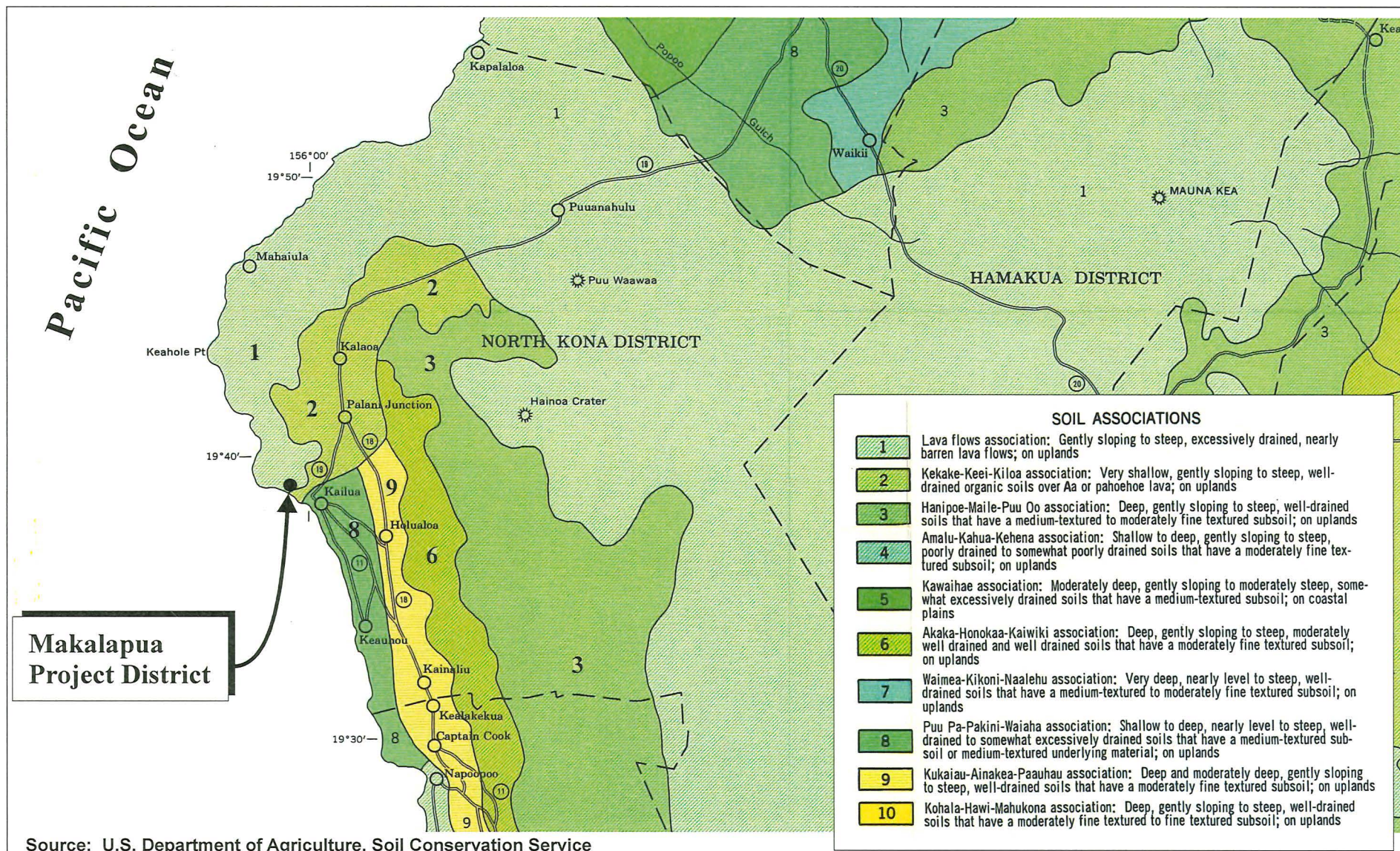
4. Topography and Soils

a. Existing Conditions

The Makalapua Project District ranges in elevation from 10 to 40 feet above mean sea level (amsl). The site generally slopes down in a southwesterly direction toward Kailua Park. Ground slopes range from 0 percent to 12 percent, with an average slope of 3 percent. See **Appendix "B"**.

The majority of the proposed Makalapua Project District is located within the Lava Flows association with a small portion of the project area within the Kekake-Keei-Kiloa soil association as designated by the U.S. Department of Agriculture, Soil Conservation Service in the 1973 Soil Survey of the Island of Hawai'i. See **Figure 6**. The Lava Flows association is characterized by gently sloping to steep, excessively drained, nearly barren lava flows on uplands. The soils are on mountains at an elevation ranging from near sea level to 13,000 feet amsl. This association is used for grazing, wildlife habitat, and recreation. However, in general, the carrying capacity of this soil association for grazing and wildlife is low. The Kekake-Keei-Kiloa association is characterized by very shallow, gently sloping to steep, well-drained organic soils over A'a or Pāhoehoe lava on uplands.

The specific soil type underlying the Makalapua Project District is Pāhoehoe (rLW) lava flows. See **Figure 7**. Pāhoehoe lava is characterized by a billowy, glassy surface that is relatively smooth. In some areas, Pāhoehoe lava is rough and broken, and may have



Source: U.S. Department of Agriculture, Soil Conservation Service

Figure 6

Makalapua Project District Soil Association Map

NOT TO SCALE



Prepared for: Lili'uokalani Trust

 MUNEKIYO HIRAGA

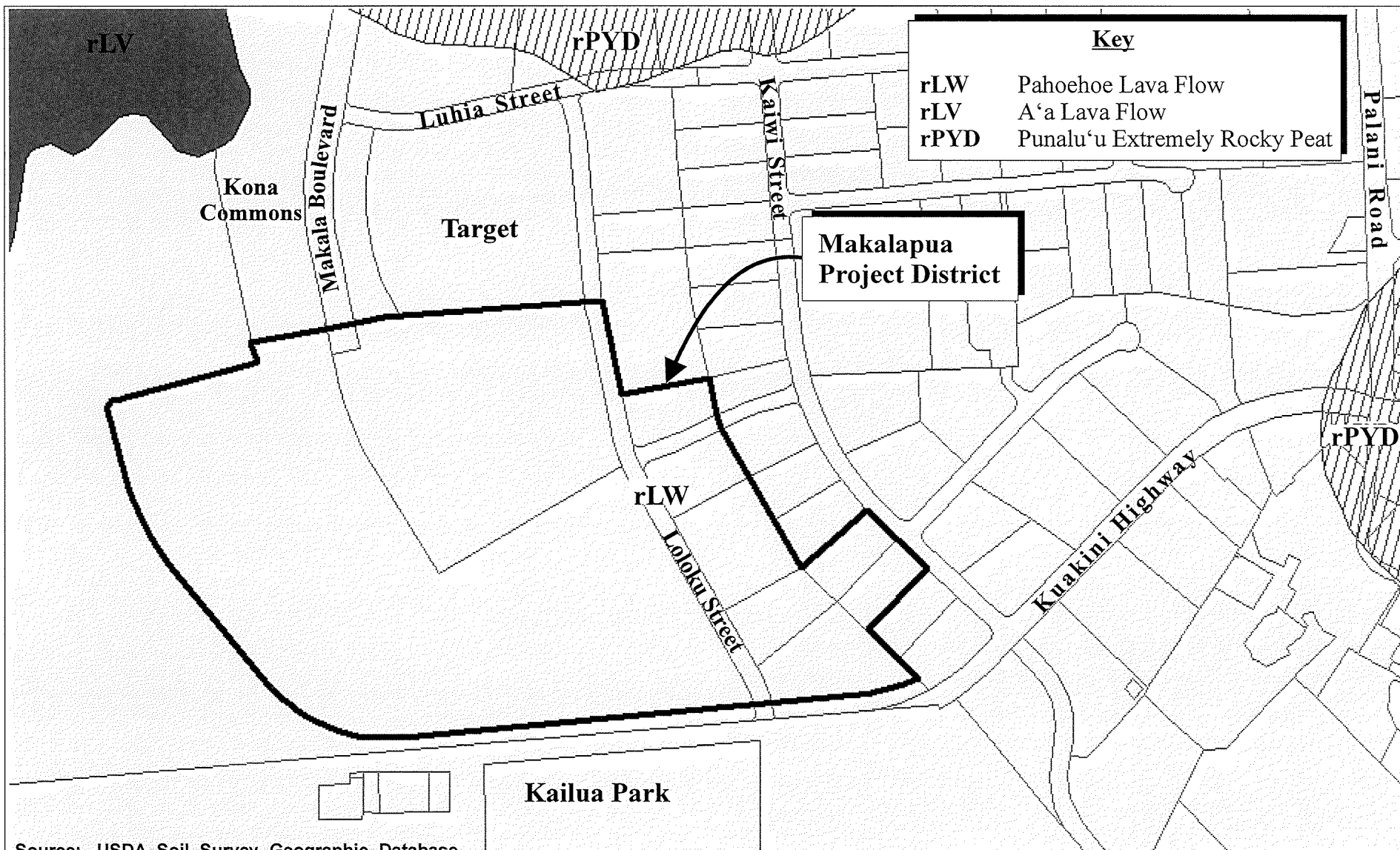
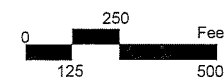


Figure 7

Makalapua Project District Soil Classification Map



 MUNEKIYO HIRAGA

Prepared for: Lili'uokalani Trust

hummock and pressure domes. This lava has no soil covering and is typically bare of vegetation except for mosses and lichens. However, in areas of higher rainfall, scattered 'ōhi'a trees, 'ōhelo berry, and 'a'ali'i grow in cracks and crevices (U.S. Department of Agriculture, Soil Conservation Service, 1973).

b. Potential Impacts and Proposed Mitigation Measures

Appropriate Best Management Practices (BMPs) will be implemented during construction to mitigate impacts from soil erosion resulting from wind and water (e.g., dust fence, watering for dust control).

The proposed project is not anticipated to have significant adverse impacts upon terrestrial conditions.

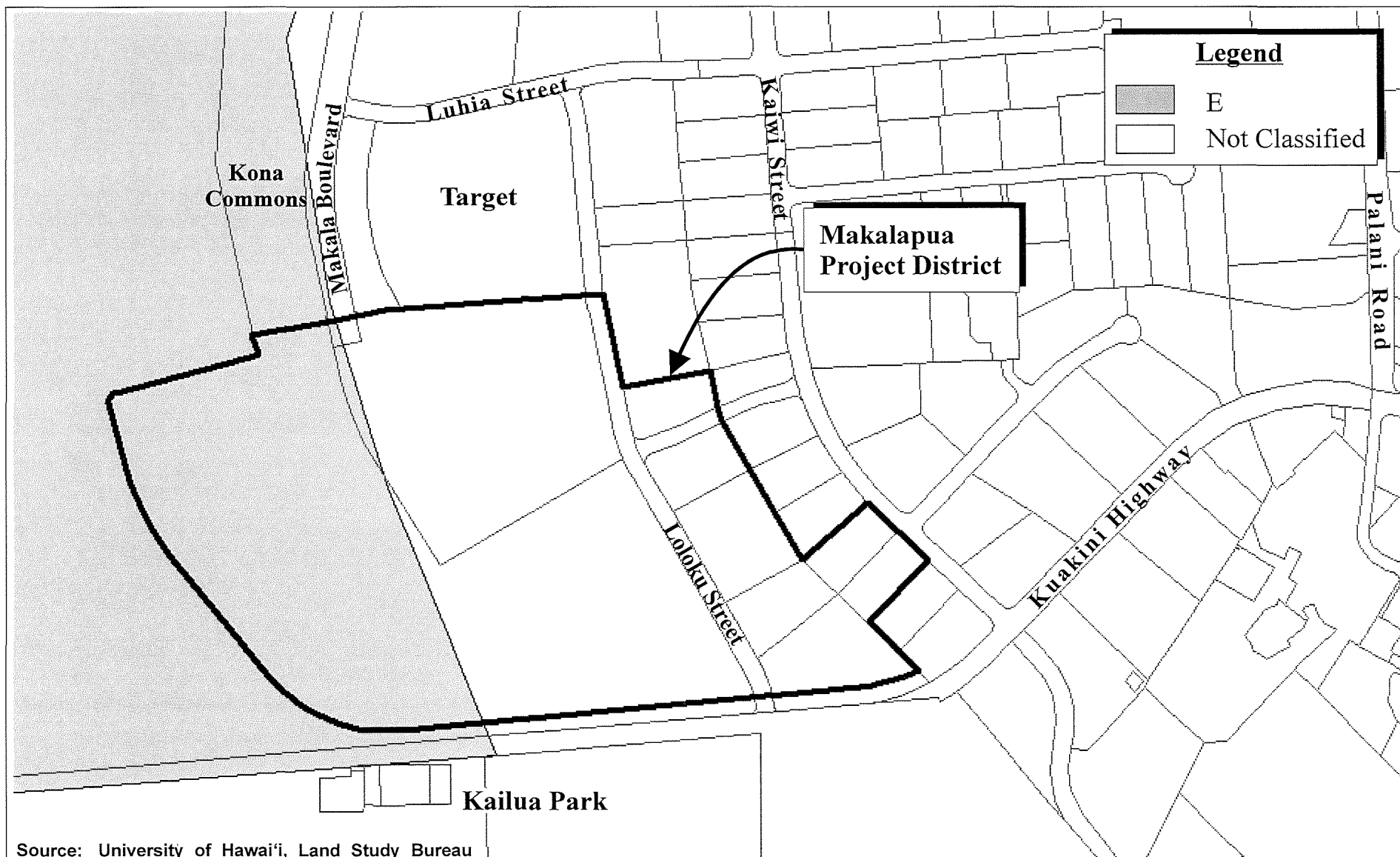
5. Agriculture

a. Existing Conditions

In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawai'i (ALISH). The classification system is based primarily, though not exclusively, upon the soil characteristics of the lands. The three (3) classes of ALISH lands are: "Prime", "Unique", and "Other Important" agricultural land, with all remaining lands designated "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 Important" agricultural lands include those that have not been rated as "Prime" or "Unique", but are of statewide or local importance for agricultural use. The Makalapua Project District is not classified under the ALISH system. There are no "Prime", "Unique", or "Other Important" agricultural lands within the immediate vicinity of the project.

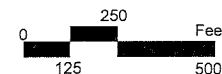
The University of Hawai'i, Land Study Bureau (LSB) developed the Overall Productivity Rating, which classified soils according to five (5) levels, with "A" representing the class of highest productivity soils and "E" representing the lowest. As illustrated in **Figure 8**, the State "Agricultural" District lands within the Makalapua Project District are designated "E" by the LSB, the lowest productivity rating. The remainder of the Project District, which is in the State "Urban" District, is not classified by the LSB.



Source: University of Hawai'i, Land Study Bureau

Figure 8

Makalapua Project District Land Study Bureau Overall Productivity Rating



MUNEKIYO HIRAGA

Prepared for: Lili'uokalani Trust

b. Potential Impacts and Proposed Mitigation Measures

Although 14.45 acres of the Makalapua Project District are designated “Agricultural” by the LUC, the land does not have a recent history of agricultural use and is not currently being used for active agricultural cultivation or production. Historic accounts indicate that there was limited cultivation within the coastal region of Keahuolū (Reeve et al., 2016). The State Department of Agriculture does not identify the site or surrounding areas as agricultural lands of importance and the University of Hawai‘i, LSB classifies the State “Agricultural” lands with a low productivity rating. As such, the project area is not considered a suitable location for economically sustainable agricultural uses. Given the foregoing, the proposed Makalapua Project District is not anticipated to present significant adverse impacts on agriculture.

6. Flood and Tsunami Hazards

a. Existing Conditions

As indicated by the Federal Emergency Management Agency’s Flood Insurance Rate Map (FIRM) for the area, the Makalapua Project District is located within Flood Zone X (unshaded). See **Figure 9**. Flood Zone X (unshaded) is an area of minimal flood hazard, determined to be outside the 0.2 percent annual chance flood.

The Makalapua Project District is also located outside of the tsunami evacuation area. See **Figure 10**.

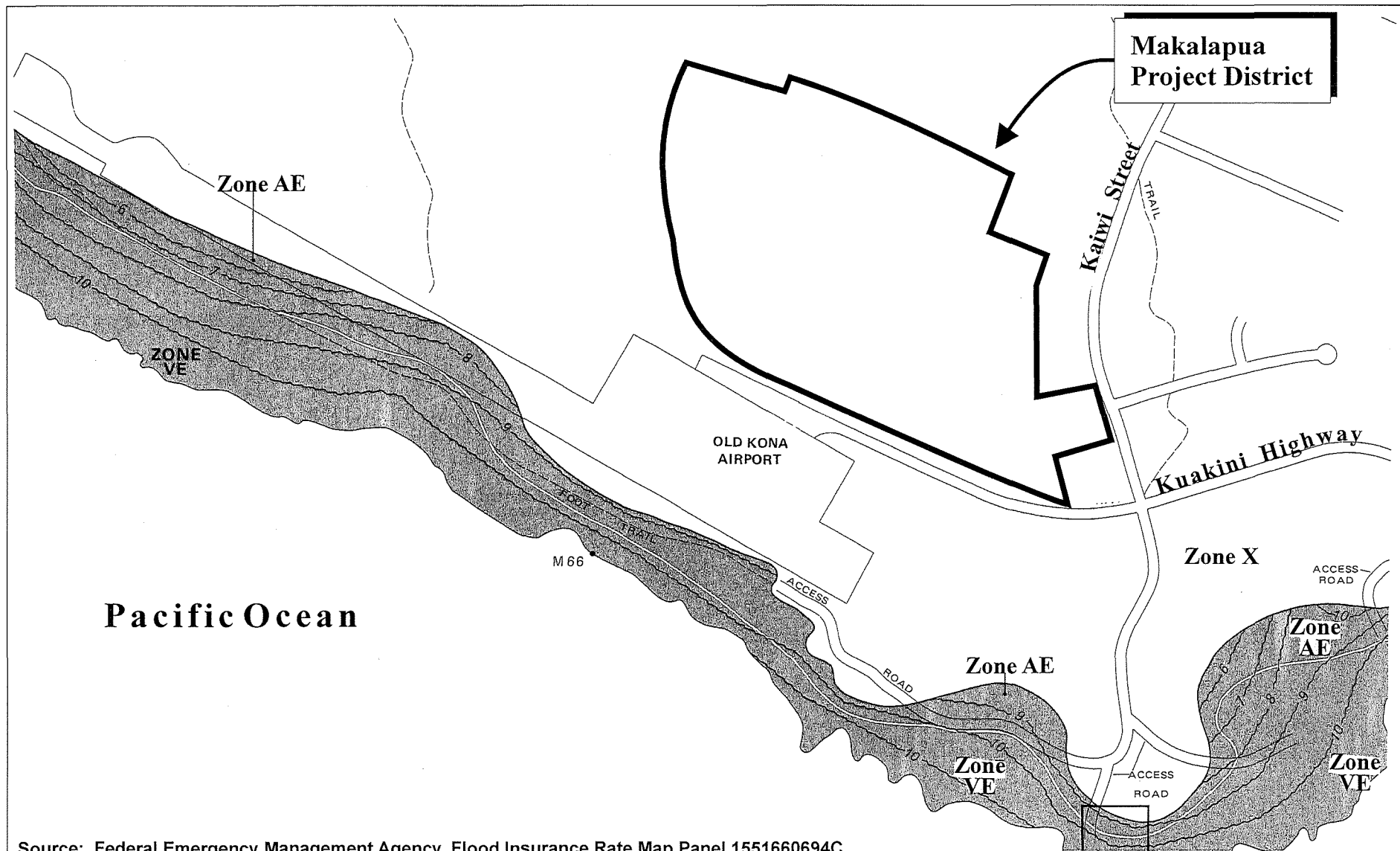
b. Potential Impacts and Proposed Mitigation Measures

There are no restrictions on development located in areas designated as Flood Zone X (unshaded). Given that the Makalapua Project District is located within Flood Zone X (unshaded) and outside of the tsunami evacuation area, no significant adverse impacts with regards to flood and tsunami hazards are anticipated for the proposed project.

7. Earthquake Hazards

a. Existing Conditions

Thousands of earthquakes occur every year beneath the Island of Hawai‘i. Earthquakes in Hawai‘i are closely linked to the volcanoes that shaped the island. Numerous small earthquakes usually accompany eruptions and magma movement within Hawai‘i’s active volcanoes. Other



Source: Federal Emergency Management Agency, Flood Insurance Rate Map Panel 1551660694C

Figure 9

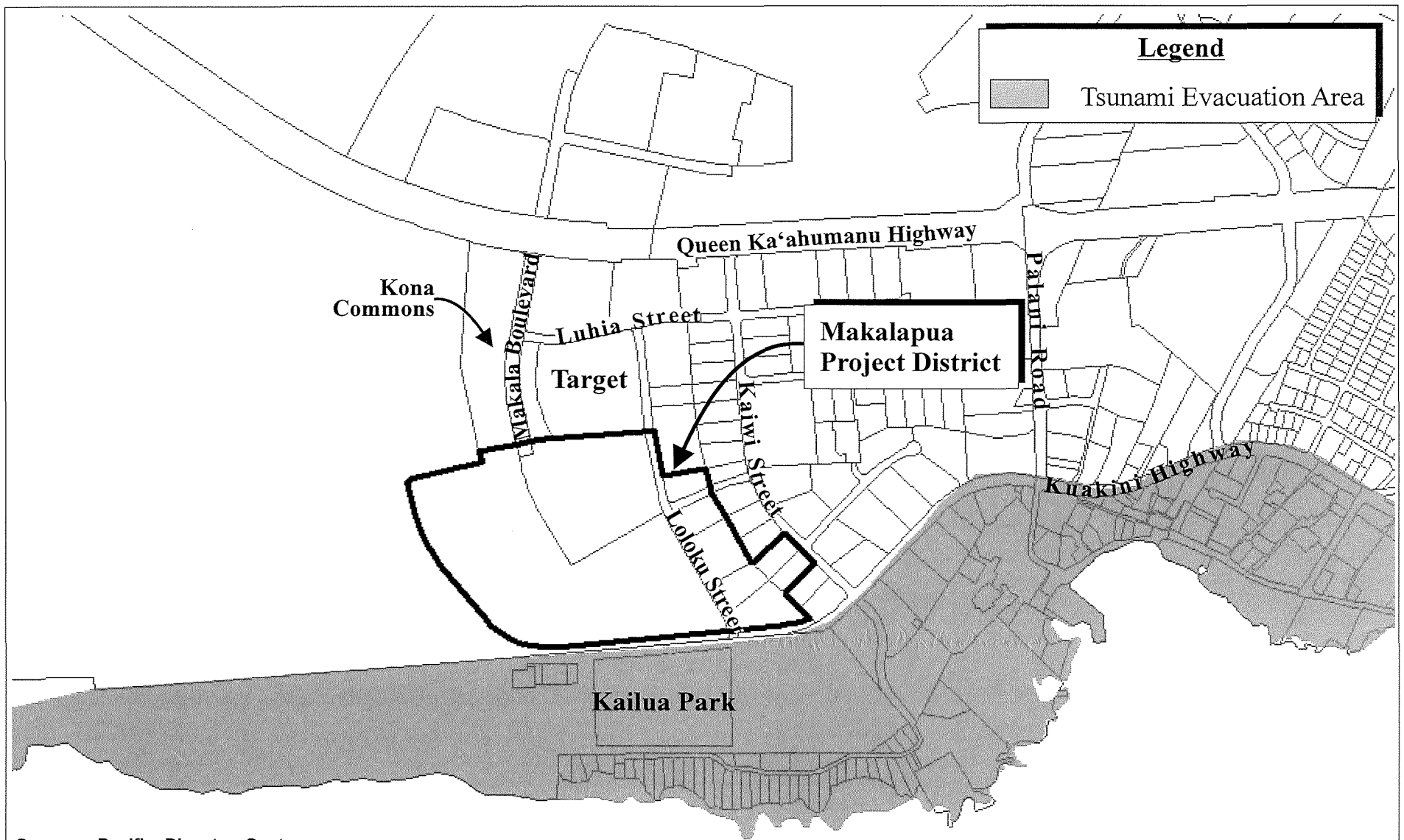
Makalapua Project District Flood Insurance Rate Map

NOT TO SCALE



Prepared for: Lili'uokalani Trust

 MUNEKIYO HIRAGA



Source: Pacific Disaster Center

Figure 10

Makalapua Project District Tsunami Evacuation Area



0 500 1000
250 Feet

 MUNEKIYO HIRAGA

Prepared for: Lili'uokalani Trust

tectonic earthquakes, which include the largest ones, occur in areas of structural weakness at the base of Hawai'i's volcanoes or deep beneath the island (USGS Hawaiian Volcano Observatory, Earthquakes, 2001).

Since 1868, ten (10) destructive earthquakes have hit the County of Hawai'i, including four (4) on the west side of the island. A 6.5 magnitude earthquake with its epicenter in Hualālai in 1921 and a 6.9 magnitude earthquake with its epicenter in Kona in 1951 both caused extensive damage. Most recently, two (2) earthquakes occurred at Kīholo Bay on October 15, 2006, with magnitudes of 6.7 and 6.0, which caused more than \$100 million in damages to the northwest area of the island (USGS Hawaiian Volcano Observatory, 2013).

b. Potential Impacts and Proposed Mitigation Measures

All structures within the proposed Makalapua Project District will be designed and constructed in compliance with the seismic design standards in the County building code, as well as other applicable County, State, and Federal building standards.

8. Volcanic Hazards

a. Existing Conditions

The proposed Makalapua Project District is located along the western slope of Hualālai, the least active of the island's three (3) active volcanoes. The last eruption at Hualālai occurred in 1801. Earthquake activity beneath the volcano has been low over the past few decades. However, a series of earthquakes occurred over more than a month in 1929, likely caused by magma rising near the surface (USGS Hawaiian Volcano Observatory, Hualālai, 2001).

The U.S. Geological Survey (USGS) published maps showing volcanic hazard zones on the island of Hawai'i. Hazard zones from lava flows are primarily based on the location and frequency of historic and prehistoric eruptions. Although other direct hazards from eruptions, such as tephra fallout and ground cracking and settling, are not specifically considered in the hazard map, those hazards tend to be highest in the areas of the highest hazard from lava flows. The current map, which was revised in 1987, divides the island into zones that are ranked from 1 to 9 based on the probability of coverage by lava flows. Zone 9 represents the lowest volcano hazard while Zone 1 represents the highest. All of Hualālai, including the project area, is located within Zone 4. See **Figure 11**. About 5 percent of lands in this Zone have been covered by lava since

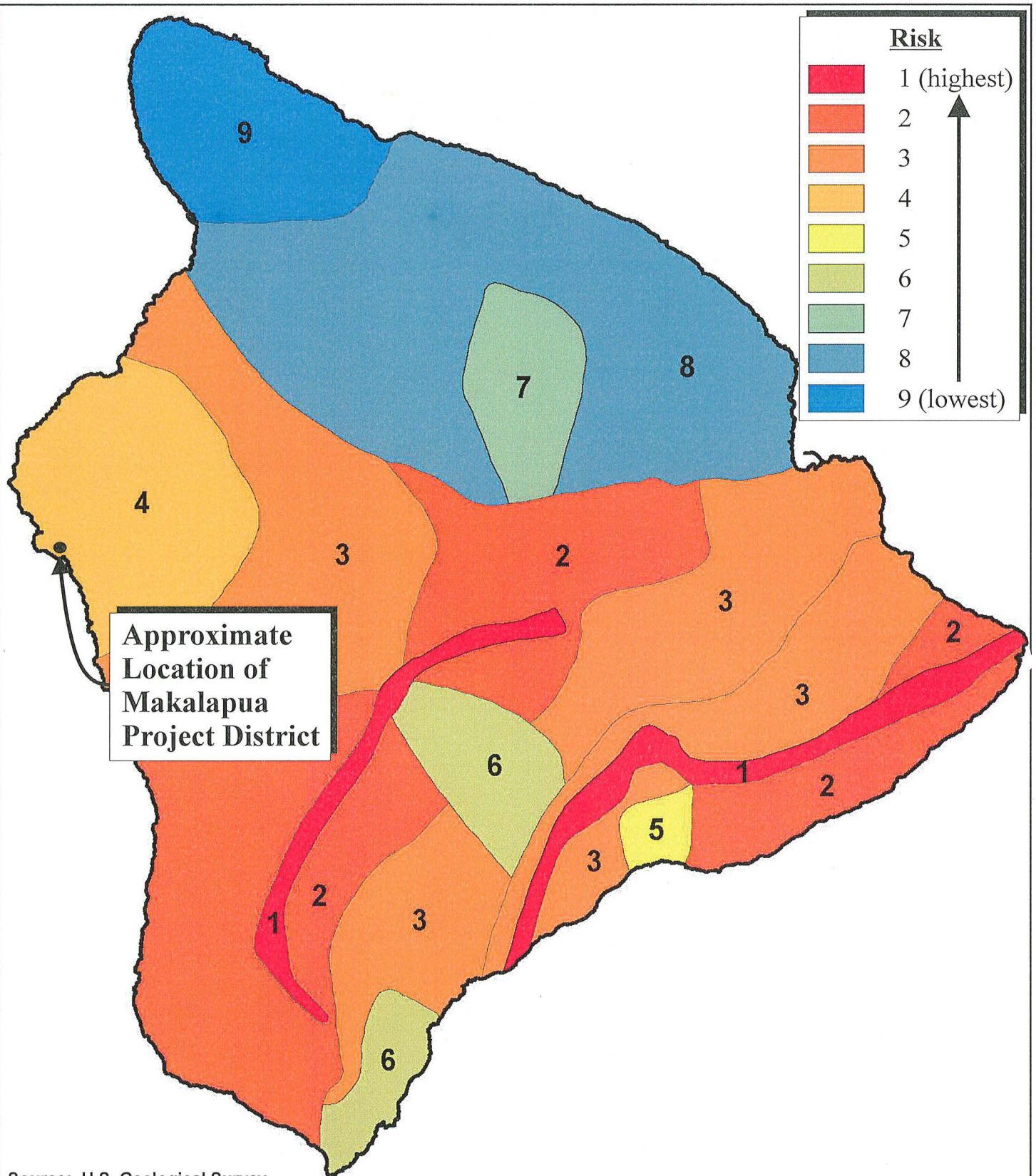


Figure 11

Makalapua Project District Volcanic Hazard Map

0 7.5 15
3.75 Miles



Prepared for: Lili'uokalani Trust

 MUNEKIYO HIRAGA

QLTMakalapua PD 1875VolcanicHazardMap

1800 and less than 15 percent have been covered in the last 750 years. Lava flows in this Zone typically cover large areas, but the frequency of eruptions is lower than on Kīlauea and Mauna Loa (USGS, 1997).

According to a Volcanic Hazards report prepared for Hawaiian Electric Light Company's Keāhole generating station, located approximately six (6) miles north of the project site, the hazard posed by Hualālai varies by location on the volcano. Although a more detailed hazard classification for Hualālai has not been established, such a classification would indicate greater hazards along the volcano's rift zones, and lower hazards with increasing distance down the volcano's flanks (Lockwood and Garcia, 2004). The Makalapua Project District is not located near Hualālai's rift zones.

b. Potential Impacts and Proposed Mitigation Measures

Future eruptions of Hualālai volcano will likely be preceded by extensive precursory seismic activity (Lockwood and Garcia, 2004). These precursors, combined with the Project District's distance from the summit and rift zones, would allow for appropriate civil defense evacuation procedures. An emergency siren is located at Kailua Park, immediately adjacent to the proposed Makalapua Project District. LT will coordinate civil defense measures, such as the installation of sirens, with the State of Hawai'i Department of Defense, Office of Civil Defense, and the County of Hawai'i Civil Defense Agency to ensure the project is prepared for natural hazards, including volcanic hazards.

9. Flora and Fauna

a. Existing Conditions

A Flora and Fauna Survey was completed for the Makalapua Project District by Robert Hobdy in August 2015. See **Appendix "C"**. The Makalapua Project District is largely overrun with non-native grasses, shrubs, and trees. The few native species within the property are all widespread within Hawai'i. The area is dominated by the hardy fountain grass (*Cenchrus setaceus*), a non-native species that forms large clumps in lava, and two (2) other common species, the non-native fame flower (*Talinum fruticosum*) and the indigenous 'uhaloa (*Waltheria indica*). No endangered or threatened plant or animal species were observed during the survey. The report concluded that the dry lava environment was not found to include any special habitats for plant or animal species or ecosystems. However, two (2) tree tobacco plants, which are host plants

of the endangered Blackburn's sphinx moth, were found within the project area. No moth eggs or larvae were seen on the tree tobacco plants.

Early consultation with the U.S. Fish and Wildlife Service (USFWS) indicates that the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) has been observed in the vicinity of the proposed project area. Additionally, the USFWS noted that the federally threatened green sea turtle (*Chelonia mydas*) may forage in the waters offshore or bask or nest on the shoreline in the vicinity of the project area and that seabirds, including the endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) and the threatened Newell's shearwater (*Puffinus auricularis newelli*), may transit the project area while flying to upland breeding colonies. The USFWS also noted that there is no designated critical habitat within the proposed project area.

The Flora and Fauna Survey noted that while the endangered Hawaiian hoary bat or native seabirds were not observed, they are not uncommon in Hawai'i and appropriate mitigation should be implemented to prevent harm to these animals. No green sea turtles were observed during the Flora and Fauna Survey.

b. Potential Impacts and Proposed Mitigation Measures

The Flora and Fauna Survey found no endangered plant or animal species within the Makalapua Project District, nor were any found that are candidates for such status. No moth eggs or larvae were seen on the two (2) tree tobacco plants found in the project area. In a comment letter dated April 7, 2017, the USFWS recommended the following minimization measures for removal of tree tobacco plants and site work to minimize potential impacts to the Blackburn's Sphinx moth.

- For tree tobacco plants less than three (3) feet in height with no Blackburn's sphinx moth eggs, larvae, or signs indicating the possibility of pupating larvae, plants may be removed and soil within 33 feet may be disturbed.
- The above-ground portion of tree tobacco plants greater than three (3) feet in height without signs of the Blackburn's sphinx moth may be cut down and the stems treated with herbicide or retrimmed to prevent leaf growth and potential use by the Blackburn's sphinx moth, and a 33-foot disturbance-free buffer will be established around the plant's location for one year. It is noted that after one year, the plant roots may be removed and the soil disturbed. The one-year waiting period will ensure any larvae

pupating in the soil will have pupated and emerged from the soil prior to disturbance of the plant(s) or soil.

- Imported gravel or dirt fill will be certified weed free or a plant survey will be conducted around the area where the fill will be extracted from to avoid spreading non-native tree tobacco and other invasive plant species.
- If there are any tree tobacco plants near the site that could spread into the site within a year, the site will be monitored during and after construction to prevent tree tobacco plants from spreading into the project site and growing larger than three (3) feet.
- The Service will be contacted prior to clearing of tree tobacco plants from the project area for assistance with minimizing any potential impacts to the Blackburn's sphinx moth.

These measures will be adhered to during project implementation.

Although the Hawaiian hoary bat was not observed during the evening survey of the project area, the bats are highly mobile and could potentially utilize some habitats within the project site during the year. As recommended by the USFWS and the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), trees taller than 15 feet will not be removed during pup rearing season between June 1 and September 15 and barbed wire will not be used for fencing for the proposed project.

Furthermore, although the endangered Hawaiian petrel and the threatened Newell shearwater and green sea turtle were not observed during the survey of the project area, the Flora and Fauna Survey report and the USFWS indicate that these species can be disoriented by artificial light. The native seabirds, the endangered Hawaiian petrel and the threatened Newell shearwater, fly over the lowlands in the area on the way to their burrows high in the mountains. These seabirds and their fledglings are attracted to bright lights in the evenings and early dawn hours and can become disoriented and crash, making them vulnerable to injury, vehicle strikes, and predators. Artificial light can disorient green sea turtles and their hatchlings, possibly leading them away from the ocean or to nest in an inappropriate location. Therefore, as recommended by the USFWS and DOFAW, a comprehensive lighting plan will be developed for the project. Furthermore, as recommended in the Flora and Fauna Survey report, artificial lighting will be minimized and

downshielded to avoid and/or minimize impacts to seabirds and sea turtles.

As recommended by the DLNR, contractors will be advised not to bring untreated building materials or fill to the project site from fire ant-infested areas.

Additionally, in a comment letter dated April 10, 2017, DOFAW recommended taking action to minimize the presence of non-native predators, such as cats, rodents, and mongoose through the use of covered receptacles and strongly discouraging residents from feeding cats and placing bait stations for rodents and mongoose. During construction, the contractor will appropriately dispose of construction-related trash. Additionally, covered trash receptacles will be provided and residents of the project will be discouraged from feeding cats and placing bait stations for rodents.

With the above mitigation, impacts on flora and fauna resources are not anticipated to be significant.

10. Streams, Wetlands, and Reservoirs

a. Existing Conditions

There are no streams or reservoirs within the Makalapua Project District.

The Kailua-Kona Stream is the nearest stream located approximately 0.8 of a mile east of the Makalapua Project District. This non-perennial stream is not considered an impaired water by the State of Hawai'i, Department of Health.

According to the USFWS, National Wetlands Inventory, there are no wetlands within the project site or immediate vicinity (USFWS, 2015).

It is noted that there are clusters of anchialine ponds along the Keahuolū coastline. Anchialine ponds are land-locked ponds that are fed freshwater from groundwater moving downslope or rainwater. Ocean water seeps into the ponds through underground crevices in the surrounding lava rock. There was once a series of anchialine ponds within the Kailua Park; however, those ponds were destroyed when the Old Kona Airport was developed (Reeve, et al., 2016). There are no anchialine ponds within the Makalapua Project District.

b. **Potential Impacts and Mitigation Measures**

There are no streams, wetlands, anchialine ponds, or reservoirs within the Makalapua Project District. As such, the proposed Makalapua Project District is not anticipated to present significant adverse impacts on these aquatic resources.

11. **Archaeological and Historical Resources**

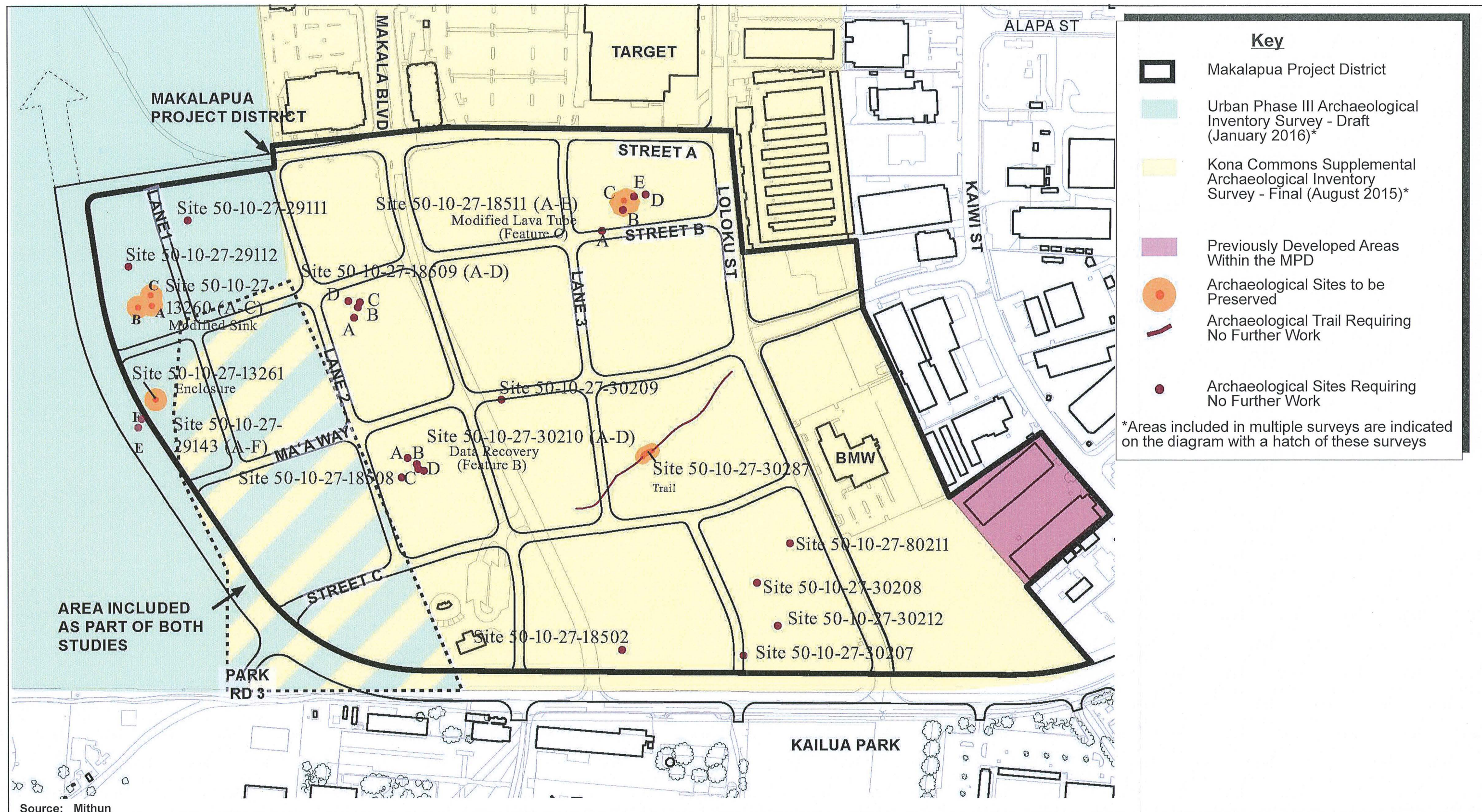
a. **Existing Conditions**

The Makalapua Project District is located within the ahupua'a of Keahuolū, which is located just north of Kailua Bay on the island of Hawai'i.

Archaeological investigations have revealed that the coastline of Keahuolū was well populated during the pre-Contact period. House sites were scattered along the shoreline with concentrated settlement at the bays of Halepa'o and Pawai, as well as along the sandy beach immediately south of Pawai in the area known as Maka'eo. The fishing village of Maka'eo appears to have been the closest settlement to the Makalapua Project District area. Early investigations by John F. G. Stokes indicate that this coastal area was the location of at least several *heiau* (temples) and *ko'a* (fishing shrine) (Reeve, et al., 2015).

Two (2) archaeological inventory surveys (AIS) were prepared for lands included within the proposed Makalapua Project District. See **Figure 12**.

1. A Supplemental AIS was conducted over the 110-acre Kona Commons project area, including the majority of the 67.21-acre Makalapua Project District area and was accepted by the DLNR, State Historic Preservation Division (SHPD) in August 2015. This AIS supplemented a previous AIS conducted in 1992 that covered much of the same study area. The Supplemental AIS covered lands makai of Queen Ka'ahumanu Highway between the Kona Industrial Subdivision and LT's "Urban Phase III" lands, which are the 212 acres of State Land Use "Agricultural" lands that were previously planned as Phase III of LT's 1990 land plan. See **Appendix "D" and Appendix "D-1"**.



Source: Mithun

Figure 12



Makalapua Project District Archaeological Sites Map

NOT TO SCALE

2. A separate AIS for LT's Urban Phase III lands was submitted to SHPD for review in January 2016. The Urban Phase III AIS covers the 14.45-acre portion of the Makalapua Project District that is designated as "Agricultural" by the State Land Use Commission. See **Appendix "E"**.

The Supplemental AIS identified 11 archaeological sites containing 21 component features within the Makalapua Project District. These sites consisted primarily of small and crudely constructed features or modified natural features, including stone mounds, modified depressions, modified overhangs, C-shaped walls and alignments, small enclosures, a historic petroglyph, and a historic trail. The most significant of these sites is a burial lava tube containing human remains (Site 50-10-27-18511, Feature C) that was previously identified in 1992, and the remnants of a historic trail that crosses diagonally through the center of the survey area. The historic trail remnants identified by the survey likely connected the historic Mamalahoa Trail with a shoreline trail. The Mamalahoa Trail, which was once the major thoroughfare for this region of Kona, is sometimes referred to as the Lower Government Road. It was built in the mid-19th century to allow for horse and wagon traffic. The AIS report notes that the previously identified sites were destroyed by grading, landscaping, and development activities associated with the construction of the Kona Commons Shopping Center, International Marketplace, former sports recreation facility, and related development. Refer to **Appendix "D"**.

The Urban Phase III AIS identified five (5) archaeological sites containing eight (8) component features within the project area, of which two (2) sites (four (4) component features) were recommended for preservation. The sites found during the Urban Phase III survey were similar to those found in the Supplemental AIS, including modified overhangs, C-shaped walls, modified sinks, and an enclosure. Refer to **Appendix "E"**. The first site recommended for preservation, Historic Site No. 50-10-27-13260, consists of a cluster of natural lava sinks that were modified for use as water catchment features. The second, Historic Site No. 50-10-27-13261, is a *"roughly square shaped stone walled enclosure that possesses an internal terrace and three waterworn bounders that may originally have been set upright as image stones"*. The AIS notes that it appears to have functioned as a small shrine or ceremonial structure.

The only portion of the proposed Makalapua Project District that has not been covered by an archaeological inventory survey is a block of developed land west of Kaiwi Street. Refer to **Figure 12**. Coordination has been undertaken with SHPD regarding this area, which has been

subject to development, eliminating the possibility of any surviving undisturbed surface archaeological remains. See **Appendix “F”**. The natural terrain within the Makalapua Project District consists of relatively smooth and undulating pāhoehoe lava flows with little or no surface soil. There is, therefore, little likelihood of encountering undisturbed soil deposits beneath the existing structures or roads.

b. Potential Impacts and Proposed Mitigation Measures

The Supplemental AIS and Urban Phase III AIS reports identified a total of 16 archaeological sites containing 29 component features within the Makalapua Project District. Refer to **Figure 12**.

Each site recorded was assessed for its significance based on broad criteria established for the State and National Register of Historic Places. These criteria are as follows:

Criterion A: *Sites that are associated with events that have made a significant contribution to the broad patterns of our history.*

Criterion B: *Sites that are associated with the lives of persons significant to our past.*

Criterion C: *Sites that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value or that represent a significant and distinguishable entity, whose components may lack individual construction.*

Criterion D: *Sites which have yielded, or may be likely to yield, information important to prehistory or history.*

Criterion E: *Sites which have an important value to the native Hawaiian people or to another ethnic group of the State due to associations with traditional cultural practices once carried-out, or still carried-out, at the property or due to associations with traditional beliefs, events, or oral accounts – these associations being important to the groups’ history and cultural identity (State of Hawai’i criterion only).*

The Supplemental AIS recommended further treatment on three (3) of the 21 component features identified. See **Table 1**. It was recommended that a Data Recovery Plan be prepared in accordance with Hawai’i Administrative Rules (HAR) 13-13-278, Rules Governing Standards for Archaeological Data Recovery Studies and Reports, for Site 50-10-27-

30210, Feature B lava excavation, to recover a sample of soil that may provide additional information on pollen and phytolith. In accordance with HAR 13-13-300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, a Burial Treatment Plan is being prepared for Site 50-10-27-18511, Feature C, which contained a burial site that was discovered in a modified lava tube. A Historic Preservation Plan will be prepared for Site 50-10-27-30287, a historic trail, in accordance with HAR 13-277, Rules Governing Requirements for Archaeological Site Preservation and Development. All plans will be submitted to SHPD for review and approval prior to the start of ground-disturbing activities.

Table 1. Significance Assessments and Treatment Recommendations of Supplemental AIS Sites within Makalapua Project District

SIHP No.	Feature	Site / Feature Type	Possible Function	Significance (A,B,C,D,E)	Recommended Treatment
50-10-27-18502		Modified Depression	Habitation	D	No Further Work
50-10-27-18508		Walled Overhang	Habitation	D	No Further Work
50-10-27-18509	A	Stone Mound	Agriculture	D	No Further Work
	B	Filled Depression	None		No Further Work
	C	Stone Mound	Agriculture	D	No Further Work
	D	Lava Excavation	Agriculture	D	No Further Work
50-10-27-18511	A	Modified Overhang	Habitation	D	No Further Work
	B	Lava Excavation	Agriculture	D	No Further Work
	C	Modified Lava Tube	Burial	D,E	Preservation
	D	Lava Excavation	Quarry	D	No Further Work
	E	Lava Excavation	Quarry	D	No Further Work
50-10-27-30207		Lava Excavation	Uncertain	D	No Further Work
50-10-27-30208		Stone Mound	Marker	D	No Further Work
50-10-27-30209		Enclosure	Habitation	D	No Further Work
50-10-27-30210	A	Modified Overhang	Storage	D	No Further Work
	B	Lava Excavation	Uncertain	D	Data Recovery
	C	C-shaped Wall	Habitation	D	No Further Work
	D	Enclosure	Habitation	D	No Further Work
50-10-27-30211		Petroglyph	Communication	D	No Further Work
50-10-27-30212		C-Shaped Wall	Habitation	D	No Further Work
50-10-27-30287		Trail	Travel	D	Partial Preservation With Interpretation

As noted in Chapter I, since publication of the Draft EA on March 8, 2017, LT has decided to expand the preservation area for Site 50-10-27-18511, Feature C, modified lava tube burial to further protect the burial feature.

Modifications to the roadway alignment and project boundary were made to accommodate the expanded preservation area.

As noted previously, the Urban Phase III AIS recommended preservation for two (2) of the sites, including four (4) component features within the Makalapua Project District. See **Table 2**. Both sites were identified in a previous archaeological inventory survey completed in 1990. At the time, Site No. 50-10-27-13260, the modified lava sinks, was noted as important for its information content and further data collection was recommended. Site No. 50-10-27-13261, described as a small shrine or ceremonial structure, was also noted as important for its information content, however, no further work was recommended at that time. The data collection on Site No. 50-10-27-13260 was completed in 1993, at which time it was determined that no further work was required. However, the Urban Phase III AIS notes that this site consists of the best examples of the unusual catchment features and it reveals the ingenuity of the area's local residents in obtaining drinking water in an extremely arid environment. As recommended by the Urban Phase III AIS, a Historic Preservation Plan will be prepared for the two (2) sites in accordance with the requirements of HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development. The Historic Preservation Plan will be submitted to SHPD for review and acceptance.

Table 2. Significance Assessments and Treatment Recommendations of Urban Phase III AIS Sites within Makalapua Project District

SIHP No.	Feature	Site / Feature Type	Possible Function	Significance (A,B,C,D,E)	Recommended Treatment
50-10-27-13260	A	Modified Sink	Water Catchment	C, D	Preservation
	B	Modified Sink	Water Catchment	C, D	Preservation
	C	Modified Sink	Water Catchment	C, D	Preservation
50-10-27-13261		Enclosure	Ceremonial	D, E	Preservation
50-10-27-29111		C-Shaped Wall	Habitation	D	No Further Work
50-10-27-29112		C-Shaped Wall	Habitation/Processing	D	No Further Work
50-10-27-29143	E	Modified Overhang	Storage	D	No Further Work
	F	Modified Overhang	Storage	D	No Further Work

Due to the level of ground disturbance and development that has taken place in the project area that was not covered by the Supplemental AIS or the Urban Phase III AIS, there is little likelihood of encountering undisturbed soil deposits beneath the existing structures or roads; however, given what has been found within other areas of coastal north Kona, the possibility exists that subsurface lava tubes may run beneath

the previously developed area. If they exist, these tubes have the potential to contain cultural material or human remains. The locations of such subsurface lava tubes are impossible to predict, making them unlikely to be detected through a program of subsurface archaeological testing. Therefore, LT proposes to undertake archaeological monitoring during construction activities. If a lava tube is discovered during construction, it would be fully investigated to determine if it contains cultural material or human remains.

LT proposes to prepare an Archaeological Monitoring Plan (AMP) and implement archaeological monitoring during construction of the entire Makalapua Project District. The AMP will be submitted to SHPD for approval. In accordance with Section 6E-43.6, Hawai'i Revised Statutes (HRS) and Chapter 13-300, Hawai'i Administrative Rules (HAR), if any significant cultural deposits or human skeletal remains are encountered during ground altering activity conducted as part of the Makalapua Project District, work will stop in the immediate vicinity and SHPD will be contacted to determine the appropriate level of mitigation.

12. Cultural Resources

a. Existing Conditions

A Cultural Impact Assessment (CIA) was prepared for the proposed Makalapua Project District by Helen Wong Smith and is summarized herein. See **Appendix "G"**. The CIA included a review of a wide range of written material, such as archaeological reports, government and other historical records, and Hawaiian language sources translated into English, as well as interviews with long-term residents who are familiar with the cultural history and resources of Keahuolū and Lanihau.

The Makalapua Project District is located within the Keahuolū ahupua'a. The portion of Kuakini Highway extending south from the Makalapua Project District is located within the adjacent Lanihau ahupua'a. Keahuolū and Lanihau are located in the Kona moku (district) on the island of Hawai'i. The Kona moku is divided into two (2) regions, *Kona kai 'opua* ("Kona of the distant horizon clouds above the ocean") and *Kekaha-wai-'ole* (the waterless place). Keahuolū falls within *Kekaha-wai-'ole*, which was described as "a dry, sun-baked land." Sheltered by the abrupt rise of Hualālai, this area receives very little rain below the 1,000 foot elevation contour.

One of the early descriptions of the region was made by Reverends Thurston and Bishop in 1812. The Reverends walked the coastline from

Kailua toward Kaiwi Point, crossing the entire coastline of Keahuolū. They described the environs as cultivated to a considerable extent, with small gardens seen among the barren rocks on which the houses were built. Sweet potato, watermelon, and a few tobacco plants were grown in areas where sufficient soil could be found among fragments of lava. About a mile and a half inland, the Reverends observed breadfruit and 'ōhi'a trees growing to heights of 20 or 30 feet. This account dispenses the assumption that the region was all barren lava supporting little life.

Ownership of the Keahuolū ahupua'a was awarded to Anale'a Keohokālole, mother of King David Kalākaua and Queen Lili'uokalani, during the Great Māhele in 1848. 15,000 to 20,000 acres of Keohokālole's Keahuolū lands were included in Land Commission Award 8452. The remaining Keahuolū lands were inherited by her heir, Queen Lili'uokalani.

Keahuolū and Lanihau are rich in coastal and marine resources, including fishponds and tidal pools that have been noted in the region throughout the years. As recently as the 20th century, a small village of 'opelu (Mackerel scad) fishermen existed at a coconut grove in Keahuolū. Behind the village, known as Makā'eo, several large brackish water ponds existed, where 'opae'ula (shrimp used for catching 'opelu) thrived. The village and coconut grove were destroyed during the construction of the Old Kona Airport.

Other historic activities in the region include sisal (*Agave sisilana*) cultivation in the Keahuolū ahupua'a and Kealakehe ahupua'a, to the north. A sisal mill in Keahuolū was owned and operated by Luther S. Aungst from 1917 until its closing in 1924. At the mill, which was surrounded by sisal fields, the sisal was thrashed, dried, and baled before being shipped to San Francisco on steamers.

Along with several heiau along the coast, previous research located several probable permanent residential sites with enclosed yards. Further inland, sites and features are indicative of temporary habitation and of dryland agricultural activities. A substantial increase in rock mounds, particularly faced mounds and modified lava blisters, in upper elevations is consistent with the tradition of increased agricultural activities further inland, where the moisture increases. Permanent populations appear to have been present along the coast, while the midlands were used for temporary habitation and were crossed by trails linking the coast to the uplands, which were used for agricultural cultivation.

The CIA notes that Keahuolū and Lanihau were valued for their marine resources, and, to a limited extent, subsistence crops. Contemporary or continuing cultural practices in Keahuolū and Lanihau include gathering activities of the ocean resources and specific plants makai of the 300 foot elevation contour. However, the CIA notes that there were no Hawaiian cultural resources, beliefs, and practices identified specifically within the Makalapua Project District. Refer to **Appendix “G”**.

b. **Potential Impacts and Proposed Mitigation Measures**

The CIA concluded that the project will have limited impact on Hawaiian cultural resources, beliefs, and practices and none were identified within the Makalapua Project District. The CIA recommends preservation of endemic plant habitats (i.e., pilo) and continued access for gathering activities. It should be noted, however, that remnants of Hawaiian practices, including agricultural, temporary habitation sites, or additional burial sites, may be discovered during development as they have been identified in other areas of Keahuolū and Lanihau. Historic uses reveal that Keahuolū and Lanihau were impacted far less by livestock grazing than their northern neighbor, Kealakehe. The absence of grazing activity increases the likelihood of cultural sites to remain intact or to suffer less degradation. In the event that human remains are encountered during ground-altering activities, work in the immediate area of the discovery will be halted and the SHPD will be contacted to determine the appropriate level of mitigation. Refer to **Appendix “G”**.

13. **Beach and Mountain Access**

a. **Existing Conditions**

As previously noted, the Supplemental AIS identified a portion of a historic trail that likely connected the historic Mamalahoa Trail with a shoreline trail. Refer to **Appendix “D”** and **Figure 12**. No other beach or mountain accesses are located within the project area.

b. **Potential Impacts and Proposed Mitigation Measures**

A Historic Preservation Plan will be prepared for the portion of the historic trail within the project area. The Makalapua Project District will not impact any historic coastal access trails, as no such resources were located within the property.

While the Project District is not adjacent to the shoreline, it will improve access to the County’s Kailua Park. Three (3) access routes to Kailua

Park, consistent with the Kailua Park Master Plan, will provide mauka-makai connections. A new dedicated road along the project's northern boundary will connect to Kailua Park's main access. In addition, Kailua Park will be accessed by two (2) entries from Pawai Drive.

14. Air Quality

a. Existing Conditions

Ambient air quality conditions on the island of Hawai'i are unique due to the natural volcanic air pollution that occurs. Volcanic emissions have impacted the region periodically, particularly due to the eruption of Kīlauea Volcano, which began in 1983. Volcanic emissions primarily consist of sulfur dioxide (SO₂). Although the Kīlauea eruptions occur on the southeastern portion of the island, wind patterns carry some of the emissions into the Kona region in the form of a volcanic haze (vog), which hangs over the area (PBR Hawai'i, 2009).

In addition to volcanic air pollution, other potential sources of air pollution include traffic along Queen Ka'ahumanu Highway and other area roadways and the Keāhole Power Plant, located mauka of the Kona International Airport, approximately six (6) miles north of the project site.

The State of Hawai'i, Department of Health maintains an air quality monitoring station in Kona, approximately 10.5 miles southeast of the proposed Makalapua Project District at the Konawaena High School campus in Kealahou. The monitoring station measures SO₂. Sources of fine particulates can include all types of combustion, including motor vehicles, power plants, and some industrial processes. The annual average SO₂ level in 2014 was 0.0032 parts per million (ppm). This falls within the State and Federal standards for SO₂, which is 0.03 ppm on an annual basis or 0.14 ppm within 24 hours (State of Hawai'i, Department of Health, 2015).

b. Potential Impacts and Proposed Mitigation Measures

During construction associated with the implementation of the proposed Makalapua Project District, there may be short-term impacts to air quality, however, these impacts will be mitigated through the use of Best Management Practices (BMPs) such as the use of dust screens and sprinkling. Although there may be an increase in vehicular traffic due to the proposed project, on a long-term basis, significant adverse impacts to air quality are not anticipated as a result of the proposed project.

15. Noise

a. Existing Conditions

Primary background noise generators in the vicinity include Kona Industrial Subdivision, Kona Commons Shopping Center, Kailua Park, and other area roadways and natural sources, such as wind, rain, and the ocean.

b. Potential Impacts and Mitigation Measures

Ambient noise conditions will be temporarily impacted by construction activities associated with implementation of the proposed Makalapua Project District. Heavy construction equipment, such as bulldozers, front-end loaders, and material-transport vehicles, will likely be the dominant sources of noise during the construction period. In this context, BMPs will be employed to minimize noise impacts from construction equipment and activity. Further, Community Noise Permits will be obtained from the State of Hawai'i, Department of Health for applicable construction activities.

The Makalapua Project District includes a proposed 50,000 square foot community performance facility. The facility would be used for a variety of music and performing arts uses. The facility will comply with Title 11, Chapter 46, HAR, pertaining to Community Noise Control.

There are no other significant noise generators associated with the project; therefore, no long-term significant adverse impacts are anticipated as a result of the proposed project.

16. Scenic and Open Space Resources

a. Existing Conditions

Keahuolū, located on the western slopes of Hualālai, offers beautiful scenic views. Scenic resources in the vicinity include the Pacific Ocean to the southwest and the Hualālai volcano to the east. The steep slopes of Hualālai provide a scenic backdrop when viewed from the coast and offer views of the coastline, Pacific Ocean, and horizon from higher elevations.

While there are no designated natural beauty sites within the Makalapua Project District, other areas within the Keahuolū ahupua'a contain such sites. The Hawai'i County General Plan outlines goals and policies for

the protection and preservation of areas of natural beauty, scenic vistas, and view planes. Mauka and makai viewplanes along Kuakini Highway and Queen Ka'ahumanu Highway and the white sand beach at Kailua Park, west of the project site, are designated as natural beauty sites by the Hawai'i County General Plan (County of Hawai'i, 2005).

Open space resources in the area are characterized by the vast expanse of undeveloped lands that extend north and west of Kailua-Kona, including the project site. These undeveloped lands are largely comprised of pāhoehoe lava fields, particularly makai of Queen Ka'ahumanu Highway.

b. Potential Impacts and Proposed Mitigation Measures

The proposed Makalapua Project District will utilize largely vacant and undeveloped lands to create a mixed-use community providing for residential, commercial, and public/quasi-public uses. Given the adjacent urban and industrial uses, the use of vacant and underutilized lands for urban purposes is appropriate and will provide a long-term community benefit. The replacement of vacant lands adjacent to urbanized settings does not necessarily hold adverse consequences for scenic and open space resources. Given the surrounding commercial and industrial uses and the Hawai'i County General Plan's Land Use Pattern Allocation Guide (LUPAG) designation of the project site as "Industrial" and "Urban Expansion", significant adverse impacts to the visual character of the area are not anticipated. Additionally, LT is committed to developing the project in a manner which will respect the landscape and architectural values of the island. The Makalapua Project District will incorporate open space features throughout the development.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Regional Setting

a. Existing Conditions

West Hawai'i has historically been an agricultural area. World-renowned "Kona Coffee" has been and continues to be one of the major commodities cultivated in the region. Coffee thrives in the unique climate and rich volcanic soils on the leeward slopes of Mauna Loa and Hualālai.

During the 1960s, the Kailua-Kona region emerged as a new economic and population center as the visitor industry developed along the Kona coast. Although the first major luxury hotel was located in South Kohala,

the North Kona region soon became the most developed site of hotels and resort condominiums on the island. New resort development shifted to South Kohala in the 1980s, but condominium construction continued in Kona. Driven by resort development and the second-home residential market, the Kona region has seen an influx of new residents and experienced tremendous growth. As a result, the population in the Kona region has more than doubled over the past 25 years (County of Hawai'i, 2008).

b. Potential Impacts and Proposed Mitigation Measures

As previously discussed, the Kona region has experienced continued growth over several decades. The Makalapua Project District is located adjacent to existing industrial and commercial development, just northwest of the Kailua-Kona village core. The location of the proposed project adjacent to an existing urban area will provide for centralized development rather than scattered pockets of urban development. Furthermore, the project will complement existing land uses in the Kailua-Kona area. The variety of residential product types offered within the Makalapua Project District will provide additional opportunities for local residents to reside near places of employment within Kailua-Kona. Additionally, the Makalapua Project District will provide convenient hotel options for visitors traveling to Kona for business and recreation.

2. Population and Demography

a. Existing Conditions

As discussed previously, the population of Hawai'i County and the Kailua-Kona region has exhibited strong growth over the past decade, particularly compared to the State of Hawai'i as a whole. See **Table 3**. The resident population for the County in 2010 was 185,079, an increase of 24.5 percent since 2000. The Kailua-Kona region, defined as the Kailua Census Designated Place (CDP), was home to 11,975 residents in 2010, or approximately 6.5 percent of the island's population (U.S. Census Bureau, 2010).

Table 3. Population and Household Trends, 2000 to 2040

		Historical Data			Estimated Projections			
		2000	2010	% Change 2000-2010	2020	2030	2040	% Change 2010-2040
Population	State of Hawai'i	1,211,537	1,360,301	12.3%	1,481,240	1,602,340	1,708,920	25.3%
	Hawai'i County	148,677	185,079	24.5%	220,880	258,510	296,320	59.8%
	Kailua CDP	9,870	11,975	21.3%	N/A	N/A	N/A	N/A
Households	State of Hawai'i	403,240	455,338	12.9%	N/A	N/A	N/A	N/A
	Hawai'i County	52,985	67,096	26.6%	N/A	N/A	N/A	N/A
	Kailua CDP	3,537	4,196	18.6%	N/A	N/A	N/A	N/A

Source: State of Hawai'i, Department of Business, Economic Development, and Tourism, 2016.

More recent population data estimates that Hawai'i County's population grew to 196,428 by 2015 (State of Hawai'i, Department of Business, Economic Development, and Tourism, 2016). Population growth in Hawai'i County is expected to continue to outpace statewide growth over the next 20 years. According to population projections prepared by the State Department of Business, Economic Development, and Tourism (DBEDT), Hawai'i County's population is anticipated to reach 258,510 by 2030 and 296,320 by 2040, a 59.8 percent increase over 30 years. During the same time period, statewide population is projected to grow by just 25.3 percent to 1.7 million residents in 2040. Refer to **Table 3**.

b. Potential Impacts and Mitigation Measures

The proposed Makalapua Project District will provide needed housing options for the growing population in the Kailua-Kona area. Inasmuch as the proposed project is intended to accommodate projected growth that would occur with or without the development, significant impacts to the West Hawai'i population are not anticipated as a result of the proposed project. Residential products will provide residents with a wide range of housing choices. These will include medium- to high-density residential units in multi-family formats for rent and/or ownership.

3. Economy and Labor Force

a. Existing Conditions

Hawai'i County's economy is heavily dependent upon the visitor industry. In 2018, there were 69,300 non-agricultural wage and salary jobs in Hawai'i County, of which 14,500, 21 percent, were in the Leisure and

Hospitality Industry. Government jobs on the island also comprised a substantial share of the County's employment base (State of Hawai'i, Department of Labor and Industrial Relations, 2019).

In January 2019, the seasonally unadjusted unemployment rate in Hawai'i County averaged 3.6 percent. By comparison, the statewide unemployment rate was 2.7 percent (State of Hawai'i, Department of Labor and Industrial Relations, 2019).

b. Potential Impacts and Proposed Mitigation Measures

In the short-term, the development of the Makalapua Project District will generate positive economic impacts associated with construction-related spending and employment. The full build-out of the project district is anticipated to take 15 years. From a long-term perspective, the project will provide economic development opportunities through the provision of new hotel, retail, commercial, and office space. The Makalapua Project District will also create "incubator" opportunities for new businesses to start, while continuing to provide support for existing businesses to remain and flourish as the region grows. Additionally, income generated will benefit LT's programs, which serve orphan and destitute children in Hawai'i.

4. Housing

a. Existing Conditions

A range of housing types and conditions exists in the Kona region, from single-family ownership homes to luxury condominiums for part-time residents. In 2010, owner occupied housing comprised 66.0 percent of occupied housing units in the County, compared to 57.7 percent statewide (U.S. Census Bureau, 2010). As mentioned previously, the relatively high proportion of owner-occupied housing on the island may be reflective of an abundance of resort ownership housing. It should be noted, however, that home ownership rates vary by region within the island. The Kailua-Kona region, for example, is characterized by a higher proportion of rental housing than the rest of the island and the State as a whole. In 2010, just 52.0 percent of occupied housing units in the Kailua CDP were owner-occupied (U.S. Census, 2010).

b. Potential Impacts and Proposed Mitigation Measures

The Makalapua Project District would add approximately 300 residential units to the housing supply in the region over a 15-year time frame. These housing units will address the anticipated demand for new housing, given the projected population growth in the Kailua-Kona area. The proposed residential development will include a mix of medium- to high-density units for rent and/or ownership to offer residents with housing options. The specific mix of unit types and pricing will be further defined as the planning and design process for the project progresses. However, it is noted that the proposed project will comply with the County's affordable housing requirements in accordance with Hawai'i County Code Section 11-4, Affordable Housing Requirements, which would require 60 affordable housing credits for the 300 proposed residential units based on the current code. The regulations pertaining to affordable housing credits are specified in Section 11-5, Satisfaction of Affordable Housing Requirements.

C. PUBLIC SERVICES

1. Police

a. Existing Conditions

The Hawai'i Police Department (HPD) provides police and public safety services on the island of Hawai'i. The island is divided into eight (8) operational and patrol districts, with the Makalapua Project District area falling within the Kona District. The Kona District police station is located on Queen Ka'ahumanu Highway in Kealahou, approximately one (1) mile north of the project site. The Kona Police District covers 834 square miles and was staffed by 83 sworn officers in 2014 (Hawai'i Police Department, 2014).

The HPD provides community police officers to develop partnerships within the community in an effort to create a safe and secure environment. There are six (6) community policing officers in the Kona Region (Hawai'i Police Department, 2014).

b. Potential Impacts and Proposed Mitigation Measures

Development of the proposed Makalapua Project District is not anticipated to extend the existing police service area for the Kona District Police Station. Property tax revenues generated by the proposed project will support County functions, including the Police Department.

Therefore, significant adverse impacts on police and public safety services are not anticipated as a result of the proposed project.

2. Fire

a. Existing Conditions

Fire protection and related emergency services are provided by the Hawai'i County Fire Department. The Kailua-Kona Fire Station is located 0.6 of a mile east of the proposed Makalapua Project District on Palani Road. The Station serves an area within a 30-mile radius, from Keauhou to the Hualālai Road. The Ka'ūpūlehu Volunteer Fire Station, located on Melomelo Street off of Kaiminani Drive, provides back-up support to the Kailua-Kona Fire Station. In 2012, the Makalei Fire Station opened on Mamalahoa Highway in North Kona. Additional County Fire Stations in West Hawai'i include the Keauhou, Waikoloa, and South Kohala Fire Stations.

b. Potential Impacts and Proposed Mitigation Measures

The development of the Makalapua Project District is not anticipated to extend the existing service area for fire protection and related emergency services in the West Hawai'i region. It is noted that the dry climate in the region may present risk for fire. The proposed infill development will reduce areas of dry brush, thereby reducing the risk of accidental wildfire within the project area. Fire Department access and water supply for the Makalapua Project District will be provided in accordance with the Hawai'i State Fire Code, National Fire Protection Association 2006 version with County of Hawai'i amendments as requested by the Fire Department. Property tax revenues generated by the Makalapua Project District will support County functions, including the Fire Department. Therefore, significant adverse impacts on fire protection and related emergency services are not anticipated as a result of the proposed project.

3. Medical Facilities

a. Existing Conditions

The West Hawai'i region is served by the Hawai'i Health Systems Corporation's (HHSC) Kohala Hospital and Kona Community Hospital. Kohala Hospital, located in North Kohala, is a 26-bed critical access hospital providing 24-hour emergency care, skilled nursing, and intermediate care services. Kona Community Hospital, located in Kealahou, Kona, is a 94-bed full service medical center which provides

acute inpatient care and related services. The Kona Community Hospital is located approximately ten (10) miles south of the Makalapua Project District.

Beyond the two (2) HHSC facilities, there is the North Hawai'i Community Hospital located in Waimea. This 40-bed facility, with 24-hour emergency services is affiliated with Adventist Health, a private entity.

In addition to these major health care facilities, there are numerous privately operated medical and dental services available in West Hawai'i, including Kaiser Permanente Kona Medical Office in Kealakehe, Ali'i Health Center in Kailua-Kona, and the West Hawai'i Community Health Center locations in Kailua-Kona, Kealakehe, Kealahou, and Waikoloa.

b. Potential Impacts and Proposed Mitigation Measures

Residents and employees within the Makalapua Project District will require health care and emergency medical services. However, the development of the Makalapua Project District is not anticipated to generate significant need for medical services in the West Hawai'i region. Therefore, significant adverse impacts on medical facilities are not anticipated as a result of the proposed project.

4. Educational Facilities

a. Existing Conditions

The Makalapua Project District is located within the State Department of Education's (DOE) Kealakehe Complex of the Honoka'a-Kealakehe-Kohala-Konawaena Complex Area. The Kealakehe Complex includes Kealakehe High School (grades 9-12), Kealakehe Intermediate School (grades 6-8), Kealakehe Elementary School (grades Kindergarten-5), Kahakai Elementary School (grades Kindergarten-5), Hōlualoa Elementary School (grades Kindergarten-5) and Waikoloa Elementary and Middle School (grades Kindergarten-8).

Table 4 provides current and projected school enrollment information, as well as student capacity for public schools within the Kealakehe Complex.

Table 4. Kealakehe Complex Public Schools Capacity and Enrollment

School	Capacity as of 2013	Enrollment School Year 2016-2017	Projected Enrollment 2021-2022
Kealakehe High School (grades 9-12)	1,529	1,281	1,394
Kealakehe Intermediate School (grades 6-8)	1,078	724	718
Kealakehe Elementary School (grades K-5)	961	956	1,047
Kahakai Elementary School (grades K-5)	660	727	780
Hōlualoa Elementary School (grades K-5)	457	486	415
Waikoloa Elementary and Middle School (grades K-8)	708	792	768
Source: State of Hawai'i, Department of Education, 2015.			

In addition, there are three (3) charter schools located within the Kealakehe Complex. These schools include Innovations Public Charter School (grades 1-8), West Hawai'i Explorations Public Charter School (grades 6-12), and Kona Pacific Public Charter School (grades Kindergarten-7).

b. Potential Impacts and Proposed Mitigation Measures

As the proposed Makalapua Project District is anticipated to provide housing for a growing population, the proposed residential development within the Makalapua Project District would not directly impact population. However, the location of the development may result in new student generation for area schools. Public school students from the Makalapua Project District would attend schools in the Kealakehe Complex.

In 2007, the Hawai'i State Legislature passed Act 245, which gave the DOE the authority to collect school impact fees. In 2009, *An Analysis of the Proposed West Hawai'i School Impact Fee District* was published by the DOE. In 2010, the Board of Education adopted the designation of the West Hawai'i School Impact Fee District, but suspended efforts to implement fee collection that same year. The DOE is expected to resume its efforts to establish school impact fees in West Hawai'i in the near future. Coordination with the DOE has been undertaken and will continue during the land use entitlement process to assess potential impacts to public schools and identify appropriate mitigation measures.

The Lili'uokalani Trust serves approximately 12,000 children annually, providing individual casework, counseling, and assistance through direct and group services and indirectly reaches thousands more through a variety of group and community building projects and collaborations with other community partners, including schools on Hawai'i Island.

5. Recreational Facilities

a. Existing Conditions

The Kona region offers a number of recreational opportunities for residents and visitors alike. In addition to resort recreational complexes, activities such as snorkeling, SCUBA diving, fishing, biking, and hiking are available.

Kailua Park is located adjacent to and southwest of the proposed Makalapua Project District area. The County is in the process of implementing a long-range master plan for the 117-acre park complex. The facility currently provides five (5) multi-purpose outdoor sports fields, the Kona Community Aquatics Center's 50-meter Olympic size swimming pool, Kekuaokalani Gymnasium, outdoor basketball courts, tennis courts, horseshoe pits, and public beach access. Proposed improvements to Kailua Park as part of the 20-year master plan include removal of the former airport runway and structures and development of a wide range of park improvements. New park components include a senior center and youth center, canoe hālau complex, 25-yard swimming pool, skate park complex, and various playground apparatuses (County of Hawai'i, Department of Parks and Recreation, 2011). LT has been coordinating with the County on the timing of proposed improvements at Kailua Park.

In addition to Kailua Park, there are numerous other recreational facilities in the area. Beach parks in the vicinity include Wai'aha Beach Park, Pāhoehoe Beach Park, Magic Sands La'aloa Beach Park, Kohanaiki Beach Park, and Kahalu'u Beach Park. The County is also planning for a 193-acre Kealakehe Regional Park adjacent to the West Hawai'i Civic Center. The master-planning process for the park is currently underway, with plans for active and passive recreational uses.

Hawai'i State Parks in West Hawai'i include Kekaha Kai (Kona Coast) State Park and Kealakekua Bay State Historical Park.

There are also two (2) National Historical Parks managed by the National Parks Service located in West Hawai'i that provide residents and visitors with recreational and educational opportunities. The Kaloko-Honokohau

National Historical Park is located approximately 2.5 miles northwest of the proposed Makalapua Project District, makai of Queen Ka'ahumanu Highway. The park was established to preserve, interpret, and perpetuate traditional native Hawaiian activities and culture by protecting the cultural and natural resources within the park (16 United States Code Section 396d(a)). The Kaloko-Honokohau National Historical Park was the site of a thriving Hawaiian settlement. The park includes coastal areas, two (2) large fishponds, more than 180 anchialine pools, and other archaeological remnants. Activities within the park include hiking, wildlife viewing, and a variety of ocean recreational opportunities.

The Pu'uuhonua O Hōnaunau National Historical Park, formerly known as the City of Refuge Park, is located approximately 17 miles south of the proposed Makalapua Project District. The park preserves the site where, up until the early 19th century, Hawaiians who broke a kapu, or law, could flee to avoid certain death. The park includes the pu'uuhonua, or place of refuge, and a variety of archaeological sites, such as temple platforms, fishponds, and coastal village sites. Park visitors can enjoy fishing, hiking, snorkeling, wildlife viewing, and cultural demonstrations.

Honokohau Marina and Small Boat Harbor is also located in close proximity to the proposed Makalapua Project District. The marina is located approximately 1.75 miles from the Makalapua Project District area, just south of the Kaloko-Honokohau National Historical Park. The marina, maintained by the U.S. Army Corp of Engineers, has private and charter fishing, sailing, and tour boats docked at the facility. There are two (2) small sandy beaches located on either side of the marina.

Kailua Pier is located east of Kailua Park at Kailua Bay. In addition to hosting fishing tournaments, canoe races, and the Iron Man Triathlon, the Pier receives visitors from cruise ships and is a popular departure location for parasailing, snorkeling, and fishing boats.

b. Potential Impacts and Proposed Mitigation Measures

Adverse impacts to nearby recreational facilities are not anticipated as a result of the proposed project. The Makalapua Project District will provide public access to Kailua Park. Three (3) access routes to Kailua Park are planned, consistent with the Kailua Park Master Plan. A new access road to Kailua Park will be provided from the Kuakini Highway extension. This access road, referred to as Park Road 3, and the Kuakini Highway extension will be dedicated to the County. In addition, Kailua Park will be

accessed by two (2) existing entries from Kuakini Highway. See **Figure 13** and **Figure 14**. Existing access to the gym and aquatic center driveways will not be adversely impacted by the project. LT will continue to coordinate with the County Department of Parks and Recreation and Department of Public Works regarding access to Kailua Park.

A 50,000 square foot community performance facility is proposed within the Makalapua Project District for community use. Additionally, a variety of open space features will be incorporated throughout the Makalapua Project District.

6. Solid Waste Disposal

a. Existing Conditions

The County's Department of Environmental Management (DEM), Solid Waste Division operates and maintains all solid waste collection and disposal facilities in the County of Hawai'i. This includes two (2) landfills, 21 transfer stations, and island-wide hauling operations in accordance with local, State, and Federal regulations.

The West Hawai'i Sanitary Landfill (WHSL), located in South Kohala, serves West Hawai'i. The *County of Hawai'i Integrated Resources and Solid Waste Management Plan Update* estimated that the WHSL had 38 years of remaining life in 2009. As more materials are reused or recycled, or if a recovery facility is developed, the capacity of County landfills will be extended (CH2M HILL, 2009).

Residential solid waste is accepted at any of the 21 solid waste transfer stations located on the island. In some areas, residents may hire a private collection company to pick-up their solid waste for disposal. The nearest transfer station to the Makalapua Project District is Kealakehe Transfer Station, Scrap Metal Yard, and Greenwaste Yard, located approximately one (1) mile to the north. The Transfer Station operates daily and accepts solid waste, scrap metal recycling, and green waste recycling.

b. Potential Impacts and Proposed Mitigation Measures

During the construction, waste materials will be generated from site preparation and building construction activities. Construction waste materials that cannot be recycled or reused will be disposed of at the WHSL.

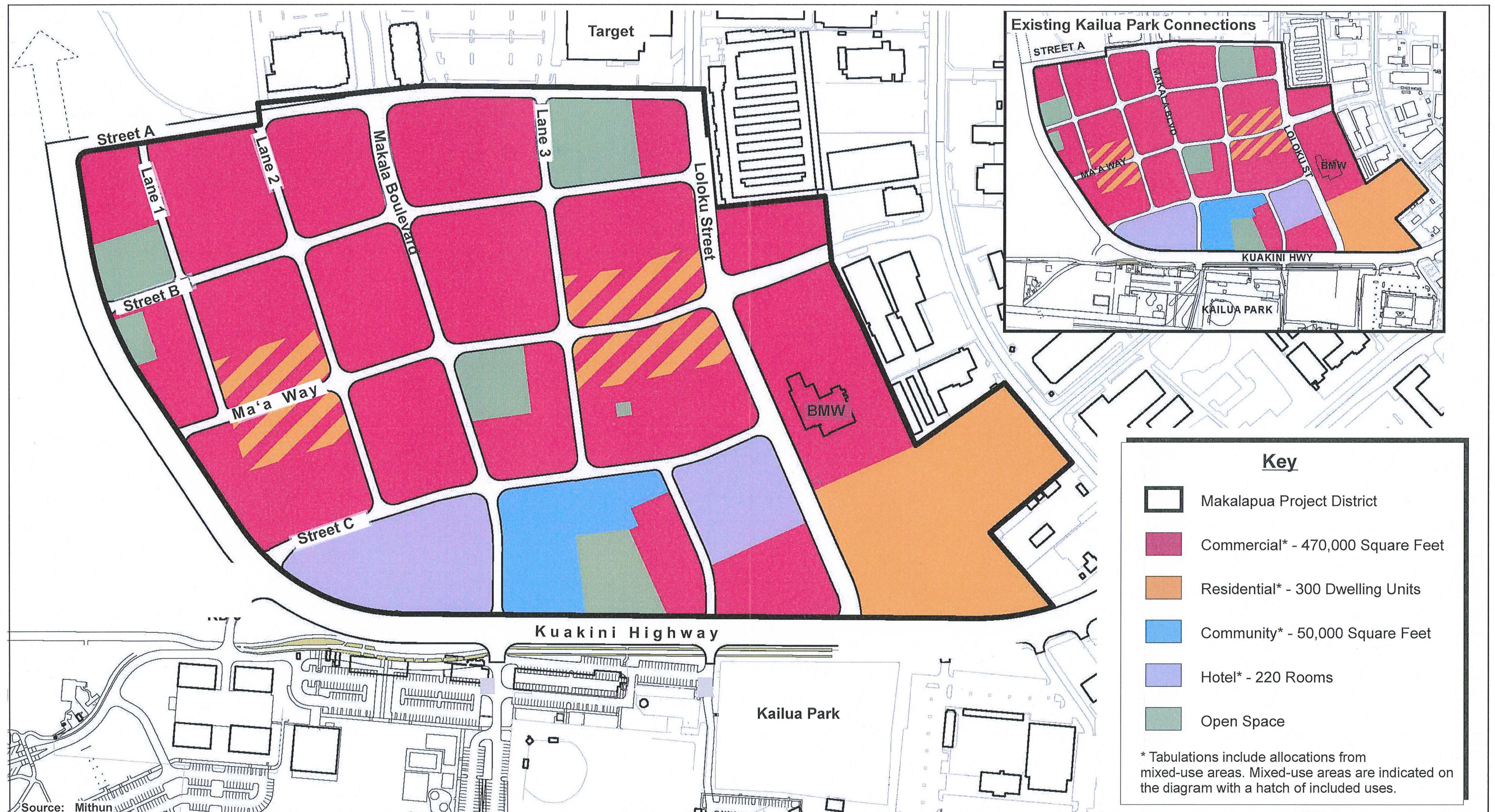


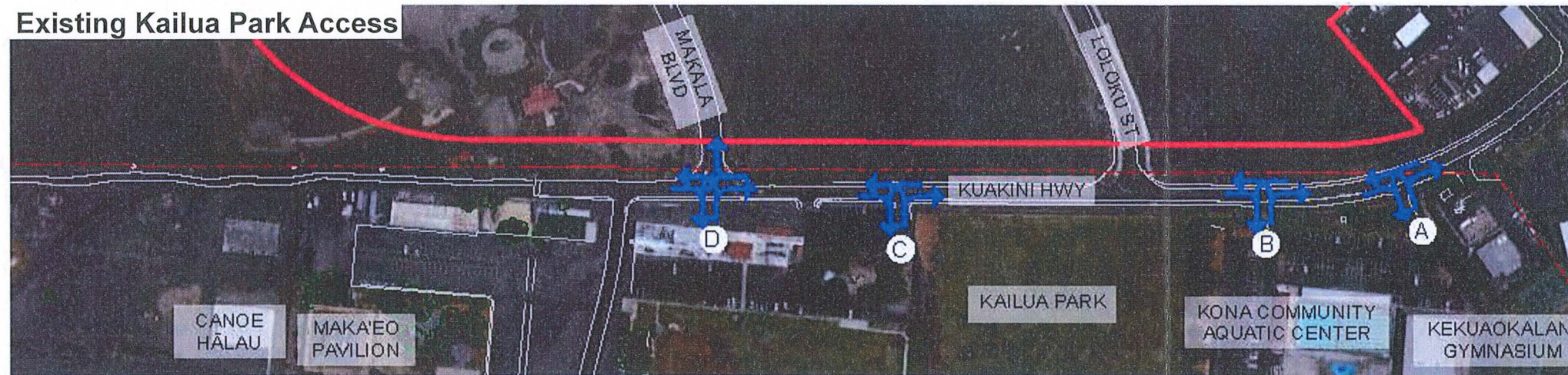
Figure 13

Makalapua Project District Kailua Park Master Plan Connections

NOT TO SCALE



Existing Kailua Park Access

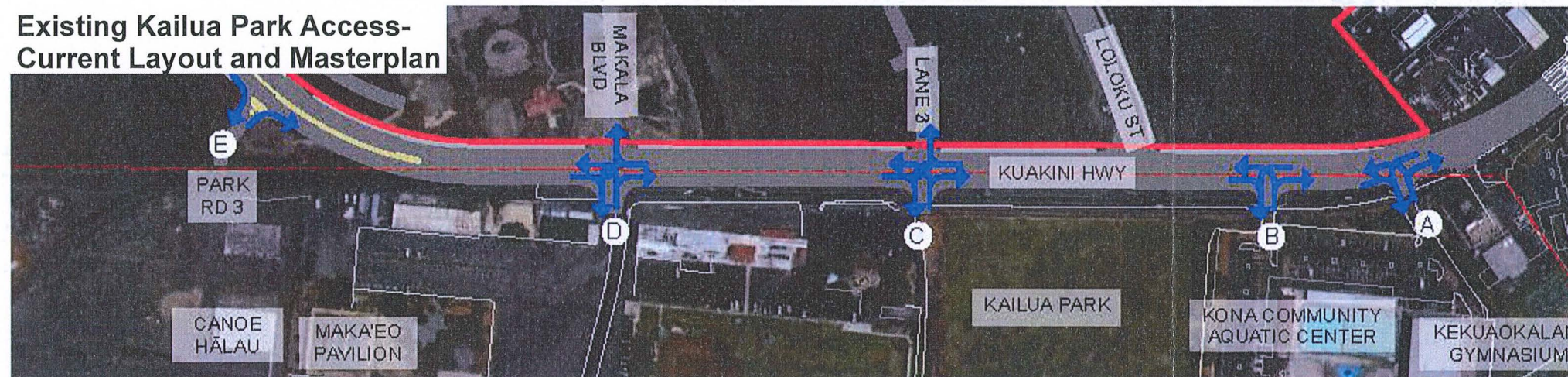


- Kuakini Hwy is 2 lanes, ending at Makala Blvd.
- 4 Park entry points
- Makala and Kuakini intersection has a 4 way stop
- All other intersections are full movement, but lack traffic control or turn lanes

Existing Turn Movements

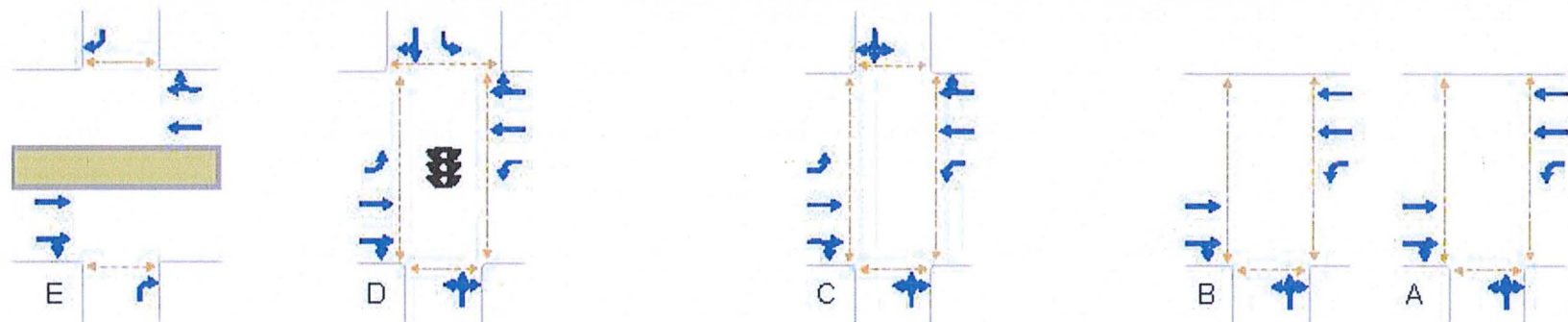


Existing Kailua Park Access- Current Layout and Masterplan



- Kuakini Hwy is 4-5 lanes, curving mauka near the canoe hālaus
- 5 Park entry points (Park Road 3 added)
- Traffic signal added at Makala and Kuakini
- All other intersections are full movement, with added turn lanes
- All entries have been coordinated with Kailua Park Masterplan

Proposed Turn Movements



KEY

- Makalapua Project District
- Park Boundary
- Automobile Movement
- Pedestrian Movement
- Proposed Roads
- Planted Median

Source: Mithun

Figure 14



Makalapua Project District
Kailua Park Access

NOT TO SCALE

In addition, DEM will be consulted to determine potential impacts from the project on the Municipal Waste Management capabilities. Consistent with County's "Zero Waste" goal and the *Zero Waste Plan for the County of Hawai'i*, LT will implement elements to reduce waste and divert resources from the landfill for proper recovery.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

A description of the roads that define the existing roadway network in the vicinity of the Makalapua Project District is provided below.

Queen Ka'ahumanu Highway is a State arterial that runs from Kawaihae to Kuakini Highway in Kailua-Kona. It is generally a two-lane undivided highway, but it widens to four (4) lanes between Kealakehe Parkway and Malulani Drive. The posted speed limit is generally 35 miles per hour (mph). Between Makala Boulevard and Henry Street, bike lanes are provided on both sides of the roadway and sidewalks are provided on the makai side of the highway.

Kuakini Highway is a two-way County roadway that generally runs along the coast through Kailua-Kona from Makala Boulevard to Queen Ka'ahumanu Highway. It is generally a two-lane undivided roadway, but it widens to four (4) lanes between Palani Road and Hualalai Road. The posted speed limit is generally 25 mph. Some disjointed sidewalk segments are provided between Kaiwi Street and Palani Road. It is noted that Kuakini Highway is classified as a major collector street in the Kona Community Development Plan.

Luhia Street is a two-way, two-lane County roadway, which originates at Makala Boulevard across from the Kona Commons Shopping Center Driveway and extends to Eho Street. The posted speed limit of this roadway is generally 25 mph. Bike lanes are provided on both sides of the street between Makala Boulevard and Loloku Street and sidewalks are provided on both sides of the street between Makala Boulevard and mid-way between Loloku Street and Kaiwi Street.

Street A is a two-way, two-lane privately owned unnamed roadway which provides additional access to Target and the Kona Commons Shopping Center. There is no posted speed limit along Street A. This roadway begins at its intersection with Old Mamalahoa Trail and terminates at

Loloku Street. This roadway is referred to as “Street A” based on the proposed naming convention utilized in the Makalapua Project District conceptual plan map.

Makala Boulevard is a two-lane road that runs between Kamakaeha Avenue and Kuakini Highway. It is County-owned, except for the portion west of the Kona Commons Shopping Center and mauka of Queen Ka’ahumanu Highway, where it is privately owned. From Kamakaeha Avenue and Queen Ka’ahumanu Highway it is a three-lane roadway; between Queen Ka’ahumanu Highway and the Shopping Center makai driveway it is a four-lane divided roadway; and west of Shopping Center makai driveway it is a two-lane undivided roadway. The posted speed limit is generally 25 mph. Bike lanes and sidewalks are provided on both sides of the roadway between Queen Ka’ahumanu Highway and Kona Commons makai driveway.

Loloku Street is a two-way, two-lane County roadway that runs between Luhia Street and Kuakini Highway. The posted speed limit is generally 25 mph and traffic is generally light. Sidewalks are provided on both sides of the roadway between Luhia Street and Kuakini Highway.

Kaiwi Street is a two-way, two-lane County roadway that runs between Queen Ka’ahumanu Highway to Kuakini Highway, opposite Kona Bay Drive. A two-way left turn median is provided along this roadway between Luhia Street and Kuakini Highway. The posted speed limit is generally 25 mph. Kaiwi Street does not have existing bike lanes or sidewalks.

Eho Street is a County roadway that extends from Queen Ka’ahumanu Highway to Alapa Street. Eho Street provides one-way access north of Luhia Street and is a two-way, two-lane undivided roadway south of Luhia Street. Sidewalks are provided on both sides of the roadway between Queen Ka’ahumanu Highway and Luhia Street.

Palani Road is a two-way, two-lane County roadway that runs between Mamalahoa Highway and Ka’ahumanu Place, where it transitions into Ali’i Drive. This roadway is a four-lane roadway to the east of Kuakini Highway and a two-lane roadway to the west of Kuakini Highway. The posted speed limit ranges between 15 and 25 mph. Sidewalks are provided on both sides of the roadway between Queen Ka’ahumanu Avenue and Kuakini Highway and along the westbound traffic lane between Kuakini Highway and Ka’ahumanu Place.

Ma'a Way is a two-way, two-lane County roadway running between Loloku Street and Kaiwi Street. Bike lanes and sidewalks are provided on both sides of the roadway.

The revised Traffic Impact Analysis Report (TIAR) prepared for the project noted varying degrees of traffic throughout the roadways and intersections in and around the project area. See **Appendix "H"**. The TIAR utilizes a Level of Service (LOS) analysis. LOS is a qualitative measure used to describe the conditions of traffic flow, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F.

Based on traffic count data collected on October 1, 2, 3, 5, 16, and 17 and November 2 and 16, 2013, the weekday morning (AM) and afternoon (PM) peak hours of traffic were determined to occur between 7:30 a.m. to 8:30 a.m., and between 3:45 p.m. to 4:45 p.m., respectively. The Saturday mid-day (WE) peak hour of traffic was determined to be between 11:30 a.m. to 12:30 p.m. The overall LOS ratings for the existing study intersections are summarized in **Table 5** below.

Table 5. Overall Levels of Service Observed for Existing Study Intersections

Intersection	AM	PM	WE
Queen Ka'ahumanu Highway/Makala Boulevard	C	D	D
Queen Ka'ahumanu Highway/Kaiwi Street*	--	--	--
Queen Ka'ahumanu Highway/Eho Street**	--	--	--
Queen Ka'ahumanu Highway/Palani Road	C	D	D
Kuakini Highway/Makala Boulevard	A	B	B
Kuakini Highway/Loloku Street	B	C	C
Kuakini Highway/Kaiwi Street	B	F	E
Kuakini Highway/Palani Road	B	D	C
Makala Boulevard/Luhia Street	B	B	C
Makala Boulevard/Midblock Driveway	B	B	B
Makala Boulevard/Street A	B	B	B
Loloku Street/Street A	A	B	A
* Based on field observations, the eastbound right-turn does not experience any delay. ** Based on field observations, the southbound right-turn operates un-impeded. Source: Austin, Tsutsumi & Associates, Inc.			

The Hele-On Bus provides public transportation for the island. The Hilo to Kona, Intra-Kona, and North Kohala to Keauhou bus routes provide service in the vicinity of the proposed Makalapua Project District. Four (4) bus routes service the Intra-Kona area with varying headways about 45

minutes to 1 hour 30 minutes in the morning and 1 hour 40 minutes to 2 hours or more in the afternoon.

b. Potential Impacts and Proposed Mitigation Measures

The proposed Makalapua Project District will be organized around an interconnected street network that fulfills recent State and County policies and best practices for Complete Streets, which seeks to reasonably accommodate convenient access and mobility for all users of public highways within their respective jurisdictions as described under HRS, Section 264-1, including pedestrians, bicyclists, transit users, motorists, and persons of all ages and abilities. The project will be designed to support a variety of transportation options with multi-modal design appropriate for the area and compatible with surrounding land uses. Makala Boulevard is envisioned as a walkable, main street with on-street parking, serving as the focus for pedestrian oriented retail, social activity, and public strolling within the Project District. Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park before curving north, as envisioned in the KCDP. Ma'a Way will be continued from the Kona Industrial Subdivision, providing connections through the Project District.

The Makalapua Project District will provide public access to the adjacent Kailua Park. Three (3) access routes to the Park from Kuakini Highway, consistent with the Kailua Park Master Plan, will provide mauka-makai connections. Refer to **Figures 4, 5, 13, and 14**. Additionally, existing access to the gym and aquatic center driveways will not be adversely impacted by the project.

A revised TIAR was prepared for the project to assess traffic impacts attributed to the proposed project and to identify appropriate mitigation measures to address these impacts. Refer to **Appendix "H"**. It is noted that the proposed Makalapua Project District is anticipated to be built out over a three-phase development horizon, spanning approximately 15 years. The TIAR includes an analysis based on the years 2024, 2029, and 2039 in accordance with the Hawai'i County Code concurrency requirement which requires future growth projections for a minimum of five (5), ten (10), and 20 years.

Based on trip generation rates published by the Institute of Traffic Engineers, the project is anticipated to generate approximately 868,1,458, and 1,837 net new external trips during the morning, afternoon, and weekend peak hours of traffic, respectively, in 2039, assuming full build-

out. **Table 6** provides a breakdown of the anticipated trip generation for each phase. It is noted that the trip generation presented for 2029 and 2039 are cumulative to include the preceding phases.

Table 6. Project Trip Generation (Net External Trips)

	AM Peak Hour	PM Peak Hour	WE Peak Hour
Year 2024	633	1,328	1,642
Cumulative Year 2029	791	1,328	1,596
Cumulative Year 2039	868	1,458	1,837
Source: Austin, Tsutsumi & Associates, Inc.			

The TIAR presents an analysis of traffic projections with and without the project in 2024, 2029, and 2039. The traffic projections for the without project scenarios are based upon traffic generated from 15 known background projects in the region added to a universally applied 0.5 percent growth rate, which accounts for any unanticipated infill growth as a result of smaller developments.

Below is a discussion of the anticipated overall LOS ratings for the three (3) study years assessed in the TIAR.

Year 2024 Analysis

Table 7 summarizes the anticipated LOS without and with the proposed project in 2024.

Table 7. Overall Levels of Service in 2024 Without and With the Proposed Project

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Queen Ka'ahumanu Highway/Makala Boulevard	C	C	D	D	D	D
Queen Ka'ahumanu Highway/Kaiwi Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Eho Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Palani Road	C	D	D	D	D	D
Kuakini Highway/Makala Boulevard	A	B	C	C	B	C
Kuakini Highway/Loloku Street	B	A	D	B	E	B
Kuakini Highway/Kaiwi Street	C	A	F*	B	F*	B

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Kuakini Highway/Palani Road	B	B	D	C	C	D
Makala Boulevard/Luhia Street	B	B	B	C	C	C
Makala Boulevard/Midblock Driveway	B	B	B	B	B	B
Makala Boulevard/Street A	B	B	B	B	B	B
Makala Boulevard/Street B	-	B	-	C	-	D
Makala Boulevard/Ma'a Way	-	B	-	D	-	E
Makala Boulevard/Street C	-	B	-	C	-	C
Loloku Street/Street A	A	A	B	B	B	B
Loloku Street/Street B	-	A	-	B	-	B
Loloku Street/Ma'a Way	-	A	-	B	-	B
Loloku Street/Street C	-	A	-	B	-	B
Street A/Lane 3	-	A	-	B	-	B
Street A/Lane 2	-	A	-	A	-	A
Street A/Lane 1	-	A	-	A	-	A
Kuakini Highway/Lane 3/Park Road 1	-	A	-	B	-	B
Note: LOS in bold indicates a change in LOS with the proposed project. Source: Austin, Tsutsumi & Associates, Inc. * Indicates overcapacity conditions, v/c ratio >1.						

The LOS for the without project scenario is based on the assumption that no improvements will be made to the specified intersections. The roadway improvements that are assumed to be implemented with the project by Year 2024 include realignment of Makala Boulevard from Ma'a Way to Kuakini Highway to align Makala Boulevard with the Old Kona Airport State Recreation Area Access, reconfiguration of Makala Boulevard and Street A, extension of Ma'a Way through the Project District from its existing terminus at Loloku Street to just past Makala Boulevard, construction of Street B and Street C through the Project District from Loloku Street to just past Makala Boulevard, parallel to Ma'a Way, construction of Lanes 1, 2, and 3 through the Project District, parallel to and between Street A and Ma'a Way/Street C, and construction of Park Road 1 to provide additional access to the Old Kona Airport State Recreational Area.

The LOS for the specified intersections with the project is based on the assumption that the following improvements are implemented. It is noted that roadway improvements recommended below are currently not funded but are anticipated to be required as a result of both projected background development traffic and traffic generated by the project.

Regional developers in the area may be required to pay pro-rata share contributions for the improvements:

- Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the southbound direction from the Makala Boulevard intersection to the Palani Road intersection
- Widen Kuakini Highway from two (2) through lanes to four (4) through lanes between Palani Road and Loloku Street
- At the Queen Ka'ahumanu Highway/Makala Boulevard intersection:
 - Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the southbound direction
 - Widen the southbound approach to provide an additional southbound left-turn lane
 - Widen the westbound approach to provide an additional westbound left-turn lane
- At the Queen Ka'ahumanu Highway/Palani Road intersection:
 - Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the southbound direction
- At the Kuakini Highway/Loloku Street intersection:
 - Widen Kuakini Highway in the northbound direction to provide an exclusive northbound right-turn lane
 - Construct a new traffic signal when warranted with the above lane configuration changes
 - Provision of a northbound right-turn lane is recommended to terminate the Kuakini Highway widening through Palani Road and Kaiwi Street in order to prevent potential bottlenecks from a midblock merge
- At the Kuakini Highway/Kaiwi Street intersection:
 - Widen Kuakini Highway in the vicinity of the intersection to provide two (2) southbound lanes striped as a shared left-turn/through and a shared through/right-turn lane
 - Widen Kuakini Highway in the vicinity of the intersection to provide an additional northbound through lane
 - Construct a new traffic signal when warranted with the above lane configuration changes

- At the Kuakini Highway/Palani Road intersection:
 - Widen Kuakini Highway north of Palani Road to accommodate two (2) northbound receiving lanes
 - Widen the southbound approach to provide an additional through lane
 - Modify the northbound approach to restripe the dedicated right-turn lane to a shared through/right-turn lane

Year 2029 Analysis

Table 8 summarizes the anticipated LOS without and with the proposed project in 2029.

Table 8. Overall Levels of Service in 2029 Without and With the Proposed Project

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Queen Ka'ahumanu Highway/Makala Boulevard	D	D	E	E	F	E
Queen Ka'ahumanu Highway/Kaiwi Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Eho Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Palani Road	C	D	D	D	D	D
Kuakini Highway/Makala Boulevard/Park Road 2	A	B	C	D	B	C
Kuakini Highway/Loloku Street	C	A	E	B	F	B
Kuakini Highway/Kaiwi Street	E	A	F*	B	F*	B
Kuakini Highway/Palani Road	C	B	E	D	D	D
Makala Boulevard/Luhia Street	B	B	B	C	C	C
Makala Boulevard/Midblock Driveway	B	B	B	B	B	B
Makala Boulevard/Street A	B	B	B	B	B	B
Makala Boulevard/Street B	-	B	-	D	-	E
Makala Boulevard/Ma'a Way	-	B	-	D	-	E
Makala Boulevard/Street C	-	B	-	C	-	C
Loloku Street/Street A	A	B	B	B	B	B
Loloku Street/Street B	-	A	-	B	-	B
Loloku Street/Ma'a Way	A	B	B	B	B	B
Loloku Street/Street C	-	A	-	B	-	B
Street A/Lane 3	-	A	-	B	-	B
Street A/Lane 2	-	A	-	A	-	A

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Street A/Lane 1	-	A	-	A	-	A
Kuakini Highway/Lane 3/Park Road 1	-	A	-	B	-	B
Note: LOS in bold indicates a change in LOS with the proposed project. Source: Austin, Tsutsumi & Associates, Inc. * Indicates overcapacity conditions, v/c ratio >1.						

The LOS without project is based on the assumption that no improvements will be made to the specified intersections. No additional roadway projects were assumed to be implemented with the project by Year 2029 in addition to those mentioned above as part of Year 2024 assumptions.

Year 2039 Analysis

Table 9 summarizes the anticipated LOS without and with the proposed project in 2039.

Table 9. Overall Levels of Service in 2039 Without and With the Proposed Project

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Queen Ka'ahumanu Highway/Makala Boulevard	E	D	F	E	F	E
Queen Ka'ahumanu Highway/Kaiwi Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Eho Street	-	-	-	-	-	-
Queen Ka'ahumanu Highway/Palani Road	F	D	F	E	F	E
Kuakini Highway/Street A	B	C	B	C	B	C
Kuakini Highway/Street B	-	B	-	B	-	B
Kuakini Highway/Ma'a Way	C	C	C	E	C	E
Kuakini Highway/Street C	-	B	-	B	-	B
Kuakini Highway/Street C/Park Road 3	-	B	-	B	-	B
Kuakini Highway/Makala Boulevard/Park Road 2	E	A	F*	B	F*	B
Kuakini Highway/Loloku Street	E	A	F*	B	F*	B
Kuakini Highway/Kaiwi Street	F*	A	F*	C	F*	B
Kuakini Highway/Palani Road	D	C	F	E	F	E
Makala Boulevard/Luhia Street	B	B	B	C	C	C
Makala Boulevard/Midblock Driveway	B	B	B	B	B	B
Makala Boulevard/Street A	B	B	B	B	B	B
Makala Boulevard/Street B	-	B	-	D	-	E
Makala Boulevard/Ma'a Way	B	B	B	D	C	E
Makala Boulevard/Street C	-	B	-	C	-	D

Intersection	AM		PM		WE	
	Without Project	With Project	Without Project	With Project	Without Project	With Project
Loloku Street/Street A	A	A	B	B	B	B
Loloku Street/Street B	-	B	-	B	-	B
Loloku Street/Ma'a Way	B	B	B	B	B	B
Loloku Street/Street C	-	A	-	B	-	B
Street A/Lane 3	-	A	-	B	-	B
Street A/Lane 2	-	A	-	A	-	A
Street A/Lane 1	-	A	-	A	-	A
Kuakini Highway/Lane 3/Park Road 1	-	B	-	B	-	B
Note: LOS in bold indicates a change in LOS with the proposed project. Source: Austin, Tsutsumi & Associates, Inc. * Indicates overcapacity conditions, v/c ratio > 1.						

The LOS for the specified intersections without the project is based on the assumption that certain roadway projects and traffic mitigation (as identified in the TIAR) required based on projected growth without the project are implemented. For the 2039 projections, examples of roadway projects assumed to be implemented include extensions of Kuakini Highway, Ma'a Way, and Street A, heading north and terminating at a future connection with access to Queen Ka'ahumanu Highway. In addition, the roadway improvements that are assumed to be implemented with the project by Year 2039 include extensions of Street B and Street C to the proposed Kuakini Highway extension, as well as the construction of Park Road 3.

The LOS for the specified intersections with the project is based on the assumption that the following improvements are implemented. The roadway improvements recommended below are currently not funded but are anticipated to be required as a result of both projected background development traffic and traffic generated by the project. Regional developers in the area may be required to pay pro-rata share contributions for the improvements:

- Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the northbound direction from the Makala Boulevard intersection to the Palani Road intersection
- Extend the Kuakini Highway widening from two (2) through lanes to four (4) through lanes from Kaiwi Street to north of Makala Boulevard
- At the Queen Ka'ahumanu Highway/Makala Boulevard intersection:

- Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the northbound direction
- Widen the westbound approach to provide an exclusive westbound right-turn lane
- Restripe the existing westbound shared through/right-turn lane to an exclusive through lane
- At the Queen Ka'ahumanu Highway/Palani Road intersection:
 - Widen Queen Ka'ahumanu Highway from two (2) through lanes to three (3) through lanes in the northbound direction
- At the Kuakini Highway/Makala Boulevard/Park Road 2 intersection:
 - Widen Kuakini Highway in the vicinity of the intersection to provide a southbound shared through/right-turn lane, exclusive through lane and exclusive left-turn lane
 - Widen Kuakini Highway in the vicinity of the intersection to provide a northbound shared through/right-turn lane, exclusive through lane and exclusive left-turn lane
 - Construct a new traffic signal when warranted with the above lane configuration changes
- At the Kuakini Highway/Loloku Street intersection:
 - Widen Kuakini Highway in the vicinity of the intersection to provide two (2) southbound through lanes and an exclusive left-turn lane
 - Widen Kuakini Highway in the vicinity of the intersection to provide an additional northbound receiving lane and restripe the exclusive northbound right-turn lane as a shared through/right-turn lane

Given the development timeframe of three (3) phases over 15 years, the TIAR also recommends that regular updates be conducted to determine the actual traffic growth and required improvements.

2. **Water System**

a. **Existing Conditions**

The proposed Makalapua Project District is within the Department of Water Supply's (DWS) 325-foot water service zone. Existing DWS infrastructure in the vicinity of the project includes 8-inch water mains in Kaiwi Street and Makala Boulevard in the Kona Commons area and an existing 12-inch potable waterline in Loloku Street connecting the Kona Commons Shopping Center to Kona Industrial Subdivision and Kuakini Highway. The DWS 325-foot system is served by the 0.3 million gallon

(mg) Palani Station No. 1 reservoir, and the 2.0 mg Pua Pua'a reservoir near the Pualani Estates Subdivision.

The water source for the Makalapua Project District is the Keauhou Aquifer System, which is comprised of confined aquifer systems. The current sustainable yield for the aquifer set by the Commission on Water Resources Management is 38 million gallons per day (mgd). Current pumpage from the aquifer is approximately 14.5 mgd, and planning studies by DWS indicate a maximum pumping rate with projected demands based on full build out of all projects allowable by County zoning of just over 28 mgd. Refer to **Appendix "B"**.

b. **Potential Impacts and Proposed Mitigation Measures**

The existing DWS system will serve the proposed Makalapua Project District. The Infrastructure Report prepared for the project estimated that the proposed Makalapua Project District will generate an average daily demand of approximately 271,350 gallons per day (gpd) of potable water. Refer to **Appendix "B"**.

LT will continue to coordinate with DWS regarding the water system for the project. Available water commitments with the DWS may be used in accordance with the Keahuolū Lands Water Resources Development Agreement (KLWRA) and the Makalapua Business Center (MBC) Water Commitment Agreement. Water credits are expressed in equivalent units based on a maximum day demand of 600 gpd. Maximum day demand is calculated by multiplying average day demand by a factor of 1.5. Therefore, 678 water credits are required for the proposed Makalapua Project District. It is noted that the number of credits required will be reduced by the previously allocated water credits for parcels along Kaiwi Street and Loloku Street. As such, the adjusted amount of water credits required for the Makalapua Project District is 576 units. LT has sufficient amount of water credits to accommodate the proposed Makalapua Project District. Refer to **Appendix "B"**.

Eight-inch or 12-inch distribution mains are planned in all roads proposed for dedication to the County. All system improvements will be developed in accordance with the Water System Standards, State of Hawai'i dated 2002. The proposed water system improvements are illustrated in the Infrastructure Report presented in **Appendix "B"**.

Planning for the Makalapua Project District incorporates water conservation and efficiency measures. Although there is currently no available source of R-1 quality water for reuse, it is anticipated that piping

for R-1 water for reuse will be installed, as appropriate. Additionally, landscaping concepts that focus on water conservation, such as using low water-use and drought tolerant plants for areas with low public use and visibility and limiting landscapes with higher irrigation demand to areas with highest public use and visibility, are being considered for the proposed project.

Given the above, no adverse impacts to water systems are anticipated as a result of the proposed project.

3. **Wastewater System**

a. **Existing Conditions**

The Kealakehe Wastewater Treatment Plant (WWTP) is a regional County facility that treats wastewater. It is located approximately one (1) mile to the northwest of the proposed Makalapua Project District. Its service area extends from Keauhou to Kealakehe. Current treated flow for the Kealakehe WWTP is approximately 2.0 mgd with a maximum capacity of 5.3 mgd.

Kealakehe Sewage Pump Station (SPS) is a regional facility located south of the Kona Aquatic Center that pumps sewage from the Kona Industrial Subdivision and areas south of Kailua-Kona to the Kealakehe WWTP via a 24-inch sewer force main. There is an existing 15-inch gravity sewer line within the Makalapua Project District site in Loloku Street and Kuakini Highway that currently serves the Kona Commons Shopping Center and part of the Kona Industrial Subdivision. Refer to **Appendix "B"**.

b. **Potential Impacts and Proposed Mitigation Measures**

It is estimated that the proposed Makalapua Project District will generate a peak wastewater flow of 0.89 mgd or an average daily flow of 0.2 mgd. Refer to **Appendix "B"**. The Department of Environmental Management (DEM) has determined that an average daily flow of 0.77 mgd can be accommodated at the Kealakehe WWTP and a peak wastewater flow of 2.64 mgd can be accommodated by the Kealakehe SPS. Based on these figures, the Kealakehe WWTP has the capacity to accommodate the proposed project.

Generally, the proposed wastewater system will follow the proposed public roadway system, but will be routed through the parking lot drive aisles in some locations. The wastewater collection system will be

conveyed via new 8- and 10-inch gravity sewer mains to a proposed private SPS southwest of the project site. The sewer system will be designed in accordance with the "Design Standards of the Department of Wastewater Management", Volume 1, City and County of Honolulu, State of Hawai'i, dated July 1993 and to satisfy the requirements of the DEM. The proposed wastewater improvements are illustrated in the Infrastructure Report presented in **Appendix "B"**.

4. **Drainage System**

a. **Existing Conditions**

The undeveloped portions of the Makalapua Project District are characterized by old lava fields. Depending on the type of lava rock, stormwater runoff will flow and then infiltrate into the ground. In the developed areas of the project area there are existing catch basins, drain intakes, pipes, and drywells that convey and dispose of stormwater runoff. The site gently slopes downward from the northeast to the southwest, with elevations ranging from 10 feet to 40 feet amsl. Ground slopes range from 0 percent to 12 percent, with an average slope of 3 percent. The existing 10-year peak stormwater runoff for the Makalapua Project District area is approximately 38 cubic feet per second (cfs). Refer to **Appendix "B"**.

b. **Potential Impacts and Proposed Mitigation Measures**

Stormwater runoff will be collected by swales, ditches, gutters, inlets, and/or catch basins and conveyed to drywells and/or infiltration areas for onsite disposal. Preliminary estimates indicate that a drywell would have the capacity to dispose of three (3) cfs of stormwater runoff. Preliminary hydrologic calculations indicate a 10-year peak stormwater runoff rate of approximately 159 cfs; therefore, approximately 59 drywells may be required. Refer to **Appendix "B"**. The drywells are proposed in parking lots, along roadways, and other locations where space is available throughout the project site. An underground injection control permit will be required by the State of Hawai'i, Department of Health (DOH) to construct and operate the drywells. With the construction of the 59 drywells, the net runoff will be equal to or less than the existing runoff generated at the project site.

Drainage improvements will be designed in accordance with the "Storm Drainage Standards", Department of Public Works, County of Hawai'i, dated October 1970, as amended. Permanent Best Management Practices (BMPs) and Low Impact Development (LID) strategies, such as

the use of native plant gardens, permeable paving systems, and bio-swales and bio-filtration for stormwater management, are being considered for the proposed project to minimize pollutants from entering the ground and nearshore waters.

With the improvements noted above, no adverse impacts are anticipated as a result of the proposed project.

5. **Electrical, Telephone, and Cable TV Service**

a. **Existing Conditions**

Hawai'i Electric Light Company (HELCO), Hawaiian Telecom (HTCO), and Charter Communications (CC aka Oceanic Time Warner Cable) service the region. The existing facilities serving the Makalapua Project District include a combination of aerial cables attached to joint overhead pole lines on the west side of the project area along Kuakini Highway and underground duct systems along Makala Boulevard and Loloku Street.

b. **Potential Impacts and Proposed Mitigation Measures**

Electric and communications systems for the project will be developed in accordance with the specifications and standards of HELCO, HTCO, and CC. The estimated electrical demand for the proposed project is 58,061 kiloWatt hours per day and the number of estimated telephone lines needed for the project is 1,120 lines. Refer to **Appendix "B"**.

The onsite electric and communications systems would consist of concrete encased, PVC conduits, typically installed within a common trench and located, where feasible, under the roadway sidewalk between the curb and the edge of the road shoulder. Manholes and handholes would be placed periodically to serve as pulling points for the utilities and as parcel/building service points.

As State Public Utility Commission (PUC) regulated public utilities, HELCO and HTCO are responsible for the development of offsite facilities that meet island-wide needs, such as power generating plants and power and signal transmission lines, and facilities that serve regional needs of the Kailua-Kona area. Presently, the existing offsite facilities that would serve the property are HELCO's Kaiwi Substation, located adjacent to HELCO's Kona Office in the Kona Industrial Area, HELCO's Palani Substation, located at the corner of Palani Road and Henry Street, and HTCO's Kailua-Kona central office located near the intersection of Queen Ka'ahumanu Highway and Palani Road. CC is a State Department of

Commerce and Consumer Affairs cable television franchise. CC's main facility serving the Kailua-Kona area is located to the north, in the Kaloko Industrial Park. Recently, HTCO was also granted a cable television franchise. Although not a PUC regulated utility, CC's offsite facility construction policy is to provide such facilities where the anticipated revenue from the prospective service connections warrants the expenditure. Both HTCO and CC offer video, broadband, and telephone services. The design and construction of the proposed onsite electric and communications systems would meet the respective utility company's standards.

Preliminarily, HELCO has indicated that electric service to the property will likely be extended from HELCO's Makala Boulevard and Loloku Street duct systems. The offsite electrical facility developments required to provide the service will likely need to be reconfigured to increase available capacity within the Kaiwi Substation and/or additional facilities may need to be extended from the Palani Substation.

Telephone and cable television service will be extended to the property from the existing Makala Boulevard and Loloku Street duct systems. Separate conduit laterals will be provided for HTCO and CC. Refer to **Appendix "B"**.

Because the proposed Makalapua Project District consists of new construction, there is significant opportunity to incorporate energy conservation and efficiency measures. Passive energy conservation strategies that are being considered include architectural shading for reducing heat gain, maximizing natural daylighting of interior spaces, building orientation and fenestration for natural ventilation, and landscape strategies to provide summer shade.

The proposed improvements to the electrical systems in the project vicinity are expected to provide adequate service for the development. As such, no adverse impacts to existing electrical utilities are anticipated as a result of the proposed project.

E. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined by Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Environmental Impact Statement Rules 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

“Secondary impacts” or “indirect effects” from the proposed action are defined by Title 11, Chapter 200, HAR as:

Effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

The context for analyzing cumulative and secondary impacts is defined by actions within the “reasonably foreseeable future”.

It is noted that the Project District is adjacent to two (2) other significant projects: LT’s Keahuolū Land Plan, which will be developed on approximately 1,300 acres of land to the north, and redevelopment of the County’s Kailua Park. Despite its close proximity, the Keahuolū Land Plan is a separate and distinct project from the Makalapua Project District. It is on a different development schedule, with construction anticipated to begin after the development of the Project District has been initiated. The Makalapua Project District is not a phase of or necessary precedent for the Keahuolū Land Plan, nor does the Project District represent a commitment to a larger action. The Keahuolū Land Plan will utilize LT-owned lands from the shoreline up to the Ane Keohokālole Highway. Queen Ka’ahumanu Highway bifurcates the Keahuolū Land Plan area. The makai portion of the Keahuolū Land Plan is bordered by the County’s Kealakehe Wastewater Treatment Plant to the north, Kailua Park to the south, and the Kona Commons Shopping Center to the east. The mauka area of the Keahuolū Land Plan extends from Palani Road in the south to the former Kealakehe Landfill and Transfer Station in the north. The Keahuolū Land Plan is envisioned as a mixed use development that will include residential, educational facilities, commercial, civic/recreational facilities, and park and open space areas. An Environmental Impact Statement will be prepared for the Keahuolū Land Plan project.

In addition to the Keahuolū Land Plan, redevelopment of the County’s Kailua Park, south of the Makalapua Project District, is anticipated to move forward within the reasonably foreseeable future. The County’s 20+ year master plan for Kailua Park calls for a wide range of improvements, such as additional restrooms and lockers, concessions, canoe halau, youth and senior centers, 25-yard swimming pool, skate park, shared-use pedestrian and bicycle path, new access roads and parking, and additional lawn and landscaped areas. The old airport runway is proposed to be removed and replaced with a new beach access road with parking. A Final Environmental Assessment and Finding of No Significant Impact for the Kailua Park Master Plan was published in the February 23, 2011 Office of Environmental Quality Control’s Environmental Notice. LT has been coordinating with the County of Hawai’i Department of Parks and Recreation to ensure that development of the Makalapua Project District is complementary to the neighboring

Kailua Park. Kuakini Highway will continue to provide access to Kailua Park via three (3) access routes. Refer to **Figure 13** and **Figure 14**.

Other significant future projects in the surrounding area include Kamakana Villages at Keahuolū and the LaʻiʻŌpua Community Center in Kealakehe, which are planned adjacent to the Keahuolū Land Plan to the north and northwest (respectively). Kamakana Villages is a master planned community on 272 acres proposed by the State's Housing Finance and Development Corporation. It includes the development of up to 2,330 homes, school facilities, and a neighborhood center, over the next 20 years. The LaʻiʻŌpua Community Center is part of the LaʻiʻŌpua Master Plan proposed by the Department of Hawaiian Home Lands (DHHL). It is planned on a 26.5-acre parcel immediately south of Kealakehe High School and will include a pre-school, community center, medical clinic, and other social and community service facilities.

The Hawaiʻi County General Plan and Kona Community Development Plan (KCDP) define the parameters for growth in the reasonably foreseeable future. As will be discussed further in Chapter III, the Makalapua Project District is designated for Industrial and Urban Expansion uses by the Land Use Pattern Allocation Guide (LUPAG) while the KCDP identifies the area as a "Regional Commercial Center", which is intended to organize and intensify new development (both in form and density) to support transit when it becomes available. In this context, the proposed Makalapua Project District is consistent with the growth and development that is envisioned for the region.

The cumulative impacts of the Makalapua Project District, together with other reasonably foreseeable actions, will likely include increased population and greater demands on public infrastructure. While the Makalapua Project District will provide new residential units and commercial development in the area, it is noted that the project serves to accommodate projected population growth in the County, which is anticipated to occur with or without the project. However, LT will continue to coordinate with local utilities and agencies to ensure that any potential impacts to public infrastructure and facilities resulting from the project are appropriately mitigated.

LT will provide necessary backbone infrastructure to serve the Makalapua Project District development. Drainage, wastewater, water, and roadway improvements will be designed to meet applicable local, State, and Federal regulations. The Infrastructure Report prepared for the Makalapua Project District assessed potential impacts and designed infrastructure systems in the context of future projected regional growth. The Infrastructure Report concluded that with the recommended improvements to sewer, water, drainage, electrical, and telecommunications system, no negative impacts are anticipated as a result of the proposed project. Refer to **Appendix "B"**. The TIAR also assessed the project in the context of regional growth, including impacts from 14 other known projects, and recommended improvements to serve the proposed project. Refer

to **Appendix “H”**. In addition, given the development phasing, the TIAR will be updated, as recommended, to determine the actual traffic growth and required improvements.

With respect to secondary impacts, the proposed Makalapua Project District will spur economic development and growth opportunities through the development of commercial, hotel, and civic uses. The proposed project will also provide approximately 300 housing units that will provide housing options for the projected increase in the resident population for the region. By proposing mixed-use development adjacent to the existing Kailua-Kona urban core and in an area designated as a Regional Commercial Center by the KCDP, the Makalapua Project District will guide growth to existing developed areas rather than promoting sprawling, greenfield development.

Another secondary impact related to the proposed Makalapua Project District is income generation for support of LT’s programs to benefit orphan and destitute children in the area and throughout Hawai’i. LT manages its landholdings to provide financial support to further its core mission to serve orphan and other destitute children.

**RELATIONSHIP TO LAND
USE PLANS, POLICIES,
AND CONTROLS**



III. RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS

The Makalapua Project District is consistent with State and County laws, plans, and regulations, as detailed below.

A. STATE LAND USE DISTRICTS

Chapter 205, Hawai'i Revised Statutes (HRS), relating to the State Land Use Commission (LUC), establishes 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 majority of the Makalapua Project District is designated "Urban" by LUC, with the remaining 14.45 acres designated as "Agricultural".

The 14.45-acre portion of the Makalapua Project District development is within the State "Agricultural" district, and was originally part of the land plan that the Lili'uokalani Trust (LT) prepared for a portion of its lands in 1990. The 1990 Land Plan included centers for urban activity, government, regional shopping, professional practices, a regional-serving hospital, business park and light industrial area, business-serving hotel complex, a college campus for West Hawai'i, and a historic preserve area. An Environmental Impact Statement (EIS) was prepared for the 1990 Land Plan and was accepted by the LUC. The 1991 LUC Decision and Order (Docket No. A89-646) reclassified the lands from the State "Conservation" and "Agricultural" districts to the "Urban" district. LT's lands between Queen Ka'ahumanu Highway and Ane Keohokālōle Highway were reclassified to the "Urban" district for two (2) phases of development (Phase I and Phase II), while 212 acres (Phase III, located makai of the highway) of "Agricultural" land were made subject to incremental districting pursuant to HAR 15-15-78. Refer to **Figure 3**.

Due to changing market conditions, LT has not been able to substantially complete development of Phase I and Phase II of the 1990 Land Plan despite its best efforts. During the years following the 1991 LUC Decision and Order, the Makalapua Shopping Center was built in Phase I, and now houses Macy's and Regal Cinemas as tenants. Since then, however, the real estate market slowed and LT's original plans for development were no longer economically feasible. Discussions with other potential large commercial tenants fell through on account of the costs for offsite improvements for a larger commercial use. It was also discovered that the significant slopes on the Phase I and Phase II parcels were better suited for smaller footprint uses such as residential development.

Since its initial petition, LT has revised its Land Plan for Keahuolū to better fit the needs of the community. The new Keahuolū Land Plan includes a broad range of mixed-housing choices that will appeal to different age groups and levels of affordability.

Because Phase I and Phase II have not yet been substantially developed, Phase III, which includes a portion of the Makalapua Project District area, had remained “Agricultural” subject to incremental reclassification to “Urban” under the 1991 LUC Decision and Order. In August 2015, LT submitted a motion to amend the 1991 LUC Decision and Order to remove Phase III from the Decision and Order to file a new District Boundary Amendment (DBA) Petition based on the new land plan. On March 24, 2016, the LUC approved the motion to remove the Phase III lands from the 1991 LUC Decision and Order. Refer to **Appendix “A”**. One of the conditions of the LUC’s motion was that LT comply with recommendations made by the State Department of Transportation. The TIAR prepared for the Makalapua Project District is consistent with those recommendations.

As a result of the LUC approval of the motion to amend, the 14.45-acre portion of Phase III lands remains in the State “Agricultural” district, is no longer subject to incremental redistricting, and has been incorporated into the proposed Makalapua Project District development. LT will be seeking a DBA for the 14.45 acres to the “Urban” District. The DBA and other permits will be processed through the County of Hawai‘i.

1. Land Use Commission Decision Making Criteria

As discussed below, the proposed Makalapua Project District has been analyzed in this Environmental Assessment (EA) with respect to LUC decision-making criteria, established in Section 205-17, HRS:

- (1) *The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawai‘i state plan and relates to the applicable priority guidelines of the Hawai‘i state plan and the adopted functional plans;***

Analysis:

The Makalapua Project District’s conformance with applicable goals, objectives, and policies of the Hawai‘i State Plan and Functional Plans are detailed in Chapter III, Section B and Section C, respectively.

- (2) *The extent to which the proposed reclassification conforms to the applicable district standards;***

Analysis:

The extent to which the proposed reclassification conforms to the applicable standards for the Urban District is discussed below in Section A.3 of this Chapter.

(3) The impact of the proposed reclassification on the following areas of state concern:

(a) Preservation or maintenance of important natural systems or habitats;

Analysis:

Early consultation with the U.S. Fish and Wildlife Service (USFWS) confirmed that there is no critical habitat in the vicinity of the proposed project. A Flora and Fauna Survey was conducted for the proposed project in August 2015. Refer to **Appendix "C"**. No endangered or threatened plant or animal species were observed during the survey. The report concluded that the dry lava environment was not found to include any special habitats for plant or animal species or ecosystems. However, two (2) tree tobacco plants, which are host plants of the endangered Blackburn's sphinx moth, were found within the project area. No moth eggs or larvae were seen on the two (2) tree tobacco plants found in the project area; however, the minimization measures recommended by the USFWS in their comment letter dated April 7, 2017, will be adhered to. As such, the proposed project is not expected to result in any significant negative impacts on native plant communities. Discussion of the natural systems and habitats is presented in Chapter II of this EA.

(b) Maintenance of valued cultural, historical, or natural resources;

Analysis:

A Supplemental Archaeological Inventory Survey (AIS) was conducted over the 110-acre Kona Commons project area, including the majority of the 67.21-acre Makalapua Project District area and was accepted by the State Historic Preservation Division (SHPD) in August 2015. Refer to **Appendix "D"** and **Appendix "D-1"**. Additionally, an AIS was prepared for LT's Urban Phase III lands, which includes the 14.45 acres proposed for urbanization. Refer to **Appendix "E"**.

Consistent with recommendations from the Supplemental AIS, a Burial Treatment Plan is being prepared for the burial site that was discovered in a modified lava tube (Site 50-10-27-18511, Feature C) and a Historic Preservation Plan will be prepared for the portion of the historic trail that likely connected the Mamalahoa Trail with a shoreline trail (Site 50-10-27-30287). Further, as recommended by the Urban Phase III AIS, a Historic Preservation Plan will be prepared for the modified lava sinks (Site 50-10-27-13260) and possible ceremonial structure (Site 50-10-27-13261). The Historic Preservation Plans will

be prepared in accordance with the requirements of HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development, and will be submitted to SHPD for review and acceptance. The Burial Treatment Plan will be prepared in accordance with the requirements of HAR 13.13.300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, and will be submitted to SHPD and the Hawai'i Island Burial Council for review and determination. Additionally, LT proposes to prepare an Archaeological Monitoring Plan (AMP) for the entire Makalapua Project District. The AMP will be submitted to SHPD for approval.

Further discussion of the preservation of valued cultural, historical, and natural resources is provided in Chapter II, Section A.

(c) *Maintenance of other natural resources relevant to Hawai'i's economy, including agricultural resources;*

Analysis:

The Makalapua Project District area does not have a recent history of agricultural use and is not currently being utilized for active agricultural cultivation. As discussed in Chapter II, Section A, the Project District area is not classified within the Agricultural Lands of Importance to the State of Hawai'i (ALISH) system. Portions of the Project District are designated as "E" by the Land Study Bureau (LSB), representing the lowest agricultural productivity rating, while the remainder of the area is designated "Urban" by the State Land Use Commission (LUC) and is not classified by the LSB. As such, the proposed development is not anticipated to have a significant adverse impact on agricultural resources within the State of Hawai'i.

(d) *Commitment of state funds and resources;*

Analysis:

The proposed Makalapua Project District does not represent a commitment of State funds and resources.

(e) *Provision for employment opportunities and economic development; and*

Analysis:

The development of the Makalapua Project District will generate short-term economic benefits in the form of construction-related spending and employment. From a long-term perspective, commercial and hotel uses within the Project District will also support new employment. The Makalapua Project District is also

envisioned to create 'incubator' opportunities for new businesses to start, while continuing to provide support for existing businesses in the region.

- (f) ***Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups;***

Analysis:

The proposed Makalapua Project District will include approximately 300 residential units. Residential products will be designed to meet the needs of a variety of new and existing households, with the primary objective of creating a rich diversity of residents by providing a wide range of choices. These will include more affordable medium- to high-density residential units in multi-family formats for rent and/or ownership.

- (4) ***The standards and criteria for the reclassification or rezoning of important agricultural lands in section 205-50; and***

Analysis:

The lands proposed for reclassification do not include important agricultural lands as defined under Chapter 205, HRS.

- (5) ***The representations and commitments made by the petitioner in securing a boundary change.***

Analysis:

LT is committed to following through with the representations and commitments made for the Makalapua Project District. The plans for the Project District respond to current needs of the community and will provide a diversity of uses adjacent to the existing Kailua-Kona commercial core.

2. Decision Making Criteria for State Land Use District Boundary Amendments

As discussed below, the proposed project has also been analyzed with respect to decision-making criteria for boundary amendments, as established by Chapter 15-15-77, HAR.

- (1) ***The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawai'i state plan and relates to the applicable priority guidelines of the Hawai'i state plan and the adopted functional plans;***

Analysis:

The Makalapua Project District's conformance with applicable goals, objectives, and policies of the Hawai'i State Plan and Functional Plans are detailed in Chapter III, Section B.

- (2) ***The extent to which the proposed reclassification conforms to the applicable district standards;***

Analysis:

The extent to which the proposed reclassification conforms to the applicable standards for the Urban District is discussed below in Section A.3 of this Chapter.

- (3) ***The impact of the proposed reclassification on the following areas of state concern:***
- (a) ***Preservation or maintenance of important natural systems or habitats;***
 - (b) ***Maintenance of valued cultural, historical, or natural resources;***
 - (c) ***Maintenance of other natural resources relevant to Hawai'i's economy, including agricultural resources;***
 - (d) ***Commitment of state funds and resources;***
 - (e) ***Provision for employment opportunities and economic development; and***
 - (f) ***Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups;***

Analysis:

The impact of the proposed classification on the areas of State concern have been discussed above in Section A.1 of this Chapter.

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

Analysis:

The proposed Makalapua Project District is designated "Urban Expansion" and "Industrial" by the Hawai'i County General Plan's Land Use Pattern Allocation

Guide (LUPAG). Further discussion of the project's conformance to the County's General Plan is discussed in Chapter III, Section C.

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

Analysis:

LT has the economic ability to follow through with the representations and commitments made to the LUC and community to develop the Makalapua Project District. LT's assets include real estate holdings and an investment portfolio.

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

Analysis:

The proposed Makalapua Project District has not been in intensive agricultural use in the past two (2) years, nor does it have a high capacity for intensive agricultural use. As such, this criteria does not apply to the lands included in the Makalapua Project District.

3. Standards for Determining Urban District Boundaries

Criteria considered in the reclassification of lands to "Urban" are set forth in the State Land Use Commission Rules (Chapter 15-15-18, HAR). The proposed reclassification of the approximately 14.45 acres of "Agricultural" land to "Urban" has been analyzed with respect to the criteria, as discussed below.

- (1) ***It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses.***

Analysis:

The proposed Makalapua Project District is located northwest of the existing Kailua-Kona village core and makai of the existing Kona Commons Shopping

Center. The majority of the 67.21-acre Project District is designated "Urban" by the LUC, with the remaining 14.45 acres within the "Agricultural" District. The proposed Makalapua Project District is located adjacent to existing urban development with "city-like" concentrations of people, structures, streets, urban levels of service, and other related land uses. It will include residential, hotel, retail, commercial, office, and civic/community uses. Anchored by a major retail center, the Makalapua Project District will be organized around an interconnected, pedestrian-oriented street network where homes, businesses, and entertainment are intermingled to provide a diverse experience for residents and visitors.

(2) *It shall take into consideration the following specific factors:*

- a. *Proximity to centers of trading and employment except where the development would generate new centers of trading and employment.***

Analysis:

The proposed Makalapua Project District is located adjacent to existing commercial and employment centers in Kailua-Kona. Numerous employment opportunities exist in the retail, resort, and service industries in the region and there is an abundance of retail and commercial centers adjacent to and in close proximity of the lands proposed for reclassification. This includes the Kona Commons Shopping Center, Makalapua Shopping Center, Kona Coast Shopping Center, Lanihau Shopping Center, and Crossroads Shopping Center. The Kona Industrial Subdivision, an area well established with a heavy concentration of population-serving enterprises, is also located east of the lands proposed for reclassification.

- b. *Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection.***

Analysis:

The proposed Makalapua Project District is located in close proximity to existing public services, such as schools, parks, police, and fire protection. The Kona District Police Station and the Kailua-Kona Fire Station are located in close proximity approximately 1.0 and 0.6 of a mile away from the Makalapua Project District, respectively. The Makalapua Project District is also located directly adjacent to Kailua Park.

Organized around an interconnected street network that fulfills recent State and County policies and best practice objectives for Complete Streets, the Makalapua Project District will incorporate a multi-modal design to support a variety of transportation options. An Infrastructure Report prepared for the proposed project indicates that the proposed improvements to sewer, water, drainage, and electrical and telecommunication systems in the vicinity should provide adequate service for development. As such, significant negative impacts to existing utilities are not anticipated. Refer to **Appendix “B”**.

c. Sufficient reserve areas for foreseeable urban growth.

Analysis:

The proposed Makalapua Project District will provide for opportunities for urban expansion into the future. The LUPAG designates the Project District area as “Industrial” and “Urban Expansion”. The 14.45 acres requested for urbanization are designated as “Urban Expansion” by the LUPAG.

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

Analysis:

The Makalapua Project District area ranges in elevation from 10 feet to 40 feet above mean sea level (amsl), which is above the 6-foot sea level rise projection based on National Oceanic and Atmospheric Administration’s (NOAA) Sea Level Rise Mapping data. The project site has an average slope of approximately three (3) percent, which is appropriate for urban development. It is located in Flood Zone X, areas of minimal flood hazard. Refer to **Figure 9**. The Makalapua Project District is also located outside of the tsunami evacuation area. Refer to **Figure 10**. Low impact development (LID) techniques, such as the use of native plant gardens, permeable paving systems, and bio-swales and bio-filtration for stormwater management, are being considered for the proposed project.

In summary, the Makalapua Project District area, including the lands requested for urbanization, is not subject to adverse environmental effects.

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

Analysis:

The majority of the 67.21-acre Project District is designated "Urban" by the LUC and the proposed Project District area is located northwest of the Kailua-Kona village core. It is bordered by the Kona Commons Shopping Center to the north, the existing Kona Industrial Subdivision to the east, and the County's Kailua Park to the south and west. The Makalapua Project District area currently contains a former recreational sports facility on Makala Boulevard, a BMW car dealership on Loloku Street, light industrial warehouses, and temporary storage and staging areas.

The Hawai'i County General Plan's LUPAG designates the 14.45 acres requested for urbanization as "Urban Expansion".

- (5) It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the State and County plans.***

Analysis:

The Hawai'i County General Plan envisions future urban growth within the proposed Makalapua Project District. This is evidenced by the General Plan LUPAG, which designates the 14.45 acres requested for urbanization as "Urban Expansion". The remainder of the Makalapua Project District is designated as "Industrial" by the LUPAG.

The Makalapua Project District area is adjacent to and in the vicinity of existing and proposed urban land use patterns, including commercial and residential development. The lands proposed for reclassification are, therefore, located within an area suitable for new urban growth.

- (6) It may include lands which do not conform to paragraphs (1) to (5):***

When surrounded by or adjacent to existing urban development; and only when those lands represent a minor portion of this district.

Analysis:

The proposed Makalapua Project District is in conformance with paragraphs (1) to (5) above. The project is also located adjacent to existing urban development.

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

Analysis:

As noted above, the proposed Makalapua Project District would extend existing urban areas and would not contribute to scattered spot urban development, nor would it necessitate unreasonable investment in public infrastructure or support services. The location of the project area does not significantly extend service area limits for public services, and LT will provide necessary infrastructure to serve the proposed project.

- (8) ***It may include lands with a general slope of twenty percent (20%) 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 interest in the aesthetic quality of the landscape.***

Analysis:

The slope in the Makalapua Project District, including the re-classification area, ranges from 0 percent to 12 percent, with an average slope of 3 percent, and is suitable for the planned uses. Governmental regulations will be followed to ensure the protection of public health, safety, and welfare.

B. HAWAI'I STATE PLAN

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The Plan consists of three (3) parts. Part I includes the Overall Theme, Goals, Objectives, and Policies; Part II includes Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Inasmuch as Part II of the State Plan covers its administrative structure and implementation process, discussion of the proposed project's applicability to Part II is not appropriate. Below is an analysis of the project's applicability to Part I and Part III of the Hawai'i State Plan:

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
S	N/S	N/A	
HRS 226-1: Findings and Purpose			
HRS 226-2: Definitions			
HRS 226-3: Overall Theme			
HRS 226-4: State Goals. In order to guarantee, for the present and future generations, those elements of choice and mobility that insure that individuals and groups may approach their desired levels of self-reliance and self determination, it shall be the goal of the State to achieve: <ol style="list-style-type: none"> (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 Makalapua Project District supports the State goals listed above. It will provide economic growth opportunities in an urban infill location and environment designed to foster a sense of community.			
Chapter 226-5 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:			
(1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.	✓		
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.	✓		
(3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.	✓		
(4) Encourage research activities and public awareness programs to foster an understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.			✓
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			✓
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			✓
(7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.	✓		

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies			
Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable		S	N/S N/A
Analysis: The Makalapua Project District is an urban infill project that will provide much needed housing and economic growth opportunities for the County's growing population at an attractive location adjacent to Kailua Village.			
Chapter 226-6 Objectives and policies for the economy – in general			
Objectives: Planning for the State's economy in general shall be directed toward achievement of the following objectives:			
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people, 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:			
(1) Promote and encourage entrepreneurship within Hawaii by residents and nonresidents of the State.			✓
(2) 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.			✓
(3) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.	✓		
(4) Transform and maintain Hawaii as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.			✓
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaii.			✓
(6) Seek broader outlets for new or expanded Hawaii business investments.			✓
(7) Expand existing markets and penetrate new markets for Hawaii's products and services.			✓
(8) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.			✓
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.	✓		
(10) 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.			✓
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			✓
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaii.			✓
(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
	S	N/S	N/A
growth opportunities.			
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.			✓
(15) Maintain acceptable working conditions and standards for Hawaii's workers.			✓
(16) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.			✓
(17) Stimulate 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.			✓
(18) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy, particularly with respect to emerging industries in science and technology.			✓
(19) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.			✓
(20) 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 or innovative potential growth industries in particular.			✓
(21) Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.			✓
Analysis: The Makalapua Project District is an urban infill project that will provide much needed housing and commercial spaces adjacent to existing development in Kailua-Kona, preserving undeveloped scenic areas for residents and visitors to enjoy. The Makalapua Project District is envisioned to create 'incubator' opportunities for new businesses while continuing to support existing businesses in the region.			
Chapter 226-7 Objectives and policies for the economy – agriculture.			
Objectives: Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawaii's sugar and pineapple industries.			✓
(2) Growth and development of diversified agriculture throughout the State.			✓
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.			✓
Policies:			
(1) Establish a clear direction for Hawaii's agriculture through stakeholder commitment and advocacy.			✓
(2) Encourage agriculture by making the best use of natural resources.			✓
(3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			✓
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy.			✓
(6) Seek the enactment and retention of federal and state legislation that benefits Hawaii's agricultural industries.			✓
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's food producers and consumers in the State, nation, and world.			✓
(8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			✓
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			✓
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			✓
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			✓
(12) In addition to the State's priority on food, expand Hawaii's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			✓
(13) Promote economically competitive activities that increase Hawaii's agricultural self-sufficiency, including the increased purchase and use of Hawaii-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.			✓
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			✓
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			✓
(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.			✓
(17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, māla, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.			✓
(18) Increase and develop small-scale farms.			✓
Analysis: The objectives and policies for the economy related to agriculture listed above are not applicable to the proposed project.			
Chapter 226-8 Objective and policies for the economy – – visitor industry.			
Objective: 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.			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
	S	N/S	N/A
Policies:			
(1) Support and assist in the promotion of Hawaii's visitor attractions and facilities.			✓
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.	✓		
(3) Improve the quality of existing visitor destination areas by utilizing Hawaii's strengths in science and technology.			✓
(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.	✓		
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.	✓		
(6) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.			✓
(7) Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.	✓		
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaii's cultures and values.	✓		
Analysis: The Makalapua Project District includes hotel uses to accommodate visitors to the Kona area. The hotels will be designed to complement the character of the surrounding community.			
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.			
Policies:			
(1) Encourage the sustained flow of federal expenditures in Hawaii that generates long-term government civilian employment;			✓
(2) Promote Hawaii's supportive role in national defense, in a manner consistent with Hawaii's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawaii's economy;			✓
(3) Promote the development of federally supported activities in Hawaii that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment;			✓
(4) Increase opportunities for entry and advancement of Hawaii's people into federal government service;			✓
(5) Promote federal use of local commodities, services, and facilities available in Hawaii;			✓
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaii; and			✓
(7) Pursue the return of federally controlled lands in Hawaii that are not required for either the defense of the nation or for other purposes of			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			
	S	N/S	N/A
national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.			
Analysis: The objectives and policies for the economy related to federal expenditures listed above are not applicable to the proposed project.			
Chapter 226-10 Objective and policies for the economy – – potential growth and innovative activities.			
Objective: Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawaii's economic base.			
Policies:			
(1) Facilitate investment and employment growth in economic 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, health care, and science and technology-based sectors;			✓
(2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawaii through the export of services or products or substitution of imported services or products;			✓
(3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements;			✓
(4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity;			✓
(5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus;	✓		
(6) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people;			✓
(7) Enhance and promote Hawaii's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts;			✓
(8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste;			✓
(9) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State;			✓
(10) Provide public incentives and encourage private initiative to attract new or innovative industries that best support Hawaii's social, economic, physical, and environmental objectives;			✓
(11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research;			✓

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(12) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii;			✓
(13) Foster a broader public recognition and understanding of the potential benefits of new or innovative growth-oriented industry in Hawaii;			✓
(14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's social, economic, physical, and environmental objectives;			✓
(15) Increase research and development of businesses and services in the telecommunications and information industries;			✓
(16) Foster the research and development of nonfossil fuel and energy efficient modes of transportation; and			✓
(17) Recognize and promote health care and health care information technology as growth industries.			✓
Analysis: The Makalapua Project District will support economic development in the region, with 470,000 square feet of commercial use, two (2) hotels, and a 50,000 square foot community center. The project is envisioned to create 'incubator' opportunities for new businesses to start while continuing to support existing businesses in the region.			
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 recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawaii as a leader in broadband and wireless communications and applications in the Pacific Region.			
Policies:			
(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawaii and between Hawaii and the world, and make high speed communication available to all residents and businesses in Hawaii;			✓
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth and innovation in Hawaii's economy;			✓
(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii;			✓
(4) Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawaii, using technology to communicate with their headquarters, offices, or customers located out-of-state;			✓
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry;			✓
(6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people;			✓

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	S	N/S	N/A
(7) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the information industry;			✓
(8) Foster a recognition of the contribution of the information industry to Hawai'i's economy; and			✓
(9) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific.			✓
Analysis: The objectives and policies for the economy related to the information industry listed above are not applicable to the proposed project.			
Chapter 226-11 Objectives and policies for the physical environment – – land based, shoreline, and marine resources.			
Objectives: 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:			
(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) 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.			✓
(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.			✓
(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.	✓		
Analysis: The Makalapua Project District will make prudent use of Hawai'i's land resources, as it is an urban infill project that provides housing and commercial space adjacent to Kailua Village in response to anticipated population growth in the region. Best Management Practices (BMPs) will be employed during construction, and drainage and Low Impact Development (LID) measures will be implemented to mitigate potential impacts to downstream areas.			

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Chapter 226-12 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:						
(1) Promote the preservation and restoration of significant natural and historic resources.	✓					
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.						✓
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.	✓					
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.	✓					
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.	✓					
Analysis: The Makalapua Project District is being designed to complement the character of the surrounding area. It will include three (3) historic preservation sites with signage to increase awareness of and appreciation for these sites of historic significance.						
Chapter 226-13 Objectives and policies for the physical environment – – land, air, and water quality.						
Objectives: Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives.						
(1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.	✓					
(2) Greater public awareness and appreciation of Hawaii's environmental resources.						✓
Policies:						
(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.	✓					
(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.						✓
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.						✓
(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.	✓					
(7) Encourage urban developments in close proximity to existing services and facilities.	✓					

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S	N/S	N/A	
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.			✓
Analysis: As mentioned previously, the Makalapua Project District is proposed adjacent to existing commercial and industrial areas. The subject property is located in Flood X (unshaded). This designation denotes an area of low flood risk and minimal flooding with no development restrictions. The subject property is located outside of the tsunami evacuation zone. Construction-related BMPs along with drainage improvements and LID measures will be implemented to mitigate impacts to downstream areas.			
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.			
Policies:			
(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.	✓		
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			✓
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.	✓		
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			✓
Analysis: Technical studies, including an Infrastructure Report and a Traffic Impact Analysis Report (TIAR), were prepared to assess the project's impact on existing facility systems and ensure that anticipated impacts are appropriately mitigated.			
Chapter 226-15 Objectives and policies for facility systems – – solid and liquid waste.			
Objectives: Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.	✓		
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			✓
Policies:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.			✓
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.	✓		
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			✓

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Analysis: The proposed project includes improvements to the County's wastewater system to support the project. Refer to Appendix "B". The Lili'uokalani Trust (LT) will encourage waste reduction and recycling to divert waste from the landfill.				
Chapter 226-16 Objective and policies for facility systems -- water.				
Objective: Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.				
Policies:				
(1) Coordinate development of land use activities with existing and potential water supply.	✓			
(2) Support research and development of alternative methods to 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.				✓
(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.	✓			
Analysis: Coordination with the Department of Water Supply (DWS) will continue regarding the water system for the proposed project. LT may utilize available water commitments with the DWS for the Makalapua Project District. Bioretention swales and other Low Impact Development (LID) features will be considered for incorporation into the proposed project, as appropriate. Additionally, water conservation practices will be evaluated and implemented, as practicable.				
Chapter 226-17 Objectives and policies for facility systems -- transportation.				
Objectives: Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:				
(1) An integrated multi-modal transportation system that services 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 will accommodate planned growth objectives throughout the State.				✓
Policies:				
(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;	✓			
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;				✓
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;				✓

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(4) Provide for improved accessibility to shipping, docking, and storage facilities;			✓
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;			✓
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;			✓
(7) Encourage a variety of carriers to offer increased opportunities 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;			✓
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;			✓
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;			✓
(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; and			✓
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.			✓
Analysis: The Makalapua Project District will be designed to support a variety of transportation options with multi-modal design. The extension of Kuakini Highway to the north will improve north-south vehicular access while supporting regional transit/bus routes. Ma'a Way will be continued from the Kona Industrial Subdivision and will provide pedestrian, bicycle, and vehicular north-south connection through the Project District. Makala Boulevard will also be slightly realigned and is envisioned as a walkable main street within the Project District.			
Chapter 226-18 Objectives and policies for facility systems – – energy.			
Objectives: Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:			
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;			✓
(2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation.			✓
(3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems;			✓
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and			✓
(5) Utility models that make the social and financial interests of Hawaii's utility customers a priority.			✓

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(b) To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably prices, and dependable energy services to accommodate demand.			✓
Policies:			
(1) Support research and development as well as promote the use of renewable energy sources;			✓
(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;			✓
(4) Promote all cost-effective conservation of power and fuel supplies through measures, including:	✓		
(A) Development of cost-effective demand-side management programs;			✓
(B) Education;			✓
(C) Adoption of energy-efficient practices and technologies; and	✓		
(D) Increasing energy efficiency and decreasing energy use in public infrastructure			✓
(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies; and			✓
(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies;			✓
(7) Promote alternate fuels and transportation energy efficiency;			✓
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;			✓
(9) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives;			✓
(10) Provide priority handling and processing for all state and county permits required for renewable energy projects;			✓
(11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity generation and does not impede the development and use of other cost-effective renewable energy sources; and			✓
(12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawaii.			✓
Analysis: The Makalapua Project District will implement energy conservation and efficiency measures, as practicable.			

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Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable		S	N/S N/A
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.			
Policies:			
(1) Facilitate research and development of telecommunications systems and resources;			✓
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			✓
(3) Promote efficient management and use of existing telecommunications systems and services; and			✓
(4) Facilitate the development of education and training of telecommunications personnel.			✓
Analysis: The objectives and policies for facility systems listed above related to telecommunications are not applicable to the proposed project.			
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:			
(1) Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.	✓		
(2) The orderly development of residential areas sensitive to community needs and other land uses.	✓		
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people.			✓
Policies:			
(1) Effectively accommodate the housing needs of Hawaii's people.	✓		
(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.	✓		
(3) Increase homeownership and rental opportunities and choices 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.			✓
(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.	✓		

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	S	N/S	N/A
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.	✓		
(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.	✓		
(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii.			✓
Analysis: The Makalapua Project District is consistent with the above noted objectives and policies. It is an urban infill project that will provide a range of housing choices adjacent to existing commercial areas. The Makalapua Project District will comply with the County's affordable housing requirements in accordance with County regulations.			
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:			
(1) Fulfillment of basic individual health needs of the general public.			✓
(2) Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities.			✓
(3) Elimination of health disparities by identifying and addressing social determinants of health.			✓
Policies:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			✓
(2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.			✓
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			✓
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			✓
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			✓
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			✓
(7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.			✓

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Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable			S	N/S	N/A
Analysis: The objectives and policies for socio-cultural advancement related to health listed above are not applicable to the proposed project.					
Chapter 226-21 Objectives and policies 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.					
Policies:					
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.					✓
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.					✓
(3) Provide appropriate educational opportunities for groups with special needs.					✓
(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.					✓
(5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.					✓
(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.					✓
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.					✓
(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.					✓
(9) Support research programs and activities that enhance the education programs of the State.					✓
Analysis: The objectives and policies for socio-cultural advancement related to education listed above are not applicable to the proposed project.					
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.					
Policies:					
(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.					✓

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	S	N/S	N/A
(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.			✓
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities.			✓
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			✓
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			✓
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			✓
Analysis: The objectives and policies for socio-cultural advancement related to social services listed above are not applicable to the proposed project.			
Chapter 226-23 Objective and policies for socio-cultural advancement – – leisure.			
Objective: Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.			
Policies:			
(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.	✓		
(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 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.			✓
(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.	✓		
(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.	✓		
(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.			✓

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	S	N/S	N/A
Analysis: The Makalapua Project District will include a 50,000 square foot community center, which will provide opportunities for appreciation and participation in culture, arts, and recreation.			
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.			
Policies:			
(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.			✓
(2) Uphold and protect the national and state constitutional rights of every individual.			✓
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			✓
(4) Ensure equal opportunities for individual participation in society.			✓
Analysis: The objective and policies listed above for socio-cultural advancement related to individual rights and personal well-being are not applicable to the proposed project.			
Chapter 226-25 Objective and policies for socio-cultural advancement – culture.			
Objective: Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawaii's people.			
Policies:			
(1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.	✓		
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.	✓		
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii.			✓
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.			✓
Analysis: The Makalapua Project District is envisioned as a place where families can connect with the spirit of Queen Lili'uokalani and with other members of the community.			
Chapter 226-26 Objectives and policies for socio-cultural advancement – public safety.			
Objective: Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
(1) Assurance of public safety and adequate protection of life and property for all people.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.			✓
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people.			✓
<u>Policies:</u>			
(1) Ensure that public safety programs are effective and responsive to community needs.			✓
(2) Encourage increased community awareness and participation in public safety programs.			✓
<u>Policies:</u>			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			✓
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			✓
(3) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.			✓
<u>Policies:</u>			
(1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.			✓
(2) Enhance the coordination between emergency management programs throughout the State.			✓
<i>Analysis:</i> The objectives and policies for socio-cultural advancement related to public safety listed above are not applicable to the proposed project.			
Chapter 226-27 Objectives and policies for socio-cultural advancement – – government.			
<u>Objectives:</u> Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all levels in the State.			✓
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			✓
<u>Policies:</u>			
(1) Provide for necessary public goods and services not assumed by the private sector.			✓
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			✓
(3) Minimize the size of government to that necessary to be effective.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii.			✓
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			✓
(6) Provide for a balanced fiscal budget.			✓
(7) Improve the fiscal budgeting and management system of the State.			✓
(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			✓
Analysis: The objectives and policies for socio-cultural advancement related to government listed above are not applicable to the proposed project.			

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES	S	N/S	N/A
Chapter 226-101: Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
Chapter 226-102: Overall direction. 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 seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.			
Chapter 226-103: Economic priority guidelines.			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:			
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			✓
(A) Encourage investments which:			✓
(i) Reflect long term commitments to the State;			✓
(ii) Rely on economic linkages within the local economy;	✓		
(iii) Diversify the economy;	✓		
(iv) Reinvest in the local economy;	✓		
(v) Are sensitive to community needs and priorities; and	✓		
(vi) Demonstrate a commitment to provide management opportunities to Hawaii residents; and			✓
(B) Encourage investments in innovative activities that have a nexus to the State, such as:	✓		
(i) Present or former residents acting as entrepreneurs or			✓
(ii) Academic support from an institution of higher education in Hawaii;			✓
(iii) Investment interest from Hawaii residents;			✓
(iv) Resources unique to Hawaii that are required for innovative activity; and			✓
(v) Complementary or supportive industries or government programs or projects.			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES	S	N/S	N/A
(2) Encourage the expansion of technological research to assist industry 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.			✓
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			✓
(5) Streamline the processes for building and development permit and review, and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where scientific evidence indicates that 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.			✓
(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:			✓
(A) An industry that can take advantage of Hawaii's unique location and 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 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 maintain career opportunities for Hawaii's people through the following actions:			✓
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.			✓
(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			✓
(C) Allocate educational resources to career areas where high employment is 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 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 displaced workers into alternative employment.			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES		S	N/S	N/A
(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 that provide a safer environment for both visitors and residents alike.			✓
(9)	Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			✓
(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:				
(1)	Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			✓
(2)	Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaii.			✓
(3)	Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			✓
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:				
(1)	Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.			✓
(2)	Assist in providing adequate, reasonably priced water for agricultural activities.			✓
(3)	Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.			✓
(4)	Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			✓
(5)	Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaii's agricultural community.			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES	S	N/S	N/A
(6) Seek favorable freight rates for Hawaii's agricultural products from interisland and overseas transportation operators.			✓
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			✓
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			✓
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			✓
(10) Support the continuation of land currently in use for diversified agriculture.			✓
(11) Encourage residents and visitors to support Hawaii's farmers by purchasing locally grown food and food products.			✓
(e) Priority guidelines for water use and development:			
(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 nonpotable 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 development programs and water system improvements.			✓
(f) Priority guidelines for energy use and development:			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			✓
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			✓
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			✓
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			✓
(g) Priority guidelines to promote the development of the information industry:			
(1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawaii.			✓
(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			✓
(3) Encourage the development of small businesses in the information field such as software development; the development of new information systems, peripherals, and applications; data conversion and data entry services; and home or cottage services such as computer programming, secretarial, and accounting services.			✓
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES			
	S	N/S	N/A
(5) Encourage research activities, including legal research in the information and telecommunications fields.			✓
(6) Support promotional activities to market Hawaii's information industry services.			✓
(7) Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.			✓
Analysis: The Makalapua Project District will provide opportunities for economic development, housing, hotel, and community uses in a convenient location adjacent to Kailua Village. The climate, environment, and special character of Kona will be considered and factored in to the design concepts for the project.			
Chapter 226-104: Population growth and land resources priority guidelines.			
(a) Priority guidelines to effect desired statewide growth and distribution:			
(1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.			✓
(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.			✓
(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.			✓
(b) Priority guidelines for regional growth distribution and land resource utilization:			
(1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.	✓		
(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.	✓		
(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.			✓
(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 funds which encourage location of urban development			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES	S	N/S	N/A
within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.			
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.	✓		
(7) Pursue rehabilitation of appropriate urban areas.			✓
(8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.			✓
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.	✓		
(10) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.			✓
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.			✓
(12) Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.	✓		
(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.			✓
Analysis: The Makalapua Project District is an urban infill project that proposes development in an appropriate and convenient location in accordance with the KCDP, adjacent to Kailua-Kona and away from critical habitats or environments. The proposed action includes the necessary backbone infrastructure and utilities to support the project.			
Chapter 226-105: Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice:			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			✓
(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.			✓
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			✓
(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.			✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES				S	N/S	N/A
Analysis: The priority guidelines in the area of crime and criminal justice listed above are not applicable to the proposed project.						
Chapter 226-106: Affordable housing.						
Priority guidelines for the provision of affordable housing:						
(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.	✓					
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.						✓
(3) Improve information and analysis relative to land availability and suitability for housing.						✓
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawaii's low- and moderate-income households, gap-group households, and residents with special needs.						✓
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing.						✓
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.						✓
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.						✓
(8) Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing intended primarily for individuals outside of Hawaii.	✓					
Analysis: The Makalapua Project District will provide approximately 300 residential units designed to meet the need of a variety of households. Units will include medium to high density units in multi-family formats, including affordable housing pursuant to County regulations.						
Chapter 226-107: Quality education.						
Priority guidelines to promote quality education:						
(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;						✓
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;						✓
(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.						✓
(6) Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;						✓
(7) Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;						✓
(8) Develop resources and programs for early childhood education;						✓

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES			
	S	N/S	N/A
(9) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and			✓
(10) Strengthen and expand educational programs and services for students with special needs.			✓
Analysis: The priority guidelines related to quality education listed above are not applicable to the proposed project.			
CHAPTER 226-108: Sustainability			
Priority guidelines and principles to promote sustainability shall include:			
(1) Encouraging balanced economic, social, community, and environmental priorities;	✓		
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;	✓		
(3) Promoting a diversified and dynamic economy;	✓		
(4) Encouraging respect for the host culture;	✓		
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;	✓		
(6) Considering the principles of the ahupuaa system; and	✓		
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.	✓		
Analysis: The Makalapua Project District is consistent with the above noted priority guidelines and principles related to sustainability. Passive energy conservation strategies are being considered for the project. The project is envisioned to be a mixed-use, walkable village center with opportunities for small and large businesses to develop, expand, and thrive, where people can gather and connect with the spirit of Queen Lili'uokalani. Core principles for the project include fulfilling the legacy of Queen Lili'uokalani, fostering regional economic resilience, improving regional transportation, instilling diversity, and demonstrating malama for our resources.			
CHAPTER 226-109: Climate change adaptation			
Priority guidelines and principles to promote climate change adaptation shall include:			
(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;	✓		

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES	S	N/S	N/A
(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.	✓		
Analysis: The Makalapua Project District incorporates mitigation for potential climate change impacts through design techniques related to stormwater management, reducing heat impacts through building orientation and fenestration for natural ventilation. The project has also been assessed for potential sea level rise impacts resulting from climate change, and no impacts are anticipated based on the maximum sea level rise projections available through the National Oceanic and Atmospheric Administration (NOAA) mapping tools.			

C. HAWAI'I COUNTY GENERAL PLAN

The County of Hawai'i's General Plan is the policy document for the long-range comprehensive development of the island of Hawai'i. Adopted in 2005, the General Plan provides direction for future growth of the County and offers policy statements that embody expressed goals for present and future generations. The purpose of the General Plan is to:

- Guide the pattern of future development in this County based on long-term goals;
- Identify the visions, values, and priorities important to the people of this County;
- Provide the framework for regulatory decisions, capital improvement priorities, acquisition strategies, and other pertinent government programs within the County organization and coordinated with State and Federal programs.
- Improve the physical environment of the County as a setting for human activities; to make it more functional, beautiful, healthful, interesting, and efficient.
- Promote and safeguard the public interest and the interest of the County as a whole.
- Facilitate the democratic determination of community policies concerning the utilization of its natural, man-made, and human resources.

- Effect political and technical coordination in community improvement and development.
- Inject long-range considerations into the determination of short-range actions and implementation.

1. **Land Use Pattern Allocation Guide**

The Land Use Element of the General Plan establishes a broad, flexible land use pattern intended to guide the future direction and quality of future development in a coordinated and rational manner. The proposed Makalapua Project District is designated as “Urban Expansion” and “Industrial” by the LUPAG Map. See **Figure 15**. However, in a letter dated October 5, 2017 providing comments on the Draft EA for the project, the Planning Department noted that the property can be interpreted to be within the “Urban Expansion” designation. “Urban Expansion Areas” are designated when the specific settlement pattern and types of uses have yet to be determined. “Urban Expansion” allows for a mix of high density, medium density, low density, industrial, industrial-commercial, and/or open designations in areas where new settlements may be desirable.

The proposed Makalapua Project District is consistent with the General Plan, which envisions the project area to be developed for future urban uses. The intent of the General Plan for the project area is further translated through the Kona Community Development Plan (KCDP), which identifies the Makalapua Project District as a Transit-Oriented Development Regional Center within a designated Urban Area. A detailed assessment of the Makalapua Project District’s consistency with the KCDP is included in Section “D” of this chapter.

2. **Goals and Policies**

The following section identifies goals and policies of the Hawai’i County General Plan which have relevance to the proposed Makalapua Project District:

ECONOMIC

Goals

- (a) *Provide residents with opportunities to improve their quality of life through economic development that enhances the County’s natural and social environments.*
- (b) *Economic development and improvement shall be in balance with the physical, social, and cultural environments of the island of Hawai’i.*
- (d) *Provide an economic environment that allows new, expanded, or improved economic opportunities that are compatible with the County’s cultural, natural, and socio environment.*

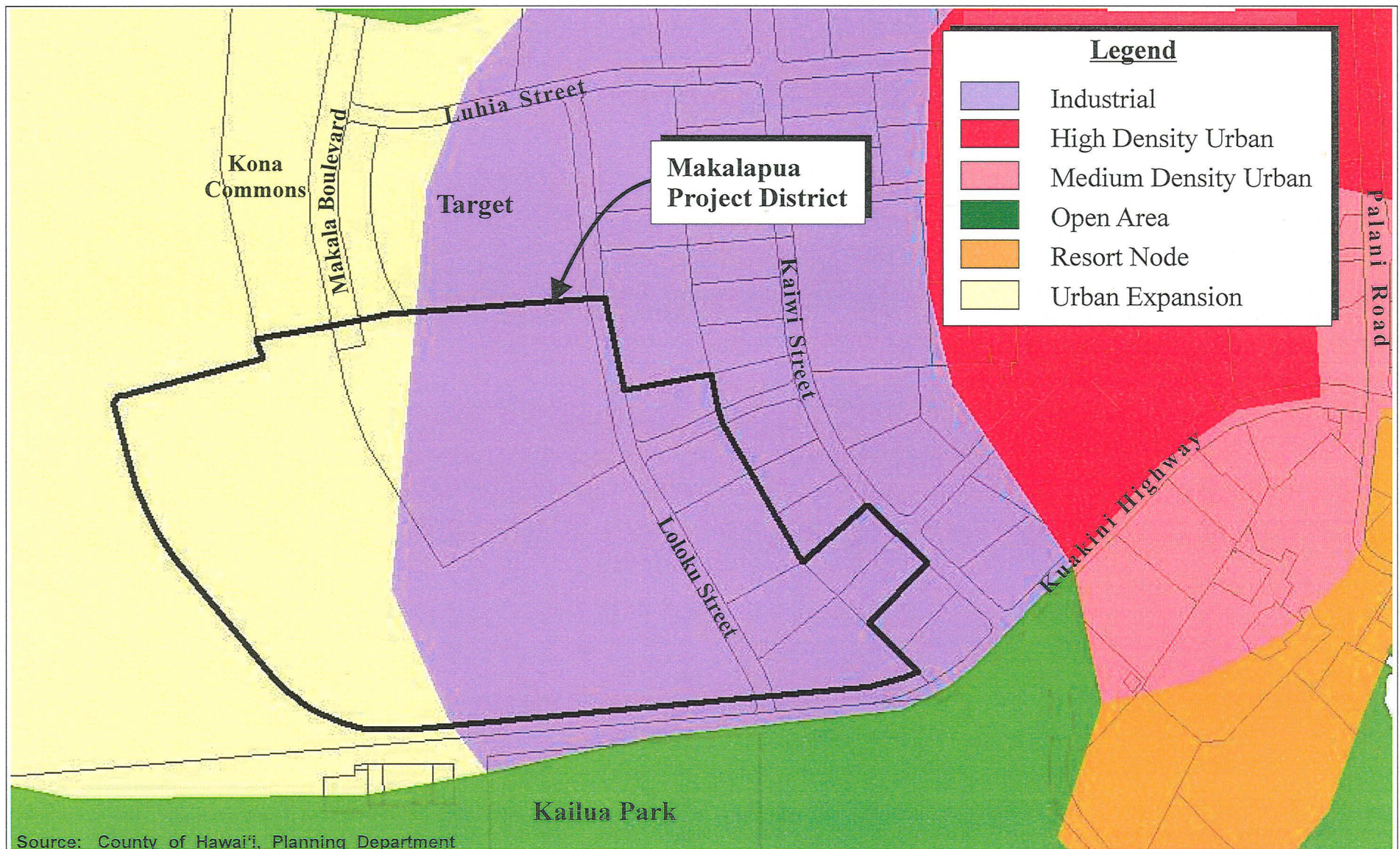
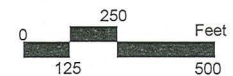


Figure 15

Makalapua Project District Land Use Pattern Allocation Guide



- (e) *Strive for an economic climate that provides its residents an opportunity for choice of occupation.*

Policies

- (c) *Encourage the development of a visitor industry that is in harmony with the social, physical, and economic goals of the residents of the County.*
- (d) *Require a study of the significant cultural, social and physical impacts of large developments prior to approval.*
- (n) *Encourage the development of the retirement industry.*

ENERGY

Goals

- (b) *Establish the Big Island as a demonstration community for the development and use of natural energy resources.*

Policies

- (n) *Encourage energy-saving design in the construction of buildings.*

ENVIRONMENTAL QUALITY

Goals

- (a) *Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which natural resources of the island are viable and sustainable.*
- (b) *Maintain and, if feasible, improve the existing environmental quality of the island.*
- (c) *Control pollution.*

Policies

- (a) *Take positive action to further maintain the quality of the environment.*

FLOODING AND OTHER NATURAL HAZARDS

Goals

- (a) *Protect human life.*
- (b) *Prevent damage to man-made improvements.*

- (c) *Control pollution.*
- (d) *Prevent damage from inundation.*
- (e) *Reduce surface water and sediment runoff.*
- (f) *Maximize soil and water conservation.*

Policies

- (g) *Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.*
- (q) *Consider natural hazards in all land use planning and permitting.*

HISTORIC SITES

Goals

- (a) *Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawai'i.*
- (b) *Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.*

Policies

- (a) *Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.*

HOUSING

Goals

- (a) *Attain safe, sanitary, and livable housing for the residents of the County of Hawai'i.*
- (b) *Attain a diversity of socio-economic housing mix throughout the different parts of the County.*
- (c) *Maintain a housing supply that allows a variety of choices.*
- (d) *Create viable communities with affordable housing and suitable living environments.*
- (f) *Seek sufficient production of new affordable rental and fee-simple housing in the County in a variety of sizes to satisfactorily accommodate the needs and desires of families and individuals.*

- (g) *Ensure that housing is available to all persons regardless of age, sex, marital status, ethnic background, and income.*
- (h) *Make affordable housing available in reasonable proximity to employment centers.*
- (i) *Encourage and expand home ownership opportunities for residents.*

Policies

- (a) *Encourage a volume of construction and rehabilitation of housing sufficient to meet growth needs and correct existing deficiencies.*
- (k) *Increase rental opportunities and choices in terms of quality, cost, amenity, style and size of housing, especially for low and moderate income households.*
- (y) *Aid and encourage the development of a wide variety of housing to achieve a diversity of socio-economic housing mix.*

PUBLIC UTILITIES

Goals

- (a) *Ensure that properly regulated, adequate, efficient and dependable public and private utility services are available to users.*
- (b) *Maximize efficiency and economy in the provision of public utility services.*

Policies – General

- (e) *Encourage the clustering of developments in order to reduce the cost of providing utilities.*

Policies – Water

- (a) *Water system improvements shall correlate with the County's desired land use development pattern.*
- (b) *All water systems shall be designed and built to Department of Water Supply standards.*
- (g) *The fire prevention systems shall be coordinated with water distribution systems in order to ensure water supplies for fire protection purposes.*
- (k) *Promote the use of ground water sources to meet State Department of Health water quality standards.*

Policies – Telecommunication

- (a) *Encourage underground telephone lines where they are economically and technically feasible.*

Policies – Electricity

- (a) *Power distribution shall be placed underground when and where practical. Encourage developers of new urban areas to place utilities underground.*
- (d) *Conform to safety standards as established by appropriate regulatory authorities.*

Policies – Sewer

- (f) *Require major developments to connect to existing sewer treatment facilities or build their own.*

RECREATION

Goals

- (a) *Provide a wide variety of recreational opportunities for the residents and visitors of the County.*
- (c) *Provide a diversity of environments for active and passive pursuits.*

Policies

- (c) *Recreational facilities shall reflect the natural, historic, and cultural character of the area.*
- (d) *The use of land adjoining recreation areas shall be compatible with community values, physical resources, and recreation potential.*

TRANSPORTATION

Goals - General

- (a) *Provide a transportation system whereby people and goods can move efficiently, safely, comfortably and economically.*
- (b) *Make available a variety of modes of transportation that best meets the needs of the County.*

Goals – Roadways

- (a) *Provide a system of roadways for the safe, efficient and comfortable movement of people and goods.*

Policies – Roadways

- (n) *Encourage the development of walkways, jogging, and bicycle paths within designated areas of the community.*

Goals – Mass Transit

- (a) *Provide residents with a variety of public transportation systems that are affordable, efficient, accessible, safe, environmentally friendly, and reliable.*

Policies – Mass Transit

- (b) *Support and encourage the development of alternative modes of transportation, such as enhanced bus services and bicycle paths.*
- (c) *Incorporate, where appropriate, bicycle routes, lanes and paths within road rights-of-ways in conformance with The Bike Plan for the County of Hawai'i.*

LAND USE

Goals – General

- (a) *Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.*

Policies – General

- (a) *Zone urban - types of uses in areas with ease of access to community services and employment centers and with adequate public utilities and facilities.*
- (j) *Encourage urban development within existing zoned areas already served by basic infrastructure, or close to such areas, instead of scattered development.*

Goals – Commercial Development

- (a) *Provide for commercial developments that maximize convenience to users.*
- (b) *Provide commercial developments that complement the overall pattern of transportation and land usage within the island's regions, communities, and neighborhoods.*

Policies – Commercial Development

- (b) *Commercial facilities shall be developed in areas adequately served by necessary services, such as water, utilities, sewers, and transportation systems. Should such services not be available, the development of more intensive uses should be in concert with a localized program of public and private capital improvements to meet the expected increased needs.*
- (e) *Encourage the concentration of commercial uses within and surrounding a central core area.*

Goals – Multiple Residential

- (a) *To provide for multiple residential developments that maximize convenience for its occupants.*
- (b) *To provide for suitable living environments that accommodate the physical, social and economic needs of the island residents.*
- (c) *To enhance the overall quality of life in our residential communities.*

Policies – Multiple Residential

- (a) *Appropriately zoned land shall be allocated as the demand for multiple residential dwellings increases. These areas shall be allocated with respect to places of employment, shopping facilities, educational, recreational and cultural facilities, and public facilities and utilities.*
- (c) *Encourage flexibility in the design of residential sites, buildings and related facilities to achieve a diversity of socio-economic housing mix and innovative means of meeting the market requirements.*
- (h) *Require developers to provide basic infrastructure necessary for development.*

Goals – Open Space

- (a) *Provide and protect open space for the social, environmental, and economic well being of the County of Hawai'i and its residents.*
- (b) *Protect designated natural areas.*

Policies – Open Space

- (b) *Encourage the identification, evaluation, and designation of natural areas.*

In summary, the Makalapua Project District is consistent with the above-noted goals and policies of the Hawai'i County General Plan.

D. KONA COMMUNITY DEVELOPMENT PLAN

The County of Hawai'i General Plan Section 15.1 calls for the preparation of community development plans "to translate the broad General Plan statements to specific actions as they apply to specific geographical areas." The Kona Community Development Plan (KCDP), adopted by the County Council in September 2008, encompasses 800 square miles of land that comprises the North and South Kona districts.

The KCDP identifies a vision for Kona's future:

A more sustainable Kona characterized by a deep respect for the culture and the environment and residents that responsively and responsibly accommodate change through an active and collaborative community.

In order to achieve this vision, the KCDP establishes eight (8) guiding principles that serve as the foundation for the Plan's goals, objectives, policies, and implementing actions. The Makalapua Project District has been evaluated with respect to each of the following guiding principles:

1. Protect Kona's natural resources and culture

Consistent with recommendations from the Supplemental AIS, a Burial Treatment Plan is being prepared for the burial site that was discovered in a modified lava tube (Site 50-10-27-18511, Feature C) and a Historic Preservation Plan will be prepared for the portion of a historic trail that likely connected Mamalahoa Trail with the shoreline trail (Site 50-10-27-30287). Further, as recommended by the Urban Phase III AIS, a Historic Preservation Plan will be prepared for the modified lava sinks (Site 50-10-27-13260) and possible ceremonial structure (Site 50-10-27-13261). The Historic Preservation Plans will be prepared in accordance with the requirements of HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development, and will be submitted to SHPD for review and acceptance. The Burial Treatment Plan will be prepared in accordance with the requirements of HAR 13.13.300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, and will be submitted to SHPD and the Hawai'i Island Burial Council for review and determination for Site 50-10-27-1851, Feature C. Additionally, LT proposes to prepare an AMP for the entire Makalapua Project District. The AMP will be submitted to SHPD for approval.

The only portion of the proposed Makalapua Project District that has not been covered by an AIS is a block of developed land west of Kaiwi Street. However, as mentioned above, archaeological monitoring is proposed for these areas. In accordance with Section 6E-43.6, HRS and Chapter 13.300, HAR, if any significant cultural deposits or human skeletal remains are encountered during

ground-altering activities associated with the project, work will promptly cease in the immediate area of the find, the find will be further protected from damage, and SHPD will be notified immediately. Procedures for the treatment of inadvertent finds will be followed pursuant to Chapter 6E, HRS.

2. Provide connectivity and transportation choices

The Makalapua Project District is designated as a regional center transit oriented development (TOD) in the KCDP. The Project District is planned to be aligned with TOD and walkable district principles, as a high density and mixed use center that supports more frequent transit. Health, fitness, and connections to the land are supported with convenient access to recreation and active transportation choices. The project hopes to provide a Complete Streets example, designing for all ages and abilities, increasing the quality and character of community streets, and encouraging economic vitality of local businesses.

Organized around an interconnected street network that fulfills recent State and County policies and best practice objectives for Complete Streets, the Makalapua Project District will incorporate a multi-modal design to support a variety of transportation options. The extension of Kuakini Highway along its current alignment along the Project District's border with Kailua Park, before curving to the north, will improve north-south vehicular access while supporting regional transit/bus routes and will greatly improve regional mobility. Building on recent improvements made by LT to improve connectivity within the region's existing street network, Ma'a Way will continue from the Kona Industrial Subdivision and provide a comfortable pedestrian, bicycle, and vehicular north-south connection through the Project District. Makala Boulevard is envisioned as a walkable, main street with on street parking, serving as the focus for pedestrian-oriented retail, social activity, and public strolling within the Makalapua Project District.

3. Provide housing choices

The proposed Makalapua Project District will include approximately 300 residential units. Residential products will be designed to meet the needs of a variety of new and existing households, with the primary objective of creating a rich diversity of residents by providing housing options. These will include medium- to high-density residential units in multi-family formats for rent and/or ownership. The project will comply with the County's affordable housing requirements in accordance with Hawai'i County Code Section 11-4.

4. **Provide recreation opportunities**

The Makalapua Project District will provide a variety of open space areas. Additionally, the extension of Kuakini Highway will allow for existing full service access to remain and add an additional access to Kailua Park. The access routes are consistent with the Kailua Park Master Plan.

5. **Direct future growth patterns toward compact villages, preserving Kona's rural, diverse, and historical character**

The location of the Makalapua Project District directs future growth patterns toward existing urban areas, thereby preserving the rural and historical character of Kona. The Makalapua Project District will include residential, hotel, retail, commercial, office, and civic/community uses. Anchored by a major retail center, the Project District will be organized around an interconnected, pedestrian oriented street network where homes, businesses and entertainment are intermingled to provide a diverse experience for residents and visitors. In addition, LT will respect the local historical heritage of the area with architecture and landscape elements that are consistent with the patterns, materials, colors, and form found in Kona.

The Makalapua Project District is located in a transit-oriented development (TOD) regional center (Makaeo) within the Kona Urban Area, as defined by the KCDP. See **Figure 16**. It is located on lands determined by the Hawai'i County General Plan's LUPAG to be "Urban Expansion". Refer to **Figure 15**.

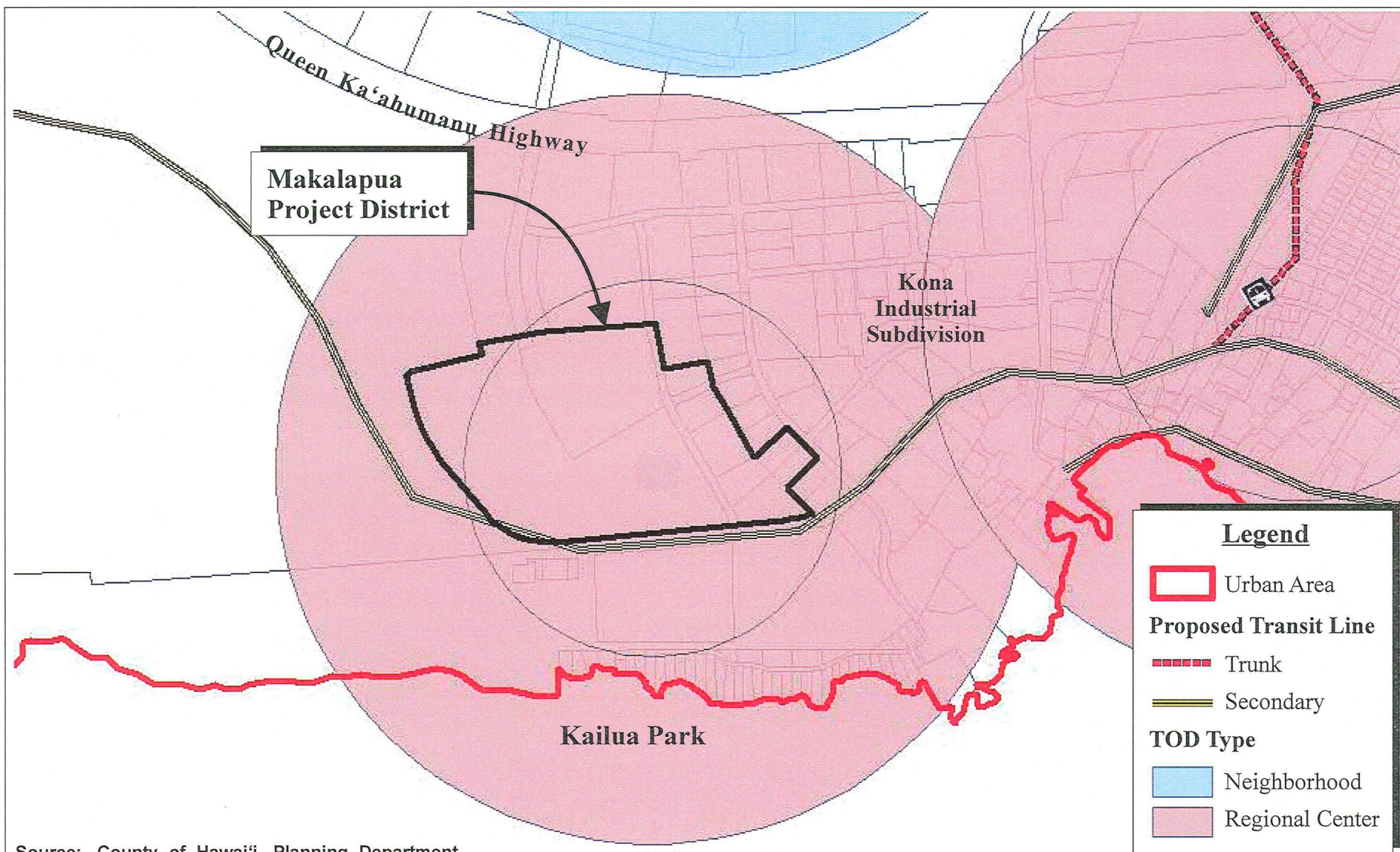
6. **Provide infrastructure and essential facilities concurrent with growth**

The Makalapua Project District will incorporate necessary infrastructure to serve the proposed development. Internal roadways will be developed to complement the existing traffic network in the region. In addition, appropriate water distribution systems and wastewater collection and transmission systems will be developed to serve the project.

Sustainable design elements will be incorporated into the project. Measures to conserve water usage and waste production will be implemented to minimize infrastructure demand.

7. **Encourage a diverse and vibrant economy emphasizing agriculture and sustainable economies**

The Makalapua Project District will provide a sustainable, walkable community on lands not suitable for agricultural use, relieving development pressures on other lands that are suitable for agricultural cultivation in West Hawai'i.



Source: County of Hawai'i, Planning Department

Figure 16

Makalapua Project District Kona Community Development Plan

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Feet



 MUNEKIYO HIRAGA

Prepared for: Lili'uokalani Trust

Implementation of the Makalapua Project District will provide additional economic growth opportunities for the Kailua-Kona area. The combination of expected levels of sustainability performance and development over a 15-year horizon means that the Makalapua Project District should serve as a centerpiece of green construction and technology for the local economy. A diverse range of uses are planned in close proximity of each other to support the livability of the North Kona region, while helping to expand the offerings of the region as a destination.

8. Promote effective governance

LT is committed to effective governance and will pursue a transparent and collaborative design process for the proposed Makalapua Project District. The project will be designed in conformance with the Hawai'i County General Plan and KCDP.

In consonance with the guiding principles of the KCDP, the following is an assessment of the Makalapua Project District's consistency with the following applicable objectives and policies established by the KCDP:

TRANSPORTATION

Objective:

TRAN-1: Transportation and Land Use. To organize growth on a regional level in Kona, growth should be compact and transit-supportive. Compact mixed-use villages along transit routes provide sufficient densities to support transit feasibility and enable people to meet a variety of daily needs within walking distance.

Policies:

TRAN-1.1: Official Transportation Network Map. The Official Transportation Network Map shall show proposed transit routes, proposed arterials and collectors, and pedestrian/bicycle paths (see Figures 4-2a to 4-2d). This map shall designate the functional classification of the roadway. The purpose of this map is to show intended interconnections, plan and preserve these corridors, budget public improvements, and provide notice to affected landowners of potential impacts from these projects.

TRAN-1.6: Kailua or Makaeo Village as a Transit Hub. The redevelopment of Kailua shall include a plan to create an intra-Kona transportation service, with Kailua Village or Makaeo Village as the "hub" or transit center. Buses would operate from Captain Cook to the Kailua or Makaeo Village hub. At the hub, buses would intersect with other routes operating from Keohokālole Highway (Mid-Level Road), the frontage road, and other Kona destinations. Transfers for continued travel would be made at this location.

Analysis: Kuakini Highway is anticipated to be a major collector, secondary transit, and bike route, as specified in the Official Transportation Map. It will be sized to meet the requirements of a major County Collector Road. The KCDP identifies two (2) regional center TODs in the Kailua area; Kailua Village and Makaeo Village. The Makalapua Project District is a compact mixed-use village along a transit route within the Makaeo Village TOD. LT will continue to work with County agencies to identify an appropriate location for a transit hub in Kailua Village or Makaeo Village.

Objective:

TRAN-2: Street Network Connectivity. To develop a system of interconnected roads in Kona that will provide alternative transportation routes that will disperse automobile trips and reduce their length, while not compromising the through functions of arterials and major collectors with excessive intersections.

Policies:

TRAN-2.1: Connectivity Standards. Connectivity refers to the directness of links and the density of connections that make up the transportation network. Within the Kona Urban Area (UA) new development shall contribute to this interconnected transportation network of streets, pedestrian, and bicycle access that work to disperse traffic and connect and integrate new development with the existing fabric of the community.

* * *

TRAN-2.2: Access Management. To preserve the through functions of arterials and major collectors, driveway access along new arterials and major collectors shall be minimized to the greatest extent consistent with the need to provide access to adjoining property. Access to such adjoining properties shall be planned to occur from local streets, and not from the arterial or collector road, whenever possible. On existing arterials and major collectors, the number of access driveways currently permitted shall not be increased, and when development is proposed that would increase the usage of an existing driveway access, every effort should be made to eliminate the driveway access in favor of access at an existing or planned intersection. Four-way intersections with arterials and major collectors shall be permitted only as shown on the Official Transportation Network Map (Figures 4-2a to 4-2d), in order to preserve the through functions of arterials and major collectors.

Analysis: The proposed Makalapua Project District includes a system of interconnected roads, including the extension of Kuakini Highway, the extension of Ma'a Way from the Kona Industrial Subdivision, and Makala Boulevard, which is envisioned as a walkable main street with on-street parking. The proposed roadway network, along with offsite improvements to Kuakini Highway, Kaiwi Street, and Queen Ka'ahumanu Highway will improve connectivity and traffic flow to adjoining developments. The proposed Kuakini extension will preserve through functions as a major collector. The Makalapua Project District's interconnected street network includes a multi-modal design that fulfills State

and County policies and best practice objectives for Complete Streets. It will support a variety of transportation options, including pedestrian, bicycle, and vehicular connectivity.

Objective:

TRAN-3: Multi-Modal System. To develop a multi-modal transportation system to encourage walking, biking, transit, and other non-vehicular modes of travel. A multi-modal system needs to be attractive, safe, comfortable, convenient, accessible, environmentally friendly, and affordable. Such a system would reduce congestion, improve air quality, reduce fuel consumption, and increase healthy activity. Not only would the system enhance the mobility of the elderly and youth, who do not drive, it would also make it possible for residents to divert automobile ownership expenses to other daily needs, such as a homeownership mortgage or insurance. The network could connect pathways within and outside of street rights-of-way. The system should provide convenient transfers between modes of transportation.

Policies:

TRAN-3.3: Right-of-Way Landscaping. Recognizing that the availability of water should dictate the nature of landscaping within public rights-of-way, lush landscaping shall be provided on streets where reclaimed wastewater will be available for irrigation as noted on the Official Public Facilities and Services Map (see Figure 4-10c), and xeriscape landscaping shall be the preference where reclaimed wastewater is not available.

* * *

TRAN-3.6: Multi-Modal Network. The Official Transportation Network Map (Figures 4-2a to 4-2d) shall designate a system of pedestrian and bicycle paths to use as a guide for street design, public improvements, and subdivision improvements. Recognizing that the appropriate type of facility may evolve, the Implementation Committee (see Chapter 5) shall have the authority to change the designated type and maintain such changes on a database.

TRAN-3.7: Traffic Calming Standards. In order to slow traffic for pedestrian safety or comfort, standards for traffic calming shall be included, as part of the County of Hawai'i Street Standards.

TRAN-3.8: Inter-Modal Connections. To facilitate the transfer between modes of travel:

1. *Automobile/Transit and Bike/Transit Transfer.* Park and ride facilities are desirable and must be built to ameliorate the traffic congestion in Kona. A transit station or transit hub will be located within each of the TODs, as shown in the Official Transportation Network Map (Figures 4-2a to 4-2d). Park and ride facilities will be provided in the vicinity of the transit station and transit hub. Park and ride facilities shall include storage for bicycles.

* * *

Analysis: As mentioned previously, the Makalapua Project District's interconnected street network includes a multi-modal and landscaping design that fulfills State and County policies and best practice objectives for Complete Streets. It will support a variety of transportation options, including pedestrian, bicycle, and vehicular connectivity. Where appropriate, traffic calming features will be considered for the project.

Objective:

TRAN-4 Non-Structural Solutions to Manage Congestion. To manage peak-hour traffic using a diversity of non-structural approaches in order to reduce congestion on Kona roads, while acknowledging that building new roads is only one of many needed solutions.

Policy:

TRAN-4.3: Managed Parking. New construction in Transit-Oriented Developments (TODs) shall provide parking in accordance with the Village Design Guidelines in Attachment B, which were designed to limit parking as a means of discouraging automobile trips to TODs. The public improvements program, as part of the TOD Master Plan, centralized public parking facilities shall be included. Public parking fees should be set low enough to be affordable yet high enough to discourage automobile use.

Analysis: The Makalapua Project District will include parking, as appropriate, to support the surrounding community and uses within the TOD.

Objective:

TRAN-6: Concurrency. To manage the timing of growth so as to avoid overloading the arterial system.

Policy:

TRAN-6.1: Official Concurrency Map. The Kona UA shall be designated as a "critical road area", as defined in HCC 25-2-46. Rezonings within the Kona UA shall comply with the Official Concurrency Map which identifies the road segments to be constructed concurrent with occupancy of units as the minimum "area mitigation", as defined in HCC 25-2-46 (Zoning Code).

Analysis: The Kuakini Highway extension from Kailua Park to Kealahou Parkway is identified in the KCDP as a roadway corridor to be built concurrently within the concurrency zone or TOD. The Official Concurrency Map shows a preliminary alignment for this segment of Kuakini Highway makai of the Makalapua Project District. The proposed extension of Kuakini Highway represents the first portion of the Kuakini Highway extension from Kailua Park.

The final alignment of Kuakini Highway will be identified during the entitlement process for the Makalapua Project District, and the highway segment to Road "A" will be developed as part of the proposed project. Refer to **Figure 5**.

LAND USE

Objective:

LU-1: Overall Growth Pattern. *To identify areas where higher intensity growth areas should occur and areas where the rural character and open space along the shoreline should be preserved.*

Policies:

LU-1.1: Official Kona Land Use Map. *The Official Kona Land Use Map shall define the Kona Urban Area (see Policy LU-1.2) and the general locations, spacing, and type of TOD Villages (see Policies TRAN-1.3 and LU-2.3).*

LU-1.2: Urban Area. *The majority of future growth in Kona shall be directed to the Kona Urban Area shown on the Official Kona Land Use Map, which spans from the Kona International Airport to Keauhou subject to the policies set forth under Objective LU-2 Urban Area Growth Management.*

* * *

LU-1.4: Consistency with Land Use Pattern Allocation Guide (LUPAG). *The current LUPAG accommodates the vision and needs for the Kona CDP area planning horizon and should be amended only for compelling reasons. Any rezoning application shall be consistent with the LUPAG.*

LU-1.5: Enhanced Shoreline Setback. *Beyond the 40 foot shoreline setback regulated by Hawai'i Revised Statutes (HRS) Sections 205A Part III, the County shall explore alternatives (e.g., density transfer based on gross density) for the applicant of a Special Management Area (SMA) Major Permit to dedicate to the government or land trust or encumber as open space for the purpose of realizing a shoreline linear park along as much of Kona's coastline as possible. Consistent with the Federal Coastal Zone Management Act (CZMA) and County of Hawai'i General Plan policy to retain open space and protect natural resources along with public access to and along the shoreline, it shall be a priority of the County to maintain a minimum of 1,000-foot open space no-build setback for undeveloped lands adjacent to the shoreline, on parcels which currently exceed 1,000 feet in depth, in discretionary land use approvals such as SMA major permits, rezonings, and state land use boundary amendments. Structures makai of this setback should be for public recreation and ocean-dependent facilities such as harbor improvements.*

Analysis: The Makalapua Project District is located within the Kona Urban Area, an area designated by the Official Kona Land Use Map for higher intensity growth. It is located within the Makaeo Village Regional Center TOD and is consistent with the Land Use Pattern Allocation Guide (LUPAG). Further, while

the Makalapua Project District is located within the SMA, it is located inland and as such, is not considered to be a shoreline adjacent property.

Objective:

LU-2: Urban Area Growth Management. Recognizing that the LUPAG Urban Area is larger than needed in order to accommodate the projected growth within the planning horizon, future growth within the Urban Area shall be encouraged in a pattern of compact villages at densities that support public transit.

Policies:

LU-2.1: Village Types Defined—Transit-Oriented Developments (TODs) vs. Traditional Neighborhood Developments (TNDs). Both TODs and TNDs are compact mixed-use villages, characterized by a village center within a higher-density urban core, roughly equivalent to a 5-minute walking radius (1/4 mile), surrounded by a secondary mixed-use, mixed-density area with an outer boundary roughly equivalent to a 10-minute walking radius from the village center (1/2 mile). The distinction between a TOD and TND is that the approximate location of a TOD is currently designated on the Official Kona Land Use Map (Figure 4-7) along the trunk or secondary transit route and contains a transit station, while TND locations have not been designated and may be located off of the trunk or secondary transit route at a location approved by a rezoning action.

LU-2.2: TOD/TND Components. The components of a TOD/TND include Urban Core, Secondary Core, and Greenbelt. A TOD/TND contains a higher density urban core surrounded by a lower density secondary area. A greenbelt will, in turn, surround and define the outer edge of the secondary area. (Enacted by plan)

1. **Urban Core:** To control the scale and intensity of development within the urban core of a TOD/TND, there shall be two types of urban cores:
 - a. **Regional Center.** Regional centers are intended for mixed use and higher-density residential, retail, commercial, employment, and/or regional one-of-a-kind facilities, such as major civic, medical, education, and entertainment facilities. Regional centers shall be designed around a Commercial Center, which is the focus for the Village and designed to encourage pedestrian activity.

* * *

LU-2.3: TODs Identified. To control the spacing of transit stations in support of Policy TRAN-1.2, TOD floating zones, identifying the general location of TOD, shall be limited to the following, as shown on the Official Kona Land Use Map:

* * *

6. **Makaeo Village (Regional Center).** A major retail center is planned near the Old Airport Park. As a mixed use village, the plan is to introduce residential uses into the mix, design a complementary

relationship to the Old Airport Park, and to integrate a transit hub or major park and ride facility for commuters (primarily resort workers).

** * **

LU-2.4: Transit-Oriented Development (TOD) Floating Zones Established.

The TOD's extent and locations on the Official Kona Land Use Map (Figure 4-7) are approximate and become fixed pursuant to the Project District rezoning procedures as modified below:

- 1) Minimum land area. The minimum land area for a new community shall be 80 acres, which corresponds to the urban and secondary core, plus a density transfer area proposed in the master plan to set an urban boundary limit.*
- 2) Project District Rezoning Application. In addition to the requirements specified for a Project District application, the application shall include the following:*
 - a. Master Plan. To the extent practicable, the master plan shall conform with the Village Design Guidelines (Attachment B) and at a minimum address:*
 - i. Mix of permitted uses and density;*
 - ii. Transportation systems including street layout and standards, transit routes and facilities, and bike and pedestrian pathways;*
 - iii. Village center public facilities and financing;*
 - iv. Infrastructure requirements, financing, and timing;*
 - v. Neighborhood park and public space standards;*
 - vi. Phasing plan;*
 - vii. Calculation and treatment of density transfer area;*
 - viii. Planning process, including extent of consultation with the Design Center.*
 - b. An environmental report meeting the requirements of HRS Chapter 343.*
- 3) Expedited Review. Within ninety (90) days after a project district application has been accepted by the Planning Director, the Director shall forward the application to the Planning Commission.*
- 4) Environmental Review Concurrent Processing. The Planning Director shall enable and allow the applicant to concurrently process the environmental document according to the procedures of HRS Chapter 343.*
- 5) State Land Use Boundary Amendment Concurrent Processing. If a State Land Use District Boundary Amendment is necessary, the Planning Director may accept the application, review the application to determine consistency with the decision criteria below, suspend the processing of the Project District until a decision is made by the State Land Use Commission, and express the County's support of the application before the State Land Use Commission as consistent with the Kona CDP and County of Hawai'i General Plan. The Project District process may then immediately resume upon favorable approval by the State Land Use Commission.*

- 6) *Development Agreement.* A development agreement pursuant to Hawai'i County Code may be used to memorialize reciprocal agreements among the several parties responsible for implementing the plan, including the County, and thereby vest the rights as set forth in the Development Agreement.
- 7) *Planning Commission Review.* Within sixty (60) days after receipt of the application from the Planning Director, unless a longer period is agreed to by the applicant, the Planning Commission shall transmit the proposed project district ordinance together with its recommendation thereon through the Mayor to the County Council. The Planning Commission shall recommend approval in whole or in part, with or without modifications, or rejection of such proposal, based on the following criteria:
 - a. *Extent to which the master plan meets the intent and objectives of the Village Design Guidelines;*
 - b. *Extent, inclusiveness, and mix of affordable housing;*
 - c. *Feasibility of the infrastructure financing plan;*
 - d. *Effectiveness of concurrency controls;*
 - e. *Compatible linkages and relationships to surrounding areas;*
 - f. *Effectiveness in optimizing and protecting open space within the density transfer area.*
- 8) *Rebuttable Presumption.* The Planning Director, Planning Commission, and County Council shall review the TOD application with a rebuttable presumption that the project furthers the intent of Chapter 25 Zoning Code and is consistent with the goals, objectives, and policies of the County General Plan and Kona CDP, provided that the proposed location is generally consistent with the Official Kona Land Use Map and the master plan consistent with the Village Design Guidelines. This rebuttable presumption does not apply to a TND application since the general location of a TND has not been determined by the Kona CDP
- 9) *Amendments.* Amendments to the master plan shall be processed administratively by approval of the Planning Director, unless the changes are significant as determined by the Planning Director.

LU-2.5: Village Design Guidelines. The Village Design Guidelines in Attachment B apply to the development of master plans for TODs and TNDs, as well as subsequent projects implementing the master plans. The intent of the Village Design Guidelines are to do the following:

1. *Promote transit-oriented and pedestrian-oriented development, to increase transit use, to manage traffic congestion;*
2. *Encourage mixed-use, compact development that is pedestrian in scale and sensitive to environmental characteristics of the land, and facilitates the efficient use of public services;*
3. *Have residences, shopping, employment, and recreational uses located within close proximity with each other and efficiently organized to provide for the daily needs of the residents;*
4. *Provide for a range of housing types and affordability within pedestrian-oriented, human-scale neighborhoods;*

5. *Incorporate natural features, open space, and cultural features;*
6. *Provide efficient circulation systems for pedestrians, non-motorized vehicles, and motorists that serve to functionally and physically integrate the various land use activities; and*
7. *Promote strong neighborhood identity and focus.*

The Village Design Guidelines establish:

1. *An acceptable mix of uses for regional centers, neighborhood core areas, and secondary areas;*
2. *Minimum as well as maximum residential densities;*
3. *Non-permitted uses in the urban core that are primarily automobile-dependent that detract from a walkable town center;*
4. *Pedestrian-oriented street standards, supplementing County of Hawai'i Street Standards;*
5. *Nomenclature of public facilities and siting criteria that serve as the town focus;*
6. *Density transfer calculation methodology; and*
7. *Transportation standards.*

LU-2.6: TOD/TND Public Infrastructure and Facilities. *To encourage the development of TODs and TNDs, public financing sources shall pay 100% for:*

- *Major proposed trunk transit route,*
- *A transit station (or transit station component if the transit station is part of a private mixed- use project) within the Urban Core,*
- *A major park or plaza within the urban core.*

In the preparation of the master plan, the applicant shall coordinate the input of appropriate agencies to identify sites and financing of appropriate public facilities such as schools, libraries, and post offices, with respective financial commitments between public and private sources documented in the master plan. The County water allocation and capital improvement policies in Section 4.6: Public Facilities, Infrastructure and Services, Policy PUB-4.1 shall further support the development of the TODs.

Analysis: The Makalapua Project District is an urban infill project located within the Makaeo Village Regional Center TOD. It will be a mixed use development within an interconnected, pedestrian oriented street network with densities that support public transit.

As noted in the Project District Rezoning Application requirements under LU-2.4, to the extent practicable, the master plan for the Makalapua Project District will conform with the Village Design Guidelines. As part of the Project District approval process, the Makalapua Project District will undergo Design Center

review to ensure that appropriate development standards are established for the project district ordinance related to unit types; transect zones; civic zones; density and parking calculations; and building disposition, configuration, and function.

This Final Environmental Assessment document has been prepared in accordance with Hawai'i Revised Statutes (HRS) Chapter 343. A State Land Use District Boundary Amendment will be filed and processed concurrent with the Project District Rezoning application.

Objective:

LU-4: Pro-active Design Review. *To foster a spirit of excellence, creativity and collaboration among the applicants, community, and County to meet the Kona CDP goals, objectives and policies.*

Policies:

LU-4.1: Design Center Establishment. *The County Planning Department shall establish a Design Center to accomplish the following objectives:*

1. *To support and expedite the translation and implementation of the Kona CDP goals, objectives, policies, actions, and design guidelines as applied to proposed development projects;*
2. *To be a catalyst for creative excellence and innovation;*
3. *To foster public-private partnerships;*
4. *To promote coordination and collaboration among the community, government agencies, applicants, landowners, professionals, and educational institutions;*
5. *To provide education on best design practices to applicants, government staff, community members, educators and students; and,*
6. *To award and recognize exemplary projects.*

Although the Design Center will be administered by the Planning Department and staffed by County employees, the department may organize a technical committee of interdisciplinary volunteers.

LU-4.2: Mandatory Review. *The Design Center shall review and approve all master plans prepared for floating zones (TODs/TNDs, Affordable Housing, Eco-Industrial) and Clustered Rural Subdivision PUDs. Projects implementing these master plans, as well as any other project within the Kona CDP planning area, are encouraged, but not required, to be reviewed by the Design Center.*

Analysis: LT will continue to coordinate with the County on Design Center review of the project. Design Center review will occur prior to the filing of the land use entitlement applications for the project.

ENVIRONMENTAL RESOURCES

Objective:

ENV-1: Managing Impacts. *In order to minimize impacts on the land, make use of best management planning practices for any land-based endeavor by balancing public and private rights, and taking advantage of an ever-improving knowledge of resource sensitivity and natural processes.*

Policy:

ENV-1.5: Sensitive Resources. *In the context of Kona's ecology and history, the following natural and cultural resources shall be considered sensitive and therefore shall be inventoried, as part of any permit application to the County Planning Department:*

* * *

- *Historic trails;*
- *Archaeological and historic sites subject to protection under HRS Chapter 6E*

Analysis: As mentioned previously, there were two (2) AISs conducted, which cover a majority of the Makalapua Project District area, which inventoried a number of historic sites. Refer to **Appendix "D"** and **Appendix "E"**. Additionally, as recommended, Historic Preservation Plans are being prepared for modified lava sinks (Site 50-10-27-13260), possible ceremonial structures (50-10-27-13261), and a portion of a historic trail (Site 50-10-27-30287) that likely connected the Malamahoa Trail with a shoreline trail. Additionally, a Burial Treatment Plan is being prepared for the burial site that was discovered in a modified lava tube (Site 50-10-27-18511). Furthermore, LT proposes that an AMP be prepared for the entire Makalapua Project District. The AMP will be submitted to SHPD for review and approval.

CULTURAL RESOURCES

Objective:

CR-3: Preservation of Kanaka Maoli Culture and Island Values. *Ensure that our Kanaka Maoli and island values and cultures are preserved and perpetuated.*

Policies:

CR-3.1: Honor Kanaka Maoli culture and heritage. *The Kanaka Maoli culture is the foundation of Hawai'i's living culture. We must ensure that the Kanaka Maoli people are supported and that this part of our culture is perpetuated. The success of this endeavor will ensure that the way of the Kanaka Maoli will guide our actions and behaviors in the years ahead.*

CR-3.2: Preserve and perpetuate our Hawaiian and island cultural values by celebrating our cultural diversity and island way of life. Our diversity likewise defines us. Ensuring that our cultural practices flourish through language, dance, song, and art is crucial to sustaining who we are as a people. We must protect and nurture all aspects of our diverse history, traditions and cultures.

CR-3.3: Enable Kanaka Maoli and others to pursue traditional Kanaka Maoli lifestyles and practices. We must provide opportunities to those who want to pursue and perpetuate the way of the Kanaka Maoli.

Analysis: The vision for the Makalapua Project District is consistent with the objective to preserve and perpetuate the Kanaka Maoli and island values and cultures. The project seeks to: create a mixed-use, walkable, village center where families can feel safe, gather freely and connect with the spirit of Queen Lili'uokalani. A community that is of this place, and offers opportunities – large and small; formal and informal, programmed and spontaneous – for people to connect with one another and with the spirit of this place we call Kona.

HOUSING

Objective:

HSG-4: Build More Units. To build more units that offer a variety of housing types, tenures, and affordability.

Policies:

HSG-4.4: Housing Variety. The housing in TODs and TNDs shall be designed to mix the types, tenures, and affordability at the block level, to the extent practicable.

HSG-4.5: Innovation Encourages for Redevelopment Projects. In Kailua Village, or the Rural Towns and Villages, landowners or developers who wish to develop affordable housing by rehabilitating or adapting an existing building, building a new infill building, or providing such housing above a commercial establishment may bring their proposal to the Design Center. The Design Center shall assist with any building code, zoning code, or other permitting issues to facilitate and enable the construction of such units. The level of assistance, such as permit coordination or subsidy financing, may increase proportionate to the number of committed affordable units.

Analysis: The Makalapua Project District will include approximately 300 residential units designed to meet the needs of a variety of new and existing households, with the primary objective of creating a rich diversity of residents by providing a wide range of housing choices, including medium- to high-density residential units in multi-family formats for rent and/or ownership. It is noted that

the proposed project will undergo Design Center review with the County of Hawai'i prior to the filing of the land use entitlement applications.

Objective:

HSG-5: Maintain Affordable Housing Stock. To maintain an inventory of affordable units to meet present and future needs, while providing some opportunity for homeowners to upgrade their housing condition through equity appreciation.

Policy:

HSG-5.2: Privately-Constructed Affordable Units. For private projects subject to affordable housing requirements, the Kona Housing Non-Profit or other non-profit shall have a first right of refusal to 10% of the required affordable units. All affordable units shall remain affordable for 40 years. No restrictions may apply after 40 years based on the rationale that newer homes will replace these older homes in the affordable housing stock. During the resale-restricted period, the level of restriction shall meet the following minimum requirements:

- ***1st 20 years:*** The affordable units shall have a minimum 20-year controlled appreciation restriction (cost of improvements plus appreciation based on the Honolulu Consumer Price Index;
- ***After 20 years:*** The owner may sell the property at market value with a shared appreciation with the County or Kona Housing Non-Profit at 50%;
- ***Right of First Refusal:*** After 20-years, the Kona Housing Non-Profit shall have the right of first refusal to purchase the unit;
- ***Owner-occupancy:*** During the resale-restricted period, affordable units must remain owner-occupied or rented out by the owner at an affordable rate as certified by the County real property tax division pursuant to the affordable rent provisions in HCC Chapter 19.

Analysis: The Makalapua Project District will comply with the County's affordable housing requirements in accordance with Hawai'i County Code Section 11-4.

PUBLIC FACILITIES, INFRASTRUCTURE, AND SERVICES

Objective:

PUB-4: Growth Management. To prioritize and locate growth-supporting infrastructure (water, sewer, drainage) to support the TODs and infill development and to minimize the environmental impacts of such growth.

Policies:

PUB-4.1: Water for TODs. To encourage and direct development to the TODs, a priority shall be to provide an appropriately sized water transmission line within the Keohokālole Highway Corridor, and to flexibly enable water allocation policies

to support the Kona CDP land use policy to concentrate growth within the TODs, in lieu of sprawl.

* * *

PUB-4.4: Sewer Priorities. *In order to protect the nearshore water quality, the requirement to hookup to the County sewer system (HCC Section 21-5) shall be strictly enforced.*

Analysis: The Makalapua Project District is consistent with the TOD designation, and LT will continue to coordinate with DWS regarding the water system for the project. The Makalapua Project District will connect to the County sewer system.

Objective:

PUB-6: Quality of Life. *To foster a sense of community and health through the public realm such as gathering places, parks, pedestrian networks, and open spaces.*

Policy:

PUB-6.1: Gathering Places. *TODs shall include appropriate public gathering areas, such as plazas, in accordance with the Village Design Guidelines. The planning and design of such public spaces shall address any maintenance requirements. (Enacted by plan)*

Analysis: The Makalapua Project District includes 50,000 square feet of community space, which will also serve as a public gathering area. A variety of open space features will be provided throughout the Makalapua Project District.

In summary, the Makalapua Project District falls within the framework of the guiding principles and overall objectives of the KCDP. The proposed project is a compact mixed-use, development that seeks to enhance quality of life for residents in the region. In addition, the proposed Makalapua Project District is consistent with the official KCDP map. As shown in **Figure 15**, the Makalapua Project District is located within a TOD regional center in the urban area identified by the KCDP.

E. COUNTY ZONING

The County of Hawai'i Zoning Code represents a more detailed framework for land use management. The Zoning Code is the legal instrument that regulates the use of land and implements the General Plan. It establishes various types of zoning districts and allowable uses and development standards for each. The Zoning Code should be consistent with the LUPAG.

The lands are currently classified as General Industrial (MG-1a), Industrial-Commercial Mixed (MCX), and Agricultural District (A-5a) by Hawai'i County Zoning. See **Figure 17**.

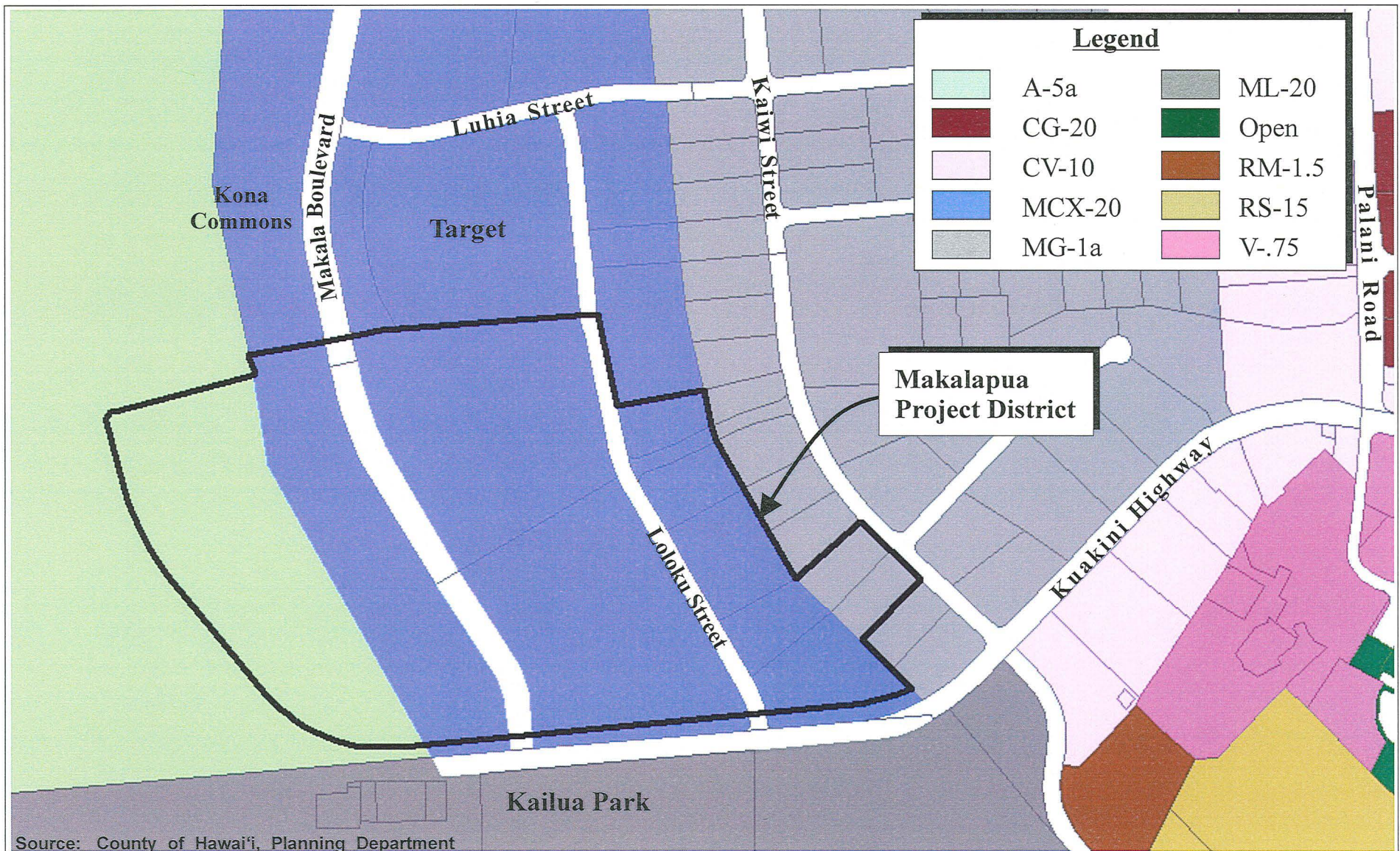
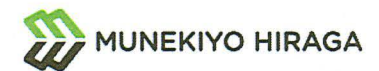
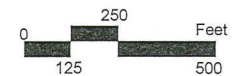


Figure 17

Makalapua Project District Hawai'i County Zoning



Prepared for: Lili'uokalani Trust

A Change of Zone application will be submitted by LT to the County of Hawai'i Planning Department to request that the property zoning designation be changed to "PD, Project District". Project District zoning is intended to provide for a flexible and creative planning approach for developments, allowing flexibility in location of specific uses and mixes of structural alternatives. The proposed project is consistent with the criteria for establishing a project district as stipulated by Section 25-6-41, Hawai'i County Code.

A Planned Unit Development (PUD) application will also be filed with the County of Hawai'i, Planning Department for the project to ensure that the proposed development is compatible with the surrounding community. The PUD encourages comprehensive planning and allows diversification in the relationship of various uses, buildings, structures, open spaces and yards, building heights, and lot sizes in planned building groups, while insuring the intent of the zoning designation is observed.

F. PROJECT DISTRICT ZONING CRITERIA

Hawai'i County Code, Section 25-6-41 regarding criteria for establishing a project district states:

A project district may be established as an amendment to the zoning code whenever the public necessity and convenience and the general welfare require that a comprehensive planning approach for an area should be adopted in order to establish a continuity in land uses and designs while providing a comprehensive network of infrastructural facilities and systems.

The proposed Makalapua Project District includes a mix of residential, hotel, retail, commercial, office, and civic/community uses planned around an interconnected, pedestrian-oriented street network where homes, businesses, and entertainment intermingle to provide a diverse experience for residents and visitors. The project is proposed in a convenient location to the northwest of the existing Kailua-Kona urban core and adjacent to the existing Kona Commons Shopping Center and is consistent with the intent and purpose set forth by the zoning code.

In addition, the following criteria is specified for Project District zoning:

1. Is consistent with the intent and purpose of this chapter (zoning code) and the County general plan

As noted above, the proposed Makalapua Project District is consistent with the intent of the zoning code and the criteria described for establishing Project District zoning. It is also consistent with the goals and policies of the Hawai'i County General Plan listed in Section C of this chapter.

2. **Will not result in a substantial adverse impact upon the surrounding area, community or region**

The Makalapua Project District was designed to complement the surrounding land uses and community and is not anticipated to result in substantial adverse impacts to the Kona area.

G. **HAWAI'I COASTAL ZONE MANAGEMENT PROGRAM – OBJECTIVES AND ENFORCEABLE POLICIES**

The State of Hawai'i Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection, and restoration of natural resources of Hawai'i's coastal zone. The majority of the Makalapua Project District falls within the County of Hawai'i's Special Management Area (SMA). See **Figure 18**. As such, an SMA Use Permit will be obtained.

As set forth in Chapter 205A, HRS, this section addresses the project's relationship to applicable coastal zone management considerations.

1. **Recreational Resources**

Objective:

Provide coastal recreational opportunities 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. *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
 - ii. *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
 - iii. *Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;*

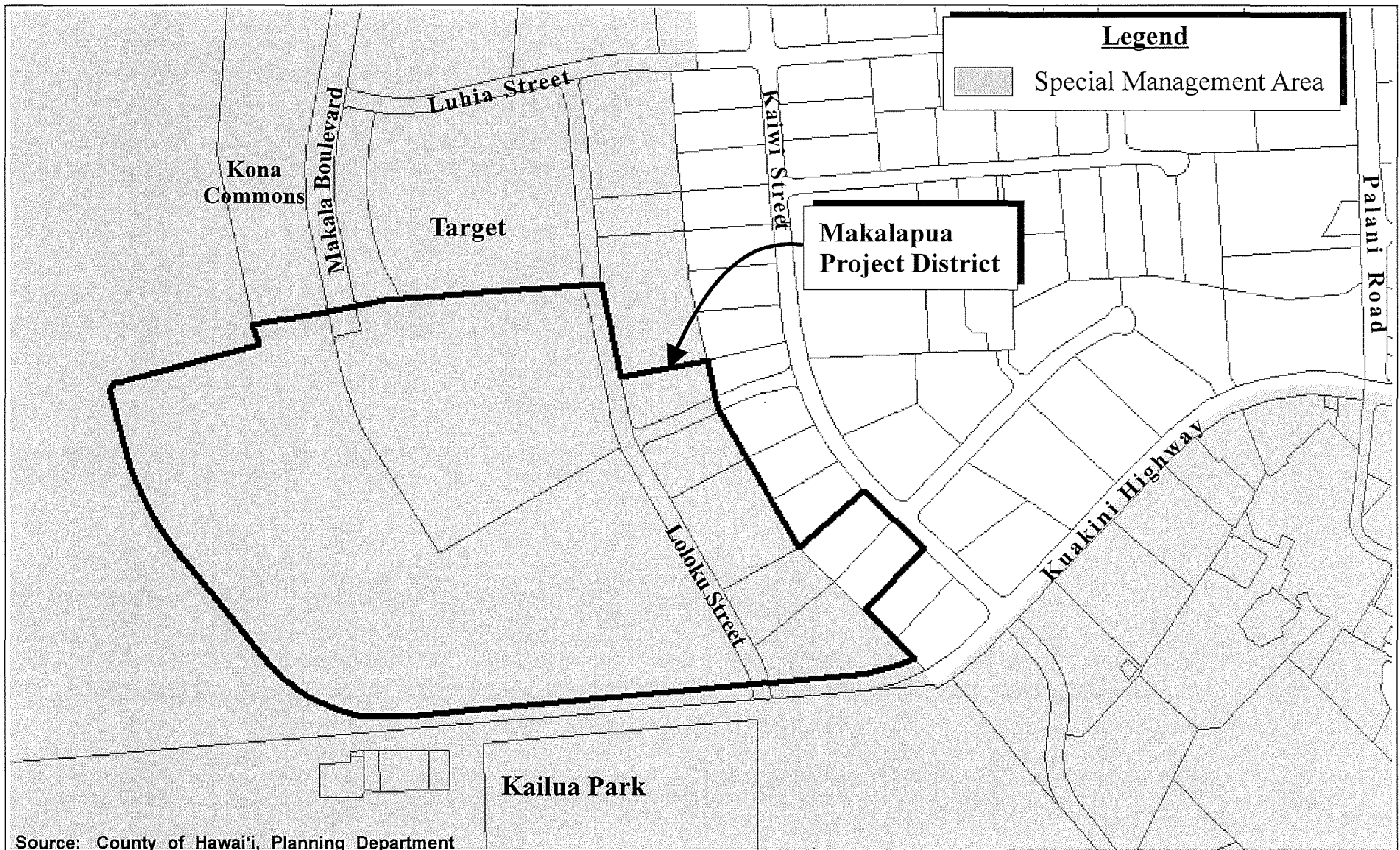


Figure 18

Makalapua Project District Special Management Area Boundary Map



 MUNEKIYO HIRAGA

Prepared for: Lili'uokalani Trust

Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

Response: Development of the proposed Makalapua Project District is not anticipated to present significant adverse impacts on coastal recreational opportunities. Proposed roadway improvements and new connector roads will improve connectivity and access to coastal recreational opportunities at Kailua Park.

2. Historic Resources

Objective:

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

Policies:

- a. *Identify and analyze significant archaeological resources;*
- 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 resources.*

Response: As noted previously, a Supplemental AIS was conducted over the 110-acre Kona Commons project area, including the majority of the 67.21-acre Makalapua Project District area. Refer to **Appendix “D”** and **Appendix “D-1”**. Additionally, the 14.45 acres of State “Agricultural” District lands were surveyed as part of the Urban Phase III AIS that is currently under review by SHPD. Refer to **Appendix “E”**.

Consistent with recommendations from the Supplemental AIS, a Burial Treatment Plan is being prepared for the burial site that was discovered in a

modified lava tube (Site 50-10-27-18511, Feature C) and a Historic Preservation Plan will be prepared for the portion of the historic trail that likely connected Mamalahoa Trail with the shoreline trail (Site 50-10-27-30287). Further, as recommended by the Urban Phase III AIS, a Historic Preservation Plan will be prepared for the modified lava sinks (Site 50-10-27-13260) and possible ceremonial structure (Site 50-10-27-13261). The Historic Preservation Plans will be prepared in accordance with the requirements of HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development, and will be submitted to SHPD for review and acceptance. The Burial Treatment Plan will be prepared in accordance with the requirements of HAR 13.13.300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, and will be submitted to SHPD and the Hawai'i Island Burial Council for review and determination. Additionally, LT proposes to prepare an AMP for the entire Makalapua Project District. The AMP will be submitted to SHPD for approval.

The only portion of the proposed Makalapua Project District that has not been covered by an AIS is a block of developed land west of Kaiwi Street. This area has been subject to prior development, eliminating the possibility of any surviving undisturbed surface archaeological remains; however, as mentioned above, archaeological monitoring is proposed for this area. Should human remains be inadvertently discovered during ground-altering activities associated with the project, work will promptly cease in the immediate area of the find, and the find will be further protected from damage. SHPD will be notified immediately and procedures for the treatment of inadvertent finds will be followed pursuant to Chapter 6E, HRS.

In addition, a Cultural Impact Assessment (CIA) has been prepared for the proposed project. Refer to **Appendix "G"**. The CIA concluded that the project will have limited impact on Hawaiian cultural resources, beliefs, and practices, noting that none were identified within the Makalapua Project District. The CIA recommended that care be taken to preserve the habitat of endemic plants in addition to access for gathering activities.

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.*

Response: Scenic resources in the vicinity of the Makalapua Project District include the Pacific Ocean to the west and the Hualālai volcano to the east. The steep slopes of Hualālai provide a green backdrop when viewed from the coast and offer views of the coastline, Pacific Ocean, and horizon from higher elevations.

The Makalapua Project District is adjacent to the Kona Commons Shopping Center and Kona Industrial Subdivision and is not located within an identified scenic vista or view plane. As mentioned previously, The LUPAG designates the Makalapua Project District area as “Industrial” and “Urban Expansion”.

Given that the surrounding commercial and industrial uses and LUPAG designation, no significant adverse impacts to scenic resources are anticipated as a result of the proposed project. LT is committed to developing the project in a manner which will respect the architectural and landscape values of the island and will incorporate open space features throughout the development.

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 nonpoint source water pollution control measures.*

Response: A comprehensive program of Best Management Practices (BMPs) will be developed and implemented as part of the Makalapua Project District to minimize the potential for construction-related impacts and runoff to adjacent properties and coastal environments. In addition, permanent BMPs and LID strategies, such as the use of native plant gardens, permeable paving systems, and bio-swales and bio-filtration for stormwater management, are being considered for the proposed project to minimize pollutants from entering the ground and nearshore waters. Onsite drainage improvements will be designed and constructed to mitigate potential impacts associated with stormwater runoff in accordance with the "Storm Drainage Standards", Department of Public Works, County of Hawai'i, dated October 1970, as amended. With the improvements noted above, no adverse impacts are anticipated as a result of the proposed project.

5. **Economic Uses**

Objective:

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

Policies:

- a. *Concentrate coastal dependent development in appropriate areas;*
- b. *Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and*
- c. *Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:*
 - (i) *Use of presently designated locations is not feasible;*

- (ii) *Adverse environmental effects are minimized; and*
- (iii) *The development is important to the State's economy.*

Response: The proposed project will generate positive economic impacts associated with construction-related spending and employment during the 15-year phased development of the Makalapua Project District. Upon completion, residents of the Makalapua Project District area will contribute to the local economy through household spending on goods and services, while commercial and hotel development will support new employment and economic growth opportunities in the region.

6. Coastal Hazards

Objective:

Reduce hazard to life and property from tsunامي, storm waves, stream flooding, erosion, subsidence, and pollution.

Policies:

- a. *Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;*
- b. *Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;*
- c. *Ensure that developments comply with requirements of the Federal Flood Insurance Program; and*
- d. *Prevent coastal flooding from inland projects.*

Response: The Makalapua Project District is located in Flood Zone X (unshaded), an area of minimal flood hazard. Refer to **Figure 9**. The Makalapua Project District is also located outside of the tsunami evacuation area. Refer to **Figure 10**.

The proposed Makalapua Project District will be designed in accordance with local drainage standards, as applicable, to ensure that the project will not result in adverse flooding or erosion impacts to surrounding properties.

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 or 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.*

Response: Public input will be solicited in coordination with the processing of the Environmental Assessment (EA), pursuant to the Chapter 343, HRS environmental documentation review process. All aspects of the project will be conducted in accordance with applicable Federal, State, and County standards. Opportunities for review of the proposed action will also be offered through the land use entitlements review process for the District Boundary Amendment, Change of Zone, PUD, and SMA Use Permit applications.

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 mediations to respond to coastal issues and conflicts.*

Response: The EA for the Makalapua Project District will be processed in accordance with Chapter 343, HRS, and opportunity for comment by agencies and the public will be provided. As noted above, the land entitlement processes will also provide opportunities for public dialogue and input. In addition, LT has been consulting with various stakeholder groups through a community outreach and participation program to ensure that the Makalapua Project District is respectful of the community's needs and vision.

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;*
- c. *Minimize the construction of public erosion-protection structures seaward of the shoreline;*
- d. *Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and*
- e. *Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.*

Response: The Makalapua Project District will utilize appropriate BMPs to manage overall drainage for the project area and protect beaches and coastal waters near the project. A comprehensive drainage system will be developed as part of the Makalapua Project District to ensure project-related increases in stormwater runoff are retained onsite such that there will be no adverse impacts on downstream properties. Stormwater runoff will be collected by swales, ditches, gutters, inlets, and/or catch basins, and conveyed to drywells and/or infiltration areas for onsite disposal. Refer to **Appendix "B"**. The drywells are proposed in parking lots, along roadways, and other locations where space is available throughout the project site. Drainage improvements will be designed in accordance with the "Storm Drainage Standards", Department of Public Works,

County of Hawai'i, dated October 1970, as amended. With the improvements noted above, no adverse impacts are anticipated as a result of the proposed project.

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.*

Response: The Makalapua Project District does not involve development on any shoreline properties. As mentioned previously, the project will utilize appropriate BMPs to mitigate construction impacts and will include drainage improvements to address project-related increases in stormwater runoff. As such, the proposed project is not anticipated to present significant adverse impacts on the shoreline or marine resources.

In addition to the foregoing objectives and policies, SMA permit review criteria pursuant to Chapter 205A-30.5, HRS, Prohibitions, provides that:

- (a) *No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:*

- (1) *Directly illuminates the shoreline and ocean waters; or*
 - (2) *Is directed to travel across property boundaries toward the shoreline and ocean waters.*
- (b) *Subsection (a) shall not apply to special management area use permits for structures with:*
- (1) *An outdoor lighting fixture that is located on the grounds of a hotel, hotel-condominium, or condominium-hotel as defined in section 486K-1; provided that:*
 - (A) *The outdoor lighting fixture is located underwater or is directed downward and illuminates a limited area of no more than thirty feet into the shoreline and ocean waters; or*
 - (B) *The outdoor lighting fixture is the only practicable means of ensuring the safety and security of guests, visitors, and employees; and*
 - (2) *Artificial lighting provided by a government agency or its authorized users for government operations, security, public safety, or navigational needs; provided that a government agency or its authorized users shall make reasonable efforts to properly position or shield lights to minimize adverse impacts.*

Response: The proposed Makalapua Project District does not involve any development immediately adjacent to the shoreline. Nevertheless, all applicable State and County lighting requirements will be followed to minimize adverse lighting-related impacts for this development.

H. SPECIAL MANAGEMENT AREA RULES OF THE HAWAII PLANNING COMMISSION

The Special Management Area Rules of the Hawai'i Planning Commission were established in order to implement Hawai'i Revised Statutes, Chapter 205A relating to coastal zone management and Special Management Areas. In addition to establishing procedures for processing of Special Management Area applications and procurement of related permits, the rules assist the Commission in giving consideration to State policy regarding coastal zones.

This section assesses the proposed action with respect to the criteria of substantial adverse effect as set forth in the Special Management Area Rules of the County of Hawai'i:

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resources, including but not limited to, historic sites and view planes outlined in the General Plan or other adopted plans**

As discussed in Chapter II, two (2) AISs were completed in the project area. Consistent with recommendations from the AISs, a Burial Treatment Plan is being prepared in accordance with HAR 13.13.300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, for the burial site that was discovered in a modified lava tube (Site 50-10-27-18511, Feature C) and Historic Preservation Plans will be prepared for the significant sites identified in the AIS, including the portion for the historic trail that likely connected Mamalahoa Trail with the shoreline trail (Site 50-10-27-30287), the modified lava sinks (Site 50-10-27-13260), and the possible ceremonial structure (Site 50-10-27-13261) in accordance with HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development. Additionally, LT proposes to prepare and implement an AMP for the entire Makalapua Project District, which would be submitted to SHPD for review and approval. In addition, the CIA prepared for the project concluded that the project will have limited impact on cultural resources, beliefs, and practices, noting that none were identified within the Makalapua Project District. However, as noted in the CIA, care will be taken to preserve the habitat of endemic plants and access for gathering activities. As such, no impacts to natural and cultural resources are anticipated as a result of the proposed project.

Given the surrounding commercial and industrial uses and the Hawai'i County General Plan's Land Use Pattern Allocation Guide designation of the project site as "Industrial" and "Urban Expansion", significant adverse impacts to the visual character of the area are not anticipated. LT is committed to developing the project in a manner which will respect the landscape and architectural values of the island.

2. **Curtails the range of beneficial uses of the environment**

The proposed Makalapua Project District is a mixed use development including residential, hotel, retail, commercial, office, and civic/community uses proposed on land that is primarily vacant. It will serve to meet the varied housing and commercial needs of the region at an attractive growth location adjacent to Kailua-Kona. Although a small portion of the land is within the State "Agricultural" district, the area does not have a history of recent agricultural use and the site is not under active agricultural cultivation. Therefore, the proposed

Makalapua Project District will optimize, rather than curtail, the beneficial uses of the environment.

3. **Conflicts with the long-term environmental policies or goals of the General Plan or the State Plan**

As described in Sections B and C of this Chapter, the proposed project does not conflict with the Hawai'i State Plan or the Hawai'i County General Plan.

4. **Substantially affects the economic or social welfare and activities of the community, County or State**

The proposed Makalapua Project District will generate positive economic impacts associated with construction-related spending and employment during the implementation of the project. Furthermore, the proposed Makalapua Project District responds to the need to provide housing and economic growth opportunities for the County's growing population. The project will serve to meet the varied housing, commercial, and lodging needs of the region at an attractive growth location adjacent to the existing Kailua-Kona town. Upon completion, residents of the Makalapua Project District will contribute to the local economy through household spending on goods and services, while commercial development will support new employment and business opportunities in the region.

5. **Involves substantial secondary impacts, such as population changes and increased effects on public facilities**

The proposed Makalapua Project District is not expected to result in substantial secondary impacts. Hawai'i County's population is projected to grow over the next 20 years regardless of whether the proposed project is built, and demands on infrastructure and public services will increase accordingly. The proposed project will accommodate projected growth in the region through the development of a compact, mixed-use, transit oriented community that is consistent with the vision set forth in the KCDP. LT will provide necessary infrastructure to serve the development while limiting the impacts on public systems and services.

6. **In itself has no significant adverse effect but cumulatively has considerable adverse effect upon the environment or involves a commitment for larger actions**

As previously discussed, the proposed Makalapua Project District is not part of a larger action, but will be developed in the context of a pattern of overall change

and growth in the region given the other planned residential and commercial development projects in West Hawai'i.

The cumulative impacts of the Makalapua Project District, together with other reasonably foreseeable actions such as the adjacent, but separate, Keahuolū Land Plan, Kailua Park Master Plan, Kamakana Villages, and La'i'Ōpua Master Plan will likely include increased population and greater demands on public infrastructure. While the Makalapua Project District will provide new residential units and commercial development in the area, it is noted that the project serves to accommodate projected population growth in the County, which is anticipated to occur with or without the project. By proposing a mixed-use development adjacent to the existing Kailua-Kona urban core and in an area designated as a transit-oriented development regional center by the KCDP, the Makalapua Project District will guide growth to existing developed areas, rather than promoting sprawling, greenfield development. LT will provide necessary backbone infrastructure to serve the Makalapua Project District development. Drainage, wastewater, water, and roadway improvements will be designed to meet applicable local, State, and Federal regulations.

7. Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat

A Flora and Fauna Survey has been prepared by a qualified biologist to identify flora, fauna, and habitats within the proposed Makalapua Project District, paying particular attention to rare, threatened, and endangered species. The surveys found no endangered plant or animal species within the project area, nor were any found that are candidates for such status. As such, the proposed action is not anticipated to substantially affect any biological resources.

Two (2) tree tobacco plants, which are host plants of the endangered Blackburn's sphinx moth, were found within the project area, however, no moth eggs or larvae were seen on the tree tobacco plants. In a letter dated April 7, 2017, the USFWS provided recommended minimization measures for removal of tree tobacco plants and site work to minimize potential impacts to the Blackburn's Sphinx moth. These measures will be adhered to during project implementation. Additionally, if removal of tree tobacco plants is proposed, the USFWS will be consulted on methodology and timing to ensure that moths are not harmed.

Although the Hawaiian hoary bat was not observed during the evening survey of the project area, the bats are highly mobile and there is likelihood that the bats utilize some habitats within the project site during the year. Therefore, as recommended by the USFWS and the Department of Land and Natural Resources, Division of Forestry and Wildlife, trees taller than 15 feet will not be

removed during pup rearing season and barbed wire will not be used for fencing for the project.

8. **Detrimentially affects air or water quality or ambient noise levels**

Construction activities will result in short-term air quality and noise impacts. BMPs will be implemented to mitigate these impacts to acceptable levels. No long-term impacts on air, water, or ambient noise levels are anticipated after construction has been completed.

9. **Affects an environmentally sensitive area, such as flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters**

The Makalapua Project District is located in Flood Zone X, areas of minimal flood hazard. Refer to **Figure 9**. The Makalapua Project District is also located outside of the tsunami evacuation area. Refer to **Figure 10**. As such, it is not likely to affect or suffer damage from being located in an environmentally sensitive area.

10. **Is contrary to the objectives and policies of the Coastal Zone Management Program and the Special Management Area Guidelines of Chapter 205A, HRS**

A review of the objectives and policies of Chapter 205A, HRS, is provided in its entirety in Section F of this Chapter, which addresses the project's relationship to the CZM considerations. Based on the foregoing analysis, the project will appropriately and adequately mitigate impacts to SMA-relevant areas of interest. Accordingly, there are no anticipated significant adverse environmental and ecological impacts attributed to the proposed project.

ALTERNATIVES ANALYSIS

IV

IV. ALTERNATIVES ANALYSIS

A. PREFERRED ALTERNATIVE

The proposed Makalapua Project District concept presented in Chapter I (and as reflected in **Figure 4**) represents the preferred alternative for the project and has been developed using early consultation input from both agency and community stakeholder groups. As discussed in Chapter I, since publication of the Draft EA in the Office of Environmental Quality Control's Environmental Notice on March 8, 2017, the Lili'uokalani Trust (LT) has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS. Shifts in roadway alignments and project boundaries have been made and incorporated into the preferred alternative to accommodate this expanded preservation area.

The preferred alternative calls for approximately 300 residential units along with 220 hotel rooms across two (2) hotels, a 50,000 square foot community performance facility, 470,000 square feet of commercial use (retail, employment), and a variety of open space features. Consistent with the intent of the "PD, Project District" designation being sought, the distribution of these uses may be refined within the project area, however, overall densities will be maintained.

Residential products will be designed to meet the needs of a variety of new and existing households, with the primary objective of creating a rich, diverse community by providing a wide range of choices. These will include medium- to high-density residential units in multi-family formats for rent and/or ownership. The Makalapua Project District is also envisioned to create 'incubator' opportunities for new businesses to start, while continuing to provide support for existing businesses to remain and flourish as the Project District and region grows.

The development of the Makalapua Project District is consistent with Lili'uokalani Trust's (LT) guiding principles and will support LT's mission of providing support to its beneficiaries, orphaned, and other destitute children in Hawai'i.

B. NO ACTION ALTERNATIVE

The no action alternative would involve the continued underutilization of the 67.21-acre project area. The no action alternative is not deemed appropriate given its proximity to the existing Kailua-Kona urban core and the projected population and economic growth in the region. The County General Plan LUPAG designates the Project District lands as "Industrial" and "Urban Expansion" as the lands are a natural extension of Kailua Village. The no action alternative would not address the needs of the growing Kona community.

Further, the no action alternative would not provide long-term financial support for LT's mission of providing care for orphaned and other destitute children in Hawai'i. For these reasons, the no action alternative is not being considered.

C. DEFERRED ACTION ALTERNATIVE

Similar to the "no action" alternative, the "deferred action" alternative is not deemed reasonable as it would not accommodate the anticipated growth in the region and would not provide financial support for LT's mission of providing care for orphaned and other destitute children in Hawai'i.

D. CURRENT ZONING ALTERNATIVE

Although the majority of the project area is currently zoned for commercial and industrial use and could be developed accordingly (as Phase 3 of the Kona Commons Shopping Center), residential components, including affordable housing, were incorporated into the project to make it consistent with the overall vision and intent of the Kona Community Development Plan (KCDP) for this area. Furthermore, the proposed Makalapua Project District incorporates redevelopment and infill, mixed-use developments, and affordable housing, which are key land use trends that helped to define the land use policies and strategies in the KCDP. The addition of approximately 300 residential units will help to meet the growing need for housing in Kona, and is compatible with the surrounding area. As such, the commercial/industrial development alternative was not selected as the preferred alternative for the project.

E. KUAKINI HIGHWAY REALIGNMENT ALTERNATIVE (DRAFT EA PREFERRED ALTERNATIVE)

The Preferred Alternative presented in this Final EA has been modified from the Draft EA Alternative, which involved a realignment of Kuakini Highway to the northwest. The Kuakini Highway Realignment Alternative (Draft EA Preferred Alternative) involved a proposed realignment of Kuakini Highway mauka of its existing alignment and the inclusion of a roundabout at the intersection of the realigned Kuakini Highway and Pawai Drive. See **Figure 19**. As previously noted, since publication of the Draft EA in the Office of Environmental Quality Control's Environmental Notice on March 8, 2017, LT has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS. The proposed realignment of Kuakini Highway near its intersection with Loloku Street encroached on the expanded preservation area. As a result, the Kuakini Highway Realignment Alternative (Draft EA Preferred Alternative) was dismissed. In developing the Final EA Preferred Alternative, roadway alignments and project boundaries were shifted to

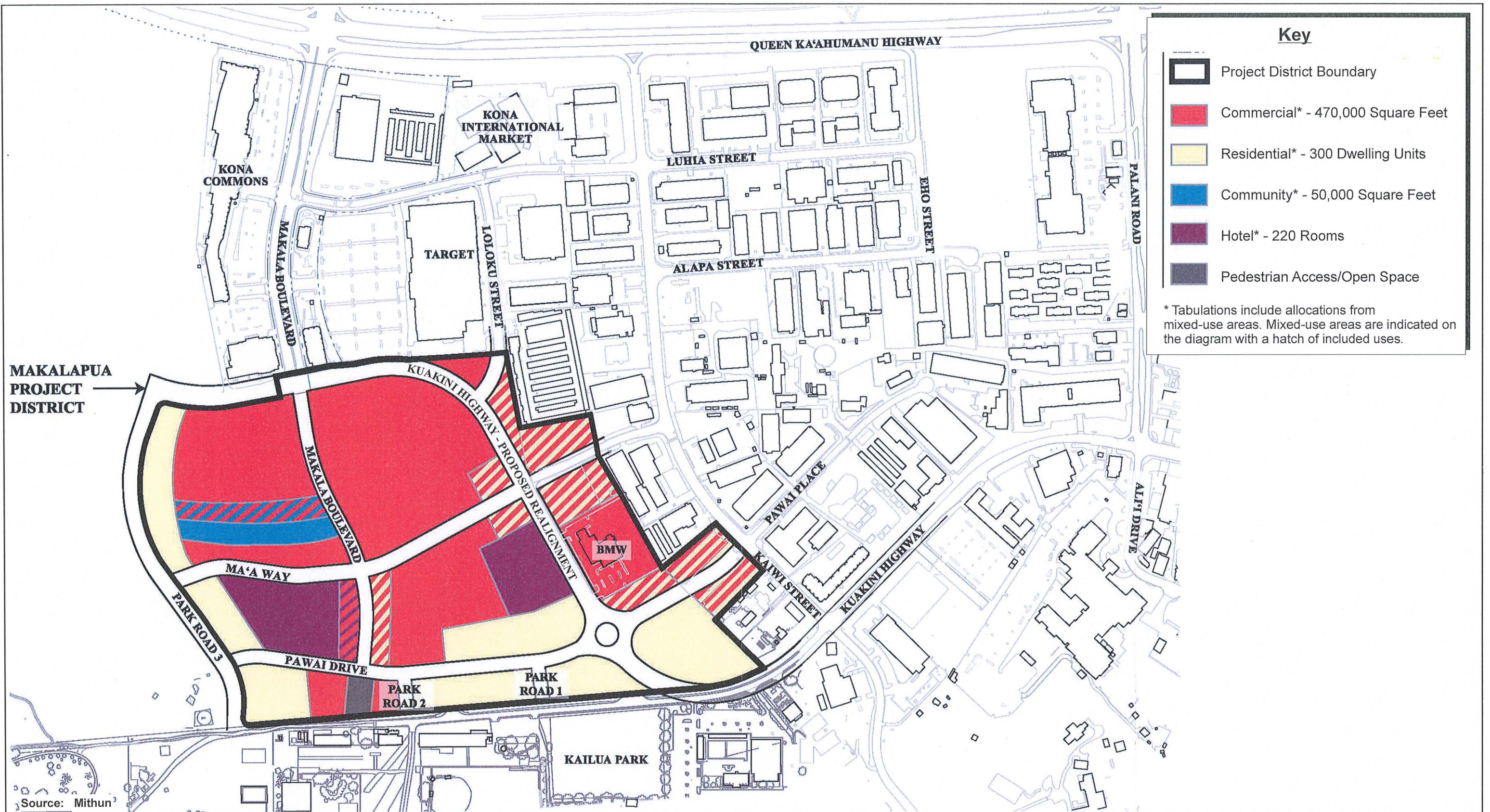


Figure 19

Makalapua Project District Kuakini Highway Realignment Alternative (Draft EA Preferred Alternative)

NOT TO SCALE



respect the expanded preservation area. The mix of land uses and densities presented in the Preferred Alternative are the same as what was presented and assessed in the Draft EA for the Kuakini Highway Realignment Alternative.

F. OTHER SITE PLAN ALTERNATIVES

Various other site plan alternatives, including different densities and land use configurations were considered for the proposed Makalapua Project District. The evaluation of site plan alternatives generally encompassed a wide range of criteria including various physical, socio-economic, and environmental considerations. The preferred alternative was selected based on the following factors:

- Connectivity to and compatibility with existing urban areas and adjacent Kailua Park
- Topographic conditions
- Infrastructure analysis
- Community needs
- Market demand analysis
- Potential impacts to the physical and socio-economic environment
- Applicable regulatory plans, policies, and controls
- Archaeological and cultural impact analysis
- Projected sea level rise

**SUMMARY OF ADVERSE
ENVIRONMENTAL EFFECTS
WHICH CANNOT BE AVOIDED**



V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed development of the Makalapua Project District will result in unavoidable construction-related environmental impacts as outlined in Chapter II. Potential effects include noise, air quality, and traffic impacts during the site preparation and construction phases of the proposed development. As previously discussed, Best Management Practices (BMPs) will be implemented to mitigate such impacts to acceptable levels. A construction traffic management plan will be prepared and implemented during construction.

From a long-term perspective, the proposed project will accommodate projected growth in the region through the development of a compact, mixed-use, transit oriented community that is consistent with the vision set forth in the Kona Community Development Plan (KCDP). The Lili'uokalani Trust will provide necessary infrastructure to serve the development while limiting impacts on public systems and services. Drainage, wastewater, water, and roadway improvements will be designed to meet applicable local, State, and Federal regulations.

**IRREVERSIBLE AND
IRRETRIEVABLE
COMMITMENT
OF RESOURCES**

VI

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The proposed Makalapua Project District is anticipated to result in the irreversible and irretrievable commitment of land and fiscal resources. Other resource commitments include energy, labor, water, and material resources. This commitment, however, is considered appropriate insofar as the proposed Makalapua Project District fulfills a need to accommodate future projected growth in the Kona region and the overall Hawai'i County and will also ensure continuance into the future of LT's mission in providing services aimed at improving the welfare of orphan and other destitute children in Hawai'i.

**SIGNIFICANCE CRITERIA
ASSESSMENT**

VII

VII. SIGNIFICANCE CRITERIA ASSESSMENT

The "Significance Criteria", Section 12 of the Department of Health Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed project could present significant adverse impacts to the environment. The following criteria and preliminary analysis are provided:

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

Two (2) archaeological inventory surveys (AIS) were prepared for lands included within the proposed Makalapua Project District. A Supplemental Archaeological Inventory Survey (AIS) was conducted for the 110-acre Kona Commons project area, including the majority of the 67.21-acre Makalapua Project District. Eleven (11) archaeological sites containing 21 component features were identified within the Makalapua Project District. Of the 21 component features identified, only three (3) were recommended for further treatment, two (2) of which were recommended for preservation. In accordance with Supplemental AIS recommendations, a Burial Treatment Plan is being prepared for Site 50-10-27-18511, Feature C, which contained a burial site that was discovered in a modified lava tube, and a Historic Preservation Plan will be prepared for Site 50-10-27-30287, a portion of a historic trail.

A separate AIS for LT's Urban Phase III lands was prepared and covers the 14.45-acre portion of the Makalapua Project District that is designated as "Agricultural" by the State Land Use Commission. The Urban Phase III AIS identified five (5) archaeological sites containing eight (8) component features within the Makalapua Project District, of which two (2) sites (four (4) component features) were recommended for preservation. As recommended by the Urban Phase III AIS, Historic Preservation Plans will be prepared for the modified lava sinks (Site 50-10-27-13260) and possible ceremonial structure (Site 50-10-27-13261).

The Historic Preservation Plans will be prepared in accordance with the requirements of HAR 13.13.277, Rules Governing Requirements for Archaeological Site Preservation and Development, and will be submitted to SHPD for review and acceptance. The Burial Treatment Plan will be prepared in accordance with the requirements of HAR 13.13.300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains, and will be submitted to SHPD and the Hawai'i Island Burial Council for review and determination. Additionally, LT proposes to prepare an Archaeological Monitoring Plan (AMP) for the entire Makalapua Project District. The AMP will be submitted to SHPD for approval. In accordance with Section 6E-43.6, HRS and Chapter 13-300, HAR, if any significant cultural deposits or human skeletal remains are encountered during ground altering activity conducted as part of the Makalapua Project District, work will stop in the

immediate vicinity and SHPD will be contacted to determine the appropriate level of mitigation.

The Cultural Impact Assessment (CIA) concluded that the proposed project will have limited impact on Hawaiian cultural resources, beliefs, and practices, noting that none were identified within the Makalapua Project District.

Biological resources identified in the area as part of a Flora/Fauna Survey do not include rare or threatened species, nor are there any sensitive natural environments (e.g., wetlands or streams) in the immediate vicinity of the project site.

2. Curtails the range of beneficial uses of the environment.

The proposed Makalapua Project District improves, rather than curtails, the range of beneficial uses of the environment. The project area is primarily vacant and underutilized, with no current or recent history of active agricultural cultivation. The proposed Makalapua Project District responds to the need to provide housing and economic growth opportunities for the County's growing population. The project will serve the varied housing and commercial needs of the region at an attractive growth location adjacent to the existing Kailua-Kona town. As envisioned by the Kona Community Development Plan (KCDP), the Makalapua Project District will serve as a transit-oriented development regional center and a natural extension of Kailua Village.

3. Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The Makalapua Project District does not conflict with State's long-term environmental policies, goals and guidelines, as established in Chapter 344, HRS.

4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.

The proposed Makalapua Project District will generate positive economic impacts associated with construction-related spending and employment during the implementation of the project. Furthermore, the proposed Makalapua Project District responds to the need to provide housing and economic growth opportunities for the County's growing population. The project will serve to meet the varied housing, commercial, and lodging needs of the region at an attractive growth location adjacent to the existing Kailua-Kona town. Upon completion, residents of the Makalapua Project District will contribute to the local economy through household spending on goods and services, while commercial development will support new employment and business opportunities in the region.

Income generated by Lili'uokalani Trust's (LT) lands, which will include the Makalapua Project District, supports its programs serving orphan and destitute children in Hawai'i.

A CIA prepared for the project concluded that the proposed Makalapua Project District development will have limited impact on Hawaiian cultural resources, beliefs, and practices, noting that none were identified within the Makalapua Project District.

5. Substantially affects public health.

No long-term adverse impacts to public health are anticipated as a result of the proposed project.

There will be short-term impacts related to dust and noise generated during the site preparation and construction phases. These potential air quality and noise impacts will be mitigated through the utilization of appropriate Best Management Practices (BMPs).

All infrastructure within the Makalapua Project District, including water, wastewater, and electricity, will be developed in conformance with applicable local, State, and Federal regulations to safeguard public health.

6. Involves substantial secondary impacts, such as population changes or effects on public facilities.

The proposed Makalapua Project District is not expected to result in substantial secondary impacts. Hawai'i County's population is projected to grow over the next 20 years regardless of whether the proposed project is built, and demands on infrastructure and public services will increase accordingly. The proposed project will accommodate projected growth in the region through the development of a compact, mixed-use, transit oriented community that is consistent with the vision set forth in the KCDP. LT will provide necessary infrastructure to serve the development while limiting the impacts on public systems and services.

7. Involves a substantial degradation of environmental quality.

There will be short-term impacts related to dust and noise generated during the site preparation and construction phases. These potential air quality and noise impacts will be mitigated through the utilization of appropriate Best Management Practices (BMPs). No long-term impacts to environmental quality are anticipated.

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

As previously discussed, the proposed Makalapua Project District is not part of a larger action, but will be developed in the context of a pattern of overall change and growth in

the region given the other planned residential and commercial development projects in West Hawai'i.

The cumulative impacts of the Makalapua Project District, together with other reasonably foreseeable actions such as the adjacent, but separate, Keahuolū Land Plan, Kailua Park Master Plan, Kamakana Villages, and La'i'Ōpua Master Plan will likely include increased population and greater demands on public infrastructure. While the Makalapua Project District will provide new residential units and commercial development in the area, it is noted that the project serves to accommodate projected population growth in the County, which is anticipated to occur with or without the project. By proposing a mixed-use development adjacent to the existing Kailua-Kona urban core and in an area designated as a transit-oriented development regional center by the KCDP, the Makalapua Project District will guide growth to existing developed areas, rather than promoting sprawling, greenfield development. LT will provide necessary backbone infrastructure to serve the Makalapua Project District development. Drainage, wastewater, water, and roadway improvements will be designed to meet applicable local, State, and Federal regulations.

9. Substantially affects a rare, threatened, or endangered species, or its habitat.

A Flora and Fauna Survey has been prepared by a qualified biologist to identify flora, fauna, and habitats within the proposed Makalapua Project District, paying particular attention to rare, threatened, and endangered species. The surveys found no endangered plant or animal species within the project area, nor were any found that are candidates for such status. As such, the proposed action is not anticipated to substantially affect any biological resources.

Two (2) tree tobacco plants, which are host plants of the endangered Blackburn's sphinx moth, were found within the project area, however, no moth eggs or larvae were seen on the tree tobacco plants. In a letter dated April 7, 2017, the USFWS provided recommended minimization measures for removal of tree tobacco plants and site work to minimize potential impacts to the Blackburn's Sphinx moth. These measures will be adhered to during project implementation. Additionally, if removal of the tree tobacco plants is proposed, the USFWS will be consulted on methodology and timing to ensure that moths are not harmed.

Although the Hawaiian hoary bat was not observed during the evening survey of the project area, the bats are highly mobile and there is likelihood that the bats utilize some habitats within the project site during the year. As recommended by USFWS and the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), trees taller than 15 feet will not be removed during pup rearing season and barbed wire will not be used for fencing for the proposed project.

10. Detrimentially affects air or water quality or ambient noise levels.

Construction activities will result in short-term air quality and noise impacts. BMPs will be implemented to mitigate these impacts to acceptable levels. No long-term impacts on air, water, or ambient noise levels are anticipated after construction has been completed.

11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The Makalapua Project District is located in Flood Zone X, areas of minimal flood hazard. Refer to **Figure 9**. The Makalapua Project District is also located outside of the tsunami evacuation area. Refer to **Figure 10**. As such, it is not likely to affect or suffer damage from being located in an environmentally sensitive area.

12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.

Keahuolū, located on the western slopes of Hualālai, offers beautiful scenic views. Scenic resources in the vicinity include the Pacific Ocean to the west and the Hualālai volcano to the east. The Makalapua Project District is adjacent to the Kona Industrial Subdivision and Kona Commons Shopping Center and is not located within an identified scenic vista or view plane. As mentioned previously, The Hawai'i County General Plan's Land Use Pattern Allocation Guide (LUPAG) designates the project area as "Industrial" and "Urban Expansion". Therefore, given the surrounding commercial and industrial uses and LUPAG designation, significant adverse impacts to the visual character of the area are not anticipated. LT is committed to developing the project in a manner which will respect the architectural and landscape values of the island.

13. Requires substantial energy consumption.

The proposed Makalapua Project District will involve a commitment of fuel for construction equipment, vehicles, and machinery during the site preparation and construction phase. Additionally, because the proposed Makalapua Project District consists of new construction, there is significant opportunity to incorporate energy conservation and efficiency measures. Passive energy conservation strategies that are being considered include architectural shading for reducing heat gain, maximizing natural daylighting of interior spaces, building orientation and fenestration for natural ventilation, and landscape strategies to provide summer shade.

Based on the foregoing findings, the Makalapua Project District is not expected to generate any significant adverse impacts. Accordingly, this Final Environmental Assessment (EA) for the project will be published in the Office of Environmental Quality Control's (OEQC) Environmental Notice as a Finding of No Significant Impact (FONSI).

**LIST OF PERMITS
AND APPROVALS**

VIII

VIII. LIST OF PERMITS AND APPROVALS

REQUIRED PERMITS AND APPROVALS

The following permits and approvals will be required prior to the implementation of the proposed Makalapua Project District:

State of Hawai'i

1. State Land Use District Boundary Amendment (DBA) (processed by County of Hawai'i) (Hawai'i Revised Statutes (HRS) 205-3.1(c) and Hawai'i County Code (HCC), Chapter 28)
2. Environmental Assessment, Finding of No Significant Impact (FONSI) (Chapter 343, HRS)
3. National Pollutant Discharge Elimination System (NPDES) Permit (Hawai'i Administrative Rules (HAR) 11-55, Water Pollution Control)
4. Community Noise Permits, as applicable (HAR, Chapter 11-46, Community Noise Control)

County of Hawai'i

1. Change of Zone (Project District) (HCC, Chapter 25)
2. Planned Unit Development (PUD) (HCC, Chapter 25.6.1)
3. Special Management Area (SMA) Use Permit (HRS 205A)
4. Subdivision Approval (HCC, Chapter 23)
5. Construction Approvals (Grading/Building Permits) (HCC, Chapter 5)
6. Right to Perform Work Within a County Right-of-Way

PREVIOUS PERMITS AND APPROVALS

It is noted that due to the infill nature of the proposed project, there have been previous permits and approvals issued for parcels within the proposed Makalapua Project District. The project also involves portions of larger parcels (such as a portion of TMK (3)7-4-008:002) as well as parcels that have been subdivided from larger parcels. As such, some of the previous permits and approvals issued for TMK parcels associated with the proposed project do not necessarily correlate to areas within the Makalapua Project District.

A list of previous permits and approvals issued for the parcels within the Makalapua Project District is presented in **Appendix "I"**. These prior permits and approvals are unrelated to the currently proposed action and in many instances, the scope of work covered by the approvals have been completed and the permits have expired.

As noted above, various State and County approvals will be required for the Makalapua Project District. New applications for these permits and approvals will be prepared and filed following completion of the Chapter 343, HRS process.

**AGENCIES AND ORGANIZATIONS
CONSULTED DURING
THE PREPARATION OF THE
DRAFT ENVIRONMENTAL
ASSESSMENT; LETTERS
RECEIVED AND RESPONSES
TO SUBSTANTIVE COMMENTS**

IX

IX. AGENCIES AND ORGANIZATIONS CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies, organizations, community groups and individuals were consulted during the preparation of the Draft Environmental Assessment:

- | | |
|--|---|
| 1. Ranae Ganske-Cerizo, Soil Conservationist
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77 Hookele Street, Suite 202
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| 2. Shelly Lynch, Chief, Regulatory Branch
U.S. Department of the Army
U.S. Army Engineer District, Honolulu
Regulatory Branch, Building 230
Fort Shafter, Hawai'i 96858-5440 | 8. Craig Hirai, Executive Director
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| 3. Ryan Okahara, Field Office Director
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State of Hawai'i
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Honolulu, Hawai'i 96804 |
| 4. Wayne Nastri, Regional Administrator
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San Francisco, California 94105 | 10. Catherine Awakuni Colon, Director
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17. Suzanne Case, Chairperson
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P. O. Box 621
Honolulu, Hawai'i 96809
18. Alan Downer, Administrator
State of Hawai'i
Department of Land and Natural
Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawai'i 96707
19. Ford Fuchigami, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813
20. Brigadier General Arthur "Joe" Logan,
Adjutant General
Hawai'i State Civil Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96813-4495
21. Jobie Masagatani, Chair
Hawaiian Home Lands Commission
P.O. Box 1879
Honolulu, Hawai'i 96805
22. Scott Glenn, Interim Director
Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawai'i 96813
23. Dr. Kamana`opono Crabbe, Chief
Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Highway, Suite 200
Honolulu, Hawai'i 96817
24. Leo R. Asuncion, Jr., AICP, Director
State of Hawai'i
Office of Planning
P. O. Box 2359
Honolulu, Hawai'i 96804
25. Dan Orodenker, Executive Officer
State of Hawai'i
State Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804
26. University of Hawai'i at Manoa
Environmental Center
2500 Dole Street, Krauss Annex 19
Honolulu, Hawai'i 96822
27. Darryl Oliveira
Civil Defense Agency
County of Hawai'i
920 Ululani Street
Hilo, Hawai'i 96720
28. Bobbie Jean Leithead-Todd, Director
Department of Environmental
Management
County of Hawai'i
25 Aupuni Street
Hilo, Hawai'i 96720
29. Deanna Sako, Director
Department of Finance
County of Hawai'i
25 Aupuni Street, Suite 2103
Hilo, Hawai'i 96720-4245

30. Clayton S. Honma, Director
Department of Parks and Recreation
County of Hawai'i
Aupuni Center, 101 Pauahi Street,
Suite 6
Hilo, Hawai'i 96720
31. Warren H.W. Lee, P.E.
Department of Public Works
County of Hawai'i
Aupuni Center
101 Pauahi Street, Suite 7
Hilo, Hawai'i 96720-4224
32. John DeFries, Director
Department of Research and
Development
County of Hawai'i
25 Aupuni Street
Hilo, Hawai'i 96720
33. Keith Okamoto
Department of Water Supply
County of Hawai'i
345 Kekuanaoa Street, Suite 20
Hilo, Hawai'i 96720
34. Darren J. Rosario, Fire Chief
Hawai'i Fire Department
County of Hawai'i
25 Aupuni Street
Hilo, Hawai'i 96720
35. Harry S. Kubojiri, Police Chief
Hawai'i Police Department
County of Hawai'i
349 Kapiolani Street
Hilo, Hawai'i 96720
36. Tiffany Kai, Administrator
Mass Transit Agency
County of Hawai'i
630 E. Lanikaula Street
Hilo, Hawai'i 96720
37. Susan K. Akiyama, Housing
Administrator
Office of Housing and Community
Development
County of Hawai'i
50 Wailuku Drive
Hilo, Hawai'i 96720-2456
38. Mayor William P. Kenoi
County of Hawai'i
Office of the Mayor
25 Aupuni Street
Hilo, Hawai'i 96720
39. Duane Kanuha, Director
Planning Department
County of Hawai'i
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
40. Hawai'i Tribune Herald
P.O. Box 767
Hilo, Hawai'i 96721
41. West Hawai'i Today
P.O. Box 789
Kailua-Kona, Hawai'i 96745-0789
42. Valerie Poindexter, Vice Chair
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
43. Aaron Chung, Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
44. Dennis Onishi, Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
45. Greggor Llagan, Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
46. Daniel K. Paleka, Jr., Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
47. Maile David, Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
48. Dru Mamo Kanuha, Chair and Presiding
Officer
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720

49. Karen Eoff, Councilmember
County of Hawai'i
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
50. Margaret Wille, Councilmember
Hawai'i County Council
25 Aupuni Street, Suite 209
Hilo, Hawai'i 96720
51. Kona Council Office
West Hawai'i Civic Center
74-5044 Ane Keohokalole Highway
Kailua-Kona, Hawai'i 96740
52. Hawai'i Electric Light Company, Inc.
P. O. Box 102
Hilo, Hawai'i 96721-1027
53. Hawaiian Telecom Headquarters
1177 Bishop Street
Honolulu, Hawai'i 96813
54. Oceanic Time Warner Cable
548 Kanoelehua Avenue
Hilo, Hawai'i 96720
55. The Gas Company
945 Kalaniana'ole Street
Hilo, Hawai'i 96720
56. Community Enterprises
c/o Fred Housel
74-5063 Tomi Tomi Drive
Kailua-Kona, Hawai'i 96740
57. People's Alliance for Trails Hawai'i
(PATH)
P.O. Box 62
Kailua-Kona, Hawai'i 96745
58. National Park Service,
Superintendent
Kaloko-Honokohau National Historical
Park
73-4786 Kanalani Street #14
Kailua-Kona, Hawai'i 96740
59. Kona Village Business Improvement
District
65-5751 Kuakini Highway #202
Kailua-Kona, Hawai'i 96740



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

April 27, 2016

SUBJECT: Approved Jurisdictional Determination and No Permit Required for
Makalapua Project District Mixed Use Development, Kailua-Kona, Hawaii. DA File No.
POH-2016-00097

Ms. Tessa Munekiyo Ng
735 Bishop Street, Suite 321
Honolulu, Hawaii 96813

Dear Ms. Ng:

We have received your letter dated April 07, 2016 for the proposed 69.1 acres of mixed use development, located south-west of Kona Commons Shopping Center and north of Hawaii County Kaulua Park, at TMKs (3) 7-4-008:002 (portion), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, (3) 7-4-010: 009 and 010, Island of Hawaii, Hawaii. We have assigned your project Department of the Army (DA) file number POH-2016-00097. Please reference this number in all future correspondence concerning this project.

We have reviewed your submittal 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, prior to conducting the work (33 U.S.C. 403). Section 404 requires that a DA permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including wetlands and navigable waters of the U.S, prior to conducting the work (33 U.S.C. 1344).

Based on our review of your submittal, we have determined that there are no waters of the United States, including wetlands, under the regulatory jurisdiction of the Corps within the review area as described above and depicted on the attached map (Enclosure 1). Assuming your project is conducted only as set forth in the information provided, this office has determined the proposed activity does not affect the course, capacity, condition, or location of a Navigable Water of the U.S. as defined by Section 10 and would not result in the discharge of dredged or fill material into waters of the U.S. as defined by Section 404. Therefore, a DA permit will not be required.

This letter contains an approved JD that identifies the basis for not asserting jurisdiction (Enclosure 2). The approved JD is valid for a period of five (5) years from the date of this letter, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an Administrative Appeal under 33 CFR 331. We have enclosed a Notification of Appeal Process and Request for Appeal (NAP/RFA) form.

If you request to appeal this determination you must submit a completed RFA form, according to instructions in the RFA, to the Corps' Pacific Ocean Division office at the following address:

Civil Works and Regulatory Program Manager
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

This JD and statement of no permit required does not relieve the Queen Liliuokalani Trust of any need to obtain other federal, state, or local authorizations required by law, ordinance and/or regulation.

Thank you for your cooperation with the Honolulu District Regulatory Program. Should you have any questions related to this determination, please contact Ms. Vera Koskelo of my staff at 808-835-4310 or via e-mail at Vera.B.Koskelo@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Office by accessing our web-based customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,
MCCOY.SHA
NE.M.13647
66315

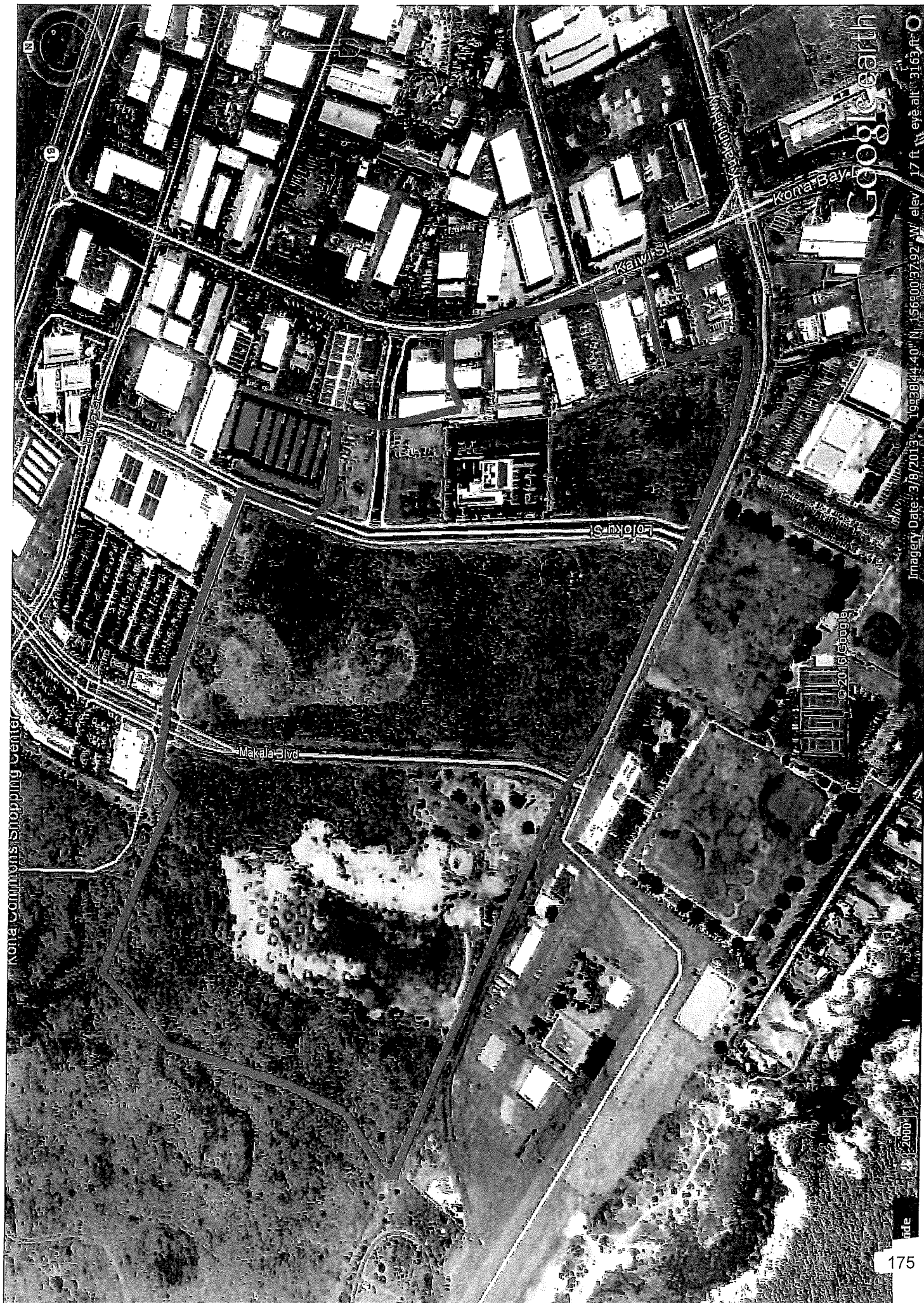
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Shane McCoy
Acting Chief, Regulatory Office

Enclosures

cc:

State of Hawaii DBEDT Office of Planning (John Nakagawa)
State of Hawaii DOH-CWB (Darryl Lum)



APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 26 April 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Honolulu District, POH-2016-00097 (Makalapua Project District Mixed Use Development, Kailua-Kona, Hawaii)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Hawaii County/parish/borough: Hawaii City: Kailua-Kona
Center coordinates of site (lat/long in degree decimal format): Lat. 19.645186° N, Long. 156.005094° W.
Universal Transverse Mercator:

Name of nearest waterbody: Pacific Ocean

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: no aquatic resource located within the review area; the unnamed stream to the northeast of the review area flows north to the Pacific Ocean

Name of watershed or Hydrologic Unit Code (HUC): 2001000

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 26 April 2016

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 0.0 acres.

c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite, and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: Pick List

Drainage area: Pick List

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through Pick List tributaries before entering TNW.

Project waters are Pick List river miles from TNW.

Project waters are Pick List river miles from RPW.

Project waters are Pick List aerial (straight) miles from TNW.

Project waters are Pick List aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:

Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

- Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: inflow is diversion structure.
☐ Manipulated (man-altered). Explain: impoundment created from UPLANDS.

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: Pick List

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Pick List

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime:

Other information on duration and volume:

Surface flow is: Pick List. Characteristics:

Subsurface flow: Pick List. Explain findings:

- ☐ Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |

- ☐ Discontinuous OHWM.⁷ Explain: flow from reservoir to receiving tributary dependent on storage capacity of

reservoir.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: Pick List. Explain:

Surface flow is: Pick List

Characteristics:

Subsurface flow: Pick List. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain: reservoir is artificial wetland.

(d) Proximity (Relationship) to TNW

Project wetlands are Pick List river miles from TNW.

Project waters are Pick List aerial (straight) miles from TNW.

Flow is from: Pick List.

Estimate approximate location of wetland as within the Pick List floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: Pick List

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: water and sediment retention.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: artificial impoundment has potential to release excess waters to RPW tributaries.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☒ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☒ Other: (explain, if not covered above): **Uplands only in review area.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☒ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☒ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: land use map of property provided with letter dated 07 April 2016.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study:
☐ U.S. Geological Survey Hydrologic Atlas:
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Mapper Data Layer in GoogleEarth Pro, <http://casoilresource.lawr.ucdavis.edu/soilweb-apps>, accessed on 4-25-16.
☒ National wetlands inventory map(s). Cite name: NWI mapper, <http://www.fws.gov/wetlands/Data/Mapper.html>, accessed on 4-25-16.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): aerial photo dated 7-24-11, 3-08-13, and 12-26-14 from GoogleEarth Pro; Bing Birds Eye view aerial photographs.
or ☐ Other (Name & Date): .
☒ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify): State of Hawaii DLNR Flood Hazard Assessment Tool TMK map, accessed 4-26-16, <http://gis.hawaiiinfip.org/FHAT/>; Topographic map from topozone.com, access 4-26-16, <http://www.topozone.com/map->

print/?lat=20.8493548&lon=-156.316694&title=Makawao Topo Map in Maui County Hawaii; EPA My Waters data layer in GoogleEarth Pro, accessed 4-25-16 <http://www.epa.gov/waterdata/my-waters-mapper>.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ms. Tessa Munekiyo Ng		File Number: 2016-00097	Date: 4-26-16
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
XX	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

If you only have questions regarding the appeal process you may also contact:

Dr. Linda Hihara-Endo
Acting Regulatory Program Manager
U.S. Army Corps of Engineers
Building 525
Fort Shafter, HI 96858-5440
808-835-4621

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Tunis W. McElwain, Acting Chief
Regulatory Branch
Department of the Army
Honolulu District
U.S. Army Corps of Engineers
Fort Shafter, Hawai'i 96858-5440

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (POH-2016-00097)

Dear Mr. McElwain:

Thank you for your department's letter dated April 27, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we thank you for the approved Jurisdictional Determination and statement that a Department of the Army permit is not required for this project.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,

Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

APR 28 2016



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850



In Reply Refer To:
01EPIF00-2016-TA-0294

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawai'i 96793

APR 25 2016

Subject: Technical Assistance for the Queen Lili'uokalani Trust's Makalapua Project
District, Kailua-Kona, Hawai'i

Dear Ms. Ng:

Thank you for your letter dated April 7, 2016, requesting our comments on the proposal to develop residential, hotel, retail, commercial, office, and civic/community uses at the proposed Makalapua Project District on lands owned by the Queen Lili'uokalani Trust in Kailua-Kona, Hawai'i. The proposed development would include: 1) construction of approximately 180 residential units, a 180-room hotel, 50,000 square feet of community facilities/civic offerings, 470,000 square feet of commercial use (retail and employment), and a variety of open space features on approximately 69.1 acres; and 2) potential offsite improvements on approximately 9.23 acres of land that will include the realignment of Kuakini Highway and alignment of three access routes to the County's Kailua Park.

We reviewed the proposed project pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). Based on information in our files, including data compiled by the Hawai'i Biodiversity and Mapping Program, the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) have been observed in the vicinity of the proposed project area. The federally threatened green sea turtle (*Chelonia mydas*) may forage in the waters off shore or bask or nest on the shoreline in the vicinity of the project area. Additionally, the endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) and the threatened Newell's shearwater (*Puffinus auricularis newelli*) (collectively known as seabirds) may transit the project area flying to upland breeding colonies. There is no designated critical habitat within the proposed project area.

To avoid and minimize impacts to these listed species, we recommend that you incorporate the following conservation measures into your project:

Hawaiian hoary bat

Hawaiian hoary bats roost in both exotic and native woody vegetation at heights greater than 15 feet. If trees or shrubs suitable for bat roosting are cleared during the bat breeding season, there is a risk that breeding bats could inadvertently be harmed or killed. Young bats, which are incapable of flight, are particularly vulnerable during the bat-birthing and pup-rearing season

(June 1 through September 15). To minimize potential impacts to the Hawaiian hoary bat, woody plants greater than 15 feet tall should not be removed or trimmed between June 1 and September 15 throughout the development and ongoing operation of the proposed project. Additionally, Hawaiian hoary bats forage for insects from as low as three feet to higher than 500 feet above the ground. When barbed wire is used in fencing, Hawaiian hoary bats can become entangled. We recommend that barbed wire not be used for fencing or only within 2 inches of the ground surface as part of this proposed action.

Seabirds and Green sea turtle

Seabirds fly at night and are attracted to artificially-lighted areas that can result in disorientation and subsequent fallout due to exhaustion or collision with objects such as utility lines, guy wires, and towers that protrude above the vegetation layer. Once grounded, they are vulnerable to predators and are often struck by vehicles along roadways. Any increase in the use of nighttime lighting, particularly during each year's peak fallout period (September 15 through December 15), could result in additional seabird injury or mortality.

Outdoor lighting, such as street lights, can adversely impact listed species that may be found in the vicinity of the proposed project. Green sea turtles are susceptible to artificial lighting because it can disorient turtles away from the ocean. Green sea turtles come ashore to nest on beaches from May through September, peaking in June and July. Optimal nesting habitat is a dark beach free of barriers that restrict movement. Nesting turtles may be deterred from approaching or laying successful nests on lighted or disturbed beaches. If they do come ashore, they may become disoriented by artificial lighting, leading to exhaustion and placement of a nest in an inappropriate location (such as at or below the high tide line where nests are unlikely to be successful). Hatchlings that emerge from unprotected nests may be disoriented by artificial lighting, move inland instead of toward the ocean, and not make it successfully to the ocean.

To minimize and avoid artificial lighting impacts to sea turtles and seabirds, a comprehensive lighting plan should be developed and incorporated into the project description. If lights cannot be eliminated due to safety or security concerns then they should be positioned low to the ground, be motion-triggered, and be shielded and/or full cut-off. Effective light shields should be completely opaque, sufficiently large, positioned so that the bulb is only visible from below, and use the lowest wattage bulbs possible. Construction activities should occur during daylight hours only.

Rapid Ohia Death

Rapid Ohia Death (ROD), a newly identified disease, has killed large numbers of mature ohia trees (*Metrosideros polymorpha*) in forests and residential areas of Hawai'i Island. The disease is caused by a vascular wilt fungus (*Ceratocystis fimbriata*). Crowns of affected trees turn yellowish or brown within days to weeks and dead leaves typically remain on branches for some time. All ages of ohia trees can be affected and can have symptoms of browning of branches or leaves. As of early 2015 the disease was confined to Hilo and the Puna district on Hawai'i Island, but has since been confirmed in Volcano, South Kona, and Hamakua districts. Additional information on ROD can be found at <http://www2.ctahr.hawaii.edu/forestry/downloads/ROD-trifold-03.2016.pdf> and http://www2.ctahr.hawaii.edu/forestry/disease/ohia_wilt.html.

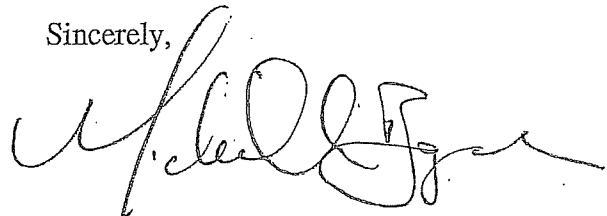
The following avoidance and minimization measures should be followed for projects working in ohia forests or at sites with ohia trees on Hawai'i Island:

- A survey of the proposed project site should be conducted within two weeks prior to any tree cutting to determine if there are any infected ohia trees. If infected ohia are suspected at the site, the following agencies should be contacted for further guidance.
 - USFWS – please contact the name at the bottom of this letter
 - Dr. J.B. Friday, University of Hawai‘i Cooperative Extension Service, 808-969-8254 or jbfriday@hawaii.edu
 - Dr. Flint Hughes, USDA Forest Service, 808-854-2617, fhughes@fs.fed.us
 - Dr. Lisa Keith, USDA Agriculture Research Service, 808-959-4357, Lisa.Keith@ars.usda.gov
- Both prior to cutting ohia and after the project is complete:
 - Tools used for cutting infected ohia trees should be cleaned with a 70 percent rubbing alcohol solution. A freshly prepared 10 percent solution of chlorine bleach and water can be used as long as tools are oiled afterwards, as chlorine bleach will corrode metal tools. Chainsaw blades should be brushed clean, sprayed with cleaning solution, and run briefly to lubricate the chain.
 - Vehicles used off-road in infected forest areas should be thoroughly cleaned. The tires and undercarriage of the vehicle should be cleaned with detergent if they have travelled from an area with ROD or travelled off-road.
 - Shoes and clothing used in infected forests should also be cleaned. Shoes should be decontaminated by dipping the soles in 10 percent bleach or 70 percent rubbing alcohol to kill the ROD Fungus. Other gear can be sprayed with the same cleaning solutions. Clothing can be washed in hot water and detergent.
- Wood of affected ohia trees should not be transported to other areas of Hawai‘i Island or interisland. All cut wood should be left on-site to avoid spreading the disease. The pathogen may remain viable for over a year in dead wood. The HDOA has passed a new quarantine rule that prohibits interisland movement, except by permit, of all ohia plant or plant parts.

If you determine that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA.

Thank you for your efforts to conserve listed species and native habitats. If you have questions regarding this letter, please contact Chelsie Javar-Salas, Fish and Wildlife Biologist, (phone: 808-792-9400, email: Chelsie_Javar@fws.gov).

Sincerely,



Michelle Bogardus
Island Team Manager
Maui Nui and Hawai‘i Island Team

February 7, 2017

Michelle Bogardus
U.S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (01EPIF00-2016-TA-0294)

Dear Ms. Bogardus:

Thank you for your letter dated April 25, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. It is noted that the federally endangered Hawaiian hoary bat has been observed in the vicinity of the project area, federally threatened green sea turtles may forage in the waters off shore or bask or nest on the shoreline in the vicinity of the project area, and that the endangered Hawaiian petrel and threatened Newell's shearwater seabirds may transit the project area while flying to upland breeding colonies. It is further noted that there is no designated critical habitat within the project area.
2. As recommended, to minimize impacts to the Hawaiian hoary bat, woody plants greater than 15 feet tall will not be removed or trimmed between June 1 and September and barbed wire will not be used during construction or implementation of the project.
3. As recommended, to minimize impacts to the green sea turtle and seabirds, a comprehensive lighting plan will be developed for the Makalapua Project District. LT will explore opportunities for significant outdoor lighting to be motion-

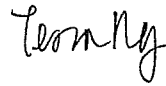
triggered, and all lighting will be appropriately shielded to direct the light downward to minimize disorientation of the protected seabirds and turtles.

4. A biological survey was completed for the proposed project, and no ohia trees were observed within the project area. The biological survey will be included in the Draft Environmental Assessment (EA).

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Robert W. Hobdy, Environmental Consultant

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MAY 02 2016

DAVID Y. IGE
GOVERNOR



DOUGLAS MURDOCK
COMPTROLLER

AUDREY HIDANO
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

APR 29 2016

(P)1116.6

Ms. Tessa Munekiyo Ng, AICP
Vice President
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Ng:

Subject: Early Consultation for
Proposed Makalapua Project District
Keahuolu, Island of Hawaii
TMK Nos.: (3) 7-4-008:002 (por); (3) 7-4-025:001, 002, 003, 005
012, 017, 021, 022; and (3) 7-4-010:009, 010

Thank you for the opportunity to provide comments for the subject project. The Department of Accounting and General Services, Information and Communication Services Division will be starting an assessment of the State property identified by TMK (3) 7-4-008:073 as a future public safety communications site to expand communications coverage in West Hawaii. The proposed facility would consist of an 80-100 foot monopole or tower, 12' x 20' equipment building, 500-700 gallon outdoor fuel tank, and related infrastructure improvements.

We request to be provided with additional details on your future plans as soon as they are available, such as proposed locations and height of buildings, so we may adjust our plans accordingly.

If you have any questions, your staff may call Mr. David DePonte of the Planning Branch at (808) 586-0492.

Sincerely,

A handwritten signature in cursive script, appearing to read "James K. Kurata".

JAMES K. KURATA
Public Works Administrator

DD:lnn

c: Mr. Jerry Watanabe, DAGS Hawaii District
Mr. Vincent Krog, DAGS ICSD



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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

James K. Kurata
Public Works Administrator
State of Hawai'i
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810-0119

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Mr. Kurata:

Thank you for your letter dated April 29, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. Thank you for notifying us of the potential public safety communications site being considered for TMK No. (3) 7-4-008:073, which is proposed approximately 5,000 feet from the Makalapua Project District.
2. Detailed building plans for the Makalapua Project District are not yet available, but a copy of the Draft Environmental Assessment (EA), which will include conceptual plans for the project, will be sent to you for review and comment.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

James K. Kurata
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

Copy to: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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APR 14 2016



DAVID Y. IGE
GOVERNOR
SHAN S. TSUTSUI
LT. GOVERNOR

STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
335 MERCHANT STREET, ROOM 310
P.O. Box 541
HONOLULU, HAWAII 96809
Phone Number: 586-2850
Fax Number: 586-2856
cca.hawaii.gov

CATHERINE P. AWAKUNI COLÓN
DIRECTOR
JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

April 11, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Munekiyo Ng:

RE: Early Consultation Request for Proposed Makalapua Project District, Keahuolū, Hawaii TMK Nos. (3) 7-4-008:002 (por.), (3) 7-04-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009, 010

We received your letter, dated April 7, 2016, in error. Please submit your request with the Office of Environmental Quality Control. Their contact information is as follows:

Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813
Phone: (808) 586-4185
Fax: (808) 586-4186
Email: oeqchawaii.doh.hawaii.gov

Thank you.

Sincerely yours,

A handwritten signature in cursive script, reading "Catherine P. Awakuni Colón".

CATHERINE P. AWAKUNI COLÓN
Director

CPAC:isk

February 7, 2017

Catherine P. Awakuni Colon, Director
State of Hawai'i
Office of the Director
Department of Commerce and Consumer Affairs
335 Merchant Street, Room 310
P.O. Box 541
Honolulu, Hawai'i 96809

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Ms. Colon:

Thank you for your letter dated April 11, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following response to your comment:

1. Early consultation comments were also requested from the Office of Environmental Quality Control (OEQC) during the early consultation process.

We appreciate your prompt response and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Catherine P. Awakuni Colon
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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APR 20 2016

DAVID Y. IGE
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

04033PGH.16

April 15, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Ng:

SUBJECT: Comments on Early Consultation Request for Proposed Makalapua Project District, Keahuolu, Hawaii, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009 010

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated April 7, 2016, 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/Clean-Water-Branch-Std-Comments.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 National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a 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 applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. 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 appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) 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.
5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
 - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so; including low impact development methods or ecological

bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

- b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
- c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
- d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
- e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at: <http://health.hawaii.gov/cwb/>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,


ALEC WONG, P.E., CHIEF
Clean Water Branch

GH:ak



February 7, 2017

Alec Wong, P.E., Chief
State of Hawai'i
Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (File: 04033PGH.16)

Dear Mr. Wong:

Thank you for your letter dated April 15, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. It is noted that any project and its potential impacts to State waters must meet the specified criteria related to the antidegradation policy, designated uses, and water quality in the Hawai'i Administrative Rules, Chapter 11-54.
2. In accordance with HAR, Chapter 11-55, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained for the project.
3. The Makalapua Project District does not include work in, over, or under waters of the United States. Accordingly, the Department of the Army has approved a Jurisdictional Determination and No Permit Required for the proposed project.
4. LT and its contractors will comply with the State's Water Quality Standards and permitting requirements as specified in HAR, Chapter 11-54 and Chapter 11-55.
5. Energy and water efficiency and conservation strategies and low-impact design strategies are being considered for the proposed project. Additionally, best management practices (BMPs) for stormwater management will be included in

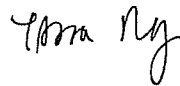
Alec Wong, P.E., Chief
February 7, 2017
Page 2

the project implementation. Discussion of these conservation strategies and BMPs will be included in the Draft Environmental Assessment (EA).

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering

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APR 18 2016

STATE OF HAWAII
DEPARTMENT OF HEALTH

P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

EPO 16-134

April 12, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Munekiyo Ng:

SUBJECT: Early Consultation (EC) for Makalapua Project District, Keahuolu, Hawaii
TMK: (3) 7-4-008:002 (por), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and
(3) 7-4-010:009, 010

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your EC to our office on April 11, 2016.

EPO strongly recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: <http://health.hawaii.gov/epo/landuse>. Projects are required to adhere to all applicable standard comments. EPO has recently updated the environmental Geographic Information System (GIS) website page. It now compiles various maps and viewers from our environmental health programs. The eGIS website page will be continually updated so please visit it regularly at: <http://health.hawaii.gov/epo/egis>.

EPO also encourages you to examine and utilize the Hawaii Environmental Health Portal at: <https://eha-cloud.doh.hawaii.gov>. This site provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings.

We suggest you review the requirements for the National Pollutant Discharge Elimination System (NPDES) permit. We recommend contacting the Clean Water Branch at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov after relevant information is reviewed at:

1. <http://health.hawaii.gov/cwb>
2. <http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/standard-npdes-permit-conditions>
3. <http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms>

Please note that all wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please review online guidance at: <http://health.hawaii.gov/wastewater> and contact the Planning and Design Section of the Wastewater Branch at 586-4294.

EPO also suggests that the Hazard Evaluation and Emergency Response (HEER) Office's Site Discovery and Response (SDAR) Section be contacted. The SDAR section protects human health and the environment by identifying, investigating, and remediating sites contaminated with hazardous substances (non-emergency site investigations and cleanup). The HEER Office's SDAR Section can be contacted at: (808) 586-4249. For historical maps on lands where sugarcane was grown see: <http://health.hawaii.gov/epo/egis/sugarcane>

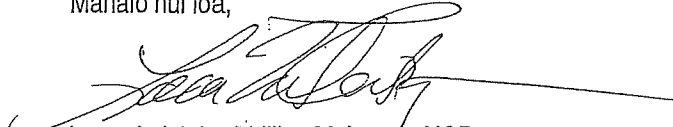
Ms. Tessa Munekiyo Ng
Page 2
April 12, 2016

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: <http://eha-web.doh.hawaii.gov/oeqc-viewer>. This viewer geographically shows where some previous Hawaii Environmental Policy Act (HEPA) {Hawaii Revised Statutes, Chapter 343} documents have been prepared.

In order to better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: <http://www2.epa.gov/ejscreen>.

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

Mahalo nui loa,



Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

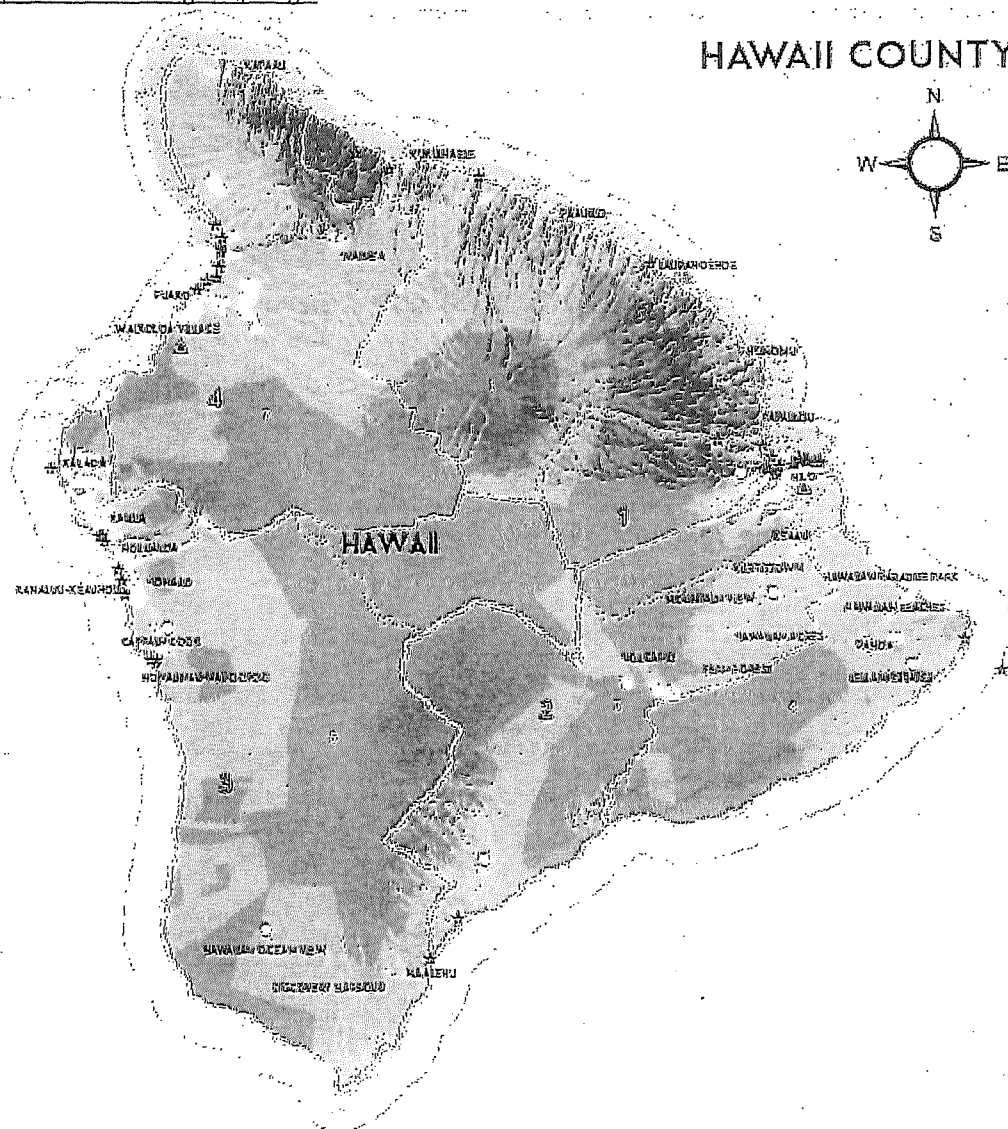
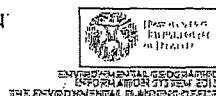
LM:nn

Attachment 1: EPO Draft Environmental Health Management Map
Attachment 2: Recycled Water Use Map
Attachment 3: OEQC Viewer Map of Project Area
Attachment 4: U.S. EPA EJSCREEN Report for Project Area

c: DOH: DHO HI, CWB, WWB, SDWB, HEER {via email only

LEGEND

- AIR QUALITY MONITORING SITES
- △ ACTIVE LANDFILLS
- ★ WATER QUALITY MONITORING SITES
- PERENNIAL STREAMS
- NON-PERENNIAL STREAMS
- 3-MILE NAUTICAL BOUNDARY
- ▨ A CLASS WATER QUALITY
- ▩ AA CLASS WATER QUALITY
- HOUSE DISTRICTS
- SENATE DISTRICTS
- AGRICULTURAL
- CONSERVATION
- RURAL
- URBAN



0 10 20 40 MILES

ENVIRONMENTAL HEALTH MANAGEMENT ON HAWAII

MAP INTENDED FOR ILLUSTRATIVE PURPOSES ONLY. SITE LOCATIONS ARE APPROXIMATE.







1 mile Ring Centered at 19.645296, -156.008923

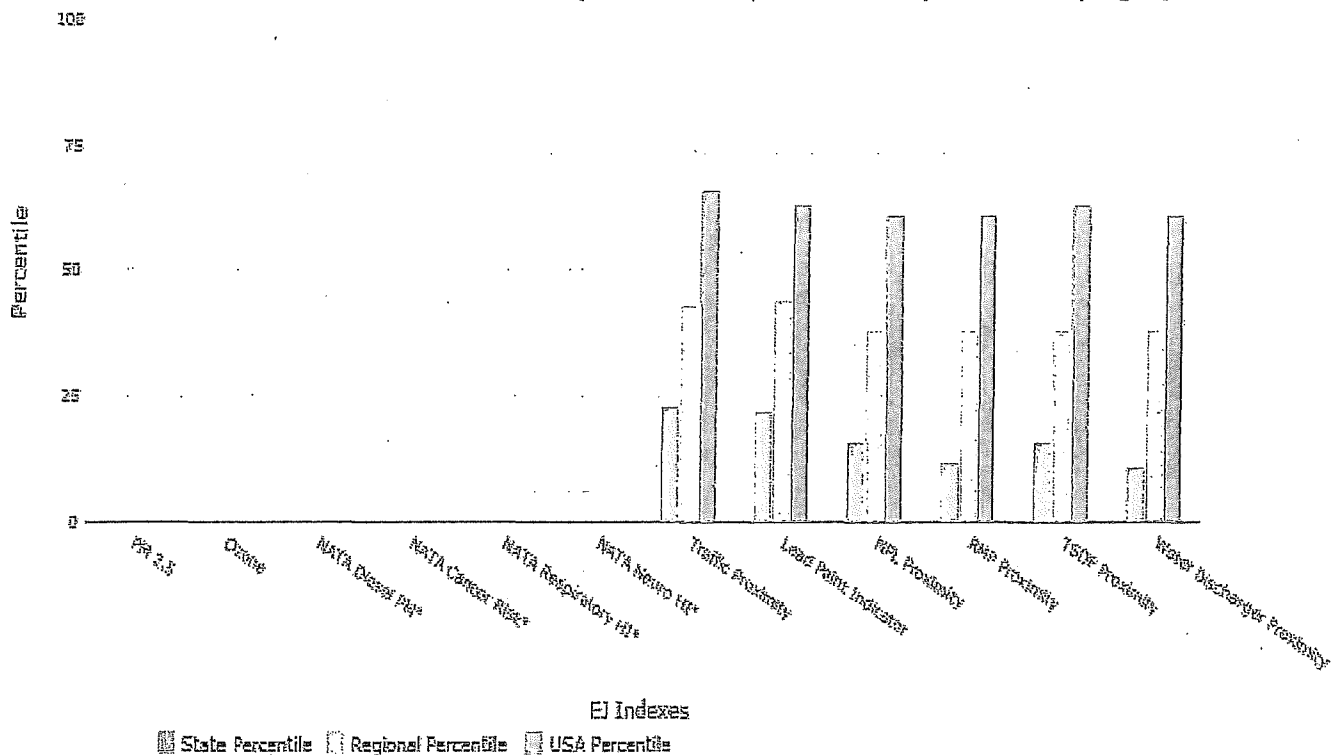
HAWAII, EPA Region 9

Approximate Population: 244

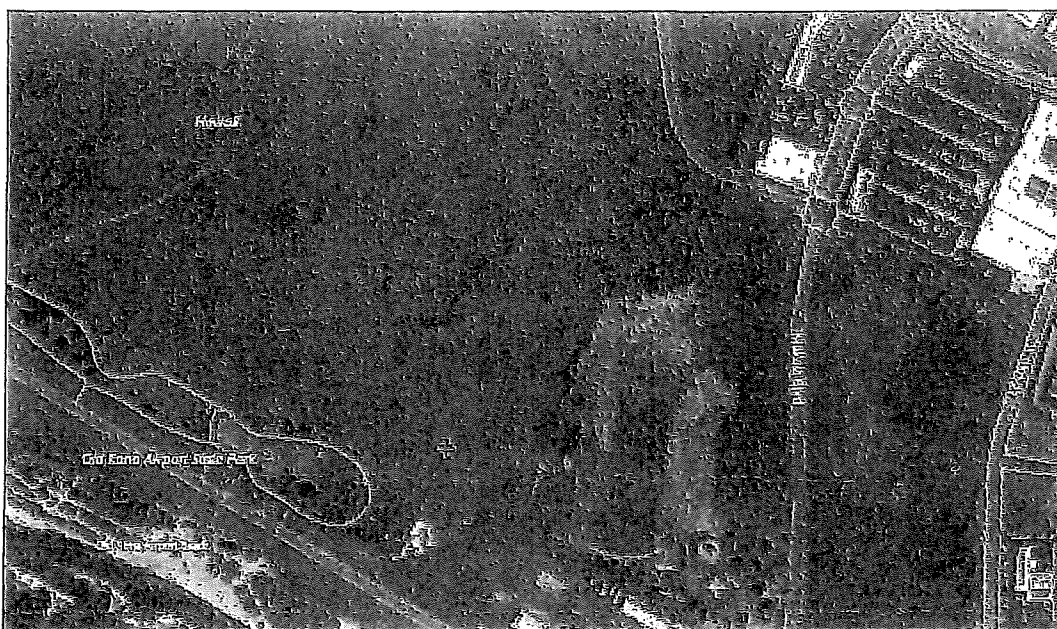


Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA Diesel PM*	N/A	N/A	N/A
EJ Index for NATA Air Toxics Cancer Risk*	N/A	N/A	N/A
EJ Index for NATA Respiratory Hazard Index*	N/A	N/A	N/A
EJ Index for NATA Neurotoxic Hazard Index*	N/A	N/A	N/A
EJ Index for Traffic Proximity and Volume	23	43	66
EJ Index for Lead Paint Indicator	22	44	63
EJ Index for NPL Proximity	16	38	61
EJ Index for RMP Proximity	12	38	61
EJ Index for TSD Proximity	16	38	63
EJ Index for Water Discharger Proximity	11	38	61

EJ Index for the Selected Area Compared to All People's Block Groups in the State/Region/US

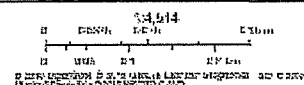


This report shows environmental, demographic, and EJ indicator values. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



April 12, 2005

✚ DANGER



Selected Variables	Raw data	State Average	%ile in State	EPA Region Average	%ile in EPA Region	USA Average	%ile in USA
Environmental Indicators							
Particulate Matter (PM _{2.5} in µg/m ³)	N/A	N/A	N/A	9.95	N/A	9.78	N/A
Ozone (ppb)	N/A	N/A	N/A	49.7	N/A	46.1	N/A
NATA Diesel PM (µg/m ³)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Air Toxics Cancer Risk (lifetime risk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Respiratory Hazard Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Neurological Hazard Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Traffic Proximity and Volume (daily traffic count/distance in feet)	12	280	15	190	13	110	25
Lead Paint Indicator (% pre-1950s housing)	0.0027	0.17	14	0.25	17	0.3	10
NPL Proximity (site count/km distance)	0.0033	0.002	11	0.11	0	0.006	0
RMP Proximity (facility count/km distance)	0.019	0.18	3	0.41	1	0.31	0
TSDF Proximity (facility count/km distance)	0.0035	0.002	11	0.12	0	0.054	4
Water Discharger Proximity (count/km)	0.0097	0.33	0	0.19	0	0.25	0
Demographic Indicators							
Demographic Index	40%	51%	44	48%	58	35%	74
Minority Population	79%	77%	42	57%	68	36%	84
Low Income Population	20%	25%	44	35%	31	34%	31
Linguistically Isolated Population	4%	6%	54	9%	40	5%	67
Population with Less Than High School Education	17%	10%	83	18%	57	14%	68
Population under Age 5	13%	8%	82	7%	91	7%	92
Population over Age 64	11%	14%	37	12%	58	13%	48

*The National-Scale Air Toxics Assessment (NATA) environmental indicators and EJ indexes, which include cancer risk, respiratory hazard, neurodevelopment hazard, and diesel particulate matter will be added into EJSCREEN during the first full public update after the soon-to-be-released 2011 dataset is made available. The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

February 7, 2017

Laura Leialoha Phillips McIntyre, AICP
State of Hawai'i
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (EPO 16-134)

Dear Ms. McIntyre:

Thank you for your letter dated April 12, 2016 providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

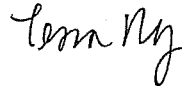
1. Comments from the State of Hawai'i Department of Health (DOH) and Environmental Planning Office's websites will be reviewed and adhered to, as applicable.
2. A National Pollutant Discharge Elimination System (NPDES) permit will be obtained for the project.
3. Wastewater plans will conform to applicable provisions of the DOH Administrative Rules, Chapter 11-62, "Wastewater Systems".
4. LT is not aware of any hazardous substance contamination within the project area. Should any contaminated sites be identified during the project implementation, the Hazard Evaluation and Emergency Response Office's Site Discovery and Response Section will be contacted.
5. Thank you for the information on the resources available from the Office of Environmental Quality Control and U.S. Environmental Protection Agency.

Laura Leialoha Phillips McIntyre, AICP
February 7, 2017
Page 2

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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MAY 23 2016

DAVID Y. IGE
GOVERNOR OF
HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT

ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 13, 2016

Munekiyo Hiraga
Attention: Tessa Munekiyo Ng
305 High Street, Suite 104
Wailuku, Hawaii 96793

Subject: Early Consultation Request for Proposed Makalapua Project District, Keahuolu,
Hawaii, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-025:001, 002, 003, 005, 012,
015, 017, 021, 022, and (3) 7-4-010:009, 010

Dear Munekiyo Hiraga,

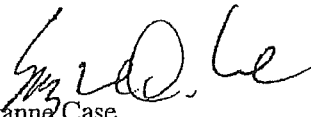
The proposed Makalapua Project District which is located within TMK's: (3) 7-4-008:002 (por.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009, 010 Keahuolu, Hawaii is not located within federally designated critical habitat for either plant species or the Blackburn's sphinx moth (*Manduca blackburni*). There are no known records of endangered plant species locations within the proposed project area though there are high salinity anchialine pools present that are known to contain rare native invertebrates which are sensitive to disturbance.

Since the proposed development will be constructed in a previously disturbed/alterd area there should be no adverse impact to any listed endangered plant species though care must be taken not to disturb the anchialine pools. We do recommend that a full biological survey be conducted to determine if there are any endangered plant or animal species present, and to check the current condition of the anchialine pools. There may be the federally endangered Hawaiian Hawk or i`o (*Buteo solitarius*) or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) in the area so care should be taken if larger trees are to be removed as bats and hawks are known to roost in large trees.

Additionally, the area in question is extremely dry and the risk of fire is great so proper mitigative measures need to be taken to lessen the chance of an accidental fire start. We also encourage any contractors to make sure they do not bring any untreated building materials or fill to this site from fire ant-infested areas (most of East Hawaii).

Thank you for the opportunity to comment on the proposed action. Please contact us if you have additional questions.

Sincerely,


Suzanne Case
Chairperson



February 7, 2017

Suzanne Case, Chairperson
State of Hawai'i
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Ms. Case:

Thank you for your letter dated May 13, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. It is noted that the Makalapua Project District is not located within federally designated critical habitat for either plant species or the Blackburn's sphinx moth and there are no known records of endangered plant species located within the proposed project area. While there are anchialine pools within the Keahuolū ahupua'a, there are no anchialine pools located within the proposed Makalapua Project District area.
2. A biological survey was conducted for the proposed project and will be included in the Draft Environmental Assessment (EA). The biological survey did not identify any threatened or endangered plant or animal species within the project site. LT will coordinate with the U.S. Fish and Wildlife Service regarding the methodology and timing for removal of trees taller than 15 feet. Significant outdoor lighting proposed in the Project District will be shielded to direct light downward to minimize disorientation of seabirds that may fly over the area.
3. Appropriate mitigation measures to reduce the risk of fire will be taken. Additionally, contractors will be advised not to bring untreated building materials or fill to the site from fire ant-infested areas.

Suzanne Case, Chairperson
February 7, 2017
Page 2

We appreciate your input, and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



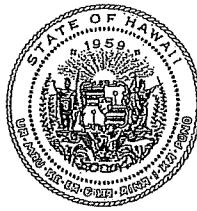
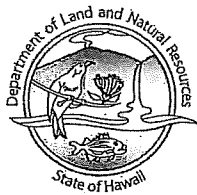
Tessa Munekiyo Ng, AICP
Vice President

TMN:la

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Robert W. Hobdy, Environmental Consultant

K:\DATA\QLT\Makalapua PD 1875\Early Consultation\Response Letters\DLNR.resp.ltr.docx

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
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

April 27, 2016

Munekiyo & Hiraga, Inc.
Attention: Ms. Tessa Munekiyo Ng, AICP via email: planning@mhplanning.com
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Munekiyo Ng:

SUBJECT: Early Consultation Request for Proposed Makalapua Project

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, 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.

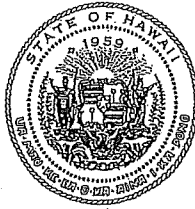
Sincerely,

A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII



16 APR 13 AM 1030 ENGINEERING

SUZANNE D. CASE
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

April 13, 2016

MEMORANDUM

TO:

FR:

DLNR Agencies:

- ☐ Div. of Aquatic Resources
- ☐ Div. of Boating & Ocean Recreation
- ☒ Engineering Division
- ☐ Div. of Forestry & Wildlife
- ☐ Div. of State Parks
- ☒ Commission on Water Resource Management
- ☐ Office of Conservation & Coastal Lands
- ☒ Land Division – Hawaii District
- ☒ Historic Preservation

FROM:

SUBJECT:

LOCATION:

APPLICANT:

Russell Y. Tsuji, Land Administrator

Early Consultation Request for Proposed Makalapua Project

Keahuolu, North Kona, Island of Hawaii; TMK: (3) 7-4-008:002 (por.), 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and 7-4-010:009, 010

The Queen Lili'uokalani Trust

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **April 26, 2016**.

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 have no objections.
- ☐ We have no comments.
- ☒ Comments are attached.

Signed:

Print Name: Carty S. Chang, Chief Engineer

Date:

cc: Central Files

RECEIVED
LAND DIVISION
2016 APR 20 AM 11:02
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

**DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION**

To: Land Division/ Russell Y. Tsuji

Ref: Early Consultation Request for Proposed Makalapua Project

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a designated Flood Hazard.

The owner or the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zone designations can be found using the Flood Insurance Rate Map (FIRM), which can be accessed through the Flood Hazard Assessment Tool (FHAT) (<http://gis.hawaiiinfip.org/FHAT>).

National Flood Insurance Program establishes the rules and regulations of the NFIP - Title 44 of the Code of Federal Regulations (44CFR). The NFIP Zone X is a designation where there is no perceived flood impact. Therefore, the NFIP does not regulate any development within a Zone X designation.

Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may take precedence over the NFIP standards as local designations prove to be more restrictive. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

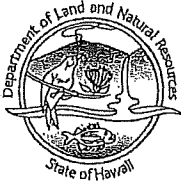
- Oahu: City and County of Honolulu, Department of Planning and Permitting
(808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: _____

CARTY S. CHANG, CHIEF ENGINEER

Date: _____

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
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

May 2, 2016

Munekiyo & Hiraga, Inc.

Attention: Ms. Tessa Munekiyo Ng, AICP

via email: planning@mhplanning.com

305 High Street, Suite 104

Wailuku, Hawaii 96793

Dear Ms. Munekiyo Ng:

SUBJECT: Early Consultation Request for Proposed Makalapua Project

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments previously sent you on April 27, 2016, enclosed are comments from the Commission on Water Resource Management the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

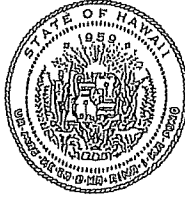
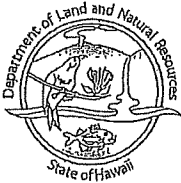
A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Land Administrator

Enclosure(s)

cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
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

April 13, 2016

MEMORANDUM

TO:

DLNR Agencies:

- ☐ Div. of Aquatic Resources
☐ Div. of Boating & Ocean Recreation
☒ Engineering Division
☐ Div. of Forestry & Wildlife
☐ Div. of State Parks
☒ Commission on Water Resource Management
☐ Office of Conservation & Coastal Lands
☒ Land Division – Hawaii District
☒ Historic Preservation

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT:

Early Consultation Request for Proposed Makalapua Project

LOCATION:

Keahuolu, North Kona, Island of Hawaii; TMK: (3) 7-4-008:002 (por.), 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and 7-4-010:009, 010

APPLICANT:

The Queen Lili'uokalani Trust

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **April 26, 2016**.

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 have no objections.
() We have no comments.
(x) Comments are attached.

Signed: /s/ Jeffrey T. Pearson, P.E.

Print Name: Deputy Director

Date: April 25, 2016

cc: Central Files

FILE ID:	RFB.4378.8
DOC ID:	13912 ✓

RECEIVED
COMMISSION ON WATER AND DIVISION
RESOURCE MANAGEMENT

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

2016 APR 13 PM 12:06 APR 29 AM 11:00

DAVID Y. IGE
GOVERNOR OF HAWAII



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

SUZANNE D. CASE
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
KAMANA BEAMER, PH.D.
MICHAEL G. BUCK
MILTON D. PAVAO
VIRGINIA PRESSLER, M.D.
JONATHAN STARR

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR

April 25, 2016

REF: RFD.4378.8

TO: Mr. Russell Tsuji, Administrator
Land Division Oahu, DLNR-LD

FROM: Jeffrey T. Pearson, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Early Consultation Request for Proposed Makalapua Project

FILE NO.: RFD.4378.8
TMK NO.: (3) 7-4-008:002 (por.), 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and 7-4-010:009, 010

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

Our comments related to water resources are checked off below.

- ☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- ☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- ☒ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- ☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense>.
- ☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/dbedt/czm/initiative/ld.php>.
- ☒ 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 <http://energy.hawaii.gov/green-business-program>.
- ☒ 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://www.hawailandscape.com/wp-content/uploads/2013/04/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.
 - ☐ 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 the commencement of any well construction work.
 - ☐ 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 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 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 DEA should discuss the projected water demands for the project, both potable and non-potable, and provide the calculations used to estimate demands. The DEA should identify the proposed water source(s) to support the project, and include a discussion of the potential impacts on water resources, other public trust uses of water, and describe any proposed mitigation measures. Water conservation and efficiency measures to be implemented should also be discussed.

If you have any questions, please contact Lenore Ohye of the Commission staff at 587-0216.



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Russell Y. Tsuji, Land Administrator
State of Hawai'i
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai'i 96809

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Mr. Tsuji:

Thank you for your letters dated April 27, 2016 and May 2, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses to your comments:

Engineering Division:

1. As indicated by the Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) for the area, the Makalapua Project District is located within Flood Zone X. It is noted that the Nation Flood Insurance Program (NFIP) does not regulate any development within a Zone X designation.

Commission on Water Resource Management:

1. LT has been coordinating with the County Planning Department and Department of Water Supply on the proposed project.
2. The State Department of Agriculture was provided with a request for comments during the early consultation process for the subject project and will receive a copy of the Draft Environmental Assessment (EA). The proposed Makalapua Project District area, including the 14.96 acres of State Land Use "Agricultural" lands proposed for reclassification, is not in active agricultural use.

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

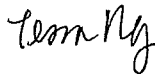
www.munekiyo-hiraga.com

3. Water efficient fixtures and practices are being considered for the proposed project.
4. Best Management Practices (BMPs) for stormwater management will be implemented for the proposed project. A discussion of BMPs will be included in the Draft EA.
5. Alternative water sources, where practicable, are being considered for the proposed project.
6. LT will look into the Hawaii Green Business Program.
7. Landscape irrigation conservation BMPs will be incorporated into the proposed project.
8. A discussion of the planned water source for the project will be included in the Draft EA.
9. The Draft EA will include a discussion on water demand, potential water source, and potential impact on water resources, proposed mitigation measures, and water conservation and efficiency measures for the proposed Makalapua Project District.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering

K:\DATA\QLT\Makalapua PD 1876\Early Consultation\Response Letters\DLNR-Land.resp.ltr.doc

DAVID Y. IGE
GOVERNOR



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

June 14, 2016

JUN 24 2016

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG
IN REPLY REFER TO:
DIR 0501

HWY-PS 2.2573

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Ng:

Subject: Early Consultation for Draft Environmental Assessment
Makalapua Project District, Queen Liliuokalani Trust
Keahuolu, North Kona, Hawaii
TMK: (3) 7-4-008:002 por., 7-4-025: 001, 002,
003, 005, 012, 015, 017, 021, 022, 7-4-010: 009, 010

Queen Liliuokalani Trust (QLT) proposes the development of 69.1 acres of land in Kailua-Kona into a mixed-use community with access from Queen Kaahumanu Highway, State Route 19. QLT requests comments in early consultation for preparation of environmental documents under Chapter 343, Hawaii Revised Statutes. QLT will be seeking a District Boundary Amendment for 14.96 acres from the State Land Use Commission, and a Change of Zone Application and Special Management Area Permit from the County of Hawaii.

We have the following comments:

1. The Hawaii Department of Transportation (HDOT) requires that a traffic impact analysis report (TIAR) be prepared and submitted to the HDOT for review and acceptance. The TIAR shall be consistent with the overall plan of development that QLT has indicated for development of its lands in this area.
2. The HDOT is concerned about the impact of this development on Queen Kaahumanu Highway and recommends that parallel arterial route(s) between this development and adjacent lands be considered in addition to the Kuakini Highway Extension.

If there are any questions, please contact Nami Wong, Systems Planning Engineer, Highways Division, Planning Branch, at (808) 587-6336. Please reference file review number PS 2016-077 in all contacts and correspondence regarding these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Ford N. Fuchigami", is written over a horizontal line.

FORD N. FUCHIGAMI
Director of Transportation



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Ford N. Fuchigami, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (DIR 0501, HWY-PS 2.2573) (PS 2016-077)

Dear Mr. Fuchigami:

Thank you for your letter dated June 14, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

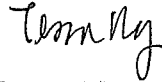
1. A Traffic Impact Analysis Report (TIAR) is being prepared for the proposed project and will be submitted to the State of Hawai'i Department of Transportation (HDOT) for review and acceptance. The TIAR will be consistent with LT's plans for development of its lands in this area.
2. Upon completion of the TIAR, LT will work with HDOT to identify appropriate mitigation measures, as needed, for the proposed Makalapua Project District.

We appreciate your input, and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Ford Fuchigami, Director
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:tn

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, PE, Austin, Tsutsumi & Associates, Inc.

K:\DATA\QLT\Makalapua PD 1875\Early Consultation\Response Letters\SDOT response.doc

JUN 13 2016

DAVID Y. IGE
GOVERNOR



ARTHUR J. LOGAN
MAJOR GENERAL
ADJUTANT GENERAL

KENNETH S. HARA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

June 7, 2016

Munekiyo Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Attn.: Ms. Tessa Munekiyo Ng


Subject: Early Consultation Request for Proposed Makalapua Project District, Keahuolu,
Hawaii, TMK Nos. (3) 7-4-008: 002 (por.), (3) 7-4-025: 001, 002, 003, 005, 012,
015, 017, 021, 022, and (3) 7-4-009, 010

Dear Ms. Munekiyo Ng:

Thank you for the opportunity to comment on the above project, and please accept our apologies for this late response. The State of Hawaii Department of Defense has no comments to offer relative to the project.

Should you have any questions or concerns, please have your staff contact Mr. Lloyd Maki, Assistant Chief Engineering Officer at (808) 733-4250.

Sincerely,


ARTHUR J. LOGAN
Major General
Hawaii National Guard
Adjutant General

c: Ms. Havinne Okamura, Hawaii Emergency Management Agency

DAVID Y. IGE
GOVERNOR
STATE OF HAWAII

SHAN S. TSUTSUI
LT. GOVERNOR
STATE OF HAWAII



APR 28 2016

JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

WILLIAM J. AILA, JR.
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P. O. BOX 1879
HONOLULU, HAWAII 96805

April 21, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96805

Dear Ms. Munekiyo Ng:

Subject: Early Consultation Request for Proposed Makalapua
Project District, Keahuolu, Hawaii, TMK (3) 7-4-
008:002 (por.), (3) 7-4-025:002, 002, 003, 005,
012, 015, 017, 021, 022, and (3) 7-4-010:009, 010

Mahalo for the opportunity to provide early comments on the
proposed Makalapua Project District. At this time, DHHL offers
the following comments that should be addressed in the draft
environmental assessment (DEA):

- Please discuss the project's potential impact on DHHL's water reservation of 3.398 mgd in the Keauhou Aquifer System Area and DHHL's ability to provide potable water for its future community development in the Kealakehe region;
- Please discuss how the project may impact DHHL's ability to implement its Kealakehe-Laiopua Regional Plan;
- Please discuss the project's potential positive or negative impacts on the Laiopua 2020 Master Plan;

Also, please consult with the Villages of Laiopua Community Association. The association represents the interests of DHHL homestead lessees in the region.

Ms. Tessa Munekiyo Ng
April 21, 2016
Page 2

Should you have any questions, please contact Andrew Choy at
andrew.h.choy@hawaii.gov or 620-9279.

Aloha,



Jobie M. K. Masagatani, Chairman
Hawaiian Homes Commission

c: DHHL West Hawaii District Office (via email)
Villages of Laiopua Association (via email)
Laiopua 2020 (via email)



February 7, 2017

Jobie M. K. Masagatani, Chairman
State of Hawai'i
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, Hawai'i 96805

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Chairperson Masagatani:

Thank you for your letter dated April 21, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. The water source for the proposed project is the Keauhou Aquifer System. Water system demand for the Makalapua Project District will be covered by existing water commitment agreements LT has with DWS. As such, the proposed project is not anticipated to impact the Department of Hawaiian Home Land's (DHHL) water reservation in the Keauhou Aquifer. The Draft Environmental Assessment (EA) for the project will include a discussion on the project's water demand and supply.
2. The proposed Makalapua Project District is not anticipated to impact DHHL's ability to implement its Kealahou-La'i'Ōpua Regional Plan or the La'i'Ōpua 2020 Master Plan. The Draft EA will include discussion on planned infrastructure improvements associated with the Makalapua Project District. The Traffic Impact Analysis Report (TIAR) prepared for the project included assumptions on the Villages of La'i'Ōpua based on traffic projections assumed for the La'i'Ōpua development in the TIAR prepared for the Kaloko Makai Environmental Impact Statement (EIS). The Draft EA will also include a discussion on cumulative and secondary impacts resulting from the Makalapua Project District, which will address any anticipated impacts beyond the direct impacts associated with the project's implementation.

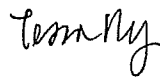
Jobie M. K. Masagatani, Chairperson
February 7, 2017
Page 2

3. A copy of the Draft EA will be sent to the Villages of La'i'Ōpua Community Association for review.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering
Matt Nakamoto, P.E., Austin, Tsutsumi & Associates, Inc.

K:\DATA\QLT\Makalapua PD 1875\Early Consultation\Response Letters\DHHL.resp.ltr.doc

MAY 31 2016

PHONE (808) 594-1888

FAX (808) 594-1938



**STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS**
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAII 96817

HRD16-7839

May 11, 2016

Munekiyo Hiraga
ATTN: Tessa Munekiyo Ng
305 High Street, Suite 104
Wailuku, HI 96793

Re: Request for Comments on Early Consultation for the Environmental Assessment for the Makalapua Project District
Keahuolu Ahupua'a, Kona Moku, Hawai'i Moku
Tax Map Key (3) 7-4-008:002(por.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009, 010

Aloha Ms. Munekiyo:

The Office of Hawaiian Affairs (OHA) is in receipt of your April 14, 2016 letter requesting comments on early consultation for the proposed environmental assessment (EA) for Makalapua Project District in Keahuolu, Hawai'i. The project proponent is The Queen Lili'uokalani Trust and Munekiyo Hiraga (Applicant) is acting on their behalf.

The Makalapua Project District is a mixed-use project to include 180 residential units; 180-room hotel; 470,000 square feet retail, commercial, and office; and 50,000 square feet civic/community uses. The project site is currently designated as urban and 14.96 acres as agricultural by the State of Hawai'i Land Use Commission (LUC). Applicant is requesting a district boundary amendment of the 14.96 acres from agricultural to urban with the LUC; a change of zone application and a special management area use permit with the County of Hawai'i. All three permits require compliance with Hawai'i's Environmental Review Law Chapter 343 of the Hawai'i Revised Statutes.

OHA is aware that the Makalapua Project District is within the Keauhou Aquifer System Area, and that the County of Hawai'i Department of Water Supply is in the process of updating

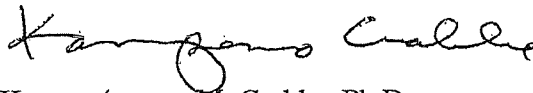
Tessa Munekiyo Ng - Munekiyo Hiraga
May 11, 2016
Page 2

their Water Use and Development Plan. OHA would like to emphasize the importance of balancing the need of water for the Makalapua Project District with the impacts upon traditional and customary rights of Native Hawaiian practitioners.

OHA appreciates the outreach efforts that Munekiyo Hiraga has undertaken by consulting with us. In the future, we would appreciate a list of all other consulted parties in order to determine whether additional ones, particularly Native Hawaiian Organizations (NHO), should be suggested. If you have not already done so, please consult with the 'Aha Moku Council, the appropriate Hawai'i based Hawaiian Civic Clubs, and the Hawai'i Island Burial Council. We also recommend the NHO list held by the Department of Interior (DOI), available at <https://www.doi.gov/hawaiian/NHOL>.

Mahalo for the opportunity to comments. Should you have any questions, please contact Jeannin Jeremiah at 594-1790 or by email at jeanninj@oha.org.

'O wau iho nō me ka 'oia 'i'o,



Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:jj

C: Shane Palacat-Nelsen - OHA Community Outreach Coordinator, West Hawai'i Island

**Please address replies and similar, future correspondence to our agency:*

*Dr. Kamana'opono Crabbe
Attn: OHA Compliance Enforcement
560 N. Nimitz Hwy, Ste. 200
Honolulu, HI 96817*



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Dr. Kamana'opono Crabbe,
Chief Executive Officer
Office of Hawaiian Affairs
Attn: OHA Compliance Enforcement
560 N. Nimitz Highway, Suite 200
Honolulu, Hawaii 96817

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3)7-4-008:002 (por.), (3)7-4-
025:001, 002, 003, 005, 012, 017, 021, 022, and (3)7-4-010:009,
010

Dear Dr. Crabbe:

Thank you for your letter dated May 11, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. LT is aware that the County of Hawai'i, Department of Water Supply (DWS) is in the process of updating their Water Use and Development Plan and also recognizes the importance of balancing water needs for the Makalapua Project District and other developments with the traditional and customary rights of Native Hawaiian practitioners. Water system demands for the Makalapua Project District will be covered by existing water commitment agreements LT has with DWS.
2. A list of consulted parties will be included in the Draft Environmental Assessment (EA) for the project. A copy of the Draft EA will be provided to Office of Hawaiian Affairs for review. The 'Aha Moku Council, Kōna Hawaiian Civic Club and Hawai'i Island Burial Council will also be added to the distribution list for the Draft EA.

We appreciate your input, and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

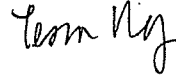
Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

Dr. Kamana`opono Crabbe,
Chief Executive Officer
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:tn

Copy to: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering

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OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: <http://planning.hawaii.gov/>

APR 28 2016

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

Ref. No. P-15122

April 26, 2016

Munekiyo Hiraga
Attention: Tessa Munekiyo Ng
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Munekiyo Ng:

Subject: HRS Chapter 343 Early Consultation Request for Proposed
Makalapua Project District
Tax Map Key: (3) 7-4-008: 002 (por.), 7-4-025: 001, 002, 003,
005, 012, 015, 017, 021, 022, and 7-4-010: 009, 010
Keahuoku, Hawaii

The Office of Planning (OP) has reviewed the request for comments for the early consultation for District Boundary Amendment, Change of Zone application, and a Special Management Area (SMA) Permit for the above referenced project, and offers the following comments.

1. The applicant, Queen Liliuokalani Trust (QLT) is proposing to develop approximately 69.1 acres with off-site improvements on 9.23 acres. This project area is known as the Makalapua Project District. The Project District will include residential, hotel, retail, commercial, office and civic/community uses. QLT will be requesting a boundary amendment for approximately 14.96 acres of the total 69.1 acre development. The remainder of land is currently within the State Urban District. A detailed discussion of the types of uses and numbers of units within the entire development should be included.

In addition, other relevant State agencies, such as the Department of Transportation, Department of Education, Department of Defense, Department of Land and Natural Resources, including the State Historic Preservation Division, Department of Health, should be contacted to provide comments on the proposed project.

2. Pursuant to the Hawaii Administrative Rules (HAR) § 11-200-10(4) – general description of the action's technical, economic, social, and environmental characteristics; this project must demonstrate that it is consistent with a number of State environmental, social policies, economic goals, and policies for land use. OP

provides technical assistance to State and county agencies in administering the statewide planning system in Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan. The Hawaii State Plan provides goals, objectives, policies, priority guidelines, and functional plans for growth, development, and the allocation of resources throughout the State in areas of state interest including but not limited to the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, climate change adaptation, and sustainability.

The Draft Environmental Assessment (Draft EA) should include an analysis that addresses whether the proposed project conforms to or is in conflict with the goals, objectives, policies, and priority guidelines listed in the Hawaii State Plan.

3. The coastal zone management (CZM) area is defined as “all lands of the State and the area extending seaward from the shoreline to the limit of the State’s police power and management authority, including the U.S. territorial sea” (see HRS § 205A-1, the definition of “coastal zone management area”).

HRS § 205A-5(b) requires all State and county agencies to enforce the CZM objectives and policies. The Draft EA should include an assessment as to how the proposed project conforms to or is in conflict with the CZM objectives and its supporting policies set forth in HRS § 205A-2. The assessment on compliance with HRS § 205A-2 is an important component for satisfying the requirements of HRS Chapter 343. These objectives and policies include recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources.

4. It appears that at least a portion of the project district is within the Special Management Area (SMA) delineated by the County of Hawaii, Planning Department, and thus subject to the rules and procedures governing the SMA. Please consult with said agency on the policies and procedures on SMA permitting.
5. Pursuant to HAR § 11-200-10(6) – identification and summary of impacts and alternatives considered; in order to ensure that the coastline and water resources near West Hawaii remain protected, the negative effects of stormwater inundation ensuing from development activities should be evaluated in the Draft EA. The project area, for the most part is an open, covered in dry shrub grass, rocks, and plants consistent with West Hawaii vegetation. It is unclear what level of drainage infrastructure is

within the Makalapua Project district, but the roadway is served by a drain and gutter system. The land within the project site appears to be in its natural state, with little sign of development. During heavy storm events, the natural contours of the land and drainage infrastructure may transport upslope sediment, land-based pollutants, and toxicant-load contributions into nearshore waters.

The Draft EA should examine potential benefits and/or negative impacts resulting from this project on coastal and marine resources. Issues that may be examined in the Draft EA include, but are not limited to, project site characteristics in relation to erosion controls on flood prone areas, undeveloped open spaces, and the absorption characteristics of the soil. Furthermore, it should differentiate between the existing permeable surfaces versus hardened surfaces in the area. These items, as well as the marine water quality classification, should be considered when developing mitigation measures to protect the coastal ecosystem.

The Draft EA should examine the cumulative impact on coastal resources from land-based polluted runoff and sediment loss. It should take into account any of the natural features in the area, undeveloped open spaces, down-sloping topography, hardened non-permeable surfaces that have a cumulative effect on the volume and speed of storm runoff, and soil absorption rates.

OP has a number of resources available to assist in the development of projects which ensure sediment and stormwater control on land, thus protecting the nearshore environment. OP recommends consulting these guidance documents and stormwater evaluative tools when developing strategies to address polluted runoff. They offer useful techniques to keep land-based pollutants and sediment in place and prevent contaminating nearshore waters, while considering the practices best suited for this project. These three evaluative tools that should be used during the design process include:

- Hawaii Watershed Guidance provides direction on mitigation strategies in urban areas that will safeguard Hawaii's watersheds and implement watershed plans [http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI Watershed Guidance Final.pdf](http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI_Watershed_Guidance_Final.pdf)
- Stormwater Impact Assessments can be used to identify and evaluate information on hydrology, stressors, sensitivity of aquatic and riparian resources, and management measures to control runoff, as well as consider secondary and cumulative impacts to the area

Ms. Munekiyo Ng
April 26, 2016
Page 4

http://files.hawaii.gov/dbedt/op/czm/initiative/stormwater_impact/final_storm_water_impact_assessments_guidance.pdf

- Low Impact Development (LID), A Practitioners Guide covers a range of structural best management practices (BMP's) for stormwater control management, roadway development, and urban layout that minimizes negative environmental impacts
http://files.hawaii.gov/dbedt/op/czm/initiative/lid/lid_guide_2006.pdf

6. The Draft EA should describe and discuss the State DOT recommendations which were imposed in the Land Use Commission's April 21, 2016 Order Granting Petitioner Queen Liliuokalani Trust's Motion for Order Modifying the Findings of Fact, Conclusions of Law, and Decision and Order filed August 28, 1991.

If you have any questions, please contact Josh Hekeia of our Coastal Zone Management Office at (808) 587-2845 or Lorene Maki of our Land Use Division, at (808) 587-2888.

Sincerely,



Leo R. Asuncion
Director



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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Leo R. Asuncion, Director
Office of Planning
State of Hawai'i
P.O. Box 2359
Honolulu, Hawai'i 96804

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (Ref. No. P-15122)

Dear Mr. Asuncion:

Thank you for your letter dated April 26, 2016 providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. The State of Hawai'i agencies noted in your letter were included as part of the early consultation process for the proposed project.
2. The Draft Environmental Assessment (EA) for the project will include a description of the action's technical, economic, social, and environmental characteristics and its consistency with State environmental, social, and land use policies and economic goals, including the Hawai'i State Plan.
3. The Draft EA will also include an assessment on the project's consistency with the Coastal Zone Management Area objectives and supporting policies.
4. The Makalapua Project District is within the Special Management Area (SMA) and an SMA Use Permit application will be filed with the County of Hawai'i, Planning Department.
5. The Draft EA for the project will include a summary of impacts and alternatives considered for the proposed project and will include an Infrastructure Report and

Leo R. Asuncion, Director
February 7, 2017
Page 2

drainage report. It will also include a discussion on potential impacts to coastal and marine resources resulting from the proposed project.

6. The Draft EA will also include the State DOT recommendations imposed in the Land Use Commission's modified Decision and Order dated April 21, 2016.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, P.E., Austin, Tsutsumi & Associates, Inc.
Keith Uemura, P.E., Park Engineering

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DAVID Y. IGE
Governor

DANIEL E. ORODENKER
Executive Officer

SHAN S. TSUTSUI
Lieutenant Governor

BERT K. SARUWATARI
Planner

LUIS P. SALAVERIA
Director

SCOTT A.K. DERRICKSON, AICP
Planner

MARY ALICE EVANS
Deputy Director

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



FRED A. TALON
Drafting Technician

RILEY K. HAKODA
Chief Clerk/Planner

April 22, 2016

Tessa Munekiyo Ng, AICP
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawai'i 96793

SUBJECT: Early Consultation Request for Proposed Makalapua Project
District, Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.); (3)
7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022; and, (3) 7-4-
010:009 and 010

Aloha Ms. Ng:

We appreciate the opportunity for early consultation on the above-named project. A portion of the proposed project was recently the subject of a Land Use Commission (LUC) proceeding to modify Docket No. A89-646 Lili'uokalani Trust. The LUC adopted a modified decision and order ("Order") on April 20, 2016. We recommend that you take notice of this action during your early consultation and within the Environmental Assessment (EA).

The Order requires compliance with certain State Department of Transportation (DOT) recommendations with respect to traffic mitigation measures and the preparation, review, and acceptance of a Traffic Impact Analysis Report (TIAR).

Thank you again for the opportunity to comment. Should you have any questions please contact Scott A.K. Derrickson, AICP at 587-3921.

Sincerely,

Daniel E. Orodener
Executive Officer

Encl (1)

cc: Leo Asuncion, State Office of Planning



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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Daniel E. Orodener
State of Hawai'i
Land Use Commission
Department of Business, Economic
Development & Tourism
235 South Beretania Street, Suite 406
Honolulu, Hawai'i 96813

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Mr. Orodener:

Thank you for your letter dated April 22, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. The modified Decision and Order from the Land Use Commission (LUC) dated April 21, 2016 will be referenced in the Draft Environmental Assessment (EA) for the Makalapua Project District.
2. It is noted that the Order requires compliance with certain State Department of Transportation recommendations and acceptance of a Traffic Impact Analysis Report (TIAR). A TIAR is being prepared for the proposed project and will be included in the Draft EA.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Daniel E. Orodener, Executive Officer
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,

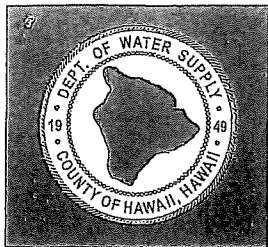


Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, P.E., Austin, Tsutsumi & Associates, Inc.

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MAY 18 2016

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KĒKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8657

May 11, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
735 Bishop Street, Suite 321
Honolulu, HI 96813

Dear Ms. Ng:

**Subject: Pre-Environmental Consultation for Proposed Makalapua Project District
Keahuolū, North Kona, Hawai'i
Tax Map Key 7-4-008:002 (Portion), 7-4-025:001, 002, 003, 005, 012, 015, 017,
021, 022, and 7-4-010:009 and 010**

This is in response to your Pre-Environmental Assessment letter dated April 7, 2016.

Please be informed that there are existing 12-inch waterlines along Makala Boulevard and Loloku Street and an existing 6-inch waterline along Kuakini Highway. Several of the subject parcels have existing services.

Queen Lili'uokalani Trust (QLT) has executed the Keahuolū Lands Water Resource Development Agreement with our Water Board in order to secure water commitments for the development of its properties within the Department's North Kona Water System.

QLT shall provide a development plan or water master plan for review and approval, prepared by a professional engineer licensed in the State of Hawai'i, showing how the QLT proposes to provide water at adequate pressure and volume under peak-flow and fire-flow conditions. Any water improvements should coincide with the phasing. The water master plan should include estimated maximum daily water usage calculations, showing the anticipated water demand for all proposed land uses within the development. The water usage calculations shall include the estimated maximum daily water demand in gallons per day and the estimated peak flow in gallons per minute.

We request that QLT address the non-potable demand of water or irrigation by using alternate methods (i.e. reclaimed or reused water).

Construction plans, prepared by a professional engineer licensed in the State of Hawai'i, shall be submitted for review and approval. QLT shall be responsible for the relocation and adjustment of the Department's affected water system facilities, should they be necessary.

Water service will be subject to the terms of the agreement and upon completion and dedication of the required water system improvements.

Ms. Tessa Munekiyo Ng
Page 2
May 10, 2016

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at 961-8070, extension 256.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'k Okamoto', with a stylized flourish at the end.

Keith K. Okamoto, P.E.
Manager-Chief Engineer

RQ:dfg

February 7, 2017

Keith K. Okamoto, P.E., Manager-Chief Engineer
County of Hawai'i
Department of Water Supply
345 Kekūanaō'a Street, Suite 20
Hilo, Hawai'i 96720

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Mr. Okamoto:

Thank you for your letter dated May 11, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. It is noted that there are existing 12-inch waterlines along Makala Boulevard and Loloku Street and an existing 6-inch waterline along Kuakini Highway and that several of the parcels have existing water service.
2. It is further noted that LT has executed the Keahuolū Lands Water Resource Development Agreement and the Makalapua Business Center Water Commitment Agreement with the Water Board to secure water commitment for the development of its properties within the Department of Water Supply's (DWS) North Kona Water System.
3. An Infrastructure Report, including water demand calculations and a water infrastructure plan, is being prepared for the proposed project and will be included in the Draft Environmental Assessment (EA).
4. Reclaimed or reused water, when available, will be considered for non-potable water demand.

5. The DWS will have an opportunity to review project plans during the Design Center review, rezoning, and building permit review process. LT will coordinate with DWS on any water system facilities that require relocation.
6. It is noted that water service will be subject to the terms of the Keahuolū Lands Water Resource Development Agreement and the Makalapua Business Center Water Commitment Agreement upon completion and dedication of the required water system improvements.

We appreciate your input, and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



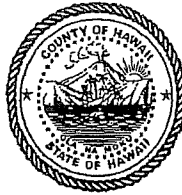
Tessa Munekiyo Ng, AICP
Vice President

TMN:la

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering

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William P. Kenoi
Mayor



APR 14 2016

Darren J. Rosario
Fire Chief

Renwick J. Victorino
Deputy Fire Chief

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

April 12, 2016

Munekiyo Hiraga
Attention: Tessa Munekiyo Ng
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms Ng,

SUBJECT: Early Consultation request for Proposed Makalapua Project District, Keahuolu, Hawai'i TMK Nos (3) 7-4-008:002 (por.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and (3) 7-4-010:09, 010

In regards to the above-referenced Early Consultation, the following shall be in accordance:

NFPA 1, UNIFORM FIRE CODE, 2006 EDITION

Note: Hawai'i State Fire Code, National Fire Protection Association 2006 version, with County of Hawaii amendments. County amendments are identified with a preceding "C~" of the reference code.

Chapter 18 Fire Department Access and Water Supply

18.1 General. Fire department access and water supplies shall comply with this chapter.

For occupancies of an especially hazardous nature, or where special hazards exist in addition to the normal hazard of the occupancy, or where access for fire apparatus is unduly difficult, or areas where there is an inadequate fire flow, or inadequate fire hydrant spacing, and the AHJ may require additional safeguards including, but not limited to, additional fire appliance units, more than one type of appliance, or special systems suitable for the protection of the hazard involved.

18.1.1 Plans.

18.1.1.1 Fire Apparatus Access. Plans for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.



18.1.1.2 Fire Hydrant Systems. Plans and specifications for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

C~ 18.1.1.2.1 Fire Hydrant use and Restrictions. No unauthorized person shall use or operate any Fire hydrant unless such person first secures permission or a permit from the owner or representative of the department, or company that owns or governs that water supply or system. Exception: Fire Department personnel conducting firefighting operations, hydrant testing, and/or maintenance, and the flushing and acceptance of hydrants witnessed by Fire Prevention Bureau personnel.

18.2 Fire Department Access.

18.2.1 Fire department access and fire department access roads shall be provided and maintained in accordance with Section 18.2.

18.2.2* Access to Structures or Areas.

18.2.2.1 Access Box(es). The AHJ shall have the authority to require an access box(es) to be installed in an accessible location where access to or within a structure or area is difficult because of security.

18.2.2.2 Access to Gated Subdivisions or Developments. The AHJ shall have the authority to require fire department access be provided to gated subdivisions or developments through the use of an approved device or system.

18.2.2.3 Access Maintenance. The owner or occupant of a structure or area, with required fire department access as specified in 18.2.2.1 or 18.2.2.2, shall notify the AHJ when the access is modified in a manner that could prevent fire department access.

18.2.3 Fire Department Access Roads. (*may be referred as FDAR)

18.2.3.1 Required Access.

18.2.3.1.1 Approved fire department access roads shall be provided for every facility, building, or portion of a building hereafter constructed or relocated.

18.2.3.1.2 Fire Department access roads shall consist of roadways, fire lanes, parking lots lanes, or a combination thereof.

18.2.3.1.3* When not more than two one- and two-family dwellings or private garages, carports, sheds, agricultural buildings, and detached buildings or structures 400ft² (37 m²) or less are present, the requirements of 18.2.3.1 through 18.2.3.2.1 shall be permitted to be modified by the AHJ.

18.2.3.1.4 When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.

18.2.3.2 Access to Building.

18.2.3.2.1 A fire department access road shall extend to within in 50 ft (15 m) of at least one exterior door that can be opened from the outside that provides access to the interior of the building. Exception: 1 and 2 single-family dwellings.

18.2.3.2.1.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in 18.2.3.2.1 shall be permitted to be increased to 300 feet.

18.2.3.2.2 Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft (46 m) from fire department access roads as measured by an approved route around the exterior of the building or facility.

18.2.3.2.2.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in 18.2.3.2.2 shall be permitted to be increased to 450 ft (137 m).

18.2.3.3 Multiple Access Roads. More than one fire department access road shall be provided when it is determined by the AHJ that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access.

18.2.3.4 Specifications.

18.2.3.4.1 Dimensions.

C~ 18.2.3.4.1.1 FDAR shall have an unobstructed width of not less than 20ft with an approved turn around area if the FDAR exceeds 150 feet. **Exception:** FDAR for one and two family dwellings shall have an unobstructed width of not less than 15 feet, with an area of not less than 20 feet wide within 150 feet of the structure being protected. An approved turn around area shall be provided if the FDAR exceeds 250 feet.

C~ 18.2.3.4.1.2 FDAR shall have an unobstructed vertical clearance of not less than 13ft 6 in.

C~ 18.2.3.4.1.2.1 Vertical clearances may be increased or reduced by the AHJ, provided such increase or reduction does not impair access by the fire apparatus, and approved signs are installed and maintained indicating such approved changes.

18.2.3.4.1.2.2 Vertical clearances shall be increased when vertical clearances or widths are not adequate to accommodate fire apparatus.

C~ 18.2.3.4.2 **Surface.** Fire department access roads and bridges shall be designed and maintained to support the imposed loads (25 Tons) of the fire apparatus. Such FDAR and shall be comprised of an all-weather driving surface.

18.2.3.4.3 **Turning Radius.**

C~ 18.2.3.4.3.1 Fire department access roads shall have a minimum inside turning radius of 30 feet, and a minimum outside turning radius of 60 feet.

18.2.3.4.3.2 Turns in fire department access road shall maintain the minimum road width.

18.2.3.4.4 **Dead Ends.** Dead-end fire department access roads in excess of 150 ft (46 m) in length shall be provided with approved provisions for the fire apparatus to turn around.

18.2.3.4.5 **Bridges.**

18.2.3.4.5.1 When a bridge is required to be used as part of a fire department access road, it shall be constructed and maintained in accordance with county requirements.

18.2.3.4.5.2 The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

18.2.3.4.5.3 Vehicle load limits shall be posted at both entrances to bridges where required by the AHJ.

18.2.3.4.6 **Grade.**

C~ 18.2.3.4.6.1 The maximum gradient of a Fire department access road shall not exceed 12 percent for unpaved surfaces and 15 percent for paved surfaces. In areas of the FDAR where a Fire apparatus would connect to a Fire hydrant or Fire Department Connection, the maximum gradient of such area(s) shall not exceed 10 percent.

18.2.3.4.6.2* The angle of approach and departure for any means of fire department access road shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m) or the design limitations of the fire apparatus of the fire department, and shall be subject to approval by the AHJ.

18.2.3.4.6.3 Fire department access roads connecting to roadways shall be provided with curb cuts extending at least 2 ft (0.61 m) beyond each edge of the fire lane.

18.2.3.4.7 Traffic Calming Devices. The design and use of traffic calming devices shall be approved the AHJ.

18.2.3.5 Marking of Fire Apparatus Access Road.

18.2.3.5.1 Where required by the AHJ, approved signs or other approved notices shall be provided and maintained to identify fire department access roads or to prohibit the obstruction thereof of both.

18.2.3.5.2 A marked fire apparatus access road shall also be known as a fire lane.

18.2.4* Obstruction and Control of Fire Department Access Road.

18.2.4.1 General.

18.2.4.1.1 The required width of a fire department access road shall not be obstructed in any manner, including by the parking of vehicles.

18.2.4.1.2 Minimum required widths and clearances established under 18.2.3.4 shall be maintained at all times.

18.2.4.1.3* Facilities and structures shall be maintained in a manner that does not impair or impede accessibility for fire department operations.

18.2.4.1.4 Entrances to fire departments access roads that have been closed with gates and barriers in accordance with 18.2.4.2.1 shall not be obstructed by parked vehicles.

18.2.4.2 Closure of Accessways.

18.2.4.2.1 The AHJ shall be authorized to require the installation and maintenance of gates or other approved barricades across roads, trails, or other accessways not including public streets, alleys, or highways.

18.2.4.2.2 Where required, gates and barricades shall be secured in an approved manner.

18.2.4.2.3 Roads, trails, and other access ways that have been closed and obstructed in the manner prescribed by 18.2.4.2.1 shall not be trespassed upon or used unless authorized by the owner and the AHJ.

18.2.4.2.4 Public officers acting within their scope of duty shall be permitted to access restricted property identified in 18.2.4.2.1.

18.2.4.2.5 Locks, gates, doors, barricades, chains, enclosures, signs, tags, or seals that have been installed by the fire department or by its order or under its control shall not be removed, unlocked, destroyed, tampered with, or otherwise vandalized in any manner.

18.3 Water Supplies and Fire Hydrants

18.3.1* A water supply approved by the county, capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ. For on-site fire hydrant requirements see section 18.3.3.

EXCEPTIONS:

1. When facilities or buildings, or portions thereof, are completely protected with an approved automatic fire sprinkler system the provisions of section 18.3.1 may be modified by the AHJ.
2. When water supply requirements cannot be installed due to topography or other conditions, the AHJ may require additional fire protection as specified in section 18.3.2 as amended in the code.
3. When there are not more than two dwellings, or two private garage, carports, sheds and agricultural. Occupancies, the requirements of section 18.3.1 may be modified by AHJ.

18.3.2* Where no adequate or reliable water distribution system exists, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the required fire flow shall be permitted.

18.3.3* The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be provided on a fire apparatus access road on the site of the premises or both, in accordance with the appropriate county water requirements.

18.3.4 Fire Hydrants and connections to other approved water supplies shall be accessible to the fire department.

18.3.5 Private water supply systems shall be tested and maintained in accordance with NFPA 25 or county requirements as determined by the AHJ.

18.3.6 Where required by the AHJ, fire hydrants subject to vehicular damage shall be protected unless located within a public right of way.

18.3.7 The AHJ shall be notified whenever any fire hydrant is placed out of service or returned to service. Owners of private property required to have hydrants shall maintain hydrant records of approval, testing, and maintenance, in accordance with the respective county water requirements. Records shall be made available for review by the AHJ upon request.

C~ 18.3.8 Minimum water supply for buildings that do not meet the minimum County water standards:

Buildings up to 2000 square feet, shall have a minimum of 3,000 gallons of water available for Firefighting.

Buildings 2001- 3000 square feet, shall have a minimum of 6,000 gallons of water available for Firefighting.

Buildings, 3001- 6000 square feet, shall have a minimum of 12,000 gallons of water available for Firefighting.

Buildings, greater than 6000 square feet, shall meet the minimum County water and fire flow requirements.

Multiple story buildings shall multiply the square feet by the amount of stories when determining the minimum water supply.

Commercial buildings requiring a minimum fire flow of 2000gpm per the Department of Water standards shall double the minimum water supply reserved for firefighting.

Fire Department Connections (FDC) to alternative water supplies shall comply with 18.3.8 (1)-(6) of *this code*.

NOTE: In that water catchment systems are being used as a means of water supply for firefighting, such systems shall meet the following requirements:

- 1) In that a single water tank is used for both domestic and firefighting water, the water for domestic use shall not be capable of being drawn from the water reserved for firefighting;
- 2) Minimum pipe diameter sizes from the water supply to the Fire Department Connection (FDC) shall be as follows:
 - a) 4" for C900 PVC pipe;
 - b) 4" for C906 PE pipe;
 - c) 3" for ductile Iron;
 - d) 3' for galvanized steel.
- 3) The Fire Department Connection (FDC) shall:
 - a) be made of galvanized steel;
 - b) have a gated valve with 2-1/2 inch, National Standard Thread male fitting and cap;
 - c) be located between 8 ft and 16 ft from the Fire department access. The location shall be approved by the AHJ;
 - d) not be located less than 24 inches, and no higher than 36 inches from finish grade, as measured from the center of the FDC orifice;
 - e) be secure and capable of withstanding drafting operations. Engineered stamped plans may be required;
 - f) not be located more than 150 feet of the most remote part, but not less than 20 feet, of the structure being protected;
 - g) also comply with section 13.1.3 and 18.2.3.4.6.1 of *this code*.
- 4) Commercial buildings requiring a fire flow of 2000gpm shall be provided with a second FDC. Each FDC shall be independent of each other, with each FDC being capable of flowing 500gpm by engineered design standards. The second FDC shall be located in an area approved by the AHJ with the idea of multiple Fire apparatus' conducting drafting operations at once, in mind.
- 5) Inspection and maintenance shall be in accordance to NFPA 25.
- 6) The owner or lessee of the property shall be responsible for maintaining the water level, quality, and appurtenances of the system.

EXCEPTIONS TO SECTION 18.3.8:

- 1) Agricultural buildings, storage sheds, and shade houses with no combustible or equipment storage.
- 2) Buildings less than 800 square feet in size that meets the minimum Fire Department Access Road requirements.

Tessa Munekiyo Ng
April 12, 2016
Page 9

- 3) For one and two family dwellings, agricultural buildings, storage sheds, and detached garages 800 to 2000 square feet in size, and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 1000 feet.
- 4) For one and two family dwellings, agricultural buildings, and storage sheds greater than 2000square feet, but less than 3000 square feet and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 500 feet.
- 5) For buildings with an approved automatic sprinkler system, the minimum water supply required may be modified.

If there are any questions regarding these requirements, please contact the Fire Prevention Bureau at (808) 323-4761.



DARREN J. ROSARIO
Fire Chief

CB:ds



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Karlynn K. Fukuda
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Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Darren J. Rosario, Fire Chief
County of Hawai'i
Hawai'i Fire Department
25 Aupuni Street, Suite 2501
Hilo, Hawai'i 96720

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Chief Rosario:

Thank you for your letter dated April 12, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. Fire department access and water supply for the Makalapua Project District will be provided in accordance with the Hawai'i State Fire Code, National Fire Protection Association 2006 version, with County of Hawai'i amendments. LT will provide the County of Hawai'i, Hawai'i Fire Department with plans for fire apparatus access roads and fire hydrant systems for review and approval before construction. It is noted that a permit is required for use or operation of a fire hydrant.
2. LT will coordinate with the Fire Department to provide and maintain access as required by Section 18.2.
3. Water system demands for the Makalapua Project District will be covered by existing water commitment agreements between LT and the County of Hawai'i, Department of Water Supply (DWS). LT will continue to work with DWS on system requirements for the Makalapua Project District. The project will meet the applicable County water system standards in accordance with Section 18.3.

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

Darren J. Rosario, Fire Chief
February 7, 2017
Page 2

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project. Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

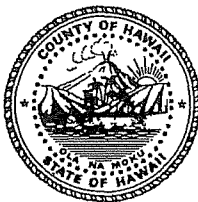
TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, PE, Park Engineering

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APR 28 2016

William P. Kenoi
Mayor



Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

April 22, 2016

Munekiyo Hiraga
Attention: Tessa Munekiyo Ng, AICP
305 High Street, Suite 104
Wailuku, HI 96793

SUBJECT: EARLY CONSULTATION REQUEST FOR PROPOSED MAKALAPUA PROJECT
DISTRICT, KEAHUOLŪ, HAWAII, TMK NOS. (3) 7-4-008:002 (POR.), (3)
7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, AND (3) 7-4-010:009, 010

Dear Ms. Ng:

This is in response to your letter dated April 7, 2016, regarding a request for comments on an early consultation for the proposed Makalapua project at the above mentioned location.

Thank you for allowing the Hawai'i Police Department to make comments regarding this development and repairs. At this time, the Hawai'i Police Department has no comments.

Should you have any questions or concerns, please contact Captain Randal M. Ishii of our Kona District, at (808)326-4646, extension 299.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF



PAUL H. KEALOHA JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

RMI
RS160266



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EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Harry S. Kubojiri, Police Chief
County of Hawai'i
Police Department
349 Kapiolani Street
Hilo, Hawai'i 96720-3998

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010.

Dear Chief Kubojiri:

Thank you for your letter dated April 22, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we acknowledge that the Hawai'i Police Department has no comments on the proposed project at this time.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,

Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

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APR 18 2016



April 13, 2016

Ms. Tessa Munekiyo Ng, AICP
Vice President
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Munekiyo:

Subject: Early Consultation Request for Proposed Makalapua Project
District, Keahuolu, Hawaii, TMK Nos. (3) 7-4-008:002 (por.),
(3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and
(3) 7-4-010:009, 010

In response to your letter dated April 7, 2016, it has been determined that the area is currently clear of utility gas facilities.

We would like to express our interest in providing utility gas service to this project. The cost of the infrastructure would potentially be shared between the developer and Hawaii Gas. As commitment to gas loads increase, the developer's share would decrease. We would like to be in contact with the designers, and in particular, the developers of the residential and possible hotel parts of the project.

Thank you for the opportunity for the early review of the project. Should there be any questions, or if additional information is desired, please feel free to call Colin Chikamoto at 596-1430.

Sincerely,

Hawaii Gas

Keith K. Yamamoto
Manager, Engineering

KKY:krs



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Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Keith K. Yamamoto, Manager
Hawai'i Gas
P.O. Box 3000
Honolulu, Hawai'i 96802-3000

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Mr. Yamamoto:

Thank you for your letter dated April 13, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following response to your comment:

1. Hawai'i Gas' request to provide utility gas service to this project is noted and has been forwarded to LT.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at 983-1233.

Very truly yours,

Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

From: Tina Clothier <tina@pathhawaii.org>

Date: April 28, 2016 at 5:33:43 PM HST

To: <planning@mhplanning.com>

Subject: Early Consultation Request for Proposed Makalapua Project District

Dear Ms. Munekiyo Ng,

PATH~Peoples Advocacy for Trails Hawai'i, is a 500 + bicycle and pedestrian advocacy organization serving Hawaii Island.

Mahalo for the opportunity for an early and comment on the proposed Queen Lili'uokalani Trust development. I apologize for submitting our comments via email, but as we only received your request yesterday, we thought that this was the most expeditious way to respond.

We sincerely appreciate the development of a walkable, bikeable community. The inclusion of buffered, protected bikeways would help to ensure a safe, connect environment for people to walk and bike to and from Kailua Park. As you move forward, we would welcome an opportunity to participate in the street design, if at all possible. Our request is for these streets to be designed for safe speeds of no more than 35 miles an hour with 25 miles an hour being ideal. PATH recently received a request from the County of Hawai'i Department of Research and Development to implement a bike share pilot project for Kailua Village. We hope to launch the project this summer with three bike share stations and 32 bikes. Our plan is to grow the number of stations and bikes shortly afterwards. The project as you describe it, and with our suggestions incorporated would be an ideal route for visitors and residents while utilizing bike share.

On a related note, this past Saturday, April 23rd, we celebrated the opening of the first mile of Queens' Lei, a 16.7 mile shared use path that will connect Kailua Village to UH Palamanui. We look forward to incorporating this shared use recreational path into your proposed plan for the Makalapua Project District.

In addition, we support any efforts towards preservation of lateral shoreline access. A pathway from Kailua Park all the way to Honokahau Harbor would be a tremendous asset for our community members and visitors.

Thank you again for this opportunity to comment. We look forward to other opportunities as the plans develop.

Sincerely,

Tina Clothier

Tina Clothier

Executive Director

PATH~ Peoples Advocacy for Trails Hawaii

808-561-9212 cell

808-326-7284 office

808-327-1092 fax

tina@pathhawaii.org

www.pathhawaii.org



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VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Tina Clothier, Executive Director
People's Alliance for Trails Hawai'i
P.O. Box 62
Kailua-Kona, Hawai'i 96745

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Ms. Clothier:

Thank you for your email dated April 28, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. LT shares People's Alliance for Trails Hawai'i's (PATH) enthusiasm for creating a walkable, bikeable community. The Makalapua Project District will be organized around an interconnected street network that fulfills recent State and County policies and best practice objectives for Complete Streets.
2. We applaud PATH on opening the first mile of the Queen's Lei shared use recreational path. The Makalapua Project District will support a variety of transportation options with multi-modal design throughout the development.
3. The Makalapua Project District will generally improve connectivity in the region by providing three (3) access points to Kailua Park, but does not include any development along the shoreline.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Tina Clothier, Executive Director
February 7, 2017
Page 2

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, PE, Austin, Tsutsumi & Associates, Inc.

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National Park Service
U.S. Department of the Interior

Kaloko-Honokōhau
National Historical Park

73-4786 Kanalani Street # 14
Kailua-Kona, Hawai'i 96740

808 329-6881 Phone
808 329-2597 Fax

Kaloko-Honokōhau

IN REPLY REFER TO:
L7621 (2016-3)

May 5, 2015

Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Subject: National Park Service Comments for Preparing a Draft Environmental Assessment for the Proposed Makalapua Project District, Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (par.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009 010

Dear Ms. Ng:

Thank you for providing the National Park Service with the opportunity to provide input on the development of a Draft Environmental Assessment (EA) for the proposed Makalapua Project District, Keahuolū, Hawai'i. We would also like to thank you for granting us a one-week time extension for sending in our comments. The proposed project is approximately two miles south of Kaloko-Honokōhau National Historical Park (Park) and will include approximately 180 residential units, a 180-room hotel, 50,000 square feet of community facilities/civic offerings, 470,000 square feet of commercial use, and a variety of open space features.

While the proposed project is considerable distance (two miles) from the Park, contaminants, water, air, fish, birds, insects, etc. move; and our coastal natural and cultural resources in West Hawai'i are fragile. The Draft EA should provide the information and analysis needed for readers to understand potential impacts from runoff, wastewater disposal, groundwater withdrawals, and outdoor lighting to the natural and cultural resources at Kaloko-Honokōhau NHP and other coastal areas within the vicinity of the project.

Congress established Kaloko-Honokōhau National Historical Park in 1978 to preserve, interpret, and perpetuate traditional native Hawaiian activities and culture by protecting the cultural and natural resources within the Park (16 U.S.C. § 396d(a)). The Park contains more than 450 known archeological and cultural sites, including several heiau, networks of ancient and historic trails, seawalls, more than 180 anchialine pools, two Hawaiian fishponds with associated wetlands, and a fishtrap. The land and waters within the Park provide habitat for 17 federally listed, and candidate species for listing, under the Endangered Species Act. 'Aimakapā Fishpond and wetland are listed as "Core Wetlands" by the U.S. Fish & Wildlife Service for the recovery of two endangered waterbird species, the Hawaiian stilt (*Himantopus mexicanus knudseni*) and the

Hawaiian coot (*Fulica americana alai*), and are important habitat for migratory waterfowl (USFWS 2011). Kaloko Fishpond is a loko kuapā and is being restored so that it can be managed as a traditional Hawaiian fishpond. In addition to the fishponds and pools, the Park boundary encompasses 596 acres of marine waters and coral reef habitat.

Fresh groundwater discharges to all of the Park's inland and nearshore waters and supports culturally important and rare native plants and animals, and the cultural practices and recreational activities that rely upon them.

Approximately 150,000 visitors per year visit the Park (<https://irma.nps.gov/Stats/>). Local residents, cultural practitioners, and visitors from around the world come to experience Kaloko-Honokohau's unique seascape, cultural and natural history, and to understand and exercise traditional Hawaiian practices.

Non-Point Source Pollution and Surface Water Drainage

The Draft EA should address, in detail, how polluted runoff from parking lots, driveways, and other surfaces will be controlled and treated. The proposed project is located in highly permeable lava with few accumulated soils. Rain and runoff carry pollutants quickly to groundwater, to coastal anchialine pools, and into nearshore waters. Although average rainfall is ~20 inches per year, rainfall accumulation is typically concentrated in a few intense events that cause a pulse of pollution flushing to drainage systems, to the water table, and into nearshore waters. For over a decade, Hawai'i County and the Hawai'i Land Use Commission have recognized the need to implement additional measures to control nonpoint source pollution flowing into the Park's inland and nearshore waters and surrounding areas (LUC Docket A00-732; COH Ord 02-114 and 04-110). Standard county, state and federal regulations for drainage wells (i.e. dry wells) are designed to address flood control but not to prevent polluted surface water runoff from impacting the inland and coastal waters. Best management practices should therefore be discussed in the Draft EA.

Wastewater Treatment

The Draft EA should thoroughly analyze the direct, indirect, and cumulative impacts of the disposal of treated wastewater on aquatic and marine ecosystems. It is not clear at this time if the proposed project will be connected to the Kealakehe Wastewater Treatment Plant. If it is not, the alternative treatment facility's ability to adequately remove nutrients, pharmaceuticals and personal care products, and function as designed beyond the initial phase of operation should be analyzed.

Potable and Non-Potable Water Systems

The Draft EA should identify the sources of drinking and irrigation water for the project. We are concerned about the direct and cumulative impacts of groundwater withdrawals on groundwater-dependent cultural and natural resources within the Park. We request that the Draft EA include information on the amount of water required for the proposed project, well location, and how that amount and well location adds cumulatively to the current and future usage of groundwater in the aquifer system.

Nighttime Lighting

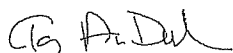
Impacts to the natural night-sky from lighting should be addressed in the Draft EA. Natural lightscapes are vital to the protection of wilderness character, fundamental to the historical and cultural context, and critical for Park wildlife. This project's contribution to the cumulative night-sky impacts to Kaloko-Honokōhau NHP should be analyzed.

Cumulative Impacts

The proposed project will contribute to the growing cumulative impacts from development adjacent to the Park and in the surrounding area. Therefore, the Draft EA should thoroughly analyze how the proposed project will contribute to the cumulative impacts, especially for those topics listed above, from development near the Park and along the Kona coast.

We believe that the Queen Lili'uokalani Trust and the National Park Service share a commitment to protect Hawaii's unique and fragile natural and cultural resources and look forward to collaborating with you on this project. If you have any questions regarding this letter, please contact Dr. Jeff Zimpfer of my staff (808-329-6881 x1500 or jeff_zimpfer@nps.gov).

Sincerely,



Tammy Ann Duchesne
Superintendent

cc: Department of Aquatic Resources, Kona

Reference

U.S. Fish and Wildlife Service. 2011. Recovery Plan for Hawaiian Waterbirds, Second Revision
U.S. Fish and Wildlife Service, Portland, Oregon.
<http://www.fws.gov/pacific/ecoservices/endangered/recovery/plans.html>



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Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Tammy Ann Duchesne, Superintendent
National Park Service
U.S. Department of the Interior
73-4786 Kanalani Street, #14
Kailua-Kona, Hawai'i 96740

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010 (L7621 (2016-3))

Dear Ms. Duchesne:

Thank you for your letter dated May 5, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. The Draft Environmental Assessment (EA) will address stormwater runoff and drainage. The Draft EA will include an Infrastructure Report which will describe the proposed drainage system, as well as permanent Best Management Practices (BMPs) and Low Impact Development (LID) strategies that will be considered in the drainage system design.
2. The Draft EA will include discussion on the wastewater system proposed for the project. The wastewater system will be designed to satisfy the requirements of the County Department of Environmental Management and will connect to the existing Kealakehe Sewage Pump Station and ultimately the Kealakehe Wastewater Treatment Plant.
3. The Draft EA will include information on potable and non-potable water source and demands for the proposed project.
4. The Draft EA will address potential impacts from artificial lighting related to the proposed project.
5. The Draft EA will include discussion on cumulative impacts anticipated as a

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

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Tammy Ann Duchesne, Superintendent
February 7, 2017
Page 2

result of the proposed project and other reasonably foreseeable projects in the vicinity

We appreciate your input, and will include a copy of your comment letter along with this response letter in the Draft EA for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Tessa Munekiyo Ng, AICP
Vice President

TMN:lh

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, P.E., Park Engineering

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KAILUA VILLAGE BUSINESS
IMPROVEMENT DISTRICT
75-5751 Kuakini Hwy #202
Kailua-Kona, Hawaii 96740

T: 808.326.7820
F: 808.326.5634
Twitter: kailuavillage
Web: www.KVBID.org

April 25, 2016

Ms. Tessa Munekiyo Ng
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku HI 96793

RE: EARLY REVIEW AND COMMENT MAKALAPUA PROJECT DISTRICT

Dear Ms. Ng,

Thank you for sharing information on the proposed development, enhancement and refinement of Queen Liliuokalani Trust lands referred to as the Makalapua Project District.

The mission of the Kailua Village Business Improvement District is creating a model sustainable community that is a better place to invest, work, live and play. KVBID carries out this mission in their vision to work cooperatively to improve and maintain the physical appearance and aesthetics of public rights of way, open spaces, and parks, by increasing cleanliness and security so as to attract long-term sustainable business and community activity in Historic Kailua Village.

The proposed Makalapua Project District, located within the Kailua Village Business Improvement District, aligns with the mission and vision of this organization.

We look forward to hearing more details of the Makalapua Project District as they become available in the future.

Aloha,

Debbie Baker
Executive Director

cc: Riley Smith, KVBID President
Jane Clement, KVBID Public Private Partnerships Committee Chair



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Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 7, 2017

Debbie Baker, Executive Director
Kailua Village Business
Improvement District
75-5751 Kuakini Highway #202
Kailua-Kona, Hawai'i 96740

SUBJECT: Early Consultation for Proposed Makalapua Project District,
Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (por.), (3) 7-4-
025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-
010:009, 010

Dear Ms. Baker:

Thank you for your letter dated April 25, 2016, providing early consultation comments on the proposed Makalapua Project District and related improvements. On behalf of the Lili'uokalani Trust (LT), we offer the following response to your comment:

1. We are pleased to note that the Makalapua Project District aligns with the mission and vision of the Kailua Village Business Improvement District.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Draft Environmental Assessment for the proposed project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,

Tessa Munekiyo Ng, AICP
Vice President

TMN:me

cc: LeeAnn Crabbe, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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**LETTERS RECEIVED DURING
THE DRAFT ENVIRONMENTAL
ASSESSMENT REVIEW PERIOD
AND RESPONSES TO
SUBSTANTIVE COMMENTS**



X. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS

The Draft EA for the subject action was filed and published in the Office of Environmental Quality Control Environmental Notice on March 8, 2017. The following agencies and organizations were sent a copy of the Draft EA. Comments on the Draft EA were received during the 30-day public comment period. Letters received as well as responses to substantive comments are included in this Chapter.

List of Agencies		Dates of Comment and Response Letters
FEDERAL AGENCIES		
1.	Kori Hisashima, Soil Conservationist Natural Resources Conservation Service U.S. Department of Agriculture 77 Hookele Street, Suite 202 Kahului, Hawai'i 96732	No Comment
2.	Tunis McElwain, Chief, Regulatory Branch U.S. Department of the Army U.S. Army Engineer District, Honolulu Regulatory Branch, Building 230 Fort Shafter, Hawai'i 96858-5440	No Comment
3.	Ryan Okahara, Field Office Director U. S. Department of Housing and Urban Development 1132 Bishop Street, Suite 1400 Honolulu, Hawai'i 96813-4918	No Comment
4.	Wayne Nastri, Regional Administrator U.S. Environmental Protection Agency Region 9 75 Hawthorne Street San Francisco, California 94105	No Comment
5.	Kristi Young, Acting Field Supervisor U. S. Fish and Wildlife Service 300 Ala Moana Blvd., Rm. 3-122 Box 50088 Honolulu, Hawai'i 96850	Comment Letter: 4/7/17 Response Letter: 2/15/18
STATE AGENCIES		
6.	Roderick Becker, Comptroller Department of Accounting and General Services 1151 Punchbowl Street, #426 Honolulu, Hawai'i 96813	Comment Letter: 3/28/17 Response Letter: 2/15/18
7.	Scott Enright, Chair Department of Agriculture 1428 South King Street Honolulu, Hawai'i 96814-2512	No Comment

List of Agencies		Dates of Comment and Response Letters
8.	Craig Hirai, Executive Director Hawai'i Housing Finance and Development Corporation 677 Queen Street Honolulu, Hawai'i 96813	No Comment
9.	Luis P. Salaveria, Director State of Hawai'i Department of Business, Economic Development & Tourism Office of Planning 235 S. Beretania Street, 6th Floor Honolulu, Hawai'i 96813	No Comment
10.	Catherine Awakuni Colon, Director State of Hawai'i Department of Commerce and Consumer Affairs 335 Merchant Street Honolulu, Hawai'i 96813	No Comment
11.	Kathryn Matayoshi, Superintendent State of Hawai'i Department of Education P.O. Box 2360 Honolulu, Hawai'i 96804	Comment Letter: 4/5/17 Response Letter: 2/15/18
12.	Heidi Meeker Office of Business Services Department of Education c/o Kalani High School 4680 Kalaniana'ole Highway, #T-B1A Honolulu, Hawai'i 96821	No Comment
13.	Virginia "Ginny" Pressler, MD, MBA, FACS, Director State of Hawai'i Department of Health P.O. Box 3378 Honolulu, Hawai'i 96801	No Comment

List of Agencies		Dates of Comment and Response Letters
14.	Alec Wong, P.E., Chief Clean Water Branch State of Hawai'i Department of Health 919 Ala Moana Blvd., Room 300 Honolulu, Hawai'i 96814	Comment Letter: 4/13/17 Response Letter: 2/15/18
15.	Laura McIntyre, AICP Environmental Planning Office Department of Health 919 Ala Moana Blvd., Suite 312 Honolulu, Hawai'i 96814	Comment Letter: 3/14/17 Response Letter: 2/15/18
16.	Lene Ichinotsubo State of Hawai'i Department of Health 919 Ala Moana Blvd., Room 212 Honolulu, Hawai'i 96814	No Comment
17.	Suzanne Case, Chairperson State of Hawai'i Department of Land and Natural Resources P.O. Box 621 Honolulu, Hawai'i 96809	No Comment
18.	Alan Downer, Administrator State of Hawai'i Department of Land and Natural Resources State Historic Preservation Division 601 Kamokila Blvd., Room 555 Kapolei, Hawai'i 96707	No Comment
19.	David Smith, Administrator State of Hawai'i Department of Land and Natural Resources Division of Forestry and Wildlife 1151 Punchbowl Street, Room 325 Honolulu, Hawai'i 96813	Comment Letter: 4/10/17 Response Letter: 2/15/18

List of Agencies		Dates of Comment and Response Letters
20.	Ford Fuchigami, Director State of Hawai'i Department of Transportation 869 Punchbowl Street Honolulu, Hawai'i 96813	1 st Comment Letter: 8/4/17 1 st Response Letter: 2/15/18 2 nd Comment letter: 8/15/18 2 nd Response Letter: (DATE TO BE INSERTED UPON MAILING)
21.	Brigadier General Arthur "Joe" Logan, Adjutant General Hawai'i State Civil Defense 3949 Diamond Head Road Honolulu, Hawai'i 96813-4495	No Comment
22.	Jobie Masagatani, Chair Hawaiian Home Lands Commission P.O. Box 1879 Honolulu, Hawai'i 96805	No Comment
23.	Dr. Kamana`opono Crabbe, Chief Executive Officer Office of Hawaiian Affairs 560 N. Nimitz Highway, Suite 200 Honolulu, Hawai'i 96817	No Comment
24.	Leo R. Asuncion, Jr., AICP, Director State of Hawai'i Office of Planning P. O. Box 2359 Honolulu, Hawai'i 96804	Comment Letter: 3/29/17 Response Letter: 2/15/18
25.	Dan Orodenker, Executive Officer State of Hawai'i State Land Use Commission P.O. Box 2359 Honolulu, Hawai'i 96804	No Comment
26.	University of Hawai'i at Manoa Environmental Center 2500 Dole Street, Krauss Annex 19 Honolulu, Hawai'i 96822	No Comment

List of Agencies		Dates of Comment and Response Letters
27.	The Honorable Tulsi Gabbard U.S. Congress 300 Ala Moana Blvd., Rm. 5-104 Honolulu, Hawai'i 96850	No Comment
28.	The Honorable Mazie Hirono U.S. Senator 300 Ala Moana Blvd., Rm. 5-104 Honolulu, Hawaii 96850	No Comment
29.	The Honorable Brian E. Schatz U.S. Senator 300 Ala Moana Blvd., Rm. 7-212 Honolulu, Hawaii 96850	No Comment
30.	Senator Josh Green Hawai'i State Senate Hawai'i State Capitol, Room 407 415 S. Beretania Street Honolulu, Hawai'i 96813	No Comment
31.	Senator Lorraine R. Inouye Hawai'i State Senate Hawai'i State Capitol, Room 210 415 S. Beretania Street Honolulu, Hawai'i 96813	No Comment
32.	Representative Richard P. Creagan House of Representatives Hawai'i State Capitol, Room 331 415 S. Beretania Street Honolulu, Hawai'i 96813	No Comment
33.	Representative Nicole E. Lowen House of Representatives Hawai'i State Capitol, Room 425 415 S. Beretania Street Honolulu, Hawai'i 96813	No Comment
34.	Representative Cindy Evans House of Representatives Hawai'i State Capitol, Room 438 415 S. Beretania Street Honolulu, Hawai'i 96813	No Comment

List of Agencies		Dates of Comment and Response Letters
35.	State of Hawai'i DLNR Historic Preservation Hawaii Island Burial Council Attention: Ms. Ka'uanoe Ho'omanawanui P.O. Box 1729 Lihue, Hawai'i 96766	No Comment
COUNTY AGENCIES		
36.	Talmadge Magno, Administrator Civil Defense Agency County of Hawai'i 920 Ululani Street Hilo, Hawai'i 96720	No Comment
37.	Bill Kucharski, Director Department of Environmental Management County of Hawai'i 25 Aupuni Street Hilo, Hawai'i 96720	No Comment
38.	Collins Tomei, Director Department of Finance County of Hawai'i 25 Aupuni Street, Suite 2103 Hilo, Hawai'i 96720-4245	No Comment
39.	Charmaine L. Kamaka, Director Department of Parks and Recreation County of Hawai'i Aupuni Center, 101 Pauahi Street, Suite 6 Hilo, Hawai'i 96720	Comment Letter: 8/1/17 Response Letter: 2/15/18 Follow-up Response Letter: (DATE TO BE INSERTED UPON MAILING)

List of Agencies		Dates of Comment and Response Letters
40.	Frank J. DeMarco, P.E. Department of Public Works County of Hawai'i Aupuni Center 101 Pauahi Street, Suite 7 Hilo, Hawai'i 96720-4224	Comment Letter: 5/22/17 Response Letter: 2/15/18 Follow-up Response Letter: (DATE TO BE INSERTED UPON MAILING)
41.	Diane Ley, Director Department of Research and Development County of Hawai'i 25 Aupuni Street Hilo, Hawai'i 96720	No Comment
42.	Keith Okamoto, Manager-Chief Engineer Department of Water Supply County of Hawai'i 345 Kekuaaoa Street, Suite 20 Hilo, Hawai'i 96720	Comment Letter: 4/7/17 Response Letter: 2/15/18
43.	Darren J. Rosario, Fire Chief Hawai'i Fire Department County of Hawai'i 25 Aupuni Street Hilo, Hawai'i 96720	Comment Letter: 3/13/17 Response Letter: 2/15/18
44.	Paul Ferreira, Police Chief Hawai'i Police Department County of Hawai'i 349 Kapiolani Street Hilo, Hawai'i 96720	No Comment
45.	Tiffany Kai, Administrator Mass Transit Agency County of Hawai'i 630 E. Lanikaula Street Hilo, Hawai'i 96720	No Comment

List of Agencies		Dates of Comment and Response Letters
46.	Nel S. Gyotoku, Administrator Office of Housing and Community Development County of Hawai'i 50 Wailuku Drive Hilo, Hawai'i 96720-2456	No Comment
47.	Mayor Harry Kim County of Hawai'i Office of the Mayor 25 Aupuni Street Hilo, Hawai'i 96720	No Comment
48.	Michael Yee, Director Planning Department County of Hawai'i 101 Pauahi Street, Suite 3 Hilo, Hawai'i 96720	Comment Letter: 10/5/17 Response Letter: 2/15/18 Follow-up Response Letter: (DATE TO BE INSERTED UPON MAILING)
49.	Valerie Poindexter, Chair and Presiding Officer Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
50.	Aaron Chung, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
51.	Susan "Sue" Lee Loy, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
52.	Eileen O'Hara, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment

List of Agencies		Dates of Comment and Response Letters
53.	Jennifer "Jen" Ruggles, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
54.	Maile David, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
55.	Dru Mamo Kanuha, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
56.	Karen Eoff, Vice Chair Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
57.	Herbert M. "Tim" Richards III, DVM, Councilmember Hawai'i County Council 25 Aupuni Street, Suite 209 Hilo, Hawai'i 96720	No Comment
58.	Kona Council Office West Hawai'i Civic Center 74-5044 Ane Keohokalole Highway Kailua-Kona, Hawai'i 96740	No Comment
OTHERS		
59.	Hawai'i Electric Light Company, Inc. P. O. Box 102 Hilo, Hawai'i 96721-1027	No Comment
60.	Hawaiian Telecom Headquarters 1177 Bishop Street Honolulu, Hawai'i 96813	No Comment
61.	Oceanic Time Warner Cable 548 Kanoelehua Avenue Hilo, Hawai'i 96720	No Comment
62.	The Gas Company 945 Kalaniana'ole Street Hilo, Hawai'i 96720	No Comment

List of Agencies		Dates of Comment and Response Letters
63.	Community Enterprises c/o Fred Housel 74-5063 Tomi Tomi Drive Kailua-Kona, Hawai'i 96740	No Comment
64.	People's Alliance for Trails Hawai'i (PATH) P.O. Box 62 Kailua-Kona, Hawai'i 96745	No Comment
65.	National Park Service, Superintendent Kaloko-Honokohau National Historical Park 73-4786 Kanalani Street #14 Kailua-Kona, Hawai'i 96740	Comment Letter: 4/7/17 Response Letter: 2/15/18
66.	Kailua Village Business Improvement District 75-5751 Kuakini Highway #202 Kailua-Kona, Hawai'i 96740	Comment Letter: 4/5/17 Response Letter: 2/15/18
67.	Dora Aio Villages of La'i'Ōpua Association 75-5142 Halelono Place Kailua-Kona, Hawai'i 96740	No Comment
68.	Leimana DaMate, Executive Director 'Aha Moku Advisory Committee DLNR Kalanimoku Building 1151 Punchbowl Street, Room 130 Honolulu, Hawai'i 96813	No Comment
69.	Kona Hawaiian Civic Club via email (c/o akademesa@gmail.com)	No Comment
70.	Kona-Kohala Chamber of Commerce 75-5737 Kuakini Highway, Suite 208 Kailua-Kona, Hawai'i 96740	No Comment
71.	Hawai'i Island Chamber of Commerce 117 Keawe Street Hilo, Hawai'i 96720	No Comment
72.	Kailua-Kona Public Library 75-138 Hualalai Rd Kailua-Kona, Hawai'i 96740	No Comment

List of Agencies		Dates of Comment and Response Letters
73.	Hawai'i Tribune Herald P.O. Box 767 Hilo, Hawai'i 96721	No Comment
74.	West Hawai'i Today P.O. Box 789 Kailua-Kona, Hawai'i 96745-0789	No Comment
75.	Amy Cozine Email: amycozine@gmail.com	Comment Letter: 3/13/17 Response Letter: 2/15/18
76.	Mark Gordon Email: mark.gordon333@gmail.com	Comment Letter: 3/15/17 Response Letter: 2/15/18
77.	Jan Wizinowich P.O. Box 7097 Kamuela, Hawai'i 96743	Comment Letter: 2/15/17 Response Letter: 2/15/18
78.	R.H. Bennett Ph.D., President Applied Life Sciences LLC P.O. Box 895 Honaunau, Hawai'i 96726	Comment Letter: 4/4/17 Response Letter: 2/15/18
79.	Linda Morabito et al Palani Court, Suite 215 74-5620 Palani Road Kailua-Kona, Hawai'i 96740	Comment Letter: 5/1/17 Response Letter: 2/15/18

APR 13 2017



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850



In Reply Refer To:
01EPIF00-2016-TA-0294

APR 07 2017

Jeffrey W. Darrow
County of Hawai'i
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Subject: Technical Assistance for the Draft Environmental Assessment for The Makalapua Project District, Kailua-Kona, Hawai'i

Dear Mr. Darrow:

The U.S. Fish and Wildlife Service (Service) received your letter on March 9, 2017, requesting our comments on the Draft Environmental Assessment (EA) for the Makalapua Project District [TMK Nos.: (3)7-4-008:002 (par.), (3)7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3)7-4-010:009 and 010]. The Service previously provided comments relative to this project on April 25, 2016, and received your response to those comments on February 7, 2017. The Makalapua Project is being implemented by the Lili'uokalani Trust and proposes to develop residential, hotel, retail, commercial, office, and civic/community uses in Kailua-Kona, Hawai'i. The proposed development would include construction of approximately 300 residential units, 220-rooms across two hotels, 50,000 square foot community performance facility, 470,000 square feet of commercial use (retail and employment), and a variety of open space features on approximately 69.1 acres. The following comments have been prepared pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (ESA).

We reviewed the DEA, your February 2017 letter, and pertinent information in our files to evaluate potential impacts from the proposed project to listed species, native ecosystems, and proposed or designated critical. The Project's Draft EA has incorporated the Service's previous recommendations for the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*), threatened Newell's shearwater (*Puffinus auricularis newelli*), and threatened green sea turtle (*Chelonia mydas*); therefore, these species will not be further discussed in this letter. On April 5, 2017, the Service called Ms. Tessa Munekiyo Ng of Munekiyo Hiraga, to clarify that since the flora and fauna survey discovered tree tobacco (*Nicotiana glauca*) plants we would need to address the potential impacts to the listed endangered insect Blackburn's sphinx moth (*Manduca blackburni*). Our comments below are in addition to the comments we provided in April 2016. To avoid and minimize impacts to Blackburn's sphinx moth, we recommend that you incorporate the following conservation measures into your project description.

- With the discovery of two tree tobacco plants within the proposed project area, the Blackburn's sphinx moth could potentially be in the vicinity of the project area. Adult moths feed on nectar from native plants, including beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*); and maiapilo (*Capparis sandwichiana*); larvae feed upon nonnative tree tobacco (*N. glauca*) and native aiea (*Nothocestrum latifolium*). To pupate, the larvae burrow into the soil and can remain in a state of torpor for up to a year (or more) before emerging from the soil. Soil disturbance can result in death of the pupae. A flora and fauna survey for the proposed project area was conducted in August 2015 and discovered two tree tobacco plants (Appendix C of DEA). No moth eggs or larvae were observed on the tree tobacco plants.

Nicotiana glauca frequently occurs in disturbed areas. Blackburn's sphinx moth adults lay eggs on *N. glauca* and moth larvae feed on the leaves of the plant before they crawl from the plant and burrow into the soil or crevices in rock where they pupate for up to a year or longer. They are most likely to pupate within 33-ft (10-m) of the larval host plant, although they may transit farther over paved and hardened surfaces to find a suitable site to enter the ground. The minimization measures below are conservative because our understanding of the species' resource limitations and behavior is limited. Clearing of the *N. glauca* would be completed using the following safeguards to ensure the potential for direct effects to Blackburn's sphinx moth eggs, larvae, and pupae are minimized:

- If *N. glauca* is less than three feet in height and no Blackburn's sphinx moth eggs, larvae, or signs indicating the possibility of pupating larvae (such as frass, chewed stems or other browsing characteristics) are detected, the entire plant(s) may be removed and the soil within 33-ft (10-m) may be disturbed.
- If *N. glauca* is more than three feet in height, it is possible that the signs of Blackburn's sphinx moth foraging have been shed and pupating larvae may be in the ground in the area beneath the plant(s). Therefore, if there are no signs of Blackburn's sphinx moth on *N. glauca* more than three feet in height, the above-ground portion of the plant(s) may be cut off and removed and the following measures implemented to minimize the potential for future use of the plant by Blackburn's sphinx moth and potential impact to a pupae that may already be in the soil near the plant:
 - Stems will be treated with herbicide or re-trimmed to prevent leaf growth and potential use by the Blackburn's sphinx moth.
 - A 33-ft (10-m) disturbance-free buffer will be established around the plant's location for one year. After one year, the plant roots may be removed and the soil disturbed if necessary. The one-year waiting period will ensure any larvae pupating in the soil will have pupated and emerged from the soil prior to disturbance of the plant(s) or soil.

If the proposed project requires gravel or dirt fill to be used at the project location, the Service recommends getting the fill from a source that is certified weed free or a plant survey be conducted around the area where the fill will be extracted. The survey is a measure to avoid spreading nonnative tree tobacco and other invasive plant species from where the fill is removed to the proposed project area. Nonnative tree tobacco and other invasive species seeds could be found in the fill and unknowingly spread to the project area thus attracting Blackburn's sphinx moth to the project site and increasing the risk of future take.

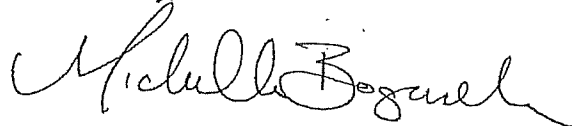
If there are populations of tree tobacco plants near the site such that they could spread into the site within a year, then the site should be monitored during the construction phase and after construction has been completed. This measure is primarily to detect tree tobacco plants entering the site and preventing it from growing larger than three feet in height. Tree tobacco can grow to more than three feet in height in approximately six weeks. As mentioned above, *any emerging tree tobacco can and should be removed before it reaches three feet in height*. If it grows larger than three feet, the plants may become a host plant for Blackburn's sphinx moth, and removal of the plant will not be possible without incurring take. Post-construction monitoring for tree tobacco can be completed by any groundskeeper or regular maintenance crew that will be responsible for maintaining the landscaping on a regular basis.

If you have any questions on the above recommendations, please do not hesitate to contact the Service. Similarly, prior to clearing the project area of tree tobacco please contact the Service, so that we can assist you in the process and minimize any potential impacts to Blackburn's sphinx moth.

If you determine that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA.

Thank you for your efforts to conserve listed species and native habitats. If you have questions regarding this letter, please contact Chelsie Javar-Salas, Fish and Wildlife Biologist, (phone: 808-792-9400, email: Chelsie_Javar@fws.gov).

Sincerely,



Michelle Bogardus
Island Team Manager
Maui Nui and Hawai'i Island Team

Cc:
Ms. Tessa Munekiyo Ng



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Michelle Bogardus, Island Team Manager
Maui Nui and Hawai'i Island Team
U.S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (01EPIF00-2016-TA-0294)

Dear Ms. Bogardus:

Thank you for your letter received on April 7, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. Thank you for acknowledging that the Draft EA addresses the recommendations previously provided by the U.S. Fish and Wildlife Service (Service) regarding the Hawaiian hoary bat, Hawaiian petrel, Newell's shearwater, and green sea turtle.
2. It is noted that due to the discovery of two (2) tree tobacco plants in the proposed project area, there is potential for the Blackburn's sphinx moth to be in the vicinity of the project area. As such, the potential impacts to the listed endangered Blackburn's sphinx moth will be addressed in the Final EA. It is further noted that no moth eggs or larvae were observed on the tree tobacco plants during the flora fauna survey for the project.
3. The following minimization measures recommended in your letter are noted and will be complied with, as recommended by the Service:
 - For tree tobacco plants less than three (3) feet in height with no Blackburn's sphinx moth eggs, larvae, or signs indicating the possibility of

pupating larvae, plants may be removed and soil within 33 feet may be disturbed.

- The above-ground portion of tree tobacco plants greater than three (3) feet in height without signs of the Blackburn's sphinx moth may be cut down and the stems treated with herbicide or retrimmed to prevent leaf growth and potential use by the Blackburn's sphinx moth, and a 33-foot disturbance-free buffer will be established around the plant's location for one (1) year. It is noted that after one (1) year, the plant roots may be removed and the soil disturbed.
 - Imported gravel or dirt fill will be certified weed free or a plant survey will be conducted around the area where the fill will be extracted from to avoid spreading nonnative tree tobacco and other invasive plant species.
 - If there are any tree tobacco plants near the site that could spread into the site within a year, the site will be monitored during and after construction to prevent tree tobacco plants from spreading into the subject property and growing larger than three (3) feet.
 - The Service will be contacted prior to clearing of tree tobacco plants from the project area for assistance with minimizing any potential impacts to the Blackburn's sphinx moth.
4. The proposed project is not anticipated to affect any federally listed species. Should that change, the Service will be contacted regarding assistance with Endangered Species Act (ESA) compliance. The project is not funded, authorized, or permitted by a Federal agency.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Michelle Bogardus, Island Team Manager
February 15, 2018
Page 3

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Robert Hobdy, Environmental Consultant

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DAVID Y. IGE
GOVERNOR



MAR 30 2017

RODERICK K. BECKER
Comptroller

AUDREY HIDANO
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1100.7

MAR 28 2017

Mr. Jeffrey W. Darrow, Planner
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Dear Mr. Darrow:

Subject: Draft Environmental Assessment for Makalapua Project District
Kailua-Kona, Hawaii
TMK: (3) 7-4-008: 002 (por), 7-4-010: 009 & 010, and
7-4-025: 001, 002, 003, 005, 012, 015, 017, 021, & 022

Thank you for the opportunity to comment on the subject project document. The Department of Accounting and General Services' has no facilities in or near the project area, and we have no comment or concerns regarding this project at this time.

If you have any questions, your staff may call Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

A handwritten signature in black ink, appearing to read "Roderick K. Becker".

RODERICK K. BECKER
Comptroller

c: Ms. Tessa Munekiyo Ng, AICP



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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Roderick K. Becker
State of Hawai'i
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i ((P)1100.7)

Dear Mr. Becker:

Thank you for your letter dated March 28, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following response to your comment:

1. It is noted that the Department of Accounting and General Services (DAGS) has no facilities in or near the project area. It is further noted that DAGS has no comment or concerns regarding the project at this time.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,

Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

April 5, 2017

Mr. Jeffrey W. Darrow, Planner
County of Hawaii Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Re: Draft Environmental Assessment for the Makalapua Project District, Kailua-Kona, Hawaii

Dear Mr. Darrow:

The Department of Education (DOE) has reviewed the Draft Environmental Assessment (DEA) for the Makalapua Project in Kailua-Kona. The DOE has been in discussions with Liliuokalani Trust about this proposed project for the last several years. We anticipate a continued dialog as the project progresses.

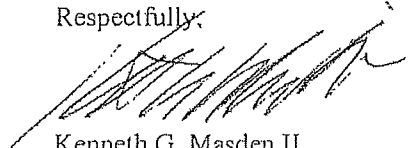
The DOE would like to add one sentence to the DEA Section II. C. Public Services, Subsection 4. Educational Facilities, Subsection b. Potential Impacts and Proposed Mitigation Measures, page 46. The sections notes that in 2007, the State Legislature passed a law giving DOE the authority to collect school impact fees. It also noted that in 2009 the DOE circulated an analysis for a West Hawaii School impact fee district.

The paragraph left off the significant fact that in April 2010 the Board of Education adopted the designation of a West Hawaii School Impact Fee District and that in July 2010, the DOE suspended efforts to implement fee collection due to a lack of cooperation from Hawaii County. The DOE will resume its efforts to establish school impact fees in West Hawaii in the near future.

DOE has no other comments or concerns about the Makalapua Project at this time. We appreciate the opportunity to review and comment on the DEA.

If you have any questions, please contact Heidi Meeker of the Planning Section, Facilities Development Branch at (808) 784-5095.

Respectfully,



Kenneth G. Masden II
Public Works Manager
Planning Section

KGM:jmb

c: Arthur Souza, Complex Area Superintendent, Honokaa/Kealakehe/Kohala/Konawaena Complex
Tessa Munekiyo Ng, Munekiyo Hiraga

February 15, 2018

Kenneth G. Masden II
Public Works Manager
State of Hawai'i
Department of Education
P.O. Box 2360
Honolulu, Hawai'i 96804

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Masden II:

Thank you for your letter dated April 5, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following information in response to your comments:

1. Thank you for your acknowledgement of LT's ongoing efforts to coordinate with the Department of Education (DOE).
2. The Final EA will include information about the designation of the West Hawai'i School Impact Fee District and will note that the DOE will resume its efforts to establish school impact fees in West Hawaii in the near future.
3. It is noted that the DOE has no other comments or concerns about the project at this time.

Kenneth G. Masden II
February 15, 2018
Page 2

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



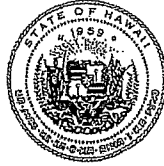
Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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DAVID Y. IGE
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
EMD/CWB

04019PGH.17

April 13, 2017

Mr. Jeffrey W. Darrow
Planner
Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Dear Mr. Darrow:

**SUBJECT: Draft Environmental Assessment for the Makalapua Project District,
TMK Nos. (3)7-4-008:002 (por.); 7-4-025:001, 002, 003, 005, 012, 015,
017, 021, 022 and 7-4-010:009 and 010**

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated March 3, 2017, 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/Clean-Water-Branch-Std-Comments.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 National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An

application for a 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 applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. 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 appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) 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.

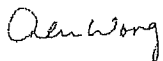
4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
 - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like

community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

- b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
- c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
- d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
- e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at: <http://health.hawaii.gov/cwb/>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF
Clean Water Branch

GH:ctt

- c: Ms. Tessa Munekiyo, Munekiyo Hiraga
[via e-mail planning@munekiyohiraga.com only]
DOH-EPO [via e-mail Noella.Narimatsu@doh.hawaii.gov only]



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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Alec Wong, P.E., Chief
Clean Water Branch
State of Hawai'i
Department of Health
P. O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (04019 PGH.17)

Dear Mr. Wong:

Thank you for your letter dated April 13, 2017, providing comments on Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT) we offer the following responses in the order of your comments and note that the standard comments on the Department of Health, Clean Water Branch website will be reviewed and adhered to, as applicable, by the design team:

1. A National Pollutant Discharge Elimination System (NPDES) permit will be obtained for the project.
2. The proposed project does not involve work in, over, or under waters of the United States. Nevertheless, the U. S. Army Corp of Engineers, Regulatory Branch has been consulted and provided comments on the proposed project.
3. All discharges related to construction or operation activities will comply with the State's Water Quality Standards.
4. The project will consider Low Impact Development (LID) strategies and Best Management Practices (BMPs) for stormwater management, water and energy conservation, and green building practices. The proposed project is not anticipated to impact State waters.

Alec Wong, P.E., Chief
February 15, 2018
Page 2

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, Park Engineering

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DAVID Y. IGE
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

EPO 17-055

March 14, 2017

Ms. Tessa Munekiyo Ng, AICP
Vice President
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793
Email: planning@munekiyohiraga.com

Dear Ms. Munekiyo Ng:

SUBJECT: Draft Environmental Assessment (DEA) for Makalapua Project District
TMK: (3)7-4-008:002 (por); 7-4-025-001, 002, 003, 005, 012, 015, 017, 021, 022; 7-4-010:009, 010

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office via the OEQC link:

http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Hawaii/2010s/2017-03-08-HA-5E-DEA-Makalapua-Project-District.pdf

We understand from the OEQC publication form project summary that *"The Lili'uokalani Trust (LT) proposes the development, enhancement, and refinement of approximately 69.1 acres of land in Kailua-Kona on the island of Hawai'i as the Makalapua Project District. The proposed Makalapua Project District will include residential, hotel, retail, commercial, office, and civic/community uses. The Project District will be organized around an interconnected, pedestrian oriented street network where homes, businesses, and entertainment are intermingled to provide a diverse experience for residents and visitors. The proposed mixed-use project will include approximately 300 residential units, 220 rooms across two (2) hotels, a 50,000 square foot community performance facility, 470,000 square feet of commercial use, and a variety of open space features."*

In the development and implementation of all projects, EPO strongly recommends regular review of State and Federal environmental health land use guidance. State standard comments and available strategies to support sustainable and healthy design are provided at: <http://health.hawaii.gov/epo/landuse>. Projects are required to adhere to all applicable standard comments.

EPO has recently updated the environmental Geographic Information System (GIS) website page. It now compiles various maps and viewers from our environmental health programs. The eGIS website page is continually updated so please visit it regularly at: <http://health.hawaii.gov/epo/egis>.

EPO also encourages you to examine and utilize the Hawaii Environmental Health Portal at: <https://eha-cloud.doh.hawaii.gov>. This site provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings.

We suggest you review the requirements of the Clean Water Branch (Hawaii Administrative Rules (HAR), Chapter 11-54-1.1, -3, 4-8) and/or the National Pollutant Discharge Elimination System (NPDES) permit (HAR, Chapter 11-55) at: <http://health.hawaii.gov/cwb>. If you have any questions, please contact the Clean Water Branch (CWB),

Ms. Tessa Munekiyo Ng, AICP
Page 2
March 14, 2017

Engineering Section at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov. If your project involves waters of the U.S., it is highly recommended that you contact the Army Corps of Engineers, Regulatory Branch at: (808) 835-4303.

Please note that all wastewater plans must conform to applicable provisions (HAR, Chapter 11-62, "Wastewater Systems"). We reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please review online guidance at: <http://health.hawaii.gov/wastewater> and contact the Planning and Design Section of the Wastewater Branch (WWB) at (808) 586-4294.

If noise created during the construction phase of the project may exceed the maximum allowable levels (HAR, Chapter 11-46, "Community Noise Control") then a noise permit may be required and needs to be obtained before the commencement of work. Relevant information is online at: <http://health.hawaii.gov/irhb/noise> EPO recommends you contact the Indoor and Radiological Health Branch (IRHB) at (808) 586-4700 with any specific questions.

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: <http://eha-web.doh.hawaii.gov/oeqc-viewer>. This viewer geographically shows where some previous Hawaii Environmental Policy Act (HEPA) {Hawaii Revised Statutes, Chapter 343} documents have been prepared.

To better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: <http://www.epa.gov/ejscreen>.

We request that you utilize all this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design. Thank you for the opportunity to comment.

Mahalo nui loa,



Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

LM:nn

Attachment 1: Environmental Health Management Web App Snipit of Project Area: <http://health.hawaii.gov/epo/egis>

Attachment 2: Clean Water Branch: Water Quality Standards Map - Hawaii

Attachment 3: OEQC viewer (of past EA's, EIS's in area)

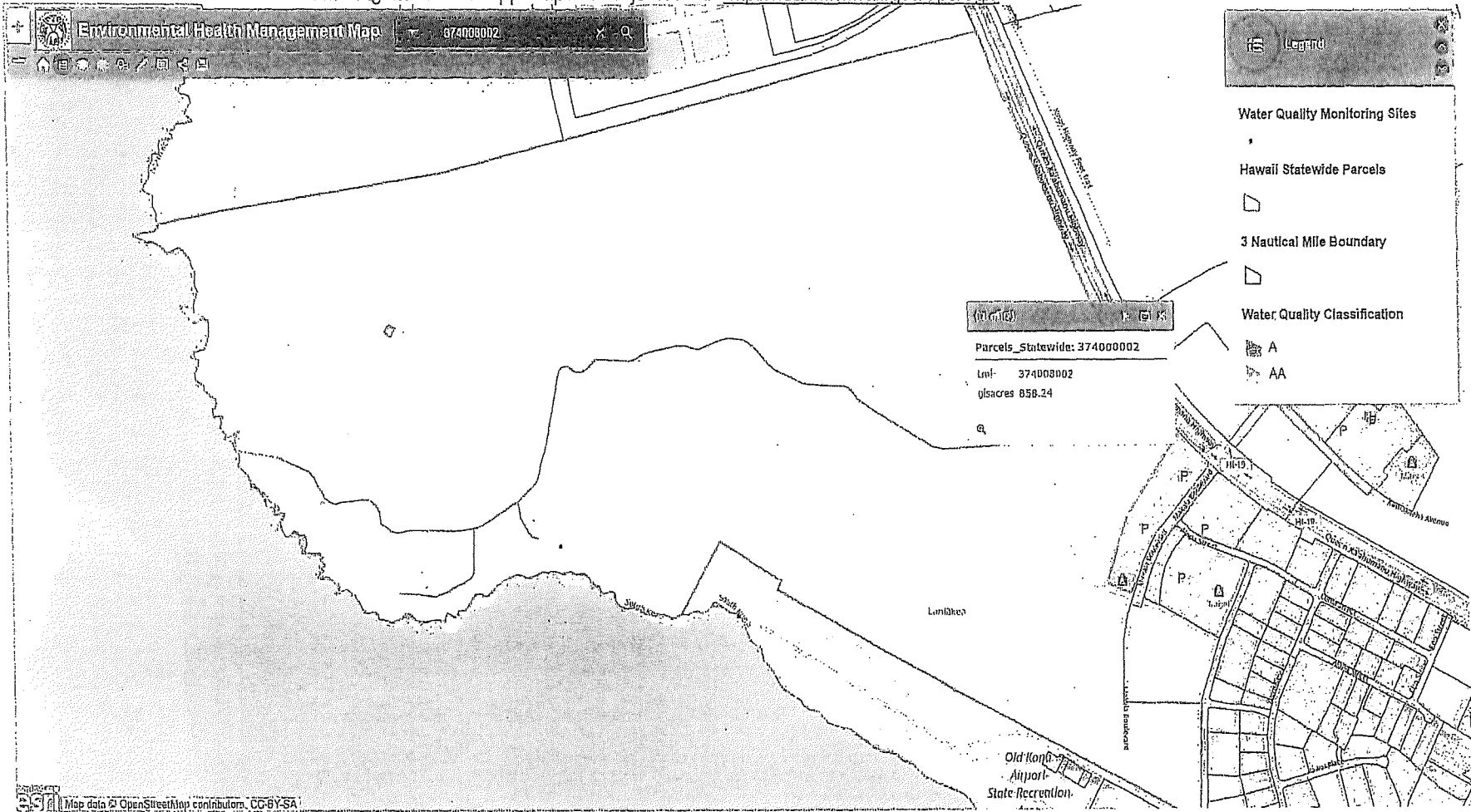
Attachment 4: U.S. EPA EJSCREEN Report for Project Area

c: Michael Shibata, Liliuokalani Trust (via email: MPD@onipaa.org)

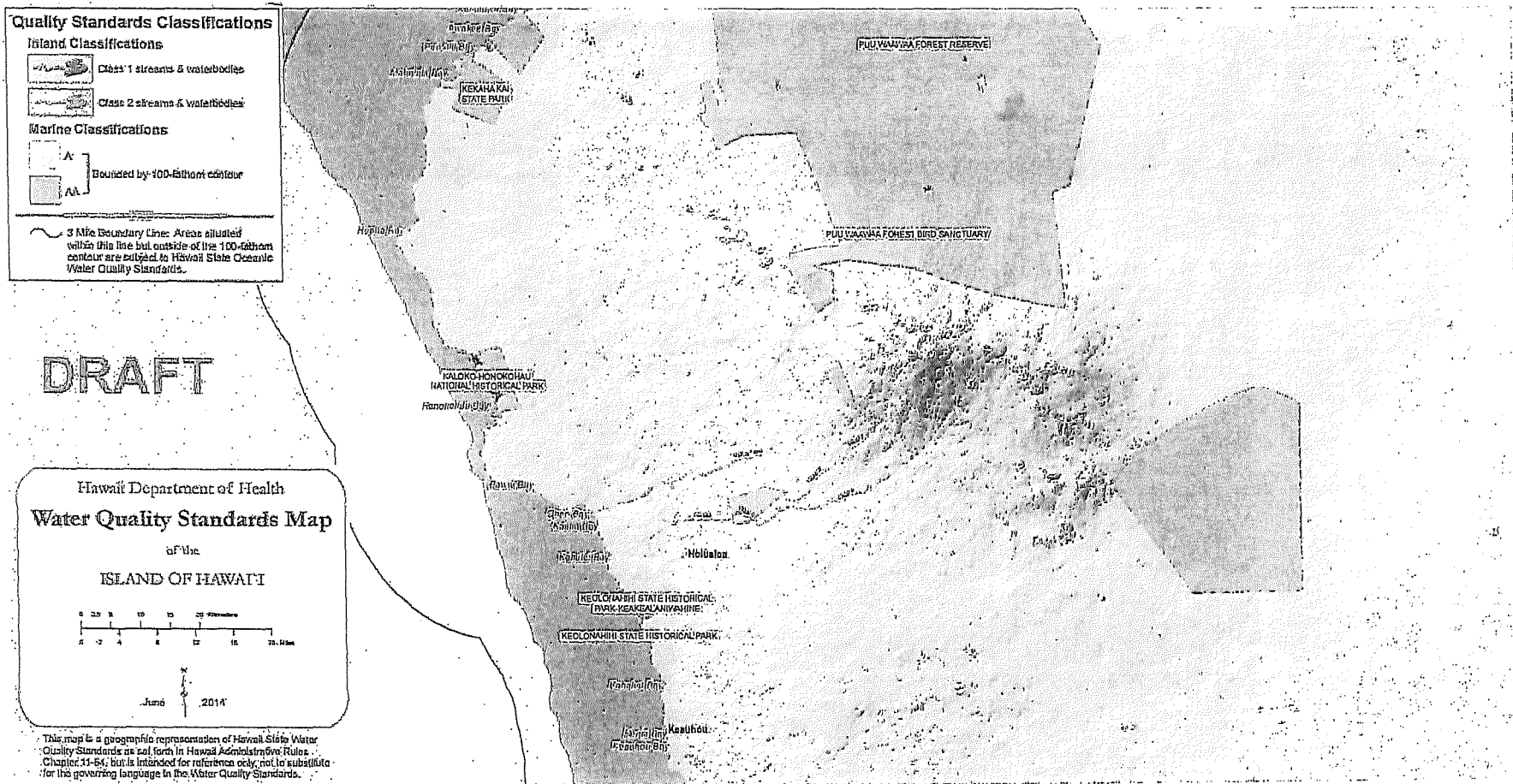
Daryn Arai, Deputy Planning Director, County of Hawaii (via email: Daryn.Arai@hawaiicounty.gov)

DOH: DHO HI, DDEH, EMD, CWB, WWB, SDWB, SHWB, HEER, IRHB, TSP {via email only}

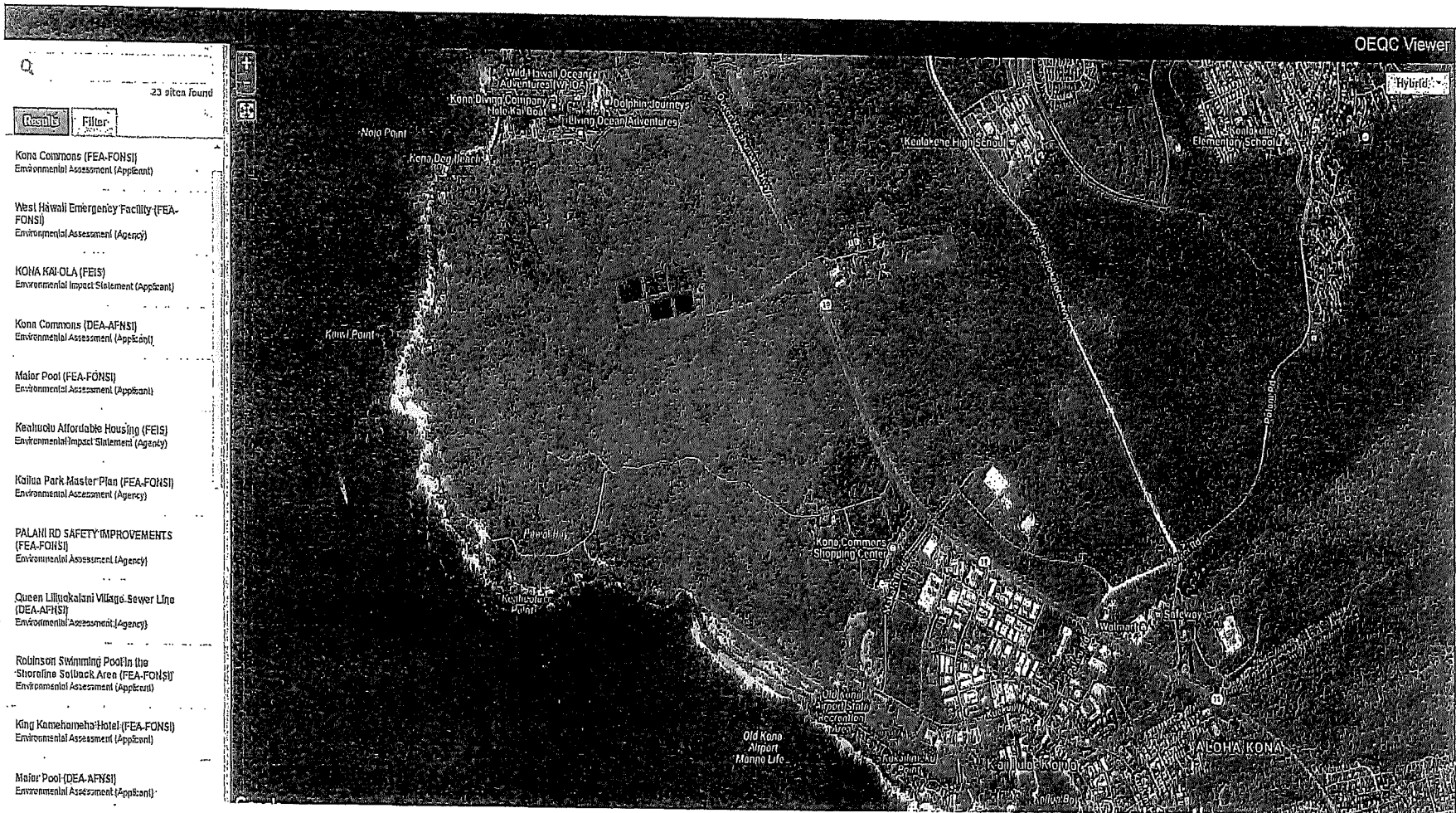
Attachment 1: Environmental Health Management Web App Snipit of Project Area: <http://health.hawaii.gov/epo/egis>



Attachment 2: Clean Water Branch: Water Quality Standards Map - Hawaii



Attachment 3: OEQC viewer (of past EA's, EIS's in area).



Attachment 4: U.S. EPA EJSCREEN Report for Project Area



EJSCREEN Report (Version 2016)

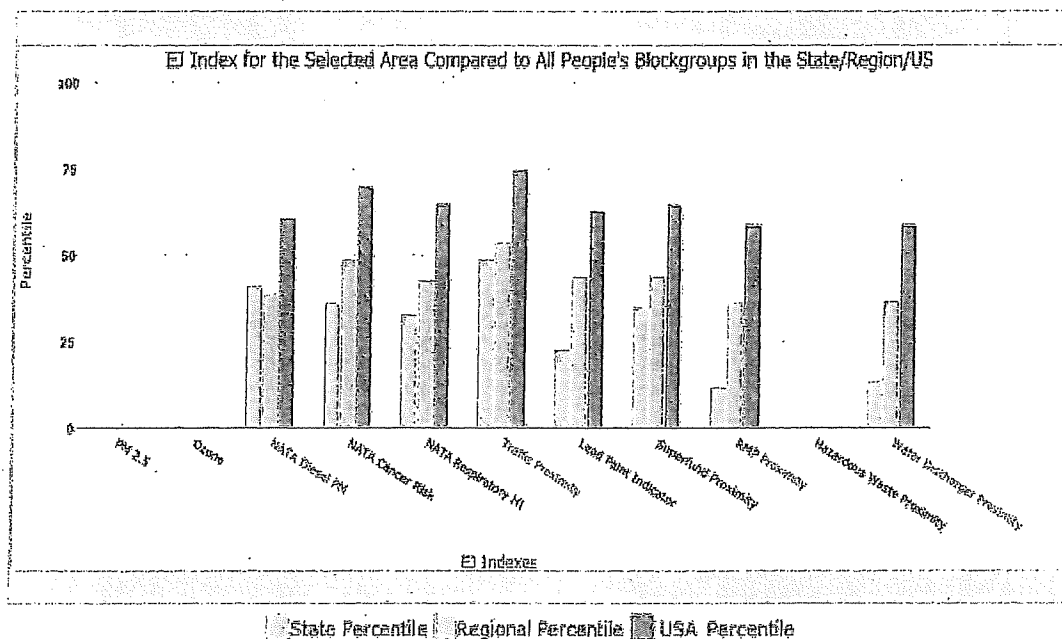


1 mile Ring Centered at 19.654298, -156.015491, HAWAII, EPA Region 9

Approximate Population: 30

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA* Diesel PM	41	39	61
EJ Index for NATA* Air Toxics Cancer Risk	36	49	70
EJ Index for NATA* Respiratory Hazard Index	33	43	65
EJ Index for Traffic Proximity and Volume	49	54	75
EJ Index for Lead Paint Indicator	23	44	63
EJ Index for Superfund Proximity	35	44	65
EJ Index for RMP Proximity	12	36	59
EJ Index for Hazardous Waste Proximity	N/A	N/A	N/A
EJ Index for Water Discharger Proximity	14	37	59



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 55th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

March 14, 2017

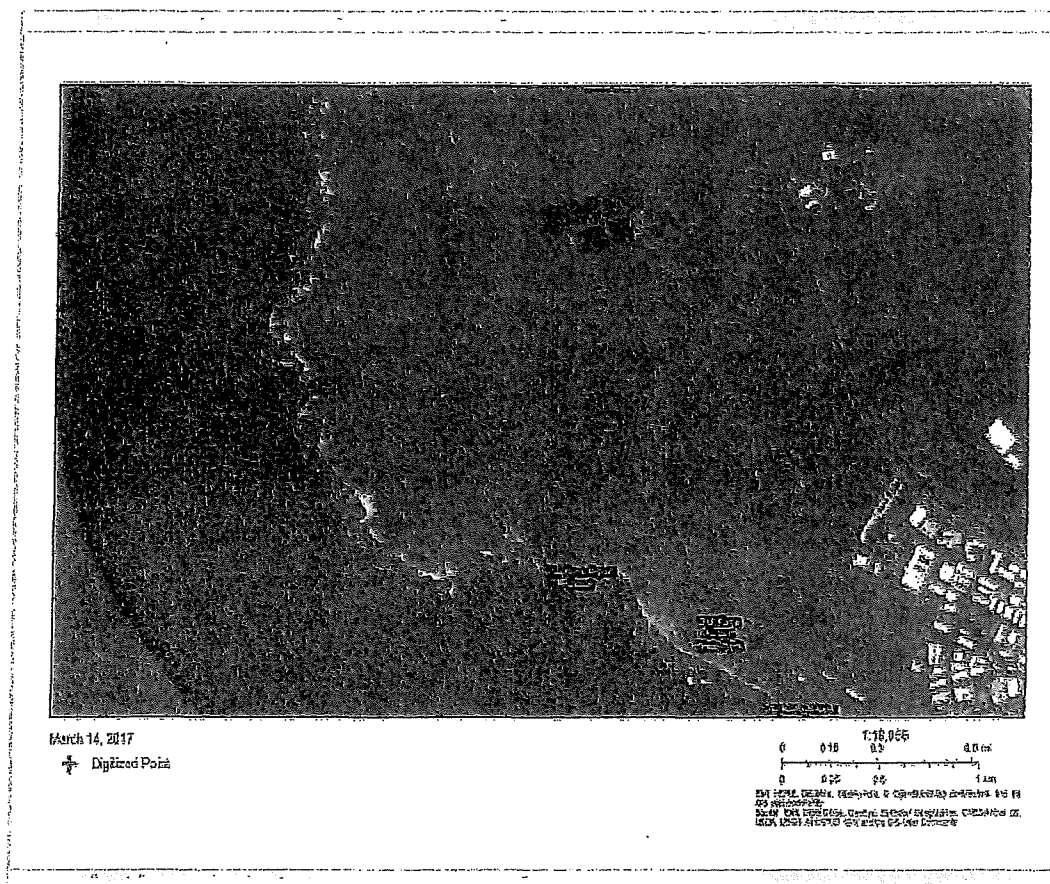
1/3



1 mile Ring Centered at 19.654298, -156.015491, HAWAII, EPA Region 9

Approximate Population: 30

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0
National Pollutant Discharge Elimination System (NPDES)	0



EISCREEN Report (Version 2016)



1 mile Ring Centered at 19.654298,-155.015491, HAWAII, EPA Region 9

Approximate Population: 30

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	N/A	N/A	N/A	9.37	N/A	9.32	N/A
Ozone (ppb)	N/A	N/A	N/A	51	N/A	47.4	N/A
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	0.0584	0.149	33	0.978	<50th	0.937	<50th
NATA* Cancer Risk (lifetime risk per million)	27	34	22	43	<50th	40	<50th
NATA* Respiratory Hazard Index	0.61	1	21	2	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	100	990	44	1100	37	590	51
Lead Paint Indicator (% Pre-1960 Housing)	0.0031	0.16	14	0.24	17	0.3	10
Superfund Proximity (site count/km distance)	0	0.098	29	0.15	13	0.13	16
RMP Proximity (facility count/km distance)	0	0.10	3	0.57	1	0.43	1
Hazardous Waste Proximity* (facility count/km distance)	N/A	0.14	N/A	0.14	N/A	0.11	N/A
Water Discharger Proximity (facility count/km distance)	0	0.34	6	0.2	3	0.31	1
Demographic Indicators							
Demographic Index	52%	52%	53	47%	59	36%	75
Minority Population	79%	77%	43	58%	69	37%	84
Low Income Population	25%	26%	55	36%	38	35%	39
Linguistically Isolated Population	3%	6%	52	9%	37	5%	64
Population With Less Than High School Education	12%	9%	71	17%	46	14%	54
Population Under 5 years of age	6%	6%	47	7%	43	6%	46
Population over 64 years of age	12%	15%	36	13%	57	14%	47

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

† The hazardous waste environmental indicator and the corresponding EJ index will appear as N/A if there are no hazardous waste facilities within 50 km of a selected location.

For additional information, see: www.epa.gov/environmentaljustice

EISCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EISCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EISCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

March 14, 2017

3/3

February 15, 2018

Laura Leialoha Phillips McIntyre, AICP
State of Hawai'i
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (File: EPO 17-055)

Dear Ms. McIntyre:

Thank you for your letter dated March 14, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

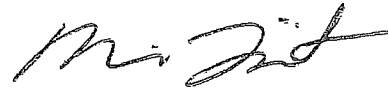
1. Comments from the Department of Health (DOH), Environmental Planning Office's websites will be reviewed and adhered to, as applicable.
2. A National Pollutant Discharge Elimination System (NPDES) permit will be obtained for the project.
3. Wastewater plans for the project will conform to Hawai'i Administrative Rules (HAR), Chapter 11-62, Wastewater Systems.
4. A noise permit will be obtained in accordance with HAR, Chapter 11-46 Community Noise Control, as applicable.
5. Thank you for providing information on the resources available from the Office of Environmental Quality Control and U.S. Environmental Protection Agency. This information will be reviewed by the design team as part of project planning.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Laura Leialoha Phillips McIntyre, AICP
February 15, 2018
Page 2

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



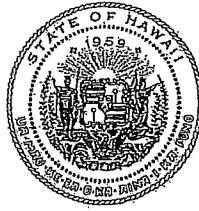
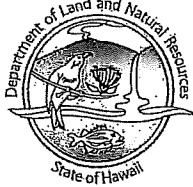
Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, Park Engineering

K:\DATA\QLT\Makalapua PD 1875\Draft EA\Response Letters\DOH EPO Response.doc

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
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

April 6, 2017

County of Hawaii
Planning Department
Attention: Mr. Jeff Darrow
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

via email: jdarrow@co.hawaii.hi.us

Dear Mr. Darrow:

SUBJECT: Draft Environmental Assessment for the Makalapua Project District

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, enclosed are comments from the (a) Engineering Division and (b) Land Division – Hawaii District on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Land Administrator

Enclosure(s)

cc: T. Munekiyo Ng, Munekiyo Hiraga
Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
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

March 13, 2017

MEMORANDUM

DLNR Agencies:

- ☐ Div. of Aquatic Resources
- ☐ Div. of Boating & Ocean Recreation
- ☒ Engineering Division
- ☐ Div. of Forestry & Wildlife
- ☐ Div. of State Parks
- ☒ Commission on Water Resource Management
- ☐ Office of Conservation & Coastal Lands
- ☒ Land Division – Hawaii District
- ☒ Historic Preservation

3/20
TO: *[Signature]*

FROM: *lo*

SUBJECT:

LOCATION: N. Kona, Island of Hawaii; TMK: (3) 7-4-008:002 (por.), 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and 7-4-010:009 & 010

APPLICANT: County of Hawaii, Planning Department

Russell Y. Tsuji, Land Administrator

Draft Environmental Assessment for the Makalapua Project District

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by April 5, 2017.

A CD is attached for your review.

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 have no objections.
- ☒ We have no ^{additional} comments.
- ☐ Comments are attached.

Signed: *[Signature]*

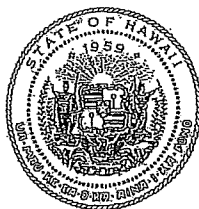
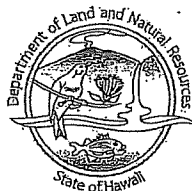
Print Name: Carty S. Chang, Chief Engineer

Date: 3/14/17

cc: Central Files

17 MAR 13 PM 1:24 ENGINEERING
LAND DIVISION
2017 MAR 20 AM 11:28
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

2017 MAR 15 10:24

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU HAWAII 96809

March 13, 2017

MEMORANDUM

TO:

DLNR Agencies:

- ☐ Div. of Aquatic Resources
- ☐ Div. of Boating & Ocean Recreation
- ☒ Engineering Division
- ☐ Div. of Forestry & Wildlife
- ☐ Div. of State Parks
- ☒ Commission on Water Resource Management
- ☐ Office of Conservation & Coastal Lands
- ☒ Land Division - Hawaii District
- ☒ Historic Preservation

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT:

Draft Environmental Assessment for the Makalapua Project District

LOCATION:

N. Kona, Island of Hawaii; TMK: (3) 7-4-008:002 (por.), 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and 7-4-010:009 & 010

APPLICANT:

County of Hawaii, Planning Department

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **April 5, 2017**.

A CD is attached for your review.

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 have no objections.
- ☒ We have no comments.
- ☐ Comments are attached.

Signed:

Print Name:

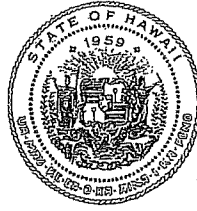
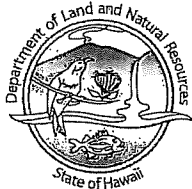
GORDON C. HEIT

Date:

3/30/17

cc: Central Files

DAVID Y. IGE
GOVERNOR OF
HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

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

Jeffrey W. Darrow, Planner
County of Hawai'i
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

April 10, 2017

Dear Jeffrey Darrow,

The Department of Forestry and Wildlife has received your inquiry regarding the Final Environmental Assessment for the proposed Makalapua Project District located on approximately 69.1 acres of land in Kailua-Kōna, Hawai'i, TMKs (3) 7-4-008:002 (por.); 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and 7-4-010-009 and 010. The proposed action will include 300 residential units, 220 rooms across two hotels, 50,000 square foot community performance facility, and a 470,000 square feet of commercial use leveraging a combination of undeveloped land and existing users.

Blackburn's Sphinx Moth (*Manduca blackburni*) has a historic range that encompasses the project area. DOFAW recommends that a vegetation survey be conducted to determine the presence of plants preferred by Blackburn's Sphinx Moth. Larvae of Blackburn's sphinx moth feed on plants in the nightshade family (*Solanaceae*). The native hostplants are trees within the genus *Nothocestrum* (aiea) on which the larvae consume leaves, stems, flowers, and buds. However, many of the hostplants recorded for this species are not native to the Hawaiian Islands. These include commercial tobacco (*Nicotiana tabacum*), tree tobacco (*Nicotiana glauca*). In general, sphingid moths can develop from egg to adult in as little as fifty-six days but pupae may remain in a state of torpor (inactivity) in the soil for up to a year.

To assess if the Blackburn's Sphinx Moth or its larvae are present, DOFAW recommends a biologist survey the project area for potential host plants during the wettest portion of the year (usually November to April).

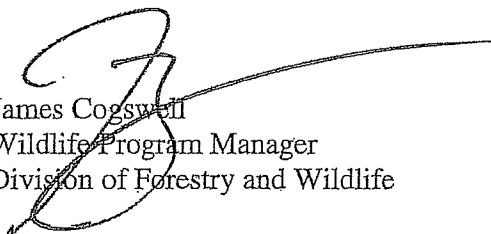
The State and Federally listed Hawaiian hoary bat (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the project area. Therefore, DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. To minimize the potential for impacts to this species, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats.

DOFAW is concerned about attracting vulnerable birds to areas that may host non-native predators such as cats, rodents, and mongoose. Additionally, construction and proposed improvements to the site may generate more trash. We recommend taking action to minimize predator presence; remove and strongly discourage residents from feeding cats, place bait stations for rodents and mongoose, and provide covered trash receptacles.

DOFAW would like to ensure that effective avoidance measures are in place to prevent adverse impacts to native seabirds. Artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting is required at the facility, DOFAW recommends that any lights used be fully shielded to minimize impacts. DOFAW Wildlife Biologists will be able to provide technical assistance in developing "seabird-friendly lighting."

We appreciate your efforts to work with our office for the conservation of native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Katherine Cullison, Conservation Initiatives Coordinator at (808)587-4148 or Katherine.cullison@hawaii.gov.

Sincerely,



James Cogswell
Wildlife Program Manager
Division of Forestry and Wildlife



February 15, 2018

James Cogswell, Wildlife Program Manager
Division of Forestry and Wildlife
State of Hawai'i
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Cogswell:

Thank you for your letter dated April 10, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. The flora and fauna survey for the project discovered two (2) tree tobacco plants in the proposed project area, and noted that the plants may be host plants to the Blackburn's sphinx moth. However, no moth eggs or larvae were observed on the tree tobacco plants.
2. The U.S. Fish and Wildlife Service (USFWS) recommends the following measures to minimize potential impacts on the Blackburn's sphinx moth, which will be complied with by LT:
 - a. Tree tobacco plants less than three (3) feet in height with no Blackburn's sphinx moth eggs, larvae, or signs indicating the possibility of pupating larvae may be removed and soil within 33 feet may be disturbed.
 - b. The above-ground portion of tree tobacco plants greater than three (3) feet in height without signs of the Blackburn's sphinx moth may be cut down and the stems treated with herbicide or retrimmed to prevent leaf growth and potential use by the Blackburn's sphinx moth, and a 33-foot

disturbance-free buffer will be established around the plant's location for one year. It is noted that after one year, the plant roots may be removed and the soil disturbed.

- c. Imported gravel or dirt fill will be certified weed free or a plant survey will be conducted around the area where the fill will be extracted from to avoid spreading nonnative tree tobacco and other invasive plant species.
 - d. If there are any tree tobacco plants near the site that could spread into the site within a year, the site will be monitored during and after construction to prevent tree tobacco plants from spreading into the subject property and growing larger than three (3) feet.
 - e. The USFWS will be contacted prior to clearing of tree tobacco plants from the project area for assistance with minimizing any potential impacts to the Blackburn's sphinx moth.
- 3. As recommended, minimization measures to protect the Hawaiian hoary bat will include avoiding use of barbed wire and avoiding cutting down woody plants greater than 15 feet during the bat birthing and pup rearing season.
 - 4. During construction, the contractor will appropriately dispose of construction-related trash. Additionally, covered trash receptacles will be provided and residents of the project will be discouraged from feeding cats and placing bait stations for rodents.
 - 5. As recommended, outdoor lighting will be fully shielded to minimize impacts to seabirds. We thank you for the offer to provide technical assistance in developing seabird-friendly lighting.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

James Cogswell, Wildlife Program Manager
Division of Forestry and Wildlife
February 15, 2018
Page 3

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Robert Hobdy, Environmental Consultant

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DAVID Y. IGE
GOVERNOR



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

AUG 14 2017

COPY 1
FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:
DIR 0395
HWY-PS 2.5325

August 4, 2017

Mr. Michael Yee
Director
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720-4224

Dear Mr. Yee:

Subject: Draft Environmental Assessment
Future District Boundary Amendment, Change of Zone and Special
Management Area Permit for Makalapua Project District
Keahuolu, North Kona, Hawaii
TMK: (3) 7-4-008:002 (por), 7-4-025:001-003, 005, 012, 015, 017, 021, 022;
7-4-010:009, 010

The Liliuokalani Trust (LT) proposes to develop a mixed-use project of approximately 69.1 acres that is currently planned to consist of approximately 300 residential units, 220 hotel rooms, 50,000 SF community performance facility and 470,000 SF of commercial facilities, as well as a variety of open space features.

An Environmental Assessment (EA) under Hawaii Revised Statutes (HRS) 343 is required because of use of County lands. The County of Hawaii, Planning Department will be the approving agency. The EA will provide HRS 343 compliance for a future District Boundary Amendment, Change of Zone, and Special Management Area Permit related to the Makalapua Project District.

A Traffic Impact Analysis Report (TIAR), Austin, Tsutsumi & Associates, November 22, 2016, formed Appendix H of the Draft EA.

The Hawaii Department of Transportation (HDOT) has the following comments:

1. Please revise and submit the TIAR comments to the HDOT:
 - a. The HDOT is concerned about recommendations for infrastructure to be provided by "others." Currently, the HDOT has no plans to construct any capacity-related improvements for Queen Kaahumanu Highway between Kealakehe Parkway and Palani Road for the foreseeable future. Therefore, identify those "others" who will provide the improvements recommended in the "without project" condition.

Mr. Michael Yee
August 4, 2017
Page 2

HWY-PS 2.5325

- b. The revised TIAR should include a discussion and/or conclusion on the possibility of queues of traffic backing up onto Queen Kaahumanu Highway at the RIRO and the RI intersections between Makala Boulevard and Palani Road under any anticipated traffic situation.
 - c. The HDOT has no plans for capacity improvement construction for the foreseeable future; therefore, the HDOT will not participate in widening Queen Kaahumanu Highway to six-lanes between Makala Boulevard and Palani Road as depicted in the current TIAR.
 - d. The revised TIAR should also provide a list of improvements by the project development phasing or according to the 2022, 2027 and 2038 analysis dates.
2. The HDOT recommends an effort be made to ensure parallel routes connecting adjacent developments be pursued that will provide desirable alternatives to the use of Queen Kaahumanu Highway for local travel between adjacent development areas.

If there are any questions, please contact Ken Tatsuguchi, Engineering Program Manager, Highways Division, Planning Branch, at (808) 587-1830. Please reference file review number PS 2016-077.

Sincerely,



FORD N. FUCHIGAMI
Director of Transportation

c: Ms. Tessa Munekiyo Ng, Munekiyo Hiraga.

February 15, 2018

Jade Butay, Interim Director
Department of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 96813

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (DIR 0395 HWY-PS 2.5325)

Dear Mr. Butay:

Thank you for your department's letter dated August 4, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT) we offer the following responses in the order of your comments:

- 1a. We note your comment that the Hawai'i Department of Transportation (HDOT) does not have plans to construct improvements for Queen Ka'ahumanu Highway between Kealakehe Parkway and Palani Road in the foreseeable future. As a standard practice in the preparation of Traffic Impact Analysis Reports (TIAR), Base Year conditions are intended to analyze future conditions and possible recommended improvements that would be necessary to mitigate traffic congestion without the project. Nearby projects within the vicinity of the Makalapua Project District are identified in the TIAR. However, neither LT nor the TIAR preparer, Austin, Tsutsumi, and Associates, Inc. are privy to existing or future agreements each developer has with HDOT. It is assumed that a Memorandum of Agreement (MOA) will likely be required for the project, wherein LT's "fair share" of mutually acceptable improvements will be negotiated between HDOT and LT, irrespective of whether a recommended improvement appears in the Base Year or "with Project" scenario within the TIAR.
- 1b. The TIAR provides traffic volumes and projections for the Queen Ka'ahumanu Highway intersections between Makala Boulevard and Palani Road – specifically, Kaiwi Street and Eho Street. However, HCM analysis has no method to analyze these types of right-turn movements, which are technically unimpeded. Simulations, which considered the above mentioned intersections as well as the

four-way-stop intersection upstream of the right-turn, were performed instead to evaluate the potential for queuing along Queen Kaahumanu Highway. No impacts from the right-turn volumes along Queen Kaahumanu Highway are expected. The report has been revised to address this comment. See section 5.6.3 and updated LOS tables discussions.

- 1c. We acknowledge that HDOT has no plans for capacity improvement construction for the foreseeable future and therefore will not participate in widening of Queen Ka'ahumanu Highway to six (6) lanes between Makala Boulevard and Palani Road.
- 1d. The TIAR provides a list of improvements by development phasing on pages 85 to 89 and in Table 7.1.
- 2. We acknowledge your recommendation that an effort be made to ensure parallel routes connecting adjacent developments that will provide desirable alternatives to the use of Queen Ka'ahumanu Highway. It is noted that the extension of Kuakini Highway, Ma'a Way, and Pawai Drive are intended to provide parallel alternatives to Queen Ka'ahumanu Highway.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, Austin Tsutsumi & Associates, Inc.

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DAVID Y. IGE
GOVERNOR



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

AUG 27 2018

JADE T. BUTAY
DIRECTOR

Deputy Directors
ROY CATALANI
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:

DIR 0201
HWY-PS 2.8395

August 15, 2018

Ms. Marisa Fujimoto
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Fujimoto:

Subject: Consultant Response to HWY-PS 2.5325
Draft Environmental Assessment
Makalapua Project District
Keahuolu, North Kona, Hawaii TMK: (3) 7-4-008: 002 (por), 7-4-025: 001-003,
005, 012, 015, 017, 021, 022; 7-4-010: 009, 010

Thank you for your letter of February 15, 2018 responding to the comments of the Hawaii Department of Transportation (HDOT) in HWY-PS 2.5325, dated August 4, 2017 to the project Traffic Impact Analysis Report (TIAR) by Austin, Tsutsumi & Associates, November 16, 2016.

We have the following responses:

1. [1a.] The HDOT understands the purpose of providing for non-project improvements to improve the roadway network; however it is not satisfactory to utilize those improvements by party or parties unknown as the foundation for project mitigation measures. Should the non-project improvements not be constructed, for any reason, the framework of mitigation based on those improvements being in place becomes uncertain.

The HDOT would prefer that, if improvements by others are uncertain, that mitigation be recommended based on those improvements by others not being present. Otherwise, the HDOT would have to recommend that the applicant provide those improvements if only to ensure that the mitigation recommended will have some expectation of working as intended. HDOT acknowledges that only improvements to Queen Kaahumanu Highway or its intersections are being referred to.

Ms. Marisa Fujimoto
August 15, 2018
Page 2

DIR 0201
HWY-PS 2.8395

2. [1b.] The HDOT acknowledges that it may have been overly concerned about traffic queues backing up onto Queen Kaahumanu from right-in, right-out and right-in intersections between Makala Boulevard and Palani Road; however potential interference with the flow of our highway is always a concern. Your letter also refers to a revised TIAR which we do not have a and we ask that a CD copy be forwarded so the section cited in the letter may be reviewed.

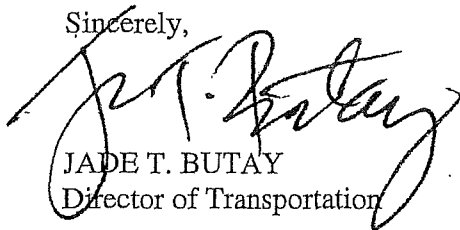
3. [1c.] Accepted.

4. [1d.] We acknowledge that the cited pages (85-89) and table 7.1 from the TIAR certainly provide a list of improvements; however our comment 1 [1a.] is applicable.

5. [2.] Accepted.

If there are any questions, please contact Ken Tatsuguchi, Engineering Program Manager, Highways Planning Branch, at (808) 587-1830. Please reference file review number 2016-077.

Sincerely,



JADE T. BUTAY
Director of Transportation

April 5, 2019

Jade Butay, Director
Department of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 96813

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (DIR 0395 HWY-PS 2.5325)

Dear Mr. Butay:

Thank you for your department's letter dated August 15, 2018, providing comments on our response letter dated February 15, 2018 for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT) we offer the following responses in the order of your comments:

1. [1a.] All roadway improvements not currently planned to be completed by other parties have been removed from the "without Project" scenarios in the revised Traffic Impact Analysis Report (TIAR). All recommended improvements are included as mitigation in the "with Project" scenarios along with the project's anticipated pro-rata share of traffic.
2. [1b.] Since publication of the Draft Environmental Assessment (EA) on March 8, 2017, LT has decided to expand the preservation area for the modified lava tube burial, resulting in modifications to the project's roadway alignment. Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park before curving north, as envisioned in the Kona Community Development Plan. A revised Traffic Impact Analysis Report (TIAR) has been prepared and will be included in the Final EA for the subject project.

As requested, a CD copy of the revised TIAR will be sent to your office for your review.

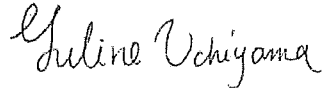
3. [1c.] Thank you for your acknowledgement.

4. [1d.] Table 7.1 (pages 87-89 in the revised TIAR) has been updated to provide the anticipated timeline for roadway improvements. As noted in the response to Comment 1 above, all unplanned roadway improvements have been removed from the "without Project" scenarios and are included as mitigation in the "with Project" scenarios in the revised TIAR.
5. [2.] Thank you for your acknowledgement.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 983-1233.

Very truly yours,



Yukino Uchiyama
Associate

YU:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, Austin Tsutsumi & Associates, Inc.

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DAVID Y. IGE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

April 20, 2017

APR 24 2017

ARTHUR J. LOGAN
MAJOR GENERAL
ADJUTANT GENERAL

KENNETH S. HARA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

Mr. Jeffrey W. Darrow, Planner
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Dear Mr. Darrow

Subject: Draft Environmental Assessment for the Makalapua Project District, TMK Nos. (3)7-4-008: 002 (por.), (3) 7-4-025: 001, 002, 003, 005, 012, 015, 017, 021, 022, and (3)7-4-009 and 010

Thank you for the opportunity to comment on the above project, and please accept our apologies for this late response. The State of Hawaii Department of Defense has no comments to offer relative to the project.

If you have any questions or concerns, please have your staff contact Mr. Lloyd Maki, Assistant Chief Engineering Officer at (808) 733-4250.

Sincerely,

A handwritten signature in black ink, appearing to read "Neal S. Mitsuyoshi", with a long horizontal line extending to the right.

NEAL S. MITSUYOSHI
Colonel, Hawaii National Guard
Chief Engineering Officer

Cc: ~~Ms. Havinne Okamura, Hawaii Emergency Management Agency~~
✓ Ms. Tessa Munekiyo Ng, AICP, Vice President, Munekiyo Hiraga



OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
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APR 03 2017

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

Ref. No. P-15541

March 29, 2017

Mr. Michael Yee, Director
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Subject: Draft Environmental Assessment for the Makalapua Project District
TMK Nos. (3)7-4-008:002 (por.); 7-4-025:001, 002, 003, 005, 012, 015,
017, 021, 022 and 7-4-010:009 and 010.

Dear Mr. Yee:

Thank you for the opportunity to provide comments on the Draft Environmental Assessment (Draft EA) for the proposed Makalapua Project located in Kailua-Kona, Hawaii Island. The Draft EA was transmitted to our office by letter dated March 3, 2017.

The Makalapua Project District consists of 54.14 acres of land within the State Urban District and 14.96 acres in the State Agricultural District for a total of 69.1 acres. The 1991 LUC Decision and Order (Docket No. A89-646) reclassified 54.14 acres from State Conservation and Agricultural Districts to the Urban District. Liliuokalani Trust intends to submit a Petition for a District Boundary Amendment (DBA) for the remaining 14.96 acres of the Project District that is currently designated as Agricultural. The DBA petition area is less than 15 acres; therefore, pursuant to Hawaii Revised Statutes (HRS) § 205-3.1, it will be processed through the County of Hawaii reclassification process. The Makalapua Project District falls into 3 main zoning districts: MG-1a (General Industrial), MCX (Industrial-Commercial Mixed, and A-5a (Agricultural District). A change of zone application is to be submitted by the Liliuokalani Trust to the County of Hawaii Planning Department to change the zoning of the project site to PD (Project District).

The Makalapua Project District falls within the County's Special Management Area (SMA). As such, an SMA Use Permit will be required from the Leeward Planning Commission of the County of Hawaii. Other permits that may be required for the Makalapua Project District include an National Pollution Discharge Elimination (NPDES) Permit, Community Noise Permit (as applicable), Subdivision Approval, Construction Approvals (Grading/Building Permits), and a Right to Perform Work Within a County Right of Way.

The proposed Makalapua Project district is located north of the Kailua-Kona village core. It is bordered by the Kona Commons Shopping Center to the northeast, vacant lands to the north,

Mr. Michael Yee, Director
County of Hawaii
Planning Department
March 29, 2017
Page 2

the existing Kona Industrial Subdivision to the east, and the County's Kailua Park to the south and west. The project area is currently vacant and undeveloped with the exception of a former recreational sports facility on Makala Boulevard, a BMW car dealership, and temporary storage and staging areas on Loloku Street, and light industrial warehouses on Kaiwi Street. The Project is located in a corridor that the Kona Community Development Plan (Kona CDP) designates as a transit-oriented development (TOD) regional commercial center called "Makaeo Village."

The project is to be built over a three-phase development horizon, spanning approximately 15 years. The Project District will include residential, hotel, retail, commercial, and civic uses. The Project will include 300 residential units, a 50,000 square foot community performance facility 47,000 square feet of commercial space, and open spaces.

The Draft EA addresses some of our comments made in a previous pre-consultation letter dated April 26, 2016 (Reference Number P-15122). The Office of Planning (OP) has reviewed the Draft EA and offers the following comments.

1. **Transportation.** OP requested in our Early Consultation letter dated April 26, 2016 that the Draft EA describe and discuss the State DOT recommendations which were imposed in the Land Use Commission's April 21, 2016 Order Granting Petitioner Queen Liliuokalani Trust's Motion for Order Modifying the Findings of Fact, Conclusions of Law, and Decision and Order filed August 28, 1991. OP finds that the Petitioner has submitted a Traffic Impact Analysis Report (TIAR) for the Project District prepared by Austin, Tsutsumi Associates, Inc on November 22, 2016 as part of the Draft EA (Appendix H).

Traffic projections for base and future years 2022, 2027, and 2038 have been prepared, including recommendations for roadway improvements or other mitigation measures, as appropriate, to reduce or eliminate the adverse impacts resulting from traffic generated by the Project. OP concurs with the recommendation that given the development timeframe of three phases over 15 years, regular updates should be conducted to determine the actual traffic growth and required improvements.

2. **Consistency with Hawaii State Planning Act.** OP requested in our Early Consultation letter dated April 26, 2016 that the Draft EA demonstrate that it is consistent with a number of State environmental, social policies, economic goals, and policies for land use. The Draft EA, Section III, B, pages 78-80 examines the project's consistency with the Hawaii State Planning Act, HRS Chapter 226. It states that the Project is consistent with the following themes, and provides a brief discussion of the following:

Mr. Michael Yee, Director
County of Hawaii
Planning Department
March 29, 2017
Page 3

- HRS § 226-5(b)(1), (2), (3), and (7) – the objectives and policies for population;
- HRS § 226-6(b)(9) – the objectives and policies for the economy – in general;
- HRS § 226-13(b)(2) and (b)(7) – the objectives and policies for the physical environment – land, air, and water quality;
- HRS § 226-17(b)(1), (3), (6), and (10) – the objectives and policies for facility systems – transportation;
- HRS § 226-19(b)(1), (3), (6), and (7), – the objectives and policies for socio-cultural advancement – housing; and,
- HRS § 226-108 – the priority guidelines on sustainability.

The Final EA should also include an analysis that appraises the Project's consistency with all of the themes of the Hawaii State Planning Act listed therein. If any of these are deemed not applicable, an individual negative declaration for each of the themes should be included in the Final EA.

3. **Coastal Zone Management (CZM).** OP requested in our Early Consultation letter dated April 26, 2016 that the Draft EA include an assessment as to how the proposed Project conforms to or is in conflict with the CZM objectives and its supporting policies set forth in HRS § 205A-2. OP has found that the Draft EA has adequately addressed the concerns of the CZM program. The Draft EA examines the goals and objectives of the CZM program, acknowledges that this project is within the Special Management Area (SMA) area of the County of Maui and is subject to SMA permitting. The Draft EA also lists the mitigation approaches and strategies for stormwater runoff issues, and states that low impact development design features and best management practices will be considered to treat stormwater runoff for this project.
4. **Climate Change Adaptation.** Section II, A, 3, pages 14-15 of the Draft EA states the Makalapua Project District incorporated mitigation for potential impacts from climate change. Specific climate change mitigation and adaptation strategies consist of the following:
 - Utilization of stormwater management (both quantity attenuation and quality of runoff);
 - Reduction of heat impacts through building orientation and fenestration for natural ventilation, shading, the use of open space, and landscaping; and,

Mr. Michael Yee, Director
County of Hawaii
Planning Department
March 29, 2017
Page 4

- Consideration of sea-level rise scenarios of 1-foot and 6-foot. The project is located inland and as such is not expected to be impacted by these sea level rise scenarios.

These climate change planning considerations are consistent with HRS § 226-109 – climate change adaptation. The Final EA should reference this information as it pertains to HRS § 226-109, and include it in the analysis of the consistency with the Hawaii State Planning Act on pages 78-80.

5. **Sustainability.** The Draft EA, Section III, B, pages 79-80 identifies the priority guidelines on sustainability pursuant to HRS § 226-108. The Final EA should not simply list the guidelines, but should provide a discussion on how the project is consistent with the guidelines.

In addressing priority guidelines on sustainability more thoroughly, the Project should also consider the use of sustainable neighborhood rating systems, including but not limited to nationally recognized rating systems such as Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND), Ecodistricts, Green Enterprise Communities or another comparable State-approved, nationally recognized, and consensus-based guideline, standard, or system.

6. **Housing.** The Draft EA in Section IV, A (page 42-43) does not directly or adequately address the provision of affordable housing. HRS § 226-19 discusses State objectives and policies for socio-cultural advancement with respect to housing. Section (2) of HRS § 226-19 addresses stimulating and promoting feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households, and Section (3) addresses increasing homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.

The Final EA should specify the number of affordable residential units proposed for the Project, including level of affordability, location (on-site vs. off-site) type, size, tenure, style, and associated densities, if any. Out of the 300 proposed units, the percent to remain affordable, the various affordable housing target populations (income groups), the number of each housing type, the expected price ranges for the different product types, the assumed household sizes, and how long they are to remain affordable should be included in the Final EA. The Final EA should outline how the Project is in compliance with the County of Hawaii's affordable housing requirements in accordance with Hawaii County Code (HCC) Sections 11-4 and 11-5.

Mr. Michael Yee, Director
County of Hawaii
Planning Department
March 29, 2017
Page 5

7. **Transit-Oriented Development (TOD).** Under HRS § 226-63(c)(1) OP is responsible for coordinating with the counties on strategic planning for TOD. The Project as a regional commercial TOD should specify how it accommodates transit-supportive, mixed-uses uses that encourage walkable density, such as stores and restaurants at the street level, and residential or office uses on the upper floors. OP encourages the development of mixed-use in all new projects located in TOD corridors in the State Urban District. As State Urban District lands, the Project should be characterized by “city-like” concentrations of people, structures, streets, urban level of services, and other related land uses. Auto-oriented uses should be discouraged, including those currently existing on or adjacent to the property, such as auto dealerships, storage facilities, large single-use floor-plate retail and expansive surface parking lots.

The Final EA on page 93-96 should also include a discussion of the TOD-related Kona CDP standards including but not limited to:

- TRAN-2.1 Connectivity Standards (maximum block sizes, connections to adjoining development, gated entries, cul-de-sacs, future extensions)
- TRAN 3.8 Multimodal Standards (park and ride facilities at transit stations, storage for bicycles at transit stations)
- TRAN-4.1 Transportation Demand Management (TDM) Solutions
- TRAN-4.2b Subsidizing commuter transit service (how major employers contribute toward subsidizing commuter transit service)
- TRAN-4.3a Managed Parking (in accordance with the Village Design Guidelines, parking pricing)
- LU-2.5 (Compliance with Village Design Guidelines)

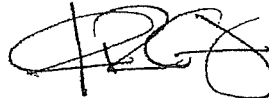
OP supports the use of the Village Design Guidelines (Attachment B in the Kona CDP) as a form-based code as an instrument of implementation of the Kona CDP to provide standards of development for Traditional Neighborhood Design (TND) and Transit-Oriented Design (TOD) villages.

Mr. Michael Yee, Director
County of Hawaii
Planning Department
March 29, 2017
Page 6

8. **Complete Streets.** The Draft EA should contain further discussion of compliance with State and County Complete Streets policies, pursuant to Act 54, Session Laws of Hawaii 2009 and HRS § 264-20.5. The Project should elaborate on how it will comply with Complete Streets policies, including adherence to State Complete Streets principles: safety, Context Sensitive Solutions (CSS), accessibility and mobility for all, use and comfort of all users, consistency of design guidelines and standards, energy efficiency, health, and green infrastructure.

Thank you for providing us with the opportunity to comment. Should you have any questions, please call Nicola Szibbo of our Land Use Division at (808)587-2883 or Joshua Hekeia of our CZM Program at (808)587-2845.

Sincerely,



Leo R. Asuncion
Director

c: Tessa Munekiyo Ng, Munekiyo Hiraga,
Michael Shibata, Liliuokalani Trust

February 15, 2018

Leo R. Asuncion, Director
State of Hawai'i
Office of Planning
P.O. Box 2359
Honolulu, Hawai'i 96804

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (Ref No. P-15541)

Dear Mr. Asuncion:

Thank you for your letter, dated March 29, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. It is noted that the State of Hawai'i, Office of Planning (OP) acknowledges the Traffic Impact Analysis Report that was prepared for the project and concurs with the proposed approach of providing regular updates to determine actual traffic growth and required improvements.
2. The Final EA will include an analysis on the Makalapua Project District's consistency with all of the themes of the Hawai'i State Planning Act.
3. Thank you for acknowledging the assessment on the Makalapua Project District's conformity to the Coastal Zone Management program.
4. Thank you for acknowledging the discussion on climate change mitigation and adaptation strategies in the Draft EA. This information will also be included in the Final EA in the assessment of the Hawai'i State Planning Act.
5. The Final EA will include a discussion on how the project is consistent with the priority guidelines on sustainability. LT will consider the potential use of sustainable neighborhood rating systems for the project.

6. The Final EA will include available information regarding the project's consistency with the affordable housing policies of the State and County of Hawai'i. LT is committed to complying with affordable housing requirements. However, it is noted that the specific mix of unit sizes, types, and affordability levels will continue to be refined as the planning for the Makalapua Project District advances.
7. The Final EA will include discussion on how the project accommodates transit supportive mixed uses that encourage walkable density, including a discussion on the applicable TOD-related Kona Community Development Plan (CDP) standards. LT supports the TOD-related goals and standards of the Kona CDP. However, some of the standards included in the Kona CDP related to TOD, such as policy TRAN 4.1 and action TRAN 4.2b, are oriented toward government policy or employer actions. LT will share the Kona CDP and its goals with future large employers at the Makalapua Project District, but implementation of specific measures such as subsidizing commuter transit service will be decided by policymakers and future employers within the Project.
8. The Final EA will include a discussion on the project's compliance with Complete Street policies.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



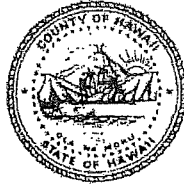
Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Harry Kim
Mayor



Charmaine L. Kamaka
Director

Ryan K. Chong
Deputy Director

County of Hawai'i
DEPARTMENT OF PARKS AND RECREATION
101 Pauahi Street, Suite 6 • Hilo, Hawai'i 96720
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August 1, 2017

Mr. Jeff Darrow, Planner VI
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Dear Mr. Darrow:

Subject: Draft Environmental Assessment
Lili'uokalani Trust's Makalapua Project District
Keahuolū, North Kona, Hawai'i
TMK: (3) 7-4-008:002 (por); 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022;
and 7-4-010:009, 010

This is in regards to the Draft Environmental Assessment (DEA) dated February 2017 received at our office for review on March 8, 2017 for the above reference project.

We offer the following comments for the consideration of all:

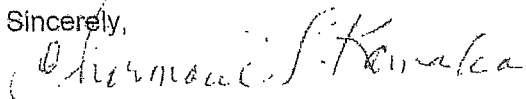
1. Our primary concern over the proposed project's roadway realignment component is to ensure that adequate public access to and egress from the park is provided for park users via pedestrian and vehicular routes. Park Road 1, Park Road 2 and Park Road 3's placements appear to be consistent with the intent of Department of Parks and Recreation's long range Kailua Park Master Plan and accurately reflect the many discussions held between LT and DPR in the recent past on this subject. However, there remains concern on our end over how the roadway realignment and construction efforts will be phased to ensure persons are able to access and egress the park in a safe and understandable manner that does not cause undue congestion within our park. Please confirm that DPR will be consulted and have a say in all roadway work planning and implementation scheduling that will impact the park.
2. The proposed Kuakini Highway realignment will affect two existing vehicular accesses that primarily service Kekuaokalani Gymnasium, Kona Community Aquatic Center, Simmons (baseball/softball) field, several multi-purpose fields and the outdoor basketball courts at the southern end of the park. Please clarify how access to and egress from these facilities (relative to Kuakini) will be preserved and/or improved upon. The currently proposed layout will impact the public park's current vehicular ingress/egresses and changes to easy/ready two-way vehicular interconnectivity

between the southern portion of the park and the balance of the park (central and northern areas) that are currently connected by Kuakini Highway should be addressed in the EA.

3. In all past discussion related to this proposal, it was our understanding that a roundabout would be introduced at where Kuakini Highway and Pawai Drive would otherwise intersect. Please clarify whether a roundabout is intended in this proposal and what impacts that would have on vehicular patterns, restrictions/opportunities for park access points especially at the southern end of the park.
4. Park Road 3 appears to not be included in the proposed scope of the initial effort though it is intended to be the primary access to the entire northern end of Kailua Park. Please confirm whether Park Road 3 will be implemented with this project and what its timeframe would be for realization.
5. DPR requests confirmation on LT's prior commitment to provide a roadway connection for a future park public access/driveway at the northern end of the park. While it is outside LT's current proposed project's direct scope it is important to preserve this commitment given the current project's mauka realignment of Kuakini Highway (relative to past public planning document's proposed alignment of same) and the uncertainty of how LT will layout future development of lands north of the current proposal. As population increases in Kona and lands further north are developed, public access to the park must be improved to ensure ease of access/ingress for all and avoiding bottlenecking traffic at the any of the currently acknowledged proposed park access points.

If you have questions or require further information, please contact Department of Parks & Recreation Park Planner, James Komata at 961-8531.

Sincerely,



Charmaine L. Kamaka
Director

Copy: Tessa Munekiyo Ng, AICP, V.P., Muneyiko Hiraga
M. Shibata, QLT (via email: mshibata@onipaa.org)
S. Fuke, Sidney Fuke Planning Consultants (via email: sidfuke@hawaiiantel.net)



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
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Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Roxcie L. Waltjen, Director
County of Hawai'i
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Waltjen:

Thank you for your department's letter dated August 1, 2017, providing comments on Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lili'uokalani Trust (LT), we offer the following responses in the order of your comments:

1. The Department of Parks and Recreation (DPR) will be consulted in the planning, scheduling, and implementation for roadway work that will impact Kailua Park. Vehicle and pedestrian access/egress and construction phasing will be coordinated with DPR in areas where it impacts Park facilities.
2. We note that access to the Kekuaokalani Gymnasium and Kona Community Aquatic Center is complicated by the curve proposed with the highway realignment. This was one of the reasons for proposing a roundabout at the Pawai/Kuakini intersection, as it allows for northbound vehicles to make a "u-turn" and access the above facilities, versus making a left turn directly from the highway within the curve. In addition, providing space within the re-aligned highway median could allow for indirect left-turn movements out of the driveways. The right-of-way width is sufficient to provide flexibility with median treatments and potential refuge. All options will be evaluated with an engineering study to determine the best configuration for safety while providing access to these facilities. DPR will be consulted as it relates to this during the engineering process.

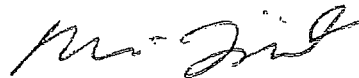
Roxcie L. Waltjen, Director
February 15, 2018
Page 2

3. As noted above, a roundabout is proposed at the Kuakini Highway and Pawai Drive intersection. The site plan in the Final EA will be updated to more clearly depict the roundabout. As mentioned previously, the roundabout facilitates access to the Gym and Aquatic Center. The roundabout is not anticipated to impact access to Kailua Park.
4. Park Road 3 will be implemented as part of the Makalapua Project District. Construction is anticipated to be completed during the first phase of the project.
5. As plans for the Trust's lands further to the north progresses, LT will continue to work together with the County to provide a roadway connection for a future public access/driveway at the northern end of the park.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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April 5, 2019

Roxcie L. Waltjen, Director
County of Hawai'i
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Waltjen:

We are writing as a follow-up letter to our response letter dated February 15, 2018 regarding your department's letter dated August 1, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. Since our last correspondence, the Lili'uokalani Trust (LT) has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS, resulting in modifications to roadway alignments, which has resulted in minor changes to the project boundary. As such, we offer the following additional information in response to your comments.

2. As noted above, LT has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS, resulting in modifications to roadway alignments and the project boundary. Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park before curving north, as envisioned in the Kona Community Development Plan. As such, the existing vehicular accesses will not significantly be affected, including driveways to Kekuaokalani Gymnasium, Kona Community Aquatic Center, Simmon (baseball/softball) field, several multi-purpose fields, and the outdoor basketball courts at the southern end of the park.
3. As previously noted, LT has decided to modify the previously proposed roadway alignment and Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park. As such, the previously proposed roundabout will not be constructed. A revised Traffic Impact Analysis Report

Roxcie L. Waltjen, Director
April 5, 2019
Page 2

(TIAR) has been prepared and will be included in the Final EA for the subject project.

We appreciate your input and will include a copy of your comment letter, our response letter, and this follow-up letter in the Final EA for the project.

Should you have any questions or require additional information, please feel free to contact me at (808) 983-1233.

Very truly yours,

A handwritten signature in cursive script that reads "Yukino Uchiyama".

Yukino Uchiyama
Associate

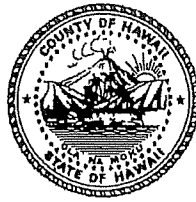
YU:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Harry Kim
Mayor

Wil Okabe
Managing Director



MAY 25 2017

Frank J. De Marco, P.E.
Director

Allan G. Simeon
Deputy Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 • Hilo, Hawai'i 96720-4224
(808) 961-8321 • Fax (808) 961-8630
public_works@hawaiicounty.gov

May 22, 2017

Jeffrey W. Darrow, Planner
Planning Department
101 Pauahi Street, Suite 3
Hilo, HI 9672020

**SUBJECT: Draft Environmental Assessment (DEA)
for the Makalapua Project District (Project)
Keahuolu, North Kona, Hawaii
TMKs: (3rd) 7-4-008:002(por); 7-4-025:001-003,
005, 012, 015, 017, 021, 022, and 7-4-010:009 and 010**

We reviewed the subject dated February 2017 and have the following comments:

Kuakini Highway Extension

Kuakini Highway is classified a major collector street in the Kona Community Development Plan (KCDP). DPW defers to the Planning Department regarding the KCDP concurrency requirement to extend Kuakini Highway to Kealakehe Parkway as a condition of occupancy for Zoning Code amendments of areas within the Makaeo Concurrency Zone.

The DEA lacks supporting discussion for the proposed diversion to Loloku Street of Kuakini Highway Extension mauka and away from Kailua Park on a serpentine alignment contrary to the KCDP and General Plan. Loloku Street is currently a County owned street intended to directly serve mixed commercial and industrial use properties whereas direct access to Kuakini Highway by individual subdivided parcels in the MCX zoned subdivision is not permitted. The purpose of the plat restriction was to maintain integrity of Kuakini Highway as a major collector and its function as a high level through road. The applicant should in turn not expect to have unrestricted direct access to the proposed Project realigned Kuakini Highway Extension. In addition, to secure continuity, a master planned alignment should be determined for the entire route to Kealakehe Parkway collaborating with the owners of properties it traverses.

Because KCDP requires extension of Kuakini Highway to Kealakehe Parkway, the DEA should but does not currently provide DPW with assurance that a future extension of Kuakini Highway from the proposed alignment and other proposed streets to the north of the Project will be clear of archeological and cultural sites warranting preservation. It would seem appropriate to identify and clear an Area of Potential Effect (APE) through the Urban Phase III area for Kuakini Highway Extension. While there is some discussion assuming future street extensions 900 feet

to the north of Park Road 3 in the DEA Roadways/TIAR section, no such extensions are shown on Figure 12.

Figure 4 does not provide the map scale but appears to be 400 feet per inch. The curve radii appear to be 500 feet. The tightest existing curves are currently those north of Palani Road (700 foot radii). Because curves limit sight distances they can adversely affect access and reduce opportunities for facilities such as bus pullovers and pedestrian crossings.

Of special interest to the public and on one of the curves is access to and from the Kekuaokalani Gym and Aquatic Center. Restricting access to that facility could be considered an adverse impact but under the circumstances a full movement access may not be practicable at either of the (2) existing driveway approaches. The EA should provide preliminary engineering plans with some details to explain how access to/from that facility will be provided. Overlay alternatives considered on an aerial image of the existing facilities and include in the report. For instance, consider a wide median such as that on Palani Road from which two-stage or indirect left turns may be made from the facility but prohibiting direct northbound left turns in favor of U turns at the roundabout. Another access driveway that we are concerned about on the alignment is the existing makai driveway approach to Target. Although no details are shown our concerns likely include a short entry throat to the first row of parking. A parking lot reconfiguration could be in order to address that.

No typical street cross sections are provided in the DEA. The existing right-of-way within Kailua Village is 80 feet wide to a point just north of Kaiwi Street. Eighty feet is barely adequate south of Palani Road for the 4 lanes with turn median lane and bike lanes. Additional right-of-way needs should be anticipated the proposed alignment. The preliminary engineering model should determine the lane width that will safely accommodate truck design vehicles without lane encroachment in the critical 500 foot radius curved portions.

Pawai Drive

Pawai Drive north of Kuakini Extension is proposed to provide indirect access to Kailua Park from Kuakini Highway through a residential area. This is a significant change from the existing direct access to the Park. Such indirect access may cause way-finding problems for visitors and may subject the County to resident complaints regarding traffic noise and congestion.

The DEA declares the developer's intent to maintain Pawai Drive in private ownership. We expressed our concern about private ownership during their initial presentation to stakeholder agencies. We said it should be dedicated to the county as there may be changes needed to effect safe and efficient traffic operations that are not analyzed in the initial design and construction. Neither is such detail addressed in the scope of the Traffic Impact Analysis Report such as minor street intersection traffic control and on-street parking. Northbound left turns from Pawai Drive directly to residential property near the roundabout must not be permitted. We have reviewed and made comments to preliminary engineering plans for it entitled QLT Keahuolu Roadway and Promenade Design Phase 0.

The DEA studied intersections do not include the proposed intersection of Pawai Drive to the existing Kaiwi Street/Pawai Place intersection. To allow left turns and through movements at the new approach along with pedestrian crossings will likely warrant another fully channelized traffic signal with a dedicated right turn lane on makai bound Kaiwi Street. The proposed connection is only 450 feet from existing Kaiwi Street/Kuakini Highway intersection where a signal is proposed. The intersection must be included in the DEA Traffic Report.

General

Except for Existing Laneage Volume and LOS (Figure 3.1) the TIAR should but does not contain lane configuration figures with lane volume counts and LOS. We are instead presented with a spreadsheet format that is difficult read and apply.

To guide plat and construction plan preparation and review, a Traffic and Roadway Circulation Plan drawn to scale should be required which shows all right of way widths, design speed, Typical Cross Sections, lane configurations (with TIAR volume counts), access, parking and traffic control prior to preliminary subdivision approval or infrastructure construction plans of any phase of the development. The plan shall be submitted for approval of the Planning Director in consultation of the Department of Public Works. Until such preliminary plans are approved, DPW should have authority to require alterations affecting traffic operations such as but not limited to storage/turn lanes with necessary right-of-way widening, driveway and parking reconfigurations, on-street parking and traffic control. All streets shall meet AASHTO geometric design guidelines for an appropriate design speed.

Unless otherwise required or approved under the Traffic and Roadway Circulation Plan all connecting streets shall designed and constructed to County dedicable standards with curb, gutter, sidewalk, drainage improvements, street lights signs and markings meeting with the approval of DPW and dedicated to the County upon request.

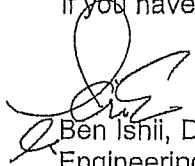
All dedicable streets shall be designed to be accessible to the maximum extent practicable as required by the current applicable Federal and State laws and regulations.

We concur that the TIAR should be updated during the 15-year build-out period.

On page 52, directions in the description of existing Eho Street are not consistent and Pawai Place currently neither connects to Kuakini Highway nor has bike lanes.

Page 54 has an error in paragraph 2.

If you have any questions, please contact Kiran Emler of our Kona office at (808) 323-4851.


Ben Ishii, Division Chief
Engineering Division

KE

Copy: -- ENG-HILO/KONA

Tessa Munekiyo Ng AICP, Vice President - Munekiyo Hiraga ✓

February 15, 2018

Ben Ishii, Division Chief
Engineering Division
Department of Public Works
County of Hawai'i
101 Pauahi Street, Suite 7
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Ishii:

Thank you for your letter dated May 22, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

Kuakini Highway Extension

1. It is noted that Kuakini Highway is classified as a major collector street in the Kona Community Development Plan (KCDP). The Final EA will be updated to reflect this information. It is further noted that the Department of Public Works defers to the Planning Department regarding the concurrency requirement to extend Kuakini Highway to Kealakehe Parkway as a condition for occupancy for Zoning Code amendments of areas within the Makaeo Concurrency Zone. LT will continue to coordinate with the Planning Department on the planning and timing of the Kuakini Extension.
2. a. While the proposed Kuakini Highway alignment is not in the exact location shown in the KCDP, it fulfills the intent of the KCDP and the General Plan, which is to provide connectivity and transportation choices in the Makaeo Village area. The proposed realignment of Kuakini Highway will improve north-south vehicular access as an alternate to Queen Ka'ahumanu Highway, including regional/transit/bus routes. It also allows the transition between the Makalapua Project District and Kailua Park to be more pedestrian-friendly. It is noted that Action TRAN-1.16 of the KCDP calls for the updating of the Official Transportation Network Maps on an on-

going basis with alignment locations as they are determined through preliminary engineering reports or other plans and/or studies. The proposed realignment, including the use of Loloku Street as an interim extension, was discussed with and agreed to by the Planning Department and Department of Public Works in early planning meetings for the project.

- b. DPW's comment regarding limiting access to the realigned Kuakini Highway to facilitate free traffic flow is noted. The BMW dealership has two full access driveways that connect to Loloku Street in the existing condition. If these driveways remain, they would connect directly to the realigned Kuakini Highway. The westernmost driveway will be very close to the proposed roundabout intersection and left turn movements from the driveway will not be possible. In addition, site distance even for right turning vehicles may be an issue and will be further evaluated during the design phase. The second access to the facility, at the east end of the property, though not as constrained by the intersection proximity, will also be evaluated to determine allowable movements. The remaining existing driveways that will fall along the realigned highway will be restricted to right in/right out access or the parcel will ingress/egress from a different road. See response (5) below for discussion regarding the existing Aquatic Center/Gym driveways.
3. As noted in the Draft EA, the proposed realignment of Kuakini Highway within the Makalapua Project District represents the first portion of the Kuakini Highway extension from Kailua Park. This is consistent with the requirements specified in the KCDP as noted below:

Policy TRAN-6.1: Official Concurrency Map

Rezoning within the Kona UA shall comply with the Official Concurrency Map (see Table 4-1 and Figure 4-3), which identifies the road segments to be constructed concurrent with occupancy units as the minimum "area mitigation", as defined in HCC 25-2-46 (Zoning Code).

HCC 25-2-46

"Area mitigation" consists of improvements which increase the capacity of an arterial or other major road, such as additional lanes, in the general region containing the project...

The Concurrency Table in the KCDP lists the Kuakini extension from Kealakehe Parkway to Old Airport Park for both Makaeo Village and Concurrency Zone I. Zone I consists of the area makai of Queen Ka'ahumanu Highway between Makaeo Village and Kealakehe Parkway, which are located to the north and west of the Makalapua Project District. Accordingly, the portion of the Kuakini extension within Makaeo Village is proposed concurrent with the Makalapua Project District, and the portion of the Kuakini extension within Zone I will be planned and implemented as part of the development of the lands in Zone I. Based on the language from the KCDP and Hawai'i County Code regarding the concurrency requirement, the phasing of the Kuakini Highway extension is considered appropriate. This will also help to ensure that the proposed Kuakini extension is located appropriately in the context of the adjacent proposed land uses in that area.

4. We note your comment regarding the roadway curve radii. The proposed Kuakini Highway realignment is designed to avoid significant archaeological sites found during an archaeological inventory survey. The minimum proposed curve radius for Kuakini Highway is 500 feet, which exceeds the minimum allowed of 300 feet for a Collector Street in Chapter 23 of the Hawai'i County Code. Due to the limited sight distance provided by a curve such as this, pedestrian crossings across Kuakini Highway will be restricted at the realigned Loloku Intersection. This intersection will be restricted to a right-in/right-out movement to improve safety. To ensure larger vehicles such as trucks and buses can negotiate the curve without encroaching into the adjacent lanes, the design will include evaluation of lane width as well as curve widening in critical areas. A proposed bus stop at the Kuakini Highway/Makala Boulevard intersection, as identified in the KCDP, has been confirmed for safety with respect to the roadway curves. Sight distances will also be taken into consideration when siting proposed pedestrian crossings.
5. a. We note that access to the Gym and Aquatic Center is complicated by the sharper curve proposed with the highway realignment. This was one of the reasons for proposing a roundabout at the Pawai/Kuakini intersection, as it allows for northbound vehicles to make a "u-turn" and access the above facilities versus making a left turn directly from the highway within the curve. The suggestion to provide space in the median for indirect left turn movements out of the driveway(s) will be evaluated as the design progresses. The right-of-way width is wide enough to provide the flexibility to allow for this vehicle median refuge, should it be deemed warranted after the engineering study is complete. At that time, access configurations and median treatments will be finalized.

- b. Similar to the above, the configuration of the Target access to the first row of parking (between the Loloku and Makala intersections) will be evaluated further as the design progresses. Should queueing of traffic back onto the Kuakini Highway emerge as a concern based on the volume of vehicles proposed to use this access, parking lot reconfiguration or relocation of the access will be considered.
- 6. Typical street cross sections will be provided during Design Center review of the project, addressing lane widths and curve widening, if deemed appropriate.

Pawai Drive

- 1. Park Road 3 will serve as the main entrance to Kailua Park and will be dedicated to the County. It is noted that providing access to Kailua Park via Pawai Drive rather than Kuakini Highway will allow the transition between the Makalapua Project District and Kailua Park to be more pedestrian-friendly. Signage can also be provided from Kuakini Highway to direct visitors to Park entrances.
- 2.
 - a. As mentioned above, Park Road 3, which will be dedicated to the County, is envisioned to serve as the main entrance to Kailua Park. LT will coordinate with the Department of Public Works (DPW) to ensure that Pawai Drive is designed and constructed to meet applicable County roadway standards and provide for safe and efficient traffic operations.
 - b. The portion of Pawai Drive between the Kuakini roundabout and Park Road 1 will be public. Your comment regarding prohibition of direct access to residential properties within this block is noted. When design proceeds, we will study any potential driveway access along Pawai to confirm there are no safety or operational conflicts. As stated in the comment letter, preliminary engineering plans were submitted to DPW for this portion of Pawai under a previous project entitled "QLT Keahuolu Roadway and Promenade Design Phase 0". The comments provided will be taken into consideration as it relates to the Makalapua Project District improvements. Notably, the most appropriate traffic control for the intersection of Pawai and Park Road 1 in order to keep traffic from backing up into the proposed roundabout at Kuakini.
- 3. The Traffic Impact Analysis Report (TIAR) has been updated to include analysis on the Pawai Drive intersection with Kaiwi Place/Pawai Place.

General

1. Figures 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, and 5.9 of the TIAR provide the existing and/or recommended lane configurations, traffic volumes, traffic control, and levels of service. Tables 3.1, 4.2, 4.3, 4.4, 5.3, 5.4, and 5.5 are included to provide more detailed analytical results, and Table 7.1 is provided to summarize previous lane configuration diagrams for the reader's convenience.
2. A Traffic and Roadway Circulation Plan will be submitted to the Planning Director in consultation of DPW prior to approval of preliminary subdivision or construction plans. It is noted that DPW refers to AASHTO design guidelines for roadway standards, while the Planning Department refers to the Village Design Guidelines for the same purpose. For improvements to major urban thoroughfares, LT will consult with the ITE CSS guidelines, which are approved by the Federal Highway Administration as a supplement to the AASHTO design guidelines, to resolve conflicts between the two standards. The ITE CSS was developed as guidance for the planning and design of roadway improvements in places where community objectives support walkable communities (e.g. compact development, mixed land uses and support for pedestrians and bicyclists) and can help jurisdictions achieve Complete Streets Policies.
3. The Traffic and Roadway Circulation Plan will note all streets planned for dedication to the County.
4. All dedicable streets will be designed to be accessible to the maximum extent practicable as required by the current applicable Federal and State laws and regulations.
5. It is noted that DPW concurs with updating the TIAR during the 15-year build-out.
6. The descriptions of existing Eho Street and Pawai Place will be corrected in the Final EA for the project.
7. The error reference on page 54 will be corrected in the Final EA.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Ben Ishii, Division Chief
February 15, 2018
Page 6

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Matt Nakamoto, Austin, Tsutsumi & Associates, Inc.
Austin Drake, SSFM International

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April 5, 2019

Ben Ishii, Division Chief
Engineering Division
Department of Public Works
County of Hawai'i
101 Pauahi Street, Suite 7
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Ishii:

We are writing as a follow-up letter to our response letter dated February 15, 2018 regarding your department's letter dated May 22, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. Since our last correspondence, the Lili'uokalani Trust (LT) has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS, resulting in modifications to roadway alignments, which has resulted in minor changes to the project boundary. As such, we offer the following additional information in response to your comments.

Kuakini Highway Extension

2. As previously noted, LT has decided to modify the previously proposed roadway alignment and Kuakini Highway will continue along its current alignment along the Project District's border, as envisioned in the KCDP. The existing alignment of Loloku Street will be kept. Kuakini Highway will not be diverted into Loloku Street. As such, the (revised) proposed roadway network aligns with the KCDP and the General Plan. The Final EA for the subject project will be updated to reflect this information.
4. With the modification to roadway alignments discussed above, the tight curve on Kuakini Highway near Loloku Street is no longer proposed.

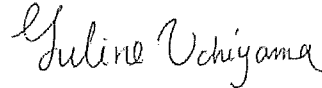
5. Due to the modifications to the roadway alignment, Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park. As such, the existing vehicular accesses to the Kekuakalani Gym and Aquatic Center will not significantly be affected. Further, as Kuakini Highway will be extended along its current alignment, the configuration of the Target access will not adversely be affected by the proposed project.

Pawai Drive

As the result of the modifications to the roadway alignment, Pawai Drive is no longer proposed as part of the Project District.

We appreciate your input and will include a copy of your comment letter, our response letter, and this follow-up letter in the Final Environmental Assessment for the project. Should you have any questions or require additional information, please feel free to contact me at (808) 983-1233.

Very truly yours,



Yukino Uchiyama
Associate

YU:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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From: Whitmore, Ron

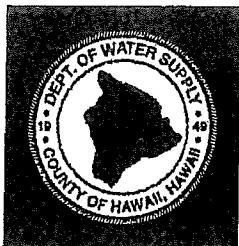
Sent: Sunday, April 09, 2017 1:48 PM

To: Darrow, Jeff <Jeff.Darrow@hawaiicounty.gov>

Cc: Ley, Diane <Diane.Ley@hawaiicounty.gov>; Dyal, Cyndy <Cyndy.Dyal@hawaiicounty.gov>

Subject: Makalapua Project District Draft Environmental Assessment

Jeff, the Department of Research and Development has reviewed the Draft EA for the QLT's Makalapua Project District and has no comment. Please let us know if you have any questions. Thanks, Ron



RECEIVED

APR 12 2017

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKOAŌA STREET, SUITE 20 • HILO, HAWAII 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8657

April 7, 2017

TO: Mr. Michael Yee, Director
ATTENTION: Jeffrey W. Darrow, Planner
Planning Department

FROM: Keith K. Okamoto, Manager-Chief Engineer

SUBJECT: Draft-Environmental Consultation for Proposed Makalapua Project District
Keahuolū, North Kona, Hawaii
Tax Map Key 7-4-008:002 (Portion), 7-4-025:001, 002, 003, 005, 012, 015, 017,
021, 022, and 7-4-010:009 and 010

We have reviewed the subject Draft Environmental Assessment (DEA) and have the following comments.

Please be informed that the information of the existing water system in the area does not reflect the existing conditions. Also, the Infrastructure Report should justify the water system improvements in order to provide water at adequate pressure and volume under peak-flow and fire-flow conditions. Analysis of the existing water system must be done to determine the additional storage and transmission capacity in order to accommodate the additional demand of water from the source to the project.

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at 961-8070, extension 256.

Sincerely yours,

Keith K. Okamoto, P.E.
Manager-Chief Engineer

RQ:dfg

copy – Munekiyo Hiraga
✓Queen Lili'uokalani Trust

... Water, Our Most Precious Resource ... Ka Wai A Kāne ...

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Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Keith K. Okamoto, P.E.
Manager-Chief Engineer
Department of Water Supply
County of Hawai'i
345 Kekūanaō'a Street, Suite 20
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Okamoto:

Thank you for your letter dated April 7, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

The Infrastructure Report and the Final EA have been updated with information provided by the Department of Water Supply on the existing water system. The report includes the network analysis results of the proposed water system improvements demonstrating the adequacy of the system for peak flow and maximum day with fireflow conditions. Our consultant team is also working with your staff to assess the storage and transmission capacity of the 325' service zone serving the project district, as well as the higher service zones feeding into the 325' system.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Keith K. Okamoto, P.E.
Manager-Chief Engineer
February 15, 2018
Page 2

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, Park Engineering

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MAR 17 2017

Harry Kim
Mayor



Darren J. Rosario
Fire Chief

Renwick J. Victorino
Deputy Fire Chief

County of Hawai'i
HAWAII FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

March 13, 2017

Munekiyo Hiraga
Attn: Tessa Munekiyo Ng, AICP, Vice President
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms T. Munekiyo:

SUBJECT: Draft Environmental Assessment for Makalapua Project District, TMS Nos.
(3)7-4-008:002 (por.); 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022 and
7-4-010:009 and 010

In regards to the above-mentioned Draft Environmental Assessment application, the following shall be in accordance:

NFPA 1, UNIFORM FIRE CODE, 2006 EDITION

Note: Hawai'i State Fire Code, National Fire Protection Association 2006 version, with County of Hawai'i amendments. County amendments are identified with a preceding "C~" of the reference code.

Chapter 18 Fire Department Access and Water Supply

18.1 General. Fire department access and water supplies shall comply with this chapter.

For occupancies of an especially hazardous nature, or where special hazards exist in addition to the normal hazard of the occupancy, or where access for fire apparatus is unduly difficult, or areas where there is an inadequate fire flow, or inadequate fire hydrant spacing, and the AHJ may require additional safeguards including, but not limited to, additional fire appliance units, more than one type of appliance, or special systems suitable for the protection of the hazard involved.

18.1.1 Plans:

18.1.1.1 Fire Apparatus Access. Plans for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.

18.1.1.2 Fire Hydrant Systems. Plans and specifications for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.



C~ 18.1.1.2.1 Fire Hydrant use and Restrictions. No unauthorized person shall use or operate any Fire hydrant unless such person first secures permission or a permit from the owner or representative of the department, or company that owns or governs that water supply or system. Exception: Fire Department personnel conducting firefighting operations, hydrant testing, and/or maintenance, and the flushing and acceptance of hydrants witnessed by Fire Prevention Bureau personnel.

18.2 Fire Department Access.

18.2.1 Fire department access and fire department access roads shall be provided and maintained in accordance with Section 18.2.

18.2.2* Access to Structures or Areas.

18.2.2.1 Access Box(es). The AHJ shall have the authority to require an access box(es) to be installed in an accessible location where access to or within a structure or area is difficult because of security.

18.2.2.2 Access to Gated Subdivisions or Developments. The AHJ shall have the authority to require fire department access be provided to gated subdivisions or developments through the use of an approved device or system.

18.2.2.3 Access Maintenance. The owner or occupant of a structure or area, with required fire department access as specified in 18.2.2.1 or 18.2.2.2, shall notify the AHJ when the access is modified in a manner that could prevent fire department access.

18.2.3 Fire Department Access Roads. (*may be referred as FDAR)

18.2.3.1 Required Access.

18.2.3.1.1 Approved fire department access roads shall be provided for every facility, building, or portion of a building hereafter constructed or relocated.

18.2.3.1.2 Fire Department access roads shall consist of roadways, fire lanes, parking lots lanes, or a combination thereof.

18.2.3.1.3* When not more than two one- and two-family dwellings or private garages, carports, sheds, agricultural buildings, and detached buildings or structures 400ft² (37 m²) or less are present, the requirements of 18.2.3.1 through 18.2.3.2.1 shall be permitted to be modified by the AHJ.

18.2.3.1.4 When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.

18.2.3.2 Access to Building.

18.2.3.2.1 A fire department access road shall extend to within in 50 ft (15 m) of at least one exterior door that can be opened from the outside that provides access to the interior of the building. Exception: 1 and 2 single-family dwellings.

18.2.3.2.1.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in 18.2.3.2.1 shall be permitted to be increased to 300 feet.

18.2.3.2.2 Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft (46 m) from fire department access roads as measured by an approved route around the exterior of the building or facility.

18.2.3.2.2.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in 18.2.3.2.2 shall be permitted to be increased to 450 ft (137 m).

18.2.3.3 Multiple Access Roads. More than one fire department access road shall be provided when it is determined by the AHJ that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access.

18.2.3.4 Specifications.

18.2.3.4.1 Dimensions.

C~ 18.2.3.4.1.1 FDAR shall have an unobstructed width of not less than 20ft with an approved turn around area if the FDAR exceeds 150 feet. **Exception:** FDAR for one and two family dwellings shall have an unobstructed width of not less than 15 feet, with an area of not less than 20 feet wide within 150 feet of the structure being protected. An approved turn around area shall be provided if the FDAR exceeds 250 feet.

C~ 18.2.3.4.1.2 FDAR shall have an unobstructed vertical clearance of not less than 13ft 6 in.

C~ 18.2.3.4.1.2.1 Vertical clearances may be increased or reduced by the AHJ, provided such increase or reduction does not impair access by the fire apparatus, and approved signs are installed and maintained indicating such approved changes.

18.2.3.4.1.2.2 Vertical clearances shall be increased when vertical clearances or widths are not adequate to accommodate fire apparatus.

C~ 18.2.3.4.2 Surface. Fire department access roads and bridges shall be designed and maintained to support the imposed loads (25 Tons) of the fire apparatus. Such FDAR and shall be comprised of an all-weather driving surface.

18.2.3.4.3 Turning Radius.

C~ 18.2.3.4.3.1 Fire department access roads shall have a minimum inside turning radius of 30 feet, and a minimum outside turning radius of 60 feet.

18.2.3.4.3.2 Turns in fire department access road shall maintain the minimum road width.

18.2.3.4.4 Dead Ends. Dead-end fire department access roads in excess of 150 ft (46 m) in length shall be provided with approved provisions for the fire apparatus to turn around.

18.2.3.4.5 Bridges.

18.2.3.4.5.1 When a bridge is required to be used as part of a fire department access road, it shall be constructed and maintained in accordance with county requirements.

18.2.3.4.5.2 The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

18.2.3.4.5.3 Vehicle load limits shall be posted at both entrances to bridges where required by the AHJ.

18.2.3.4.6 Grade.

C~ 18.2.3.4.6.1 The maximum gradient of a Fire department access road shall not exceed 12 percent for unpaved surfaces and 15 percent for paved surfaces. In areas of the FDAR where a Fire apparatus would connect to a Fire hydrant or Fire Department Connection, the maximum gradient of such area(s) shall not exceed 10 percent.

18.2.3.4.6.2* The angle of approach and departure for any means of fire department access road shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m) or the design limitations of the fire apparatus of the fire department, and shall be subject to approval by the AHJ.

18.2.3.4.6.3 Fire department access roads connecting to roadways shall be provided with curb cuts extending at least 2 ft (0.61 m) beyond each edge of the fire lane.

18.2.3.4.7 Traffic Calming Devices. The design and use of traffic calming devices shall be approved the AHJ.

18.2.3.5 Marking of Fire Apparatus Access Road.

18.2.3.5.1 Where required by the AHJ, approved signs or other approved notices shall be provided and maintained to identify fire department access roads or to prohibit the obstruction thereof of both.

18.2.3.5.2 A marked fire apparatus access road shall also be known as a fire lane.

18.2.4* Obstruction and Control of Fire Department Access Road.

18.2.4.1 General.

18.2.4.1.1 The required width of a fire department access road shall not be obstructed in any manner, including by the parking of vehicles.

18.2.4.1.2 Minimum required widths and clearances established under 18.2.3.4 shall be maintained at all times.

18.2.4.1.3* Facilities and structures shall be maintained in a manner that does not impair or impede accessibility for fire department operations.

18.2.4.1.4 Entrances to fire departments access roads that have been closed with gates and barriers in accordance with 18.2.4.2.1 shall not be obstructed by parked vehicles.

18.2.4.2 Closure of Accessways.

18.2.4.2.1 The AHJ shall be authorized to require the installation and maintenance of gates or other approved barricades across roads, trails, or other accessways not including public streets, alleys, or highways.

18.2.4.2.2 Where required, gates and barricades shall be secured in an approved manner.

18.2.4.2.3 Roads, trails, and other access ways that have been closed and obstructed in the manner prescribed by 18.2.4.2.1 shall not be trespassed upon or used unless authorized by the owner and the AHJ.

18.2.4.2.4 Public officers acting within their scope of duty shall be permitted to access restricted property identified in 18.2.4.2.1.

18.2.4.2.5 Locks, gates, doors, barricades, chains, enclosures, signs, tags, or seals that have been installed by the fire department or by its order or under its control shall not be removed, unlocked, destroyed, tampered with, or otherwise vandalized in any manner.

18.3 Water Supplies and Fire Hydrants

18.3.1* A water supply approved by the county, capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ. For on-site fire hydrant requirements see section 18.3.3.

EXCEPTIONS:

1. When facilities or buildings, or portions thereof, are completely protected with an approved automatic fire sprinkler system the provisions of section 18.3.1 may be modified by the AHJ.
2. When water supply requirements cannot be installed due to topography or other conditions, the AHJ may require additional fire protection as specified in section 18.3.2 as amended in the code.
3. When there are not more than two dwellings, or two private garage, carports, sheds and agricultural. Occupancies, the requirements of section 18.3.1 may be modified by AHJ.

18.3.2* Where no adequate or reliable water distribution system exists, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the required fire flow shall be permitted.

18.3.3* The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be provided on a fire apparatus access road on the site of the premises or both, in accordance with the appropriate county water requirements.

18.3.4 Fire Hydrants and connections to other approved water supplies shall be accessible to the fire department.

18.3.5 Private water supply systems shall be tested and maintained in accordance with NFPA 25 or county requirements as determined by the AHJ.

18.3.6 Where required by the AHJ, fire hydrants subject to vehicular damage shall be protected unless located within a public right of way.

18.3.7 The AHJ shall be notified whenever any fire hydrant is placed out of service or returned to service. Owners of private property required to have hydrants shall maintain hydrant records of approval, testing, and maintenance, in accordance with the respective county water requirements. Records shall be made available for review by the AHJ upon request.

C~ 18.3.8 Minimum water supply for buildings that do not meet the minimum County water standards:

Buildings up to 2000 square feet, shall have a minimum of 3,000 gallons of water available for Firefighting.

Buildings 2001- 3000 square feet, shall have a minimum of 6,000 gallons of water available for Firefighting.

Buildings, 3001- 6000 square feet, shall have a minimum of 12,000 gallons of water available for Firefighting.

Buildings, greater than 6000 square feet, shall meet the minimum County water and fire flow requirements.

Multiple story buildings shall multiply the square feet by the amount of stories when determining the minimum water supply.

Commercial buildings requiring a minimum fire flow of 2000gpm per the Department of Water standards shall double the minimum water supply reserved for firefighting.

Fire Department Connections (FDC) to alternative water supplies shall comply with 18.3.8 (1)-(6) of *this code*.

NOTE: In that water catchment systems are being used as a means of water supply for firefighting, such systems shall meet the following requirements:

- 1) In that a single water tank is used for both domestic and firefighting water, the water for domestic use shall not be capable of being drawn from the water reserved for firefighting;
- 2) Minimum pipe diameter sizes from the water supply to the Fire Department Connection (FDC) shall be as follows:
 - a) 4" for C900 PVC pipe;
 - b) 4" for C906 PE pipe;
 - c) 3" for ductile Iron;
 - d) 3' for galvanized steel.

- 3) The Fire Department Connection (FDC) shall:
 - a) be made of galvanized steel;
 - b) have a gated valve with 2-1/2 inch, National Standard Thread male fitting and cap;
 - c) be located between 8 ft and 16 ft from the Fire department access. The location shall be approved by the AHJ;
 - d) not be located less than 24 inches, and no higher than 36 inches from finish grade, as measured from the center of the FDC orifice;
 - e) be secure and capable of withstanding drafting operations. Engineered stamped plans may be required;
 - f) not be located more than 150 feet of the most remote part, but not less than 20 feet, of the structure being protected;
 - g) also comply with section 13.1.3 and 18.2.3.4.6.1 of *this code*.
- 4) Commercial buildings requiring a fire flow of 2000gpm shall be provided with a second FDC. Each FDC shall be independent of each other, with each FDC being capable of flowing 500gpm by engineered design standards. The second FDC shall be located in an area approved by the AHJ with the idea of multiple Fire apparatus' conducting drafting operations at once, in mind.
- 5) Inspection and maintenance shall be in accordance to NFPA 25.
- 6) The owner or lessee of the property shall be responsible for maintaining the water level, quality, and appurtenances of the system.

EXCEPTIONS TO SECTION 18.3.8:

- 1) Agricultural buildings, storage sheds, and shade houses with no combustible or equipment storage.
- 2) Buildings less than 800 square feet in size that meets the minimum Fire Department Access Road requirements.
- 3) For one and two family dwellings, agricultural buildings, storage sheds, and detached garages 800 to 2000 square feet in size, and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 1000 feet.
- 4) For one and two family dwellings, agricultural buildings, and storage sheds greater than 2000square feet, but less than 3000 square feet and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 500 feet.

Tessa Munekiyo
March 13, 2017
Page 9

- 5) For buildings with an approved automatic sprinkler system, the minimum water supply required may be modified.

If there are any questions regarding these requirements, please contact the Fire Prevention Bureau at (808) 323-4760.

A handwritten signature in black ink, appearing to read "Darren J. Rosario".

DARREN J. ROSARIO
Fire Chief

CB:ds



MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
PRESIDENT

Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

Tessa Munekiyo Ng
VICE PRESIDENT

February 15, 2018

Darren Rosario, Chief
County of Hawai'i
Hawai'i Fire Department
25 Aupuni Street, Suite 2501
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Chief Rosario:

Thank you for your letter dated March 13, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following response to your comments:

1. The Makalapua Project District will comply with the applicable sections of the Hawai'i State Fire Code, National Fire Protection Association (NFPA) 1, Uniform Fire Code, 2006 Edition, Chapter 18, Fire Department Access and Water Supply, as noted in your letter.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Darren Rosario, Chief
February 15, 2018
Page 2

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



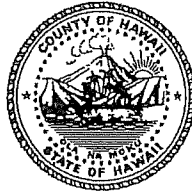
Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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Harry Kim
Mayor



MAR 16 2017

Paul K. Ferreira
Police Chief

Kenneth Bugado, Jr.
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

March 10, 2017

TO : MICHAEL YEE, PLANNING DIRECTOR
FROM : MITCHELL KANEHAILUA, JR., ASSISTANT CHIEF, AREA II OPERATIONS
SUBJECT : DRAFT ENVIRONMENTAL ASSESSMENT FOR THE MAKALAPUA PROJECT
DISTRICT, TMK NOS. (3)7-4-008:002 (POR.); 7-4-025:001, 002, 003, 005,
012, 015, 017, 021, 022 AND 7-4-010:009, 010

This is in response to a letter from Munekiyo Hiraga dated March 3, 2017 regarding a request for comments on a draft environmental assessment for the Makalapua Project at the above-mentioned location.

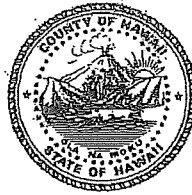
Thank you for allowing the Hawai'i Police Department to make comments regarding this development, however, at this time, the Hawai'i Police Department has no comments.

Should you have any questions or concerns, please contact Captain Gilbert Gaspar Jr., Commander of our Kona District, at (808) 326-4646, extension 299.

GG/jaj
RS160266

Cc: Munekiyo Hiraga
Attention: Tessa Munekiyo Ng, AICP
305 High Street, Suite 104
Wailuku, HI 96793

Harry Kim
Mayor



Michael Yee
Director

Daryn Arai
Deputy Director

West Hawai'i Office
74-5044 Ane Keohokalole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

County of Hawai'i
PLANNING DEPARTMENT

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

October 5, 2017

Ms. Tessa Munekiyo Ng, AICP, Vice President
Munekiyo Hiraga
735 Bishop Street, Suite 321
Honolulu, HI 96813

Dear Ms. Munekiyo Ng:

SUBJECT: Comments for the Makalapua Project District
Draft Environmental Assessment
Keahuolū, North Kona, Hawai'i
TMKs: (3) 7-4-008:002 (por); 7-4-010:009, 010 and
7-4-025:001, 002, 003, 005, 012, 015, 017, 021, & 022

This is to acknowledge receipt of your request for comments for the draft environmental assessment for the Makalapua Project District, which will include approximately 300 residential units, 220 rooms across two (2) hotels, a 50,000-square foot community performance facility, 470,000 square feet of commercial use (retail employment), and a variety of open space features. Thank you for addressing our preliminary comments within the draft report.

In our previous letter, we indicated that the proposed project will require certain permits and review including, but not limited to, a State Land Use Boundary Amendment from Agricultural to Urban, a Change of Zone from MCX-20, MG-1a and A-5a to a Project District, a Special Management Area (SMA) Use Permit, and a review of the project's Master Plan by the Kona Community Development Plan (CDP) Design Center as the project is located within the Makaeo Village Regional Transit-Oriented Development (TOD).

After our review of the draft environment assessment and the comments that have been submitted to the Planning Department from the public and numerous agencies, we have the following comments:

1. **General Plan Designation for Project Site:** The project site is currently located within an area identified by the General Plan Land Use Pattern Allocation Guide (LUPAG) Map as Urban Expansion and Industrial. As these are broad brush boundaries according to the General Plan, which states,

14.1.4 Standards

- (a) The designated land uses will be delineated on the General Plan Land Use Pattern Allocation Guide Map. The broad-brush boundaries indicated are graphic expressions of the General Plan policies, particularly those relating to land uses. They are long-range guides to general location and will be subject to: a) existing zoning; and b) State Land Use District.
- (b) Zoning requests shall be reviewed with respect to General Plan designation, district goals, regional plans, State Land Use District, compatibility with adjacent zoned uses, availability of public services and utilities, access, and public need.

In our interpretation of the GP LUPAG map designation for the project site in relation to the above information, we can determine the following:

1. The project site is located within the boundary areas of the Urban Expansion and Industrial GP LUPAG designations. As these boundaries are broad brush, the property can be interpreted to be within the Urban Expansion designation.
2. The State Land Use designation for the project site is mainly Urban, except for the small portion that is currently Agricultural. Part of the request is to submit a State Land Use Boundary Amendment from Agricultural to Urban for this small portion. Additionally, a request is being made for a Change of Zone from MCX-20, MG-1a and A-5a to a Project District, in compliance with the Kona CDP for projects location within a Transit-Oriented Development (TOD).
3. The project site is located within the Kona Urban Area and more specifically, within the Makaeo Village Regional Transit-Oriented Development (TOD). In the Kona CDP, the Makaeo Village TOD is identified as a Regional Center and where a major retail center is planned near the Old Airport Park. The Kona CDP envisions to introduce residential uses as a mixed use village, to design a complementary relationship to the Old Airport Park, and to integrate a transit hub or major

park and ride facility for commuters (primarily resort workers). In reviewing the proposed project within the draft environmental assessment, the proposed project is consistent with the direction of the Kona CDP for this TOD.

4. The project site is in an area that has the appropriate infrastructure that will support the change to a Project District, including utilities and access.

Based on the above review, we can confirm that the project site is consistent with the GP LUPAG map designation, which is determined to be Urban Expansion.

2. **Kona CDP Design Center:** According to the Kona CDP, Land Use Policy LU-2.3 (TOD's Identified) identifies the project site within the regional center transit oriented development (TOD) floating zone known as Makaeo Village.

The applicant will be required to meet with the Design Center to create a Master Plan as required by Land Use Policy LU-2.4(2)(a) (TOD Floating Zones Established) The Master Plan will need to be approved prior to the submittal of any land use permit that will go before the Planning Commission and Hawai'i County Council.

This policy requires that the Master Plan conform to the Village Design Guidelines (VDG) and at a minimum address the following:

- Mix of permitted uses and density;
- Transportation systems including street layout and standards, transit routes and facilities, and bike and pedestrian pathways;
- Village center public facilities and financing;
- Infrastructure requirements, financing, and timing;
- Neighborhood park and public space standards;
- Phasing plan;
- Calculation and treatment of density transfer area; and
- Planning process, including extent of consultation with the Design Center.

Land Use Policy LU-4.2 (Mandatory Review), states that the Design Center shall review and approve all master plans prepared for floating zone TOD's. The overall land use strategy in the Kona CDP is to concentrate growth and supporting infrastructure in the TOD's. Pages 4-33 and 4-34 of the Kona CDP describe various tools and incentives that the County and private developers may use to

achieve this goal. These include design flexibility, increased range of land uses and densities, public financing of infrastructure, vested rights and streamlines permit processing including permit coordination and the ability to administratively refine an approved Master Plan in the future.

3. **Consistency with the Kona CDP:** As the entire project is located within the Makaeo Village Regional Transit-Oriented Development (TOD), the Kona CDP calls for a transit hub or transit center within this TOD. The EA should discuss how this project is consistent with providing a transit network as stated within Policy Tran-1.6, which states:

Policy TRAN-1.6: Kailua or Makaeo Village as a Transit Hub. The redevelopment of Kailua shall include a plan to create an intra-Kona transportation service, with Kailua Village or Makaeo Village as the "hub" or transit center. Buses would operate from Captain Cook to the Kailua or Makaeo Village hub. At the hub, buses would intersect with other routes operating from Keohokālōle Highway (Mid-Level Road), the frontage road, and other Kona destinations. Transfers for continued travel would be made at this location.

Additionally, the draft EA mentions that the project will incorporate Smart Growth principles, but does not provide site plan concepts incorporating elements of the Kona CDP Village Design Guidelines such as mixed use including residential above and commercial below, transect zoning, focal urban plaza, pocket parks, etc. Please provide detailed information and illustrations of how the project will meet these concepts in the Kona CDP.

4. **Concurrency with the Kona CDP:** The entire project is located within the Makaeo Village Regional Transit-Oriented Development (TOD). Policy TRAN-6.1 (Official Concurrency Map) within the Kona CDP states that the Kona Urban Area (UA) shall be designated as a "critical road area", as defined in HCC 25-2-46. Rezoning within the Kona UA shall comply with the Official Concurrency Map in the plan which identifies the road segments to be constructed concurrent with occupancy of units as the minimum "area mitigation", as defined in HCC 25-2-46 (Zoning Code).

In the Makaeo Village Regional Transit-Oriented Development (TOD), the road segment identified to be constructed concurrently with occupancy of units as the minimum "area mitigation" is the Kuakini Highway Collector from Kealakehe

Parkway to the Old Airport. The applicant should provide information as to how they will meet the roadway concurrency requirements in the Kona CDP.

5. **Kuakini Highway Realignment:** The applicant is proposing to realign Kuakini Highway to the north from the proposed alignment in the Kona CDP. The Kuakini Highway extension is classified as a major collector street in the Kona CDP.

The Planning Department received comments from the Department of Public Works identifying a number of roadway concerns affiliated with the proposed realignment. Please address each concern in detail in the final environmental assessment.

For example, the applicant should provide supporting discussion for the proposed diversion of the proposed Kuakini Highway Collector to Loloku Street. Please address the concerns expressed by the DPW regarding a change of access to the mixed use commercial and industrial use properties as Kuakini Highway is a major collector and its function is that of a high level through road.

Additionally, the applicant should address the concerns that the proposed realignment of Kuakini Highway will restrict access to and from the Kekuaokalani Gym and Aquatic Center. The applicant should provide alternatives and preliminary engineering plans to and from the facility to minimize any adverse impacts to the community and the facility.

6. **Kailua Park Access Alignments:** The Planning Department also received comments from the Department of Parks and Recreation (DPR) identifying concerns regarding access to Kailua Park, mainly over the proposed project's roadway realignment to ensure that adequate public access to and egress from the park is provided for park users via pedestrian and vehicular routes. The DPR has similar concerns as the DPW, that the proposed realignment of Kuakini Highway will restrict access to and from the Kekuaokalani Gym and Aquatic Center.

Additionally, the DPR requests confirmation that the applicant will consult with DPR in all roadway work planning, implementation and scheduling that will impact Kailua Park and allow DPR to be involved in the decision making. Please address each concern of the DPR in detail in the final environmental assessment.

Ms. Tessa Munekiyo Ng, AICP, Vice President
Munekiyo Hiraga
Page 6
October 5, 2017

Although there was a visual reference of the access alignments from the Project to Kailua Park in the draft, we are requesting that you provide closer views of each roadway connection, including Park Roads 1,2 & 3, as well as the proposed access(s) to the Kekuaokalani Gym and Aquatic Center in the final environmental assessment.

We look forward to the submittal of the Final Environmental Assessment. If you have any questions, please feel free to contact Jeff Darrow at 808-961-8158.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Yee', with a stylized flourish at the end.

MICHAEL YEE
Planning Director

JWD:mad
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Michael T. Munekiyo
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Karlynn K. Fukuda
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy
VICE PRESIDENT

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VICE PRESIDENT

February 15, 2018

Michael Yee, Director
County of Hawai'i
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Yee:

Thank you for your letter dated October 5, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. **General Plan Designation for Project Site** – Thank you for the information regarding the General Plan Land Use Pattern Allocation Guide (LUPAG). We acknowledge that the Makalapua Project District is consistent with the LUPAG map designation, which is determined to be Urban Expansion.
2. **Kona Community Development Plan Design Center** – LT and its design team will meet with the Design Center, as required, prior to submittal of land use permit applications that will go before the Planning Commission and County Council. The Master Plan presented to the Design Center will address the Kona Community Development Plan's (KCDP) Village Design Guidelines and the information noted in your letter.
3. **Consistency with the Kona CDP** – The Makalapua Project District is located within the Makaeo Village Regional Transit Oriented Development (TOD) of the KCDP. As noted in the EA, a transit hub or transit center shall be located within Kailua Village or Makaeo Village pursuant to Policy TRAN-1.6 of the KCDP. LT will continue to work with County agencies to identify an appropriate location for a transit hub within Kailua Village or Makaeo Village.

The Final EA will include more detailed descriptions and examples of specific Smart Growth principles and elements from the KCDP Village Design Guidelines

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

www.munekiyo-hiraga.com

that will be incorporated into the Makalapua Project District. Additional illustrations of how the project will meet these concepts from the KCDP will be presented during Design Center review.

4. Concurrency with the Kona CDP – Policy TRAN-6.1 establishes the Official Concurrency Map of the KCDP.

The Concurrency Table in the KCDP lists the Kuakini extension from Kealakehe Parkway to Old Airport Park for both Makaeo Village and Concurrency Zone I. Zone I consists of the area makai of Queen Ka'ahumanu Highway between Makaeo Village and Kealakehe Parkway, which are located to the north and west of the Makalapua Project District. Accordingly, the portion of the Kuakini extension within Makaeo Village is proposed concurrent with the Makalapua Project District, and the portion of the Kuakini extension within Zone I will be planned and implemented as part of the development of the lands in Zone I. Based on the language from the KCDP and Hawai'i County Code regarding the concurrency requirement, the phasing of the Kuakini Highway extension is considered appropriate. This will also help to ensure that the proposed Kuakini extension is located appropriately in the context of the adjacent proposed land uses in that area.

5. Kuakini Highway Realignment – The Department of Public Works (DPW) has provided comments regarding the proposed Kuakini Highway realignment. Each comment has been addressed in a response letter to the DPW and a copy of the response letter will be included in the Final EA.

The proposed realignment of Kuakini Highway and use of the Loloku Street was discussed with and agreed to by the Planning Department and DPW in early planning meetings for the project. LT notes DPW's comment regarding limiting access to the realigned Kuakini Highway to facilitate free traffic flow. The existing BMW dealership has two (2) full access driveways that connect to Loloku Street in the existing condition. If these driveways remain, they would connect directly to the realigned Kuakini Highway. The westernmost driveway will be very close to the proposed roundabout intersection and left movements from the driveway will not be possible. In addition, site distance, even for turning vehicles, may be an issue and will be further evaluated during the design phase. The second access to the facility, at the east end of the property, though not as constrained by the intersection proximity, will also be evaluated to determine allowable movements. The remaining existing driveways that will fall along the realigned highway will be restricted to right in/right out access or the parcel will ingress/egress from a different road.

The DPW also provided comments regarding the proposed realignment of Kuakini Highway and access to and from the Kekuaoakalani Gym and Aquatic Center. We note that access is complicated by the sharper curve proposed with the highway realignment. This was one of the reasons for proposing a roundabout at the Pawai/Kuakini intersection, as it allows for northbound vehicles to make a "u-turn" and access the facilities versus making a left turn directly from the highway within the curve. The DPW suggested providing space in the median for indirect left-turn movements out of the driveway(s). The right-of-way width is wide enough to provide the flexibility to allow this vehicle median refuge and this alternative will be further evaluated as the design progresses. LT will continue to coordinate with County agencies regarding access to Kekuaoakalani Gym and Aquatic Center throughout the engineering and design process.

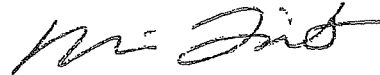
6. **Kailua Park Access Alignments** – LT will consult with the Department of Parks and Recreation (DPR) in the planning, scheduling, and implementation for roadway work that will impact Kailua Park. Vehicle and pedestrian access/egress and construction phasing will be coordinated with DPR in areas where it impacts Park facilities. As noted above, access to the Kekuaoakalani Gym and Aquatic Center was considered in proposing a roundabout at the Pawai/Kuakini intersection, as it allows for northbound vehicles to make a "u-turn" and access the facilities instead of making a left turn directly from Kuakini Highway. Other alternatives will be considered as the engineering and design progresses. As requested, closer views of each roadway connection to Kailua Park (including Park Roads 1, 2, and 3, as well as the proposed access to Kekuaoakalani Gym and Aquatic Center) will be included in the Final EA.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Michael Yee, Director
February 15, 2018
Page 4

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read "Marisa Fujimoto", written in a cursive style.

Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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April 5, 2019

Michael Yee, Director
County of Hawai'i
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Yee:

We are writing as a follow-up letter to our response letter dated February 15, 2018 regarding your department's letter dated October 5, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. Since our last correspondence, the Lili'uokalani Trust (LT) has decided to expand the preservation area for the modified lava tube burial identified as Historic Site No. 50-10-27-18511, Feature C in the Supplemental AIS, resulting in modifications to roadway alignments, which has resulted in minor changes to the project boundary. As such, we offer the following additional information in response to your comments.

5. **Kuakini Highway Realignment** – As noted above, LT has decided to expand the preservation area for the modified lava tube burial, resulting in modifications to roadway alignment. Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park before curving north, as envisioned in the Kona Community Development Plan. The existing alignment of Loloku Street will be kept and the originally proposed diversion of Kuakini Highway to Loloku Street is no longer proposed as part of the project. As such, the access to the mixed use commercial and industrial use properties will not significantly be affected by the proposed project. As Kuakini Highway will continue along its current alignment, the existing vehicular access to the Kekuaokalani Gym and Aquatic Center will not be affected by the project.
6. **Kailua Park Access Alignments** – Inasmuch as Kuakini Highway will continue along its current alignment along the Project District's border with Kailua Park, the existing direct access to Kailua Park will be maintained and a new access road, Park Road 3, will be constructed and dedicated to the County to provide an

Michael Yee, Director
April 5, 2019
Page 2

additional direct access to the Park. As such, the existing vehicular access to and egress from the Kekuaokalani Gym and Aquatic Center will not significantly be affected. As requested, closer views of each roadway connection to Kailua Park (including Park Roads 1, 2, and 3, as well as the proposed access to Kekuaokalani Gym and Aquatic Center) will be included in the Final EA.

We appreciate your input and will include a copy of your comment letter, our response letter, and this follow-up letter in the Final EA for the project. Should you have any questions or require additional information, please feel free to contact me at (808) 983-1233.

Very truly yours,

A handwritten signature in cursive script, reading "Yukino Uchiyama".

Yukino Uchiyama
Associate

YU:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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National Park Service
U.S. Department of the Interior

Kaloko-Honokōhau
National Historical Park

73-4786 Kanalani Street # 14
Kailua-Kona, Hawai'i 96740

808 329-6881 Phone
808 329-2597 Fax

Kaloko-Honokōhau

IN REPLY REFER TO:
L7621 (2017-2)

April 7, 2017

Daryn Arai
Deputy Planning Director
County of Hawai'i, Department of Planning
101 Pauahi Street, Suite 3, Hilo, HI 96720

Subject: National Park Service Comments the Draft Environmental Assessment for the Proposed Makalapua Project District, Keahuolū, Hawai'i, TMK Nos. (3) 7-4-008:002 (par.), (3) 7-4-025:001, 002, 003, 005, 012, 015, 017, 021, 022, and (3) 7-4-010:009 010

Dear Mr. Arai:

Thank you for providing the National Park Service (NPS) with the opportunity to comment on the Draft Environmental Assessment (EA) for the proposed Makalapua Project District, Keahuolū, Hawai'i. The proposed project is approximately two miles south of Kaloko-Honokōhau National Historical Park (Park) and will include approximately 300 residential units, 220 hotel rooms across in two hotels, a 50,000 square foot community performance facility, 470,000 square feet of commercial use, and a variety of open space features. This project will cover approximately 69 acres.

While the proposed project is considerable distance (two miles) from the Park, contaminants, water, air, fish, birds, insects, etc. move; and our coastal natural and cultural resources in West Hawai'i are fragile. We were pleased to read in the Draft EA that a guiding core principle is "Malama Our Resources - through thoughtful and intelligent design and operation, reduce dependencies on energy, water and fossil fuel based transportation, while also protecting important natural resources such as our shoreline, groundwater and air". This core principle aligns with NPS values.

Congress established Kaloko-Honokōhau National Historical Park in 1978 to preserve, interpret, and perpetuate traditional native Hawaiian activities and culture by protecting the cultural and natural resources within the Park (16 U.S.C. § 396d(a)). The Park contains more than 450 known archeological and cultural sites, including several heiau, networks of ancient and historic trails, seawalls, more than 180 anchialine pools, two Hawaiian fishponds with associated wetlands, and a fishtrap. The land and waters within the Park provide habitat for 17 federally listed, and candidate species for listing, under the Endangered Species Act. 'Aimakapā Fishpond and wetland are listed as "Core Wetlands" by the U.S. Fish & Wildlife Service for the recovery of

two endangered waterbird species, the Hawaiian stilt (*Himantopus mexicanus knudseni*) and the Hawaiian coot (*Fulica americana alai*), and are important habitat for migratory waterfowl (USFWS 2011). Kaloko Fishpond is a loko kuapā and is being restored so that it can be managed as a traditional Hawaiian fishpond. In addition to the fishponds and pools, the Park boundary encompasses 596 acres of marine waters and coral reef habitat.

Approximately 150,000 visitors per year visit the Park (<https://irma.nps.gov/Stats/>). Local residents, cultural practitioners, and visitors from around the world come to experience Kaloko-Honokōhau's unique seascape, cultural and natural history, and to understand and exercise traditional Hawaiian practices.

Non-Point Source Pollution and Surface Water Drainage

The Draft EA lacks sufficient information and analysis needed for readers to understand potential impacts from runoff.

The Draft EA states:

Drainage improvements will be designed in accordance with the "Storm Drainage Standards", Department of Public Works, County of Hawai'i, dated October 1970, as amended. Permanent Best Management Practices (BMPs) and Low Impact Development (LID) strategies, such as the use of native plant gardens, permeable paving systems, and bioswales and bio-filtration for stormwater management, are being considered for the proposed project to minimize pollutants from entering the ground and nearshore waters.

With the improvements noted above, no adverse impacts are anticipated as a result of the proposed project.

While permanent BMPs and LID strategies, such as the use of native plant gardens, permeable paving systems, and bioswales and bio-filtration for stormwater management, have been shown to minimize pollutants from entering the ground and nearshore waters, there is no commitment in the Draft EA to install permanent BMPs and LID strategies. In order to minimize impacts from polluted runoff from parking lots, driveways, and other surfaces, we respectfully suggest that the Final EA commit to installing permanent BMPs and LID strategies and describe the methods that will be implemented.

The proposed project is located in highly permeable lava with few accumulated soils. Rain and runoff carry pollutants quickly to groundwater, to coastal anchialine pools, and into nearshore waters. Although average rainfall is ~20 inches per year, rainfall accumulation is typically concentrated in a few intense events that cause a pulse of pollution flushing to drainage systems, to the water table, and into nearshore waters. For over a decade, Hawai'i County and the Hawai'i Land Use Commission have recognized the need to implement additional measures to control nonpoint source pollution flowing into the Park's inland and nearshore waters and surrounding areas (LUC Docket A00-732; COH Ord 02-114 and 04-110). Standard county, state and federal

regulations for drainage wells (i.e. dry wells) are designed to address flood control but not to prevent polluted surface water runoff from impacting the inland and coastal waters.

Nighttime Lighting

The Draft EA states:

Therefore, as recommended by the USFWS, a comprehensive lighting plan will be developed for the project. Furthermore, as recommended in the Flora and Fauna Survey report, artificial lighting will be minimized and downshielded to avoid and/or minimize impacts to seabirds and sea turtles.

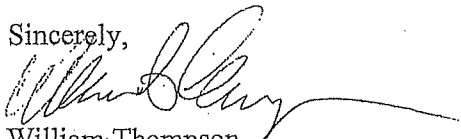
With the above mitigation, no negative impacts are anticipated on flora and fauna resources as a result of the proposed project.

If this project is built, it is unlikely that there will be "no negative impacts" to night skies. We respectfully suggest the Final EA states "minimal impacts" or "impacts will not be significant." The NPS Natural Sounds and Night Skies Division has six principles of sustainable lighting that go beyond minimizing and downshielding. We would like to suggest that projects planners and designers consider a full suite of measures that would more fully protect resources and values from artificial light. Lights should be of a color, intensity, placement, directionality, and operational cycle to minimize both impacts to nocturnal species and the natural visual character of the night. In designing, selecting, and operating outdoor lighting, the following approaches can achieve fully a sustainable solution.

- 1) Light only WHERE it is needed
- 2) Light only WHEN it is needed
- 3) SHIELD lights and direct them downward
- 4) Use the MINIMUM AMOUNT of light necessary
- 5) Select lamps with WARMER COLORS (less blue light)
- 6) Select the most ENERGY EFFICIENT lamps and fixture

We believe that the Queen Lili'uokalani Trust and the National Park Service share a commitment to protect Hawaii's unique and fragile natural and cultural resources and encourage you to incorporate our comments above into the Final EA. If you have any questions regarding this letter, please contact Dr. Jeff Zimpfer of my staff (808-329-6881 x1500 or jeff_zimpfer@nps.gov).

Sincerely,



William Thompson
Acting Superintendent

cc: Department of Aquatic Resources, Kona

Reference

U.S. Fish and Wildlife Service. 2011. Recovery Plan for Hawaiian Waterbirds, Second Revision
U.S. Fish and Wildlife Service, Portland, Oregon.
<http://www.fws.gov/pacific/ecoservices/endangered/recovery/plans.html>



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VICE PRESIDENT

February 15, 2018

William Thompson
Acting Superintendent
National Park Service
U.S. Department of the Interior
73-4786 Kamalani Street #14
Kailua-Kona, Hawai'i 96740

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i (L7621 (2017-2))

Dear Mr. Thompson:

Thank you for your letter dated April 7, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

Non-Point Source Pollution and Surface Water Drainage

Permanent Best Management Practices (BMPs) and Low Impact Development (LID) strategies are being considered for the project to minimize pollutants from entering the ground and nearshore water. Examples noted in the Draft EA include the use of bio-swales and bio-filtration for stormwater management. While LT is fully committed to implementing permanent BMPs and LID strategies in the Makalapua Project District, they are still in the early phases of design. For this reason, the Draft and Final EAs list examples of BMPs and LID strategies that are being considered for the project and notes that drainage improvements will be designed in accordance with County standards.

William Thompson
February 15, 2018
Page 2

Nighttime Lighting

Thank you for your comments and suggestions on nighttime lighting. The language in the Final EA will be revised accordingly and the six (6) principles of sustainable lighting will be shared with the design team and the developer for consideration.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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April 5, 2017

Jeffrey Darrow
Planner
County of Hawaii Planning Department
101 Pauahi St #3
Hilo HI 96720

**KAILUA VILLAGE BUSINESS
IMPROVEMENT DISTRICT**

Debbie Baker,
Executive Director
75-5751 Kuakini Hwy #202
Kailua-Kona, Hawaii 96740

T: 808.326.7820

Twitter: kailuavillage

Web: HistoricKailuaVillage.com

Dear Mr. Darrow,

The Public Private Partnerships Committee of the Kailua Village Business Improvement District (KVBID) has had the opportunity to review the Draft Environmental Assessment for the proposed Makalapua Project District and supports the proposal. KVBID offers the following comments:

This project proposal is intended to result in optimizing the Trust's landholdings and will provide for revenue generation so that the Trust has adequate resources to support its goals of providing for orphaned and destitute Hawaiian children.

The Project District designation allows for flexibility in density and location, while establishing maximum unit counts for the entire zoned area. This enables the Trust to accommodate and address market demands at the time of development.

The project proposal is consistent with the Kona Community Development Plan, Makaeo Village Transit Oriented Development Node that will enable residents to live in closer proximity to their places of employment.

The project promotes and encourages multi modal means of transportation and provides for separation between pedestrian/bicycle and vehicular traffic.

The project will increase the County's real property tax base and generate additional revenues so needed services can be provided to the community.

Integration between Historic Kailua Village and the proposed Makalapua Project District is essential and we look forward to these future opportunities.

Aloha,

Debbie Baker
Executive Director

cc: Munekiyo Hiraga, Tessa Munekiyo Ng
Mike Shibata, Liliuokalani Trust



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VICE PRESIDENT

February 15, 2018

Debbie Baker, Executive Director
Kailua Village Business
Improvement District
75-5751 Kuakini Highway #202
Kailua-Kona, Hawai'i 96740

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Baker:

Thank you for your letter dated April 5, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we thank you for Kailua Village Business Improvement District's acknowledgement of the following:

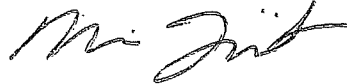
1. The Makalapua Project District is intended to provide revenue to support LT's goals of providing for orphaned and destitute Hawaiian children.
2. The Project District designation allows for flexibility that enables LT to accommodate and address market demands at the time of development.
3. The Makalapua Project District is consistent with the Makaeo Village Transit Oriented Development that will enable residents to live in closer proximity to places of employment.
4. The Project will promote and encourage multi modal means of transportation.
5. The Project will increase the County's real property tax base and generate additional revenues to provide needed services to the community.

Debbie Baker, Executive Director
February 15, 2018
Page 2

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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From: Makalapua Project District <mpd@onipaa.org>
Sent: Friday, March 24, 2017 10:23 AM
To: Tessa Munekiyo Ng; Marisa Fujimoto
Subject: FW: Kona mix use development

From: Amy Cozine <amycozine@gmail.com>
Date: Monday, March 13, 2017 at 9:13 PM
To: Michael Shibata <mpd@onipaa.org>
Subject: Kona mix use development

Aloha Mike,

My husband and I are Kona residence. We read the good news in the paper and have some questions about purchasing an affordable residential unit in the future.

Would there be one or two-bedroom units to choose from?

What would the price range roughly be?

What would the income requirement be for an affordable unit?

How soon can we sign up to get on to the purchase or rental waiting list? And about when would the residential units be completed?

We would like very much to live in a pedestrian designed neighborhood where we can walk to everywhere to function on a daily basis. Please give us some ideas for those questions above, we appreciate your help!

Mahalo, Amy.

February 15, 2018

Ms. Amy Cozine
(Via email: amycozine@gmail.com)

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Cozine:

Thank you for your email dated March 13, 2017, regarding the Makalapua Project District.

The Makalapua Project District will provide a wide range of housing options. However, at this time, the specific design, cost, and income requirements for the residential units have not been decided. The anticipated development timeframe for the project is approximately 15 years, with a significant portion of the project anticipated to be completed in the first ten (10) years. The Lili'uokalani Trust is in the early stages of obtaining the required State and County land use entitlements and permits for the project. Information on how to get on to the list for purchase or rental of the residential units will be forthcoming as the project proceeds.

We appreciate your interest in the project and thank you for sharing your interest in living in a pedestrian-oriented neighborhood, like the Makalapua Project District.

We will include a copy of your comment letter along with this response letter in the Final EA for the project.

Ms. Amy Cozine
February 15, 2018
Page 2

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read "Marisa Fujimoto".

Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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From: Makalapua Project District <mpd@onipaa.org>
Sent: Friday, March 24, 2017 10:21 AM
To: Tessa Munekiyo Ng; Marisa Fujimoto
Subject: FW: Comments on the Proposed Liliuokalani Trust Kona Development

From: Mark Gordon <mark.gordon333@gmail.com>
Date: Wednesday, March 15, 2017 at 12:38 PM
To: "Arai, Daryn" <Daryn.Arai@hawaiicounty.gov>
Cc: "planning@munekiyohiraga.com" <planning@munekiyohiraga.com>, Michael Shibata <mpd@onipaa.org>, Info <info@onipaa.org>, "Richards, Tim" <tim.richards@hawaiicounty.gov>
Subject: Comments on the Proposed Liliuokalani Trust Kona Development

Aloha All

The following points should be considered in the Subject Proposed Kona Development:

- As mentioned by Mayor Kim at a recent Waikoloa Leadership Meeting, the current Infrastructure, especially the Roads presently can't support an increase in vehicular traffic without major modifications
- There will be an increase in traffic and congestion with more and larger developments
- Potential increased costs to current businesses and residents
- Water supply on the Island is not unlimited. This should be considered for all new developments
- Ensure full archaeological survey is done for the project
- Ensure adequate wastewater treatment facilities
- Allow ample time for Public Comment from All parts of the Island
- Review the financial and other effects if current residents and businesses need to relocate
- Project should include some Affordable Housing. Affordable Housing is very lacking on this and other Islands.

Mahalo for allowing me to share my comments and observations.

Please feel free to contact me for any questions.

Mark
Gordon
Waikoloa HI
408-332-7543



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VICE PRESIDENT

February 15, 2018

Mark Gordon
Waikoloa, Hawai'i
(Via email: mark.gordon333@gmail.com)

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Mr. Gordon:

Thank you for your email dated March 15, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. A Traffic Impact Analysis Report was prepared for the Makalapua Project District and was included in the Draft EA. Infrastructure improvements, including roadway improvements, are proposed to mitigate impacts from the anticipated increase in traffic resulting from the project.
2. As noted above, the Makalapua Project District includes infrastructure improvements to accommodate the projected increase in traffic resulting from the project.
3. The LT will construct required infrastructure improvements for the project. As such, potential increases in costs to current business and residents are not anticipated as a result of the Makalapua Project District.
4. As noted in the Draft EA, the LT has water commitment agreements with the County of Hawai'i, Department of Water Supply, which will be utilized for the Makalapua Project District.
5. Two (2) archaeological inventory surveys were conducted within the project area. Survey findings were submitted to the Department of Land and Natural Resources, State Historic Preservation Division for review and approval. Additionally, LT is proposing archaeological monitoring during construction to ensure that any potential adverse impacts to historic resources are appropriately mitigated.

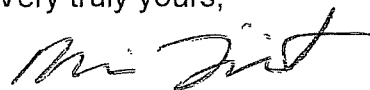
6. An Infrastructure Report was prepared for the Makalapua Project District and determined that the wastewater generated by the project can be accommodated at the Kealakehe Wastewater Treatment Plant.
7. The Chapter 343 EA process provides for a 30-day comment period from the time that the Draft EA for the project is published in the Office of Environmental Quality Control Environmental Notice. West Hawaii Today published an article announcing the publication of the Draft EA and the 30-day comment period for the project on March 9, 2017, the day after the Draft EA for the project was published in the Environmental Notice, allowing four (4) weeks for public comment after publication of the West Hawaii Today article and the Environmental Notice. Additionally, opportunities for public comment will be provided during the State and County land use entitlement processes for the project.
8. The Makalapua Project District consists primarily of vacant, underutilized land adjacent to the Kailua-Kona urban core. The development of these vacant lands would not require relocation of residents and businesses. The Draft EA assessed economic impacts associated with the project, noting that the project will generate positive economic impacts associated with construction-related spending and employment. From a long-term perspective, the project will provide economic development opportunities through the provision of new hotel, retail, commercial, and office space.
9. The Makalapua Project District will provide affordable housing in accordance with the County of Hawai'i's affordable housing requirements (Chapter 11, Hawai'i County Code).

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Mark Gordon
February 15, 2018
Page 3

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read "Marisa Fujimoto".

Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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APR 03 2017

Jan Wizinowich
P.O. Box 7097
Kamuela, HI 96743

Munekiyo Hiraga
305 High St. Ste 104
Wailuku, HI 96793

March 31, 2017

Aloha;

My comment is very brief: What if anything has been done to include sustainability components such as renewable energy in the proposed Queen Lili'uokalani Trust's proposed Kona complex? Has there been any attention given to the State's environmental protection and sustainability goals? What about protection for the shoreline and reef?

The Aloha+ Challenge sets six targets to be reached by 2030 in sustainability, renewable energy and preservation of natural resources. Gov. Ige, the four county mayors, the Office of Hawaiian Affairs and the state Legislature all support these common goals.

"We're working to align department goals and the governor's sustainability initiatives under the umbrella of Aloha+ Challenge," said DLNR director Suzanne Case. "We want the IUCN Congress to be a platform to highlight and, where possible, launch significant initiatives to move all of that forward." The areas include clean energy, local food production, natural resource management, waste reduction, **sustainable communities**, and green jobs and education. To monitor the state's progress, go to the Aloha+Dashboard at hawaiiagreengrowth.org.

How are these goals being addressed in the proposed development? Isn't it up to all agencies to work towards keeping our island canoe healthy?

Mahalo,



Jan Wizinowich

February 15, 2018

Jan Wizinowich
P.O. Box 7097
Kamuela, Hawai'i 96743

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Wizinowich:

Thank you for your letter dated March 31, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

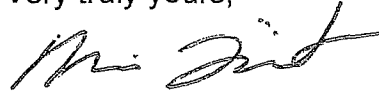
1. Various sustainable development measures are being considered and incorporated into the Makalapua Project District, including water conservation and efficiency measures, energy conservation and efficiency measures, and Low Impact Development (LID) strategies such as use of native plant gardens, permeable paving systems, bioswales, and bio-filtration for stormwater management. The Makalapua Project District is an urban infill development that will incorporate a multi-modal design to support a variety of transportation options. The Final EA will include a discussion on how the project is consistent with the sustainability priority guidelines of the Hawai'i State Plan (Hawai'i Revised Statutes, 226-108).
2. Thank you for the information on the Aloha+ Challenge. The LT supports the goals of the Aloha+ Challenge and the six (6) targets have been considered in the planning for the project. Specifically, strategies for energy conservation and efficiency, waste reduction and diversion, and sustainable economic development are being incorporated into the project.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Jan Wizinowich
February 15, 2018
Page 2

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read "Marisa Fujimoto", with a stylized flourish at the end.

Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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APPLIED LIFE SCIENCES LLC

PO BOX 895 • Honaunau, Hawai'i 96726
Phone: 808-640-2419 • E-Mail: drrbennett@gmail.com

April 4, 2017

Michael Yee, Director

Via Email

Department of Planning

County of Hawaii

Dear Mr. Yee,

Herewith are the comments of Dr. Richard Bennett, Applied Life Sciences LLC, relative to the Makalapua Project District Environmental Assessment.

Page 14, Climate.

The report incorrectly states the average rainfall for the area is 119 inches. It is 11.9 inches. Thus it is a typographical error. If the higher rainfall value was used in the report to estimate impacts, the report will need to be revised.

Rainfall in the region is down 14% in the last decade and the trends will continue with global warming. The mean temperature fails to describe the higher afternoon temperatures in the upper 80's, which necessitate air conditioning for most dwellings and businesses in the region.

More emphasis needs to be placed on passive cooling and design for the homes and businesses and less reliance on energy intensive air conditioning. Minimization of hardened surfaces will serve to reduce "heat island" temperature gain as well as reduce runoff from storm events. Trees for shading can be advantageous however annual rainfall is too low to support robust tree growth. Reclaimed water use can support shade trees and a cooler green landscape.

Climate change estimates for Hawaii have been recently revised and portend a grave worst-case scenario of 9 feet of sea level rise over the next 80 years¹. This is an increase of 3 feet over estimates used in the DEA. All coastal projects must be planned with this worst case in mind. Otherwise the public costs of all the effects of tidal inundation will devastate Hawaii and its economy. Therefore, this report needs to be revised accordingly.

Page 20, Flood and Tsunami.

The report fails to report of the elevations within the project and how sea level rise, ground water rise and coincident tide and storm events might impact the project site. This is a rather serious omission.

¹ <https://www.pressreader.com/usa/honolulu-star-advertiser/20170326/281479276245484>

Similarly, the report fails to adequately address the Flood risk from a major flood event coincident with sea level rise, high tide and storm events, including a hurricane and associated tidal surges.

The report also fails to adequately address the risk for even a modest Tsunami. Much of the Westerly project area has an elevation of less than 20 feet. How this could be a no risk area defies logic, in spite of the referenced evacuation maps. Said maps do not describe or negate actual risk to the project area. This risks and mitigations must be described.

Page 59, Water System

It appears the Keauhou Aquifer System has adequate volume of water to accommodate the project. The aquifer is rain derived fresh water floating upon salt water within a matrix of volcanic and basalt rock. The greater question that is not addressed is the access of high quality water within the aquifer system. DWS operates a series of wells and as the well pump ever greater volumes at a give location the inflow of fresh water versus the up flow of more saline water has become a concern. It needs to be determined in water demand from the project and in aggregate in the region is going to increase the salt fresh mixing, resulting in higher sodium in the drinking water. Excess sodium intake from all sources is currently a global medical concern² as well as the people in the region. The project needs to accountable to the future residents for the quality of the water that will be provided and thus must address the sodium issue in drinking water. Sea level rise also means sea water closer to water pump intakes, thus predicting water quality over the lifetime of the project will be difficult but nonetheless important to estimate. Contrary to the DES, this is a significant health impact the needs to be mitigated.

The water conservation and use efficiency measures need to be detailed and specified. Flow restricted fixtures, low volume power flush toilets, low volume washing machines and limited to no landscape use of potable water must be accounted in the project design.

The County of Hawaii plans to provide R1 water to the project the details of that plan are not known at this time. Just the same the project should include dual plumbing of all residences and businesses. The "purple" pipe system for landscape irrigation can save very significant fresh water resources. The area has a very high evapotranspiration rate (ET) that approximates 12 inches per month. Plants like grass will need the full ET irrigation water and up to 50% more for root zone salt management leaching³. Thus if the R1 water is used exclusively for landscape irrigation, it will require proper planning to deliver the water as needed, for the high ET and salt management, through out the project site.

Page 62, Drainage

Storm water runoff in urban settings is not environmentally innocuous. Urban storm water contains animal feces and the concomitant pathogens such as *Toxoplasma Gondii* from cats. This pathogen has been shown to affect marine mammals in Hawaii. Storm water also

² http://www.who.int/water_sanitation_health/dwg/chemicals/sodium.pdf

³ http://www.salinitymanagement.org/Literature_Review.pdf

contains, gasoline components like benzene and those in used motor oils, asbestos and nitrate and phosphate and more⁴.

Dry wells as used in West Hawaii provide drainage and nothing more. The belief that the geochemistry of the vadose zone somehow removes all pollutants is without scientific substantiation.

Significant environmental impacts to ground water and the near shore water via the underground hydrologic connections are inevitable.

The near shore waters in the project area are listed as Impaired under Section 303 D of the Clean Water Act. As such no further impairment is allowed. Storm water runoff is therefore subject to a NPDES permit to assure further degradation does not occur.

Storm water management mitigations need to be articulated in the planning documents.

Sincerely,

/s R.H. Bennett Ph.D.,

President, ALS LLC

Cc email Tessa M. Ng

⁴ [http://ascelibrary.org/doi/abs/10.1061/\(ASCE\)EE.1948-7870.0000876](http://ascelibrary.org/doi/abs/10.1061/(ASCE)EE.1948-7870.0000876)

February 15, 2018

R.H. Bennett Ph.D., President
Applied Life Sciences LLC
P.O. Box 895
Honaunau, Hawai'i 96726

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Dr. Bennett:

Thank you for your letter dated April 4, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

Climate

Thank you for your comments on climate in the Kona area. The typo on page 14 related to average rainfall will be corrected in the Final EA for the project.

Given the warm Kona climate, the Makalapua Project District will include passive cooling and design strategies, such as architectural shading for reducing heat gain, building orientation and fenestration for natural ventilation, and landscape strategies to provide summer shade.

Thank you for your comment regarding sea level rise. We reviewed the article on sea level rise referenced in your letter, which noted that many researchers predict sea level rise of three (3) feet by the end of the century. The article also notes that the National Oceanic Atmospheric Administration (NOAA) suggests twice that amount (six (6) feet) by the end of the century. NOAA provides online mapping tools which show potential sea level rise coastal flooding based on inundation impacts at high tide. The maximum sea level rise shown in the mapping tools is six (6) feet.

As noted in the EA, because the Makalapua Project District is located inland from the coast, the project parcels are not anticipated to experience sea level rise inundation under the 6-foot sea level rise scenario, the maximum sea level rise modeled by NOAA.

Flood and Tsunami

We note your concerns on the potential impacts of flooding, sea level rise, and tsunamis on the project. The elevations of the project area range from 10 to 40 feet above mean sea level.

As mentioned above, potential sea level rise impacts have been assessed based on the maximum sea level rise projections available on the NOAA mapping tools, which represent inundation conditions based on high tide with six (6) feet of sea level rise.

Flooding conditions from storm events have been assessed using the Federal Emergency Management Agency's Flood Insurance Rate Map. The map indicates that the Makalapua Project District is located within Flood Zone "X", an area of minimal flood hazard, which is outside of the special flood hazard area and at a higher elevation than areas within the 0.2-percent-annual-chance flood.

Flooding from tsunamis is a potential threat to all shoreline communities, especially those at low-lying elevations. The tsunami evacuation maps provided by the Pacific Disaster Center indicates that the Makalapua Project District is located outside of the tsunami evacuation area. Nevertheless, the County of Hawai'i, Civil Defense Agency, which directs and coordinates the development and administration of the County's emergency preparedness and response program, has been consulted on the proposed project. The LT will coordinate with them to address concerns they may have related to this issue.

Water System

Thank you for your comments on the water system. The LT has been coordinating with the County of Hawai'i, Department of Water Supply (DWS), which is the agency responsible for delivering potable water service to the project area via the County water system. The LT has existing agreements with DWS for water source to service the

project. The LT will continue coordination with the DWS to ensure that safe drinking water can be supplied to the project.

Water conservation and use efficiency measures are being considered for the project, including landscaping concepts that focus on water conservation. As you may be aware, there is currently no available source of R-1 quality water for the project, however, piping for R-1 water for reuse may be installed, when it becomes available. Additionally, as noted above, the project will incorporate landscaping concepts that focus on water conservation.

Drainage

Thank you for your comments on stormwater runoff and potential environmental impacts that could result from polluted stormwater runoff.

Dry wells are a component of the proposed drainage system for the project, however, permanent Best Management Practices (BMPs) and Low Impact Development (LID) strategies are being considered for the project to minimize pollutants from entering the ground and nearshore water. Examples include the use of native plant gardens, permeable paving systems, and bio-swales and bio-filtration for stormwater management.

Mitigation of potential significant environmental impacts to groundwater and near shore water includes the implementation of permanent BMPs and LID strategies, as noted above. With the proposed mitigation, significant environmental impacts to near shore water are not anticipated as a result of the project. However, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained to ensure that nearshore waters are not significantly impacted by the project.

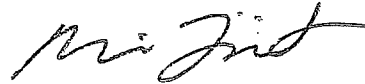
Additional information on stormwater management and mitigation will be included in planning and construction documents, as available.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

R.H. Bennett Ph.D., President
February 15, 2018
Page 4

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP
Keith Uemura, Park Engineering, Inc.

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2017 MAY 1 PM 2 21

PLANNING DEPARTMENT
COUNTY OF HAWAII

County of Hawaii Planning Department
Attn: Jeffrey Darrow, Planner
101 Pauahi St. Suite 3
Hilo, HI 96720

Re: Makalapua Project District, Queen Liliuokalani Trust

Aloha Jeffrey:

My coworkers and I were talking about this new project in the office today. It's great to see the issue of lower income housing being addressed by the QLT as part of their plan. We hope the housing is something affordable, as in under \$400,000 and in some part-subsidized care housing. There is so much buildable land above the Ane Keohokalohe Parkway.

We also sincerely hope the EA and the County consider that Old Airport Beach Park (fondly known as Old A's) as a cornerstone in this project as is the only large, serviced, public County park with a somewhat real beach, in Kona. This new development could possibly allow the County to request substantial improvements to the beach park and improve the ambiance of Kailua town. This could be the opportunity to make our primary beach park more like Ala Moana, distanced from residential and commercial but still easily accessible by car, foot or bike. The park as it stands is often overrun by fast driven cars or vehicles parked and people drinking in their cars and then the homeless moving in at sunset. We greatly need to improve Kona's community environment and design can have a great impact on the function and attractiveness of our only large park and Kona in general.

We also respectfully ask that the lower roads will also be connected to the new upper Ane Keohokalohe Parkway. Though it may be planned, we have noted that the development of the courthouse has not prompted a connection to the Ane Keohokalohe yet.

We also thought to distance the beach from housing would allow visitors and residents to feel like Old A's is a unique park on the Big Island. It would be amazing if the shoreline northwest past Old A's is also required to become accessible, even if it is just rocky trails, it would add more public use space. With this and the future growth of communities in Kailua, the town needs and would benefit if its parks and access to open space remained exclusively parklike, unique and distanced from surrounding commercial and residential communities.

We appreciate your taking the time to consider these ideas as they come directly from the people who are lucky to live and work in Kona town. Best wishes in your planning endeavors.

Sincerely,

Morabito Linda MORABITO
Kelly Kelly
Nan N. Carr

111327
Alan Hanco Alan Hanco
Linda Yamashita Linda Yamashita



February 15, 2018

Linda Morabito et al
Palani Court, Suite 215
74-5620 Palani Road
Kailua-Kona, Hawai'i 96740

SUBJECT: Draft Environmental Assessment for Makalapua Project District,
Keahuolū, Hawai'i

Dear Ms. Morabito et al:

Thank you for your letter received on May 1, 2017, providing comments on the Draft Environmental Assessment (EA) for the Makalapua Project District. On behalf of the Lil'iuokalani Trust (LT), we offer the following responses in the order of your comments:

1. Thank you for your comments on the housing component of the Makalapua Project District. The project will provide a wide range of housing options and the LT will comply with the County's affordable housing requirements. However, at this time, the specific design, cost, and income requirements for the residential units have not been decided.
2. Thank you for your comments on the adjacent Old Airport Beach Park (old A's), which is referred to as Kailua Park in the Draft EA. LT is coordinating with the County to ensure that plans for the park are considered in planning for the Makalapua Project District. Consistent with the Park's master plan, the Makalapua Project District will provide three (3) accesses to the park.
3. We note your request that lower roads connect to the Ane Keohokalole Highway. However, the proposed project is limited to lands makai of Queen Ka'ahumanu Highway and will not involve direct connections to Ane Keohokalole Highway. It is noted that the Makalapua Project District will include a number of onsite and offsite roadway improvements in and immediately surrounding the project to improve traffic safety and flow and mitigate potential traffic impacts resulting from the project. Within the project area, Kuakini Highway and Makala Boulevard will be realigned and Ma'a Way will be continued from the Kona Industrial Subdivision. A roundabout is also proposed at the intersection of Kuakini Highway and Pawai Drive. Offsite improvements associated with the project

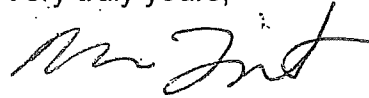
include improvements to Kuakini Highway, Kaiwi Street, and Queen Ka'ahumanu Highway.

4. Thank you for sharing your thoughts on the location of housing. Residential areas are proposed along the southern and northwestern areas of the Makalapua Project District so that there is continuity in commercial uses extending down from the adjacent Kona Commons area into the northeastern portion of the project.

We appreciate your input and will include a copy of your comment letter along with this response letter in the Final EA for the project.

Should you have any questions, please feel free to contact me at (808) 244-2015.

Very truly yours,



Marisa Fujimoto
Senior Associate

MF:tn

cc: Michael Shibata, Lili'uokalani Trust
Ben Kudo, Ashford & Wriston, LLP

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REFERENCES

XI

XI. REFERENCES

CH2M HILL, County of Hawai'i Integrated Resources and Solid Waste Management Plan Update: The Path to Zero Waste, December 2009.

Chai, David, Restoration and Management Recommendations for Anchialine Pool Resources on Queen Lili'uokalani Trust Lands at Keahuolū, North Kona, Hawai'i, April 2014.

County of Hawai'i, County of Hawai'i General Plan, February 2005.

County of Hawai'i, Department of Environmental Management, Wastewater Division, County of Hawai'i Sewer Network: Kailua-Kona, Hawai'i, October 2010.

County of Hawai'i, Department of Parks and Recreation, Final Environmental Assessment: Kailua Park Master Plan aka Old Airport Park/Maka'e'o County Contract C.002100, February 2011.

County of Hawai'i, Department of Research and Development, Hawai'i County Databook 2015, 2015.

County of Hawai'i. Island of Hawai'i TMK Parcels002E [GIS polygon shapefile]. Created by Geographic Decision Systems International and County of Hawai'i. (2010). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

County of Hawai'i, Kona Community Development Plan: Mapping Kona's Future, September 2008.

County of Hawai'i. Official Kona Community Development Map. [GIS polygon shapefile]. Created by County of Hawai'i, Planning Department. (2008).

County of Hawai'i, Planning Department, Hawai'i County Zoning. [GIS polygon shapefile]. Created by County of Hawai'i, Planning Department using ArcInfo 7.2.1, (2010). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

County of Hawai'i. Special Management Areas. [GIS polygon shapefile]. Digitized by Office of Planning using ArcInfo 7.1.1 from County blue-line maps. (2009). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

County of Hawai'i, Department of Research and Development, 2010 County of Hawai'i Databook, <http://records.co.hawaii.hi.us/Weblink8/Browse.aspx?startid=27952&dbid=1>, accessed December 2015.

Federal Emergency Management Agency, Flood Rate Insurance Map, Community Panel Nos. 1551660691C, 1551660692C, 155166094C and 1551660713D, 1988.

Fukunaga & Associates, Inc., Hawai'i County Water Use and Development Plan Update, prepared for County of Hawai'i, August 2010.

Hawai'i County General Plan. 2005 Land Use Plan Allocation Guide. [GIS polygon shapefile]. Digitized by Office of Planning using ArcInfo. (2007). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

Hawai'i Police Department, Hawaii Police Department Annual Report Fiscal Year 2013-2014, <http://www.hawaiipolice.com/wp-content/uploads/2011/10/2013-2014-Annual-Report.pdf>, accessed December 2015.

Hobdy, Robert, Flora & Fauna Survey Report, Keahuolū, Kona, Hawai'i (Makai Lands), December 2012.

Hobdy, Robert, Flora & Fauna Survey Report, Keahuolū, Kona, Hawai'i (Mauka Lands), December 2012.

<http://dbedt.hawaii.gov/economic/economic-forecast/2040-long-range-forecast/>

Juvik, S.P. and J.O. Juvik, eds., Atlas of Hawai'i, 3rd Edition, Honolulu, Hawai'i: University of Hawai'i Press, 1998.

Land Study Bureau, University of Hawai'i. Land Study Bureau (LSB) Detailed Land Classification. [GIS polygon shapefile]. Digitized by Office of Planning using ArcInfo version 7. (1998). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

Lili'uokalani Trust, Her Legacy, <http://www.onipaa.org/pages/her-legacy>, accessed April 2016.

Lockwood, John P. and Michael O. Garcia, Volcanic Hazards at the HELCO Keahole Generating Station, North Kona, Hawai'i, prepared for Belt-Collins Hawaii, Ltd., February 28, 2004.

National Oceanic and Atmospheric Administration, Office for Coastal Management, Sea Level Rise Viewer, <https://coast.noaa.gov/digitalcoast/tools/slr>, Accessed August 2016.

Pacific Disaster Center. Tsunami Evacuation Zones. [GIS polygon shapefile]. Digitized by Pacific Disaster Center using Arc View version 3.0a from State of Hawai'i Civil Defense Tsunami Evacuation Zone proof maps. (1998). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

PBR Hawaii, Final Environmental Impact Statement: 'O'oma Beachside Village, January 2009.

Reeve, Rowland, et al., Draft Archaeological Inventory Survey of Urban Phase III Parcel Queen Lili'uokalani Trust Lands in Keahuolu, North Kona, Island of Hawai'i, January 2016.

Reeve, Rowland, et al., Final Supplemental Archaeological Inventory Survey of the 100 acre Kona Commons Parcel of Queen Lili'uokalani Trust Lands in Keahuolu, North Kona, Island of Hawai'i, August 2015.

State of Hawai'i, Department of Agriculture. Agricultural Lands of Importance to the State of Hawai'i. [GIS polygon shapefile]. Digitized by Office of State Planning using ArcInfo version 6 from State Department of Agriculture's 1:24,000 blueline maps. Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

State of Hawai'i, Department of Business, Economic Development, and Tourism, 2015 State of Hawaii Databook, <http://dbedt.hawaii.gov/economic/databook/db2015/>.

State of Hawai'i, Department of Business, Economic Development, and Tourism, Population and Economic Projections for the State of Hawai'i to 2040, March 2012.

State of Hawai'i, Department of Education, Historic and Projected Enrollment for Kealakehe Complex, 2011.

State of Hawai'i, Department of Education, Official Enrollment Count, 2014-2015 School Year, 2014.

State of Hawai'i, Department of Health, Office of Environmental Planning, Water Quality Standards Map: Island of Hawai'i, October 1987.

State of Hawai'i, Department of Health, State of Hawai'i Annual Summary 2014: Air Quality Data, Accessed December 2015.

State of Hawai'i, Department of Labor and Industrial Relations, Job County by Industry: Hawai'i County, <http://www.hiwi.org/gsipub/index.asp?docid=421>, accessed March 2019.

State of Hawai'i, Department of Labor and Industrial Relations, Local Area Unemployment Statistics, <http://www.hiwi.org/gsipub/index.asp?docid=417>, accessed March 2019.

State of Hawai'i, Hawai'i State Planning Act, Chapter 226, Hawai'i Revised Statutes.

State Land Use Commission. State Land Use District Boundaries. [GIS polygon shapefile]. Digitized by Office of Planning using ArcInfo 4, 5, and 6 from State Land Use Commission's 1:24,000 mylar maps. (2010). Retrieved from <http://Hawaii.gov/dbedt/gis/download.htm>.

University of Hawai'i, School of Ocean and Earth Science Technology, Sea Level Rise Hawai'i, www.soest.hawaii.edu/coasts/sealevel, accessed October 2016.

U.S. Census Bureau, 2000 Summary File 1, DP-1: Profile of General Demographic Characteristics: 2000, 2000.

U.S. Census Bureau, 2010 Census Redistricting Data, QT-PI – Race, Hispanic or Latino, Age, and Housing Occupancy: 2010, 2010.

U.S. Department of Agriculture, Natural Resources Conservation Service. Soil Survey Geographic (SSURGO) Database for Hawai'i County, Hawai'i, <http://websoilsurvey.nrcs.usda.gov>., accessed December 2015.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of the Island of Hawai'i, State of Hawai'i, 1973.

U.S. Fish and Wildlife Service, National Wetlands Inventory, <http://137.227.242.85/wetland/wetland.html>, accessed December 2015.

U.S. Geological Survey, Hawaiian Volcano Observatory, Destructive Earthquakes in Hawai'i County Since 1868, <http://hvo.wr.usgs.gov/earthquakes/destruct/>, updated July 15, 2013, accessed December 2015.

U.S. Geological Survey, Hawaiian Volcano Observatory, Earthquakes, <http://hvo.wr.usgs.gov/earthquakes/>, published June 18, 2001, accessed December 2015.

U.S. Geological Survey, Hawaiian Volcano Observatory, Hazards in Hawai'i, <http://hvo.wr.usgs.gov/earthquakes/hazards/>, published June 18, 2001, accessed December 2015.

U.S. Geological Survey, Hawaiian Volcano Observatory, Hualālai: Hawai'i's Third Active Volcano, <http://hvo.wr.usgs.gov/volcanoes/hualalai/>, published June 18, 2001, accessed December 2015.

U.S. Geological Survey, Lava Flow Hazard Zone Maps, <http://pubs.usgs.gov/gip/hazards/maps.html>, published December 18, 1997, accessed March 2016.

U.S. Geological Survey, National Geographic, i-cubed. USA Topo Maps. [GIS raster file]. Created by Esri using scanned USGS paper topographic maps. (2010). Retrieved from ArcGIS Online.