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VICE PRESIDENT

TO: Jessica Wooley, Director
Department of Health
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

DATE: October 26, 2015

SUBJECT: Volumes I through IV of the Final Environmental Impact Statement for the Olowalu Town Master Plan

Enclosed is/are:

Copies	Date	Description
1 HC+1 CD	October 2015	Volumes I through IV of the Final Environmental Impact Statement for the Olowalu Town Master Plan
1	---	Application Action, Section 343-5(e), HRS, Publication Form
1	---	Final EIS Distribution List

	For your comment	**For your use**
X	**For necessary action**	**As requested**
	For your review	**For your signature**
	For your files	**Returning**

REMARKS:

We are transmitting Volumes I through IV of the Final EIS for the Olowalu Town Master Plan. Simultaneously, the Final EIS has been transmitted to the State of Hawaii, Land Use Commission, which is the approving agency. See enclosed transmittal. The Land Use Commission is scheduled to review the Final EIS at its November 18, 2015 meeting.

As instructed by Thomas Eisen of your staff, we are transmitting one (1) hard copy and 1 pdf copy of the Final EIS and the OEQC Publication form. Please note that the Land Use Commission has not yet taken action to accept this Final EIS. We are also hereby transmitting the Final EIS Distribution List for your office's review and approval. Upon approval of the distribution list we will mail out the Final EIS.

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.munekiyohiraga.com

As discussed with Mr. Eisen, the availability of the Final EIS will be published in the next available Environmental Notice. The Final EIS is scheduled for action by the Land Use Commission on November 18, 2015. Upon acceptance of the Final EIS, the Land Use Commission will transmit the acceptance letter to OEQC for publication in the next available Environmental Notice. Please call me at (808) 244-2015 if further clarification is required.

Signed: _____
Colleen Suyama, Senior Associate

CS:tn

Copy to: Dan Orodenker, Executive Director (w/o enclosures)
Leo R. Asuncion, Acting Director, Office of Planning (w/o enclosures)
William Spence, Director, Department of Planning (w/o enclosures)
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Jennifer Lim, Carlsmith Ball LLP (w/o enclosures)

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NOV 2015

July 2015 Revision

APPLICANT ACTION SECTION 343-5(e), HRS PUBLICATION FORM

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Project Name Olowalu Town Master Plan
HRS §343-5 Trigger(s): Community Plan Amendment
Island: Maui
District: Lāhainā
TMK: (2)4-8-003:84, 98 through 118, and 124
Permits: State District Boundary Amendment, Community Plan Amendment, Change in Zoning, Project District Approvals, and SMA Permit.

Approving Agency: State of Hawai'i Land Use Commission
(*Address, Contact Person, Telephone*) P.O. Box 2359, Honolulu, Hawai'i 96813; Dan Orodenker, Executive Director, (808) 587-3825

Applicant: Olowalu Town, LLC and Olowalu Ekolu, LLC
(*Address, Contact Person, Telephone*) 2035 Main Street, Suite 1, Wailuku, Hawai'i 96793: David Ward and William Frampton; (808) 249-2224

Consultant: Munekiyo Hiraga
(*Address, Contact Person, Telephone*) 305 High Street, Suite 104, Wailuku, Hawai'i 96793: Michael Munekiyo; (808) 244-2015

Status (check one only):

__DEA-AFNSI — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day comment period ensues upon publication in the periodic bulletin.

__FEA-FONSI — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov; no comment period ensues upon publication in the periodic bulletin.

__FEA-EISPN — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day consultation period ensues upon publication in the periodic bulletin.

__Act 172-12 EISPN — Submit the approving agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov. NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.

__DEIS — The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.

X FEIS — The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__ Section 11-200-23 Determination — The approving agency simultaneous transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the applicant. No comment period ensues upon publication in the periodic bulletin.

__Statutory hammer Acceptance — The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it failed to timely make a determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and that the applicant's FEIS is deemed accepted as a matter of law.

__Section 11-200-27 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 not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

__Withdrawal (explain)

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

Olowalu Town, LLC and Olowalu Ekolu, LLC proposes the Olowalu Town Master Plan which serves to guide the re-establishment of a small-scale and mixed-use community at Olowalu. The Master Plan area consists of 23 agricultural parcels encompassing approximately 636 acres. The Master Plan will consist of approximately 1,500 dwelling units consisting of single-family and multi-family housing types with commercial and support services such as, but not limited to, parks, schools, private water, and sewer services. The Olowalu Town Master Plan encompasses the provision of workforce housing.

The Master Plan is designed as a sustainable pedestrian-friendly community which will allow residents to live within walking distance of stores, schools, parks, employment opportunities, gathering centers, beaches/shoreline, and other social and civic resources. The Master Plan incorporates sustainable technology such as, but not limited to, the reuse of water from the proposed sewer treatment plant for irrigation and small scale energy systems. A significant infrastructure component of the Master Plan is the proposed relocation of Honoapi'ilani Highway further inland from the coast line.

The Master Plan will require a State District Boundary Amendment, Community Plan Amendment, Change in Zoning, Project District Approvals, and SMA Permit.

~~Draft~~Final Environmental Impact Statement

Volume I of ~~III~~IV

PROPOSED OLOWALU TOWN MASTER PLAN

(TMK Nos. (2)4-8-003:84, 98 through 118, and 124)

Prepared for:

Olowalu Town, LLC and
Olowalu Ekolu, LLC

Accepting Authority:
State of Hawaii, Land Use Commission

This document was prepared under my supervision and the information submitted, to the best of my knowledge, fully addresses document content requirements as set forth in Sections 11-200-17 and 11-200-18 of the Hawai`i Administrative Rules, as appropriate

Michael T. Munekiyo, AICP, President

~~February2012~~October 2015

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MUNEKIYO HIRAGA

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Appendix ~~Q~~T. Community Meetings

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~~Draft~~Final Environmental Impact Statement	Munekiyo ~~& Hiraga, Inc.~~
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Preliminary Engineering Report	Otomo Engineering, Inc.
Preliminary Traffic Impact Analysis Report	Roger D. Dyar, P.E., P.A. Consulting Transportation Engineer
Pu`u honua: The Legacy of Olowalu	Katherine Kama`ema`e Smith
Smart Code	The Town Paper
Stormwater Quality Enhancements	Craig C. Lekven, P.E. Brown and Caldwell
Town Planners	Andres Duany Duany Platter-Zybeck & Co.
Wastewater Management Plan	Brown and Caldwell

List of Acronyms

ADF – Average Daily Flow
ADT - Average Daily Traffic
AEHR - Annual Erosion Hazard Rate
AIS – Archaeological Inventory Survey
ALISH – Agricultural Lands of Importance to the State of Hawai`i
Amfac - American Factors, Ltd.
AMSL – Above Mean Sea Level
ASTM - American Society for Testing and Materials
BMP - Best Management Practices
BOD - Biochemical Oxygen Demand
BS - Beaches
CDOT - County of Maui, Department of Transportation
CFR - Code of Federal Regulations
CFS - Cubic Feet Per Second
CIA - Cultural Impact Assessment
CI - Consultation Plan for Assessing Potential Cultural Impacts
CIZ - Change in Zoning
CML - Central Maui Landfill
CNU - Congress for the New Urbanism
CO - Carbon Monoxide
CPA - Community Plan Amendment
CPCN - Certificate of Public Convenience and Necessity
CSH - Cultural Surveys Hawai`i, Inc
CWB - Clean Water Branch
CWRM - Commission on Water Resources Management
CZM - Coastal Zone Management
DA - Department of the Army
DBA - District Boundary Amendment
DBL - Decibel Level
DEM - County Department of Environmental Management
DHHC - County Department of Housing and Human Concerns
DLIR - State Department of Labor and Industrial Relations
DLNR - State Department of Land and Natural Resources
DOE - State Department of Education
DOH - State Department of Health
DP - County Department of Planning
DPR - County Department of Parks and Recreation
DPW - County Department of Public Works
DWS - County Department of Water Supply
EA - Environmental Assessment
EaA - Ewa Silty Clay Loam
EAL - Environmental Action Level
EIS - Environmental Impact Statement

EISPN - Environmental Impact Statement Preparation Notice
EPA - Environmental Protection Agency
ESA - ~~Environmental Site Assessment~~Endangered Species Act
ESCP - Erosion and Sediment Control Plan
ET - Evapotranspiration
FEMA - Federal Emergency Management Agency
FHWA - Federal Highways Administration
FIRE - County Department of Fire and Public Safety
FIRM - Flood Insurance Rate Maps
GPAC - General Plan Advisory Committee
GPD - Gallon Per Day
GPM - Gallon Per Minute
HAR - Hawai`i Administrative Rules
HC&S - Hawaiian Commercial & Sugar Company
HCZMP - Hawai`i Coastal Zone Management Program
HDOT - State of Hawai`i, Department of Transportation
HDPE - High Density Polyethylene
HEER - Hazard Evaluation and Emergency Response
HERS - Home Energy Rating System
HRS - Hawai`i Revised Statutes
HUD - U.S. Department of Housing and Urban Development
ISWMP - Integrated Solid Waste Management Plan
JaC - Jaucas Sand
KMW - Kealia Silt Loam
KPWR - Kealia Pond Wildlife Refuge
LEED ND - Leadership in Energy and Environmental Design for Neighborhood Development
Leq(h) - Equivalent Hourly Sound Level
LID - Low Impact Development
LOS - Level of Service
LSB - Land Study Bureau
MCC - Maui County Code
MECO - Maui Electric Company
MG - Million Gallon
Mg/L - Milligram Per Liter
MGD - Million Gallon Per Day
MIP - Maui Island Plan
ML&P - Maui Land and Pineapple Company
MPC - Maui Planning Commission
MPD - Maui Police Department
MPH - Miles Per Hour
MSL - Mean Sea Level
NMFS - National Marine Fisheries Service
NOAA - National Oceanic and Atmospheric Administration
NOI - Notice of Intent
NOX - Nitrogen Oxides

NPARA - National Parks and Recreation Association
NPDES - National Pollutant Discharge Elimination System
NPS - Nonpoint Source
NRCS - Natural Resources Conservation Service
OCO - Olowalu Company
OCR - Olowalu Cultural Reserve
OEQC - State Office of Environmental Quality
OHA - Office of Hawaiian Affairs
OP - Office of Planning
ORMP - Ocean Resource Management Plan
OS - Open Space
OTMP - Olowalu Town Master Plan
OWC - Olowalu Water Company
PCB - Polychlorinated Biphenyls
PD - Project District
PDR - Preliminary Drainage Report
PER - Preliminary Engineering Report
Pk - Park
PMCo - Pioneer Mill Company
PRG - Preliminary Remediation Goal
PpA - Pulehu Silt Loam
PtA - Pulehu Cobbly Clay Loam
PtB - Pulehu Cobbly Clay Loam
PUC - Public Utilities Commission
PWS - Public Water System
RFP - Request for Proposals
RGB - Rural Growth Boundary
RIRO - Right In, Right Out
rRD - Rock Outcrop
rRK - Rock Land
rRS - Rough Broken and Stony Land
rSM - Stony Alluvial Land
SCS - Soil Conservation Service
Sec - Seconds
SFHAD - Special Flood Hazard Area Development
SGR - Student Generation Rate
SHPD - State Historic Preservation Division
SIHP - State Inventory of Historic Property
SLUC - State Land Use Commission
SMA - Special Management Area
STIP - State Transportation Improvement Program
STB - Small Town Boundaries
SVOC - Semi-Volatile Organic Compounds
TIAR - Traffic Impact Analysis Report
TMK - Tax May Key

TN - Total Nitrogen
TSS - Total Suspended Solids
UIC - Underground Injection Control
UGB - Urban Growth Boundary
UH - University of Hawai`i
USDA - U.S. Department of Agriculture
USGS - U.S. Geological Survey
Veh - Vehicle
VOC - Volatile Organic Compounds
Vog - Volcanic Emissions
W - Water
WQC - Water Quality Certification
WRF - Wastewater Reclamation Facility
WRPP - Water Resources Protection Plan
WWTP - Wastewater Treatment Plant
WUDP - Water Use and Development Plan
WyC - Wainee Extremely Stony Silt Clay

Executive Summary

Project Name:	Proposed Olowalu Town Master Plan
Type of Document:	~~Draft~~Final Environmental Impact Statement
Legal Authority:	Chapter 343, Hawai`i Revised Statutes
Agency Determination:	Environmental Impact Statement
Applicable Chapter 343, HRS Triggers:	Proposed Amendment to West Maui Community Plan; Use of State Lands; Use of Conservation Lands; Construction of Wastewater Treatment Facilities
Location:	TMK Nos. (2)4-8-003:84, 98 through 118, and 124 Olowalu, Maui, Hawai`i
Landowner:	Olowalu Elua Associates, LLC and Olowalu Ekolu, LLC
Applicant:	Olowalu Town, LLC and Olowalu Ekolu, LLC ~~2073 Wells Street, Suite 101~~2035 Main Street, #100 Wailuku, Hawai`i 96793 Contact: Bill Frampton Phone: (808) 249-2224
Accepting Authority:	State Land Use Commission P. O. Box 2359 Honolulu, Hawai`i 96804 Contact: ~~Dan Davidson~~Daniel E. Orodenker, Executive Officer Phone: (808) 587-3822
Consultant:	Munekiyo ~~&~~ Hiraga~~, Inc.~~ 305 High Street, Suite 104 Wailuku, Hawai`i 96793 Contact: Colleen Suyama, Senior Associate Phone: (808) 244-2015

~~**Project Summary**~~

1. Brief Description:

The Olowalu Town Master Plan (~~Master Plan~~OTMP) ~~is proposing to establish~~represents the

establishment of a new community in the once thriving Olowalu plantation town, located on the west side of the island of Maui. The ~~Master Plan~~OTMP will be a small-scale and mixed-use community designed to be pedestrian-friendly which will allow residents to live within walking distance of stores, schools, parks, employment opportunities, community centers, beaches, and social and civic resources, ultimately reducing reliance on automobiles. The ~~Master Plan~~OTMP is guided by values and principles of sustainability by balancing the needs of Maui's growing population; yet maintaining and respecting our cultural, historical and natural resources.

At final build-out, the ~~Master Plan~~OTMP will consist of approximately 1,500 residential dwelling units to be built concurrent with appropriate infrastructure in phases spread out over a period of approximately 10 years. There will be a wide variety of single-family and multi-family dwelling types, including houses, apartments, townhouses, live-work units, cottages, rural homes and farmsteads, to be offered at a wide-range of income levels, including both rental and fee-ownership. A substantial portion of the homes are planned for much-needed affordable housing and senior living.

The ~~Master Plan's~~OTMP's proposed infrastructure improvements will incorporate innovative, efficient, and sustainable technology to minimize adverse impacts upon the natural environment. The ~~Master Plan's~~OTMP's transportation system includes the relocation of the existing Honoapi`ilani Highway away from coastal resources to a new mauka alignment, which will be designed to accommodate mass transit or light rail, if needed in future. The existing highway corridor and monkey-pod trees will be preserved and converted to a secondary coastal roadway. The project will include an internal roadway network, consisting of an assortment of interconnected greenways and bikeways linkages in the community that support overall well-being and health of residents while reducing dependency on automobiles.

Additionally, other infrastructure system improvements will require an expansion of both the existing ~~potable~~drinking and ~~non-potable~~non-drinking water system, an extensive drainage system to capture stormwater runoff and construction of an onsite decentralized wastewater treatment plant, which will include a R-1 water storage tank, a constructed vertical flow wetland, and a soil aquifer treatment system. The wastewater treatment plant will produce clean recycled water for irrigation, and thereby eliminate the need for injection wells.

2. Significant Beneficial and Adverse Impacts:

This Environmental Impact Statement (EIS) has been coordinated with the State of Hawai`i Land Use Commission (SLUC) to fully document and evaluate the technical characteristics, environmental impacts, and alternatives associated with the proposed project. As reflected on the County of Maui's adopted Maui Island Plan (MIP), the project is located within a future Urban Growth Boundary (UGB) and Rural Growth Boundary (RGB).

The OTMP will provide needed housing for Maui's residents in the context of a master planned community providing potential centers of employment, as well as offering daily

goods and services to the community's residents.

Necessary engineering infrastructure systems and services will be provided for the OTMP. In addition, the project is expected to have a beneficial impact on the local economy during construction and in the long term. Real property taxes generated by the project's residents will contribute to the County's revenue tax base to support increases in regional public service demand over time.

From an infrastructure use perspective, project implementation will result in improved water and fire protection, sewers, drainage improvements to reduce the existing sedimentation into the nearshore waters, roadways and recreational improvements for the Olowalu community.

As the project progresses, the Applicants will continue to consult with the environmental community, such as Polanui Hiu and Maui Nui Marine Resources Council, to implement mitigation measures aimed at reducing impacts to marine waters. Also, ongoing consultation with the Olowalu Cultural Reserve (OCR), Olowalu residents, and native Hawaiian community will be conducted to implement mitigation measures for archaeological and cultural resources.

The OTMP will remove previously productive farmlands from the State "Agricultural" District. Since the demise of Pioneer Mill Co. in 1999, agricultural activity on these farmlands have been marginal. Much of the land has been left fallow, used for non-income producing grazing to control vegetation and minimize the threat of fire, and used for non-agricultural use (paintball). The removal of these farmlands is not expected to adversely impact agricultural resources on Maui Island and in the State of Hawai`i.

3. Proposed Mitigation Measures:

Impacts resulting from infrastructure use will be mitigated through the provision of improved and additional onsite resources (drinking and non-drinking water systems, master drainage system, wastewater treatment plant (WTP) without injection wells, and provision of land for the realignment of Honoapi`ilani Highway and public/quasi-public facilities) and payment of applicable impact fees (West Maui Impact District for Education Facilities). In the long term, taxes generated by project residents will help to offset costs of increased regional public services demand.

Impacts to Olowalu Stream and the nearshore waters and marine environment will be mitigated through implementation of the proposed Stormwater Quality Enhancements and Low Impact Development (LID) measures that aim to reduce the amount of stormwater from the OTMP and improve water quality of the runoff. These drainage improvements are also expected to reduce flooding in the "AO" zone near Kapa`iki, which is planned for parks and open space.

The Applicants will continue to support the OCR's traditional agriculture and restoration of native plants and habitat, as well as propose an expansion of the OCR. In addition, the

OTMP proposes agricultural lots along Olowalu Stream, rural lots that would allow agriculture, and opportunity for neighborhood gardens within the urban areas.

The OTMP maintains an existing 150 ft. shoreline setback along the shoreline of its makai properties established by the Maui Planning Commission in 2000. The existing setback accommodates potential impacts from shoreline erosion and anticipated sea level rise.

4. Alternatives Considered:

The Applicants evaluated the OTMP, Maui Island Plan (MIP) Urban Growth Boundary (UGB) and Rural Growth Boundary (RGB), no action, deferred action, alternative uses and locations, and infrastructure development alternatives. The OTMP and MIP UGB and RGB alternatives address the critical timely need for resident housing on Maui island and the Applicants' desire to create a sustainable community following the principles of the ahupua`a. The other alternatives identified do not address these significant planning principles.

5. Unresolved Issues:

The following issues were unresolved at the time of writing the Final EIS:

Formulation of Unilateral Agreement and Marketing Program for Affordable Units: As the project proceeds, a unilateral agreement and market program for affordable housing will be required. Sales prices for the affordable units will be established at the time of development in accordance with an affordable housing agreement to be entered into with the Department of Housing and Human Concerns.

Maui Island Plan: The lands makai of Honoapi`ilani Highway in the OTMP were not included in the UGB. In accordance with the MIP, during the updating of the West Maui Community Plan, the Applicants will request the inclusion of the makai lands to enable the extension of the OTMP boundaries to lands makai of the Honoapi`ilani Highway.

Satisfaction of Public Facilities Contribution Requirements: While preliminary discussions have been held with the appropriate government agencies, additional coordination will be required to determine Applicants' fair share contributions, fulfillment of applicable impact fees, and specific locations of public facilities prior to project implementation.

Realignment of Honoapi`ilani Highway: The State of Hawai`i Department of Transportation (HDOT) has not determined the specific realignment and design parameters through Olowalu for the highway.

Traffic Improvements: Although a Final Traffic Impact Analysis Report (TIAR) was prepared, as the project progresses through the land use entitlements and permitting processes, more defined project plans will be developed requiring additional TIARs. Future TIARs prepared in connection with the OTMP will provide greater specificity with regard

to traffic mitigation requirements. The Final TIAR has been submitted to the HDOT. Coordination with the HDOT is considered an ongoing process, with actions and agreements evolving as conditions change over time. In this regard, the HDOT's review of the Final TIAR is addressed herein as an unresolved issue.

Cultural Resources: Cultural participants identified several concerns related to management of ocean resources, commercialized ocean activities, preservation of cultural sites and preservation of cultural traditions which will require further discussions with the participants, as well as Federal, State, and County agencies.

6. Land Use Plans and Policies:

The OTMP will require several land use entitlements, including a State District Boundary Amendment (DBA), Community Plan Amendment (CPA) to the West Maui Community Plan, and Change in Zoning (CIZ) in order to be consistent with State and County land use plans and policies. Concurrent with the EIS, a Petition for a State Land Use DBA has been filed with the SLUC. A CPA application, CIZ application, and Project District Phase I application will be filed with the County of Maui following the DBA process.

The OTMP has been evaluated in accordance with the SLUC's standards for Urban and Rural lands, the Hawai`i State Plan, and State Functional Plans.

The OTMP has been evaluated in accordance with the Maui County General Plan, including the Countywide Policy Plan and MIP; the West Maui Community Plan and Maui County Code.

7. Listing of Permits or Approvals:

The OTMP will require several land use entitlement approvals in order to proceed. A summary of the current land use parameters are presented below:

Land Use Parameter	Existing Use	Proposed Use
State Land Use District	Agricultural	Urban and Rural
West Maui Community Plan	Agricultural, Park, Open Space	Project District
County Zoning	Agricultural, Hotel, A-2 Apartment, R-3 Residential	Project District

In addition, upon approval of the land uses, the OTMP will require Project District Phase II and III approvals, Special Management Area (SMA) Permit for the lands in the SMA, subdivision approvals, and applicable construction-related permits.

I. PROJECT OVERVIEW

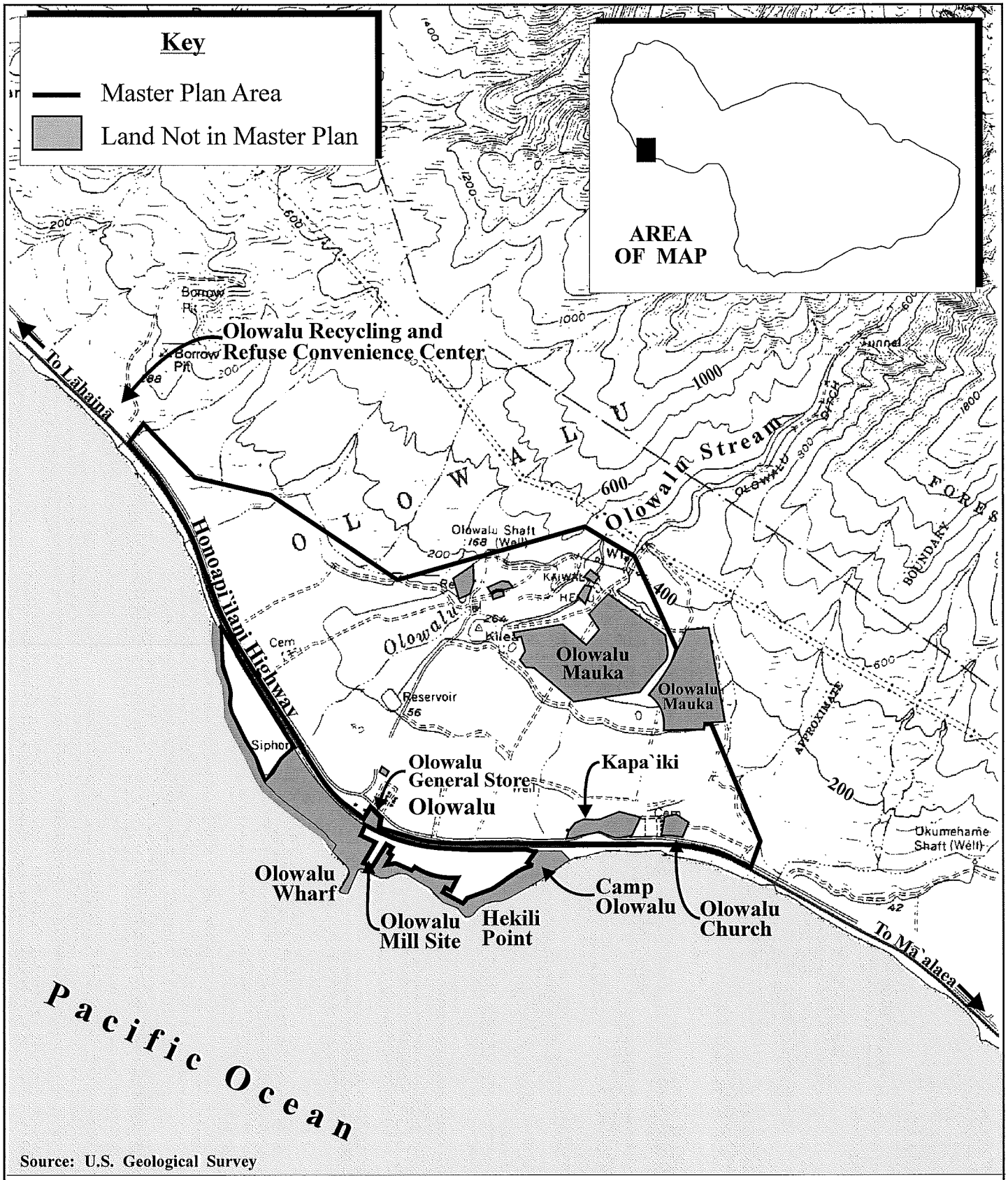
I. PROJECT OVERVIEW

A. PROPERTY LOCATION, OWNERSHIP, AND CURRENT LAND USE

Olowalu is located along Honoapi`ilani Highway, approximately four (4) miles south of Lāhainā Town on the southwestern foothills of the West Maui Mountains. See **Figure 1**. Olowalu is known for its small village environs which includes the Olowalu General Store and Leoda's Kitchen and Pie Shop. Surrounding the store are plantation-era single-family residences, including a single-family residential cluster located to the south, known as Kapa`iki, and Olowalu Church. ~~the~~The former plantation manager's house, associated residences, and Camp Olowalu~~ (formerly Camp Pecusa)~~, a privately operated campground with cabin and tent sites, are located makai of Honoapi`ilani Highway. Mauka of Honoapi`ilani Highway on Luawai Street is the 14-lot Olowalu Mauka Subdivision. See **Figure 2**.

Since the termination of sugar cultivation activities by Pioneer Mill in 1999, the lands surrounding Olowalu have been utilized for small farming operations or have remained fallow. Lands have been subdivided, with a limited number of lots sold to individual purchasers. The ownership of the lands surrounding the existing village are retained by Olowalu Elua Associates, LLC (majority owner) and Olowalu Ekolu, LLC (Parcel 124). Olowalu Town, LLC has an option agreement to purchase the lands owned by Olowalu Elua Associates, LLC. Olowalu Town, LLC and Olowalu Ekolu, LLC are the Applicants for a proposed master planned community on these surrounding lands.

The Master Plan area is currently defined by twenty-three (23) ~~agricultural~~ parcels located in the State Land Use "Agricultural" District encompassing approximately 636 acres, as depicted in **Figure 3**. Tax Map Key identification assignments for each of the twenty-three (23) parcels are summarized in **Table 1**.



Source: U.S. Geological Survey

Figure 1 Proposed Olowalu Town Master Plan

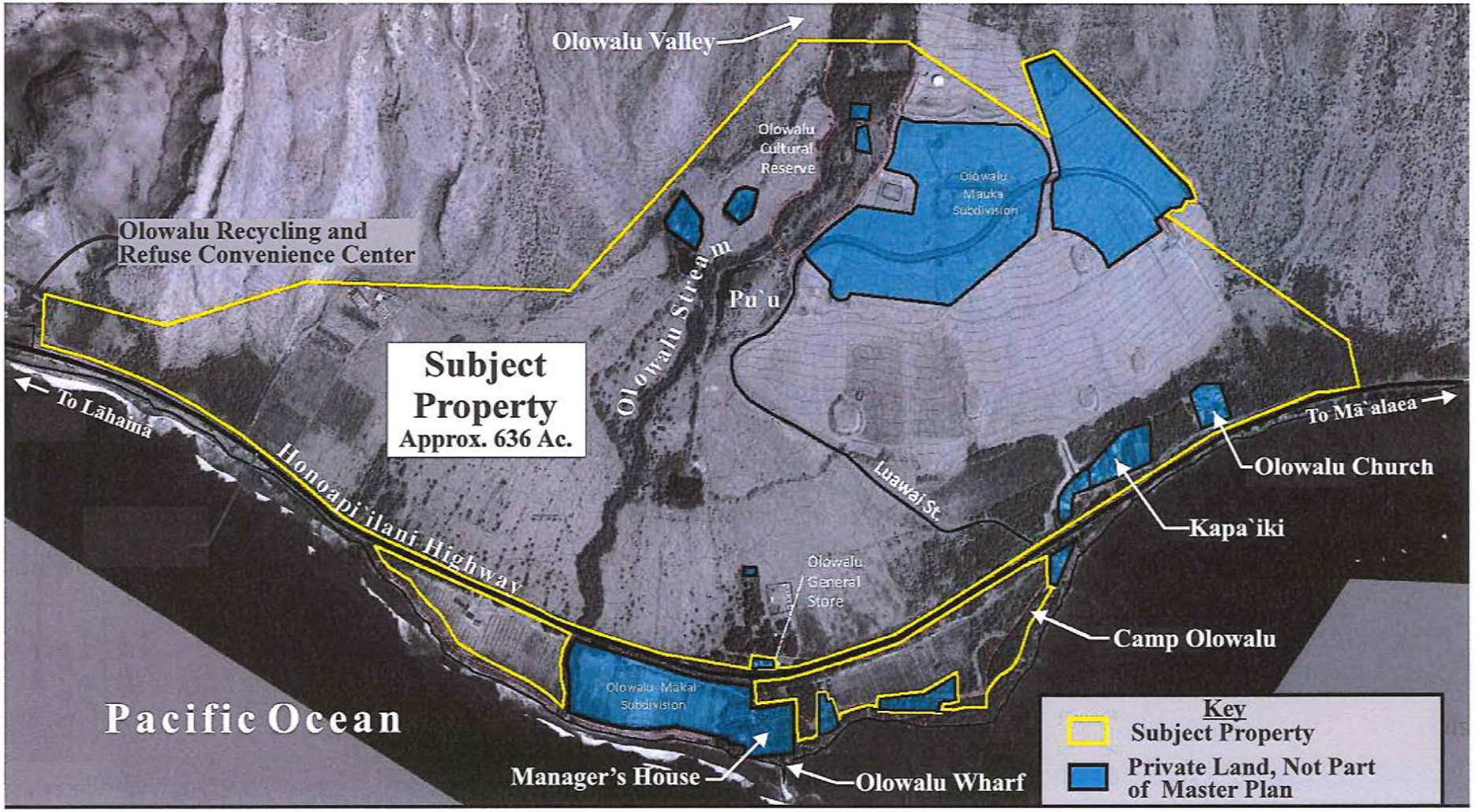
Regional Location Map

0 500 1000 2000 Feet

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

Olowalu Town\MasterPl\Final EIS\regional



Source: Olowalu Town, LLC and Google Maps (2011)

Figure 2

Proposed Olowalu Town Master Plan

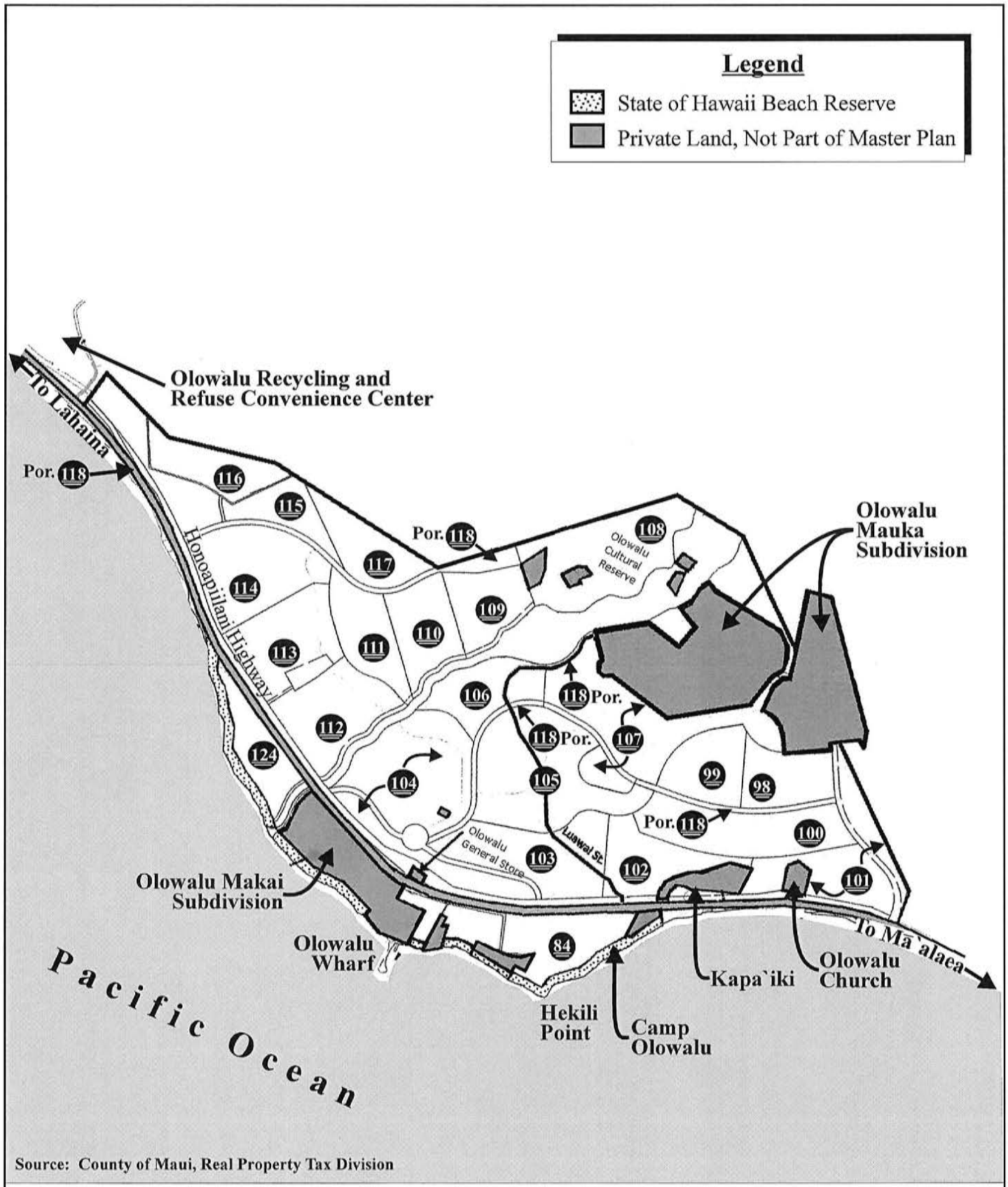
Aerial Photograph of Project Site

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/aerialphoto(revised)



Source: County of Maui, Real Property Tax Division

Figure 3

Proposed Olowalu Town Master Plan

Tax Map Key Parcel Designations

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown/MasterPl/Final EIS/taxmap

Table 1. Olowalu Town Master Plan Parcel Identification Summary

Tax Map Key	Acres	Tax Map Key	Acres
4-8-003:084	28.894	4-8-003:109	16.167
4-8-003:098	15.027	4-8-003:110	17.220
4-8-003:099	15.575	4-8-003:111	16.582
4-8-003:100	27.113	4-8-003:112	24.610
4-8-003:101	29.379	4-8-003:113	25.211
4-8-003:102	16.881	4-8-003:114	28.839
4-8-003:103	27.799	4-8-003:115	26.184
4-8-003:104	50.301	4-8-003:116	16.038
4-8-003:105	40.734	4-8-003:117	15.589
4-8-003:106	16.677	4-8-003:118 (Roadway Lots)	8.285 (35)* 3.279 (36)* 3.229 (37)* 5.730 (38)* 22.186 (39)*
4-8-003:107	41.143	4-8-003:124**	16.086
4-8-003:108	81.045		
		Total	**635.803**

Note: *Roadway lot number
** Owned by Olowalu Ekolu, LLC; all other parcels owned by Olowalu Elua, LLC

B. BACKGROUND

The Olowalu Ahupua`a begins at elevation 4,457 feet, atop Pu`u Kukui and directly behind the head of `Īao Valley in Wailuku. From this narrow point, its boundaries trace downhill through Olowalu upper valley with Līhau Mountain on the north, and Līhau `Ula Mountain on the south. Olowalu Valley and `Iao Valley were linked by an ancient trail until recent landslides covered the trail summit.

Olowalu Valley opens up to a gently sloped, fan-shaped alluvial plain. Historically, hawaiian planters filled these arable lands or kula with food crops such as taro, sweet potato and breadfruit, and material crops like kukui, wauke, `olonā, pili, and naio. A meandering stream and network of irrigation ditches nourished these crops. Olowalu was known for dry land

taro and luxuriant shady breadfruit groves.

Olowalu Valley is a pu`uhonua, or sanctuary, which existed from prehistoric times for anyone fleeing oppression. Persons pursued for committing an offense against a family group or an ali`i were untouchable once they stepped inside its borders. Violating pu`uhonua sanctuary was punishable by death. For Pacific Island cultures, maintaining order, preserving peace, and restricting bloodshed were family and cultural tenets. For people on Maui, the haven of Olowalu created an interval of space and time during which misunderstandings and fiery emotions might resolve—trespasses made right.

In ~~2006~~1999, the Olowalu Cultural Reserve (OCR), community based, non-profit organization with the purpose of supporting and promoting the revitalization of traditional Hawaiian culture by providing cultural and educational experiences for Hawai`i residents and visitors alike, undertook the restoration of 74 acres from Olowalu Valley to the ocean along Olowalu Stream. Refer to **Figure 2** and **Figure 3**. The OCR is a nonprofit organization who are the stewards of the land, as follows.

- Manage the archaeological and cultural sites within the OCR.
- Support the restoration of traditional and customary agricultural practices within the OCR.
- Support educational experiences that demonstrate the resourcefulness and practicality of indigenous Hawaiian people through their relationship to the 'aina.
- Support educational experiences of contemporary applications of traditional and customary practices.

As stewards of the OCR, it is the goal of the OCR to promote the following:

- Provide opportunities for kanaka maoli to renew their spiritual connection to the 'aina and become recultured in Hawaiian consciousness.
- Provide educational experiences which share cultural history and traditional practices of our ancestors throughout the Pacific.
- Develop and support programs and activities that will foster a perpetual sharing of mana`o with present and future generations.
- Foster relationships with other cultural programs that emphasize education

and/or the health and welfare of kanaka maoli.

- Promote aloha and respect for all cultures.

The OCR is continuing in its efforts by restoring the former irrigation systems and lo`i's for taro cultivation as well as planting other traditional crops, restoring native habitat, working with the landowners to protect historic and cultural sites, and providing educational experiences to students, residents and visitors. The OCR is rebuilding the ahupua`a which occurs at many levels, but the foundation is a process of recreating an educational and cultural pu`uhonua or sanctuary.

When the Olowalu hills were cleared of sandalwood and hardwoods, Olowalu Valley became a much dryer environment, from mountains to shore. Reforestation of Līhau with sandalwood and `ohi`a lehua is a major long-range goal of the OCR, and a huge undertaking requiring partnership with the Department of Land and Natural Resources (DLNR). Increased condensation drip in the high forest, added to conservation methods on the kula, are an opportunity to restore past moisture levels to Olowalu Valley.

Every activity in an ahupua`a was carried out within the context of a spiritual and cultural belief system that maintained harmony, balance, and peace for both seen and unseen life forms of all creation. ~~Restoring the OCR is a foundation for bringing the concept of sanctuary back into present day culture, and redeeming the powerful history of Olowalu as a functioning pu`uhonua.~~The OCR is a kīpuka (oasis) for saving the life and culture of Hawai`i from the present to the past and is intent on redeeming the powerful history of Olowalu as a pu`uhonua.

The Olowalu Town Master Plan (~~Master Plan~~OTMP) respects and supports the restoration of the OCR in the planning for Olowalu Town. The cultural, archaeological and environmental significance of Olowalu were important factors in shaping the vision for the development of the ~~Master Plan~~OTMP.

C. COMMUNITY BASED PLANNING

In November 2005, the Applicants mailed out 65,000 copies of their initial newspaper (*Olowalu Talk Story* Vol. 1, No. 1.) to every mailbox on the island of Maui, as well as~~;~~ provided radio announcements and newspaper ads. See **Appendix "T"**. The goal was to invite Maui residents to attend *Olowalu Talk Story*, a week-long community-based planning workshop (design charrette). The design charrette was to provide the residents an

opportunity to discuss the establishment of a community at Olowalu.

The workshop did not begin with a pre-determined master plan; rather it began with a blank slate. The goal was to work with the community to create a plan for Olowalu that reflected both Maui's small town values and innovative design concepts including "New Urbanism". The total participation number was 1,350 and included residents, public agencies, non-profits, ~~and~~ local architects, and engineers.

During the Olowalu Talk Story workshop, participants and ~~town~~project planners exchanged valuable knowledge and experiences. ~~Town planners~~The design team learned essential information about Maui's culture and lifestyle, including the need to preserve Maui's quality of life, provide affordable housing for Maui's residents, and preserve the island's natural resources. Further, the design team learned about Olowalu's existing land conditions, natural resources, archaeological and historic sites, drainage patterns, climate, scenic resources, and other critical components. This information was then used as a framework for town planning.

Throughout the planning workshop, a number of alternative designs were presented to participants for review, comment, and immediate feedback. See **Appendix "A"**. The site plans were continuously evaluated, assessed, and updated to ~~insure~~ensure the integration of the following design components:

- The basic building block for Olowalu Town is the mixed-use neighborhood. Neighborhoods will have defined centers, shops and stores to satisfy daily household needs, and a variety of places to live and work.

- The ideal size or scale of a walkable neighborhood is measured by a 5-Minute Walk with only a ¼ mile from center to edge (defined as a "Pedestrian Shed"). The neighborhood center is a gathering place, such as a town square, a park, town center, or green space.

- Pedestrian-friendly, tree-lined roadways and connective street network.

- A wide variety of housing types, including affordable, senior, market, single-family, multi-family, and rental.

- Easy access to open spaces, parks, beaches, greenways, trails, and bike ways.

- Environmentally sensitive infrastructure systems to include roadways, water, wastewater, and utility systems.

- Sites for community centers, social services, schools, police, fire, and medical facilities.

- Neighborhood town centers for local businesses with economic opportunities for residents, including live/work units and access to daily services.

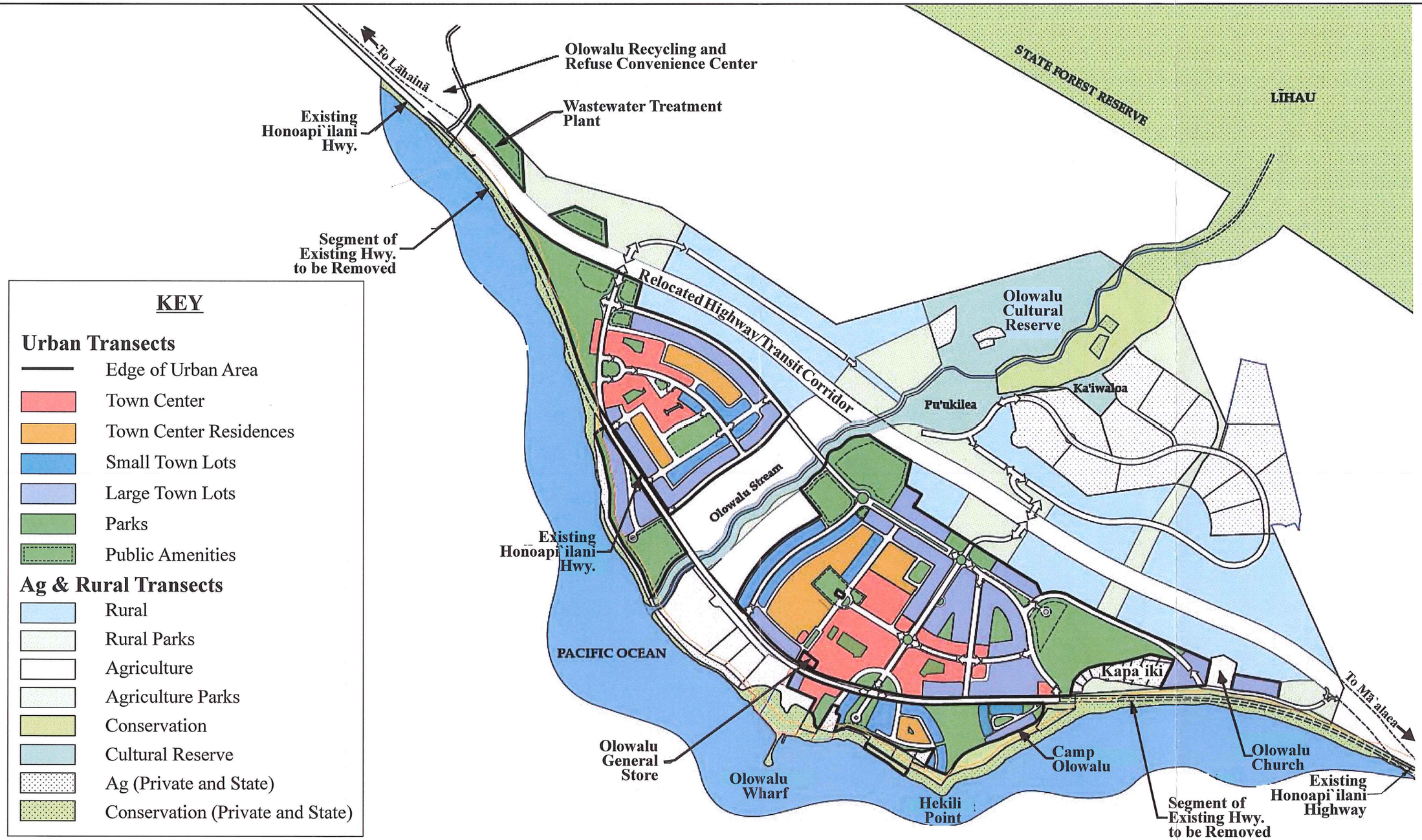
Since 2005, the Applicants have continued the community-based planning process and continued to meet with neighborhood and community organizations, non-profit groups, and elected and appointed government officials through community presentations, dialogue and feedback. Refer to **Appendix "T"**. The Applicants also hosted a weekly radio show "Small Town Maui" between May 2007 through March 2009 to share the memories and values of small towns and to learn from Maui's past to create a better future in conjunction with the Maui Island Plan (MIP). The proposed conceptual Master Plan is the culmination of this extensive community-based planning process.

D. PROPOSED ACTION

1. Action Overview

The ~~Master Plan~~OTMP proposes to establish a new community in the once thriving Olowalu plantation town, located on the west side of the island of Maui. The subject property encompasses the lower coastal reaches of Olowalu Ahupua`a; between the base of the southwest facing slopes of West Maui Mountains and the shoreline of Olowalu. The Master Plan area will be a mixed-use community designed to be pedestrian-friendly, which will allow residents to live within walking distance of stores, schools, parks, employment opportunities, community centers, beaches, and social and civic resources, ultimately reducing reliance on automobiles. The ~~Master Plan~~OTMP is guided by values and principles of sustainability by balancing the needs of Maui's growing population; yet maintaining and respecting our cultural, historical and natural resources for the benefit of future generations.

At final build-out, the ~~Master Plan~~OTMP will consist of approximately 1,500 residential dwelling units to be built concurrent with appropriate infrastructure in phases spread out over a period of approximately 10 years. There will be a wide variety of single-family and multi-family dwelling types, including houses, apartments, town houses, live-work units, cottages, rural homes and farmsteads, to be offered at a wide-range of income levels, including both rental and fee-ownership. A substantial portion of the homes are planned for much-needed affordable housing and senior living. See **Figure 4** and **Appendix "A-1"**.



Source: Artel, Inc.

Figure 4

Proposed Olowalu Town Master Plan

Conceptual Master Plan
(Alternative 1, Preferred Plan)

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

OlowaluTown/MasterPl/Final EIS/conceptualplan(revised)

2. Approach to Preparing the Final EIS

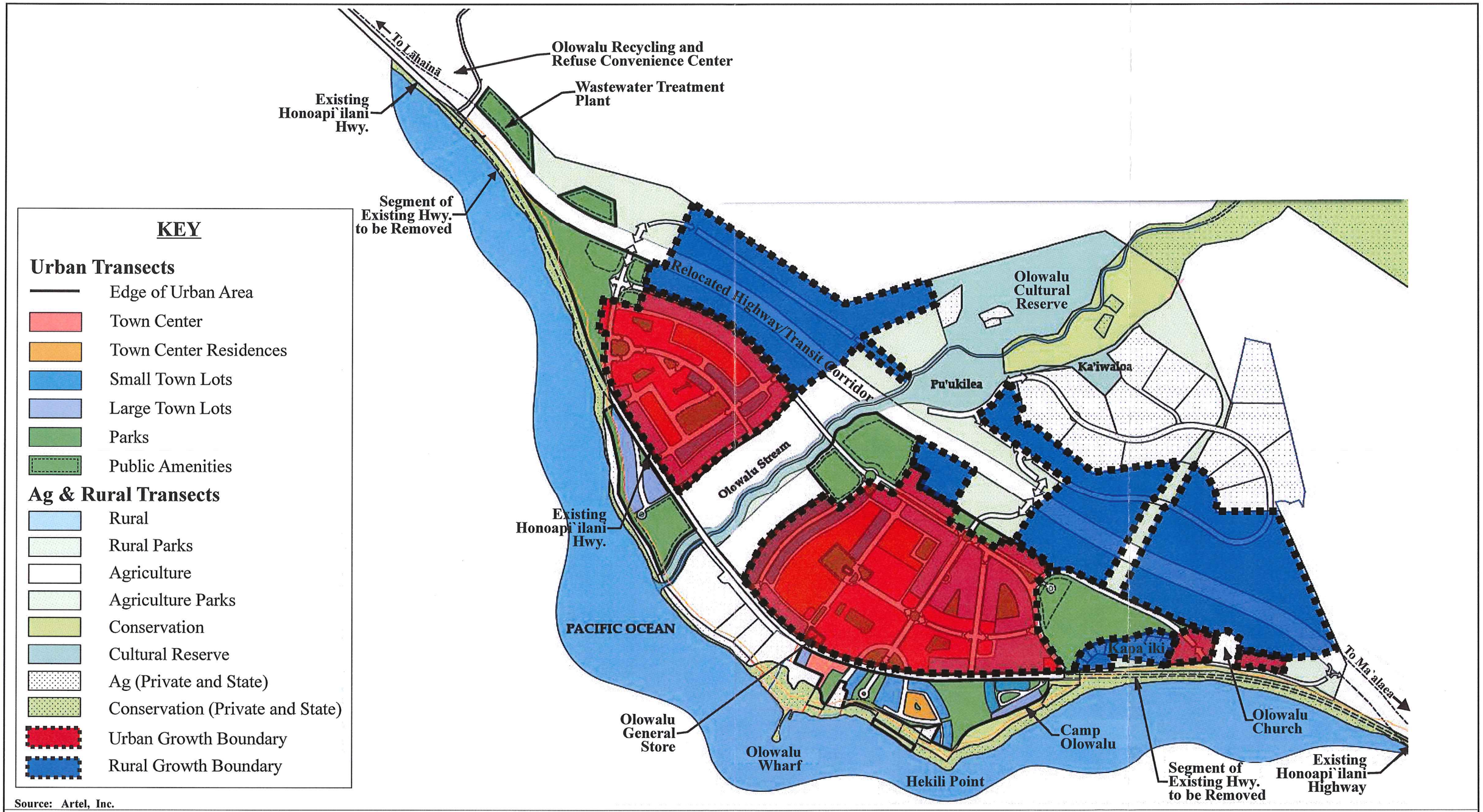
In the time since the publication of the Draft EIS in 2012, the County of Maui adopted the MIP on December 28, 2012 (Maui Ord. No. 4004). See **Figure 4A** and **Appendix "R"**. The MIP directed growth maps establish that the Olowalu area is appropriate for future urban and rural growth. Chapter 8 of the MIP outlines the location of future growth and the general character of future development with more specificity to be developed during the Community Plan process.

Under the MIP, the portion of the master plan area that is located makai of the existing Honoapi`ilani Highway was not expressly put within the Urban Growth Boundary (UGB). However, areas of the OTMP located mauka of the existing Honoapi`ilani Highway is within the UGB and the Rural Growth Boundary (RGB). With respect to the areas makai of the existing Honoapi`ilani Highway, the MIP states that *"The future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan. Such delineation may consider the need to: protect adjacent coastal and marine ecosystems (including the reefs at Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway plan."* (MIP at 8-64).

The Master Plan concept presented in the Draft EIS is the preferred alternative, with the Applicants anticipating the preparation and processing of an application to amend the West Maui Community Plan to ensure land use consistency for the makai lands, as provided by the MIP, as well as consistency for the mauka lands.

Notwithstanding, the Applicants recognize that the MIP's concept for Olowalu, by virtue of being a component of the General Plan, represents an alternative which needs to be addressed.

Chapter II of this EIS document addresses both the Preferred Alternative (i.e., that is presented in the Draft EIS) as well as the MIP Alternative (i.e., without lands makai of Honoapi`ilani Highway), in detail, together with the "No Action", "Deferred Action", "Resort and Residential Use" alternative, "Other Locations" alternative, and alternative "Infrastructure Development Considerations". For ease of referencing in this document, the Preferred Alternative is labeled as "Alternative 1" while the MIP Alternative is labeled as "Alternative 2".



Source: Artel, Inc.

Figure 4A

Proposed Olowalu Town Master Plan

Maui Island Plan Directed Growth Map Boundaries

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

OlowaluTown/MasterPl/Final EIS/MIP Directed Growth Map

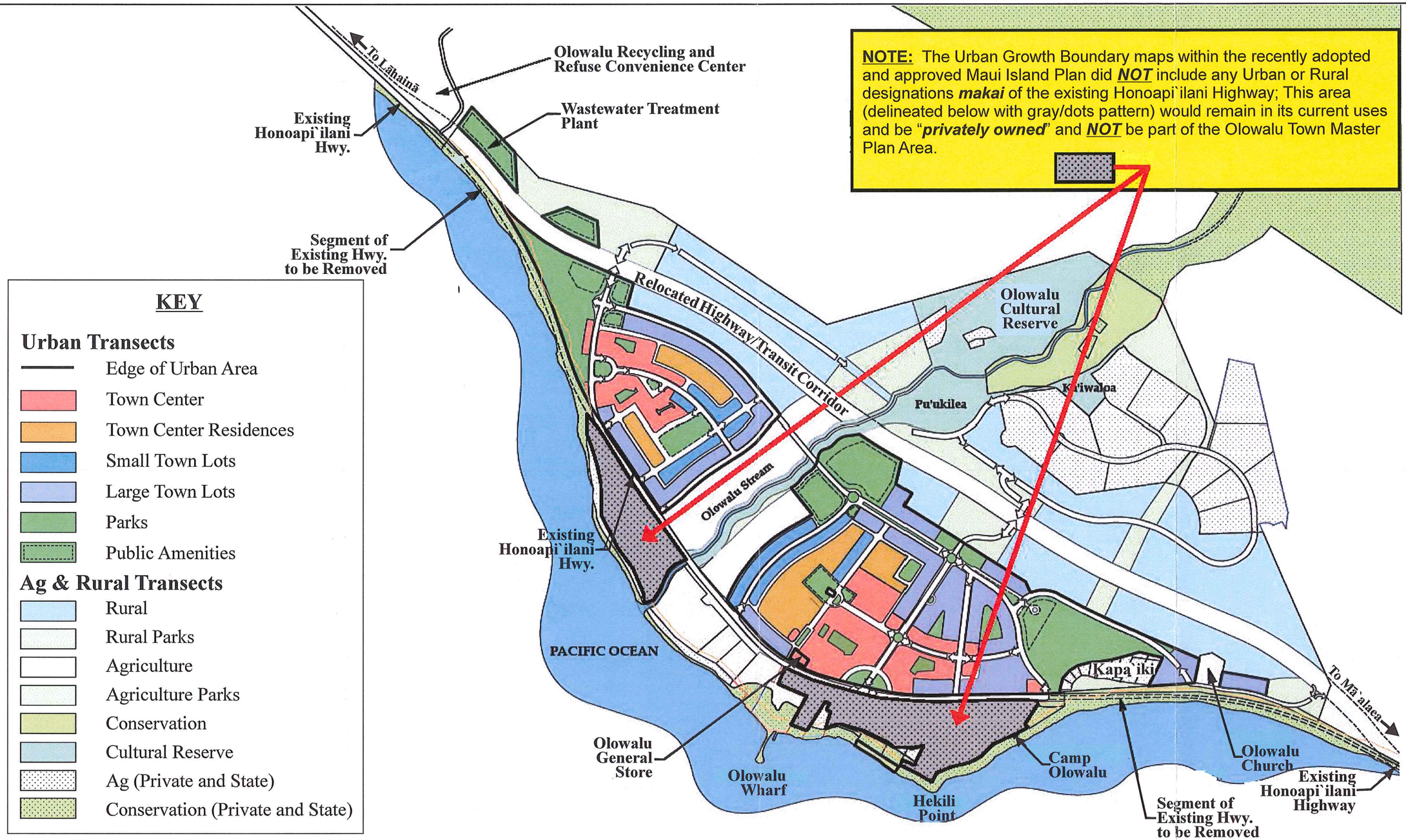
In a regional planning context, Alternative 2, as described in Chapter II of this EIS document, is considered an appropriate variation of Alternative 1, worthy of detailed review. Towards this end, to bring further value to the EIS disclosure process, both Alternative 1 and Alternative 2, are described in substantially similar detail in this, and subsequent chapters of the EIS. It is noted that consultant studies are applicable to both alternatives.

Alternative 1 and Alternative 2 are identical in terms of development outcomes (e.g., 1,500 residential units and 300,000 - 375,000 square feet of commercial floor area). Both Alternative 1 and Alternative 2 seek to establish a new small-scale and mixed-use community designed to be pedestrian-friendly, the design of which is guided by values and principles of sustainability. The residential unit count is the same in both Alternatives, and the proposed mix of residences with single-family and multi-family dwelling types, including houses, apartments, townhouses, live-work units, cottages, rural homes and farmsteads, to be offered at a wide-range of income levels, including both rental and fee-ownership. In both Alternative 1 and Alternative 2 substantial portion of the homes are planned for much-needed affordable housing and senior living. The infrastructure system improvements are substantially the same. As such, Alternative 2 is a minor variation of Alternative 1 and, Alternative 2 is qualitatively similar to Alternative 1. Although Alternative 2 does not include the makai lands, from the perspective of environmental impacts, it is within the spectrum of what was previously discussed for Alternative 1.

To be clear however, it is the Applicants' intent to seek land use entitlements to enable implementation of Alternative 1(Preferred Alternative).

Alternative 1's land use spatial layout reflected in **Figure 4** includes the potential use of lands mauka and makai of Honoapi`ilani Highway.

Alternative 2, which excludes development makai of Honoapi`ilani Highway, is shown in **Figure 5**. Refer to **Appendix "A-1"**.



Source: Artel, Inc.

Figure 5

Proposed Olowalu Town Master Plan

Maui Island Plan Growth Boundary Conceptual Plan (Alternative 2)

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

OlowaluTown/MasterPl/Final EIS/Alt2 ConceptualPlan

New Urbanism

The Congress for the New Urbanism (CNU) is a leading organization across the United States promoting walkable, mixed-use neighborhood development, sustainable communities and healthier living conditions. For nearly twenty years, CNU members have used the principles in CNU's Charter to promote the hallmarks of New Urbanism, including the following guiding principles of New Urbanism used to develop the ~~Master Plan~~Alternatives 1 and 2.

1. **Walkability:** Uses are within a 10-minute walk of home and work, pedestrian friendly street design, and pedestrian streets free of cars in special cases

2. **Connectivity:** Interconnected street grid network to disperse traffic and ease walking, a hierarchy of streets, and high quality pedestrian network and public realm to make walking pleasurable

3. **Mixed-Use and Diversity:** A mix of shops, offices, apartments and homes on site; mixed-use within neighborhoods, within blocks and within buildings; and diversity of people (ages, income levels, cultures and races)

4. **Mixed Housing:** A range of types, sizes and prices in closer proximity

5. **Quality Architecture and Urban Design:** Emphasis on beauty, aesthetics, human comfort and creating a sense of place; special placement of civic uses and sites within community and human scale architecture and beautiful surroundings to nourish the human spirit

6. **Traditional Neighborhood Structure:** Discernable center (public space at center) and edge; importance of quality public realm, public open space designed as civic art; contain a range of uses and densities within 10-minute walk; transect planning integrating environmental methodology for habitat assessment with zoning creating an urban-to-rural transect with the highest densities at the town center, progressively less dense towards the edge, creating a series of specific natural habitats and/or urban lifestyle settings

7. **Increased Densities:** More buildings, residences, shops and services closer together for ease of walking to enable a more efficient use of services and resources and to

create a more convenient enjoyable place to live

8. **Green Transportation:** A network of transportation modes connecting cities, towns and neighborhoods together; and pedestrian friendly design that encourage the use of bicycles, scooters and walking as daily transportation

9. **Sustainability:** Minimal environmental impact from development and its operation; use of eco-friendly technology; energy efficiency; reduction in use of finite fuels; more walking and less driving; and more production

10. **Quality of Life:** Taken together the principles create a high quality of life making it worth living and create places that enrich, uplift and inspi.re the human spirit

LEED

Andres Duany of Duany, Plater-Zyberk, one of the co-founders of CNU, helped to develop the ~~M~~master ~~P~~plan which incorporates smart growth and sustainable land use principles of New Urbanism. The ~~M~~master ~~P~~plan's spatial layout of land uses, varying density, connective transportation, parks/greenways, civic/social facilities, housing, employment, and other land uses are balanced to create a mixed-use community. Neighborhood town centers provide economic sustainability with a range of business and employment opportunities. The Master Plan is also designed with the goal of meeting the certification requirements of *Leadership in Energy and Environmental Design for Neighborhood Development* (LEED ND) (U.S. Green Building Council). See **Appendix "A-~~1~~2"**. As such, the ~~M~~master ~~P~~plan will be built using strategies aimed at improving performance in regards to energy savings, water efficiency, reducing carbon dioxide (CO^2) emissions, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Recognizing the trend toward the implementation of sustainable principles, in 2015, the State of Hawai`i Senate adopted Senate Resolution No. 121 that recommends *"Encouraging the Adoption and Implementation of Office of Planning, Land Use Commission, Hawaii Community Development Authority, Hawaii Housing Finance and Development Corporation, and County Planning Departments to Adopt and Implement Recommendations Highlighted in the Building Healthy Places Toolkit Report by the Urban Land Institute"* which outlines 21 recommendations promoting health at the building or project scale, as follows.

1. Incorporate a mix of land uses
2. Design well-connected street networks at the human scale
3. Provide sidewalks and enticing, pedestrian-oriented streetscapes
4. Provide infrastructure to support biking
5. Design visible, enticing stairs to encourage everyday use
6. Install stair prompts and signage
7. Provide high-quality spaces for multi-generational play and recreation
8. Build play spaces for children
9. Accommodate a grocery store
10. Host a farmers market
11. Promote healthy food retail
12. Support on-site gardening and farming
13. Enhance access to drinking water
14. Ban smoking
15. Use materials and products that support healthy indoor air quality
16. Facilitate proper ventilation and airflow
17. Maximize indoor lighting quality
18. Minimize noise pollution
19. Increase access to nature
20. Facilitate social engagement
21. Adopt pet-friendly policies

These recommendations will be incorporated into the planning and design of the OTMP through consideration of New Urbanism's ten principles consisting of 1) Walkability, 2) Connectivity, 3) Mixed-Use and Diversity, 4) Mixed Housing, 5) Quality Architecture and Urban Design, 6) Traditional Neighborhood Structure, 7) Increased Densities, 8) Green Transportation, 9) Sustainability, and 10) Quality of Life.

As noted previously, consideration has been given to smart growth and sustainable land use principles of New Urbanism through the requirements of LEED ND which is aimed at promoting strategies to improve performance in regards to energy savings, water efficiency, reducing carbon dioxide emissions, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Smart Code

The Master Plan for Alternatives 1 and 2 proposes to integrate the "SmartCode" principles as a comprehensive land development ordinance that includes zoning, subdivision regulations, urban design, public works standards, and basic architectural controls. The SmartCode is envisioned as the means to enable the implementation of the community's

vision for Olowalu developed during the community-based "Olowalu Talk Story". See **Appendix "A-~~23~~"**.

In accordance with the "transect-based SmartCode", the Master Plan identifies the different transects of the Master Plan from the ocean environment with its open spaces and recreational park lands to the tiers of urban, rural and agricultural transects to the mountain environment. The Master Plan emphasizes the importance of Olowalu Stream and the OCR as representative of the ahupua`a system of land management, which encourages accessible transit between the ocean and mountains and the preservation of the natural environment including the re-establishment of native habitat.

<u>Ahupua`a</u>

The ~~Master Plan's~~ goal of ~~becoming~~building a sustainable ~~development~~community where one can live, work, and play is not a new idea at Olowalu. For hundreds of years at Olowalu, a population of ~~several thousand~~over 1,500 lived and thrived in harmony through the land and resource management system of ahupua'a. See **Appendix "H-1"**.

The late kumu hula John Ka`imikaua, founder of Halau Hula o Kukunaokala and educator of all things Hawaiian, tells the story of how the ahupua`a evolved as a solution to the hardship and strife resulting from the depletion of natural resources. Hawaiian communities had to learn to work together to take care of the land, and subsequently they formed the first stewardship organizations call the `aha ki`ole, or people's councils. Kumu Ka`imikaua recognized eight (8) principles which served to help understand the management of ahupua`a. This approach centers around the preservation of and respect for culture, people, and the natural resources that sustain a community over time. These values and principles were incorporated into the design and planning of the vision of the Master Plan for Alternatives 1 and 2. The Master Plan's concept for Alternatives 1 and 2 is not to recreate an ahupua`a system, rather to integrate the sustainable values of the system into the Master Plan. The eight (8) principles of the ahupua`a land management concepts are as follows:

1. **<u>KAI MOANA:</u> Preserve all life in the ocean, from the shoreline to the horizon.**

   To preserve the resources of the ocean, the Master Plan for Alternatives 1 and 2 proposes the use of a state of the art ~~sewer~~wastewater treatment plant that is not dependent on injection wells. ~~One-hundred~~Greater than 90 percent of the treated recycled R-1 water ~~will~~is planned to be used for irrigation within the project area.

A constructed wetland and soil aquifer treatment system is proposed to treat and dispose of wet weather or other excess R-1 water. The drainage master plan is designed to utilize retention and detention systems and Low Impact Development (LID) measures to accommodate the incremental increases in stormwater runoff. Best Management Practices (BMPs) will be integrated with the drainage system design as a holistic approach to stormwater management. Alternatives 1 and 2 propose to capture 100 percent of the post-development and a portion of pre-development stormwater in its drainage system which will reduce sedimentation and potential pollutants from entering the nearshore waters.

2. **<u>MAKAI:</u> Respect the land and resources extending from the shoreline to the sand's reach.**

To restrict encroachment of development on the shoreline, the Master Plan for Alternative 1 observes an existing minimum 150-feet shoreline setback to protect the resources in the shoreline area and maintains continuous access along the shoreline from the Lāhainā side to the Mā`alaea side of Olowalu. On the makai side of Honoapi`ilani Highway, the Master Plan for Alternative 1 includes shoreline parks and maintains the conservation lands along the shoreline as open space. ~~Development~~In the OTMP, development makai of Honoapi`ilani Highway is limited to the area landward (mauka) of the 150-feet shoreline setback and contains residential use and a small portion of the commercial area of the Country Town Center, parks and public amenities. Refer to **Figure 4**. In Alternative 2, the area makai of Honoapi`ilani Highway along the shoreline has been excluded from the master plan in accordance with the MIP. The limited existing shoreline access will be retained with the primary access to the shoreline through the former mill site. Refer to **Figure 5**.

3. **<u>MAUKA:</u> Respect the land and resources extending from the sand's edge to the highest mountain peak.**

The Master Plan ~~is~~for Alternatives 1 and 2 is designed to respect the land and resources between the beach to the highest mountain peak. Mountain ridges at both ends of Olowalu act as a natural boundary for the Master Plan area. The orientation of the Master Plan is in a makai to mauka direction which recognizes the important alignment of the Ka`iwaloa Heiau and a smaller heiau. The 74-acre OCR spans from the shoreline at the mouth of Olowalu Stream to the West Maui Mountains in Olowalu Valley along both sides of the stream alignment.

Observing the makai to mauka orientation, the higher density or urban type uses are clustered within the flatter portion of the project area with densities decreasing as the

development radiate outward toward the West Maui Mountains. The OCR and proposed farms along the stream alignment provide a physical separation between the future country town centers of the Master Plan as well as maintain a physical linkage from the ocean to the mountains as practiced in the ~~auhupua`a~~ahupua`a system. The rural house lots are planned along the future realigned Honoapi`ilani Highway and act as a transitional zone between the urban and agricultural densities. The agricultural lots mauka of the future realigned Honoapi`ilani Highway along with the 14 lots of the Olowalu Mauka Subdivision located at the higher elevations are the final transitional zone before the Conservation lands of the State Forest Reserve.

4. **<u>KALEWALANI</u>: Respect elements that float in the sky including the sky, moon, clouds, stars, wind, and rain which guide the planting and fishing seasons, provide water, and create the tides and directions for ocean navigation.**

The Master Plan for Alternatives 1 and 2 recognizes the environmental and spiritual resources of Olowalu. The OCR as stewards of the land is preserving these resources for future generations as well as continues in its goal to establish an educational and cultural pu`uhonua or sanctuary. The OCR has been instrumental in preserving the historic and cultural sites, such as Ka`iwaloa Heiau and the petroglyphs and re-establishing the former lo`i and native plants.

Lighting of public spaces will incorporate design measures to minimize excessive lighting from the master plan area into nearby sensitive areas, such as the shoreline area, and to protect the night sky from artificial lighting.

5. **<u>KAMOLEWAI:</u> Respect all water resources including rivers, streams, and springs and the life within.**

The use of recycled R-1 water and stormwater for irrigation purposes and repairs to Olowalu Ditch are expected to reduce the water diversion from Olowalu Stream. It is anticipated that this should allow more water to flow in the stream toward the ocean. Also, the Master Plan for Alternatives 1 and 2 proposes to capture 100 percent of the post-development and a portion of pre-development stormwater in its drainage system which will reduce sedimentation and potential pollutants from entering the nearshore waters.

6. **<u>KANAKAHONUA:</u> Preserve and respect the laws of the land and each other to ~~insure~~ensure the community's health, safety, and welfare.**

As much as possible, the Master Plan for Alternatives 1 and 2 will observe the physical and environmental constraints within the project area such as avoiding

development within the VE Zone. However, some development will occur in the A Zone which has a flood depth of 1 foot or less. However, development will be in accordance with the County's flood hazard permit process. The Applicants continue to inform and work with the residents of Olowalu, especially Kapa`iki Village, on the progress and development of the Master Plan.

7. **KAPAHELOLONA: Preserve the knowledge of practitioners.**

The Master Plan for Alternatives 1 and 2 recognizes the importance of the 74-acre OCR whose mission is to "*perpetuate the traditional and customary practices of "kanaka maoli" of these Hawaiian islands and promote opportunities to regain the spiritual connection of "Malama `aina" of our ancestors by insuring these beliefs and customs are passed down to future generations*". The OCR and Olowalu Stream are important historic, cultural and natural resources in Olowalu which are being preserved for future generations. The area of the OCR increases in both Alternatives 1 and 2 to approximately 84 acres.

8. **KE`IHI: Preserve and respect the sacred elements including deities, ancestors, the forces of nature, and ceremonial activities.**

Under the stewardship of the OCR, archaeological, cultural and spiritual sites have been preserved. The OCR guide preservation efforts of the archaeological, cultural and spiritual sites located in Olowalu such as Ka`iwaloa Heiau and the Olowalu petroglyphs.

The ~~Master Plan's~~ proposed infrastructure improvements for Alternatives 1 and 2 will be constructed concurrently with the project and will incorporate innovative, efficient, and sustainable technology to minimize adverse impacts upon the natural environment. The Master Plan's transportation system for Alternatives 1 and 2 includes the relocation of the existing high speed/high volume Honoapi`ilani Highway away from coastal resources and recreational corridor to a new mauka alignment consistent with alternatives under consideration in the Honoapi`ilani Highway Realignment/Widening project (Mā`alaea to Launiupoko) by the State of Hawai`i, Department of Transportation (HDOT). ~~The~~According to HDOT's Environmental Impact Statement Preparation Notice (EISPN), the relocation and widening project will relocate the ~~h~~Highway away from existing shoreline erosion problems, improve highway capacity, and improve the reliability of access to and from the West Maui region. The alignment will be designed to accommodate mass transit or light rail, if needed in the future. The existing ~~h~~Highway corridor with monkey pod trees will be preserved and incorporated into the ~~Master Plan~~Alternatives 1 and 2 as a low speed/low volume coastal roadway. The project will include an internal roadway network, as well as~~,~~ an assortment

of interconnected greenways, bikeways and bus stops throughout the community that supports the overall well-being and health of residents by reducing the dependency on automobiles.

Additionally, other infrastructure system improvements will require an expansion of both the existing ~~potable~~drinking and ~~non-potable~~non-drinking water system with the addition of two (2) ground water wells to supplement and provide back-up for the existing well; and an extensive drainage system to capture stormwater runoff. The project will also include the construction of an onsite wastewater treatment facility, which will include an R-1 water storage tank, a constructed ~~vertical flow~~ wetland, and a soil aquifer treatment system. The wastewater treatment facility will produce clean recycled water for irrigation, and ~~thereby~~the constructed wetland and soil aquifer treatment system will eliminate the need for injection wells. Lastly, the project proposes to incorporate the use of renewable energy systems to help generate electricity for the Master Plan for Alternatives 1 and 2 , which could include photo-voltaic, hydro, and solar systems.

~~Typical~~In the OTMP, typical land uses appropriate for each of the four (4) primary zones (Urban, Rural, Agriculture, and Conservation) and the distribution of the approximate number of dwelling units for each ~~are outlined in~~have been preliminarily determined. See **Table 2**.

It is noted that the densities presented in **Table 2** reflect a range of possible development outcomes. These outcomes will be dependent on market conditions and buyer preferences, which in turn, shape housing product deliverables. Project-related consultant studies (e.g., traffic study, preliminary engineering report, etc.) prepared for this EIS document, assume the maximum density of 1,500 units for study analysis purposes. This maximum density assumption ensures that the potential impacts analyzed are presented in the context of the upper limits of potential effects.

Table 2. Master Plan Land Use Allocation Summary

District	Transects	Land Use	General Uses	Dwelling Unit Type	Approx. No. Units	Commercial/ Retail Sq. Ft.	Acreage	Percentage
Urban**	Town Center Residences, Small Town Lots, Large Town Lots	Medium to High Density Residential Units	Medium to High density residential and mixed uses: single-family dwellings on smaller to large lots (3,500 to 10,000 sq. ft. lots), multi-family apartments, town houses, and live-work units (flex house)	SF Residential	*400-800	N/A	~~290~~266	~~46~~42%
				Apart/Town-House	*600-900 ***	N/A		
				Mixed-use/ Live-Work	*150-200 ***	N/A		
	Town Center, Town Center Residences, Town Homes, Multi-Family Apartments	Commercial/ Retail/Business	Commercial, retail, business, office, restaurant, lodging, markets, shops, home occupation, live-work units (flex house), medical clinics, high tech, theater, and accessory uses for parks (snack bar, restaurants, stores, etc.)	~~N/A~~Apart/Town-House	~~N/A~~***	300,000 - 375,000		
				Mixed-Use/Live-Work				
	Parks and Open Space	Parks/Open Space	Active/passive parks, accessory and support facilities, greenways, bikeways, multi-purpose ball fields, music stands, community centers, cultural uses/activities, camping, and OCR	N/A	N/A	includes commercial/ retail sq. ft. for accessory uses		

District	Transects	Land Use	General Uses	Dwelling Unit Type	Approx. No. Units	Commercial/ Retail Sq. Ft.	Acreage	Percentage
	Public Amenities	Utility and Infrastructure Systems	~~Potable/non-potable~~Drinking/non-drinking water systems, wastewater systems, electric, and energy systems	N/A	N/A	N/A		
		Public/Quasi-Public	Community centers, educational facilities, police/fire, medical, library, museum, cultural centers, post office, etc.	N/A	N/A	includes commercial/ retail sq. ft. for accessory uses		
Rural	Rural	Rural Residential	Low Density rural residential units/dwellings (minimum 0.5-acre lots)	½ acre min. lot size	*75 - 100	N/A	~~170~~168	~~27~~26%
	Rural Park	Parks/Open Space	Active/passive parks, accessory and support facilities, greenways, bikeways, multi-purpose ball fields, music stands, community centers, cultural uses/activities, camping, OCR, and utility and infrastructure systems/facilities	N/A	N/A	include commercial/ retail sq. ft. for accessory uses		
		Utility and Infrastructure Systems	~~Potable/non-potable~~Drinking/non-drinking water systems, wastewater systems, and energy systems	N/A	N/A	N/A		

District	Transects	Land Use	General Uses	Dwelling Unit Type	Approx. No. Units	Commercial/ Retail Sq. Ft.	Acreage	Percentage
Agricultural	Ag	Agricultural Farmsteads/ Dwellings	Agricultural/cultivation farming activities, livestock, agricultural farm-steads, and dwellings (minimum 2-acre lots)	2 acres min. lot size	*15 - 20	N/A	~~161~~175	~~25~~28%
		New/Relocated State Highway Right-of-Way	Highway, transit, bikeways, greenway, etc.	N/A	N/A	N/A		
	Ag Park and Open Space	Parks/Open-Space	Active/passive parks, greenways, cultural uses/activities, and OCR	N/A	N/A	N/A		
		Utility and Infrastructure Systems	~~Potable/non-potable~~Drinking/non-drinking water systems, wastewater systems, electric, and energy systems	N/A	N/A	N/A		
Conservation	Conservation	Parks/Open Space	Minimal active/passive parks, greenways, and cultural uses/activities	N/A	N/A	N/A	~~15~~27	~~2~~4%
	Cultural Reserve	Cultural Uses	Olowalu Cultural Reserve	N/A	N/A	N/A		
				TOTAL	***1,500 units**	**375,000**	**636**	**100%**

Note: * A range of housing units given in each category not to exceed a total of 1,500 units
** Alternative 2 - the land area makai of Honoapi`ilani Highway will retain the existing private agriculture, OCR, Camp Olowalu, limited shoreline access through existing easements and State-owned lands, and Open Space
*** Residential Units to be distributed between the Medium to High Density Residential Units and Commercial/Retail/Business in Town Center

The majority of the dwelling units will be located within the urban zone where residents will have easy access to daily goods and services.

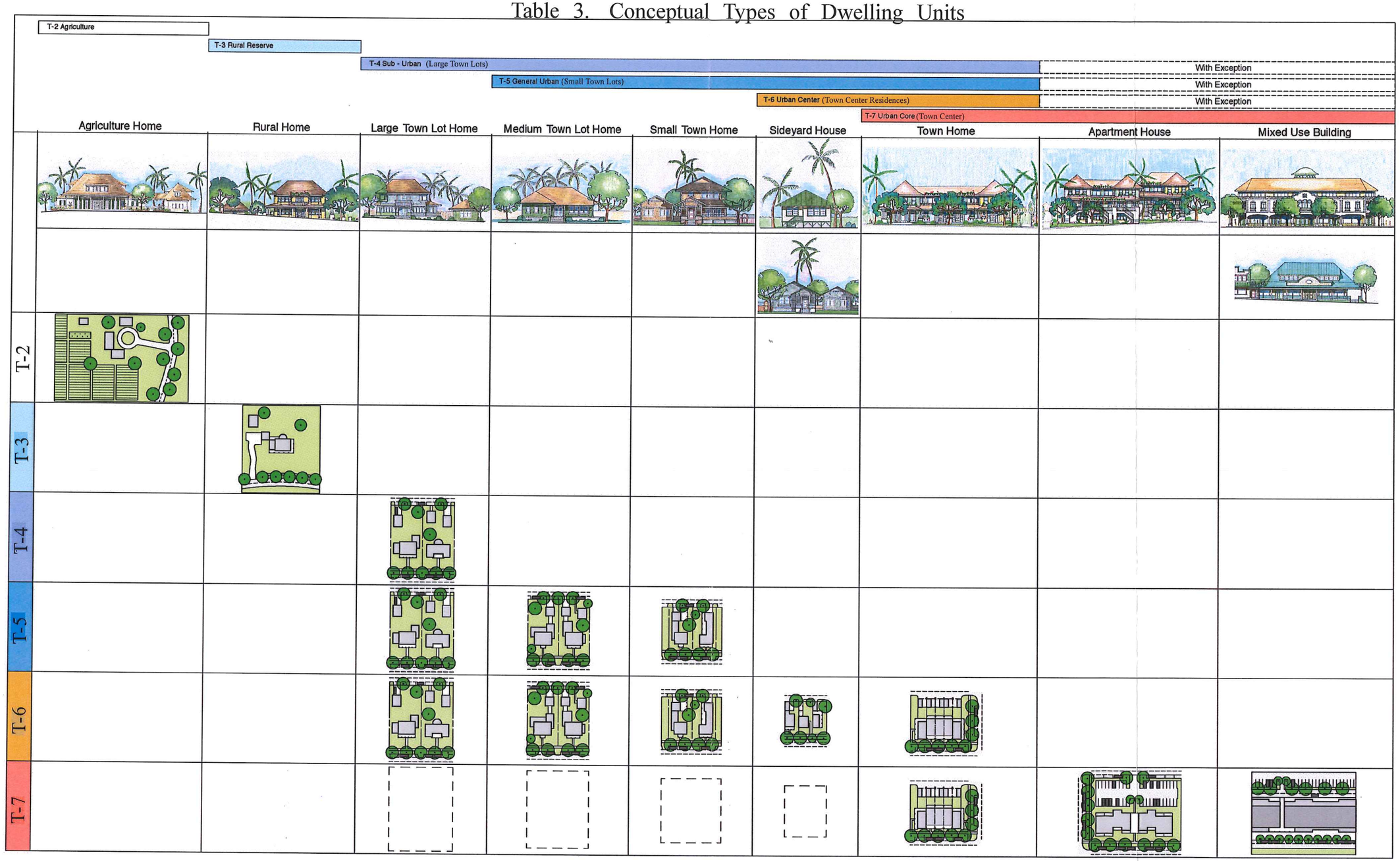
The various types of dwelling units that are envisioned to be included in the Master Plan for Alternatives 1 and 2 are described below and shown in **Table 3**.

1. **Agriculture Home:** A farmed lot with a single-family dwelling on a minimum 2-acre lot of rural character, shared with option for up to two (2) ~~ancillary~~accessory buildings of maximum footprint of 2,000 sq.ft., one (1) of which may be ~~an ohana~~ second farm dwelling of a maximum 1,000 sq. ft. (additional ~~ancillary~~accessory buildings by exception). The principal dwelling and out buildings are generally concentrated towards the frontage road or roads leaving the majority of the lot clear for agricultural use. The setbacks position the main building layer on one side of the lot or at road intersections in order to create periodic clusters of farmstead buildings. Agricultural lots usually have one (1) frontage street. Dwelling may be two (2) ~~story~~stories in height not to exceed 30 ft. from original grade. ~~Ancillary~~Accessory buildings, except second farm dwelling, may not exceed 35 feet from original grade.

2. **Rural Home:** A single-family dwelling on a minimum ½ acre lot of rural character, shared with option for up to two (2) ~~ancillary~~accessory buildings not to exceed a foot print of 1,000 sq.ft., for use as a either garage or 700 sq ft. as an ~~ohana~~accessory dwelling. Only one (1) ~~ancillary~~accessory building is allowed if used for both garage and ~~ohana~~accessory dwelling. ~~Ancillary~~Accessory buildings are located at the rear and side rear yards only. Rural ~~Reserve~~ lots usually have one (1) frontage street or shared driveway circle. All buildings may be two (2) story in height not to exceed 30 ft. from original grade except ~~ancillary~~accessory garage only shall be one (1) story.

3. **Large Town Lot Home:** A single-family dwelling on a minimum 9,750 sq. ft. lot of rural character, shared with option for up to two (2) ~~ancillary~~accessory buildings with maximum 500 sq. ft. footprint for less than 10,000 sq. ft. lot or 600 sq. ft., one (1) of which must be a garage and one (1) of which may be an ~~ohana~~accessory dwelling. ~~Ancillary~~Accessory buildings are located at the rear and side rear yards only. Large Town Lots have one (1) frontage street or frontage corner and one (1) rear alley way with driveway access aprons at the alley only. All buildings may be two (2) story in height not to exceed 30 ft. from original grade except ~~ancillary~~accessory garage only shall be one story. Large Town Lots maintain a consistent front and rear yard building set back for the main dwelling.

Table 3. Conceptual Types of Dwelling Units



NOTE: THE ABOVE MASTER PLAN IS CONCEPTUAL ONLY. THE MASTER PLAN IS SUBJECT TO REFINEMENT, REVISIONS, AND/OR CHANGES BASED UPON COMMENTS, FEEDBACK, AND INPUT RECEIVED THROUGHOUT THE LAND USE ENTITLEMENT REVIEW PROCESS.

4. **Medium Town Lot Home:** A single-family dwelling on a minimum 6,000 sq. ft. lot of rural character, shared with option of up to two (2) ~~ancillary~~accessory buildings with a maximum 500 sq. ft. footprint located in the rear yard. The ~~ancillary~~accessory building may contain an ~~ohana~~accessory dwelling of maximum 500 sq. ft. Medium Town Lots have one (1) frontage street or frontage corner and one (1) rear alley way with driveway access aprons at the alley only. All buildings may be two (2) story in height not to exceed 30 ft. from original grade. Medium Town Lots maintain a consistent front and rear yard building set back at the main dwelling.

5. **Small Town Home:** A single-family dwelling on a minimum 5,000 sq. ft. lot of rural/urban character, shared with option of one (1) attached or detached garage structure of a maximum 500 sq. ft. footprint located in the rear yard. The ~~ancillary~~accessory building may contain an ~~ohana~~accessory dwelling of maximum 500 sq. ft. Small Town Lots have one (1) frontage street or frontage corner and one (1) rear alley way with driveway access aprons at the alley only. All buildings may be two (2) story in height not to exceed 30 ft. from original grade. Small Town Lots maintain a consistent front yard building set back.

6. **Sideyard House:** A single-family dwelling which occupies one (1) side of a lot, with the primary yard to the other side, shared with option for one (1) attached or detached garage or car port structure of maximum 450 sq. ft. footprint in rear yard. Minimum 2,400 sq. ft. lot with 32 ft. lot width. Side Yard Houses have one (1) frontage street or frontage corner and one (1) rear alley way with driveway access aprons at the alley only. All buildings may be two (2) story in height not to exceed 30 ft. from original grade except ~~ancillary~~accessory building shall be one (1) story. Small Town Lots maintain a consistent frontyard building set back at dwelling.

7. **Town Home:** A single-family dwelling with common walls on the side lot lines at interior dwellings and on side lot line at book end dwellings, with the facades forming a continuous front. With option for shared side lot line ~~ancillary~~accessory rear yard garages or car ports of a maximum 450 sq. ft. footprint. Town Homes are the highest density type able to provide private yards. Town Homes have one (1) frontage street or frontage corner and one (1) rear alley way with driveway access aprons at the alley only. All buildings may be two (2) story in height not to exceed 30 ft. from original grade except garages and carports to be one (1) story. Small Town Lots maintain a consistent front and rear yard building set back at main dwelling.

8. **Apartment House:** A primarily residential building, up to three (3) stories, accommodating multiple dwellings disposed above and beside each other with option for mixed commercial use on the ground floor. Designated areas in the urban core for four (4) story structure. Three (3) story height not to exceed 40 ft., and four (4) story height not to exceed 50 ft. from original grade. Apartment Houses have one (1), two (2), or three (3) frontage streets with parking behind and or below the building hidden from public view ~~and they~~. They generally maintain a consistent front yard building set back with landscaped areas or streetscape frontage primarily paved or surfaced for pedestrian accessibility.

9. **Mixed Use Building:** A fully mixed-use commercial and~~/or~~ residential building type, up to three (3) stories, including but not limited to, live work units with option for dwellings above or behind a commercial space. Designated areas in the urban core for four (4) story structures. Three (3) story height not to exceed 40 ft., and four (4) story height not to exceed 50 ft. from original grade. Third and designated fourth stories shall be set back a minimum of ten (10) feet from the building footprint at the street front and rear elevations in order to maintain the appearance of a two (2) story building. Designated areas for street frontage only. Designated areas for Hotel use. Mixed Use Buildings have one (1), two (2), or three (3) frontage streets with parking behind the building and hidden from public view and generally maintain a consistent front yard building setback with streetscape frontage primarily paved or surfaced for pedestrian accessibility.

Other ~~Master Plan~~ components for Alternatives 1 and 2 include neighborhood town centers intended to provide opportunities for local businesses to service the residents of Olowalu Town, as well as visitors passing through. Spaces for community support facilities, including areas designated for public/quasi-public facilities will also be provided. Such facilities may include police and fire stations, educational facilities, a cultural center, a library, and spaces for non-profit organizations. The Master Plan for Alternatives 1 and 2 also recognizes the importance of set-asides for open space and parks (both active and passive) to establish balance in land use and life quality parameters. In this context, the existing OCR will be enhanced with a mauka-makai trail system to be developed as part of the Master Plan.

E. AFFORDABLE AND SENIOR HOUSING

A substantial portion of the homes are planned for much-needed affordable housing and senior living.

Workforce housing will be provided in keeping with the requirements of Chapter 2.96 of the Maui County Code (MCC) relating to the Residential Workforce Housing Policy (RWHP). It is anticipated the average price of the market units will be $600,000.00 or below. At this early planning stage of project development, this market unit average sales price may include units which may sell for an average of $750,000.00 for single-family units and $580,000.00 for multi-family units. It is noted that sales prices will vary with market, interest rate, and overall economic conditions. For this reason, the foregoing price estimates are subject to change.

~~The Master Plan proposes fifty (50) percent of the units will meet the affordable housing criteria and fifty (50) percent will be market units. The Workforce Housing units pursuant to Chapter 2.96 are proposed as follows in **Table 4**.~~

~~**Table 4**. Workforce Housing Income Groups~~

~~Category~~	~~Gross Family Income~~	~~Percentage~~
~~WORKFORCE HOUSING~~		
~~Gap Income Group~~	~~Above 140% to 160%~~	~~20%~~
~~Above Moderate Income Group~~	~~Above 120% to 140%~~	~~20%~~
~~Moderate Income Group~~	~~Above 100% to 120%~~	~~30%~~
~~Below Moderate Income Group~~	~~Above 80% to 100%~~	~~30%~~

Since the publication of the Draft EIS, the County of Maui amended Chapter 2.96, MCC, effective on December 22, 2014 through Ordinance No. 4177, as follows:

> *Developers shall be required to provide a number of residential workforce housing units equivalent to at least twenty-five percent, rounding up to the nearest whole number, of the total number of market rate lots, lodging units, time share units, or dwelling units, excluding farm labor dwellings or a second farm dwelling, as defined in section 19.04.040 of this code, created. If a developer satisfies the requirements of this chapter through subsection (B)(3) and the units shall remain available only to income-qualified groups in*

perpetuity, the developer shall provide at least twenty percent, rounding up to the nearest whole number, of the total number of market rate lots, lodging units, time share units, or dwelling units, excluding farm labor dwellings or a second farm dwelling, as defined in section 19.04.040 of this code, created.

The Applicants are committed to providing affordable housing units beyond the required twenty-five percent of workforce housing. In addition, the proposed density, land use pattern, and housing types within most of the Master Plan area are anticipated to result in "market" units that are priced in accordance with the County's workforce housing policy.

Providing senior housing is also an important element of the project. The aging population of Maui residents will require appropriate housing. Senior housing is proposed in a variety of forms and types of units. Much of such senior housing is expected to be within the workforce housing pricing requirements.

F. PROJECT PURPOSE AND NEED

The proposed Master Plan for Alternatives 1 and 2 is seeking to increase the supply of available housing for local residents, particularly the supply of affordable and senior housing units. At the height of the real estate market, the strong demand, coupled with limited supply and historically low interest rates, led to rising housing prices. The nation-wide economic downturn ~~has~~did affect~~ed~~ Maui~~, however,~~. However, there are signs that the housing market is improving, with recent real estate sales data indicating steadiness in the market. According to Pacific Business News, sales of single-family homes rose by 20 percent as sale prices for both single-family and condominiums rose by more than 5 percent. The median sales price for a single-family home was $627,500.00 and $442,500.00 for a condominium. As the economic conditions improve, the demand for housing in the workforce segment will continue to be the most sought after.

The Master Plan for Alternatives 1 and 2 requires several land use entitlements, design and construction processes before any housing unit can be offered for sale. Release of the first housing units in ~~the~~Alternatives 1 and 2 may be timely with the ~~anticipated~~ economic turnaround. The Master Plan for Alternatives 1 and 2 will be heavily targeted toward the workforce segment desiring a small scale community environment. Statistically, regardless of conditions, this market segment has had the greatest demand. ~~Except for the workforce housing, the~~ The housing prices for the various product types have not yet been determined, however, the proposed density, land use patterns, and housing product types is expected to provide housing affordable for Maui families.

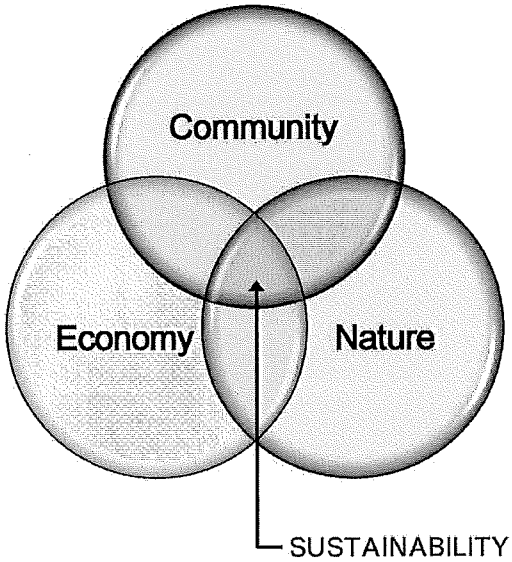
In this connection, the Master Plan's workforce housing program will comply with the requirements of the RWHP under Chapter 2.96~~ Residential Workforce Housing Policy (RWHP)~~, MCC. The ~~W~~workforce ~~H~~housing units and lots will be for sale or rent at affordable prices as determined by the Department of Housing and Human Concerns (DHHC). ~~Refer to **Table 4**.~~

The Planning Department's Long Range Division in conjunction with the ~~Maui Island Plan (~~MIP~~)~~ review estimated the housing need in West Maui as ~~3,456~~approximately 3,500 additional units by year 2030, beyond those lands already entitled. The Master Plan for Alternatives 1 and 2 is anticipated to be completed within eight (8) to ten (10) years which is well within the 20 year horizon of the MIP.~~ The Master Plan has been recommended by both the General Plan Advisory Committee (GPAC) and Maui Planning Commission (MPC) for inclusion within the MIP to meet this estimated housing need~~.

With implementation of the foregoing program, the proposed Master Plan for Alternatives 1 and 2 will meet both current and future demand for affordable housing in the Maui and West Maui residential market.

G. SUSTAINABILITY

By utilizing sustainable values and principles from the past and listening to Maui's residents, the Master Plan for Alternatives 1 and 2 proposes to balance the needs of Maui's growing families while maintaining the island's character and respecting its natural resources. The three (3) key elements of the Master Plan are Community, Economy, and Nature.



The Master Plan for Alternatives 1 and 2 proposes the following to achieve sustainability:

Community

- Design small scale neighborhoods where residents know their neighbors.
- Provide a wide range of housing types for all income levels and all stages of life.
- Include community centers, meeting halls, and educational facilities close to homes.
- Preserve historic and cultural resources to learn from the past.
- Include social services, civic amenities, non-profit groups, and emergency services.

Economy

- Promote small shops, offices, and services that serve the daily needs of the community.
- Include live/work units, office rentals, and office support systems.
- Provide financial incentives for desired locally owned stores and emphasis on selling local goods.
- Incorporate infrastructure to ensure state of the art technology, communications, and high-speed connectivity is available to the community.

Nature

- Provide recreational opportunities for good health and well being.
- Include innovative green infrastructure systems to minimize impacts upon natural resources.
- Utilize efficient land use that preserves open space and reduces the community's ecological footprint.
- Exceed governmental storm water requirements to protect nearshore water quality and shoreline ecosystems.

- Encourage landscaping with native plants that require less water.

- Incorporate U.S. Green Building Standards (LEED) to help conserve energy, fuel, and operating costs.

As a ~~proposed~~project that meets LEED ND ~~project~~standards, the Master Plan for Alternatives 1 and 2 considered the following sustainable prerequisites as the project plans were developed~~:~~. Refer to **Appendix "A-~~1~~2"**.

1. Smart Location and Linkages

a. Smart Location

The Olowalu Town Master Plan is located in a historic plantation town that supported a former mill site and large-scale sugarcane operation. The plantation town was a self-sustaining mixed-use community and the Master Plan for Alternatives 1 and 2 proposes to establish a new self-sustaining mixed-use community. The Master Plan for Alternatives 1 and 2 will contain an interconnected transportation network of streets, pedestrian and bicycle paths and future accommodation for a transit system; resident housing; employment centers; necessary infrastructure and public services; and recreation while preserving the natural, historic and cultural amenities of Olowalu.

b. Conserve Imperiled Species and Ecological Communities

There are no endangered or threatened species or their habitat in the Master Plan for Alternatives 1 and 2. The OCR was set aside to preserve Olowalu Stream, promote native species and protect cultural sites.

c. Wetland and Water Body Conservation

The Master Plan for Alternatives 1 and 2 does not endanger any wetland. To reduce water quality impacts from episodic stormwater runoff, the Master Plan for Alternatives 1 and 2 will implement a stormwater management plan.

d. Agricultural Land Conservation

Approximately ~~161~~175 acres in Alternative 1 and 173 acres in Alternative 2 will be retained in ~~agriculture and~~the State Agricultural District. Approximately 28 acres in Alternatives 1 and 2 will be developed into ~~15 to 20~~approximately 14 farmsteads for diversified agriculture with the remaining acres available for other agricultural uses permitted in the State " Agricultural" District. Also, within the OCR traditional Hawaiian crops such as taro are being re-established as well as native habitat.

e. Floodplain Avoidance

The Master Plan for Alternatives 1 and 2 is not located in any areas subject to a 100-year flood. However, shallow flooding (less than one foot) occurs in certain areas of the Master Plan, primarily near Olowalu Stream and Kapa`iki. The drainage plan for the Master Plan for Alternatives 1 and 2 will be designed to accommodate stormwater runoff to reduce existing flooding in the Master Plan area.

2. Neighborhood Patterns and Design

Alternatives 1 and 2 will be designed with interconnected streets with trees and sidewalks that slows down vehicles and encourage walking and biking. This well-connected network of narrower streets will provide improved mobility and safety. This network of roadways is more efficient than a poorly connected network of wider streets. The neighborhood block system of roads also shortens travel routes and encourages alternatives to the automobile.

a. Walkable Streets

Promotes walking and bicycling where housing is within a five (5) minute walk or a quarter mile from the centers of activities such as employment and recreation. The street design will encourage vehicles to slow down providing a safe environment for pedestrians and bicyclists. Incorporation of design elements, such as narrow lanes, landscaping (i.e. trees), bike lanes, and round-abouts, which are pedestrian-friendly, especially for keikis and kupuna.

b. **Compact Design**

Conserves land by promoting livability, walkability, and transportation efficiency and reduce public health risks by encouraging daily physical activity associated with walking and bicycling. The Master Plan for Alternatives 1 and 2 envisions smaller more compact residences near the country town center with larger homes as you move away from the country town center with the rural lots as a transition zone between the country town center and agricultural lots.

c. **Connected and Open Community**

Includes internal connectivity between the Master Plan for Alternatives 1 and 2 and the existing community for improved mobility and safety. The commercial area of the commercial country town center is adjacent to the Olowalu General Store so the store will gain new customers within the community. Also, the park lands and larger house lots are adjacent to Kapa`iki to reduce impacts on the existing community.

3. **Green Infrastructure and Buildings**

a. **Certified Green Building**

The Master Plan for Alternatives 1 and 2 will design and construct buildings that utilize green building practices.

b. **Building Energy Efficiency**

The Master Plan for Alternatives 1 and 2 will design and construct energy-efficient buildings that reduce air, water, and land pollution and adverse environmental effects from energy production and consumption.

c. **Building Water Efficiency**

The Master Plan for Alternatives 1 and 2 will include the design and construction of water-efficient buildings that reduce water consumption ~~and promote the re-use of water, such as.~~ R-1 recycled water from the Wastewater Treatment Plant (WWTP) will be used for irrigation and other allowed uses

by the Department of Health to reduce the use of ~~potable~~drinking water for non~~potable~~drinking water uses~~, such as fire protection, toilets, and irrigation~~.

d. Construction Activity Pollution Prevention

The Master Plan for Alternatives 1 and 2 will reduce pollution from construction activities by controlling soil erosion, waterway sedimentation, and airborne dust generation. A stormwater management plan will be implemented to control pollution during construction, as well as long term.

H. COMMUNITY BENEFITS

The principles of New Urbanism provide benefits to residents, businesses, developers and municipalities.

1. **Benefits to Residents**: It creates a higher quality of life; creates a better place to live, work and play; create higher, more stable property values; has less traffic congestion; creates a healthier lifestyle with more walking and less stress; is in close proximity to employment, shopping, services, recreation and nature; encourages social interaction with neighbors; more freedom and independence for children, the elderly and the poor due to easy and safe access to jobs, services and recreation; economic diversity with unique shops and services; more efficient use of public and private resources; preservation of open spaces and environmentally sensitive areas such as reef systems, wetlands, habitats and cultural sites; and better sense of place and community identify.

2. **Benefits to Businesses**: Increased revenues; better lifestyles for business owners living in live-work units; economies of scale in marketing due to close proximity and cooperation with other local businesses; promote small local business incubation; healthier lifestyle; more community involvement.

3. **Benefits to Developers**: Faster approvals where smart growth principles have been adopted resulting in time/cost savings; cost savings in providing infrastructure; less parking required; less impacts on roads and traffic; greater acceptance from public; wider product range resulting in larger market share.

4. **Benefits to Municipalities**: Stable, appreciating tax base; less spent per capita on infrastructure and utilities; less traffic congestion; less crime; less resistance from community; better overall community image and sense of place; disincentive for urban sprawl; easy to accommodate transit; better involvement of citizens in governance.

New Urbanism's compact design in conjunction with the UGB and RGB contains development and discourages outward urban sprawl pattern of growth. The UGB and

RGB preserves surrounding open space and view corridors.

Implementation of the Master Plan for Alternatives 1 and 2 as a sustainable mixed-use community will provide a wide range of ~~affordable~~affordably priced housing units targeted to Maui residents in ~~accordance with~~excess of the requirements of Chapter 2.96, Maui County Code (MCC). The Master Plan for Alternatives 1 and 2 also includes commercial and ~~industrial~~retail/business uses that are expected to create employment for approximately 1,000 long-term jobs in the community. Employment within the community will also reduce the need to commute outside of the Master Plan area. The availability of affordable resident housing in West Maui in closer proximity to the employment centers between Lāhainā Town and Kapalua will give Maui residents living outside of West Maui the opportunity to reduce their commute distance and time.

Necessary environmentally sensitive infrastructure systems and services to serve the project are provided in the Master Plan for Alternatives 1 and 2 as well as extending these improvements to existing residents such as an upgraded water system that will provide improved ~~potable~~drinking water and fire protection. Of particular note is the proposed construction of a WWTP that will treat wastewater to R-1 standards to be recycled for irrigation in the Master Plan for Alternatives 1 and 2. Any excess R-1 recycled water during rainy periods will be disposed of by utilizing natural systems and eliminate the need for injection wells. The WWTP will also provide the opportunity for existing community currently served by cesspools or septic systems to connect to the new facility. Further, the location of the facility adjacent to the Olowalu Recycling and Refuse Convenience Center will accommodate solid waste from the project and provides the opportunity for expansion of the Center into the Master Plan area.

A major benefit to the community will be a corridor for the relocation and widening of Honoapi`ilani Highway mauka of the shoreline where portions of the ~~h~~Highway ~~is~~are experiencing erosion problems in accordance with the goals of the HDOT and the County of Maui. The Master Plan for Alternatives 1 and 2 includes an approximate ~~200~~160 feet wide ~~alignment of~~corridor for the relocated and widened ~~h~~Highway which can accommodate a future transit system, if necessary. The conceptual design of the relocated Highway will avoid additional traffic signals on Honoapi`ilani Highway.

The mauka relocation of Honoapi`ilani Highway will also improve access to the shoreline recreation areas by removing the high speed traffic from the existing ~~h~~Highway and eliminating the current unsafe traffic condition experienced by the public trying to cross the ~~h~~Highway to the shoreline and lack of parking. The Master Plan for Alternatives 1 and 2

proposes to enhance public recreational opportunities in Olowalu with approximately 223 acres (Alternative 1) and 200 acres (Alternative 2) of open space and park lands. Implementation of the ~~Master Plan~~OTMP will create a continuous lateral shoreline access from the Lāhainā side of Olowalu to the Mā`alaea side with significant park lands makai of the existing ~~h~~Highway adjacent to Camp Olowalu and north of Olowalu Stream. Alternative 2 will retain the existing shoreline access and recreational use of the makai lands, namely the approximate 100-foot wide State Beach Reserve along the shoreline. Refer to **Figure 3**.

As a cultural and educational pu`uhonua, the OCR preserves the history and culture of Olowalu in perpetuity for the present and future generations. The OCR has been instrumental in re-establishing the lo`i and native habitat in Olowalu and removing invasive species. As stewards of the land, the OCR has protected ~~the~~ archaeological and cultural sites.

As a mixed-use community, public facilities such as schools, community centers, police, fire and emergency services are proposed which will serve the existing and new residential community. The improvement in public facilities will improve the quality of life for existing and future residents of Olowalu. The Master Plan for Alternatives 1 and 2 is also expected to create approximately 1,000 jobs creating economic growth in Olowalu.

The Master Plan for Alternatives 1 and 2 is anticipated to have a beneficial impact on the local economy both during construction and in the long-term. Real property taxes generated by the project residents will contribute to the County's revenue tax base to support increases in regional public service demands over time.

I. ENTITLEMENTS REQUIRED

The proposed Master Plan for Alternatives 1 and 2 will require several land use entitlement approvals to proceed. A summary of the current and proposed land use designations, are provided in **Table 54**. The County of Maui, Department of Planning completed Zoning and Flood Confirmation Forms verifying the current land use designations for all parcels located within the OTMP project area are provided in **Appendix "B"**.

~~**Table 5.** Existing Land Use Designations~~

~~Tax Map Key~~	~~State Land Use District~~	~~West Maui Community Plan~~	~~County Zoning~~	~~Special Management Area~~
~~(2)4-8-003:084~~	~~Agricultural/ Conservation~~	~~Park, Open Space, Agriculture~~	~~A-2 Apartment, R-3 Residential, Agricultural~~	~~Within~~
~~(2)4-8-003:098~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:099~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:100~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:101~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:102~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:103~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:104~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:105~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:106~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:107~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:108~~	~~Agricultural/ Conservation~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:109~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:110~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:111~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:112~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:113~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:114~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:115~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:116~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:117~~	~~Agricultural~~	~~Agriculture~~	~~Agricultural~~	
~~(2)4-8-003:118~~	~~Agricultural/ Conservation~~	~~Agriculture~~	~~Agricultural~~	~~Portion In~~
~~(2)4-8-003:124~~	~~Agricultural/ Conservation~~	~~Agriculture/Open Space~~	~~Agricultural, R-3 Residential~~	~~Within~~
~~Source: County of Maui, Department of Planning 2010.~~				

Table 4. Existing and Proposed Land Use Designations

Tax Map Key	*Area of Parcel	Existing State Land Use District	Proposed State Land Use District Amendment and Area Proposed for Reclassification	Maui Island Plan	Existing West Maui Community Plan	Proposed West Maui Community Plan Amendment	Existing County Zoning	Proposed Change in Zoning	Special Management Area
(2)4-8-003:084**	29 acres	Agricultural/ Conservation (4.646 Acs)	Agricultural to Urban: 24.225 Acs	Planned Growth Area, Outside Growth Boundaries, Park, Outside Protected Area***	Park, Open Space, Agriculture	Project District	Hotel, A-2 Apartment, R-3 Residential, Agricultural	Project District	Within
(2)4-8-003:098 (por.)	15 acres	Agricultural	Agricultural to Rural: 14.584 Acs. To Remain Agricultural: 0.443 Ac.	Rural, Portion Outside Planned Growth Area, Protected Area	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:099 (por.)	16 acres	Agricultural	Agricultural to Rural: 11.383 Acs. To Remain Agricultural: 4.192 Acs.	Rural, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Area	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:100 (por.)	27 acres	Agricultural	Agricultural to Urban: 6.239 Acs. Agricultural to Rural: 16.244 Acs. To Remain Agricultural: 4.63 Acs.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Area	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:101 (por.)	29 acres	Agricultural	Agricultural to Urban: 5.423 Acs. Agricultural to Rural: 18.384 Acs. To Remain Agricultural: 5.572 Acs.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:102 (por.)	17 acres	Agricultural	Agricultural to Urban: 16.790 Acs. Agricultural to Rural: 0.006 Ac. To Remain Agricultural: 0.085 Ac.	Rural, Urban, Planned Growth Area, Outside Protected Area	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:103 (por.)	28 acres	Agricultural	Agricultural to Urban: 27.799 Acs.	Urban, Planned Growth Area, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:104 (por.)	50 acres	Agricultural	Agricultural to Urban: 40.311 Acs. To Remain Agricultural: 9.99 Acs.	Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:105 (por.)	41 acres	Agricultural	Agricultural to Urban: 29.387 Acs. Agricultural to Rural: 10.945 Acs. To Remain Agricultural: 0.402 Ac.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:106 (por.)	17 acres	Agricultural	Agricultural to Urban: 8.406 Acs. Agricultural to Rural: 3.509 Acs. To Remain Agricultural: 4.762 Acs.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:107 (por.)	41 acres	Agricultural	Agricultural to Urban: 0.247 Ac. Agricultural to Rural: 33.089 Acs, To Remain Agricultural: 7.807 Acs.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:108	81 acres	Agricultural (59 Acs.)/ Conservation (22 Acs.)	No change	Outside Growth Boundaries, Sensitive Land, Outside Protected Areas	Agriculture, Conservation	Project District	Agricultural	Project District	Outside

Table 4. Existing and Proposed Land Use Designations (Continued)

Tax Map Key	*Area of Parcel	Existing State Land Use District	Proposed State Land Use District Amendment and Area Proposed for Reclassification	Maui Island Plan	Existing West Maui Community Plan	Proposed West Maui Community Plan Amendment	Existing County Zoning	Proposed Change in Zoning	Special Management Area
(2)4-8-003:109 (por.)	16 acres	Agricultural	Agricultural to Rural: 15.753 Acs. To Remain Agricultural: 0.414 Ac.	Rural, Planned Growth Area, Portion Outside Growth Boundaries, Sensitive Land, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:110 (por.)	17 acres	Agricultural	Agricultural to Rural: 7.352 Acs. To Remain Agricultural: 9.868 Acs.	Rural, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:111 (por.)	17 acres	Agricultural	Agricultural to Urban: 8.740 Acs. Agricultural to Rural: 4.752 Acs. To Remain Agricultural: 3.09 Acs.	Urban, Rural, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:112 (por.)	25 acres	Agricultural	Agricultural to Urban: 10.106 Acs. To Remain Agricultural: 14.504 Acs.	Urban, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:113	25 acres	Agricultural	Agricultural to Urban: 25.202 Acs. Agricultural to Rural: 0.009 Ac.	Rural, Urban, Planned Growth Area, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:114 (por.)	29 acres	Agricultural	Agricultural to Urban: 21.647 Acs. Agricultural to Rural: 4.796 Acs. To Remain Agricultural: 2.396 Acs.	Urban, Rural, Planned Growth Area, Portion Outside Growth Boundaries, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:115 (por.)	26 acres	Agricultural	Agricultural to Urban: 8.319 Acs. Agricultural to Rural: 4.976 Acs. To Remain Agricultural: 12.889 Acs.	Rural, Urban, Planned Growth Area, Portion Outside Growth Boundaries, Park, Sensitive Land, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:116 (por.)	16 acres	Agricultural	Agricultural to Urban: 1.357 Acs. To Remain Agricultural: 14.681 Acs.	Outside Growth Boundaries, Park, Sensitive Land, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:117 (por.)	16 acres	Agricultural	Agricultural to Rural: 13.384 Acs. To Remain Agricultural: 2.205 Acs.	Rural, Planned Growth Area, Portion Outside Growth Boundaries, Sensitive Land, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Outside
(2)4-8-003:118 (por.)	43 acres	Agricultural/ Conservation	Agricultural to Urban: 17.98 Acs. Agricultural to Rural: 8.709 Acs. To Remain in Agricultural and Conservation: 16.02 Acs.	Urban, Rural, Planned Growth Area, Portion Outside Growth Boundaries, Park, Sensitive Land, Outside Protected Areas	Agriculture	Project District	Agricultural	Project District	Portion In
(2)4-8-003:124** (por.)	16 acres	Agricultural/ Conservation (0.21 Ac.)	Agricultural to Urban: 14.04 Acs. To Remain Agricultural: 1.83 Acs.	Planned Growth Area, Outside Growth Boundaries, Outside Protected Areas***	Agriculture/Open Space	Project District	Agricultural, R-3 Residential	Project District	Within

Source: County of Maui, Department of Planning 2014 and R.T. Tanaka Engineers, Inc.
Note: * Rounded to nearest whole number
** Parcels excluded in Alternative 2
*** MIP includes footnote that potential urban growth areas makai of the existing Honoapi'ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan

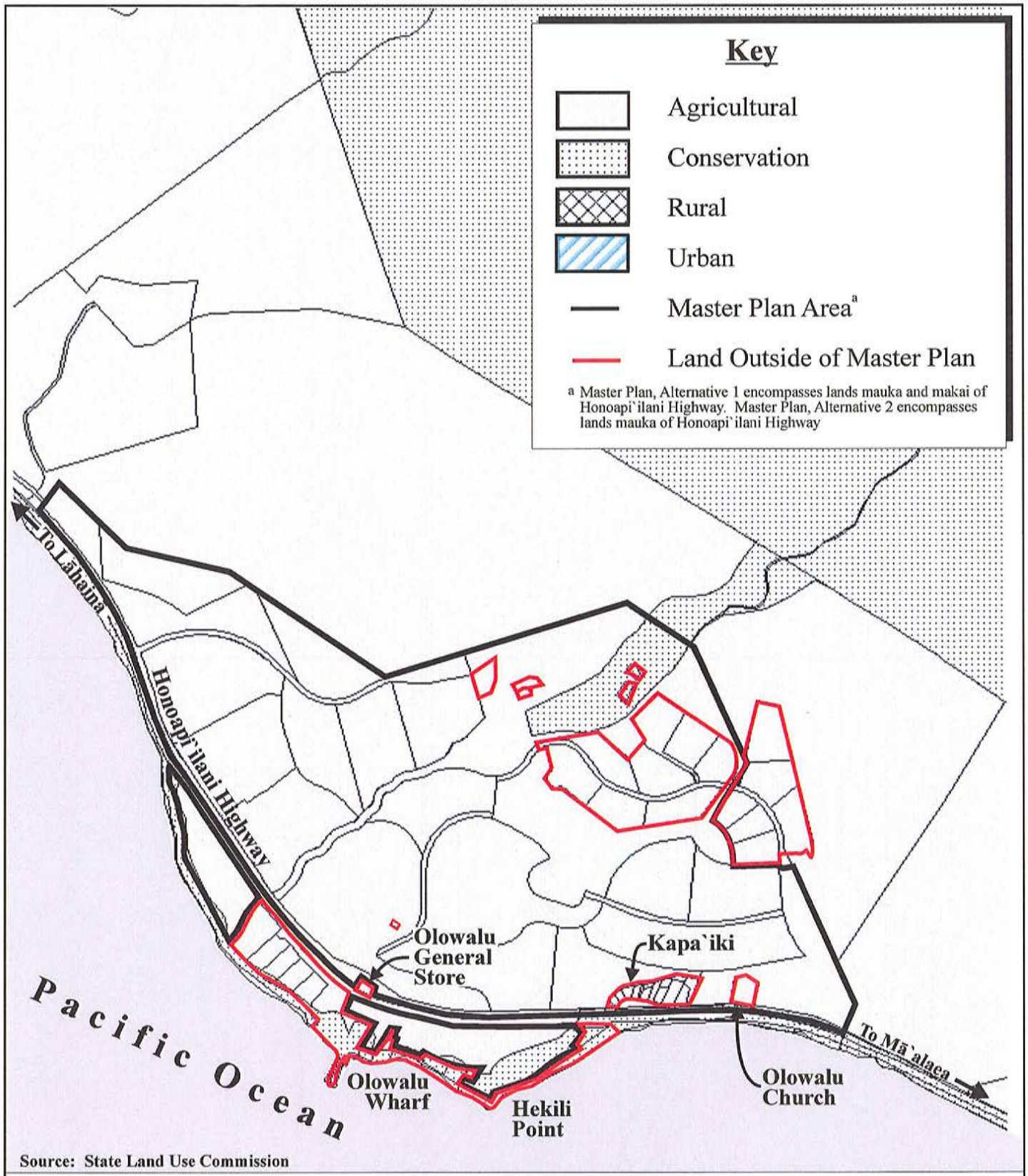
The entitlements to be sought for the project are provided below:

1. State Land Use District Boundary Amendment

The current State Land Use designation for the majority of the Master Plan for Alternatives 1 and 2 is the "Agricultural" District. Portions of the Master Plan area for Alternatives 1 and 2 at the mauka extent of the property, as well as makai of Honoapi`ilani Highway along the shoreline for the OTMP, fall within the "Conservation" District. See **Figure 6**. Alternative 1 consists of 609 acres in the "Agricultural" District and 27 acres in the "Conservation" District. Alternative 2 consists of 568 acres designated in the "Agricultural" District and 22 acres in the "Conservation" District.

A State Land Use District Boundary Amendment (DBA) from the "Agricultural" District to the "Urban" ~~d~~District and "Rural" ~~d~~District will be required for a portion of the property in order to implement the rural residential and urban town center. The Conservation ~~d~~District lands will remain as ~~conservation on the State Land Use District (LUD) maps~~is; no reclassification of any "Conservation" District lands is proposed. See **Figure 7**. The DBA petition to the State Land Use Commission (SLUC) has been prepared pursuant to Chapter 205, Hawai`i Revised Statutes (HRS), and the Land Use Commission Rules of the State of Hawai`i found in Title 15, Subtitle 3, Chapter 15 of the Hawai`i Administrative Rules (HAR). A summary of the Petition Area is provided in **Table 4**.

The Applicants are requesting a DBA for the approximate 434 acres of the 636 acres of the OTMP. Approximately 266 acres are proposed to be re-districted from the "Agricultural" District to the "Urban" District and approximately 168 acres to the "Rural" District. The rationale behind Alternative 2 is that under the MIP, the areas makai of the current alignment of Honoapi`ilani Highway are not presently within the UGB. However, the MIP indicates that this area may be put into the UGB as part of an update or amendment to the West Maui Community Plan. The Applicants will be pursuing an amendment to the West Maui Community Plan as part of the entitlements efforts for the master plan. Should the County of Maui not include the makai area in the Community Plan Amendment, then the Applicants will implement Alternative 2 and leave the makai area in the existing uses consisting of the OCR, agriculture, and recreation (Camp Olowalu and shoreline access essentially through the State Beach Reserve). Alternative 2 would re-district approximately 228 acres to the "Urban" District and 168 acres to the "Rural" District.



Source: State Land Use Commission

Figure 6

Proposed Olowalu Town Master Plan

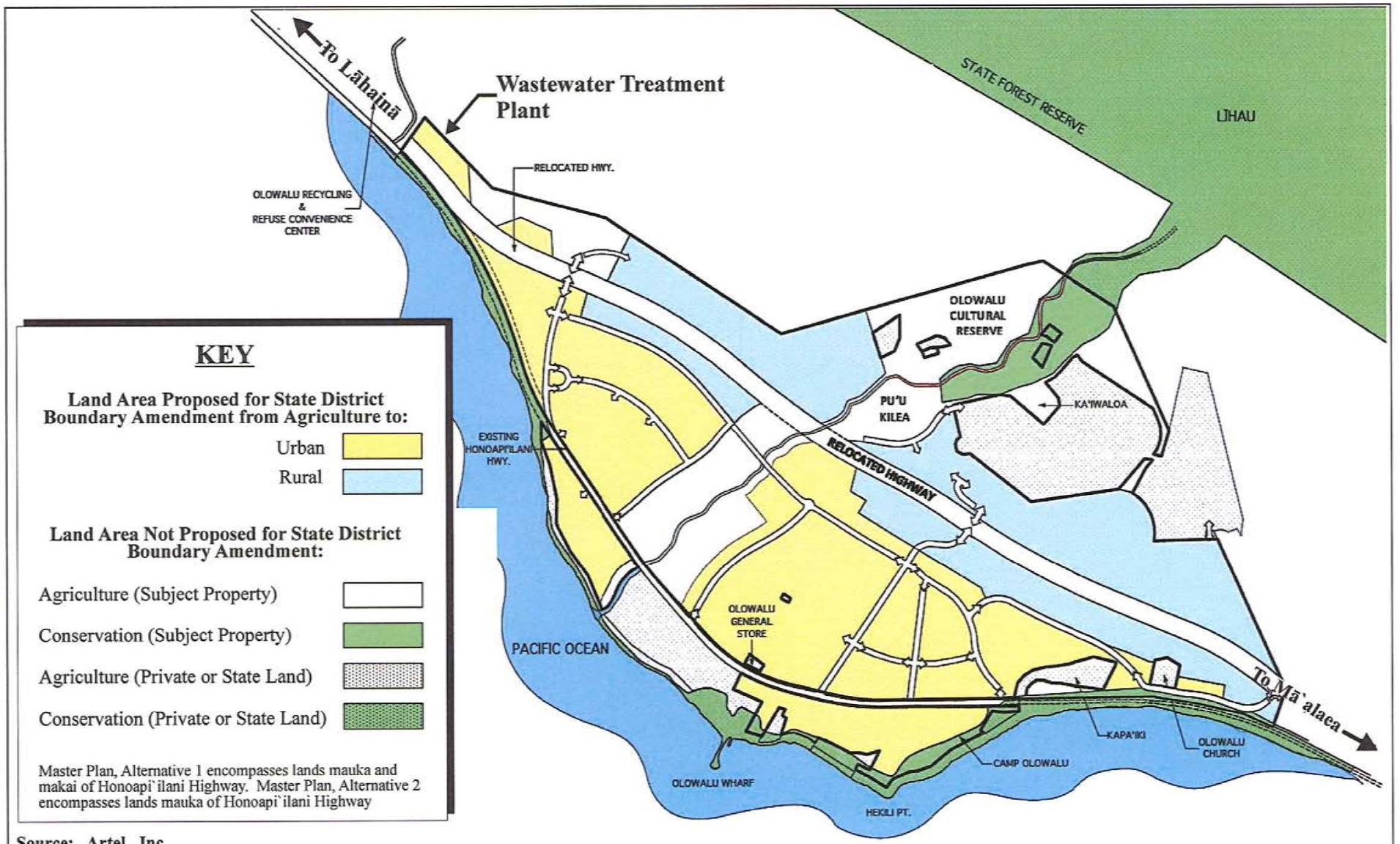
Existing State Land Use District Designations Map

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

OlowaluTown/MasterPl/Final EIS/SLUD



Source: Artel, Inc.

Figure 7

Proposed Olowalu Town Master Plan

Proposed State Land Use District Designations Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/SLUD District Desigs

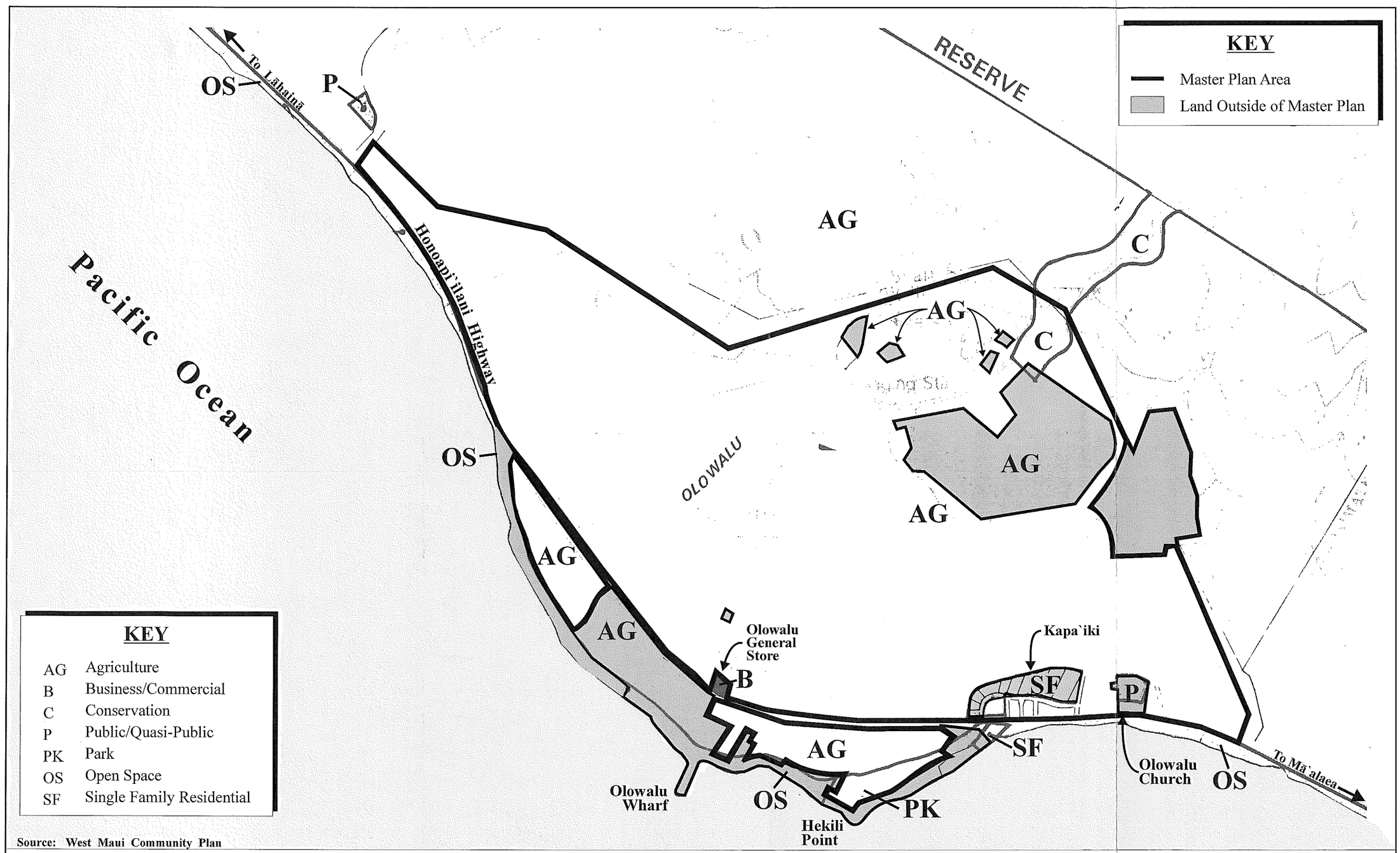
In no event are the Applicants seeking to reclassify any lands in the State "Conservation" District.

2. West Maui Community Plan Amendment

The majority of the Master Plan area ~~is~~for Alternatives 1 and 2 is currently designated as "Agriculture" by the West Maui Community Plan with a very small portion~~s~~ designated "Conservation", "Park", and "Open Space". See **Figure 8**. A West Maui Community Plan Amendment (CPA) will be required to establish the land use categories delineated ~~by the Master~~ for Alternatives 1 and 2.

In conjunction with the CPA, Alternative 1 will need to delineate the makai area in the UGB of the MIP. According to the MIP, such delineation may consider the need to protect adjacent coastal and marine ecosystems (including the reefs of Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway Plan.

The CPA will be required to change the current land use designations to "Project District". The Project District designation is considered appropriate to provide flexibility in detailed site planning and flexibility in establishing performance standards for land use implementation as a traditional neighborhood following the principles of "New Urbanism" and "LEED ND". The Olowalu Town Project District is envisioned as a mixed use community of varied housing products, including low, medium, and high density houses and lots, medium density multi-family units, mixed use housing units, and larger agricultural farm lots interspersed with open space and park lands. The proposed Master Plan for Alternatives 1 and 2 includes an economic base to support the residential community, including opportunities for agriculture, support services, and entrepreneurial enterprises. ~~Although in the Project District, the~~The existing Conservation ~~d~~District lands will remain ~~as~~in the "Conservation" District and as Open Space or may be used for recreational purposes allowed in the State "Conservation" District.



Source: West Maui Community Plan

Figure 8

Proposed Olowalu Town Master Plan

West Maui Community Plan Land Use Designations Map

0 250 500 1000 Feet

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

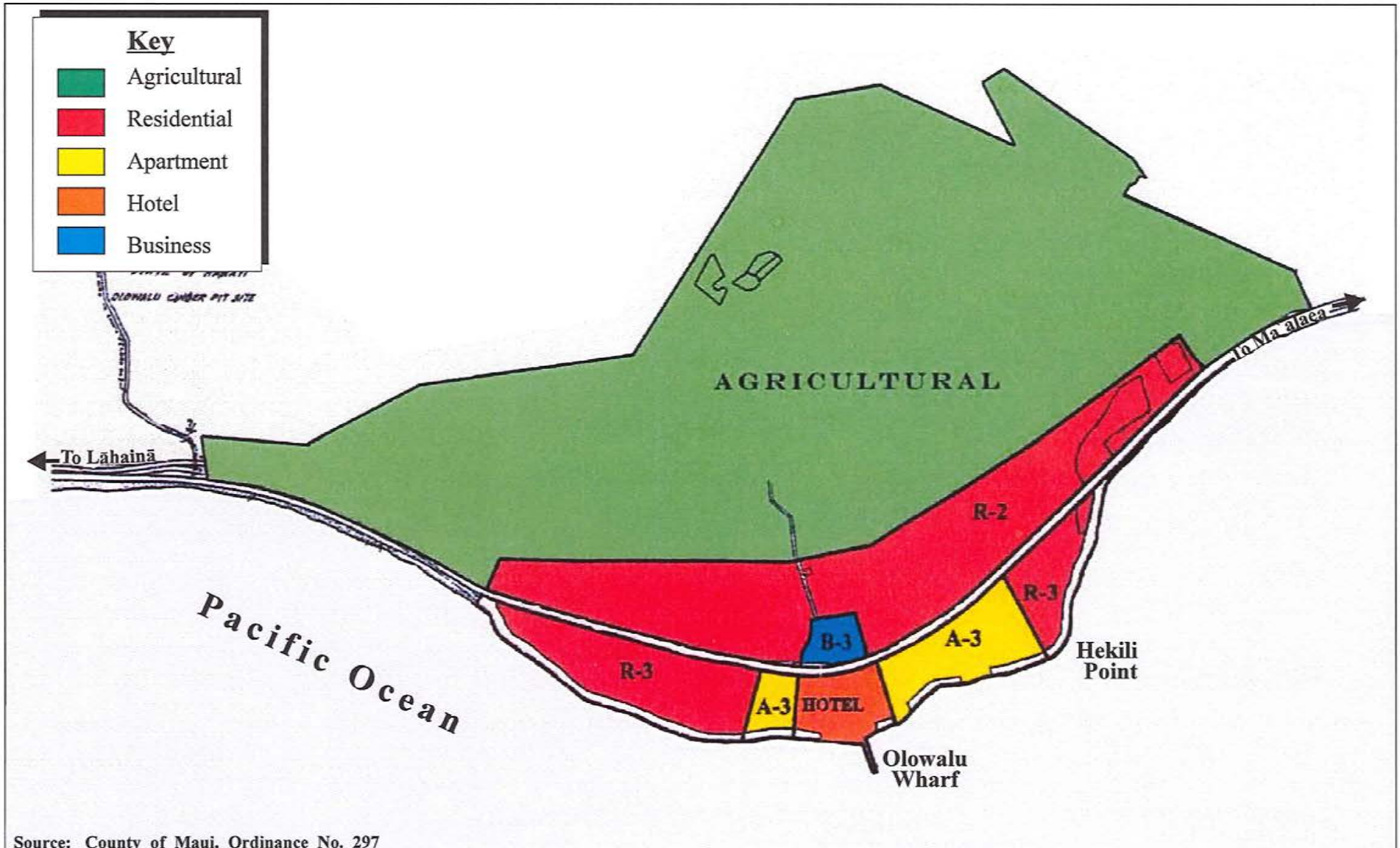
OlowaluTown/MasterPl/Final EIS/CPLUD

3. Change in Zoning

~~The Master Plan area is currently zoned "Agricultural", "R-3 Residential", and "A-2 Apartment" district by the County of Maui~~In 1961, prior to the establishment of the State land use law, Maui County Ordinance No. 297 adopted Land Zoning Map No. 7 which established zoning for the Olowalu lands consisting of agricultural, residential, apartment, business and hotel uses. See **Figure 9**. Subsequently, the State Land Use District Maps were adopted in 1964 which designated the Olowalu lands in the State "Agricultural" and "Conservation" Districts which was inconsistent with the county zoning. Refer to **Figure 6**. In 1982 the Lāhainā Community Plan was adopted and later updated in 1996 as the West Maui Community Plan which identified most of the land uses in Olowalu as "Agricultural". The Community Plan identified the mauka conservation lands as "Conservation" while the shoreline conservation lands were identified as "Open Space", the Camp Olowalu area was designated "Park", Olowalu General Store as "Business", Kapa`iki as "Residential" and Olowalu Church as "Public". Refer to **Figure 8**.

On December 31, 1998, the County of Maui, through Ordinance No. 2749, amended Title 19 Comprehensive Zoning and adopted a new "Agricultural" District, Chapter 19.30A. Ordinance No. 2749 also adopted zoning by which lands designated as "Agriculture" by the Maui County General Plan and Community Plans were zoned in the County "Agricultural" District. Accordingly, the prior zoning on Land Zoning Map No. 7 for those lands identified as "Agricultural" on the West Maui Community Plan was rezoned to the County "Agricultural" zoning district. According to the Zoning Confirmation forms received from the Maui Planning Department (Appendix "B"), parcels 84 and 124 are within multiple County zoning districts. Parcel 84 is zoned "Hotel", "A-2 , Apartment", "R-3, Residential" and "Agricultural" while parcel 124 is zoned "R-3, Residential" and "Agricultural". Refer to **Table 4**.

In keeping with the proposed Community Plan Project District land use designation, the Applicants anticipate filing a County change in zoning application to establish Project District zoning for the Master Plan for Alternatives 1 and 2.



Source: County of Maui, Ordinance No. 297

Figure 9

Proposed Olowalu Town Master Plan

Land Zoning Map No. 7

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Draft EIS/LandZoneMap7

4. Project District Processing

Project District Phase I approval will be required to set forth zoning performance standards for the Master Plan area. Project District Phase II and Phase III approvals will also be needed as part of the implementation phase of regulatory review.

The Project District Phase 1 proposes to integrate the "SmartCode" as a comprehensive land development ordinance that will include zoning and subdivision regulations, urban design standards, public works standards, and basic architectural controls. The Project District Phase 1 land use ordinance will be developed and refined as the Master Plan progresses through the regulatory entitlement processes.

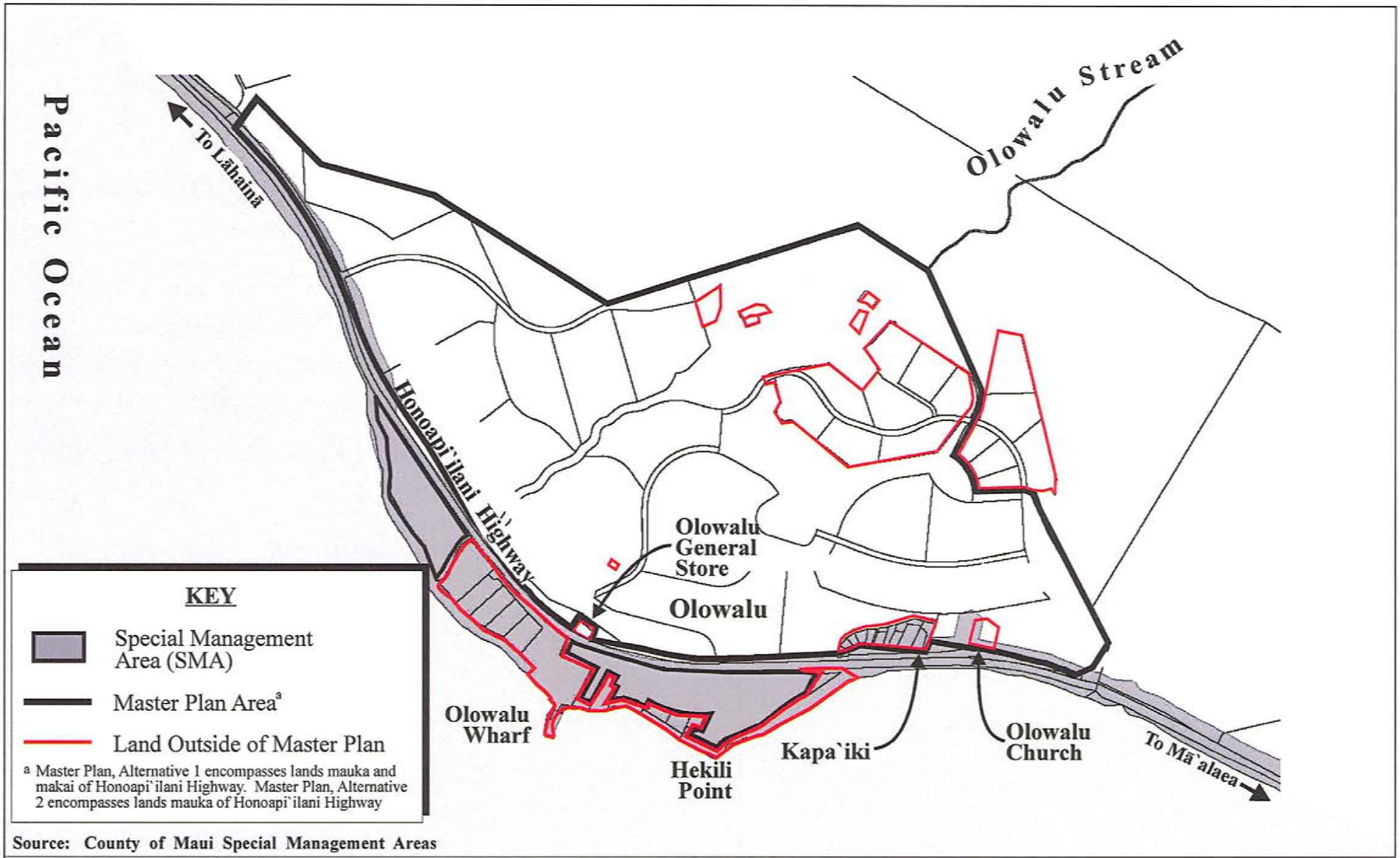
In accordance with the "transect-based SmartCode", the Project District Phase 1 application will identify the different transects of the Master Plan ~~as~~and its sub-districts with its unique standards of development. As much as is practicable, the principles of the ahupua`a system of land management will be incorporated in the Project District Phase 1 land use ordinance.

5. Special Management Area Use Permit

In the Olowalu area, lands falling makai and a small portion mauka of Honoapi`ilani Highway are within the County of Maui's Special Management Area (SMA). See **Figure 810**. As such, ~~the~~ "development", as that term is defined under HRS Section 205A-22, will require appropriate SMA ~~Use~~ Permits from the Maui Planning Department or Maui Planning Commission. The SMA approval process will be triggered ~~with a~~upon any specific development proposal within the SMA as Master Plan implementation proceeds over time.

J. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENTS

As noted above, the Master Plan for Alternatives 1 and 2 will require an amendment to the West Maui Community Plan. In addition, utility system work and roadway improvements will affect the Honoapi`ilani Highway right-of-way, a State of Hawai`i transportation facility as well as a future relocation of Honoapi`ilani Highway further landward (mauka). Wastewater treatment facilities are also proposed as part of the ~~Master Plan's~~ infrastructure systems needed to service the plan area for Alternatives 1 and 2. These actions are triggers which require the preparation of environmental disclosure documentation pursuant to Chapter 343, HRS and Chapter 200 of Title 11, Department of Health Administrative Rules, Environmental Impact Statement Rules. In light of the scope of the proposed Master Plan,



Source: County of Maui Special Management Areas

Figure ~~8~~10

Proposed Olowalu Town Master Plan

Special Management Area Boundary Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/SMABoundary

an Environmental Impact Statement Preparation Notice (EISPN) was issued by the SLUC on June 4, 2010. The EISPN was published in the Office of Environmental Quality Control (OEQC) Environmental Notice on August 8, 2010. The Draft EIS was published in the OEQC Environmental Notice on March 8, 2012. The 45-day statutory comment period ended on April 23, 2012. The SLUC ~~will be~~is the Accepting Authority for the EIS document.

K. ANTICIPATED DEVELOPMENT SCHEDULE

Master Plan implementation is envisioned to occur over an approximate 10-year time horizon, as summarized in **Table 65**.

Table 65. Master Plan Preliminary Implementation Time Schedule

TASKS	TIME HORIZON
Permitting and Entitlements	~~2011 to 2013~~2015 to 2018
Infrastructure Design and Construction	~~2013 to 2020~~2018 to 2026
Implementation and Occupancy of Neighborhoods	~~2015 to 2023~~2020 to 2026

L. CONSTRUCTION COST

Preliminary construction costs are estimated as $465.6 million. Onsite improvements are estimated as $448 million and offsite improvements as $18 million. The foregoing cost estimates are considered "order-of-magnitude" estimates intended to provide an indication of relative scale of the proposed action. They are based on the Applicants' knowledge of unit costs for various improvement types and are reflective of the applicants' long-term experience in the development and construction arena. In this context, the total estimated onsite improvement costs of $448 million addresses the following cost components:

1. Construction of 1,500 proposed housing units: $297.6 million
2. Construction of neighborhood commercial and village mixed use areas: $75.0 million
3. Internal roadways and utilities: $50.0 million
4. Wastewater treatment facility and R-1 transmission system: $15.0 million
5. Parks improvements: $5.0 million

6. Small scale renewable energy facility: $5.0 million

The Honoapi`ilani Highway relocation cost of $18 million reflects the estimated construction cost for the realigned two-lane highway. Other costs associated with the new highway will include modifications to the existing Honoapi`ilani Highway, which may include new intersections with the OTMP's internal roadway system. These costs are included in the internal roadway and utility costs cited above. It is noted that the estimated $18 million construction cost for the two-lane Honoapi`ilani Highway relocation does not include the underlying approximate 58 acres right-of-way dedication value.

II. ALTERNATIVES ANALYSIS

II. ALTERNATIVES ANALYSIS

This chapter addresses alternatives considered in the development of the Master Plan and its various implementation components.

A. ALTERNATIVE 1: PREFERRED PLAN UTILIZING LANDS MAUKA AND MAKAI OF HONOAPI`ILANI HIGHWAY (OLOWALU TOWN MASTER PLAN)

Alternative 1, the Preferred Plan, described in Chapter I of this document was developed through an extensive community-based planning process referred to as "Olowalu Talk Story", which began in November 2005. Refer to **Figure 4**. The "Olowalu Talk Story" workshop or planning charette included the input of participants consisting of residents, community organizations, professionals, town planners, and government agencies. Project plans were continuously evaluated, assessed, and updated to incorporate the views of the participants and their stated desires in order to preserve Maui's quality of life, provide affordable housing for local residents, and preserve natural resources. Significant natural resources that were identified in the planning process for preservation or protection in recognition of the ahupua`a system of land management included the Olowalu Cultural Reserve (OCR), the archaeological and cultural resources of Olowalu, Olowalu Stream, Kapa`iki, the historic Olowalu Church, Camp Olowalu (formerly Pecusa), Olowalu Wharf, Olowalu General Store, the monkey pod trees on Honoapi`ilani Highway, the makai open spaces and recreational uses, and the coastal waters of Olowalu.

Refinement of the Master Plan has been through continued dialogue with interested parties established during "Olowalu Talk Story", especially with the residents of Olowalu. Preferred Alternative 1 of the Master Plan took six (6) years to develop and numerous iterations of the plan. Refer to **Appendix "A"**. The basic concepts of a sustainable and walkable community have been incorporated in the Master Plan. The country town centers are on relatively flat land and residential uses are within a five (5) minute walk to or one fourth mile of centers of activity to reduce the dependency on the automobile.

Concurrent with the refinement of the Master Plan, Olowalu Ekolu, LLC and Olowalu Town, LLC have participated in the Maui Island Plan (MIP) process to include the Master Plan in the Urban Growth Boundary (UGB) and Rural Growth Boundary (RGB). Both the General Plan Advisory Committee and Maui Planning Commission recommended the Master Plan for

the MIP. The MIP includes portions of the Olowalu Town Master Plan in the Urban and Rural Growth Boundaries. The MIP was adopted by the Maui County Council by Ordinance No. 4004 on December 28, 2012. The MIP did not include the two (2) makai properties in the directed growth boundaries.

According to the MIP, Olowalu Town will be designed to recognize and perpetuate the land and resources management system of ahupua`a. The town will provide public access between the ocean and the mountains; protect the natural environment, particularly Olowalu Stream, the shoreline, and coral reefs and marine resources; preserve mauka and makai view corridors and perpetuate the OCR. In order to achieve these goals, the MIP made provisions for potential expansion of the growth boundaries makai of the existing Honoapi`ilani Highway in the context of the West Maui Community Plan update or amendment process. Expansion of the growth boundaries may consider the need to: protect adjacent coastal and marine ecosystems (including the reefs at Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway Plan.

In order to create a sustainable community, perpetuating the land and resources management system of ahupua`a, use of both the mauka and makai lands are proposed in Preferred Alternative 1. Use of these lands allows for mauka to makai integration of a system of parks, public access, open space and the OCR with urban and rural uses and public infrastructure. Of particular importance is development of the mauka to makai drainage systems to protect the nearshore waters and ecosystems, as well as proposed plans by the Applicants to develop the park and open space lands. In keeping with implementation of the Pali to Puamana Parkway Plan, Preferred Alternative 1 allows relocation of Honoapi`ilani Highway landward and creation of enhanced recreation areas, such as parks, open space and public access makai of the existing Honoapi`ilani Highway.

According to the MIP, the Master Plan is intended to meet the needs of Maui residents as a revitalized and sustainable Olowalu community. Olowalu Town will provide housing, employment, recreational, and cultural opportunities in the context of a mixed-use sustainable community that preserves the area's natural, cultural, and historic resources. Olowalu Town is envisioned as a pedestrian-friendly community that integrates a variety of housing types with employment opportunities, commercial, and recreational uses developed concurrently with public services and infrastructure (MIP, pp. 8-63).

As a proposed sustainable community, the environment is a key element of the proposed Alternative 1 Master Plan. Of particular environmental concern is the relationship between project-related stormwater runoff and sediments and nearshore water quality conditions. As

such, stormwater quality enhancements incorporating Low Impact Development (LID) measures are proposed to mitigate impacts to the nearshore waters. The Master Plan proposes to retain as much runoff onsite as possible, primarily on the mauka side of Honoapi`ilani Highway and discontinue the existing conditions in which stormwater runoff from the mauka vacant lands exit through existing culverts under Honoapi`ilani Highway directly into the ocean. See **Appendices "C"** and **"C-2"**. As noted in the *Assessment of Marine Water Chemistry and Biotic Community Structure* study, the existing stormwater runoff is of concern to the area north of Hekili Point and south of Olowalu Stream due to the direct flow of runoff into the ocean. See **Appendix "E"**.

Creative solutions for new infrastructure will also be required for water, sewage, roadways, and related systems. These solutions will be implemented concurrent with the development of the Olowalu Town Master Plan (OTMP). Detailed discussion of infrastructure is provided in Chapter III of this EIS.

Alternative 1 utilizes vacant lands that were formerly used for agricultural cultivation and provides housing, shopping, and community-living opportunities for Maui residents, including seniors and first-time homebuyers. Infrastructure improvements will be necessary to provide needed services to the Master Plan community. These infrastructure improvements that will be built as part of the Master Plan community will also enhance and increase the services available to current Olowalu residents, such as upgraded water and fire protection systems, as well as the opportunity to eliminate individual wastewater systems through the construction of a state of the art wastewater treatment facility.

It is noted that cost benefit considerations were taken into account in affirming the viability of Alternative 1. As noted previously, the estimated construction cost for the project, including vertical construction and the Honoapi`ilani Highway realignment costs, is estimated to be $465.6 million. The Assessment of Economic and Fiscal Impacts (Appendix "M") further indicates that property values for the residential components at build-out is estimated to be $757.5 million while the value of commercial spaces is calculated to be about $52.5 million. While the valuations presented in the Assessment of Economic and Fiscal Impacts report are not framed in the context of a project development feasibility analysis, it does provide a positive indicator that the long-term feasibility of the project, under Alternative 1, is considered reasonable and appropriate.

B. ALTERNATIVE 2: UTILIZE LANDS MAUKA OF HONOAPI`ILANI HIGHWAY (MIP SCENARIO)

Alternative 2 (the MIP scenario) also follows the principles of ahupua`a land management and is in concert with the directed growth boundaries of the MIP. In this regard, Alternative 2 does not include the makai portion or approximately 45 acres in the proposed OTMP. Except for the existing residential uses, this alternative limits the use of the makai area to the existing OCR, agriculture, and recreation uses. Refer to **Figure 5**. Portions of the vacant makai lands are currently overgrown with kiawe, shrubs and grasses. Except for Camp Olowalu, which is available to fee paying guests, the vacant lands have not been developed for parks or recreational uses beyond public access to and informal access along portions of the shoreline from both ends of Olowalu and a public beach access with unpaved parking from the former Olowalu Mill site. A portion of the makai area is located within the OCR and will be subject to land altering activities to implement the objectives of the OCR. As with Alternative 1, LID measures will need to be incorporated into any land altering work necessary to meet the objectives of the OCR to minimize impacts on the nearshore waters.

Alternative 2 will keep the makai land in its present condition and retain it in the State Land Use (SLU) Agricultural District. Existing, limited, and agricultural uses (tree farms) will continue on the makai properties. Development of future parks and public access improvements will require land acquisition and development funds by the County of Maui. Also, current drainage patterns will be maintained with stormwater runoff eventually sheet flowing into the ocean.

With respect to the mauka lands, similar to Alternative 1, Alternative 2 will retain as much runoff onsite as possible, primarily on the mauka side of Honoapi`ilani Highway, and discontinue the existing conditions in which stormwater runoff from the mauka vacant lands exit through existing culverts under Honoapi`ilani Highway directly into the ocean.

Alternative 2 maintains the same residential unit count and land uses as Alternative 1, except it limits development to the area mauka of Honoapi`ilani Highway. Alternative 2 may be perceived as more appropriate due to the distance from the shoreline and perceived lesser impact to the nearshore waters, primarily the reefs (coral) and marine biota (i.e. manta rays and black tip sharks). However, as noted previously, under Alternative 2 stormwater runoff from the makai lands will continue to sheet flow into the ocean. Although Alternative 2 will leave the makai lands available for implementation of the County of Maui's proposed Pali to Puamana Plan which identifies portions of the makai lands for park use, it will require land acquisition by the County of Maui.

Alternative 2 will have similar impacts on infrastructure and public services as those assessed for Alternative 1.

From a financial feasibility standpoint, Alternative 2, like Alternative 1, is considered to be a viable planning option. The overall total cost for Alternative 2 will be slightly lower than that of Alternative 1 as the costs of developing the makai park and open space lands would not be a cost component. However, the cost savings will be offset with the elimination of potential ocean front market units, which will reduce overall revenue benefits. While market attractiveness may be diminished without the makai lands, the value of housing units and commercial areas is expected to exceed the cost of infrastructure systems and vertical construction, yielding a benefit-cost indicator which would point to project viability.

C. ALTERNATIVE 3: NO ACTION

On September 12, 2000 the Olowalu lands were granted Special Management Area Use Permit No. 990021 to develop the existing agricultural lots, including the Olowalu Makai Subdivision and Olowalu Mauka Subdivision. Lots in the Olowalu Makai Subdivision and the Olowalu Mauka Subdivision have been sold. Of the remaining agricultural lots under the control of Olowalu Ekolu, LLC and Olowalu Town, LLC, there is limited diversified farming occurring on the properties. These include a tomato farm, tree farms, cattle and horse grazing. It is noted that these current limited agricultural enterprises share the benefit of low lease rents which support the business-side element of the farming operations.

Alternative 3 would result in the continued sale of the remaining agricultural lots and the current small-scale agricultural use of the lots. While this option is considered an alternative from a planning perspective, it does not provide needed housing for local residents through a comprehensively planned sustainable community. Alternatives 1 and 2 will provide housing employment and recreational opportunities. In addition, Alternative 3 does not include any improvements to address the current runoff of sediments into the ocean. Therefore, Alternatives 1 and 2 are considered to yield a greater community benefit than Alternative 3. The rationale for the foregoing is provided below.

With the demise of Pioneer Mill in 1999 and cessation of pineapple cultivation in West Maui in 2009, there is an abundance of agricultural lands available for farming operations. Existing constraints, such as the ease in getting out-of-State agricultural products to State-wide markets at lower cost, limits diversified agriculture from expanding at a pace that would absorb the available agricultural lands. In the foreseeable future, there is no cash crop similar to sugarcane or pineapple envisioned that will be able to absorb the available vacant agricultural

lands that were created with the demise of these two (2) plantations. While there may be interest in bio-fuel crops, from an economic feasibility perspective, growing of such crops will more than likely require large-scale commercial farms rather than smaller diversified agricultural lots, such as those found in Olowalu.

With the surplus of agricultural lands available for farming operations on Maui, planning for future communities on the island must then discern lands which are most appropriate for meeting the needs of the island's residents and businesses, from historic, spatial relationship, infrastructural and environmental points of view. Based on the planning analysis and technical studies conducted for the MIP and Olowalu Town, the Olowalu area is considered a functionally appropriate opportunity for new community development.

Alternative 3, No Action, may be perceived by some as advantageous from the standpoint of maintenance of the status quo regarding community character and environmental management. However, the existing problems associated with sedimentation into Olowalu Stream and the ocean, as well as traffic and erosion on Honoapi`ilani Highway continues or is further exacerbated under Alternative 3. The No Action alternative does not enhance the opportunity for physical activity or support social interaction, which are key components of a healthy community. The tradeoff considerations, then, relate to best use of the Master Plan lands from a community benefit perspective. As discussed previously, the Applicants believe that the creation of a master planned sustainable community which meets local housing and economic development needs in the context of the community character and its environmental management is the appropriate scenario for the use of lands at Olowalu.

D. ALTERNATIVE 4: DEFER ACTION

Alternative 4 is to defer development of the area and, hence, land use entitlement applications until a future date. As noted previously, the proposed action has been in the planning and analyses phases of work since 2005. The process for securing appropriate land use entitlements typically span a number of years, to be followed by detailed design and engineering. In order to successfully program work for new community development, careful plotting of development milestones is needed to ensure that unnecessary delays are minimized. Alternative 4 is not deemed to be in alignment with the need for local housing which falls within a more immediate timeframe which coincides with the County of Maui's comprehensive planning processes adopting the MIP and future update of the West Maui Community Plan.

In particular, Alternative 4 introduces the element of uncertainty with respect to future

conditions. For example, revisions to regulatory protocols may result in added complexity in the land use entitlements processes resulting in lengthier approval durations and attendant higher costs of development (which ultimately translates to higher consumer costs). In this regard, project planning and land use entitlements processing for Olowalu Town is now approaching 10 years in length. Deferral of planning and land use entitlements will result in further delays in bringing new housing products to market for Maui's residents. The continued supply-demand imbalance has historically fueled higher housing costs for residents.

Delays in project implementation will also impact public-private partnership opportunities with respect to the realignment of Honoapi`ilani Highway, which is viewed to be a public interest infrastructure project. Delays in the realignment of Honoapi`ilani Highway is considered an adverse impact to the movement of people, goods and services for island businesses, residents and visitors. Delays in achieving a permanent transportation solution will then be replaced by interim and incremental improvements to address coastal erosion issues, and highway capacity concerns.

In addition, deferral of the project will result in a significant time lag of project benefits such as the implementation of sustainable LID stormwater management measures designed to enhance nearshore water quality conditions. Similarly, deferral of the project will place "on-hold" community sustainability benefits associated with new wastewater treatment technologies, water re-use practices, and agricultural infrastructure improvements. As a project designed to accommodate future growth, deferral of the OTMP will delay public-private partnership opportunities for addressing public service needs, including those related to police, fire, and educational system improvements.

E. ALTERNATIVE 5: RESORT AND RESORT RESIDENTIAL USE

From a master planning standpoint, alternative uses considered included developing resort uses, such as hotel units, with limited commercial support services to take advantage of the natural resources, especially the shoreline and ocean resources; as well as developing the area as a resort residential area as envisioned in Land Zoning Map No. 7. Refer to **Figure 9**. These types of uses could be established, however, these uses are viewed as taking away opportunity for focusing on a comprehensively planned sustainable community benefitting local residents including the provision of affordable housing. The Applicants' proposal is based on a philosophical priority embracing sustainability which yields the land uses, product mixes and spatial relationships identified in Alternatives 1 and 2, and which gives preference to local families.

The challenge for Alternative 5, then, is its focus on the visitor market and higher end housing product. The provision of public services, such as fire, police, recreational and educational services, would be provided to serve a market which in a larger context, may dilute and shift capital improvements programming and prioritization away from those needed by residents. The disadvantage of Alternative 5 is further illustrated by the likely housing product imbalance to be realized under this option. For example, resort residential housing is marketed to the higher-end customer who has the means to acquire housing products which have construction materials, quality and design amenities which lead to significantly higher sales prices. In today's market context, resort residential units are not sold to local families. Additionally, the 25 percent workforce housing requirement may not necessarily be located at Olowalu, which eliminates the locational advantage Olowalu offers to local residents from a commute efficiency standpoint. In general, the misalignment of Alternative 5 with the Applicants' values and desire to improve the quality of life for Maui's residents, results in an alternative which does not warrant further consideration.

Notwithstanding the foregoing disadvantages, Alternative 5 (Resort and Resort Residential Use) is considered financially viable. While vertical construction cost will be substantially higher than those presented for Alternatives 1 and 2, the values of the resort products at build-out will be substantially higher as well, likely yielding higher revenues to offset development costs. Specific quantifiable costs measuring feasibility potential of Alternative 5 is not presented because specific unit and product types have not been identified. However, if this alternative was to be considered, such costs would be developed through an iterative process of master plan development and cost estimating to ensure that units and products associated with the project yield a financially viable proposal. Notwithstanding, as noted previously, this alternative is not in keeping with the applicants' objective of providing housing for Maui residents.

F. ALTERNATIVE 6: OTHER LOCATIONS

Alternative 6 considered alternative locations within the West Maui region. Potential sites located within the UGB of the MIP do not have the geographic qualities to implement a sustainable community in accordance with the Hawaiian land management system of ahupua`a. Unfortunately, the lands within the UGB located in Lāhainā Town to Kapalua have been urbanized from Honoapi`ilani Highway to the shoreline and along the various stream systems, many of which have been channelized. As such, these alternative locations are not able to accommodate the sustainability plan proposed in Olowalu and does not meet the objectives of the Applicants.

Looking at lands beyond the UGB, alternative locations may be considered on State land use classified "Agricultural" lands mauka of Honoapi`ilani Highway between the Kā`anapali 2020 Master Plan area and the Pulelehua Master Plan area (near the West Maui Airport). Such lands, however, are not considered a viable option as they will require an amendment to the Maui Island Plan. This land use entitlement process will require the preparation of a new Chapter 343, Hawai`i Revised Statutes document, including new studies related to traffic, archaeology, engineering, flora and fauna, market and fiscal and economic impacts. In effect, consideration of lands beyond the UGB yields outcomes similar to Alternative 4, Defer Action.

G. INFRASTRUCTURE DEVELOPMENT CONSIDERATIONS

As a sustainable community, creative solutions for infrastructure systems will be required. The formulation of the preferred infrastructure system elements required careful engineering analysis, taking into account land use relationships, environmental impact mitigation, and relationships to existing and planned infrastructure systems. The basis for developing the preferred infrastructure system alternatives are described below.

Wastewater treatment and disposal requires utilization of technology that eliminates injection wells, locates facilities down gradient of water resources, locates facilities outside of any potential hazard area, such as the flood zones, and locates facilities in an area readily accessible, with limited impacts on existing and proposed residential and commercial uses. The wastewater facility site was placed on the northern portion of the property adjacent to the existing County of Maui's Recycling and Refuse Convenience Center which generates existing nuisances from noise, dust and odors and is accessible from an existing driveway. Additionally, the site needs to be accessible to large landscaped areas in order to utilize the R-1 recycled water for irrigation, as well as provide for the natural treatment systems consisting of a constructed wetland and soil aquifer treatment system. The facility's proposed location next to the County's Recycling and Refuse Convenience Center also will accommodate the solid waste to be generated by the project.

The existing private water system will be upgraded with additional source wells, storage and transmission lines. The area on the mauka side of the future relocated Honoapi`ilani Highway near the existing well and water storage tank was selected as the most likely area for the new source wells and storage for convenient connection to the existing system. This location is up-gradient to allow gravity flow transmission lines and minimize the need for pump stations to supply drinking water to the proposed and existing communities.

The alignment of the future relocated highway was designed to be consistent with the County's Pali to Puamana Master Plan, as well as the objectives of the Hawai`i Department of Transportation's (HDOT) Honoapi`ilani Highway Realignment/Widening Project (Mā`alaea to Launiupoko). The mauka alignment was selected based on the criteria of the Federal Highway Administration (FHWA) and HDOT, the topography of the site, and the existing natural constraints of the property where it narrows at both entrances to Olowalu along the shoreline. Relocating the highway further mauka will change the existing Honoapi`ilani Highway from a higher speed arterial to a lower-speed secondary roadway. The lower-speed secondary roadway will enhance and improve traffic safety of recreational users seeking to access the shoreline and create the opportunity to expand parks with associated amenities along the shoreline.

Drainage will be handled through a system of retention basins located within the approximate 140 acres of 223 acres (Alternative 1) and 200 acres (Alternative 2) of open space and park lands in the Master Plan, as well as Low Impact Development (LID) measures. There is adequate acreage of open space and park lands included in the Master Plan to handle not only drainage but to provide necessary open spaces and park lands for both passive and active recreation. As a fundamental design criterion, the drainage system also needed to retain all the post development flows, as well as some of the pre-development flows in order to minimize impacts on the nearshore water quality, especially at the Olowalu Stream outlet.

H. SUMMARY

The following criteria were used to evaluate the Alternatives:

1. Community Planning Effort
   - Community based planning effort initiated to develop Alternatives

2. Sustainability
   - Incorporates green infrastructure
   - Incorporates green buildings
   - Walkable community encourages transit, pedestrian, and bicycle transportation

3. Land Use
   - Consistent with Maui Island Plan Directed Growth Boundaries
   - Consistent with West Maui Community Plan Land Use Map
   - Supports agriculture

4. Natural Resources
   - Reduces sedimentation and protect water quality on mauka lands

- Reduces sedimentation and protect water quality on makai lands
- Protects scenic resources mauka of Honoapi`ilani Highway
- Enhances scenic resources mauka of Honoapi`ilani Highway
- Protects scenic resources makai of Honoapi`ilani Highway
- Enhances scenic resources makai of Honoapi`ilani Highway
- Protects open space resources

5. Infrastructure
   - Improve infrastructure (i.e., water, wastewater disposal, etc.)
   - Allows implementation of State Department of Transporation (HDOT) highway plans

6. Recreaction, Parks, and Public Access
   - Creates mauka recreational opportunities by providing additional parks
   - Creates shoreline recreational opportunities and access to the shoreline

7. Cultural Resources
   - Observe the Hawaiian land management system of ahupua`a
   - Expands the Olowalu Cultural Reserve or create Cultural Reserves

8. Housing
   - Provides housing for Maui residents
   - Provides affordable housing

9. Employment
   - Creates employment

10. Timeframe
    - Meets Applicants' timeframe (refer to **Table 5**)

Evaluation of the foregoing criteria is identified in the following **Table 6**.

Table 6. Evaluation of Criteria

CRITERIA	EVALUATION
1. Community Planning Effort	
Alternative 1	Olowalu Talk Story Provided Input on Master Plan; community desires considered during MIP process.
Alternative 2	Olowalu Talk Story Provided Input on Master Plan; community desires considered during MIP process.
Alternative 3	Community desires not considered.
Alternative 4	Community desires deferred to a later date in time.
Alternative 5	Community desires not considered. Requires community planning effort.
Alternative 6	Community desires not considered. Requires community planning effort.
2. Sustainability	
Alternative 1	Incorporates principles of green infrastructure and building design and walkable communities.
Alternative 2	Incorporates principles of green infrastructure and building design and walkable communities.
Alternative 3	Remains as is and does not promote green infrastructure, building design, or walkable communities.
Alternative 4	Defers consideration of green infrastructure, building design, and walkable communities to a later date in time.
Alternative 5	Does not promote green infrastructure or design.
Alternative 6	Does not promote green infrastructure or design.
3. Land Use	
Alternative 1	Partially consistent with MIP, requires community plan amendment, and includes agricultural lots.*
Alternative 2	Consistent with MIP, requires community plan amendment, and includes agricultural lots.
Alternative 3	Not consistent with MIP, consistent with community plan, and maintains agricultural land.
Alternative 4	Defers implementation of the MIP, community plan amendment, and temporarily maintains agricultural land.
Alternative 5	Not consistent with MIP and West Maui Community Plan.
Alternative 6	Requires finding an appropriate location and implementation of an amendment to the MIP and subsequent land entitlements.
4. Natural Resources	
Alternative 1	Proposed drainage system following Low Impact Development (LID) standards retains runoff mauka of Honoapi`ilani Highway in conjunction with LID measures makai of the highway and reduces sedimentation into the nearshore waters to protect water quality and marine biota. Scenic and open space resources mauka and makai of the highway are protected by the proposed system of parks, open space, greenways and expansion of the OCR.
Alternative 2	Proposed drainage system following LID standards retains runoff mauka of Honoapi`ilani Highway to reduce sedimentation into the nearshore waters to protect water quality and marine biota. Land makai of the highway will remain as is and will not decrease sedimentation into the nearshore waters. Scenic and open space resources mauka of the highway are protected by the proposed system of parks, open space, greenways and expansion of the OCR. Lands makai of the highway will remain unchanged.

Table 6. Evaluation of Criteria (Continued)

CRITERIA	EVALUATION
Alternative 3	The land remains unchanged and does not improve water quality or enhances scenic and open space resources.
Alternative 4	Defers improvements to reduce sedimentation and improve water quality and enhancement of scenic and open space resources to a later date in time
Alternative 5	Does not address LID drainage systems to reduce sedimentation and improve water quality or measures to enhance scenic and open space resources.
Alternative 6	No alternative location available.
5. Infrastructure	
Alternative 1	Improvements to existing infrastructure, including but not limited to drinking water and fire protection, is proposed, as well as a wastewater treatment facility that does not require injection wells. Provides corridor for Honoapi`ilani Highway inland.
Alternative 2	Improvements to existing infrastructure, including but not limited to drinking water and fire protection, is proposed, as well as a wastewater treatment facility that does not require injection wells. Provides corridor for Honoapi`ilani Highway inland.
Alternative 3	Remains unchanged, with no infrastructure improvements. Honoapi`ilani Highway remains in its present location.
Alternative 4	Improvements to infrastructure and relocation of Honoapi`ilani Highway is deferred to an indefinite timeframe.
Alternative 5	Improvements to infrastructure, including a wastewater treatment facility that does not require injection wells, have not been considered. Honoapi`ilani Highway remains in its present location.
Alternative 6	No alternative location available.
6. Recreation, Parks and Public Access	
Alternative 1	System of parks, open space, greenways, and expansion of the OCR mauka and makai of Honoapi`ilani is proposed to provide recreational opportunities, parks, and public access including to the shoreline.
Alternative 2	System of parks, open space, greenways, and expansion of the OCR mauka of Honoapi`ilani is proposed to provide recreational opportunities, parks, and public access on the mauka lands.
Alternative 3	Remains unchanged and does not provide new or improved recreational opportunities, parks, and public access.
Alternative 4	Defers development of parks, open space, greenways, and expansion of the OCR to an indefinite timeframe.
Alternative 5	Improvements to parks, open space, greenways, and expansion of the OCR are not addressed in this alternative.
Alternative 6	No alternative location available.
7. Cultural Resources	
Alternative 1	Is based on the ahupua`a Hawaiian system of land management and proposes to expand the OCR.
Alternative 2	Is based on the ahupua`a Hawaiian system of land management and proposes to expand the OCR.
Alternative 3	Remains unchanged and does not incorporate the ahupua`a system of land management and does not expand the OCR or create cultural reserves.
Alternative 4	Is based on the ahupua`a Hawaiian system of land management and proposes to expand the OCR but defers the project to an indefinite timeframe.

Table 6. Evaluation of Criteria (Continued)

CRITERIA	EVALUATION
Alternative 5	Is not based on the ahupua`a system of land management and does not expand the OCR.
Alternative 6	No alternative location available.
8. Housing	
Alternative 1	Provides housing for Maui residents and affordable housing.
Alternative 2	Provides housing for Maui residents and affordable housing.
Alternative 3	Remains unchanged and does not provide housing for Maui residents or affordable housing.
Alternative 4	Housing for Maui residents and affordable housing is deferred to a later date in time when the need is today.
Alternative 5	Provides resort residential housing that is for the off-island investor.
Alternative 6	No alternative location available.
9. Employment	
Alternative 1	Creates employment for future residents.
Alternative 2	Creates employment for future residents.
Alternative 3	The limited commercial uses remain unchanged and does not create future employment centers.
Alternative 4	Creates employment centers for future residents at a later date in time.
Alternative 5	Creates employment for hotel or resort workers.
Alternative 6	No alternative location available.
10. Timeframe	
Alternative 1	Meets Applicants' timeframe
Alternative 2	Meets Applicants' timeframe
Alternative 3	Require major redesign of Master Plan. Delay will not meet Applicants' timeframe.
Alternative 4	Does not meet Applicants' timeframe
Alternative 5	Requires major redesign of Master Plan. Delay will not meet Applicants' timeframe
Alternative 6	Requires locating an alternative location and initiating new environmental and land entitlement process. Delay will not meet Applicants' timeframe.
Note: * MIP includes footnote that potential urban growth areas makai of the existing Honoapi'ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan.	

The evaluation of the Development Alternatives are summarized below in **Table 7**.

Table 7. Summary of Evaluation of Alternatives

CRITERIA	ALTERNATIVES					
	1	2	3	4[a]	5	6[b]
Community Planning Effort						
Community Based Planning	Y	Y	N	Y	N	N/A
Sustainability						
Green Infrastructure	Y	Y	N	Y	N	N/A
Green Buildings	Y	Y	N	Y	N	N/A
Walkable Community	Y	Y	N	Y	N	N/A
Land Use						
Consistent with Maui Island Plan Directed Growth Boundaries	Y[c]	Y	N	Y	N	N/A
Consistent with West Maui Community Plan Land Use Map	N	N	Y	N	N	N/A
Support Agriculture	Y	Y	Y	Y	N	N/A
Natural Resources						
Reduces Sedimentation and Protect Water Quality on Mauka lands	Y	Y	N	Y	N	N/A
Reduces Sedimentation and Protect Water Quality on Makai Lands	Y	N	N	Y	N	N/A
Protects Scenic Resources Mauka of Honoapi`ilani Highway	Y	Y	N	Y	N	N/A
Enhances Scenic Resources Mauka of Honoapi`ilani Highway.	Y	Y	N	Y	N	N/A
Protects Scenic Resources Makai of Honoapi`ilani Highway	Y	Y	N	Y	N	N/A
Enhances Scenic Resources Makai of Honoapi`ilani Highway	Y	N	N	Y	N	N/A
Protects Open Space Resources	Y	Y	Y	Y	N	N/A
Infrastructure						
Improve Infrastructure	Y	Y	N	Y	Y	N/A
Implements HDOT Highway Plans	Y	Y	N	Y	N	N/A
Recreation, Parks and Public Access						
Improve Mauka Parks and Public Access	Y	Y	N	Y	N	N/A
Improve Makai Parks and Public Access	Y	N	N	Y	N	N/A
Cultural Resources						
Observes Hawaiian Land Management System (Ahupuaa)	Y	Y	N	Y	N	N/A
Expands the Olowalu Cultural Reserve or Create Cultural Reserves	Y	Y	N	Y	N	N/A
Housing						
Provides Housing for Residents	Y	Y	N	Y	N	N/A
Provides Affordable Housing	Y	Y	N	Y	Y	N/A
Employment						
Creates Employment	Y	Y	N	Y	Y	N/A
Timeframe						
Meets Applicants Timeframe	Y	Y	N	N	N	N/A
TOTAL	**23**	**20**	**3**	**22**	**3**	**0**

[a] Alternative 4 is the same as Alternative 1, except deferred to an indefinite date.
[b] N/A - Not Applicable (No Alternative Location Available).
[c] Partially consistent. MIP includes footnote that potential urban growth areas makai of the existing Honoapi'ilani Highway may be undertaken in conjunction with updates and amendments to the West Maui Community Plan.

Alternatives 1, 2, and 4 reflect positive attributes as related to the evaluation criteria, however, Alternative 4 would be deferred to a later date in time and will not provide housing for Maui residents that are needed today or meet the timeframe of the Applicants (refer to **Table 5**).

In general, the benefits of each alternative should be weighed against the project's goal of providing a comprehensively planned community for Maui's residents. Alternatives 1 and 2 reflect positive attributes as it relates to the evaluation criteria. Alternative 3 (No Action) is not aligned with the project's goal and Alternative 4 (Deferred Action) places "on-hold", the achievement of the project's goal and introduces an element of uncertainty as it relates to future conditions and circumstances.

The benefits of Alternatives 1 and 2 include the provision of a new mauka Honoapi`ilani Highway alignment which addresses coastal erosion issues and diverts traffic away from potential recreational opportunities along the existing Honoapi`ilani Highway corridor. Associated with the relocation of the highway is the opportunity to establish land use spatial allocations which respect the need to mitigate noise and air quality impacts, through the delineation of appropriate setbacks from the highway. Alternative 5 (Resort and Resort Residential Use) would likely include the realignment of Honoapi`ilani Highway as well, which would yield benefits similar to Alternatives 1 and 2.

Additionally, as a residential master planned community for Maui residents, Olowalu Town, under Alternatives 1 and 2, will provide the needed support facilities to ensure a fully integrated and functional community. Such facilities will include opportunities for new school, fire, and police infrastructure. Alternative 5 (Resort and Resort Residential Housing) could potentially include public service support facilities (fire and police), but will not likely provide new school facility opportunities based on this alternative's target population.

The evaluation summary, as presented in Table 7, indicates in a comprehensive fashion, the benefits associated with each alternative. The evaluation categories (e.g., sustainability, natural resources, recreation, land use, etc.) yield a rank order regime which places Alternatives 1, 2, and 4, as the leading options. As noted previously, however, Alternative 4 (Deferred Action) leads to implementation uncertainty which ultimately eliminates this option for the realm of development feasibility. Alternative 5 (Resort and Resort Residential Housing) yields a low rank order in terms of benefits, primarily due to its focus on the visitor industry as opposed to local resident needs.

Alternatives 1 and 2 satisfy the purpose and intent of Olowalu Town, LLC and Olowalu Ekolu, LLC to provide needed housing and employment opportunities to Maui residents in

a sustainable community in a timely manner. Formulation of plans and systems for the Master Plan for Alternatives 1 and 2 were based on lengthy study, in recognition that planning for a new sustainable community requires diligent and detailed analysis across a range of disciplines. The evaluation of these alternatives also involved a full process of community engagement which facilitated the identification of design and engineering options and their evaluative criteria. As such, Alternatives 1 and 2 are evaluated in this Environmental Impact Statement.

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

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

A. PHYSICAL ENVIRONMENT

1. Existing and Surrounding Land Use

a. Existing Conditions

The approximately 636-acre Master Plan area is located approximately fourteen (14) miles southwest of Wailuku and four (4) miles southeast of Lāhainā Town.

In a regional context, Olowalu has historically been a settlement area. ~~Prior~~Within Olowalu Valley and along the original stream route, traditional Hawaiian agricultural practices were fairly intense and based primarily on *lo`i* agriculture. There were approximately 1,124 *lo`i kalo*, 28 *`uala* (potato) patches, 27 kula (open field or pasture), and 31 plots of land with unspecified land uses. When examining this level of agricultural intensity during the mid-1800s, and its correlation to population, Marion Kelly presents missionary estimates for the productivity of *lo`i kalo* as a minimum of 10 to 30 individuals per acre (Kelly, 1989). Based on the intensity of agriculture and these estimates, prior to western contact it, is estimated that up to 2,000 Hawaiians were living and thriving in Olowalu. As recently as the 1930s, Olowalu was a thriving plantation ~~town~~camp which included employment related to the agricultural use of the land, housing for employees, a school, medical facilities, stores, theater, recreational facilities and places of worship (Ainsworth, 2011). Olowalu, during the hey-day of the plantation era, was a multi-cultural and multi-generational community. The closure of the Olowalu Mill in August 1931 and the subsequent relocation and consolidation of mill operations ~~to~~with Pioneer Mill in Lāhainā Town marked the decline of the once thriving Olowalu community (Ainsworth, 2011).

Prior to the closure of Pioneer Mill in 1999, lands within the Olowalu area were cultivated in sugarcane. Today, land uses found in Olowalu include

Olowalu Church, Olowalu General Store, Camp Olowalu~~(formerly known as Camp Pecusa)~~, which is available to fee paying guests, Olowalu Cultural Reserve (OCR), and Kapa`iki, encompassing single-family residences reminiscent of the plantation era of the Olowalu area. The former plantation manager's residence and other plantation-era single-family residences are located makai of Honoapi`ilani Highway, across from the Olowalu General Store. The former manager's residence and grounds are used for special functions under a Conservation District Use Permit issued by the Board of Land and Natural Resources. The Olowalu Mill Site and Olowalu Wharf (consisting of a pier and breakwater) formerly used for the loading and unloading of sugar into barges, are located along the shoreline. A State beach access, including an unpaved driveway, dirt and gravel parking and portable toilets are located adjacent ~~otto~~ the Olowalu Mill ruins.

Additional existing uses include residential subdivisions. Subdivision of portions of the Olowalu region have been completed with some parcels sold to individual purchasers. These include the Olowalu Makai Komohana Subdivision, Olowalu Makai Hikina Subdivision, and the Olowalu Mauka Subdivision. While a majority of the former lands used for sugarcane cultivation now lie fallow, limited agricultural endeavors exist on portions of the Olowalu lands.

b. <u>Potential Impacts and Mitigation Measures</u>

~~The proposed action calls for~~Alternatives 1 and 2 propose the establishment of a sustainable master-planned community in the once thriving Olowalu plantation town offering approximately 1,500 residential units to be implemented in phases spanning approximately 10 years. ~~The proposed project~~Alternatives 1 and 2 will include a mix of residential and commercial uses in a neighborhood town setting, providing for a similar mix of uses that were present during the plantation era in Olowalu. The land use principles employed in the planning and design of ~~the proposed Master Plan~~Alternatives 1 and 2 are intended to address quality of life, economic sustainability, environmental protection and preservation parameters.

Key resources ~~within the Master Plan~~ are being preserved in the OCR. The OCR includes Olowalu Stream, Olowalu Valley and many of the archaeological, historic, and cultural sites, including Pu`u Kilea, Ka`iwaloa

Heiau, and the Olowalu petroglyphs.

The Master Plan design ~~is~~for Alternatives 1 and 2 is based on smart growth and sustainable land use principles. The spatial layout of land uses is based on careful consideration of varying densities, vehicular and pedestrian connectivity, and balance of uses to create a mixed-use community. The resulting Master Plan ~~is~~for Alternatives 1 and 2 is compatible with surrounding land uses. The highest density uses are centered around neighborhood town centers, which provide for a range of business and employment opportunities. Residential land uses surround the neighborhood town centers at decreasing densities as distance from the center increases. Parks or agricultural and rural lots are situated along the outskirts of the development, providing a transition zone between the surrounding agricultural uses and neighborhood town centers. Land uses surrounding the existing Kapa`iki and Olowalu Church include parks and open space as well as low density single-family homes. Lands surrounding the Olowalu General Store are planned for town center and residential development. The other town center uses surrounding the Olowalu General Store may include business and commercial establishments consistent with the existing general store. The spatial layout of the proposed Master Plan ~~was~~in Alternatives 1 and 2 was carefully designed taking into consideration existing surrounding land uses. Adverse impacts to surrounding land uses are not anticipated as a result of the ~~proposed project~~Master Plan. Infrastructure support systems will be constructed concurrently with the project, ensuring that the proposed development is adequately served by basic services.

2. Climate

a. Existing Conditions

Maui is characterized by a semi-tropical climate containing a multitude of individual microclimates. The mean annual temperature of the island is about 77 degrees Fahrenheit. A high proportion of the rainfall that Maui receives each year falls on the northeast facing shores leaving the south and west coastal areas relatively dry. The Master Plan area for Alternatives 1 and 2 is located within one of these drier areas of West Maui.

Olowalu is generally sunny, warm and dry throughout the entire year. Annual temperatures in the region (from the Kapalua Airport) average in the ~~mid to~~

~~high 70~~'shigh 60's to low 80's (Maui County Data Book, ~~2010~~2012). June through September are historically the warmer months of the year, while the cooler months are December through March. During the summer months, average daily temperatures in the region typically range from the ~~mid~~low-70's to the ~~high 70's~~mid-80's. During the winter months, average daily temperatures in the region typically range from the mid-60's to high 70's (Maui County Data Book, 2012).

Average rainfall distribution in the region averages approximately ~~fifteen (15)~~29 inches per year (Maui County Data Book, ~~2010~~2012). Rainfall in the Olowalu region is highly seasonal, with most of the precipitation occurring in the winter months (~~December~~November through ~~February~~January). Between October and March, the southerly winds and heavy rainfall from Kona storms may be experienced.

b. Potential Impacts and Mitigation Measures

From an environmental standpoint, replacement of vegetative surfaces with hardscapes associated with roadways, housing units, and commercial buildings may yield a tendency towards slightly increasing ambient air temperatures. To address this so-called "heat island" effect, open spaces and park lands are integrated as significant components of the Master Plan for Alternatives 1 and 2. Landscape designs and planting plans will be employed to provide shading. Building designs, as well, will utilize green building principles following the Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) standards which take advantage of solar and natural wind conditions within the Master Plan areas for Alternatives 1 and 2. The Master Plan for Alternatives 1 and 2 proposes to utilize Olowalu's abundance of direct exposure to the sun as a sustainable source of solar energy and photovoltaic energy. With respect to the current land cover characteristics within the area, the development of the Master Plan for Alternatives 1 and 2 is not anticipated to create adverse impacts to the area's microclimate.

3. Topography

a. Existing Conditions

Most of the Olowalu area was formerly utilized for sugarcane cultivation with much of the land now fallow. Near the shoreline, the topography is generally

flat to slightly sloping. Proceeding mauka, the land slopes gently higher to the foothills of the West Maui mountains. Elevations in the Olowalu area generally range from near sea level to approximately 500 feet above mean sea level. The topography of the Master Plan areas for Alternatives 1 and 2 encompass~~es~~ a range of topographic conditions from the generally flat coastal area makai of Honoapi`ilani Highway, to steeper riverine conditions along Olowalu Stream. The topography or slope of the property ranges from five (5) percent to 15 percent slope near the mauka limits, to three (3) percent to five (5) percent slope near the mid-section of the property, and near level to three (3) percent along the coastal portions of the property. See **Appendix "BC"**.

The steep valleys and mountain slopes and terrain surrounding the project site serve as natural geographic and physical boundaries to contain the project limits and prevent outward sprawl.

b. <u>Potential Impacts and Mitigation Measures</u>

In general, the higher density residential areas and neighborhood town centers are planned for areas having favorable development slope conditions of less than five (5) percent. Steep or sensitive landforms are to be preserved as natural features or open space areas.

Grading work will be undertaken to set roadway grades and adjacent grades of developable parcels. Future design work for ~~the project~~Alternatives 1 and 2 will utilize existing topography to minimize grading of steep slopes and extensive cuts and fills. Significant landform transformations in terms of cut and fill requirements are not anticipated. All grading work will comply with applicable requirements of Chapter 20.08, Soil Erosion and Sedimentation of the Maui County Code (MCC). The proposed project is not anticipated to present any significant adverse impacts on the existing topography and landform of the surrounding area.

4. Agricultural Land Characteristics and Soils

a. Existing Conditions

(1) Agricultural Land Characteristics

State Land Use District

As previously mentioned, the Master Plan area is designated as "Agricultural" and "Conservation" by the State Land Use Commission. Approximately ~~621~~609 acres in Alternative 1 and 568 acres in Alternative 2 are designated as "Agricultural", while ~~15~~27 acres in Alternative 1 and 22 acres in Alternative 2 are classified as "Conservation". Island wide, "Agricultural" land totals approximately ~~235,770~~242,720 acres, representing just over 50 percent of the island. The "Agricultural" lands within the Master Plan area for Alternative 1 comprise less than approximately ~~0.2~~0.3 percent and 0.2 percent for Alternative 2 of the total "Agricultural" lands on the island.

Important Agricultural Lands

Although Chapter 205 of Hawai`i Revised Statutes mandates the Counties to recommend to the State Land Use Commission certain lands for designation as Important Agricultural Lands ("IAL"), the County has not designated such lands. Presumably, these lands will include the higher-quality farmlands on Maui. However, State law does not allow the Counties to recommend lands for IAL designation if those lands have been designated for urban use by any State or County plans, such as the MIP.

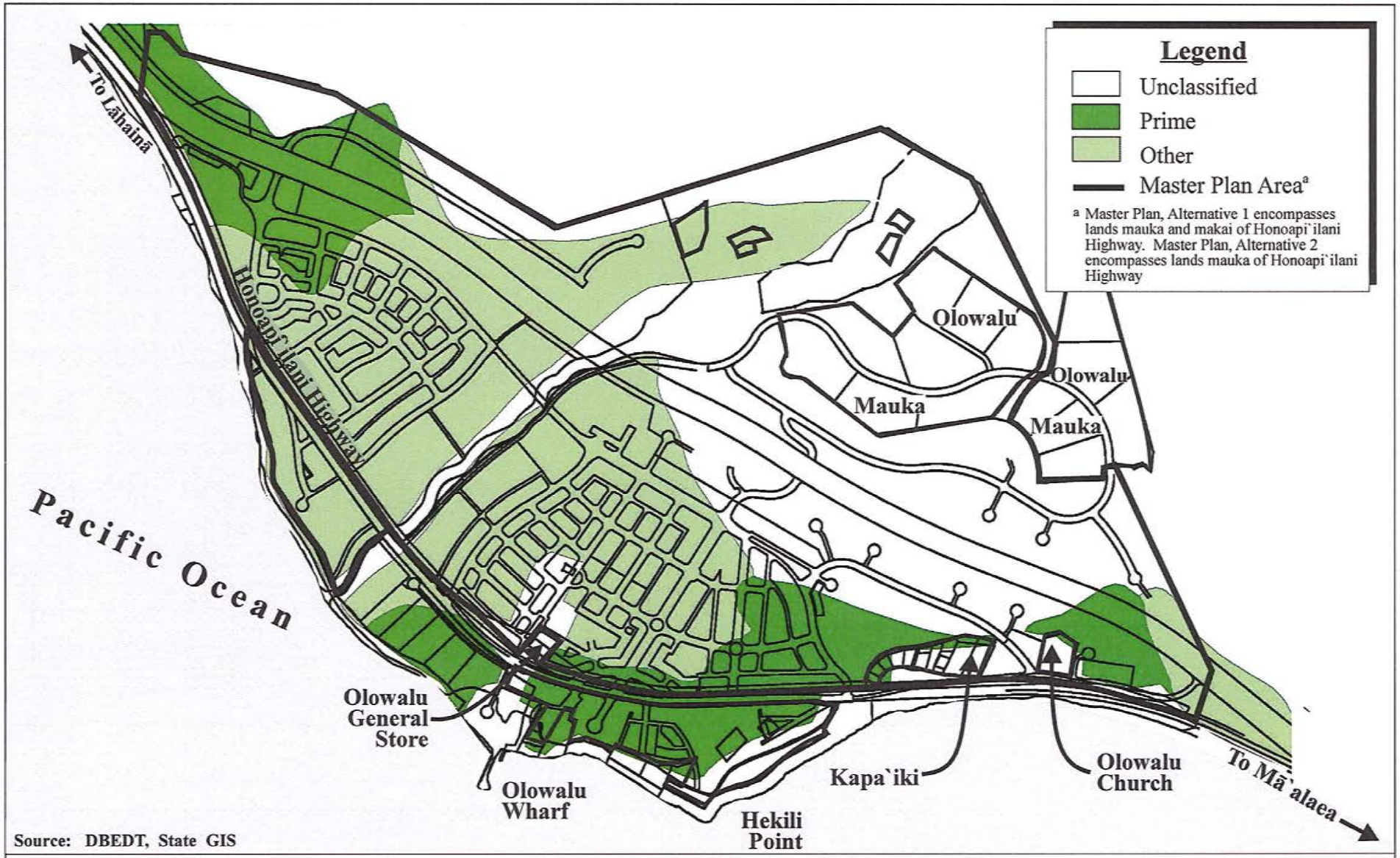
The Urban and Rural components of Alternative 1 that are *mauka* of the existing Honoapi`ilani Highway, and all of the Urban and Rural components of Alternative 2, are within Maui County's Growth Boundaries. As such, these lands would not be recommended by the County for IAL designation. However, the Urban components of Alternative 1 that are *makai* of the highway could be eligible for consideration of an IAL designation.

Agricultural Lands of Importance to the State of Hawai`i (ALISH)

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 termed "Unclassified".

When utilized with modern farming methods, "Prime" agricultural lands have a soil quality, growing season, and moisture supply necessary to produce sustained crop yields economically. "Unique" agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. "Other Important" agricultural lands include those that have not been rated as "Prime" or "Unique", but are of statewide or local importance for agricultural use.

~~Approximately 62,000~~Excluding lands used for country estates and golf courses, approximately 59,390 acres, or ~~26~~approximately 24 percent, of Maui's ~~235,770~~242,720 acres of State Land Use Commission designated "Agricultural" lands is characterized as "Prime" and "Unique" lands by the ALISH system. Within the proposed Master Plan for Alternative 1, approximately 19 percent of the project's 636 acres are classified as "Prime" agricultural lands, while ~~39~~about 40 percent is considered "Other Important" agricultural lands and the remainder has no designation under the ALISH system. In Alternative 2, approximately 20 percent of the project's 591 acres are classified as "Prime" agricultural lands, approximately 43 percent is considered "Other Important" agricultural lands, and the remainder is not designated under the ALISH system. ~~The remaining 42 percent of the Master Plan area is not designated by the ALISH system.~~ See **Figure 911** and **Table ~~7~~8**.



Source: DBEDT, State GIS

Figure ~~9~~11

Proposed Olowalu Town Master Plan

Agricultural Lands of Importance to the State of Hawai`i Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/alish

Table ~~7~~8. Agricultural Lands of Importance to the State of Hawai`i

	~~Acres Within Master Plan~~	~~Percent of Total~~
~~Prime~~	~~121~~	~~19~~
~~Other~~	~~247.6~~	~~38.9~~
~~Not Classified~~	~~267.2~~	~~42~~
~~**Total**~~	~~**635.8**~~	~~**100**~~

	Acres Within Alternative 1	**Percent of Total**	**Acres Within Alternative 2**	**Percent of Total**
Prime	119	18.7	119	20.1
Other	252	39.6	252	42.6
Not Classified	265	41.7	220	37.2
TOTAL	**636**	**100**	**591**	**100***

* Totals are not exact due to rounding to the nearest number
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015

Land Study Bureau (LSB) Overall Productivity Rating

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. These letters are followed by numbers which further classify the soil types by conveying such information as texture, drainage, and stoniness. ~~On~~Excluding lands used for country estates and golf courses, on the island of Maui, "A" and "B" designated lands comprise approximately ~~21 percent~~47,600 acres of the island's State Land Use "Agricultural" lands.

The Master Plan areas ~~is~~for Alternatives 1 and 2 is located on lands primarily designated as "A71i", "B72i", "B87i", "E73" and "E95" by the LSB. See **Figure ~~10~~12**. The "A" and "B" designations reflect lands at the higher range of productivity. The specific designation of "A71i" indicates that these lands are non-stony, moderately fine and well-drained, while the "B72i" designation reflects lands which are stony, moderately fine and well-drained. The "B78i" category represents lands which are characterized as stony to very stony, fine

Source: Land Study Bureau

Figure ~~10~~12

Proposed Olowalu Town Master Plan

Land Study Bureau Land Classifications Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/landstudybureau

and well-drained. The "E73" category reflects lands with rocky and well-drained conditions. Finally, areas designated as "E95" are typified as non-stony to rocky and well-drained. Overall, lands with an "A" designation represents ~~42~~approximately 43 percent of the 636-acre ~~Mater~~Master Plan for Alternative 1 and approximately 38 percent of the 591-acre Alternative 2, while "B" lands account for approximately 39 percent in Alternative 1 and approximately 42 percent in Alternative 2.

Approximately 19 percent of the Master Plan area ~~is~~for Alternative 1 and 20 percent of the area for Alternative 2 are designated as "E", the lowest productivity rating. See **Table 89**.

Table 89. Land Study Bureau Overall Productivity Rating

	~~Acres~~	~~Percent of Total~~
~~A~~	~~264.6~~	~~41.6~~
~~B~~	~~250.1~~	~~39.3~~
~~E~~	~~121.1~~	~~19~~
~~Total~~	~~635.8~~	~~100~~

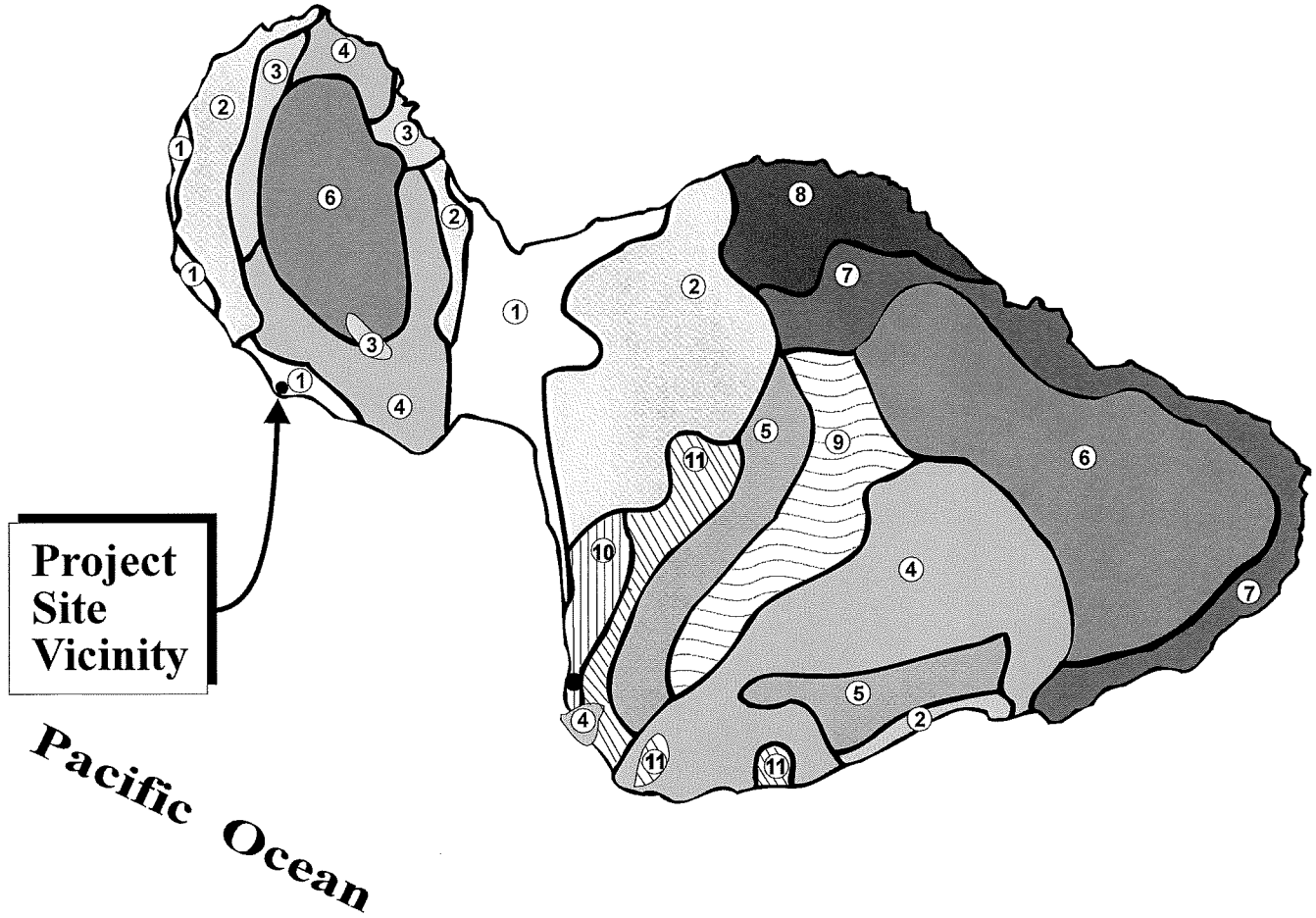
	Acres Within Alternative 1	Percent of Total	Acres Within Alternative 2	Percent of Total
A	270	42.5	227	38.4
B	245	38.5	245	41.5
E	121	19	119	20.1
TOTAL	**636**	**100**	**591**	**100**
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015				

(2) Soil Characteristics

According to the U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), underlying the Master Plan areas for Alternatives 1 and 2 is the Pulehu-Ewa-Jaucas association. See **Figure ~~11~~13**. This series consists of well-drained soils on alluvial fans and stream terraces and in basins. These soils were developed in alluvium washed from basic igneous rock. The soil types specific to the area are delineated in **Figure ~~12~~14**. General characteristics of the soil types within the Master Plan area are presented in **Table 910**.

LEGEND

1. Pulehu-Ewa-Jaucas association
2. Waiakoa-Keahua-Molokai association
3. Honolua-Olelo association
4. Rock land-Rough mountainous land association
5. Puu Pa-Kula-Pane association
6. Hydrandepts-Tropaquods association
7. Hana-Makaalae-Kailua association
8. Pauwela-Haiku association
9. Laumaia-Kaipoipoi-Olinda association
10. Keawakapu-Makena association
11. Kamaole-Oanapuka association



Base Map Source: U.S.D.A., Soil Conservation Service

Figure ~~11~~13 Proposed Olowalu Town Master Plan

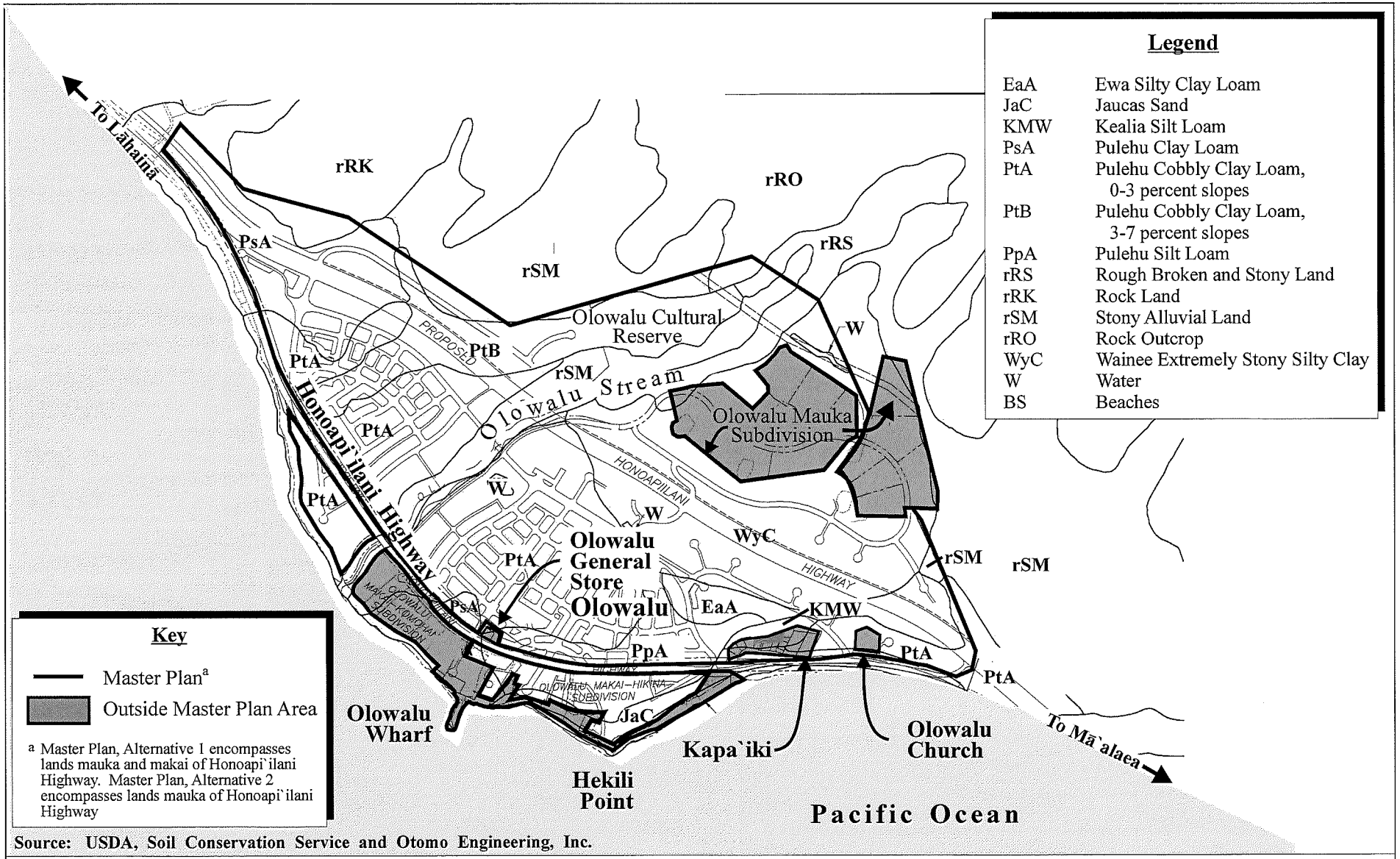
Soil Association Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown\MasterPl\Final EIS\SOILS



Source: USDA, Soil Conservation Service and Otomo Engineering, Inc.

Figure ~~12~~14

Proposed Olowalu Town Master Plan

Soil Classification Map

0 200 400 800 Feet

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS\SOILCLAS

Table 910. Olowalu Town Master Plan Soil Characteristics

		Master Plan Area Alternative 1		Master Plan Area Alternative 2		Land Capability Classification[a]	
Soil Series	**General Soil Characteristics**	**Acres**	**Percent of Total**	**Acres**	**Percent of Total**	**Non-Irrigated**	**Irrigated**
Ewa Silty Clay Loam, 0-3 percent slopes (EaA)	Runoff is very slow and erosion hazard is no more than slight.	25	~~43.9~~	25	4	IVc	I
Jaucas Sand, 0-15 percent slopes (JaC)	Soil is neutral to moderately alkaline; permeability is rapid, and runoff is very slow to slow; hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed.	14	~~2.3~~2.2	6	1	VIIs	--
Kealia Silt Loam (KMW)	Soil is poorly drained and has a high content of salt. Ponding occurs in low areas after a heavy rain. Slopes range from 0 to 1 percent.	3	~~0.4~~0.15	3	0.5	VIIw	--
Pulehu Clay Loam, 0-3 percent slopes (PsA)	Soil is found on alluvial fans, and stream terraces and basins. Permeability is moderate, runoff is slow, and erosion hazard is no more than slight.	~~6266~~	~~9.8~~10.4	64	10.8	IVc	I
Pulehu Cobbly Clay Loam, 0-3 percent slopes (PtA)	This soil is similar to Pulehu clay loam (PsA) except that it is cobbly.	~~204209~~	~~32.2~~32.9	194	32.8	IVs	IIs
Pulehu Cobbly Clay Loam, 3-7 percent slopes (PtB)	On this soil, runoff is slow and erosion hazard is slight. Some areas have thin, stratified layers of sand and gravel at a depth of 20 to 36 inches.	58	9.1	57	9.6	IVs	IIe
Pulehu Silt Loam, 0-3 percent slopes (PpA)	This soil is similar to Pulehu clay loam (PsA), except that the texture is silt loam.	~~4342~~	~~6.7~~6.6	27	4.6	IVc	I
Rough Broken and Stony Land (rRS)	Consists of very steep and stony gulches. Runoff is rapid and geologic erosion is active.	~~1918~~	3	17	2.9	--	--
Rock Land (rRK)	Made up of areas where exposed rock covers 25 to 90 percent of the surface. Rock outcrops and very shallow soils are the main characteristics.	~~76~~	~~1.1~~0.9	6	1	VIIs	--
Stony Alluvial Land (rSM)	Consists of stones, boulders, and soil deposited by streams along the bottom of gulches and on alluvial fans. In most places, slopes range from 3 to 15 percent.	55	~~8.7~~8.6	53	9	VIIs	--
Rock Outcrop (rRO)	Consists of areas where exposed bedrock covers more than 90 percent of the surface.	4	0.7	4	0.7	--	--
Wainee Extremely Stony Silty Clay, 7-15 percent slopes (WyC).	This soil is moderately sloping and occurs on smooth, alluvial fans. Permeability is moderately rapid, runoff is slow to medium, and erosion hazard is slight to moderate.	~~136132~~	~~21.4~~20.8	132	22.3	VIs	VIs
Water (W)	Water	2	~~0.4~~0.3	2	0.3	--	--
Beaches (BS)	Beach sand	2	0.3	--	--	--	--
	Grand Total	**~~634~~[b]636**	**~~100.1~~99.6[b]**	**590[b]**	**99.5[b]**		

Notes:

[a] Land Capability Classification ranges from 1 (highest) to VIII (lowest). Letters *e*, *w*, and *s* represent subclasses.
Subclass *e* is made up of soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use.
Subclass *w* is made up of soils for which excess water is the dominant hazard or limitation affecting their use.
Subclass *s* is made up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.
Subclass *c* is made up of soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

[b] Totals are not exact due to rounding to the nearest number

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

The Pulehu Cobbly Clay Loam, 0-3 percent slopes (PtA) soil and Wainee Extremely Stony Silty Clay, 7-15 percent slopes (WyC) comprise the majority of the Master Plan area. PtA soil is a cobbly soil characterized by moderate permeability, slow runoff, and slight erosion hazard. WyC soil is an extremely stony soil characterized by moderately rapid permeability, slow to medium runoff and slight to moderate erosion hazard.

Land Capability Classification

The USDA Natural Resources Conservation Service (NRCS) rates soils using its Land Capability Classification System. The system rates soils on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. The NRCS rates soils into eight (8) classes ranging from I (highest capability) to VIII (lowest capability). The definitions of the classes are presented below:

- *Class I* soils have slight limitations that restrict their use.
- *Class II* soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.
- *Class III* soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
- *Class IV* soils have very severe limitations that restrict the choice of plants or require very careful management, or both.
- *Class V* soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- *Class VI* soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- *Class VII* soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.

- *Class VIII* soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes.

The higher-quality soils (Rated I and II) are: EaA, PsA, PpA, PtA, and PtB. Excluding lands used for country estates and golf courses, approximately 39,300 acres of the State Agricultural lands are high-quality soils. For each alternative, approximate acreages by NRCS soil rating and project component are as shown in **Table 11**:

Table 11. NRCS Soil Ratings

	I	II	VI to VIII	TOTAL
Alternative 1	133	266	237	636
Alternative 2	116	252	223	591
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015				

Each class may be assigned a subclass designation. The subclasses are defined below:

- *Subclass e* is made up of soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in this subclass.

- *Subclass w* is made up of soils for which excess water is the dominant hazard or limitation affecting their use. Poor soil drainage, wetness, a high water table, and overflow are the factors that affect soils in this subclass.

- *Subclass s* is made up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.

- *Subclass c* is made up of soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

The Land Capability Classification for the soils found within the project site is presented in **Table 910** above. Three (3) soil types,

representing approximately 20 percent of the Master Plan area, are designated as Class I, the highest classification, when irrigated. When irrigated, the PtA soil has a Land Capability Classification of Class IIs while the WyC soil has a classification of VIs. These two (2) soils, which account for the majority of the Master Plan area, both have the "s" subclass designation due to their rocky nature.

b. <u>Potential Impacts and Mitigation Measures</u>

~~The~~Generally, the Master Plan ~~area, for the most part,~~areas for Alternatives 1 and 2 lies within the State Agricultural district and is largely designated for agricultural uses by the West Maui Community Plan and Maui County zoning. ~~These~~Historically, these designations represented the former larger-scale cultivation of sugarcane by Pioneer Mill whose last harvest of large-scale sugarcane in Olowalu occurred in 1999, the same year Pioneer Mill closed its operations. ~~However~~Today, ~~the majority~~most of the lands formerly used for agricultural cultivation are currently vacant and not in active agricultural production.

Agricultural activities are an important part of Alternative 1's and 2's goal of becoming a sustainable development. Of the approximate 636 acres of the Master Plan for Alternative 1, approximately 175 acres or 28 percent will remain in agriculture. Of the approximate 591 acres of the Master Plan for Alternative 2, approximately 173 acres or 29 percent will remain in agriculture~~approximately 161 acres will remain in agriculture primarily along Olowalu Stream~~. Additionally, the OCR, which accounts for 74 acres of the Master Plan areas, for Alternatives 1 and 2 will provide an opportunity to cultivate traditional native crops, such as taro.

The LSB designates a significant portion of the OCR as "E" lands which ALISH identifies as "Unclassified". Within the OCR *"kalo"* and other traditional Hawaiian crops have shown to be productive. These lands are important to traditional Hawaiian crops in the context of its location adjacent to Olowalu Stream within the OCR. Also, lands to be redistricted into the Rural District include "A" and "B" lands identified by ALISH as "Prime" and "Other" which does not preclude future owners to conduct agricultural pursuits.

Within the traditional neighborhoods future residents will be given the opportunity to establish "neighborhood or community gardens" to supplement self-sustainability in terms of communities growing their own food.

As previously noted, in Alternative 1, approximately 19 percent of the project's 636 acres is classified as "Prime" agricultural lands by ALISH, while approximately 40 percent is classified as "Other Important" and approximately 42 percent is not classified. In Alternative 2 approximately 20 percent of this alternative's 591 acres is classified as "Prime" agricultural lands by ALISH, while approximately 43 percent is classified as "Other Important" and approximately 37 percent is not classified. Approximately 43 percent of the Master Plan for Alternative 1 and approximately 38 percent of Alternative 2 are classified as "A" by the LSB; approximately 39 percent and approximately 42 percent, respectively, as "B"; and approximately 19 percent in Alternative 1 and approximately 20 percent in Alterative 2 as "E". The development of the Olowalu Town Master Plan (OTMP) for Alternatives 1 and 2 involves the loss of agricultural land that includes prime and other important agricultural lands with agriculturally suitable soil characteristics.

Table 12 and **Table 13** show a breakdown of the lands by ALISH, and **Table 14** and **Table 15** are a breakdown of the lands classified by the LSB Overall Productivity Rating for Alternative 1 and Alternative 2, respectively:

Table 12. ALISH Classification for Alternative 1

ALISH	Urban (Acres)	Rural (Acres)	Agricultural (Acres)	Conservation (Acres)	Total (Acres)
Prime	76	18	25	1	119*
Other	152	38	62	1	252*
Unclassified	38	112	88	25	265*
TOTAL	**266**	**168**	**175**	**27**	**636**

* Totals are not exact due to rounding to the nearest number
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015

Table 13. ALISH Classification for Alternative 2

ALISH	Urban (Acres)	Rural (Acres)	Agricultural (Acres)	Conservation (Acres)	Total (Acres
Prime	76	18	25	0	119
Other	152	38	61	1	252
Unclassified	0	112	87	21	220
TOTAL	**228**	**168**	**173**	**22**	**591**

Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015

Table 14. Land Study Bureau Classifications for Alternative 1

LSB	Urban (Acres)	Rural (Acres)	Agricultural (Acres)	Conservation (Acres)	Total (Acres)
A	205	25	33	7	270
B	50	119	76	2	245*
E	11	24	66	18	121*
TOTAL	**266**	**168**	**175**	**27**	**636**

* Totals are not exact due to rounding to the nearest number
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015

Table 15. Land Study Bureau Classifications for Alternative 2

LSB	Urban (Acres)	Rural (Acres)	Agricultural (Acres)	Conservation (Acres)	Total (Acres)
A	167	25	31	3	227*
B	50	119	75	2	245*
E	11	24	67	17	119*
TOTAL	**228**	**168**	**173**	**22**	**591**

* Totals are not exact due to rounding to the nearest number
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015

In Alternative 1 and 2, the NRCS Soil Ratings are identified in **Tables 16** and **17**, respectively.

Table 16. NRCS Soil Ratings for Alternative 1

Component	I	II	VI to VIII & Unrated	Total
Urban (Petition Area)	80	162	24	266
Rural (Petition Area)	20	42	106	168
Agricultural	33	60	82	175
Conservation	0	2	25	27
Project Total	**133**	**266**	**237**	**636**
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015				

Table 17. NRCS Soil Ratings for Alternative 2

Component	I	II	VI to VIII & Unrated	Total
Urban (Petition Area)	64	148	16	228
Rural (Petition Area)	20	43	105	168
Agricultural	32	59	82	173
Conservation	0	2	20	22
Project Total	**116**	**252**	**223**	**591**

Productive farmland is used to describe land that meet one or more of the soil-rating criteria listed below in **Table 18** and **Table 19**:

Table 18. Summary Soil Ratings for Alternative 1

Component	NRCS I & II	ALISH Prime	LSB A or B	Productive Farmland
Urban (Petition Area)	242	76	255	255
Rural (Petition Area)	62	18	144	154
Agricultural	93	25	109	123
Project Total	397	119	508	532
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015				

Table 19. Summary Soil Ratings for Alternative 2

Component	NRCS High	ALISH Prime	LSB A or B	Productive Farmland
Urban (Petition Area)	212	76	217	220
Rural (Petition Area)	63	18	144	154
Agricultural	91	25	106	121
Project Total	366	119	467	495
Source: Plasch Econ Pacific LLC and Munekiyo Hiraga, 2015.				

Of the approximate 636 acres of State Agricultural district lands in Alternative 1, approximately 532 acres are potentially productive farmland of which approximately 504 acres (409 acres Petition area and 95 acres highway, parks, etc.) are proposed for development with approximately 28 acres of high-quality farmland kept as small farms. In Alternative 2, of the approximate 591 acres of State Agricultural district lands approximately 495 acres are potentially productive farmland of which approximately 468 acres (374 acres Petition area and 94 acres for highway, parks, etc.) are proposed for development with approximately 28 acres of potentially productive farmland kept as small farms. For comparison, the loss of approximately 500 acres of high-quality farmland amounts to less than 0.7 percent of the 72,100-acre supply of high-quality farmland on Maui Island. Also on the MIP, approximately 3,540 acres of high quality farmland or about 4.9 percent of the island-wide supply of such lands are designated for future development. Not all proposed projects will be developed and the loss of high-quality farmland will be gradual depending on the demand for new homes and visitor units.

While the proposed development will commit agricultural land, some of which has been identified as prime, to non-agricultural use, the loss will not significantly affect the overall availability of land to farmers in the County and State. The project will result in the loss of agricultural lands that could be used for diversified agriculture. However, the decline of plantation agriculture on Maui and statewide, has made additional land available for diversified agriculture. The project will convert underutilized fallow lands into a sustainable, mixed-use community. A more detailed discussion assessing impacts to agriculture from a socio-economic standpoint is provided in Chapter III, Section B.3.

Best Management Practices (BMPs) will be implemented both prior to and during grading and construction to minimize opportunities for soil erosion at the site. Upon completion of construction, landscaping will be installed which will stabilize the ground on a permanent basis. With implementation of the foregoing mitigation measures, the proposed project is not anticipated to present significant adverse impacts on soil conditions within the Master Plan areas. Moreover, the soil types found on the property do not present any limitations to the constructability of the proposed Master Plan project.

5. Pesticides, Fertilizer Use, and Hazardous Substances

a. Existing Conditions

The Olowalu region has a history of wide-spread and long-term sugarcane cultivation. Prior to the ~~a~~Applicants obtaining the property, the previous landowner conducted a limited Phase I environmental site assessment in 1998. At that time, consultation with the State Office of Hazard Evaluation and Emergency Response (HEER) was conducted. HEER commented that pesticides used by the sugarcane industry in recent times and their residuals should not pose a significant human health risk because of their rapid decomposition in soil. Indicators of potential risks from past agricultural use are typically found in the soil, surface water and groundwater. The existing ~~potable~~drinking water well source has not detected levels of chemical contaminants established as unsafe for human habitation by the Environmental Protection Agency (EPA) and State Department of Health (DOH).

The Master Plan ~~area is~~areas for Alternatives 1 and 2 are located south-east of the former Olowalu Sanitary Landfill, a 53-acre facility that was closed in 1992 and is now covered with grass. The landfill was closed in accordance with EPA and DOH requirements at the time by the County of Maui, Department of Environmental Management (DEM). The former landfill is physically separated from the Master Plan areas for Alternatives 1 and 2 by the steep topography and ridgeline of the West Maui Mountains.

There is no evidence that leaching of pollutants from the landfill are occurring. According to the Impact on Water Resources Study prepared by Tom Nance Water Resource Engineering, sample data of groundwater collected in 2010 from the existing wells included detectable levels of nitrogen, phosphorus,

silica and salt which are typical background constituents. It did not contain other detectable chemicals typical of leachate associated with an unlined landfill. As such, it does not appear that chemical pollutants from the closed landfill are leaching into the groundwater resources at Olowalu. See ~~**Exhibit "C"**~~**"Appendix D"**.

Further, the Assessment of Marine Water Chemistry and Biotic Community Structure for Olowalu prepared by Marine Research Consultants, Inc. identified only nutrients associated with groundwater and stormwater discharges, which indicate leaching of chemical pollutants from the closed landfill is not occurring offshore. ~~See **Exhibit "D"**~~Refer to **Appendix "E"**.

b. Potential Impacts and Mitigation Measures

The project site has not been in active sugarcane production for over 10 years since the closure of Pioneer Mill in 1999. Since that time, the area has largely remained fallow. There has been no large-scale use of pesticides or fertilizers on the property for over 10 years, as such no adverse significant impacts are anticipated.

The use of fertilizers for landscape maintenance within the Master Plan for Alternatives 1 and 2 will be minimal. Drainage improvements for the proposed project are designed to ensure that increases in runoff due to the development are retained on-site and do not impact downstream properties and nearshore marine environments.

6. Natural Hazards

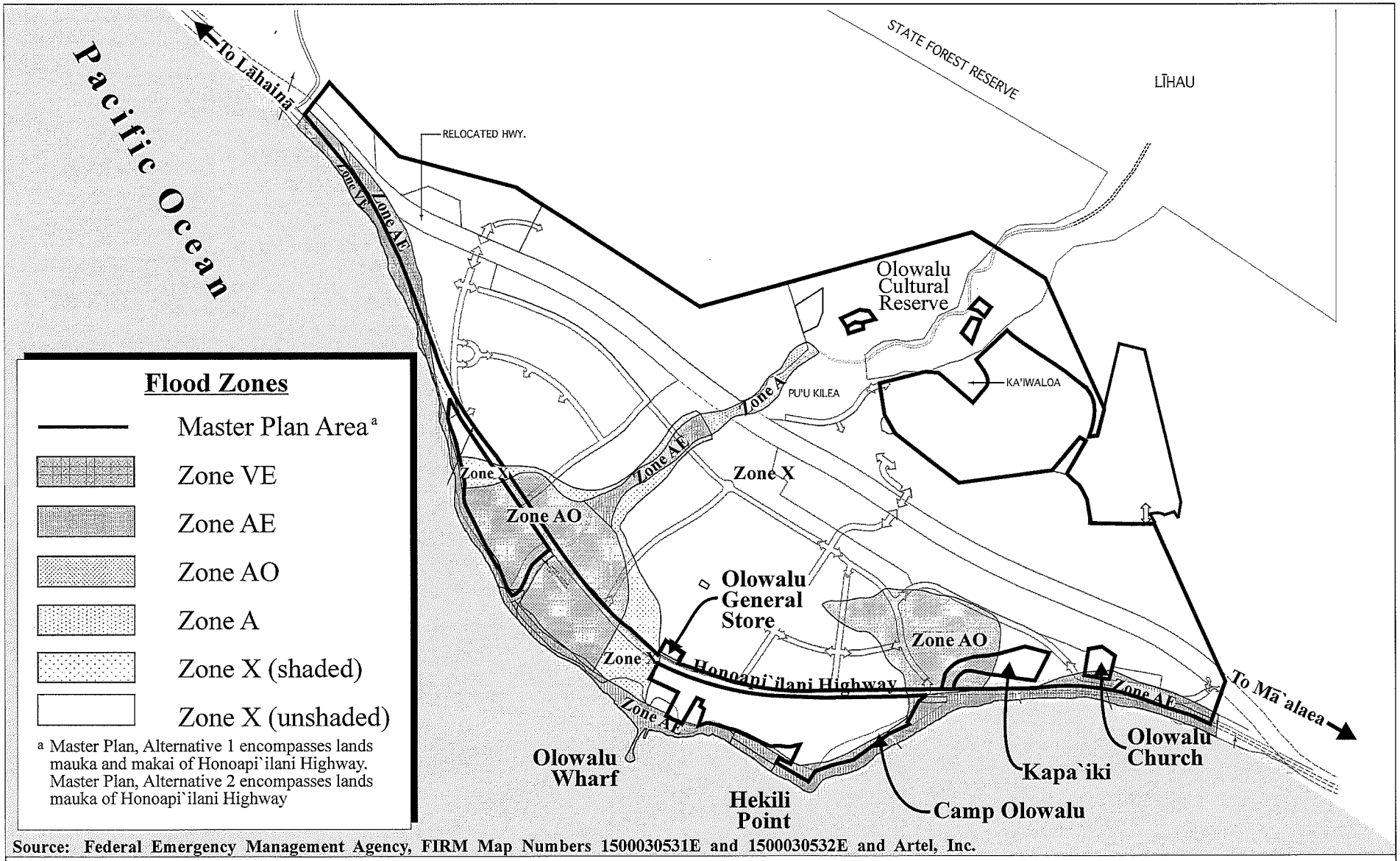
a. Existing Conditions

The Federal Emergency Management Agency (FEMA) manages the National Flood Insurance Program under which flood-prone areas are identified and flood insurance is made available. FEMA produces Flood Insurance Rate Maps (FIRM), an insurance and floodplain map that identifies the areas subject to flooding during a 1 percent annual chance (100-year) flood event, as well as areas inundated by the 0.2 percent annual chance flood. The 100-year floodplain is the boundary of the flood that has a 1 percent chance of being equaled or exceeded in any given year, while the 500-year floodplain is

the boundary of the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. FEMA's Flood Insurance Rate Map (FIRM) adopted by the County of Maui on September 19, 2012, indicates ~~The~~the Master Plan ~~area is~~areas in Alternatives 1 and 2 are located in Flood Zone "X" (unshaded), Zone "X" (shaded), Zone "A", Zone "AE", Zone "AO", and Zone "VE". See **Figure 15**.

Zone "X" (unshaded) is an area of minimal flooding, while Zone "X" (shaded) is an area of moderate flood hazard with average depths of less than 1 foot, usually the area between the limits of the 100-year and 500-year floods. Zone "X" (shaded) is located on the outer fringes of Olowalu Stream. Zone "A" are areas with a 1 percent chance of flooding; Zone "AE" is the base floodplain where base flood elevations are provided; and Zone "AO" is river or stream flood hazard areas and areas with a 1 percent or greater chance of shallow flooding with a depth of 1 foot. Zones "A", "AE" and "AO" are located along the shoreline and along Olowalu Stream and Gulch and an area near Kapa`iki. Zone "VE" is the coastal flood area located along the shoreline and are coastal areas with a 1 percent or greater chance of flooding and an additional hazard from storm waves. The flood elevation in this area is 7 feet above mean sea level (amsl). ~~See~~Refer to **Figure ~~13~~15**.

Maui's coastal lands, along with other coastal areas around the world, are susceptible to erosion, accretion and sea level change. Because significant variability in sea level can occur, determining global mean sea level changes are complex. Nevertheless, numerous studies have sought to measure sea level rise. Global sea level rise is assumed to be caused by melting of ice reservoirs in Greenland and Antarctica, as well as various other alpine glaciers and ice sheets, and thermal expansion of the upper ocean water column due to heating of the atmosphere. ~~In Olowalu, erosion rates and potential impacts from sea level rise have not been identified.~~



Source: Federal Emergency Management Agency, FIRM Map Numbers 1500030531E and 1500030532E and Artel, Inc.

Figure ~~13~~15

Proposed Olowalu Town Master Plan

Flood Insurance Rate Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

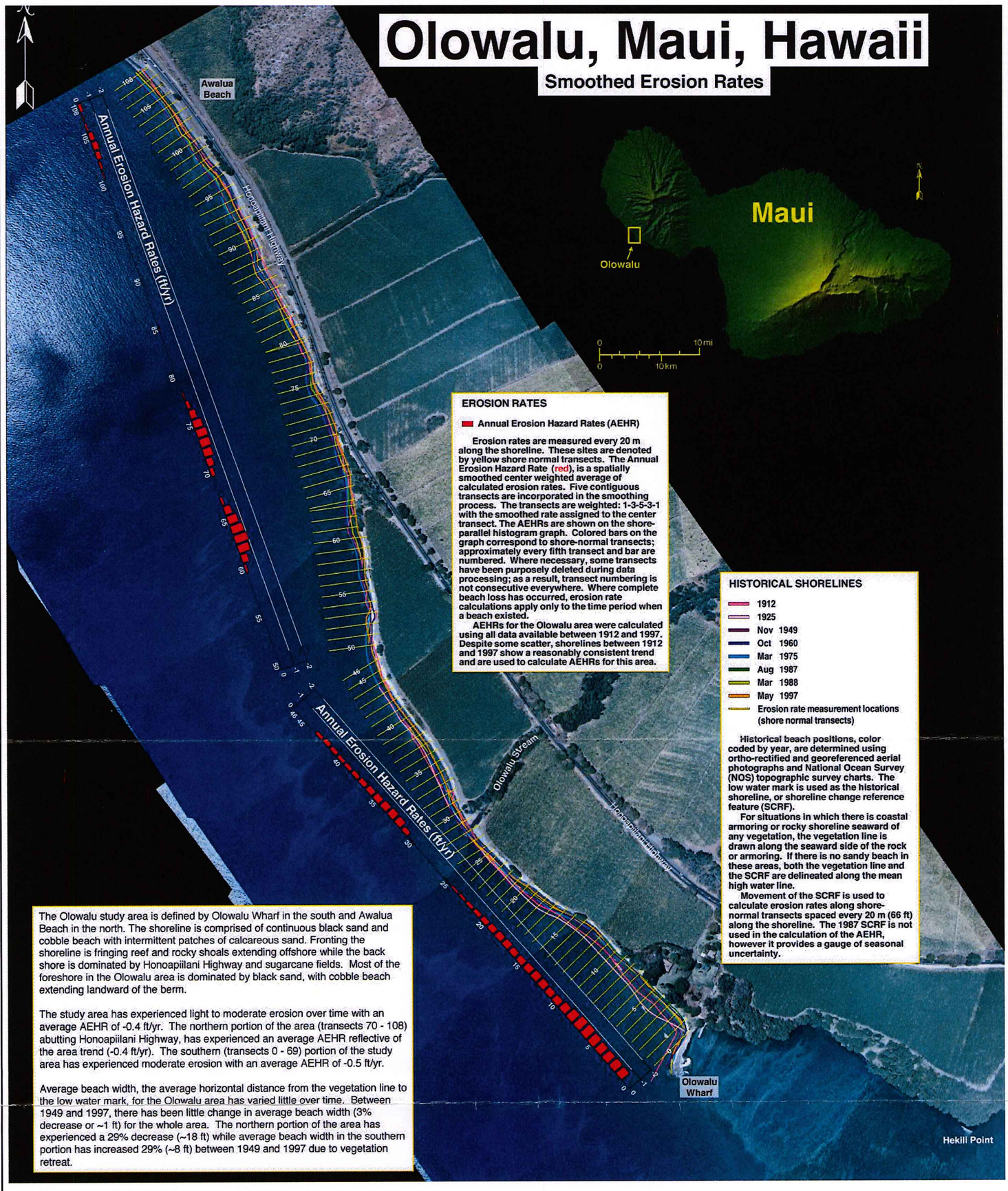
Olowalu Town/MasterPl/Final EIS\FIRM

Since the preparation of the Draft EIS, the County of Maui has adopted erosion rate maps for Olowalu. According to the Erosion Maps prepared for the County of Maui Department of Planning, the Olowalu study area is defined by Olowalu Wharf and Hekili Point. Olowalu Wharf erosion map encompasses the shoreline segment from Olowalu Wharf to the south to Awalua Beach to the north while the Hekili Point erosion map encompasses the shoreline segment from Olowalu Wharf to the north to Ukumehame Gulch to the southwest. The shoreline on the Olowalu Wharf erosion map is comprised of continuous black sand beach and cobble beach with intermittent patches of calcerous sand, while the Hekili Point erosion map is comprised of both sand and cobble beaches. Fronting the shoreline is a fringing reef and rocky shoals extending offshore while the back shore is dominated by Honoapi`ilani Highway and former sugarcane fields and kiawe trees. See **Figure 16** and **Figure 17**.

The Olowalu Wharf erosion map study area experiences light to moderate erosion over time with an average Annual Erosion Hazard Rate (AEHR) of -0.4 ft/year. The northern portion of the area (transacts 70-108) abutting Honoapi`ilani Highway has an average AEHR reflective of the trend of -0.4 ft/yr. The southern area (transects 0-69) has experienced moderate erosion with an average of -0.5 ft/ yr. Refer to **Figure 16**.

Average beach width, the average horizontal distance from the vegetation line to the low water mark, for the Olowalu Wharf erosion map area has varied little over time. Between 1949 through 1997, there has been little change in average beach width (3 percent decrease or 1 foot) for the whole area. However, the northern portion of the area has experienced a 29 percent decrease (~18 ft) while average beach width in the southern portion has increased 29 percent (~8 ft) between 1949 and 1997 due to vegetation retreat.

The Hekili Point erosion map study area as a whole has experienced a consistent trend of moderate erosion with an average AEHR of -0.7 ft/ yr. The shoreline along the western portion of the area (transects 105-210) is dominated by stands of kiawe trees. This section has experienced moderate erosion over time reflecting the area trend (-0.7 ft/yr). The eastern portion (transects 24-104) is backed by Honoapi`ilani Highway. Here, several sections of the highway are directly threatened by shoreline change. This



The Olowalu study area is defined by Olowalu Wharf in the south and Awalua Beach in the north. The shoreline is comprised of continuous black sand and cobble beach with intermittent patches of calcareous sand. Fronting the shoreline is fringing reef and rocky shoals extending offshore while the back shore is dominated by Honoapiilani Highway and sugarcane fields. Most of the foreshore in the Olowalu area is dominated by black sand, with cobble beach extending landward of the berm.

The study area has experienced light to moderate erosion over time with an average AEHR of -0.4 ft/yr. The northern portion of the area (transects 70 - 108) abutting Honoapiilani Highway, has experienced an average AEHR reflective of the area trend (-0.4 ft/yr). The southern (transects 0 - 69) portion of the study area has experienced moderate erosion with an average AEHR of -0.5 ft/yr.

Average beach width, the average horizontal distance from the vegetation line to the low water mark, for the Olowalu area has varied little over time. Between 1949 and 1997, there has been little change in average beach width (3% decrease or ~1 ft) for the whole area. The northern portion of the area has experienced a 29% decrease (~18 ft) while average beach width in the southern portion has increased 29% (~8 ft) between 1949 and 1997 due to vegetation retreat.

Source: Coastal Geology Group, School of Ocean and Earth Science and Technology, University of Hawai`i at Manoa

Figure 16

Proposed Olowalu Town Master Plan

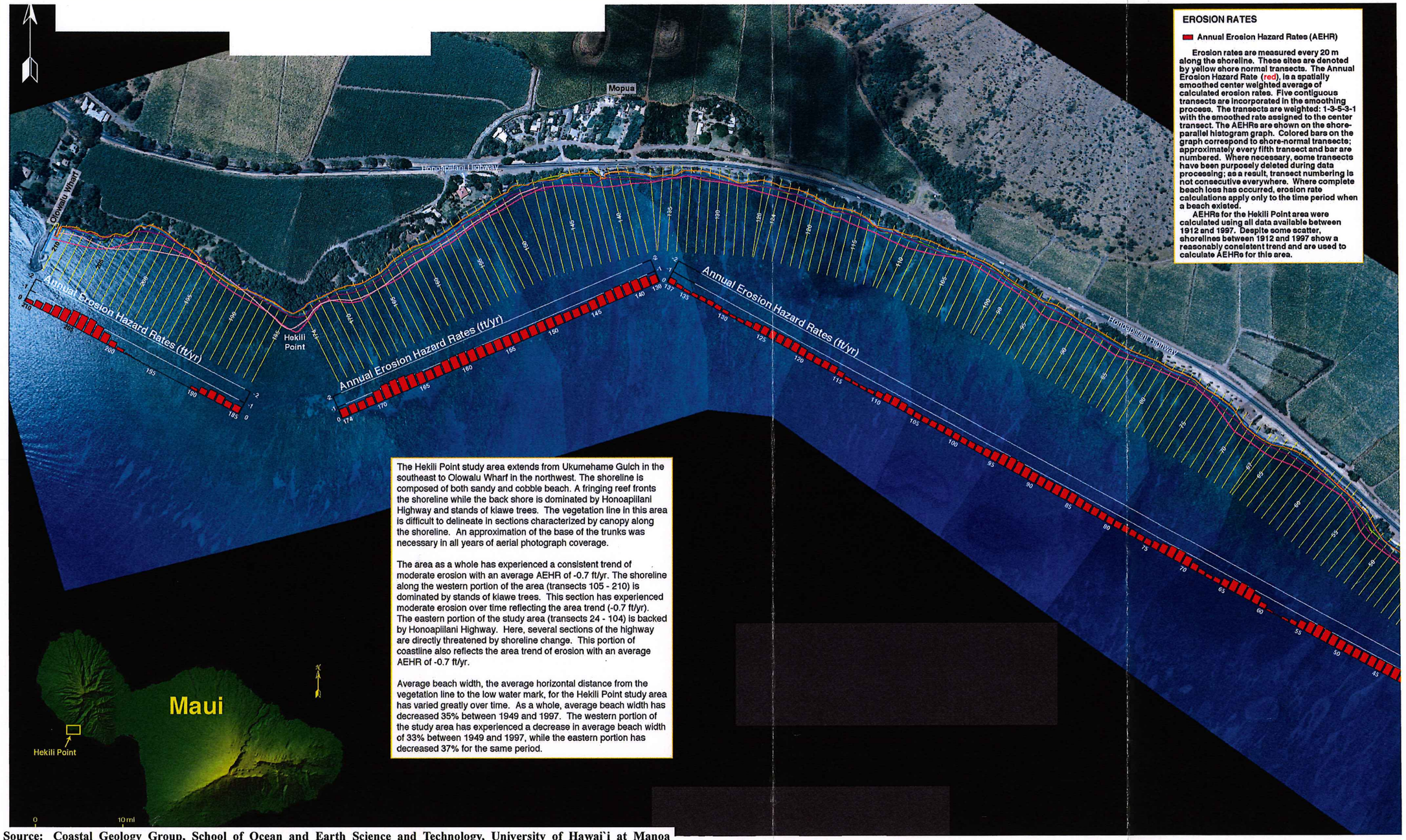
Olowalu Wharf Shoreline Erosion Rates Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town\MasterPl\Final EIS\OlowaluShoreErosionl



EROSION RATES

Annual Erosion Hazard Rates (AEHR)

Erosion rates are measured every 20 m along the shoreline. These sites are denoted by yellow shore normal transects. The Annual Erosion Hazard Rate (red), is a spatially smoothed center weighted average of calculated erosion rates. Five contiguous transects are incorporated in the smoothing process. The transects are weighted: 1-3-5-3-1 with the smoothed rate assigned to the center transect. The AEHRs are shown on the shore-parallel histogram graph. Colored bars on the graph correspond to shore-normal transects; approximately every fifth transect and bar are numbered. Where necessary, some transects have been purposely deleted during data processing; as a result, transect numbering is not consecutive everywhere. Where complete beach loss has occurred, erosion rate calculations apply only to the time period when a beach existed.

AEHRs for the Hekili Point area were calculated using all data available between 1912 and 1997. Despite some scatter, shorelines between 1912 and 1997 show a reasonably consistent trend and are used to calculate AEHRs for this area.

The Hekili Point study area extends from Ukumehame Gulch in the southeast to Olowalu Wharf in the northwest. The shoreline is composed of both sandy and cobble beach. A fringing reef fronts the shoreline while the back shore is dominated by Honoapiilani Highway and stands of kiawe trees. The vegetation line in this area is difficult to delineate in sections characterized by canopy along the shoreline. An approximation of the base of the trunks was necessary in all years of aerial photograph coverage.

The area as a whole has experienced a consistent trend of moderate erosion with an average AEHR of -0.7 ft/yr. The shoreline along the western portion of the area (transects 105 - 210) is dominated by stands of kiawe trees. This section has experienced moderate erosion over time reflecting the area trend (-0.7 ft/yr). The eastern portion of the study area (transects 24 - 104) is backed by Honoapiilani Highway. Here, several sections of the highway are directly threatened by shoreline change. This portion of coastline also reflects the area trend of erosion with an average AEHR of -0.7 ft/yr.

Average beach width, the average horizontal distance from the vegetation line to the low water mark, for the Hekili Point study area has varied greatly over time. As a whole, average beach width has decreased 35% between 1949 and 1997. The western portion of the study area has experienced a decrease in average beach width of 33% between 1949 and 1997, while the eastern portion has decreased 37% for the same period.

Source: Coastal Geology Group, School of Ocean and Earth Science and Technology, University of Hawai`i at Manoa

Figure 17

Proposed Olowalu Town Master Plan
Hekili Point Shoreline Erosion Rates Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown/MasterPl/Final EIS/HekiliShoreline

portion of coastline also reflects the area trend of erosion with an average AEHR of -0.7 ft/yr. Refer to **Figure 17**.

Average beach width for the Hekili Point study area has varied greatly. As a whole, average beach width has decreased 35 percent between 1949 and 1997. The western portion has experienced a decrease in average beach width of 33 percent between 1949 and 1997, while the eastern portion has decreased 37 percent for the same period.

In addition, the U.S. Geological Survey (USGS) Technical Hazard Map for the Olowalu region between Launiupoko Point and the southern limits of Ukumehame State Beach Park has an overall hazard rate from moderate to high which is a direct function of the low coastal slope of this area. To the east, where the individual hazards are mitigated by the increase in coastal slope and harder substrate, it is reduced to moderate to low (USGS, 2002).

The tsunami hazard is ranked high along this entire low-lying coastal terrace. It is reduced to moderately high for the steeper rocky head-lands to the east. The stream-flooding hazard is moderately high for the Ukumehame Beach area and moderately low only along the steep head-lands to the east. Along the Olowalu coast, it is ranked high where larger streams drain the increasingly wetter mountains to the west. The threat from high waves is ranked moderately low here where the greatest waves reaching the shoreline are associated with the southern swell. The storm hazard however, is ranked moderately high along this coast which faces south-west toward the majority of passing storms that track to the west. Erosion is greatest along the lowest-lying beach areas between Ukumehame Beach and Mōpua, where it is ranked high. Sections of the coastal highway, the sole southern access to West Maui, are threatened by coastal erosion and have been protected with armoring by the State Department of Transportation (HDOT). At Mōpua, the rocky point partly mitigates erosion, so this hazard is reduced to moderately low. Beyond Hekili Point, the erosion threat is ranked moderately high. The sea level and volcanic/seismic hazards are moderately high because of the low coastal slope and Olowalu's location within seismic hazard zone 2 (USGS, 2002).

The tsunami evacuation zone for Olowalu is the area seaward (makai) of Honoapi`ilani Highway near Olowalu General Store. See **Figure 18**. The zone moves 400 feet mauka of the highway in areas where the highway is close to the shoreline mainly south of Kapa`iki and north near the County's Recycling and Refuse Convenience Center. The sloping topography of the mauka lands provides higher ground for evacuation purposes through the existing Olowalu roadways.

According to the University of Hawai`i (UH) Sea Grant College Program, *"Sea-Level Rise and Coastal Land Use in Hawaii: A Policy Tool Kit for State and Local Governments, 2011"* report sea levels are rising due to climate change. Over the past century, global mean sea level rose about six (6) to eight (8) inches and the rate of global sea level rise has doubled since 1990. According to the report, it recommends using sea level rise benchmarks of 1-foot by year 2050 and 3-feet by 2100 for Hawai`i.

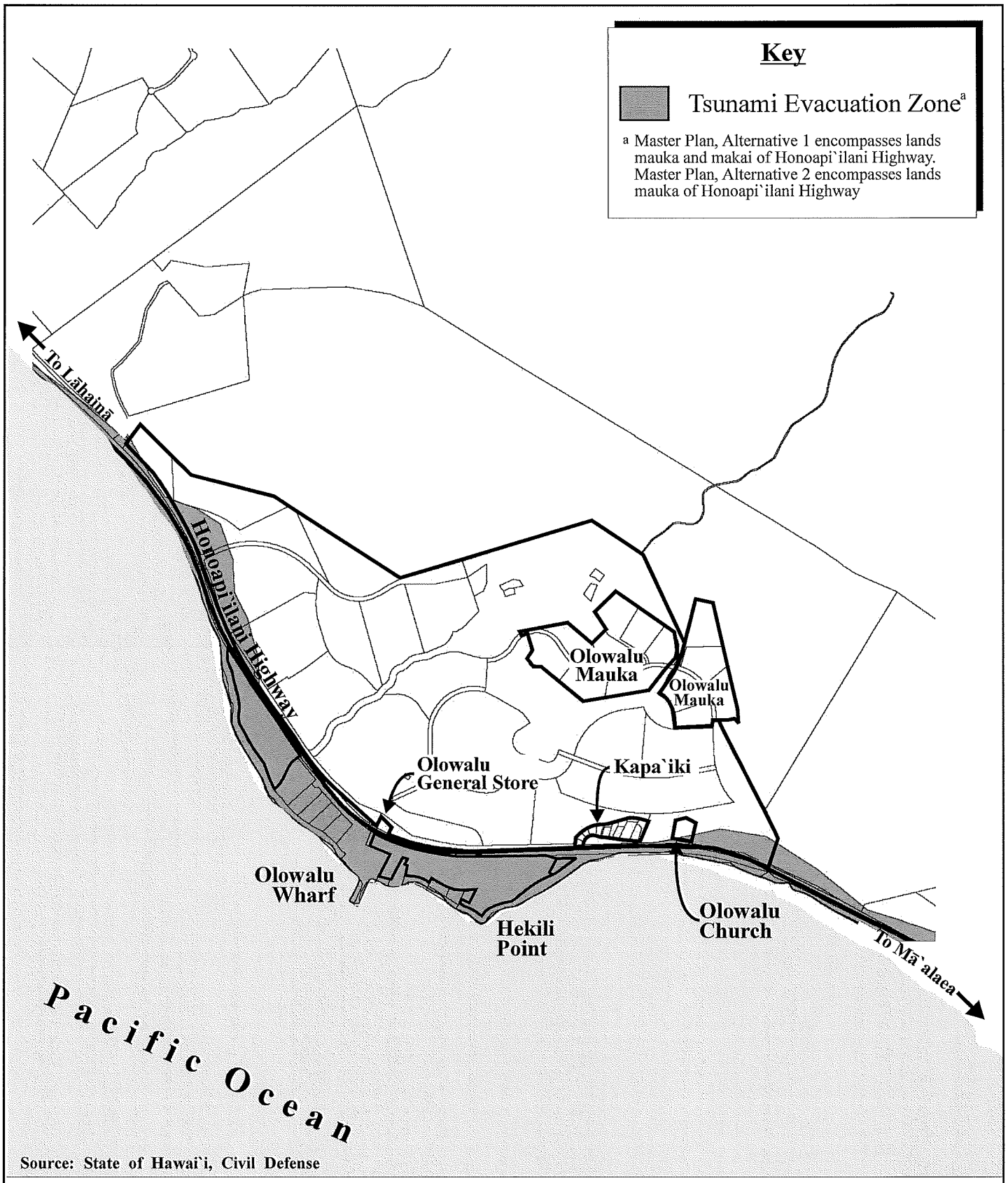
Three (3) basic approaches to sea-level rise adaptation have been identified:

- *Accommodation.* Adjustment of an existing system to changing natural conditions (e.g., strengthening flood-proofing regulations or expanding hazard zones).

- *Protection.* Hardening of a system in its existing location to withstand impacts from changing conditions (e.g., shoreline hardening such as seawalls and revetments).

- *Retreat.* Relocating existing structures to avoid impacts.

Located in Hawai`i, the project site is also susceptible to hurricanes. The Central Pacific hurricane season starts on June 1st and ends on November 11th. The Hawai`i State Civil Defense operates a system of outdoor sirens throughout the State to alert people of emergencies and natural hazards, including hurricanes and tsunamis. There is an existing siren on the makai side of Honoapi`ilani Highway (entering Olowalu from Mā`alaea) near Camp Olowalu.



Source: State of Hawai`i, Civil Defense

Figure 18

Proposed Olowalu Town Master Plan

Tsunami Evacuation Map

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town\MasterPl\Final EIS\TsunamiEvacuation

The region of West Maui that the project is located in is susceptible to wild fire hazards, particularly during the long dry seasons. Lands that were formerly cultivated for sugarcane in West Maui have reverted to dry grassland and shrubland following the end of sugar production in the region. Also, State lands abutting these areas are not maintained and are also susceptible to wildfires. Dry vegetation on these private and State lands serve as a fuel hazard for fires. In 2007, a large fire in the area of Olowalu and Launiupoko swept up into the nearby West Maui Natural Area Reserve and in May 2010, another fire broke out in the region.

b. <u>Potential Impacts and Mitigation Measures</u>

~~As previously noted, portions of the Master Plan fall within flood hazard areas. The proposed Master Plan does not involve any development within the portion of the Master Plan area that is within Flood Zone VE, the area along the shoreline with a 1 percent or greater chance of flooding and additional hazards from storm waves. Portions of the Master Plan will be located in Zones AO (Depth 1 foot) and X (shaded) which may be prone to shallow flooding.~~

A major portion of the Master Plan area for Alternatives 1 and 2 is located within Flood Zone "X" (unshaded), an area of minimal flooding and outside of the 0.2 percent annual chance flood. In Alternative 1, the remaining portion of the Master Plan is located within Flood Zone "X" (shaded) along Olowalu Stream and Special Flood Hazard Areas Zones "A" along the upper portion of Olowalu Stream in the OCR, "AE" along the shoreline mainly in the 150 shoreline setback area, "AO" along Olowalu Stream, and "VE" coastal flood area with velocity hazard (wave action). Refer to **Figure 15**.

In Alternative 2 the areas makai of Honoapi`ilani Highway are not included in the Master Plan, therefore, Alternative 2 is not located within Zones "AE" and "VE". Portions of the Master Plan for Alternative 2 mauka of the highway are located in the flood zones similar to Alternative 1. Refer to **Figure 15**.

Generally, lands of the Master Plan for Alternatives 1 and 2 which lie within the Special Flood Hazard Area are envisioned for agriculture, OCR, or parks and open space. Construction within ~~other~~special flood hazard areas will be

in compliance with Section 16.62.060, MCC, relating to standards for development within special flood hazard areas. Flood Hazard Area Development Permits will be obtained prior to the initiation of construction activities, as applicable.

~~While it is difficult to forecast specific sea-level rise patterns in the future, the applicant recognizes that changes in global sea-levels are an ongoing process that may cause changes to coastal landscapes. As such, the~~According to the National Oceanic and Atmospheric Administration's (NOAA) digital coastal map, by year 2100 a 3-feet or 1-meter sea level rise for the Olowalu coastline will be limited to the area of the Master Plan in Alternative 1 along the shoreline. See **Figure 19** (Hekili Point) and **Figure 20** (Olowalu). The northern side of the Olowalu coast line appears to have the greater inland inundation.

The proposed Master Plan ~~provides for a~~for Alternative 1 observes an existing 150-foot setback from the coastline within which no development will occur. See **Figure 21**. The 150-foot shoreline setback is an existing condition that was established as part of a Special Management Area (SMA) Use Permit approved in 2000. See **Appendix "S"**. The anticipated inundation zone from sea level rise by the year 2100 is located near the shoreline in many cases on the beach area. As such, the 150-foot setback area is adequate to ensure that development is not adversely affected by future sea level rise.

To mitigate potential impacts associated with natural disasters, all buildings within the proposed Master Plan for Alternatives 1 and 2 will comply with the Uniform Building Code, as amended for Maui County, and provided for in Section 16.26 of the MCC. In addition, the ~~a~~Applicants will coordinate with the Hawaii State Civil Defense agency to determine whether public facilities within the Master Plan for Alternatives 1 and 2 meet public shelter specifications and can serve as a shelter during emergencies, including wildfire, tsunami or hurricane events. As appropriate, the Applicants will coordinate with the Hawai`i State Civil Defense agency to develop an evacuation plan that would include, at minimum, appropriate signage directing the public to safe locations in the event of an emergency.

Note: Delineations are approximate and are intended to be illustrative only.

Source: Google Earth and NOAA, Office for Coastal Management Digital Coast

Figure 19

Proposed Olowalu Town Master Plan

Three (3) Feet Sea Level Rise Map South of Olowalu Wharf

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown/MasterPl/Final EIS/SeaLevelRiseSouthOlowalu

Note: Delineations are approximate and are intended to be illustrative only.

Source: Google Earth and NOAA, Office for Coastal Management Digital Coast

Figure 20

Proposed Olowalu Town Master Plan

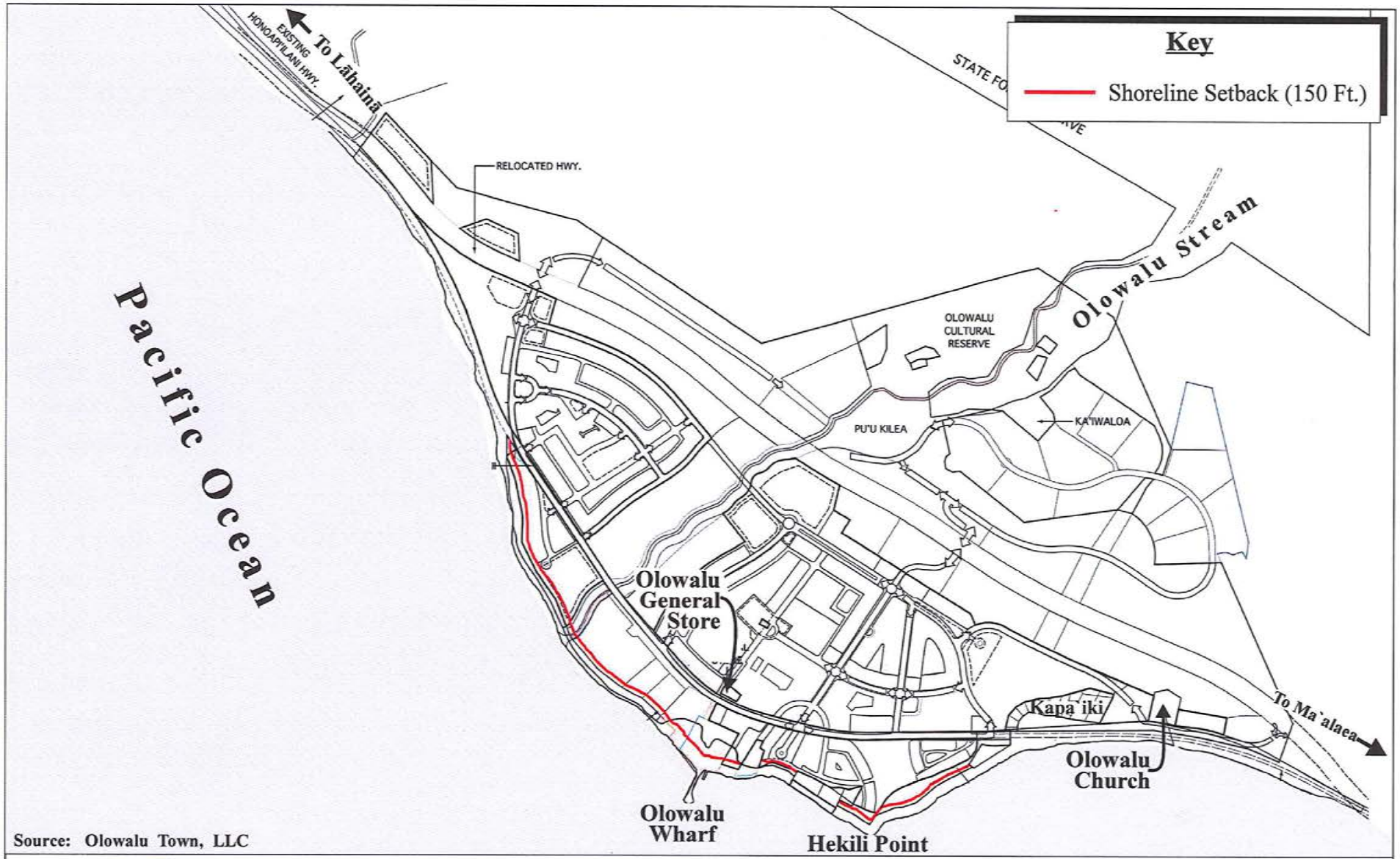
Three (3) Feet Sea Level Rise Map North of Olowalu Wharf

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown/MasterPl/Final EIS/SeaLevelRiseNorthOlowalu



Source: Olowalu Town, LLC

Figure 21

Proposed Olowalu Town Master Plan

Existing 150 Ft. Shoreline Setback Map (Established Through SMA Use Permit No. SM1 990021)

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/150 ft Shoreline Setback

Regarding wildfire hazards, both fuel breaks and certain grazing patterns can greatly reduce fuel loading and thereby protect against fire hazard. Currently, a portion of the land is being used to graze cattle and horses to reduce grasses that provide fuel to wildfires. The proposed Master Plan for Alternatives 1 and 2 includes the OCR and will provide for parks, greenways, and open space interspersed among residential and commercial development. This development pattern will provide for fuel breaks that will reduce the risk of fire hazard in the region. The Master Plan for Alternatives 1 and 2 will upgrade the existing water system, including fire protection improvements to the existing and future community.

The Master Plan for Alternatives 1 and 2 also proposes areas where a new fire station can be accommodated which will enhance the Fire Department's service areas in West Maui.

7. Flora, Fauna, and Aquatic Resources

a. Existing Conditions

A Flora and Fauna Survey was conducted for the Master Plan area in May 2010. The survey covered 636 acres of ~~land~~the Alternative 1 lands. The Alternative 2 lands are encompassed in the study area. See **Appendix "~~E~~F"**. The majority of the project area is heavily disturbed from over 100 years of intensive agricultural activity. In pre-contact times, the area would have been characterized as a dry native shrubland with a few scattered trees. By the latter half of the 1800s, the entire area was converted to sugarcane cultivation. Following the end of sugar production in the region, most of the land stands idle and has reverted to a dry grassland/shrubland dominated by hardy, non-native species.

Two (2) species dominate the property: buffelgrass (*Cenchrus ciliaris*) and opiuma (*Pithecellobium dulce*). Buffelgrass has spread throughout the dry leeward districts of Maui. `Opiuma has also spread dramatically in former sugarcane lands. Within the project site, `opiuma is most prolific along Olowalu Stream and on the coastal plain where its deep roots can access ground water resources. Koa haole (*Leucaena leucocephala*), Java plum (*Syzygium cumini*), `uhaloa (*Waltheria indica*), kiawe (*Prosopis pallida*),

sourbush (*Pluchea carolinensis*) and Castor bean (*Ricinus communis*) are also common.

Eighteen (18) species of endemic and indigenous native plants were found during the survey of the project site. All but one (1) of these were found only in areas that had not been previously used as sugarcane fields. Only the hardy `ulahoa was found everywhere on the property. While all of the native plants except the `ulahoa were of rare occurrence within the property, all are widespread in Hawai`i in general.

No federally protected threatened or endangered plant species or candidate species were found during the survey. In addition, no critical habitat for any protected species occurs on or adjacent to the project site.

Five (5) species of non-native mammals were recorded during four (4) site visits conducted for the Flora and Fauna Survey. These included domestic cat, domestic dog, axis deer, and several horses and cattle that were pastured within the property. A dense cover of vegetation prevented good visibility of other ground dwelling mammals in much of the property. However, one may also expect to see rats, mice, and mongoose.

Tracks of the endangered nēnē goose (*Branta sanvicensis*) were seen in mud in an irrigated pasture. These endangered geese are multiplying in West Maui and are frequently sighted at the OCR. The nēnē are strong fliers and can range over large areas on a daily basis, such as the entire southern half of West Maui, especially within the West Maui Mountains. They are known to appear in areas with succulent grasses on which they like to feed, such as golf courses, parks, large lawns and hydro-mulched road banks. They are also attracted to the fringes of water features or temporarily irrigated areas.

A few other non-native birds might be expected to use this habitat but the area is not suitable for Maui's native forest birds which now only occupy native forests at higher elevations beyond the range of mosquitoes and the avian diseases they carry. ~~The~~While no ae`o or Hawaiian stilt (*Himantopus mexicanus knudseni*), `alae ke`oke`o or Hawaiian coot (*Fulica alai*), and the koloa or Hawaiian duck (*Anas wyvilliana*) were ~~reported by a~~seen during the survey, the property's water management crew ~~as been seen in~~reported rare occurrences of these birds around reservoirs within the project ~~site~~area.

A special effort was made to look for the endangered Hawaiian Hoary bat by making an evening survey and using a bat detection device. However, no bat activity was detected.

While insects in general were not recorded by the Survey, they were observed and their status noted. No native insects were seen. This habitat is not suitable for most native species. One (1) endangered native moth, the Blackburn's sphinx moth (*Manduca blackburni*), could occur in this type of habitat. Its host plants are native aiea species (*Nothocestrum* spp.) and non-native species of tree tobacco (*Nicotiana glauca*), tobacco (*Nicotiana tabacum*), and tomato (*Solanum lycopersicum*). Only a few young tree tobacco plants were found within the property. Each tree tobacco plant was carefully examined and no Blackburn's sphinx moths or their larvae were detected.

According to the Aquatic Resource Survey conducted by Robert W. Hobdy, six (6) aquatic features were identified. The survey did not observe any Federally listed species or their habitat as well as any other sensitive species. See **Appendix "~~E-1~~F-1"**. Previously, aquatic resources found in Olowalu Stream include *oopu nakea* (Awaous stamineus) and *oopu nopili* (Sicyopterus stimpsoni) (Char 1999, Hawai`i Stream Assessment, 1990).

b. <u>Potential Impacts and Mitigation Measures</u>

As previously mentioned, most of the project area has been heavily disturbed from over 100 years of intensive agricultural activity. The vegetation throughout the project area is dominated by non-native plant species and there were no Federally protected threatened or endangered plant species identified during the survey. The primary threat to Federally protected species in this part of West Maui is fire. Buffelgrass, one of the most prominent non-native species within the project area, dries out during the long dry seasons and has proven to be a major fuel for wildfires. As long as the vegetation remains as it is in the project area, it will represent a significant fuel hazard for fires and a threat to human and natural resources on-site and beyond. Fuel breaks and certain grazing practices can greatly reduce fuel loading and help protect resources from fire. Currently, a portion of the land is being used to graze cattle and horses to reduce grasses that provide fuel to wildfires. In the long term, the proposed Master Plan will provide for irrigated parks, greenways,

and open space interspersed among residential and commercial development removing the existing dry grasses that are a fuel hazard. This development pattern will provide for fuel breaks that will reduce the fire hazard in the region. Besides grazing, interim measures include clearing buffers for fire breaks by removing vegetation along property boundaries adjacent to residential areas such as Kapa`iki.

Many of the dryland native plants that grow in leeward West Maui are ideally adapted to the soils and climate. The OCR has succeeded in cultivating a number of these species. The Master Plan for Alternatives 1 and 2 will incorporate these native plants in the landscaping scheme for the project, to the extent practicable.

As noted in the Flora and Fauna Survey, ~~Nēnēnēnē~~ are wide-ranging, opportunistic birds that are attracted to certain types of water features and other types of irrigated and open landscapes where lush grasses grow. The geese like to spend some time feeding and resting in such places but then move to other widespread and diverse sites over the course of each day. Individually, these sites could be considered important habitats for these endangered geese, but would not be considered critical to their survival. The irrigated pasture within the project site, where the tracks of the nēnē were seen in mud, is a type of temporary habitat that is useful to the nēnē in the broad scheme of things in West Maui. Unlike the blades of wind turbines, these features are not dangerous to nēnē and mitigation measures are not warranted.

The best avoidance strategies involve educational warnings such as placement of signs at strategic access points to any water features or irrigated fields. These warning signs would identify the nēnē (a drawing or picture), include a statement of its endangered status and warn against harming these special birds.

The Endangered Species Act (ESA) provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The federal agencies tasked with implementation of the Act are the U.S. Fish and Wildlife Service (USFWS) and NOAA. Section 10 of the ESA regulates a range of activities affecting plants and animals designated as endangered or threatened, and the habitats upon which they depend. With some exceptions, the ESA prohibits activities affecting these protected species

and their habitats unless authorized by a permit from the USFWS or NOAA. Incidental take permits are required when non-Federal activities will result in take of threatened or endangered species. Through consultation with the USFWS and NOAA, the law promotes the protection of those listed species. Although the Flora and Fauna Survey noted that the irrigated pasture within the project site is a type of temporary habitat for the nēnē, rather than critical to its survival, consultation with USFWS and NOAA will continue through project design to ensure the protection of those listed species.

~~The~~It is noted that the Flora and Fauna Survey recommended the creation of a more attractive and permanent shallow-sided water feature within the upper portion of the OCR that would attract nēnē as well as ae`o, `alae ke`oke`o, and koloa. Such water features within the Master Plan for Alternatives 1 and 2 could provide good habitat for the endangered nēnē and serve as an educational and cultural component of this project.

The Flora and Fauna Study also recommended that vegetation which serves as habitats for the endangered Hawaiian Hoary bat (öpe`ape`a) also be retained. Although the bat was not found during the survey, they may be present during the winter months when insect populations spike. The bats roost individually in trees and shrubs, under ledges in gulches during the day and are active in the evening and throughout the night. The Master Plan for Alternatives 1 and 2 proposes ~~approximately 223 acres of~~land set-asides for parks and open space. Open space areas include the OCR along the Olowalu Stream that will retain vegetation that may serve as habitats for the Hawaiian Hoary bat.

Although the Master Plan ~~area~~areas for Alternatives 1 and 2 ~~itself is~~are not ~~a~~ suitable habitats for protected seabirds which are known to nest high in the West Maui Mountains during the summer and fall months, these birds must fly over the lowlands during the evening and early morning hours to get to their burrows and to return to the open ocean. During the late fall when young birds are inexperienced and uncertain fliers, they are often confused by bright lights, which may cause them to crash into the light source. ~~As such, all~~

All major outdoor light sources within the project area, such as street lights and flood lights, will be shielded so that light is directed downward to avoid confusion for young seabirds. In Alternative 1, there will be no structures

developed within the 150 ft. shoreline setback for the project. Work within the shoreline setback will be limited to landscaping and public access to and along the shoreline. As such, structures will be set back from the shoreline at a minimum of 150 ft., with a substantial portion of areas envisioned for town centers located several hundred feet beyond the 150 ft. setback. Refer to **Figure 4**. In Alternative 2, no development will occur makai of Honoapi`ilani Highway. The existing uses will be maintained. Refer to **Figure 5**.

In general, designs for outdoor lighting will consider the need to respect the night sky and its impacts to wildlife.

With the implementation of the aforementioned mitigation measures, ~~the proposed project is~~Alternatives 1 and 2 are not expected to have a significant ~~negative~~adverse impact on botanical~~or~~, fauna, or aquatic resources in this part of West Maui.

The OCR is currently restoring taro fields (lo`i) in its restoration of native Hawaiian plants and agricultural practices which will be enhanced by the Master Plan for Alternatives 1 and 2. Portions of the land adjacent to Olowalu Stream are included in the OCR. A goal of the OCR is to eventually restore stream flow to the ocean. Once stream flow to the ocean is restored, a riparian restoration program for Olowalu Stream can be developed with the approval of the OCR.

8. Marine Resources

a. Existing Conditions

NOAA's National Centers for Coastal Ocean Science initiated a coral reef research program in 1999 to map, assess, inventory, and monitor U.S. coral reef ecosystems. The Shallow-Water Benthic Habitats on the Main Hawaiian Islands 2007 study mapped the eight (8) main Hawaiian Islands, including Maui. The study found that on the Island of Maui the coral reef habitat can generally be characterized as described in **Table 20**:

Table 20. Coral Reef Structure for Maui Island

Coral Reef Structure Type	Major and Detailed Habitat Area (km²)
Pavement	32.529
Spur and Groove	4.201
Individual Patch Reef	0.127
Aggregated Patch Reef	0.462
Aggregated Reef	18.360
Rock/Boulder	46.169
Pavement with Sand Channels	0.595
Rubble	0.110
Scattered Coral/Rock	0.148
Total Coral Reef and Hard Bottom	**102.702**
Sand	98.996
Mud	0.657
Pavement with Sand Channels	**99.623**
Rubble	0.200
Scattered Coral/Rock	**0.200**
Total Coral Reef and Hard Bottom	**202.525**
Source: NOAA, 2007	

Map 71 of the study covers the Olowalu area and identifies the benthic habitats offshore. The classification scheme defines benthic habitats on the basis of large geographic "zones" which are comprised of smaller geomorphological structure and biological cover of the reef system. Biological cover indicates the predominate biological component colonizing the surface of the feature. Geomorphological structure indicates the physical structural composition of the feature (NOAA, 2007).

Zones identified in Olowalu by the 2007 NOAA Study from land to open water included lagoon, fore reef, and bank shelf, while the geomorphological structure types were pavement, aggregate reef, spur and grove, and sand.

The Assessment of Marine Water Chemistry and Biotic Community Structure surveyed approximately 454 acres of the nearshore waters in Olowalu. Refer to **Appendix "E"**. As noted in **Appendix "E"**, the aggregate reef structure is located mostly south of Olowalu Point. The overall coral cover in the

survey area was about 37 percent of bottom cover, while macroalgae accounted for about 8 percent of bottom cover; 21 percent of the bottom was covered with sand and 33 percent of the bottom consisted of mud and sediment bound in algal turf.

The reefs at Olowalu are considered somewhat unique in that sediment deposition (or lack thereof), rather than wave forces, appears to be the major determinant of physical and biotic reef structure. Along the northern side of Olowalu Point, deposition of terrigenous sediment emanating from Olowalu Stream creates a habitat where coral communities are limited to species and growth forms that can withstand the sub-optimal conditions created by high rates of sediment deposition. South of Olowalu Point, a shallow, wide, triangular-shaped reef flat, formed from deposition of alluvial material from Olowalu Stream, terminates in a fore reef composed of actively accreting coral assemblages that show little or no effect of sediment stress. The outer reefs consist of extensive actively accreting coral formations where growth and community composition are not controlled by wave forces, as is the typical situation on most Hawaiian open coastal areas. Also, reefs at the southeastern end of the project site (near 14-Mile Marker) showed distinct indications of sediment stress, although no major streams discharge regularly in this area. Refer to **Appendix "E"**.

Populations of reef fish in the area are typical of Hawai`i reefs, although numbers of larger fish were very low, likely as a result of fishing pressure. The most abundant families consisted of wrasses, damselfish and surgeonfish. The highest abundance of fish was on the outer fore reef with the rarest in the areas with the heaviest deposition of mud. Reef communities on the outer reef flat and fore reef represent essentially pristine ecological settings unaffected by most human activities, with the exception of fishing.

Numerous sharks were also observed on the inner reef flat. Marine biologist Pauline Feine states in her comments on the Draft EIS that the Olowalu area is a nursery for black-tip sharks.

Information received from the NOAA, National Marine Fisheries Service (NMFS) identified three (3) marine species protected under the Endangered Species Act that frequent the area and may potentially be affected by the proposed project. The three (3) marine species identified include the

threatened green sea turtle (*Chelonia mydas*), the endangered hawksbill sea turtle (*Eretmochelys imbricate*), and the endangered Hawaiian monk seal (*Monachus schauinslandi*). Maui hosts a nesting population of hawksbill sea turtles on the southern shore of the island. Green sea turtles also occur offshore of the area and may bask onshore. Several green sea turtles were observed during the course of fieldwork for the *Assessment of Marine Water Chemistry and Biotic Community Structure in the Vicinity of the Olowalu Town Master Plan*. Refer to **Appendix "E"**. According to NOAA, the Olowalu area may provide a suitable shoreline habitat to support sea turtle nesting. Hawaiian monk seals are also known to occur in the area and have been frequently sighted hauled out on beaches.

In addition, nine (9) species of corals found in Hawai`i were petitioned for listing under the Endangered Species Act. One of these coral species, *Montipora patula*, was found to occur in the nearshore waters off of the project area. In 2014, NOAA listed 20 corals as threatened but the list did not include the nine (9) candidate species that are found in Hawai`i (Garden Island, 2014). Refer to **Appendix "E"**.

Since the preparation of the *Assessment of Marine Water Chemistry and Biotic Community Structure in the Vicinity of the Olowalu Town Master Plan* new circumstances have occurred that have altered the results of my previous surveys. Recent elevated ocean temperatures around the State of Hawai`i have resulted in bleaching of corals in at least some nearshore settings. Visual inspection of the reef at Olowalu conducted on September 24, 2015 indicated that such bleaching has occurred at the Olowalu study sites, resulting in a reduction of live corals. See **Appendix "E-1"**.

b. <u>Potential Impacts and Mitigation Measures</u>

The change in character of the Olowalu reef observed in 2015 by natural phenomenon is not directly related to activities on land. There is no reason to suggest the possibility of different or likely increased environmental impacts not previously dealt with in the 2011 report. Rather, decreasing sediment delivery to the ocean over the existing situation will likely provide an enhancement to recover the reef that survives the bleaching event. Refer to **Appendix "E-1"**.

Overall, the assessment of the biotic community structure found that the existing episodic discharge of land-derived sediment is the most pervasive stress to the reefs off Olowalu. However, the area of such discharge is limited, and does not affect all areas of the reef. Reef communities on the outer reef flat and fore reef represent essentially pristine ecological settings unaffected by most human activities, with the exception of fishing. Refer to **Appendix "E"**.

As long as Best Management Practices (BMPs) are utilized to avoid any unforeseen impacts during the construction and operational phases of the project, and engineering considerations in the design of the retention basins include maximizing sediment trapping, negative impacts to the marine environment are not anticipated. Refer to **Appendix "E"**.

Recommended BMPs in the Storm Water Quality Enhancements study include Low Impact Development (LID) or non-traditional measures to handle storm water runoff and improve water quality. Measures such as bio-retention basins, landscape areas, vegetated swales and subsurface retention systems will be considered in the development of the OTMP. Although not expected, the storm water runoff (pre- and post-development) that may eventually sheet flow into the ocean is expected to be reduced and water quality improved over the existing runoff that currently flows through the existing culverts to the ocean. These measures are anticipated to protect ocean and marine resources. Refer to **Appendix "C-2"**.

The endangered Hawaiian monk seal is sensitive to human disturbance and could be negatively affected by increased human presence if not properly mitigated. The Applicants will work with the NOAA, NMFS to develop an educational program, including appropriate signage within the project limits, to inform residents and visitors to Olowalu of the need to minimize human disturbances and interactions with Hawaiian monk seals. Similarly, the educational program will also include information to protect the threatened green sea turtle, the endangered hawksbill sea turtle, as well as the Hawaiian nēnē.

The Master Plan for Alternatives 1 and 2 will not involve any work within the ocean. Potential impacts to the marine environment may be attributed to land based activities, such as sedimentation in stormwater runoff. The drainage

plan proposes to capture runoff in a series of detention and retention basins that will allow sediments to settle within these basins. The reduction of sediments into the ocean will likely improve or at the very least maintain the water quality and marine biota in Olowalu.

To mitigate impacts to sea turtle nesting areas, the design for outdoor lighting will consider the need to respect the night sky, its impacts to the coastal shoreline areas, and impacts to threatened and endangered species. As applicable, the Applicants will implement a lighting plan for the Master Plan areas for Alternatives 1 and 2 that are sensitive to threatened and endangered species and incorporates recommendations from NOAA, NMFS. All exterior lighting will be shielded and directionally aimed downward. These design considerations are anticipated to mitigate light pollution and prevent light from traveling across property boundaries toward the ocean and shoreline.

As noted, no structures will be developed within the existing 150–foot shoreline setback area, which will mitigate impacts through avoidance.

With the implementation of the aforementioned mitigation measures, Alternatives 1 and 2 are not expected to have a significant adverse impact on marine resources in Olowalu.

~~8.~~9. Streams and Reservoirs

a. Existing Conditions

The Master Plan ~~area~~ for Alternatives 1 and 2 encompasses a large alluvial fan that was created over several millennia by the deposition of soil and rocks washed down the narrow Olowalu Canyon. Olowalu Stream traverses this alluvial fan. On either side of Olowalu Stream, several smaller rocky gulches drain the steep, dry forehills of the West Maui Mountains.

An Aquatic Resource Survey identified six (6) aquatic features within the project area, including Olowalu Stream. Refer to **Appendix "~~E-1~~F-1"**. The original alignment of Olowalu Stream was altered by the former sugar company in the 1860's. The original outlet of the stream was on the Mā`alaea side of Olowalu Wharf at Hekili Point.

Olowalu Stream is classified as a perennial stream. Although stream flows are year-round in the upper reaches, lower elevation flows are intermittent. The Aquatic Resources Survey reports that an intake and ditch constructed for sugarcane cultivation diverts water from Olowalu Stream, turning the perennial stream into an intermittent stream that only flows to the sea following significant rainfall events. The diversion is still in use even though sugar production has ended. A four (4) to six (6) foot high berm was also created along the edges of Olowalu Stream where it passes through the gentler slopes of the alluvial fan and coastal plain. The berm was built to contain the flood waters generated by unusually large storms within the stream channel so that field crops would not be damaged. Even if the diversion was removed, due to the high amount of ground seepage, the stream would still be intermittent (Tom Nance, 2011).

There are no wetlands within or in close proximity to the project site. However, the Master Plan ~~area~~ for Alternatives 1 and 2 encompasses four (4) irrigation reservoirs which were constructed to support the past sugar cultivation activities of Pioneer Mill. Historically, approximately four (4) million gallons per day (mgd) of water were diverted to these reservoirs from Olowalu Stream.

In addition to Olowalu Stream, the Aquatic Resource Survey identified two (2) unnamed tributaries, the Kapa`iki Drainage Channel, the Kaloko o Kapa`iki Fishpond, and an unnamed ephemeral tributary within the project site. Refer to **~~Exhibit "E-1~~"Appendix F-1"**. These aquatic resources are described below:

- **Unnamed Tributaries** - The two (2) unnamed tributaries are typically dry for most of the year. Winter storms bring sufficient rainfall to make the tributaries run for two (2) to three (3) days, two (2) or three (3) times a year.

- **Kapa`iki Drainage Channel** - The Kapa`iki Drainage Channel is situated along the north edge of Kapa`iki, with small amounts of water running continuously to a low sandy wave washed berm where high tide waves wash in and out.

- **Kaloko o Kapa`iki Fishpond** - The Kapa`iki Fishpond is an ancient structure located approximately 100 feet from the ocean, mauka of Honoapi`ilani Highway. The fishpond was drained in the 1960s and remains today as a depression in the earth. During winter rain storms, flood waters accumulate in the fishpond depression and drains out into the ocean.

- **Unnamed Ephemeral Tributary** - The unnamed ephemeral tributary/ditch is located mauka of Honoapi`ilani Highway. During winter storms, rain water sheet flows off a small slope and the coastal plain and ponds in the ditch. When the ponded waters reach a depth of over one (1) foot, they are channeled under Honoapi`ilani Highway to the shoreline. Remaining waters are absorbed into the soil.

b. <u>Potential Impacts and Mitigation Measures</u>

The natural drainage characteristics of the Olowalu Stream will not be altered as part of implementation of the Master Plan for Alternatives 1 and 2. The land plan for the ~~project~~ alternatives provides for the OCR along the stream to preserve and enhance the streams functional and cultural values. The existing Olowalu Stream diversion is the source of non-~~potable~~drinking water to the OCR for their cultural activities and practices.

~~The Master Plan~~ Alternatives 1 and 2 proposes to ~~reduce the amount of water currently diverted from Olowalu Stream through~~ use ~~of~~ recycled water from the proposed wastewater treatment facility for the project. The recycled water will be a new source of non-~~potable~~drinking water for irrigation purposes. It is anticipated that there will be an increase in stream flows as ~~non-potable water replaces the water diverted from the stream and~~ future repairs and maintenance to the Olowalu Ditch is conducted to reduces leaks and loss of water between the point of diversion and the location of current flow rate measurements within the irrigation system. This will help to enhance native habitat within the Olowalu Stream ecosystem.

910. Nearshore Waters

a. Existing Conditions

An Assessment of Marine Water Chemistry and Biotic Community Structure was prepared by Marine Research Consultants, Inc. for the vicinity of the Master Plan for Alternatives 1 and 2 in July 2011. Refer to **Appendix "~~D~~E"**. The study provided a baseline assessment of the marine environment, including an evaluation of the water chemistry and coral reef structure. The assessment of nearshore marine water chemistry was carried out by evaluating data from 60 water samples collected at five (5) ocean sites offshore from the project site. At each site, water samples were collected on transects perpendicular to the shore, extending to distances of approximately 500 to 600 meters offshore. The evaluation of the marine habitat and biotic communities involved the use of remote sensing satellite imagery combined with extensive ground-truth data collection.

The water chemistry analysis evaluated 14 water chemistry constituents, including all specific constituents in the DOH's water quality standards. The assessment found evidence of groundwater efflux at the shoreline, producing a zone of mixing where nearshore waters are a combination of ocean water and groundwater. In all cases, the nearshore zone of mixing was restricted to a narrow zone that extended a maximum of only 10 meters from the shoreline. Beyond this distance, water chemistry at all sites was representative of pristine open coastal waters. Groundwater flow is also retained within a buoyant surface lens that does not come in contact with the reef surface. Evaluating water chemistry using DOH specific criteria for Open Coastal Waters indicates many of the measurements in the nearshore areas (within 10 meters of the shoreline) exceed standards, particularly for various forms of nitrogen. These standards do not take into consideration mixing of high nutrient naturally occurring groundwater with ocean water, in which such exceedances are expected and normally occur throughout most Hawaiian nearshore marine areas.

~~The analysis of the marine habitat covered 454 acres offshore from the Master Plan area. Overall, coral cover represents approximately 37 percent of this area, while macroalgae accounted for eight (8) percent of bottom cover, sand comprised 21 percent of bottom cover, and 33 percent of the bottom consisted~~

~~of mud and sediment bound in algal turf. Populations of reef fish in the area are typical of Hawai`i reefs, although the numbers of larger fish was very low, likely as a result of fishing pressure. The most abundant families consisted of wrasses, damselfish, and surgeonfish. Numerous small sharks were also observed on the inner reef flat. Overall, the study found that the existing episodic discharge of land-derived sediment is the most pervasive stress to the reefs off Olowalu. However, the area of such discharge is limited, and does not affect all areas of the reef. Reef communities on the outer reef flat and fore reef represent essentially pristine ecological settings unaffected by most human activities, with the exception of fishing.~~

b. <u>Potential Impacts and Mitigation Measures</u>

The proposed Master Plan for Alternatives 1 and 2 does not propose any direct alteration of the shoreline or offshore areas. Therefore, potential impacts to the marine environment can only be considered from land-based activities that may result in delivery of materials (primarily fresh water and nutrients) to the ocean through surface runoff or infiltration to groundwater on land with subsequent discharge to the ocean. The Assessment of Marine Water Chemistry and Biotic Community Structure study evaluated the potential for such impacts resulting from the proposed project. Refer to **Appendix "~~D~~E"**.

The study estimated changes to groundwater flow rate and the loading of nitrogen and phosphorus discharged along the project's shoreline based on water use, wastewater generation amounts, irrigation practices (including use of R-1 recycled water), and fertilizer use at full build-out of the project. The groundwater flow rate discharged into the marine environment is expected to be reduced by six (6) percent over present conditions as a result of the project. As such, the extent of offshore effects would be reduced due to more rapid mixing of the smaller volume of discharged groundwater to background marine concentration. Because groundwater presently has essentially no effect on existing marine communities, the small changes to groundwater fluxes associated with the ~~proposed project~~alternatives are not anticipated to have negative impacts to the ocean.

The ~~project's~~alternatives' drainage system and retention basins are to be designed to keep post-development peak rates and volumes of runoff less than existing conditions for a 100-year, 24-hour designated storm. For smaller

rainfall events, the actual surface runoff from the project site will be less than the existing, undeveloped condition. The retention basins will function as sediment traps, resulting in a decrease in sediment discharge, particularly during high intensity rainfall events. Because it is the sediment loads of streamwater, rather than the volume of streamwater discharged to the ocean, that affects biotic composition, it is possible that the net effect of the project may result in an overall improvement of offshore reefs. Future design considerations for the retention basins will focus on maximizing sediment trapping as well as runoff.

To mitigate stormwater impacts on water quality, a Stormwater Quality Enhancements Study was prepared by Brown and Caldwell for the ~~Master Plan~~OTMP which proposes to implement an aggressive stormwater quality management program of LID measures that aims to reduce the amount of stormwater from a development and to improve the quality of the runoff that occurs. ~~See~~Refer to **Appendix "~~B-1~~C-2"**. The goals of the Best Management Practices (BMPs) for the ~~Master Plan~~alternatives are as follows:

- Increase the volume of stormwater that infiltrates into the soil.
- Reuse stormwater where feasible.
- Improve the quality of stormwater that does run off.

To accomplish these goals the following stormwater BMPs in **Table ~~10~~21** are being considered for the project.

Table ~~10~~21. Proposed Stormwater BMPs for Olowalu Town Master Plan Alternatives 1 and 2

BMP	Applicable Olowalu Town Parcels				
	Residential		Commercial	Public Utilities	Green Space/ Recreational
	Single Family	Multi-Family			
Bio-retention rain gardens	◆	◆	◆	◆	◆
Rain barrels and rain tanks	◆				
Subsurface tanks		◆	◆	◆	◆
Vegetated roofs				◆	◆
Permeable paving			◆	◆	◆
Subsurface chamber stormwater management systems		◆	◆	◆	◆
Hydrodynamic devices			◆	◆	
Reinforced turf surfaces					◆
Infiltration trenches					◆

Figure 22 illustrate examples of LID measures to be implemented in the Master Plan.

Based on the aforementioned findings and proposed mitigation measures, ~~the proposed Master Plan~~Alternatives 1 and 2 will not likely pose any significant negative effects on the nearshore waters of the ~~Master Plan~~Olowalu area.

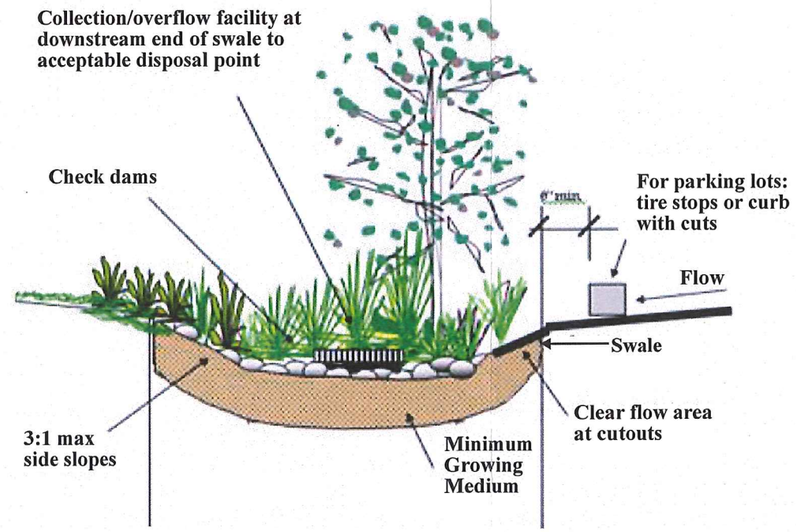
~~10~~11. Archaeological Resources

a. Historical Context

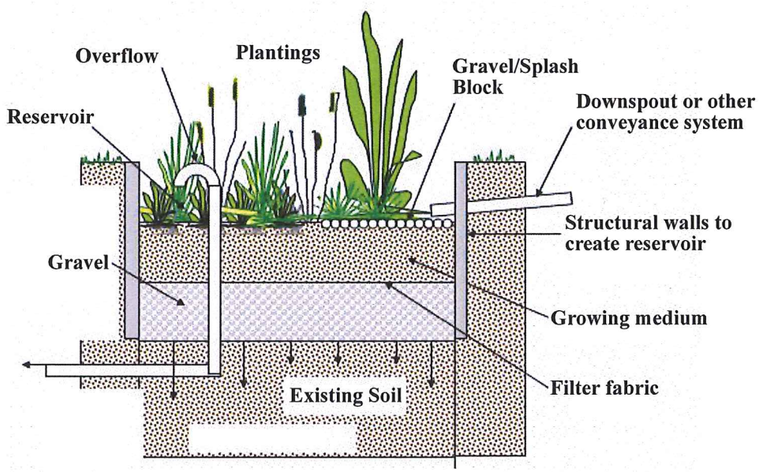
~~The Master Plan area is~~Alternatives 1 and 2 are located in the Olowalu Ahupua`a. Olowalu was an important agricultural area in pre-contact times.

The ahupua`a system allowed Hawaiians to thrive as they were able to grow breadfruit and taro in the higher areas and sweet potato and coconuts closer to

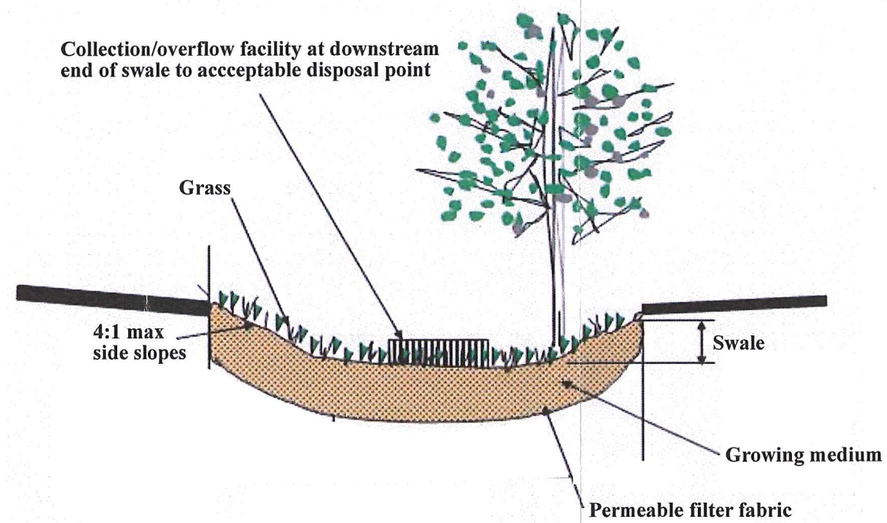
A Bio-Retention Rain Garden



Vegetated Swale



Schematic of a Bio-Retention Rain Garden



Grassy Swale

Source: Brown and Caldwell

Figure 22

Proposed Olowalu Town Master Plan

Low Impact Development Examples

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu/MasterPlan/Final EIS/LowImpactDevelopment

shore. The sea provided fish and the forest supplied wood for canoes and housing. A Hawaiian born in the valley could learn a skill, raise a family, trade, play, work, and worship within the Olowalu Ahupua`a. Hawaiians supported themselves by growing *kalo* (taro) in extensive *lo`i* (irrigated terraces), and by cultivating *`uala* (sweet potato), *`ulu* (breadfruit) and *niu* (coconut), made possible by water that flowed out of the West Maui Mountains through Olowalu Stream. Olowalu was particularly suited for growing *`ulu* in the lower areas of the valley and *`uala* on the *kula* (open field) lands closer to shore. Both *kalo* and *`uala* served as principle food sources along with fish caught along the coast (Ainsworth).

Several archeological sites at Olowalu have been identified as having been used for religious purposes. Due to its size and location, the Ka`iwaloa (or Kawaloa) Heiau was likely used for major religious ceremonies involving high chiefs. This suggests that Olowalu played a significant role in religious matters in the moku (district) of Lāhainā. Hawaiians probably used another medium-sized heiau still remaining in Olowalu for local rituals. Smaller shrines still extant at Olowalu indicate use as fishing and agricultural shrines used by one (1) or more families (Ainsworth).

Though gone now, a fishpond did exist in pre-contact Olowalu. It was located in the low areas just behind the coastal dunes. These were swampy lands resulting from intermittent run-off and possibly fresh water springs. Hawaiians converted these swampy lands into a fishpond for the growing of fish for the high chiefs. Oral history indicates that this fishpond was named Kaloko o Kapa`iki and dates back at least into the 1700s (Ainsworth).

*Pu`uhonua: The Legacy of Olowalu* by Katherine Kama`ema`e Smith provides a brief history of Olowalu before 1790. See **Appendix "FG"**. Olowalu is where Kalola Pupukahonokawailani (Kalola), daughter of Maui and Hawai`i's King Kekaulike, lived at the beginning of the eighteenth century. High kapu Ali`i Nui Wahine Kalola had a son Kīwala`ō, with her brother Kamehamehanui. When she married Kalaniopu`u, ruling King of Hawai`i, her son became his heir. Kalola and Kalaniopu`u had two (2) daughters who carried the highest kapu rank of any ruling chiefs ever recorded. Their daughter Keku`iapoiwa Liliha was the mother of Queen Keopuolani.

After Kalaniopu`u died, Kalola took Maui Chief Ka`opuiki for her husband. While Kalola lived in Olowalu, she ruled the pu`uhonua of Olowalu and presided over Ka`iwaloa Heiau, but her heiau of state was Hale Ki`i Heiau in Wailuku. This fact indicates the connection between `Īao and Olowalu was important, both spiritually and economically. Kalola was ruling at Olowalu in 1790 when Captain Simon Metcalf fired cannons on Olowalu. This incident is infamous as the 'Olowalu Massacre'. The Olowalu Massacre occurred as a result of an incident at Honua`ula, Maui when Captain Metcalf anchored his trading ship, the *Eleanora*, off shore to barter for necessary provisions. A chief stole one (1) of Metcalfe's small boats and killed a watchman. After learning the thieves had fled to Olowalu, a place of sanctuary, Metcalf sailed off toward Olowalu. Chiefess Kalola, knowing the explosive nature of the situation, declared a three (3) day kapu on all canoes approaching the *Eleanora*. When the kapu was lifted and Kalola's husband Ka`opuiki returned only the stolen boat's keel and the watchman's stripped thigh bones, an enraged Metcalf encouraged trading canoes to approach the *Eleanora* and then opened fire with the ship's guns. Over 100 Hawaiians were killed in the incident with over 100 others wounded. Hawaiians referred to the slaughter as Kalolopahu, or spilled brains. Metcalf violated the sanctity of Olowalu, forever breaking the faith Hawaiians had in the safety and nurture of this pu`uhonua.

Several months after the massacre at Olowalu, Kalola watched the Great Battle of Kepaniwai from `Īao Valley. Kalola escaped through the Olowalu Pass and down to Olowalu, where she boarded canoes for Moloka`i. Kamehameha followed Kalola to Kalama`ula, Moloka`i and asked for Keopuolani to be his queen. Kalola, who was sick and dying, agreed to give Kamehameha Keopuolani and her mother Kekui`apoiwa Liliha, if he would allow the girls to stay at her death bed until she passed. Kamehameha camped on Moloka`i until Kalola died, and returned to Kona with his high kapu queen Keopuolani. Kalola was buried at Kalama`ula on Moloka`i.

The land where Kalola's kauhale stood in Olowalu is on Saffery land, near the Loko o Kapa`iki.

Western Influence

As foreign influence became more pervasive following the unification of the Hawaiian Islands under Kamehameha, Lāhainā became the center for West Maui because of favorable conditions for sailing craft.

Along with western influence came diseases that decimated the Hawaiian population 45 years after western contact. It is estimated that the Hawaiian population on Maui decreased by as much as half by 1823. In 1831~~2~~, missionaries estimated 83~~1~~2 Hawaiians lived at Olowalu (Schmitt 1973). ~~Based on the 1831 population~~

Within Olowalu Valley and along the original stream route, traditional Hawaiian agricultural practices were fairly intense and based primarily on *lo`i* agriculture. There were approximately 1,124 *lo`i kalo*, 28 *`uala* (potato) patches, 27 kula (open field or pasture), and 31 plots of land with unspecified land uses. When examining this level of agricultural intensity during the mid-1800s, and its correlation to population, Marion Kelly presents missionary estimates for the productivity of *lo`i kalo* as a minimum of 10 to 30 individuals per acre (Kelly, 1989). Based on the intensity of agriculture and these estimates, it is estimated that 2,000 or more Hawaiians resided in Olowalu before western contact.

Five (5) years after the 1831 census, the missionary census put Olowalu's population, combined with Ukumehame's, at only 718 showing a further decline. In 1866, the census indicated the population of Olowalu had further decreased to 169, a 76 percent drop from 1836. Nearly 100 percent of the residents were full-blooded Hawaiian and the predominant occupation reported on the census was *mahi`ai*, or someone involved in agriculture. In 1878, the census was counted by the Hawaiian kingdom with 231 people living in Olowalu.

The first Christian missionaries arrived on Maui in 1823 and made Lāhainā the first Protestant mission station on the island. Olowalu, shortly thereafter, became an outstation of the Lāhainā mission. The Olowalu outstation also served the people of Ukumehame. As an outstation, Olowalu did not have its own minister, instead relying on visits from Lāhainā. A succession of Lāhainā missionaries successfully converted the Hawaiians of Olowalu.

In 1835, Reverend Ephraim Spaulding built a 26-foot by 43-foot adobe church at Olowalu, with the intention of using it as both a church and school. In 1858, a stone building replaced the original structure. Ten (10) years later, the 250 members of the Olowalu Church broke with the Lāhainā Mission Station and became an independent church named the Olowalu Hawaiian Protestant Church. In 1897, the independent Olowalu Hawaiian Protestant Church re-affiliated itself with the Waine`e Church (now called Waiola Church) in Lāhainā. In the 1930's, ash from a cane fire caused a fire that burned the roof of the church. Although still missing its roof, the church exists today and is used as a community meeting place.

The Great Mahele in 1848 established a system of private land ownership in Hawai`i. There were 50 individual Land Commission awards granted in the Ahupua`a of Olowalu consisting of approximately 115 acres of arable land. The majority are in the upper reaches of the property, along Olowalu Stream. The distribution of land awards and a review of late 1800s and early 1900s plantation maps suggest that the stream was channeled in a general, straighter north-south direction sometime after the Mahele. This was probably done to control flooding of agricultural fields (Ainsworth, 2011).

Plantation Era

In 1864, King Kamehameha V joined with Ferdinand W. Hutchison and Rose Ranch owner James Makee in the formation of the West Maui Sugar Association, also called the West Maui Sugar Company. The West Maui Sugar Association planted sugar on crown lands in Olowalu and Ukumehame leased from Kamehameha V. Although the West Maui Sugar Association grew sugar in Olowalu, it sent its harvest to the Lāhainā Sugar Company to be processed in its mill. In 1869, the West Maui Sugar Association took over the Lāhainā Sugar Company mill.

The sugar industry slumped in the 1870s. The Olowalu venture, struggling to survive, received a major blow when King Kamehameha V died in 1872. Two (2) years later, the West Maui Sugar Association sold both its plantation and mill in 1874 to the owners of the Pioneer Mill Plantation.

Olowalu Sugar Company

In 1875, in anticipation that the sugar industry would rebound Lāhainā, businessman Milton Philip started to acquire land in Olowalu and Ukumehame. By 1876, the sugar industry rebounded. Another Maui resident, Goodale Armstrong, also acquired Olowalu property and together with Milton Philip started the Olowalu Plantation in 1876 utilizing former crown and *kuleana* land~~. By 1878, the Olowalu Plantation produced its first crop and completed its first mill.~~ (Ainsworth, 2011).

Phillip and Armstrong formally organized the Olowalu Sugar Company in 1881 on lands given up by the West Maui Plantation. The sugar venture was originally represented by the agency of Mcfarlane & Co., with shares in the plantation purchased by Theophilus Harris Davies, who became the agent for the enterprise in the late 1880s.

The history of the Olowalu Sugar Company included the construction of a mill and wharf development at Olowalu prior to 1884 (Wright, 1974). In addition to processing cane harvested from the fields of Olowalu and Ukumehame (**Table 22**), the mill was also contracted to process the cane harvested by Maunalei Sugar Company, a Lāna'i island enterprise. Cane harvested by the Maunalei Sugar Company in Keomuku was shipped from Halepalaoa to be processed at Olowalu beginning with the 1899 crop. Processing of the Lāna'i cane continued until 1901 with the closing of the Maunalei Sugar Company (Conde and Best, 1973).

Sugar crop figures for the Olowalu plantation are listed in **Table 22** for the years leading up to annexation with the United States (listed as tons) (based on figures reported in the Lousiana planter and sugar manufacturer weekly for the years indicated).

Table 22. Sugar Crops from 1891 through 1900 by Tons

1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
760	859	702	937	905	1,163	1,112	1,425	1,502	1,480

The continuing decline in the number of Hawaiians and their preference for other occupations compelled the Olowalu Plantation to hire Chinese laborers. Approximately 120 workers living in both Olowalu and Ukumehame relied on Olowalu Plantation for their living.

Olowalu Railroad

Henry Turton is credited during the early 1880's with planning construction of the first railway in Lāhainā to facilitate cane hauling from the cane fields in Kā`anapali to the Lāhainā-based mill. A two-foot wide narrow gauge railroad track from the fields in Olowalu and Ukumehame was built to the Olowalu mill and started carrying sugarcane by its steam powered locomotive in 1882. The railroad ran alongside what was termed the "government" or public road and onto Olowalu Landing.

The first reference regarding the use of a railroad at Olowalu Plantation to transport cane to the mill was found in the Planter's Monthly for April, 1882. The use of a "fowler railroad plant" at the Olowalu Plantation was considered by historian Jesse "Jay" Conde to mean that the track had been installed, and the cane cars in operation utilized "mule power" until the enterprise could afford to order a locomotive (Conde and Best, 1973). By November of 1882, according to the Hawaiian Gazette, the Olowalu railroad had completed the two-mile section of track to Ukumehame, for a total of three (3) miles of fixed track. By 1918, new steel rails were being installed to replace the existing layout. The use of the railroad at Olowalu had made it possible to harvest and transport over six thousand tons of sugar in a single year (Gilmore, 1936).

At the turn of the 20th century, the reorganization of the Pioneer Mill Company resulted in the construction of "twenty miles" of new railroad, replacing old lines and extending the entire length of the plantation, with branches emanating mauka into the upper elevations of the cane fields (Conde and Best, 1973). By the late 1920's, the Pioneer Mill Company developed a complex transport system including irrigation flumes used to transport cane to railroad "car loading stations" (Conde and Best, 1973).

A dramatic technological change to cane production at the Pioneer Mill occurred in 1946 when it became more economical to use trucks to transport the harvested cane instead of railroad carts. As reported in a Pioneer Mill Co.

Annual, the year of 1953 marked the final elimination of railroad use in the Pioneer Mill Company (Conde and Best, 1973).

Foreign Laborers

During the latter part of the century the sugar industry boomed, causing an increased need for labor. Olowalu's labor force not only increased to approximately 149 to 167 laborers, but it became more ethnically diverse. By 1904, the workforce consisted of Hawaiians, Americans, Europeans, Portuguese, Puerto Ricans, Chinese and Japanese. Americans and Europeans dominated management and skilled positions. Hawaiians worked in skilled and semi-skilled jobs while Japanese, Chinese and Puerto Ricans handled field jobs. During World War I, there was a shortage of laborers and the Olowalu Company began recruiting laborers from the Philippines.

Olowalu Irrigation System

Minimal rain at Olowalu made the plantation totally dependent on irrigation. In 1904, water moved along a six-mile supply ditch from Olowalu Valley and was distributed via four (4) miles of additional ditches. It is estimated that the first well drilled at Olowalu for the plantation was sunk in 1905 (Well 11), a single shaft with 670 feet of lateral tunnels designed to skim three (3) million gallons per day (mgd) of fresh irrigation water from sources beneath the Olowalu plains. In around 1908, an additional well was drilled at Ukumehame, a pump that had a capacity of 1-¼ mgd (Stearns and Macdonald, 1942). Following the development of the water system, field production increased and by 1930 sugar yields rose from 1,480 tons to 2,966 tons (Haneberg, 1931). In 1917, Olowalu Company began a program to line the ditches with concrete to retain water, first in Olowalu and later in Ukumehame.

With the acquisition of Olowalu Sugar Company, Pioneer Mill Company invested in improvements to the two (2) small and relatively crude water systems. In 1933, the first inclined shaft in the territory of Hawai`i was drilled at Olowalu (Well 10) under the direction of C.A. Brown which resulted in a yield of 5.25 mgd (Stearns and MacDonald, 1942). The following year, Well 12 was drilled at Ukumehame to replace the 1908 well. This well had a yield of 4.75 mgd (Stearns and McDonald, 1942).

The Pioneer Mill Company built the Honokohau ditch in 1904 to bring water to the arid coastal lands. With the construction of the Honokohau ditch, the Pioneer Mill Company was able to reach back into the mountain valleys and obtain water in a system developed by the Honolua Ranch, effectively delivering about 20 mgd to the Pioneer Mill fields. This main ditch was augmented over the years with seven (7) additional ditches.

Water delivered by the supply ditch from Olowalu Stream amounted to 1,000,000 gallons per day (GPD), and 14 artesian wells could produce an additional 2,000,000 gallons. Water was stored in two (2) reservoirs with a total 1,000,000-gallon capacity. Two (2) 70-horsepower pumps could move 3,000,000 GPD for irrigation. During the dry months, the amount of water in the ditches and wells declined.

Olowalu Landing

In 1910, Olowalu Landing consisted of a rock pier built up with small boulders which ran about 200 feet into the sea. The pier supported a square wooden-frame derrick and an extension of the company's railroad line. In 1914, Olowalu Landing served as one (1) of 12 landings on Maui where the Inter-Island Steamship Company scheduled regular stops. Steamers carried freight, passengers and mail to and from Olowalu. Freight shipments were limited to Olowalu Company and the C. Sam Lung store almost exclusively. Because of difficulty in shipping sugar at low tide, in 1919 the company built a new boat landing 250 feet further out and deepened the boat channel.

~~In 1917, Olowalu Company began a program to line the ditches with concrete to retain water, first in Olowalu and later in Ukumehame.~~ In 1918, Olowalu Company embarked on major improvements which included rebuilding the Olowalu mill and building a new and larger warehouse. ~~During World War I, there was a shortage of laborers and the Olowalu Company began recruiting laborers from the Philippines.~~ In 1932, the mill at Olowalu was dismantled and shipped to the Philippine islands (Gilmore, 1936).

Pioneer Mill Company

In ~~early~~May of 1931, Olowalu Company was sold to American Factors, Ltd. (Amfac) who had owned the much larger adjoining Pioneer Mill Company

plantation for $400,000.00. On December 31, 1931, the Olowalu Sugar Company was un-incorporated and placed within the holdings of Pioneer Mill Company (Burns, 1932). The sale of Olowalu included 1,178 acres of fee-simple land and all its sugar equipment and railroad. The sale of Olowalu to Amfac proved to be the last major land addition to Pioneer Mill, bringing the size of the plantation to more than 14,000 acres. With the sale of Olowalu Company the mill was closed and all milling was transferred to Pioneer's Lāhainā mill as well as its offices (Ainsworth, 2011).

The Pioneer Mill Company was established as a partnership in 1862, between James Campbell, Henry Turton, and Benjamin Pittman. The first Pioneer Mill plantation lands were deeded to the partners by Benjamin Pittman for the price of $30,000.00 (Conde and Best, 1973). How Pittman obtained such a sizable piece of land is unknown, however, one may posit that the first Pioneer Mill lands were in Launiupoko ahupua`a which was acquired by Thomas Phillips in 1840 (Wong-Smith in Graves, 1991).

The Pioneer Mill was incorporated in 1885 and sold to H. Hackfeld & Company, the predecessor of Amfac, Inc. (Wong-Smith in Graves and Goodfellow, 1991).

General reorganization of the Pioneer Mill Company began around the turn of the 20th century. A prospectus for change describes assets of the four (4) main cane fields composing the company at that time (Conde and Best, 1973):

Lāhainā - 1,000 acres of land on the flat and outside of small kuleanas, (land areas claimed by the Hawaiians under royal grants), the land is fee simple (could be deeded).

Launiupoko - 2,900 acres of fee simple land, lying between Lāhainā and Olowalu.

Wahikuli - A tract of government land of 5,000 acres, under lease for eighteen years, lies between Lāhainā and Kā`anapali.

Kā`anapali - Some 3,600 acres at various levels, fee simple land, beyond Wahikuli.

The 1931 expansion of Pioneer Mill Company into Olowalu and Ukumehame was expected to bring an additional 3,000 tons of sugar per year (Pioneer Mill

Company, 1932). During this same period, less lucrative cane fields, specifically in upper Launiupoko, were abandoned for the most part due to labor shortages "imposed by World War II" (Graves and Goodfellow, 1991). At around this time, during the 1930's, the Pioneer Mill Company also began cattle ranching in the abandoned cane fields of Launiupoko. According to Herbert Kinores, Pioneer Mill Company ranch foreman, ranching infrastructure including walls, fences, and wooden and stone-walled corrals were constructed in the Launiupoko region above the cultivated cane fields (Graves and Goodfellow, 1991).

The intensive sugarcane agriculture under the direction of Pioneer Mill continued operations from Ukumehame to Launiupoko until 1998. The final harvest and closure of Pioneer Mill was in 1999 (Kubota, 1999).

Plantation Community

As plantation laborers from other countries increased, the proportion of Hawaiians in the community decreased. Although the majority of laborers worked for the plantation and lived in community provided housing, there were individuals that sought other opportunities. Kintaro and Kise Kawasaki purchased land and operated a truck farm in Olowalu. They also ran a store located behind the current Olowalu Store which was called the Olowalu *Nihonjin Shokai*, or Olowalu Japanese Store which operated until the 1940s. In addition to the Japanese store, by 1904, C. Sam Lung & Company, owned by H. A. Heen of Honolulu, operated a general store and coffee saloon until the 1930s when the M. Ichiki Store in Lāhainā expanded into Olowalu.

The change in the workforce also brought changes to the community. In addition to the Olowalu School, by 1910 a Japanese Language School was started to teach Japanese children the language and culture of their homeland.

As the community changed so did the religious community. Besides the Olowalu Hawaiian Protestant Church, other religions started congregations in Olowalu. In 1916, a permanent Roman Catholic Church was built in Olowalu. By 1921, the Church of Jesus Christ of Latter Days Saints operated one (1) of eight (8) branches of the West Maui Division of the church.

In 1918, Pioneer Inn Company under the management of George Freeland operated the Olowalu Theater. Sports also played an important role in the community. Games such as baseball and football played informally at Olowalu supplemented a formal athletic program sponsored by Pioneer Mill. In 1948 there were organized programs in basketball, baseball, softball, jungle-ball, bowling, volleyball, wrestling, and boxing for boys and in volleyball, softball and basketball for girls.

Olowalu boasts of two (2) sports heroes. Salvador "Dado" Marino, the first world boxing champion from Hawai`i was born in Olowalu in 1915, a member of one (1) of the first Filipino families to work for Olowalu Company. Although he spent only his early childhood at Olowalu, he considered Maui his home island. He won the world flyweight championship at age 35 in 1950 and successfully defended the title a year later. He retired from boxing in 1952. In the 1960s he moved to the mainland where he died in 1989.

Olowalu's other hero, Wallace "Wally" Yonamine, was born there in 1925 and raised in the community, living a typical plantation life. A talented multi-sport star at both Lahāināluna and Farrington High Schools, he first turned to professional football. The San Francisco 49ers drafted him in 1947, making Yonamine the first Asian American professional football player.

After a short period of playing minor league baseball on the mainland, in 1951 Yonamine began a four-decade career as a highly successful baseball player, coach and manager in Japan. As a result, he became the first American voted into Japan's baseball Hall of Fame. In 1998, Yonamine received the Japanese Order of the Sacred Treasure for his "extraordinary efforts in promoting the exchange of sports and friendship between Japan and the United States."

When Yonamine was playing ball in Japan, he returned to Olowalu at the end of each season, saying "When I go there, it helps me look back over time. Olowalu still makes me feel humble."

Housing in Olowalu was provided by the plantation and Olowalu remained a plantation camp from the 1930s to the eventual phasing out of Company housing by the 1970s. (Ainsworth, 2011).

Late 1900s to Modern Era

In the late 1900s and toward the end of the Sugar Era in Lāhainā, small scattered residential lots were present within the current project area along the shoreline at Olowalu and in the upper reaches of the valley. These isolated house lots are referred to as *kuleana* (Kimo Falconer, in Robins et al., 1994) and likely represent original boundaries of land claims made during the Māhele.

Travel to Lāhainā was over the gravel Pali Road which originally was built for horses and later improved to allow automobile travel. Federal aid enabled the Territory of Hawai`i's Highway Department to pave a two and half mile stretch of road at Olowalu in 1938. The work slightly realigned the lanes toward the ocean and made the road almost entirely straight. The one-lane bridge just outside the village, a well-known Olowalu feature, was widened to accommodate two (2) cars at the same time (Ainsworth, 2011).

In 1950, Territorial Contractors began construction of the Olowalu Pali section of what was then termed the Sunset-Skyline highway, replacing the old Pali Road. This segment stretched from McGregor Point to Olowalu (Ainsworth, 2011).

Part of this effort included "Operation Puka-in-the Pali", the construction of Hawai`i's first highway tunnel. Signifying the importance of this accomplishment, the launching of construction was marked by a blessing and *lu`au* for 600. Blasting began in September 1950 from the Wailuku end and progressed at six (6) feet a day. Workers emerged on the other side in February 1951. The 315-feet long tunnel and 5.2-mile highway officially opened in October 1951 to territory-wide fanfare (Ainsworth, 2011).

The widening and surfacing of the 2.6-mile section of the Pali Road going from Olowalu to Lāhainā began in 1951. Highway officials did not consider the work done in 1938 on this stretch of highway, described then as "light paving", to be adequate (Ainsworth, 2011).

During the 1970s, Maui Electric installed a power line between Mā`alaea and the town of Lāhainā. The existing line stretches over elevations of between roughly 600 and 2,600 feet above mean sea level. A *pu`u*, commonly referred

to as "cut mountain", is located between Olowalu and Launiupoko and presently is a former quarry or "borrow pit". Immediately west of the *pu`u* is an old landfill site formerly operated by the County of Maui.

With the closure of Pioneer Mill in 1999, lands that were formerly cultivated in sugarcane were either left fallow, in pasturage, or have been subdivided out of larger landholdings for development of agricultural subdivisions in Launiupoko and Ukumehame.

b. <u>Archaeological Investigation</u>

An archaeological literature review and field inspection was conducted by Cultural Surveys Hawai`i, Inc. (CSH) ~~on~~for the ~~Master Plan area~~OTMP. Requisite archaeological inventory studies and the review and acceptance of subsequent historic preservation mitigation plans for the project area were carried out between October 1998 and July 2002 culminating in seven (7) separate documents and related State Historic Preservation Division (SHPD) correspondence. See **Appendix "~~F-1~~G-1"**.

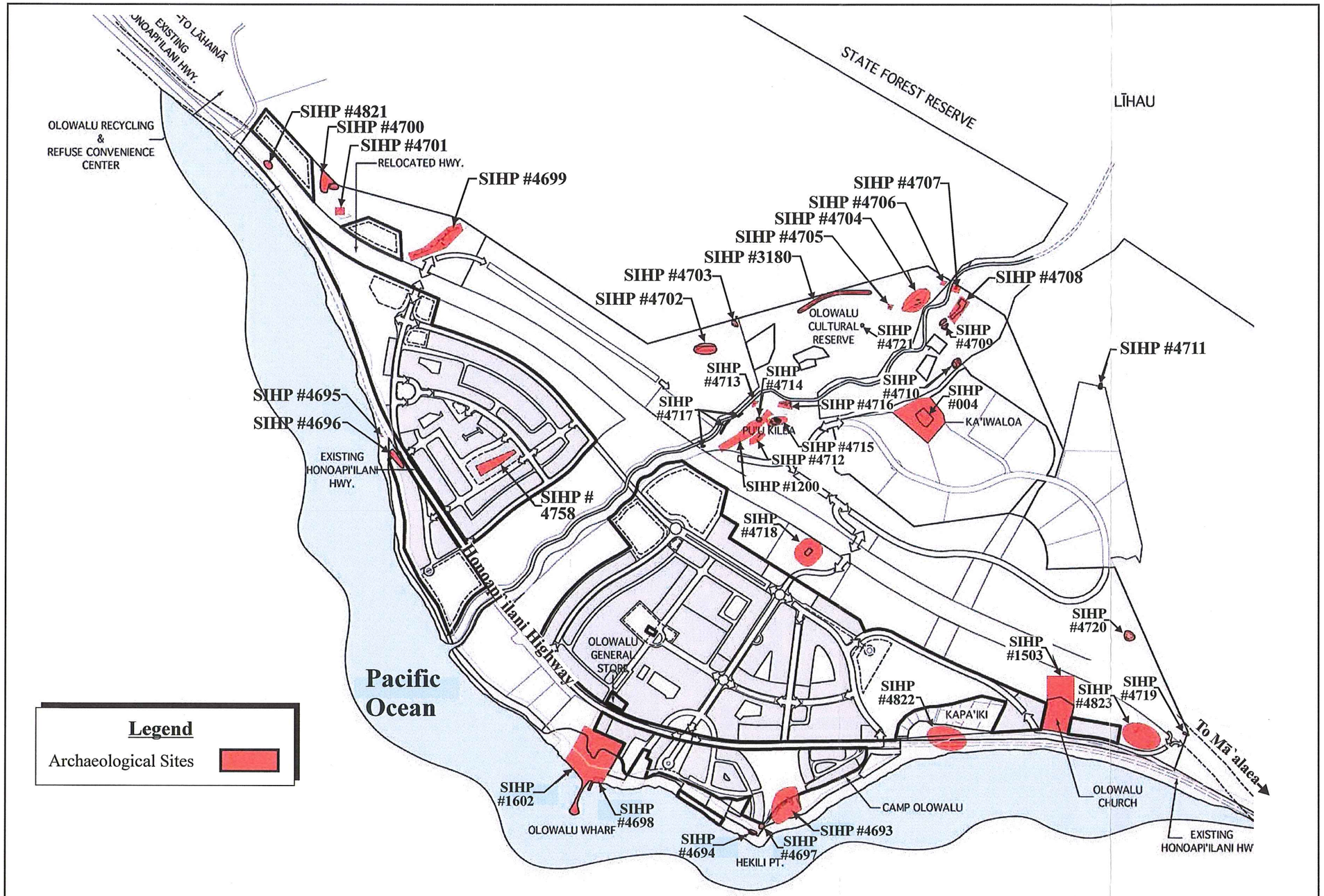
A total of 41 historic properties, some consisting of multiple features, were identified and recorded during previous archaeological studies within the project area. See **Figure ~~14~~23**. The historic properties were evaluated in accordance with the following SHPD criteria:

Criterion A. Be associated with events that have made a significant contribution to broad patterns of our history;

Criterion B. Be associated with the lives of persons significant in our past;

Criterion C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possesses high artistic values;

Criterion D. Have yielded, or is likely to yield, information important for research on prehistory or history; or



Source: Artel, Inc. and Cultural Surveys Hawai`i, Inc.

Figure ~~14~~23

Proposed Olowalu Town Master Plan

Archaeological Site Map

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

olowalutown/masterplan/Final EIS/archsitemap

Criterion E. Have an important value to the native Hawaiian people or to another ethnic group of the State due to associations with 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 identify.

Appendix "~~F-1~~G-1", Table 2 (pp. 16-20) summarizes all known historic properties, its probable function, significance and brief description by the recording archaeologists.

The final mitigation and preservation recommendations for the historic properties documented within the project area were initially presented in the archaeological inventory studies conducted by Xamanek Researches (D.L. Fredericksen and Fredericksen 2000a, b). Continued archaeological monitoring was recommended in the eastern near shore areas of the makai portion of the project area (D.L. Fredericksen and Fredericksen 2000b:57), as well as, at the former location State Inventory of Historic Property (SIHP) 50-50-08-04820 and -04821 where human skeletal remains were identified. The skeletal remains were moved to `Awalua Cemetery. Refer to **Figure ~~1~~23**.

c. Potential Impacts and Mitigation Measures

Preservation recommendations were followed up with preservation plans for historic properties that did not include features associated with human burials for the project area and burial treatment and preservation plans for historic properties containing both known and possible human burials (E. M. Fredericksen and Fredericksen 1999, 2001).

Monitoring Requirements:

Monitoring plans for future work within a designated near shore area along the eastern shoreline from Camp Olowalu to Olowalu Wharf and SIHP -04820 and -04821 were approved by SHPD on July 25, 2002. Refer to **Figure ~~1~~23**. According to the accepted monitoring plan for the eastern shoreline area, the following activities would require on-site archaeological monitoring:

1. Subdivision development and improvements: Trenching, roadwork, grading and landscape work;

2. Development and improvements for private residence: Trenching for footings, foundations and utilities below two (2) feet from existing grade, and grading below two (2) feet from existing grade.

With respect to former location of SIHP -04820 and -04821, the skeletal remains were moved to `Awalua Cemetery, however, any sub-surface activity would require on-site archaeological monitoring.

Historic Properties with No Further Work Recommended:

Ten (10) of the historic properties within the project area were determined to be "no longer significant" with a recommendation of "no further work" while two (2) were relocated from their recorded location to Awalua Cemetery. Refer to **Appendix "~~F-1~~G-1"**, Table 3 (p. 26-27).

Historic Properties with Preservation Commitments:

Twenty-nine (29) of the historic properties are under preservation commitments, 10 are intended for preservation through avoidance and protection (conservation) and 17 are intended for interpretative preservation. **Table ~~11~~23** summarizes the interpretative preservation measures for these 17 properties:

Table ~~11~~23. Summary of Historic Properties and Associated Preservation Measures

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment	Within Petition Area
4	Heiau (Ka`iwaloa/ Kawaialoa Heiau)	Ceremonial	100	Yes	Yes	Interpretive	Viewing platform overlooking the *heiau* for the general public, pedestrian access to the *heiau* interior restricted to Native Hawaiian traditional cultural practices; Buffer markers to consist of a native hedge and boulders	No
1200	Olowalu Petroglyph Complex	Habitation	30	No	Yes	Undetermined	Site extent makes permanent buffer markers difficult	No
1201	Rock Shelter	Temporary Habitation				Undetermined	To be preserved within SIHP -01200 buffer area	No
1602	Olowalu Mill	Habitation/ Mill/Wharf	30	No	Yes	Interpretive	Site extent makes permanent buffer markers difficult; Signage will include a plot map of the preservation area	No
1603	Lanakila Hawaiian Protestant Church Site	Church/ Cemetery	0	Yes	Yes	Conservation	Buffer is the original church boundary; native hedge, boulder alignment or other appropriate buffer marker	Yes (portion)
3172	Concrete Irrigation Ditch	Agriculture	0	No	No	Conservation	Preservation as an operating water system; appears to be located outside the boundaries	No
4693	Burial Complex	Burial	*See comme nt	Yes	Yes	Conservation	Buffer: vertical buffer of 10-15 cm of clean sand followed by 10 cm of cinder or permeable gravel. Boundary will be marked with a hedge. Landscaping of the preservation area to ensure long-term integrity utilizing drip irrigation and shallow irrigation lines.	Yes
4694	L-Shape	Habitation	10	Yes	Yes	Interpretive	Preservation within the beach reserve; Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags (Horcajo 2002) (SHPD DOC NO: 0204MK20)	No

* Fredericksen, Erik M. and Demaris L. Fredericksen
1999 *Archaeological Preservation Plan for Burial Ground on the Makai Project Area, Site 50-50-08-4693, Olowalu Ahupua`a, Lāhainā District, Island of Maui (TMK: 4-8-3:Por. 5).* Prepared for Olowalu Elua Associates, LLC. Kahului, Maui. Xamanek Researches. Pukalani HI

Table ~~11~~23. Summary of Historic Properties and Associated Preservation Measures **(Cont.)**

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment	Within Petition Area
4697	Subsurface Cultural Deposit	Habitation	10	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags (Horcajo 2002) (SHPD DOC NO: 0204MK20)	No
4698	Subsurface Cultural Deposit	Habitation	0	No	Yes	Interpretive	Surface currently used as a beach access; Location to be included with interpretive signage for - 01602	No
4699	Habitation Complex	Habitation/ Burial/ Boundary?	30	Yes	Yes	Conservation	Recommended sealing Feature D; Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4700	Habitation Complex	Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4701	Possible Ko`a	Ceremonial	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4704	Habitation Complex w/Petroglyphs	Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4705	Rock Shelters	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4706	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4707	Wall and Mound	Marker/Burial	15	Yes	Yes	Conservation	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4708	Platform and Terrace Complex	Agriculture / Ceremonial	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No

Table ~~11~~23. Summary of Historic Properties and Associated Preservation Measures **(Cont.)**

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment	Within Petition Area
4709	Historic Hydro-Electric Plant	Historic Agriculture	0	No	No	Conservation	Preservation as an operating water system	No
4710	Habitation Complex	Agriculture / Burial	30	Yes	Yes	Interpretive	Trail leading to a viewing platform overlooking the site complex for the general public	No
4712	Terrace and Mound	Agriculture / Burial	30	Yes	Yes	Conservation	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4713	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4714	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4715	Cemetery	Burial	30	Yes	Yes	Conservation	Landscape buffer; improved gate at the base of the old access road	No
4716	Terrace and Wall	Boundary/ Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags	No
4718	Heiau Complex	Ceremonial	100	Yes	Yes	Interpretive	Cinder path leading to a viewing platform overlooking the *heiau* for the general public; interior restricted to Native Hawaiian traditional cultural practices; Buffer markers to consist of a native hedge and/or boulders; design and implement drainage measures to divert runoff	Yes
4758	Historic Cemetery	Burial	60	Yes	Yes	Conservation	Buffer markers to consist of a native hedge and/or boulders or other form of demarcation as approved by SHPD and the MLIBC; design and implement drainage measures to diver runoff	Yes

Table ~~11~~23. Summary of Historic Properties and Associated Preservation Measures **(Cont.)**

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment	Within Petition Area
4822	Kaloko o Kapa`iki	Pond	0	No	Yes	Interpretive	Bound by existing roads and maintained as a drainage basin by the State of Hawai`i	No
4823	Marsh/ Lagoon, Olowalu	Lagoon	15	No	No	Conservation	Originally intended for data recovery (D.L. Fredericksen and Fredericksen 2000b: Table 4); Olowalu Elua Associates, LLC opted to preserve the site with the caveat that data recovery was to be the responsibility of the landowner	Yes

It is undetermined what the intended form of preservation for SIHP -01200 (Olowalu Petroglyph Complex) and -01201 (Rock Shelter) will be, due to the site extent of the Olowalu Petroglyph Complex makes permanent buffer markers difficult.

Interim Protection Measures:

During construction the following interim protection measures will be implemented:

- Temporary fencing demarcating the edge of the buffer;
- Flush cutting of non-native trees within the preservation areas should vegetation clearing be required;
- Notification to SHPD in writing that interim protection measures are in place; and
- Notification to construction crews, both written and verbal, of the following items concerning nearby historic properties:

    1. The location of the site;
    2. A description of the designated buffer zone; and

3. Avoidance instruction with an emphasis on the caution needed when working near these sites.

Long-Term Preservation Measures:

Long-term preservation measures shall follow the appropriate Secretary of the Interior's Standards for Historic Preservation Projects and include the following:

1. Maintenance measures to be followed;

2. Methods for clearing vegetation;

3. The manner in which litter is controlled;

4. Access to the site and possible use of the site for cultural practices, if appropriate;

5. Approaches to interpret and inform the public about the site, if appropriate;

6. Permanent marked markers, if appropriate;

7. If appropriate, provisions to address potential future impacts and site stability; and

8. Provisions for reasonable monitoring of site integrity by the person or agency, and SHPD inspection to assure compliance.

For details on the long-term preservation measures, refer to **Table ~~11~~23**, Summary of Historic ~~Property~~Properties and Associated Preservation Measures.

Field Inspection and Recommendations:

The study by CSH included a field inspection of the previously recorded historic properties within the Master Plan area (encompassing both mauka and makai lands) that may be directly or indirectly affected by ground altering activities associated with construction and development. Historic properties located in the OCR as it encompasses Olowalu Valley were not examined.

Appendix "~~F-1~~G-1", Table 5 (p. 33) summarizes the historic properties revisited.

Efforts have been made toward protection of historic properties designated for preservation. Results of the field inspection show that long-term preservation measures have been partially implemented. **Table ~~12~~24** summarizes the findings of the field inspections.

Table ~~12~~24. Summary of Field Inspection Findings

SIHP No.	Current Condition	Interim Preservation Measures	Long Term Preservation Measures	In Petition Area
4	Fair to Good	Partial	None	No
1602	Remnant to Fair	Not Applicable	Implemented	No
1603	Remnant to Fair	Not Applicable	Partially Implemented	Yes (portion)
4693	Overgrown	Not Applicable	Partially Implemented	No
4694	Remnant to Fair	Not Applicable	Partially Implemented	No
4695	Good	Not Applicable	Partially Implemented	No
4700	Fair to Good	None	None	No
4701	Fair to Good	None	None	No
4712	Fair to Good	None	None	No
4715	Fair	None	None	No
4718	Remnant	None	None	Yes
4822	Overgrown	In Place	None	No

During the field inspection, four (4) previously unrecorded historic properties were found consisting of one (1) possible retaining wall (CSH-1), two (2) areas of branch coral surface scatters (CSH-2 and CSH-3) observed atop exposed bedrock west and northwest of SIHP -4699 (Habitation Complex), and one (1) plantation-era reservoir (CSH-4). CSH made recommendations on three (3) of the sites.

Inspection of the immediate surrounding area did not identify a clear source for the scatter material and the information nature of these features make an interpretation of possible function difficult at this time. CSH recommended the following:

Sites CSH-2 and CSH-3

- Continued consultation with lineal and cultural descendants of Olowalu Ahupua`a to aid in understanding the traditional land use and possible relationship between the presence of these scatters in the context of the surrounding landmarks and adjacent properties.

- Archaeological Inventory Survey level documentation of the newly identified cultural material scatters.

Further, during field inspection of SIHP -4718 (Heiau Complex), a previously undocumented historic plantation-era reservoir was identified south-southwest of the site. Construction of the reservoir consists of cut basalt brick and mortar on the interior and large subrounded basalt boulders, both drystacked and mortared, on the downslope face of the reservoir. According to CSH, the historic reservoir is located in an area that is conceptually planned for a traffic intersection managed by a round about. As a conceptual plan, it can be revised to accommodate recommendations from SHPD.

Prior to development, CSH recommended the following:

- Consultation with SHPD, Architectural Branch regarding the documentation requirements of the reservoir.

- Consultation with the lineal descendants and community of Olowalu Ahupua`a with regard to potential preservation commitments related to historic plantation infrastructure.

- Continued consultation with the Architectural Branch of SHPD regarding other previously unrecorded historic plantation infrastructure features within the project area.

As the Master Plan for Alternatives 1 and 2 progresses through the land entitlement process, additional archaeological work is anticipated to ensure all historic and cultural resources are documented and appropriate mitigations implemented.

~~11~~12. Cultural Assessment

a. Existing Conditions

The OCR was established and incorporated in the State of Hawai`i in January 2000. The objective of the non-profit OCR is the preservation and protection of the historical, cultural, and spiritual resources within the Olowalu Ahupua`a. Further the mission statement of OCR is:

> *To perpetuate the traditional and customary practices of "Kanaka Maoli" of these Hawaiian Islands, and promote opportunities to regain the spiritual connection of "malama aina" of our ancestors by insuring these beliefs and customs are passed down to future generations.*

The cultural beliefs, customs and practices are being protected and perpetuated in the OCR in accordance with their mission statement.

A Consultation Plan for Assessing Potential Cultural Impacts (CI) was prepared by ~~Cultural Surveys Hawai`i, Inc.~~CSH. See **Appendix "~~G~~H"**. After filing the Draft EIS, CSH implemented the Consultation Plan and prepared a Cultural Impact Assessment (CIA). See **Appendix "H-1"**. According to the CI and CIA the oldest place names held meaning and told the story of an area prior to European contact. A study of the place names of the Olowalu Ahupua`a may lead an insight into the stories, patterns of life and land use. **Table ~~13~~25** identifies some of the significant places within the Olowalu Ahupua`a.

Table ~~13~~25. Place Names

Place Name	Translation
Lāhainā	*Haina* literally translated as "cruelty" and *la* as "day" or, alternatively *haina* as "merciless" and *la* as "sun"
`Awalua	Literally is translated as "double harbor"
Halepohaku	Literally, "stone house"
Hawaiikekee (*`ili)*	*keke`e*: a redup of *ke`e* (Pukui aud Elbert 1986:143) which means crookedness (Pukui and Elbert 1986:141), possibly a reference to the distinctive bend in the *`ili* boundary (see also x), an *`ili* name associated with LCA 5829E: Apana 1 and 2 to Kawehena located within Olowalu Valley;
Hekili Point	*Hekili* is literally translated as "thunder"
Kaluaaha *(`ili)*	Literally, "the gathering pit"; an *`ili* of LCA 1742: Apana 2 to Z. Kaauwai and LCA 5829H: Apana 1 to Nahue located in the area of the former Olowalu Mill Site.
Kaluakanaka	*Kalua* is translated as "the pit" and *kanaka* is translated as "human being" (Pukui and Elbert 1986:127). Place name of where John Clark resided (LCA 240) and potentially the location of the burial ground of those slain during the Metcalf Massacre (Mr. Hinano Rodrigues, personal communication, September 24, 2012; see also Section 4.1.2.3 Politics and Warfare)
Kamani *(`ili)*	A large tree (*Calohpyllum inophyllum*) which produced a hard wood that was formerly made into calabashes (Pukui and Elbert 1986:125); An *`ili* name associated with LCA 6728: Apana 1 to Mahulu, LCA 1742 Apana 1 to A Kaauwai, LCA 5829E: Apana 3 to Kawehena, LCA 8573: Apana 1 to Kailiula, LCA 8817: Apana 1 to Kanakaole, LCA 6058: Apana 3 to Peekauai, LCA 5829: Apana 3 to Haole
Kapa`iki	Translated as "the small enclosure" a section or *mo`o* of *ali`i* lands at Olowalu Ahupua`a (Mr. Hinano Rodrigues in Lee-Greig and Hammatt 2006)
Kaunukukahi *(`ili)*	An `ili name associated with LCA 8817: Apana 2 and 3 to Kanakaole, LCA 5952: Apana 1 and 2 to Minamina, LCA 6728: Apana 2 to Mahulu, LCA 6058: Apana 4 to Peekauai
Kuekue *(`ili)*	An *`ili* name associated with LCA 8573: Apana 2 to Kailiula
Līhau	Literally, "a gentle cool rain", a gentle rain considered favorable for the work of fishermen (Emerson 1909:241)
Maomao *(`ili)*	Literally a type of fish, a variation of *mamao* or far, calm, clear (Pukui and Elbert 1986:241); An *`ili* name associated with LCA 7719: Apana 1 to Haia
Mōpua	A traditional village of Olowalu and translates literally as "melodious", currently a popular snorkeling spot
`Ōhi`a *(`ili)*	Two kinds of trees, *`ōhi`a`ai (Eugenia malaccensis* mountain apple) (Pukui and Elbert 1986:277) and *`ōhi`a lehua* (*Metrosideros macropus, M. collina polymorpha*) (Pukui and Elbert 1986: 199). Found in the forested regions, the fruit of the *`ōhi`a `ai* was prepared by splitting and drying it in the sun (Pukui, and Elbert 1986:277). The wood of the *`ōhi`a lehua* is hard and once used for images, spears, and mallets (Pukui and Elbert 1986:199). An `ili name associated with LCA 6058: Apana 1 to Peekauai and claim 10127 by Makanialoha.
Olowalu (*ahupua`a)*	Literally, "many hills"
Pākalā	Literally translates as the "sun shines", a place located just after Mōpua and before Kapa`iki
Pa'apa *(`ili)*	An *`ili* and stream name associated with LCA 9906: Apana 2 to Pikao
Paumaumau (`ili)	An `ili name associated with LCA 9906: Apana 1 to Pikao and LCA 8546: Apana 1 to Kaawili
Pu`u Kilea	Literally, "small but conspicuous hill", cemetery
Ulaula	Literally, "red"
Wailoa (*`ili)*	Literally, "long water"; An *`ili* name associated with LCA 5829:Apana 4 to Haole

He Mo`olelo no Olowalu

At Olowalu the *mo`olelo* (traditions) revolve around the surrounding mountains and the elemental characteristics of this *`aina* (land) which has been known as a *pu`uhonua* or refuge of Maui since ancient times. (Ladana 1858) The strong wind of Olowalu is mentioned in several proverbs of the area and is a significant element for the *kama`aina* of this land and by others who did not reside in the area.

At Olowalu, Līhau is a prominent and picturesque mountain peak located toward the back of the valley. According to the CI, so prominent were the *`ōhi`a* lehua blossoms of Līhau that it was said the rich color of the blossoms would reflect onto the waters of Ka Lae Hekili and turn the water red.

Līhau and Eeke

Prior to her incarnation as a mountain peak, Līhau was a woman who had a child with Eeke (the summit crater of the West Maui Mountains) named Pu`ulaina, a prominent landform in Wahikuli Ahupua`a. Fornander (1919) recounted the following story of the birth of Pu`ulaina and the transformation of Līhau.

Eeke and Līhau were man and wife. After Līhau gave birth to Pu`ulaina, Eeke committed adultery with Puuwaiohina of Kaua`ula who was the younger sister of Līhau. Because of this, Līhau thought to choke the child to death, so the two (2) of them could go on and commit mischief. This led to Eeke and Līhau arguing. Eeke took the child to his mother, Maunahoomaha, and left him with her. After that their god, Hinaikauluau, placed a restriction over them; they were not to live together, nor were they to have any relationship with others. But after his order Eeke again committed adultery with Puuwaiohina. Because of this their god punished them by making Eeke a mountain and Puuwaiohina a mountain ridge prominent at Kaua`ula.

Subsequently, Līhau was possessed with love for their child and asked Maunahoomaha permission to meet her son. When she met her child she realized what a handsome man her son had become and gave him as husband to Molokini, one of the noted beauties of that time.

One of Pele's younger sisters saw how handsome Pu`ulaina was, so she asked Molokini to let her have him as her husband. Molokini refused and Pele changed her into a little island. When Līhau heard of this, she grieved for her daughter-in-law and went to consult Pele on the matter. But Pele replied gruffly: "If that is the case, then I say to you that you will die; also your son." Līhau was changed into a hill where Pele resided for some time and her son also died. Later, her son was changed to a hill and has remained such until this day.

Traditional Cultural Practices:

Ahupua`a

Settlement and land use within the Olowalu Ahupua`a functioned in the traditional sense of the *makai* to *mauka* configuration which took advantage of the variety of resources within the land division. Such resources and rights include marine resources and fishing rights in the coastal area, arable lands for crop cultivation, as well as, water and timber rights in the planting and upland zones, and valuable bird catching privileges at the higher elevations (Handy, et al.1991:48).

The general pattern was to maintain two (2) residences, a *makai* residence that could take advantage of the marine resources and a *mauka* residence to maintain the staple taro crops and other agricultural pursuits. The primary activities within the area would have centered on marine resource gathering, domestic activities during the hottest times of the day, and agricultural pursuits associated with maintaining a home garden and the *mauka lo`i* and *kula* agricultural lands.

Traditional Trails

Trails served to connect the various settlements within and between the ahupua`a and districts. Although the *Alaloa*, or foot trail, likely existed and encircled the island along the coastline, the preferred mode of inter-*ahupua`a* travel for leeward environs of West Maui was through an upland route and/or major valleys of the West Maui Mountains. Traditional trails along the coastline were more frequently used for intra-ahupua`a travel between the coastal reaches and permanent habitation locations to the upland agricultural

area. These trails generally followed the course of each major stream and were more often than not marked by petroglyphs along the trails as evidenced along the bedrock exposures of Olowalu Gulch.

Traditional ~~Habitation and~~ Agriculture

The *ali`i* and *maka`āinana* were attracted to the Lāhainā District by its natural resources and geographic position. Olowalu, along with the three (3) other major waterways of the Lāhainā District (Ukumehame, Launiupoko, Kaua`ula), provided a productive leeward environment for the cultivation of a wide range of agricultural goods.

Within Olowalu Valley and along the original stream route, traditional Hawaiian agricultural practices were fairly intensive and based primarily on *lo`i* agriculture followed by dry land cultivation. There were *kuleana* claims for a minimum of 1,124 *lo`i kalo* (pond field taro patches), 28 *`uala* (potato) patches, 27 *kula* (open field or pasture), and 31 plots of land with unspecified land uses (e.g. *mo`o, pā, mala, mahina*). Other resources that appear to have been maintained and cultivated in addition to those listed above include *kalo malo`o* (dry land taro), *mai`a* (banana), *wauke* (paper mulberry, *Broussonetia papyrifera*), and *`ulu* (breadfruit, *Artocarpus spp.*) as well as explicit claims for *hala* or *pūhala* (Screwpine, *Pandanus tectorius*), *hau* (*Hibiscus tiliaceaus*), *niu* (coconut, *Cocos nucifera*), *kou* (*Cordia subcordata*), and *kukui* (*Aleurites molucanna*). The cultivation and maintenance of plant resources such as *wauke, pūhala, hau, kou, and kukui*, along with certain parts of the *niu* would have provided a more utilitarian purpose rather than dietary.

Wauke was used to make *kapa* (cloth). *Hala* or *pūhala* was a versatile plant whose parts were useful in a variety of ways, from making household items (i.e. cordage mats, baskets, and sleeping pillows), for use in personal adornment (i.e. paint brushes for *kapa* and *lei* making), and as thatch finish.

The cultural participants noted that use of the *hau* plant is associated with Olowalu as a traditional practice and sustainable conservation effort. The *hau* plant was useful for encouraging shoreline retention and creating shade in an environment where the sun is notably fierce. Though not water resistant or very durable, cordage produced from *hau* was a simple type of cordage that could be made with little training and likely put into service on a daily basis,

from *lei* making to hauling dugout *koa* logs from the mountain to the shoreline. *Hau* was also useful for floats and used in the manufacture of the outrigger for the canoe (Abbott, 1992).

Cultural participant Al Lagunero pointed out the *kūkui, māmaki, ko`oko`olau, `uhaloa,* and *ti* would also have been present in the valley of Olowalu. Though *`uhaloa* is often dismissed as a weed, this plant has important medicinal value when ingested as a tea. With regard to native plant habitat, *tī* would have been found along the stream course, *māmaki* would have been found where the water collected, and *ko`oko`olau* would have been found along the ledges. The presence of *kūkui*, was not only important for the commonly known domestic uses but for the *mahi`ai* aspect of traditional culture as well. The plant was purposefully planted on the slope above the valley floor so that the nuts would run downhill and then become compost for the *`uala.* Mr. Lagunero also points out that the *kūkui* also played a role in not only keeping the water cool but also as mechanism for creating a fish habitat *makai* and further illustrating the link between *iluna* (up), *ilalo* (down), *mauka* (inland), and *makai* (sea).

Land commission awards for the coastal zone of Olowalu Ahupua`a indicate scattered lots and small agricultural lots along the former stream and larger plots for *lo`i kalo* or taro cultivation within the valley. The smaller agricultural plots were presumably used for home gardens while *kula* agriculture or dryland crop cultivation occurred at *kuleana* lots situated further away from the primary streams. *Lo`i* agriculture occurred at *kuleana* lots situated closer to the stream outlet. Traditional agriculture is being re-established in the OCR along with the re-establishment of native habitat.

Gathering Resources

According to the CIA, most plant gathering occurred at the upper elevations and within the gulches. ~~Such~~As noted previously, plants include *wauke* (paper mulberry, *Broussonetia papyrifera)*, *hala* (*Pandanus tectorius)* and *`ohia* (likely *`ohi`a lehua, metrosideros polymorpha*). Plant gathering along the coast was primarily for the different *limu* (seaweed) species such as *limu līpoa* (*Dictyopteris plagiogrammas*), *limu kohu*, *lipe`ep`e* (*Lawrencia succisa*), *māne`one`o*, and *manauea*. Cultural participant Adeline Rodrigues noted *wawae`ole* (*Huperzia mannii)* once grew along the shoreline fronting Kapa`iki

but this type of *limu* is no longer present. She also remembered *lipe`epe`e* near the wharf. Cultural participants felt the limu resources were negatively affected by sunscreen lotions and residues from recreational ocean users. *Limu* gathering for subsistence purposes is still a common occurrence at Olowalu.

The coastal reaches, were rich in marine resources. Most of the fishing grounds lying between Lāna`i, Kaho`olawe, Ukumehame, and Lāhainā were only one (1) to two (2) miles apart (Daniel Kahā`ulelio in Maly and Maly, 2003). Notable for an accessible low coastline and well developed reef system, besides limu gathering Olowalu would have provided excellent opportunities for fishing.

With regard to traditional fishing practices, such methods included *paea ea*, *kukui hele pō*, and *ho`omoemoe. Paea ea* fishing, or bambooing, is generally a low-impact fishing method that was carried out from the shoreline using a straight pole or bamboo. Commonly practiced in Olowalu, during traditional times up until the present, this type of fishing was only conducted on nights of the new moon, a phase of the moon that is referred to as "dark night" or "pitch dark night". *Paea ea* fishing would be for *ū`ū* (menpachi) or *papio* (*Caranx spp.*) along the fishing grounds between Olowalu and the Pali. *Kukui hele pō*, also called *lamalama*, is a fishing method that was conducted at night by torch light and spear.

Olowalu was well known for the abundance of *manini* (convict tang, *Acanthurus triostegus*) and *akole* (*kole,* yellow-eyed surgeon, *Ctenochaetus strigosus*). It was noted that the schools were so thick that only a single pronged spear was necessary to catch what you needed. Other reef resources noted included *loli* (sea cucumber, *Holothuroidea*), *wana* (black sea urchin, *Echinothrix diadema*), and *he`e* (squid). The reef between Ukumehame and "Cut Mountain" (Olowalu Landfill) also provided one of the best *he`e* grounds on Maui.

In addition to subsistence resources, the waters of Olowalu are also a well known *manō lālākea* (black tip reef shark, *carchartinus melanopterus)* nursery along Hekili Point and are often frequented by tiger sharks just off of the fringing reef. In addition to the shark nursery, the reef area is an important breeding ground and habitat for *hihimanu* (manta ray).

Beyond the reef, Daniel Kahā`ulelio writes of fishing for *akule* (bigeye scad, *Selar crumenophthalmus*) off of a place called Unahi at Olowalu (Kahā`ulelio 2006). *Akule* ran in large schools and catching this type of fish could only be accomplished through the combined efforts of the community. *Akule* fishing would require at least two (2) manned canoes and a *kilo* (spotter), who was either stationed on the prominent headland or in a canoe, to guide the fishermen toward the grounds where they would surround the fish with curtain nets and draw them toward the shore to those who waited to help with the catch (Kahā`ulelio, 2006).

Finally, the presence of Kalokoi`aokapāiki, the *ali`i* fishpond at Kapa`iki and an unnamed fishpond near Awalua also indicates that aquaculture, though reserved for the *ali`i*, was also a part of the traditional subsistence of Olowalu. It was explained that Kalokoi`aokapāiki (SIHP 50-50-08-4822), remnants in front of Adeline Rodrigues home, belonged to the Chiefess Kalola, sister to Kahekili and wife to both Kalaniopu`u and Ka`opuiki. Remnants of the former fishpond currently functions as a drainage basin between the present alignment of Honoapi`ilani Highway and the access road to Kapa`iki Village.

Cultural participants expressed concern that traditional fishing practices, such as *paea ea*, *kukui hele pō*, and *ho`omoemoe* would not be able to continue for the Olowalu families and there may be potential impacts to the marine resources and continuation of *lawai`a* (fisherman) traditions and maintenance of the integrity of the fishing grounds. Of major importance to participants was maintenance of water quality and the health of the fringing reefs.

Traditional Trails

Trails served to connect the various settlements within and between the ahupua`a and districts of the Hawaiian Islands in traditional times. While the Alaloa, or foot trail, that encircled the coastline likely existed along the coastline in Olowalu, the preferred mode of inter-ahupua`a travel for leeward environs of West Maui was through an upland route and/or major valleys of the West Maui Mountains, such as during the Battle of Kepaniwai and the escape of Keōpuōlani through Olowalu Valley.

Traditional trails along the coast were more frequently used for intra-ahupua`a travel between the coastal reaches and permanent habitation locations to the

upland agricultural area. Both Mr. Hinano Rodrigues (Lee-Greig and Hammatt, 2006) and Mr. Al Lagunero indicated that these trails generally followed the course of each major stream and were more often than not marked by petroglyphs along the trails as evidenced along the bedrock exposures of Olowalu Gulch. Mr. Lagunero further noted that there may be a possibility that the historic waterways, or plantation irrigation systems, that parallel the coastline may also share the same route as traditional trails that moved laterally. He points out that those who would have engineered and build these waterways may have followed routes that they were already familiar with. Concern was raised that if the road goes away, then to the detriment of the continuous traditional knowledge, the memories of walking the road would also fade. It should be noted although the highway is proposed to be realigned further mauka, the existing Honoapi`ilani Highway will be retained and connected to the new highway.

Traditional Hawaiian Sites

Past cultural resource management investigations have documented the rich archaeological resources of the area. The sites within Olowalu Valley remain, for the most part, intact and under preservation, while modern sugarcane cultivation have greatly modified the traditional landscape along the alluvial plain mauka of the highway and shoreline areas makai of the highway. Such activities have largely removed any surface remnants that may have represented traditional Hawaiian habitation or agricultural practices prior to Western contact which were likely present along the alluvial plains and historic route of Olowalu Stream within the current project area. However, subsurface deposits can be found in a disturbed context within the plow zone and an intact context below the plow zone. Therefore, the fact that there was extensive ground disturbance associated with sugarcane cultivation from the historic era up until modern times does not preclude the presence of historically significant cultural deposits nearer to the coastline at a subsurface level (Lee-Greig, 2012).

Traditional Burial Practices and Ceremony

Ka`iwaloa Heiau and a smaller *heiau* complex, are located within the project area, both of which have been noted as having associated burial internments. There are several burials within the project area, the most prominent are the

preservation area adjacent to the campgrounds of Camp Olowalu ~~and at~~, the summit of Pu`u Kilea, Awalua Cemetery, a historic plantation era cemetery, and Olowalu Church cemetery including the burials extending beyond the church and cemetery boundaries which are documented in the AIS.

There is some concern with regards to the boundaries of the Olowalu Church graveyard in that the graves extend beyond the recorded metes and bounds for the currently known boundaries of the cemetery. When the Territory of Hawai`i transferred the two (2) acres of land to the Olowalu Church, they drew the map to exclude the land behind the church sanctuary which contained the graves. The plantation planted sugarcane over the former cemetery. The AIS documented the burials in the former sugarcane land.

Traditional Hawaiian Spirituality and Ceremony

Ka`iwaloa Heiau is believed to have been a *heiau* of the *luakini*, or sacrificial type. When the king wished to worship under the ritual of Kū, the *luakini heiau*, a war temple, was built for this rite. The Kū ritual was *`o`ole`a* (very rigid or strict) and the priests of this order, also called the priests of the order of Kanalu (the first priest of the order of Kū), were distinct from the other priests who they outranked. It was an arduous task to make a *luakini*; a human sacrifice was necessary; and it must be an adult, a law-breaker (*lawe-hala*).

In the old days, the warriors would walk in the early morning to the ocean by torch light to *hi`uwai* (cleanse or purify) their weapons in the water and at the same time they would *hi`uwai* themselves. By carrying the torch light, the warriors would also let those at the *heiau* know that they are ready both physically and spiritually.

Today, the spirits of these warriors would manifest during the Rising of Kū and walk *mauka* to *makai*, between the *heiau* and the sea. Those nights that are sacred to Kū fall on the 3rd to 6th night of the lunar calendar. Participants also shared stories of how *akua lele* (fireballs) at Olowalu would shoot straight up from Ka`iwaloa Heiau, which was a tool of *`anā`anā* practices or black magic and was used during fighting between *kahuna* or families.

The caretakers of Ka`iwaloa Heiau noted that they had started efforts to re-vegetate with *ti* plants and gourds; however, access to the water system was

cutoff and were no longer able to maintain the plants. During a field visit to Ka`iwaloa Heiau, the caretakers felt that it was time to bring the *heiau* back and *malama* (take care of) the *heiau*. They indicated that they would like to begin restoration of the *heiau*, first and foremost of which would be to expose the *niho* stones (original stone wall) by removing the boulders that had been pushed along the exterior portions of the enclosing walls by plantation field clearing activities. With regard to access, it was noted that a traditional access along the cliffside rather than through the residential area is desired, and a formal establishment of a community right-of-way to conduct yearly ceremonies at the *heiau* and for the families of the *ahupua`a,* who wish to go up to the *heiau*. The Season of Kū and Season of Kane are the two (2) times in the year in which traditional Hawaiian ceremonial practices and protocols are carried out at the *heiau*. The Season of Kū is longer so the ceremonies to be performed at Ka`iwaloa during that time would be longer. Caretaker Ke`eaumoku Kapu noted that Ka`iwaloa is a living place and stressed the necessity that access between Ka`iwaloa Heiau and the ocean be un-impeded as ritual practices required clear pedestrian access.

Mr. Al Lagunero noted that within the OCR there is a *kahaleopapa* or Hale o Papa that has not been documented in previous studies. Where the *luakini heiau* was restricted to the rituals of men, the House of Papa, was the temple dedicated to Papa, or Haumea, and the place in which the rituals of women were received and observed. With regard to rank and the *kapu* of this *heiau*, only the highest ranking chiefess, whose *kapu* equaled that of god, was allowed to enter the Hale o Papa (Kamakau, 1992).

The rituals of the male through the *luakini* and the rituals of the female within the Hale o Papa are both represented within Olowalu Ahupua`a.

b. <u>Potential Impacts and Mitigation Measures</u>

According to the ~~CI~~CIA, the cultural setting clearly indicates that the lands of Olowalu Ahupua`a are steeped in tradition and settled, and were cultivated intensively during pre-contact and early historic times. These lands offer abundant ocean resources, productive lands for traditional Hawaiian agriculture, and rich forest resources.

Traditional Hawaiian agricultural practices are noted and archaeological and ethnographic evidence reveal that wetland taro or *lo`i* and *kula* crops were cultivated in the stream valleys and flood plains of the project area. During the plantation era, agriculture in Olowalu was changed to large-scale sugarcane cultivation by the sugar plantations. The demise of Pioneer Mill ended large-scale sugarcane cultivation and left much of the land fallow. However, through the efforts in the OCR traditional, Hawaiian agriculture is being re-established, along with the restoration of native habitat, such as planting of native plants within the OCR.

There are traditional cultural practices in the Olowalu Ahupua`a that need to be preserved and safeguarded. Traditional access between the mountains to the ocean needs to be maintained and the abundant ocean resources and rich forest resources need to be preserved and protected to ensure that the quality of these resources are not degraded or over-used by the new residents and public. However, an increase in traditional Hawaiian fishing and gathering practices by modern Native Hawaiians are viewed as a good thing.

With regard to the perpetuation of traditional Hawaiian agriculture within the valley and access to the mauka resources, it should be noted that the establishment of the OCR consists of 74 acres of cultural lands and cultural sites from mauka to makai within Olowalu valley, and follows the (current) streambed to the ocean.

It is envisioned that the OCR will ensure that access between the mountains and ocean is maintained and preserved in perpetuity along the current course of Olowalu Stream. ~~and work within~~ Further, it is anticipated that the reopening of *lo`i kalo* within Olowalu Valley, restoration of native plants and historic properties, and educational and outreach programs developed by members of the OCR will perpetuate traditional Hawaiian agriculture and safeguard the natural resources in the Olowalu Ahupua`a for future generations. Within the OCR, efforts at protecting the archaeological sites, repairing and restoring the *lo`i*, and perpetuation of the traditional Hawaiian culture from mauka to makai, encompassing the heavens and land is ongoing.

With regard to Alternatives 1 and 2 in relation to the needs of the OCR and ahupua`a lands as a whole, the following recommendations were put forward regarding access to stream water:

- There should be an ample supply of fresh water from the stream for growing *kalo* and other sustainable foods.

- There should be an ample supply of water for native plants and reforestation.

- There should be an ample supply of fresh water in the stream from mauka to makai for sustainability of native flora and fauna within the stream and the ocean.

Cultural participants stated that the Olowalu stream flow is necessary for the sustainability of *limu* resources as well as enhancement of the quality of the reef. The participants recommended increased stream flow into the near shore waters. The proposed use of recycled water for irrigation purposes and the development of new ground water sources in the OTMP will help replace some of the water that is currently being diverted for such uses thus releasing additional water for increase in the stream flow from *mauka* to *makai*. Although it will not be to the level that were known prior to pre-western contact this increase in stream flow is expected to enhance the Olowalu Stream system along the stream margins and into the near shore ecosystem.

With regard to the nearshore and offshore resources, concerns regarding sediment-laden runoff, the potential development of injection wells to manage sewage and chemically treated water (e.g. swimming pool water), and intensified recreational and subsistence use were voiced by those concerned about the build-out and inherent population increase resulting from the OTMP.

In order to address concerns about sedimentation, precautionary measures to limit the amount of silt or dust resulting from construction activities need to be taken to prevent shoreline and off-shore fishing ground degradation and contamination due to increased sediment in the water. To this end, the OTMP will implement appropriate BMPs during construction activities. In addition to this, Polanui Hiu suggested the formation of an Olowalu Community Marine Management Group as a community group that could function as a shoreline monitoring check both during construction and periodically following construction. The Applicants are supportive of such a management group and propose to continue discussions with Polanui Hiu, cultural practitioners, the residents of Olowalu, as well as appropriate agencies such

as the Department of Land and Natural Resources (DLNR), throughout implementation of the OTMP.

In response to concerns expressed that injection wells would be utilized, it was clarified that the future wastewater treatment plant (WWTP) proposes to utilize a constructed wetland and soil aquifer treatment system to treat and dispose of excess wastewater and no injection wells would be utilized. Recycled water from the WWTP will be used for irrigation purposes.

Due to concerns regarding increased activities and recreational use of the coastline by future residents and potential escalating pressure on the already over-extended resources of the area, Polanui Hiu encouraged the implementation of shoreline restrictions, similar to traditional *kapu* seasons or periods, as a means to maintain the health of the environment and allow recovery. It was also suggested that an area be specifically set aside for traditional cultural fishing practices. Mr. Leslie Kuloloia advocated for the formation of a protected area that extended from the shoreline to 20 fathoms out. Also, cultural practitioner Michael Lee suggested that besides future scientific assessments there should be future assessments of *makai* resources by the Native Hawaiian cultural practitioners. The integration of these scientific and cultural assessments will provide a holistic view and understanding of the current state of the marine resources from both the Western scientific and traditional perspectives and provide the understanding necessary to move forward with resource management decisions based on research and generational knowledge. These recommendations can be further explored in conjunction with a proposed Olowalu Community Marine Management Group. As noted previously, the Applicants are supportive of such a management to group and propose to continue discussions throughout implementation of the OTMP.

As an overall statement, cultural participants John and Rose-Marie Duey provided the following comments:

- There should be a greater setback from the ocean, beyond the 100 ft. that is protected by State law. This setback would ensure protection from activities such as landscaping and associated chemical use and waste; in addition to stonewall and man-made pavements and structures.

- Swimming pools, as well as the dumping of chemically treated water of any sort into the ocean should not be allowed as chemical leaked or released in the ocean destroys sea life.

- Commercialized ocean activities from shore or ocean should be denied for preservation of these corals and reef life.

In response to the foregoing comments, an existing minimum 150 ft. shoreline setback will be maintained in the development of the Master Plan, which is in excess of the State law of 40 feet. Stonewalls, man-made pavements (except for public access walkways), and structures are not proposed within this setback area. Also, as noted previously, the use and disposal of chemicals and waste products from landscaping and water features, and commercialized ocean activities can be defined in greater specificity during the implementation of the OTMP.

Cultural participants also expressed concerns that residential lighting and noise from the proposed OTMP may impact the subsistence practices of those who have traditionally fished on certain nights, as well as observations of the night sky for ceremonial and astronomical purposes. In order to minimize light pollution of the night sky, the OTMP proposes to implement designs for outdoor lighting that will consider the need to respect the night sky and the placement of lighting fixtures in common and public areas will need to minimize light "spillage" across proposed project boundary lines and into the shoreline.

According to the CIA, concerns were raised regarding maintaining open space and visual connection mauka to makai and the potential impacts building heights associated with the Master Plan. The proposed built landscape will modify view conditions with the placement of infrastructure and structures where there are none. To the greatest extent possible, mitigation of visual impacts is proposed through the implementation of an architecturally integrated plan which incorporates the following:

- Establishing standards for building heights, as follows:

  - Multi-story buildings and structures will only be allowed in a limited area within the neighborhood town centers;

- Heights, sizing, and massing of the commercial/business buildings and multi-family residential structures within the neighborhood town centers will be restricted to two (2)stories;

- Exceptions to this height limit will be to allow for a few 3-story residential buildings to increase the number of affordable housing units which will be situated in areas that minimize any significant adverse impacts upon *mauka* and *makai* views;

- Landscaping, parks, open space corridors and street alignments will be oriented *mauka* to *makai* in order to preserve the scenic view from the mountains to the ocean;

- Orientation of the town centers will be maintained to preserve the view plane from Pu`u Kilea through the OCR and Ka`iwaloa Heiau in order to maintain a visual connection to Lāna`i and Kaho`olawe;

- Implementation of a Green Space Plan will relieve the massing and densities of the built environment, as well preserve open space resources such as the OCR, Olowalu Stream, and 150 ft. shoreline setback area;

- Relocation of Honoapi`ilani Highway along an alignment that will be built at an elevation higher than the existing alignment, at approximately 40 feet above mean sea level, which will also avoid impacting existing views in the area.

Development of the Master Plan for Alternatives 1 and 2 incorporates environmental systems that will not degrade the environment as well as practices to safeguard the environment from degradation from potential pollutants such as construction activities, stormwater runoff, etc.

It is also envisioned that the future educational facilities within the Master Plan for Alternatives 1 and 2 will incorporate lessons learned within the OCR as core components of its curriculum.

Also, cultural practitioners expressed concerns and recommendations relating to access, preservation and maintenance of Ka`iwaloa Heiau (SIHP 50-50-08-0004). The long-term preservation requirements for Ka`iwaloa Heiau include (1) a 100 ft. buffer, (2) markers, (3) signage, (4) interpretative preservation and (5) pathway or foot trail, viewing platform overlooking the heiau for the general public, pedestrian access to the heiau interior restricted to Native Hawaiian traditional cultural practices; buffer markers to consist of a native hedge and boulders.

Caretakers Ke`eaumoku Kapu and Daniel Nahina of the Ka`iwaloa Heiau also requested consideration of the following additional preservation and access measures:

- Vehicular pullout below Pu`u Kilea as the focal point for signage and public education with access restricted to pedestrian access for cultural practices only. During the community field visit, a recommendation was made to have a docent present at this location to educate the public.

- In the event that some type of viewing platform is needed nearer to the location of the *heiau*, this platform could also be the foundation for the *lele* (altar) that is positioned at the southwest corner of the *heiau*.

- This location would be well away from the entrance and discourage public traffic within the *heiau*.

- Field boulders that were not a part of the original *heiau* construction but rather pushed into the area during former plantation field clearing activities would be appropriate for construction material.

- The location of the interpretive signage could be placed at either the viewing platform or pullout location below Pu`u Kilea and include a panoramic photo of the *makai* view shed from the *heiau* in its present condition. This panoramic shot would highlight prominent landmarks in the distance (e.g. Pu`u Ō La`i to the south, Molokini, Kaho`olawe, and Lāna`i along with an unimpeded view of `Alalākeiki Channel and Auau Channel) as such landmarks may have been important aspects of what was happening at the *heiau* prior to western contact.

- *A`ali`i* (*Dodonaea viscosa*) would be an appropriate plant species for the hedge that marks the permanent 100 ft. buffer as this particular plant is drought resistant and does well in leeward environments.

- Access along the cliffside, rather than through the residential area, is preferable. Formal establishment of this access as a "community right-of-way" is further recommended to conduct yearly ceremonies at the *heiau* and for the families of the *ahupua`a* who wish to go up to the *heiau*.

  - Pedestrian access to Ka`iwaloa Heiau must extend from the ocean and would like the access route to the *heiau* proper include the current alignment of the maintenance road.

  - The access route should be planted with tall palms along the Ukumehame side of the road to shield the practitioners and maintain the necessary privacy of the procession to the *heiau* from the landownders of the lots that are adjacent to Ka`iwaloa Heiau.

- Finally, Mr. Kapu has requested that in addition to the preservation buffer that is currently in place for Ka`iwaloa Heiau, an additional 20 ft. outside of the preservation buffer be designated a no-build area, similar to a construction setback so that encroachement into the preservation area is avoided.

Also, in connection with the cultural protocols of access and ceremony, Mr. Al Lagunero suggested the creation of a *mapele* within the 13 acres of the OCR that have been set aside as conservation lands, between the stream and the pali on the Ukumehame side of the valley. This area could be a place dedicated for prayer and *na koa* (warrior) practice under Mr. Kapu. Mr. Lagunero noted that the OCR has an alliance with and honors the Kupuna Council requests for *kahu* and *kuleana* for the Ka`iwaloa Heiau to be upon Ke`eaumoku Kapu and Daniel Nahina. To increase the understanding of Loina Kane and *na koa* led by Ke`eaumoku, Mr. Lagunero offered this area for the private use of the *na koa* and the *kahu* with *kuleana* for Ka`iwaloa. The OCR would maintain insurance as is.

As a means to manage protection commitments and implement programs that ensure that cultural resources are not compromised, individuals consulted have recommended that the project proponents enter into a Memorandum of Agreement with the families of Olowalu and interested organizations. Such an agreement would address the concerns brought forward as a part of this study and draft a plan of action to ensure that the integrity of the cultural resources is maintained.

The Applicants recognize that there are several issues relating to potential impacts on cultural resources both offshore and within the project area that require further clarity as more defined project plans are developed. The Applicants have expressed a willingness to continue discussions with the cultural participants, caretakers of Ka`iwaloa Heiau, the families of Olowalu and organizations, such as Polanui Hiu. Further, the Applicants are open to further discussions to discuss the possibility of entering into a Memorandum of Agreement.

As the Master Plan for Alternatives 1 and 2 progresses, there will be ongoing consultation with the residents, especially those with lineal ties to the land and generational knowledge of current traditional cultural practices. Consultation with the residents, interested groups, agencies and community will continue to identify current traditional practices and seek the *mana`o* (thought, idea, opinion) on the potential for either positive or adverse effects to such practices. Adequate measures will be implemented to preserve and maintain the resources of the Olowalu Ahupua`a, as well as the traditional cultural practices of the area. Through these efforts, adverse impacts to cultural resources are not anticipated.

~~12~~13. Air Quality

a. Existing Conditions

There are no point sources of airborne emissions within close proximity of the Master Plan area. Smoke and dust from sugarcane harvesting and cultivation operations formerly caused an intermittent impact to the region's air quality. However, since Pioneer Mill Company, Inc. has ceased its sugar growing operations, this temporary air quality impact has also ceased.

According to the Air Quality Study prepared by B.D. Neal & Associates, except for periodic impacts from volcanic emissions (vog) and possibly occasional localized impacts from traffic congestions and local agricultural sources, the present air quality of the project area is relatively good. See **Appendix "~~H~~I"**.

b. <u>Potential Impacts and Mitigation Measures</u>

Air quality impacts attributed to the Master Plan for Alternatives 1 and 2 will include short- and long-term impacts either directly or indirectly. Short-term impacts will occur during construction from fugitive dust and exhaust emissions from stationary and mobile construction equipment and from the disruption of traffic during the construction period. Implementation of an effective dust control plan such as limiting the extent of the area to be disturbed, mulching and chemical stabilization of disturbed areas, watering active work areas, wind screens, keeping adjacent paved roads clean, minimizing traffic disruptions and covering of open-bodied trucks will mitigate construction related impacts.

Motor vehicles coming to and from the Master Plan area (under both Alternatives 1 and 2) will result in a long-term increase in air pollutant emissions in the project area from the exhaust of the internal combustion engines. The mesocale analysis of traffic is shown in the following **Table ~~14~~26**.

Table ~~14~~26. Estimated Emissions for Honoapi`ilani Highway at Olowalu

Scenario	Emissions (tons/yr)		
	Carbon Monoxide (CO)	**Nitrogen Oxides (NOx)**	**Volatile Organic Compounds (VOC)**
Existing	237	24	19
2020 Without Project	189	11	12
2020 With Project	226	13	13
Source: B.D. Neal & Associates			

Although increased traffic volumes are expected, these would be offset by the retirement of older, higher-emission vehicles over time with newer more efficient lower-emission vehicles. Emissions in 2020 with the project would

be slightly higher compared to without the project, however, emissions would be lower than the existing emissions. Emissions from project traffic will not have a significant adverse impact on air quality in the project area.

Depending on the demand levels, long-term impact on regional air quality are also possible due to indirect emissions associated with the project's electrical power and solid waste disposal requirements which may create more emissions at the power plant and at the landfill. Incorporating energy conservation design features and promoting conservation and recycling programs within the Master Plan area (for Alternatives 1 and 2) such as those recommended by LEED ND will reduce any indirect impacts due to increased power usage and solid waste disposal.

Updated traffic counts were conducted in 2013 with a new buildout year of 2024. B.D. Neal & Associates reviewed the updated traffic impact analysis report (TIAR) and found the revised estimated traffic volumes are approximately 10 to 15 percent higher, as such, the traffic-related air pollution emissions can also be expected to be 10 to 15 percent higher. However, the emissions would likely not have a significant adverse impact on air quality. This conclusion will not change with the slightly higher traffic volumes forecast in the revised TIAR. See **Appendix "I-1"**.

~~13~~14. Noise

a. Existing Conditions

Vehicular noise from traffic traveling along Honoapi`ilani Highway is the primary source of intermittent noise at the Master Plan area for both Alternatives 1 and 2. Ambient noise conditions are generally attributable to natural conditions such as ocean waves, wind and rain.

According to the Preliminary Acoustic Study prepared by Y. Ebisu & Associates, dated October 2011, two (2) existing residences along Honoapi`ilani Highway at the east end of ~~the Master Plan~~Olowalu presently experience traffic noise levels near the State of Hawai`i Department of Transportation (HDOT) 66 Equivalent Hourly Sound Level (Leq(h)) noise abatement criteria when appropriate noise mitigation may be warranted. Existing traffic noise levels do not exceed the 71 Leq(h) noise abatement

threshold criteria for commercial properties at the Olowalu General Store. See **Appendix "~~I~~J"**.

b. <u>Potential Impacts and Mitigation Measures</u>

At full build-out, the primary noise generator from the proposed Master Plan under both Alternatives 1 and 2 would be traffic along the realigned Honoapi`ilani Highway. The Acoustic Study predicted noise levels in 2020 for the existing Honoapi`ilani Highway and the proposed realignment that will connect to the relocated highway. Refer to **Appendix "~~I~~J"**. The Study concluded that future traffic noise levels are not expected to exceed the HDOT 66 Leq(h) noise abatement threshold criteria at existing structures. Therefore, additional sound attenuation measures should not be required to mitigate future traffic noise impacts at these existing structures. However, traffic noise from the future relocation of Honoapi`ilani Highway may exceed HDOT 66 Leq(h) noise criteria at planned residences, parks, and other noise sensitive land uses along the proposed highway alignment. The ~~a~~Applicants will implement noise mitigation measures to reduce future traffic noise levels to acceptable levels at new noise sensitive receptors, such as dwellings on the rural lots. Mitigation measures may include the following:

- Increasing the rights-of-way widths along the new highway;
- Providing additional buffer distances between the rights-of-way and structures or exterior areas with frequent human use; or
- Adding sound attenuating walls along the rights-of-way, tops of fill, or tops of retaining walls fronting noise sensitive lots.

Potential noise impacts at any new noise sensitive or commercial establishment within the Master Plan for Alternatives 1 and 2 may be mitigated through the use of sound walls or other noise mitigation measures within the individual lot development plans. The proposed relocation of Honoapi`ilani Highway is expected to be completed prior to the redevelopment of open areas adjacent to the roadway. Noise abatement measures such as adequate setbacks and sound attenuating walls or berms will be incorporated into these new developments along the roadway as may be required.

Ambient noise conditions will be temporarily impacted by construction of the proposed Master Plan under both Alternatives 1 and 2, including construction of the proposed relocation of Honoapi`ilani Highway, as well as development of the vertical structures. Heavy construction equipment, such as bulldozers, front-end loaders, and material-transport vehicles, will likely be the dominant source of noise during the construction period. These noise impacts will be mitigated by standard curfew periods, properly muffled equipment, administrative controls, and construction barriers as required.

In addition, the possible use of blasting or chemicals to break or dislodge rock will be considered for the proposed relocation of Honoapi`ilani Highway to reduce the overall highway construction period, and to reduce the amount of time required to remove the rock if only mechanical equipment were used. Controlled blasting using relatively small charges may be feasible without causing adverse noise and vibration impacts at nearby residences. Use of chemical expansion to break or dislodge rock during construction will also be considered where blasting or mechanical means are less desirable. Nighttime or early morning blasting operations are not anticipated. If blasting is utilized, the following recommended mitigation measures will be implemented:

- Regularly monitor air blast and ground vibration levels at the closest noise sensitive residence(s) or structures(s) during blasting operations.

- For initial blasts, use the minimum practical charge weight per delay as well as the minimum practical number of delays or bore holes.

- If practical, reduce maximum air blasts to less than 110 decibel Level (dBL) at the nearest noise sensitive residences.

- Schedule blasting during the warm periods of the day and if possible, during fixed time periods.

- Use the most conservative vibration criteria for damage to "Ruins and Ancient Monuments".

Updated traffic counts were conducted in 2013 with a new buildout year of 2024. Y. Ebisu & Associates reviewed the updated traffic counts and

concluded the findings presented in the Preliminary Acoustic Study are still deemed applicable. See **Appendix "J-1"**.

A Community Noise Permit will be obtained from the DOH, as applicable, if construction noise is expected to exceed allowable levels.

~~14~~15. Scenic and Open Space Resources

a. Existing Conditions

From Honoapi`ilani Highway, on either side of Olowalu where the highway is in close proximity to the shoreline, mauka and coastal views are exceptional due to the scarcity of development in the area and the sloping topography on the mauka side. However, where the highway moves more inland near Kapa`iki, the mauka/makai views become obstructed by existing vegetation and development (in the vicinity of the former Manager's house and the Olowalu General Store). At this portion of the highway, there are partial glimpses of the ocean through existing landscaping and virtually no views to the mountains, due to the vegetation and buildings on the mauka side of Honoapi`ilani Highway. The existing monkey pod trees along both sides of the highway are a visual resource in this part of Olowalu. See **Appendix "~~J~~K"**.

Shoreline views in the Olowalu area offer vistas of the Pacific Ocean, as well as the islands of Lana`i and Kaho`olawe. Portions of the Kīhei-Mākena coastline and the islet of Molokini are also visible from Olowalu as well as portions of the west-facing slopes of Haleakalā. The West Maui Mountains and Olowalu Valley can be seen looking mauka over the residences at Kapa`iki.

The Olowalu Mauka Subdivision approved in 2002 proposed a system of greenways and open space areas. A total of 14 lots were developed and sold. The developed 14-lot Olowalu Mauka Subdivision included greenways along Luawai Street. The remaining lots and easements owned by Olowalu Town, LLC and Olowalu Ekolu, LLC are included in the Master Plan for Alternatives 1 and 2.

b. Potential Impacts and Mitigation Measures

The Master Plan for Alternatives 1 and 2 offers an architecturally integrated plan which sets standards for height, landscaping, parks, open space corridors and street alignments oriented mauka to makai in order to preserve scenic views from the mountains to the ocean. The orientation of the town centers to preserve~~s~~ scenic view planes from Pu`u Kilea through the OCR and Ka`iwaloa Heiau which maintains its visual connection to the islands of Lana`i and Kaho`olawe. Scenic views to the ocean and mountains will be created when the future relocated Honoapi`ilani Highway is constructed further mauka at a higher elevation. Refer to **Appendix "~~J~~K"**.

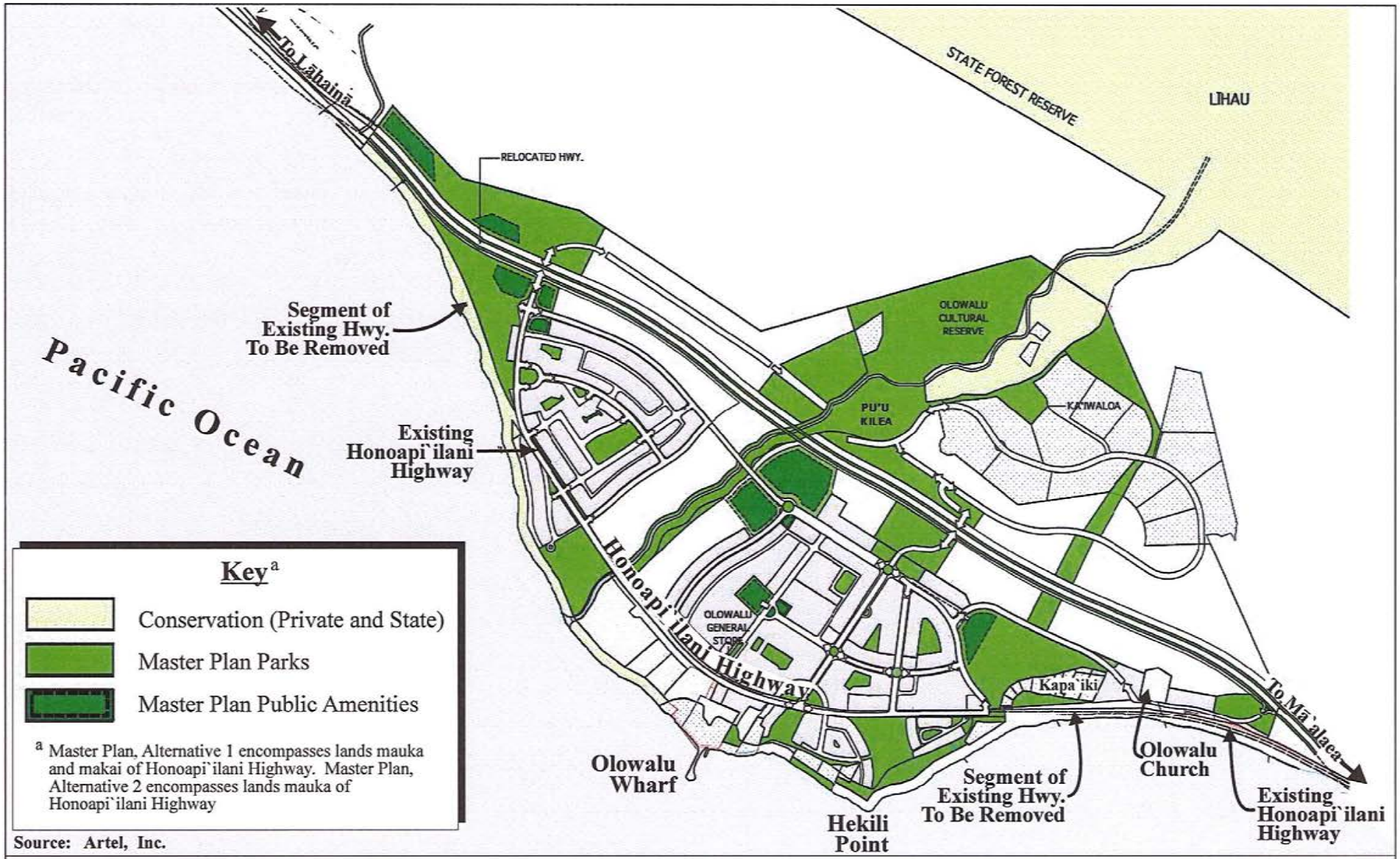
The proposed Green Space Plan integrates parks and open space areas within the Master Plan for both Alternatives 1 and 2 to relieve the massing and densities of the built environment as well as preserve significant open space resources such as the OCR, Olowalu Stream and the existing 150 ~~feet~~foot shoreline setback area. Refer to **Figure 3** ~~and~~, **Figure 4** ~~and~~, **Figure 5** and see **Figure ~~1~~524**. ~~The~~In Alternative 1, the creation of recreational parks and open space along the shoreline near Camp Olowalu and north of Olowalu Stream will create new scenic view corridors to the ocean from the existing Honoapi`ilani Highway by removing the dense vegetation that currently block views to the ocean.

The removal of vegetation does not include the existing monkey pod trees which will be preserved in order to maintain the existing canopy along Honoapi'ilani Highway. In Alternative 2, the area makai of Honoapi`ilani Highway will remain in its existing condition. As the ~~Matser~~Master Plan ~~is~~for Alternatives 1 and 2 is developed a system of greenways incorporating pedestrian paths and bicycle paths will be implemented. New subdivision actions will be required to create the system of greenways in accordance with the Green Space Plan.

~~1~~516. Shoreline Access

a. Existing Conditions

A government beach reserve is located along the shoreline extent of Olowalu. Refer to **Figure 3**. The shoreline along the government beach reserve consists



Source: Artel, Inc.

Figure ~~15~~24 Proposed Olowalu Town Master Plan

Conceptual Green Space Plan

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS\GreenSpacePlan

of rounded, waterworn basalt and bleached coral rubble and heavily vegetated areas consisting of `opiuma, kiawe and grasses. Lateral shoreline access opportunities to the coastline are available through the government beach reserve on the makai side of the Master Plan area for Alternative 1. In areas where the beach reserve is not contiguous, access is provided through the adjacent lots via a minimum 50-foot wide lateral access easement established as part of a SMA approved in 2000. Refer to **Appendix "S"**. Access to the government beach reserve is available through both the eastern and western ends where the reserve meets Honoapi`ilani Highway, and through the beach access to Olowalu Wharf from Honoapi`ilani Highway. Refer to **Figure 24**. Due to traffic volume and speeding vehicles along Honoapi`ilani Highway, there are existing concerns regarding access to the beach reserve entries. Near Mile Marker 14, there are currently no turning lanes to the shoreline which creates a hazardous condition from vehicles pulling off and parking randomly along the highway. ~~Refer to **Figure 15**.~~

b. <u>Potential Impacts and Mitigation Measures</u>

The preservation and enhancement of public access to shoreline resources is an important planning element of the proposed Master Plan for Alternative 1. In Alternative 2, the area makai of the highway will remain in its existing condition and existing access maintained. Notably, the relocation and widening of Honoapi`ilani Highway inland from the shoreline creates the opportunity to utilize the existing highway as a recreational corridor which will result in a safer and enhanced access to the shoreline.

The Master Plan Alternatives 1 and 2 will maintain ~~a~~the existing 150 ~~feet~~-foot shoreline setback area ~~where~~established as part of the SMA approval for the Olowalu Subdivision in 2000. Within the setback in Alternative 1 development will be limited to public access to the shoreline, non-structural recreational park~~s~~ uses and open space. Refer to **Figure 4**. In Alternative 2, the area makai of Honoapi`ilani Highway will retain the existing uses. Refer to **Figure 5**. The Master Plan for Alternatives 1 and 2 once developed will ~~provide~~maintain continuous public access to the shoreline from the Lāhainā end to the Mā`alaea end of Olowalu.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

a. Existing Conditions

The population of the County of Maui has exhibited relatively strong growth over the past decade. The County's resident population grew by 20.9 percent between 2000 and 2010, compared to a 12.3 percent increase in the State of Hawai'i as a whole during the same time period. Maui County's population increased from 128,094 residents in 2000 to 154,834 residents in 2010. Population on the island of Maui exhibited even stronger growth than the County as a whole, with a 22.8 percent population increase over the decade. Approximately 144,444 residents lived on the island of Maui in 2010 (U.S. Census Bureau, 2000 and 2010). Maui County's resident population is projected to rise to 174,450 people in 2020 and to 199,550 people in 2030 (County of Maui, June 2006).

The resident population of the West Maui Community Plan region has also demonstrated substantial increases. Population gains were especially evident in the 1970's as the rapidly developing visitor industry attracted many new residents. The population of the West Maui Community Plan region increased from 14,574 in 1990 to 17,967 in 2000. The resident population of West Maui increased by 23.3 percent over the next decade, reaching approximately 22,150 residents in 2010, including 80 residents in Olowalu, according to the U.S. Census. This is above the 21,577 residents projected by 2006 Socio-Economic Forecast prepared for the 2030 General Plan Update. The strong population growth in the region is expected to continue over the next 20 years. Population in West Maui is projected to be 25,100 in 2020 and 28,900 in 2030 (County of Maui, June 2006).

b. Potential Impacts and Mitigation Measures

The proposed Master Plan ~~is~~for Alternatives 1 and 2 are intended to provide new housing opportunities in the context of a comprehensively planned community. The establishment of a new community in Olowalu as an

integrated living and working village is a means to accommodate growth in population envisioned over the next 20 years.

The proposed ~~project is~~alternatives are intended to meet demand for workforce housing and would result in an increase in the population in Olowalu subregion of West Maui. Based on the average household size in Maui County in 2010 of 2.82 (U.S. Census, 2010), the proposed project would have an estimated population of 4,239 residents at full build-out ~~(U.S. Census, 2010)~~. While the proposed project would increase the number of residents living in Olowalu, the project is expected to attract existing Maui residents who currently live in West Maui, Central Maui, and other regions of the island. New employment opportunities attributed to construction and long-term commercial ventures may attract new residents to the island. However, this element of in-migration population growth is factored into the population projections developed by the County of Maui.

2. Economy

a. Existing Conditions

The economy of Maui is heavily dependent upon the visitor industry. The dependency on the visitor industry is especially evident in West Maui, which is one of the State's major resort destination areas. The Kā`anapali Resort includes a number of hotels, including the Maui Marriott Resort, Hyatt Regency Maui, the Westin Maui, and the Sheraton Maui.

West Maui's visitor orientation is reflected in the character of Lāhainā Town, which serves as a center for visitor-related retail outlets, as well as visitor-related activities.

In terms of the agriculture industry, Pioneer Mill Company, Inc. ceased sugarcane cultivation on its lands in 1999. Of its 6,700 acres, approximately 500 acres are currently utilized for the growing of coffee. Other crops, such as seed corn, are being planted. Another large agricultural operation was Maui Land & Pineapple Company's pineapple fields in the Honolua region. In December 2009, the company ceased its pineapple operations.

The State and County economies have been impacted by the nation's recent economic recession, with the major industries of tourism, construction, and real estate being particularly hard hit due to, among other factors, reduced discretionary income and tightening of credit. Unemployment rates in the State and County peaked in the summer of 2009. Since that time, the unemployment rate has slowly declined. In ~~October 2011~~August 2015, the seasonally unadjusted unemployment rate in Hawai`i was 3.3 percent and in Maui County ~~stood at 6.5~~3.4 percent. ~~The unemployment rate in the County of Maui was higher at 7.6 percent. However, this~~This represents an improvement from one year ago, when the County's seasonally unadjusted unemployment rate was ~~7.8~~4.3 percent in ~~October 2010~~August 2014. The seasonally unadjusted unemployment rate for Maui was 3.2 percent in August 2015, an improvement from 4.0 percent from August 2014 (DLIR, ~~December 2011~~September 2015).

b. <u>Potential Impacts and Mitigation Measures</u>

According to the Market Study prepared for the project by ACM Consultants, Inc., the Master Plan ~~shows there are signs~~ for Alternatives 1 and 2 indicates that the housing market is improving. As the economic conditions improve, the demand for housing in the workforce segment will continue to be the most sought after. The ~~2015~~2019 release of the first housing units in the Master Plan for Alternatives 1 and 2 may be timely with the ~~anticipated economic turnaround~~improving housing market. The Master Plan for Alternatives 1 and 2 will be heavily targeted toward the workforce segment. Statistically, regardless of conditions, this market segment has had the greatest demand. As such, it is anticipated that the housing units can be absorbed within eight (8) to ten (10) years. See **Appendix "~~K~~L"**.

A key component of the proposed Master Plan ~~is~~for Alternatives 1 and 2 is the economic viability of the project in providing potential centers of employment within Olowalu Town, as well as offering daily goods and services to the community's residents. Initially the project will be supported largely by highway traffic~~ and tourists~~. As the residential uses in the project are developed, the local residents would become more important in supporting the commercial uses in the project.

The project, proposed to contain approximately 300,000 to 375,000 sq. ft. of commercial space, could support a variety of ~~eating and drinking food~~dining outlets while retail space could include a general store, health/organic foods, pharmacy, general merchandise stores, banks, boutiques, and galleries. Other noncommercial and non-retail tenants that may be in demand could include a post office, medical professional, financial, professionals, such as architects, and live/work space.

An Economic and Fiscal Impact study was prepared for the proposed project. See **Appendix "~~L~~M"**. The Master Plan for Alternatives 1 and 2 would generate positive economic impacts during the construction period, as well as at full build-out of the project. Total construction expenditures for the Master Plan for Alternatives 1 and 2 are estimated at $465.6 million. The project, which is expected to be built out over 10 years, would create an average of 377 direct and indirect jobs on Maui annually. Indirect employment on Oahu could add an average of 100 jobs per year during the construction phase.

At full build-out, the project would support long-term employment through the provision of commercial and industrial space within the Master Plan area. The Economic and Fiscal Study estimates that the Master Plan for Alternatives 1 and 2 could result in approximately 1,000 jobs just in the commercial and industrial sectors of the project. It should be noted that not all of these jobs would be new as some existing Maui businesses may relocate to the ~~project~~Master Plan area.

With a proposed 1,500 residential units, the Master Plan for Alternatives 1 and 2 will create a greater number of housing units than jobs. However, the Master Plan ~~is~~for Alternatives 1 and 2 is located in close proximity to major employment centers in West Maui, including Lāhainā, Ka`anapali, and Kapalua. As previously mentioned, the Master Plan for Alternatives 1 and 2 will target the workforce market segment, which has consistently been in high demand. Central Maui has historically housed the largest proportion of the island's workforce population and many residents commute from Wailuku and Kahului to jobs in West Maui. The proposed project will provide workforce housing opportunities closer to West Maui employment destinations.

At full-build out, County revenues would primarily be generated in the form of real property taxes. The total estimated annual real property tax attributed

to the residential and commercial portion of the project is $~~1.6~~2.0 million. County of Maui expenditures for general services, infrastructure maintenance, and public safety were estimated as $~~628,000.00~~627,000.00. The net revenue attributed to the project, at full-build out, was estimated to be $~~968,000.00~~~~986,000.00~~1.4 million annually. Based on the County's tax structure, owner-occupied units are essentially subsidized by revenue received from other property classes. The majority of Maui's property tax revenue is generated by time share, hotel/resort, industrial and commercial properties, which have substantially higher mill rates.

For the State of Hawai`i, the revenue sources are personal income tax, excise tax, and other revenues. Total revenues are estimated as $1.05 million annually while total annual expenditures are approximately $1.4 million. The net annual revenue at full build-out is forecasted to be negative $377,000.00. The negative net annual revenue was primarily attributed to the lower household income levels which are geared toward the workforce market segment. In general, State services to workforce residential communities are subsidized by revenues received from the visitor industry, businesses and communities with higher annual household incomes.

ACM Consultants, Inc. reviewed the economic data and overall economic condition of Maui since the preparation of the Draft EIS. An updated Market and Fiscal Impact study was prepared. Appropriate changes have been incorporated into the EIS. Refer to **Appendix "M"**.

3. Agriculture

a. Existing Conditions

Maui has a long history in agriculture cultivation, beginning from pre-contact to the plantation industry playing an important role in the island's culture, landscape, and economy.

The ahupua`a system allowed Hawaiians to thrive as they were able to grow breadfruit and taro in the higher areas and sweet potato and coconuts closer to shore. The sea provided fish and the forest supplied wood for canoes and housing. Hawaiians supported themselves by growing kalo (taro) in extensive

*lo`i* (irrigated terraces), and by cultivating `uala (sweet potato), `ulu (breadfruit), and niu (coconut).

The modern commercial agriculture industry began in the eighteenth century, with sugarcane and pineapple plantations driving Maui's economy for over 90 years. Over the past 20 years, the agricultural industry has evolved, with a decline in large-scale sugarcane and pineapple cultivation and an increase in diversified crops and products, including vegetables, tropical fruits, flowers, seed crops, coffee, exotic herbs, taro, and livestock, such as cattle, horses, goats, and chickens.

The diverse geography and microclimates found on Maui support a variety of crops. Agricultural endeavors in the West Maui region include bananas, coffee, nursery products, papayas, pineapples, and vegetables, as well as livestock, such as cattle, horses, goats, and roosters. ~~Average rainfall in Lāhainā is 15.5 inches per year.~~

There were 230,000 acres of land used for farming and ranching in Maui County in 2008, the most recent year for which complete data is available. See **Table ~~15~~27**. This represents a decrease of approximately 11.5 percent since 2004, when there were 260,000 acres of farmland in the County. While the amount of ~~farmland has~~farm and ranch land have declined, the number of farms ~~has~~have actually increased. This is consistent with the decline of large-scale operations of plantation agriculture and increase in diversified agriculture (all crops other than sugarcane and pineapple), which is largely comprised of individual or family sole proprietorships. In 2008, there were 1,150 farms in Maui County.[1]

[1] Farms are defined as establishments with $1,000.00 or more of agricultural sales.

Table ~~15~~27. Agriculture Summary, Maui County, 2004 and 2008

	2004	2008
Acreage in Farms and Ranches	260,000	230,000
Hired Workers	1,850	1,700
Number of Farms [a] and Ranches	850	1,150
Value of Crop Sales	$145,983,000	$144,231,000
Value of Livestock Sales	$ 6,510,000	$ 7,013,000

Note: [a] Based on definition of $1,000 or more of agricultural sales.
Source: Maui County Databook, 2010.
Prepared by: Munekiyo & Hiraga, Inc., 2011.

In 2008, there were 1,700 hired workers in the agriculture industry in Maui County. Crop sales totaled $144.2 million while livestock sales stood at approximately $7.0 million in 2008. These sales figures were comparable to sales numbers in 2004.

It should be noted that several key factors have affected the agriculture industry since 2008. Most notably, Maui Land & Pineapple Company (ML&P) ceased its pineapple cultivation operations on the island in December 2009. Citing ongoing financial losses associated with its pineapple farming, ML&P eliminated pineapple cultivation on approximately 2,000 acres of land. While the company continued in its other areas of operation, such as land development and resort management, the end of the pineapple operations resulted in 208 employees losing their jobs (Gomes, 2009).

Although ML&P has ceased its pineapple operations, a smaller operation by the Maui Gold Pineapple Company, located in Hali`imaile and initiated by a group of former pineapple employees, currently cultivates approximately 1,350 acres of pineapple.

The recent economic recession has also impacted Maui County's agricultural industry. In August 2011, there were approximately 1,500 agricultural jobs in the County, compared to 1,700 in 2008 (State Department of Labor and Industrial Relations, 2011). Unfortunately, updated data is not available for other measures.

With the end of ML&P's pineapple operations on Maui, sugarcane is the last remaining plantation~~-scale~~ crop cultivated on the island. As shown in **Table ~~16~~28**, sugarcane accounted for 34,500 acres, or 15 percent, of the County's 230,000 acres of ~~farmland~~farm and ranch land in 2008. Diversified agriculture crops, such as vegetables and fruits, represented a much smaller proportion of the County's farmland. In 2008, 700 acres were being cultivated for vegetables and melons while 600 acres were used for growing other fruits, excluding pineapple.

Table ~~16~~28. Farm and Ranch Acreage for Select Crops, Maui County, 2004 and 2008

	2004	2008
Total	260,000	230,000
Sugarcane	34,800	34,500
Vegetables and melons	900	700
Fruits (excluding pineapple)	500	600

Note: Acreage data for other crops such as coffee, macadamia nuts, pineapples, and others not available to avoid disclosure of individual operations.
Source: Maui County Databook, 2010.
Prepared by: Munekiyo & Hiraga, Inc., 2011.

Consistent with data on farm acreage, sugarcane also represents a large proportion of crop sales in Maui County. In 2008, sugar sales totaled $34.5 million. See **Table ~~17~~29.** This represented nearly 24 percent of the $144.2 million total crop sales in the County that year. Vegetables, ginger root, herbs, and melon sales stood at approximately $6.6 million while fruit sales (excluding pineapple) totaled $2.4 million.

Table ~~17~~29. Crop Sales for Select Crops, Maui County, 2004 and 2008

	2004	2008
Total crop sales	$129,200,000	$144,231,000
Sugar (unprocessed cane)	$43,200,000	$34,500,000
Vegetables, ginger root, herbs, and melons	$9,632,000	$6,630,000
Fruits (excluding pineapple)	$1,316,000	$2,382,000
Flowers and Nursery Products	$9,535,000	$139,222,000

Note: Sales data for other crops such as coffee, macadamia nuts, pineapples, and others not available to avoid disclosure of individual operations.
Source: Maui County Databook, 2010.
Prepared by: Munekiyo & Hiraga, Inc., 2011.

While sugarcane represents a large share of farmland and crop sales in the County, the vast majority of farm establishments are smaller, diversified agriculture farms. **Table ~~18~~30** presents a breakdown of crop farms by type in Maui County. As shown, there were 651 crop farms in the County in 2008, representing 57 percent of the 1,150 total farms countywide. Among crop growers, fruits (excluding pineapple) and flowers and nursery products comprised the largest number of farms; there were 272 fruit farms and 200 flowers and nursery product farms in Maui County. Vegetable and melon farms also comprised a substantial share of crop farms, with 102 establishments in 2008.

Table ~~18~~30. Number of Crop Farms by Type, Maui County, 2004 and 2008

	2004	2008
Sugarcane	1	1
Pineapple	5	9
Vegetables and melons	107	102
Fruits (excluding pineapple)	260	272
Coffee	27	32
Macadamia Nuts	10	20
Taro	25	15
Flowers and nursery products	180	200
Total [(a)]	615	651

Note: [(a)] Represents total of crop farms only and therefore does not equal number of total farms in Maui County.
Source: Maui County Databook, 2010.
Prepared by: Munekiyo & Hiraga, Inc., 2011.

(1) Water Availability

As previously mentioned, Olowalu is a dry region with minimal rain. The original irrigation system in Olowalu was developed by the former sugar plantation companies. The system included diverting water from Olowalu Stream, as well as wells that pump groundwater. The water was delivered to the fields by way of ditches, tunnels, and pipes, as well as stored in reservoirs. Portions of the irrigation system are still in use today.

The Olowalu Water Company, LLC (OWC) was established in 2000 by Olowalu Elua Associates, LLC. OWC provides agricultural irrigation water as well as ~~potable~~ drinking water to the Olowalu region, including the Master Plan area for Alternatives 1 and 2. OWC received a Certificate of Public Convenience and Necessity (CPCN) from the State Public Utilities Commission (PUC) to provide ~~potable~~drinking water service in Olowalu in 2000 and non-~~potable~~drinking water service in 2003. In December 2007, OWC, LLC became OWC, Inc. The existing non-~~potable~~drinking water irrigation system services a 700-acre region in Olowalu.

According to the Impact on Water Resources Study prepared by Tom Nance, Water Resources Engineering, the non-~~potable irrigation~~drinking water system consists of a diversion from Olowalu Stream at a 502-foot elevation, a 1.1-mile long conveyance ditch and tunnel system, and a main open storage reservoir at about 306-foot elevation. The low head diversion dam on Olowalu Stream and the conveyance ditch system, referred to as Olowalu Ditch, was installed sometime prior to 1911. The open reservoir, which has an impervious liner is of more recent vintage. The system also has three (3) other lower-elevation, unlined reservoirs, one (1) of which is still in use. ~~See~~Refer to **Appendix "~~C~~D"**.

Historically, the ditch system has averaged four (4) to five (5) million gallons per day (MGD) and daily flows have rarely dropped below two (2) MGD. In addition to the ditch system, there are also two (2) existing skimming wells within the project site. State Well No. 4937-01, also known as Olowalu Shaft and Pump N, is currently unused and is available as a back up source of slightly brackish non-~~potable~~drinking water supply. The second onsite skimming well, State Well No. 4837-01 (the O Pump), is also unused and available (Tom Nance Water Resource Engineering, 2011).

The irrigation system in Olowalu is quite dated, with portions of it built in the late 19th and early 20th centuries. While portions of the irrigation system are currently in good condition, more intensive agricultural endeavors on the scale of the former plantation would likely require costly improvements and significant upgrades to the system. The actual scale and cost of improvements would depend on the type of crop being cultivated. In general, OWC, Inc. estimates that over $1 million would be required to restore the irrigation system to sufficiently support viable agriculture in Olowalu. The existing non-~~potable~~drinking water rates would not cover the costs for improvements to the irrigation system. In 2010, OWC, Inc. realized a loss of approximately $44,000.00 between both its ~~potable~~drinking and non-~~potable~~drinking water services. Additional expenditures to pay for improvements or upgrades to the irrigation system would need to be covered by an increase in non-~~potable~~drinking water rates. However, rate increases to support over $1 million in infrastructure

improvements would be very high and not feasible for agricultural users (Tremble, 2011).

OWC, Inc. currently has several agricultural customers for its non-~~potable~~drinking water service. These customers are largely located in areas where the irrigation is in better working condition. Due to ongoing losses OWC, Inc. has experienced, the PUC ~~recently~~ approved a rate increase for both the ~~potable~~drinking and non-~~potable~~drinking water service in Olowalu. Current non-~~potable~~drinking water service rates, effective ~~September 12, 2011~~March 12, 2012, are $~~0.95~~1.09 per thousand gallons, approximately ~~25~~15 percent higher than previous rates. Bulk users with over 1,000,000 gallons per month or owner/lessees of at least 50 acres are eligible for a reduced rate of $~~0.48~~0.58 per thousand gallons~~. Beginning March 12, 2012, non-potable water service rates will be $1.09 per thousand gallons and $0.55 per thousand gallons for bulk users~~ (Olowalu Water Company, ~~2011~~2015).

(2) <u>Locational Advantages and Disadvantages</u>

From an agriculture perspective, the Olowalu region has several key advantages. Located on the south facing slopes of the West Maui Mountains, the region receives ample sunlight for crop cultivation. Olowalu is also centrally located with respect to major markets on the island. Farmers in Olowalu have access to West Maui, South Maui, and Central Maui. In comparison, farmers in Upcountry are further removed from some of these markets. While farms in Olowalu benefit from proximity to various market areas on Maui, the farms themselves are relatively isolated from existing urban development. This is particularly beneficial for some agricultural uses that may not be compatible with residential or commercial uses.

Although Olowalu receives minimal rain, non-~~potable~~drinking water for agriculture is available from OWC, Inc. While the irrigation system may be dated and require improvements, a water source is available for agriculture cultivation in the area.

~~The primary~~A disadvantage associated with vacant agricultureal lands in Olowalu is the threat of wildfires. This dry region of the island is at risk for wildfires; there have been several large fires in Olowalu in recent history. Lands that were formerly cultivated for sugarcane have reverted to dry grassland and shrubland, serving as a fuel hazard for fires. In 2007, a wildfire destroyed a hydroponic farm in Olowalu, resulting in hundreds of thousands of dollars in damages to facilities and losses from plant production.

Another disadvantage of Olowalu is that it can be a windy region, creating challenges for particular crops. In addition, existing infrastructure is somewhat limited. For example, some farms in the area do not have infrastructure for ~~potable~~irrigation water in place, and to install this would be very costly.

(3) Olowalu Agricultural History

Sugarcane

Commercial sugar cultivation began in Olowalu in 1864. Sugar cultivation continued in Olowalu for over 100 years under the management of several different companies. The West Maui Sugar Association first planted sugar on crown lands in Olowalu and Ukumehame leased from Kamehameha V. The sugar industry slumped in the 1870s, and in 1874, the West Maui Sugar Association sold both its plantation and mill to the owners of the Pioneer Mill, another plantation located in West Maui.

~~In 1876, two (2) Maui residents started the Olowalu Plantation after acquiring former crown and *kuleana* lands in Olowalu and Ukumehame.~~ Milton Philip, a Lāhainā businessman, started to acquire land in Olowalu and Ukumehame in 1875. Another Maui resident, Goodale Armstrong, also acquired Olowalu property and together they formed what they called the Olowalu Plantation. Utilizing former crown and *kuleana* land, they started growing sugar in 1876 (Ainsworth, 2011).

In 1878, Olowalu Plantation produced six (6) tons of sugar per acre. The Olowalu Plantation was said to have *kipikua* (pickax) lands, because in order to plant and cultivate the soil it was necessary to use a pick and shovel. While the plantation utilized the most modern equipment in most areas, it practiced perhaps the most intensive cultivation methods in Hawai`i due to its stony soil. Approximately 20 percent of the plantation had to be cultivated with a pick. Despite containing much stone and rocks, the soil proved fertile for growing sugarcane.

By 1904, the Olowalu Company owned 98 acres of land and leased an additional 7,702 acres. However, of this total, only 450 acres could be utilized for growing sugarcane; 250 acres were used for pasturage, 400 acres was forest land, and 6,700 acres were considered non-productive land and gulches. Much of the leased land was secured to protect water rights.

Due to the dry conditions in Olowalu, the plantation was totally dependent on irrigation. In 1904, water moved along a six-mile supply ditch from Olowalu Valley and was distributed via four (4) miles of additional ditches. Water delivered by the supply ditch from Olowalu Stream amounted to 1,000,000 gallons per 24 hours. Water was stored in two (2) reservoirs with a total 1,000,000-gallon capacity.

In 1930, Olowalu produced 2,967 tons of sugar from 373 harvested acres (roughly eight (8) tons of sugar per acre). Olowalu's output represented only 1.5 percent of total Maui sugar production and 0.3 percent of the State's total. A total of 645 acres was under cultivation that year.

In 1931, Olowalu Company merged with Pioneer Mill Company, the company that would retain management and ownership of the lands through the end of sugar cultivation in the region. Pioneer Mill Company paid $400,000.00 for Olowalu Company, which included 1,178 acres of fee-simple land and all of its sugar equipment and railroad. The acquisition brought Pioneer Mill's total plantation size to more than 14,000 acres. At the time, Pioneer Mill was one of only five (5) sugar plantations remaining on Maui. With the merger, the

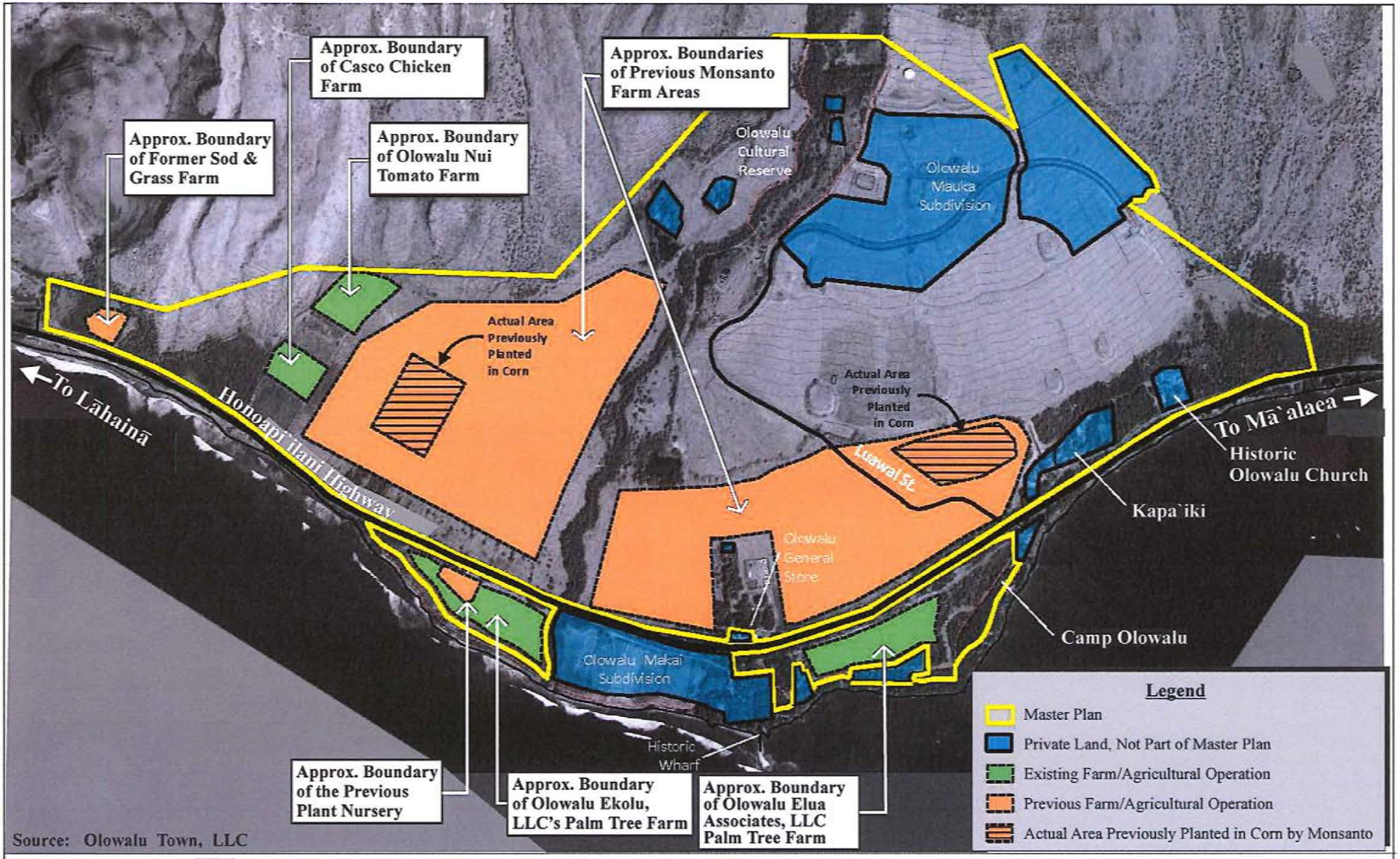
mill at Olowalu was closed and all milling operations were transferred to Pioneer Mill's Lāhainā mill. In 1932, Pioneer Mill produced 53,246 tons of sugar and employed approximately 2,400 people (Ainsworth).

The sugar industry underwent a dramatic transformation in the latter part of the 20th century. In 1990, there were 55 farms producing 6.5 million of cane statewide (Cai, 2004). By 1999, Pioneer Mill was one of the last remaining sugar plantations in Hawai`i, and one of only two (2) on Maui. However, Pioneer Mill was unable to compete with low sugar prices from foreign markets and claimed losses of over $9 million in its final six years of operation, ending in 1999 (Fischer). Amfac/JMB Hawaii, the parent company of Pioneer Mill, decided to close the operation in 1999. The Pioneer Mill processed its last harvest in the fall of 1999.

Approximately 500 acres of sugarcane was being cultivated in Olowalu when Olowalu Associates, LLC purchased the land from Pioneer Mill in 1998. Pioneer Mill retained the right to complete the last crop cycle on the land at the time of the sale. The last harvest of sugarcane in Olowalu occurred in 1999, the same year Pioneer Mill ended its operations.

Diversified Agriculture

Following the closure of Pioneer Mill, several unsuccessful agricultural endeavors were attempted on portions of former sugarcane land in Olowalu. These included a seed corn operation, grass and sod farm, and a plant nursery. **Figure ~~16~~25** illustrates the location of these unsuccessful agricultural ventures.



Source: Olowalu Town, LLC

Figure ~~16~~25

Proposed Olowalu Town Master Plan

Existing and Previous Agricultural Operations

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/AgOperations

- **Monsanto Seed Corn**

  Monsanto Hawaii leased land in Olowalu for seed corn cultivation between 2002 and 2005. Monsanto is a St. Louis, Missouri based company with locations around the world, including a presence in Hawai`i on Maui, Moloka`i, and O`ahu. In 2009, the company employed approximately 800 people in Hawai`i, with most of its efforts in the State focused on producing seed corn for the U.S. mainland market. About three-quarters of the Monsanto corn grown locally is genetically engineered (Leone, 2009).

  The company did not grow anything on its leased lands in Olowalu during the initial term of its lease between 2002 and 2004. In 2004, Monsanto extended its lease through 2007. Although Monsanto's lease was for approximately 215 acres of land, the company only cultivated a fraction of that. Beginning in 2004, the company cultivated seed corn on four (4) or five (5) acres of land in Olowalu. However, Monsanto ended its lease early in 2005. The company consolidated its operations on other properties on Maui (Tremble, 2011).

- **Grass and Sod Farm**

  A grass and sod farm was established on approximately five (5) acres of land in Olowalu, mauka of Honoapi`ilani Highway, near the former Olowalu Landfill. Refer to **Figure ~~16~~25**. The farm attempted to grow grass and sod for landscaping companies. However, the business never got off the ground and the farm effort was abandoned in 2004 after three (3) years (Tremble, 2011).

- **Plant Nursery**

  Another agricultural endeavor in Olowalu was a small plant nursery located makai of Honoapi`ilani Highway, north of the Olowalu General Store. Refer to **Figure ~~16~~25**. The nursery leased approximately two (2) acres of land from Olowalu Elua

Associates, LLC and attempted to grow a variety of plants for sale. The business, however, was unsuccessful. The high construction cost associated with the installation of Maui County's fire protection improvements to the nursery site contributed to the financial struggles of the nursery business. The plant nursery existed for approximately one (1) year between 2002 and 2003 (Tremble, 2011).

- **Casco Rooster Farm**

  Mr. Karl Casco leased approximately four (4) acres of land from Olowalu Elua Associates, Inc. on a portion of TMK(2)4-8-003:114 and 115 for his rooster farm and to raise goats and pigs. Refer to **Figure 25**. Mr. Casco signed a lease in April 2009 for two (2) years, with renewal in one (1) year increments. In August 2013, Mr. Casco relocated his rooster farm elsewhere and ceased his farming operations in Olowalu (West Maui Land Company, 2015).

Existing Agriculture and Related Uses

~~The majority~~Most of the former sugarcane lands now remain ~~vacant and~~ fallow. Existing agricultural activities within the Master Plan area for Alternatives 1 and 2 are limited to a few small commercial farms ~~and~~, several informal agricultural uses and other related uses. These uses are described below and their locations are also illustrated in **Figure ~~16~~25** presented earlier.

- **Olowalu Nui ~~Hydroponic Tomato~~ Farm**

  ~~The~~Olowalu Nui Farm is registered as Olowalu Nui Hydroponic Tomato Farm (Olowalu Nui) and leases approximately four (4) acres of land from Olowalu Elua Associates on a portion of TMK No. (2) 4-8-003:115 (por.) and 117 (por.). Olowalu Nui grows tomatoes and other vegetables hydroponically in greenhouses, and also grows various fruit and palm trees on adjoining land.

The Olowalu Nui farm was owned by Mr. Jon Applegate, who owned several restaurants on Maui, including a few in West Maui. Mr. Applegate passed away in June 2011 and the ~~tomato~~ farm is currently managed by his wife, Ms. Connie Applegate.

Olowalu Nui originated in Hana, where the farm cultivated seven (7) acres of land for seven (7) years. In 2001, Olowalu Nui relocated to Olowalu and began leasing land from Olowalu Elua Associates, LLC. The initial lease began with a 5-year term that was extended for another five (5) years. Over the first 10 years of the lease, the tomato farm paid heavily ~~subsidized~~discounted rents to Olowalu Elua Associates, LLC. Rent payments totaled approximately $300 per year and Olowalu Elua Associates, LLC paid for water used by the farm.

~~In January 2011,~~ Olowalu Nui ~~entered into a new one-year~~continues to lease ~~for the~~ land in Olowalu. Under the current lease, the farm ~~paid $500.00~~pays $900.00 per month ~~over the first six (6) months of the lease and $900.00 per month during the last (6) months of the lease~~with annual increases of 15 percent (West Maui Land Company, 2015). Olowalu Nui is also ~~now~~ responsible for paying for all of its water use provided by the OWC, Inc. Between ~~January~~March 2014 and ~~August 2011~~March 2015, Olowalu Nui used an average of ~~433,000~~230,916 gallons of non-~~potable~~drinking water per month, with an average monthly water bill of $~~330~~251 (Olowalu Water Company, Inc., ~~2011~~2015). ~~The average monthly water bill, however, represents costs prior to OWC, Inc.'s rate increase in September 2011.~~

Olowalu Nui ~~grows~~has grown four (4) varieties of tomatoes and other vegetables using hydroponics, a method of growing plants that uses mineral nutrient solutions in water, without soil. In addition to tomatoes, the farm ~~grows~~has grown a small amount of lettuce, cucumber, peppers, basil, parsley, cilantro, and other herbs using hydroponics. These crops are grown in

five (5) greenhouses on the property. Olowalu Nui also has approximately 200 citrus trees, as well as approximately 600 ~~coconut~~palm, banana, papaya, and mango trees. The farm sells its crops to restaurants and retail stores in West, Central, and South Maui. The farm in Olowalu is centrally located to these various destinations. The palms are sold to Maui landscapers and individuals.

Olowalu Nui suffered a major setback in 2007 when a wildfire destroyed the entire property, including the greenhouses the farm had built. The farm was profitable in 2007 prior to the fire. However, the fire caused $600,000.00 in damages and losses from plant production. ~~Since~~After the fire, the farm ~~has been operating~~operated at a loss for many years due to low production yields. Olowalu Nui built new greenhouses and repaired its facilities in 2010 and early 2011. ~~Now that repairs have been completed, the farm is hoping to return~~ In recent years, the farm has returned to profitability ~~in the next few months (Applegate, 2011)~~(Plasch, 2015). See **Appendix "~~L-1~~N-1"**.

Olowalu Nui Farm is located in an area that is planned for rural lots, a rural park, portions of an interior road, and a portion of the corridor for the realigned Honoapi`ilani Highway, which will require the farm to relocate. Olowalu Nui Farm estimates that the cost to relocate the hydroponic component of the farm would be about $50,000. This cost covers the effort to disassemble the greenhouses and equipment, move them, then reassembling them at the new location. After operations cease at the existing location, the farm could lose up to eight (8) months of production and its associated revenues before newly planted crops are produced at the new location. Another alternative is for the farm to invest in new facilities at the new site, then disassemble the existing facilities.

The Applicants have initiated discussions with Olowalu Nui Farm and will continue to engage the owner in discussions as

plans for the project progresses. Consistent with their current approach, it is recommended that the developers remain flexible regarding two (2) alternatives:

- Modify the project plan so that Olowalu Nui Farm can continue at its current location, and possibly provide some additional farmland to offset land that will be lost to roads in the project.

- Assist with the cost to relocate Olowalu Nui Farm with new facilities built before the move so that production and revenues can be maintained during the transition.

- ~~**Casco Rooster Farm**~~

~~Mr. Karl Casco leases approximately four (4) acres of land from Olowalu Elua Associates, Inc. on a portion of TMK (2) 4-8-003:114. Mr. Casco relocated his rooster farm from Lāhainā to Olowalu in 2009 due to nuisance complaints from neighbors at the former location. The lease signed in April 2009 was for two (2) years, with renewal in one (1) year increments. Monthly rent for the 4-acre property is $600.00; the farm operation is responsible for paying for its water usage. Between January and August 2011, the rooster farm used an average of 113,000 gallons of water per month. The average monthly water bill paid by the farm during this time period, before the recent OWC, Inc. rate increase, was approximately $86.00 per month. The water costs for the farm, however, are highly seasonal. During the hot and drier months, the water bill has exceeded $200.00 (Olowalu Water Company, Inc., 2011).~~

~~The Casco Rooster Farm raises approximately 250 roosters; there are no hens at the farm. The farm acquires chicks from hens that Mr. Casco used to own but gave away to others to raise. In addition, Mr. Casco raises goats and some pigs. There are currently about 15 goats at the farm. The goats roam within the fenced areas of the farm and help to control the grass growing on the property. Currently, there are five (5)~~

~~pigs at the farm. The roosters are the primary focus of the farm while the goats are raised to help with additional costs and to control the grass. The pigs are raised on just a small-scale, intermittent basis.~~

~~The Casco Rooster Farm sells its roosters primarily in the Philippines. Mr. Casco takes two (2) trips to the Philippines per year to sell the roosters. In addition to sales in the Philippines, the farm does sell some roosters locally in Hawaii. Mr. Casco also sells the goats and pigs on his farm. The sale of these animals take place at his farm. The revenues from rooster, goat, and pig sales allow the farm to break even financially. The sales help to cover the lease payments, water bill, and feed (Casco, 2011). See **Appendix "L-1"**.~~

- **Olowalu Ekolu, LLC Palm Tree Farm**

Olowalu Ekolu, LLC, operates a palm tree farm on approximately 10 acres of property which it owns (Tax Map Key: (2) 4-8-003:124) and is located on the north side of Olowalu Stream and makai of Honoapi`ilani Highway. Refer to **Figure ~~16~~25**. Olowalu Ekolu, LLC hires a company who manages and maintains the operation; which costs approximately $750.00 a month. The farm spends an average of $450.00 on 500,000 gallons of water a month. The palms are sold locally on Maui to landscape companies as well as individuals, generating approximately $4,700.00 annually, covering expenses (Tremble, 2011). Olowalu Ekolu, LLC views the operation as a temporary income-generating use for the property. Olowalu Ekolu, LLC intends to continue the farming operation up until the development of Olowalu Town.

- **Olowalu Elua Associates, LLC Palm Tree Farm**

Similar to Olowalu Ekolu, LLC, Olowalu Elua Associates, LLC operates a palm tree farm on approximately ten (10) acres of property which it owns (Tax Map Key (2) 4-8-003:084) and

is located on the makai side of Honoapi`ilani Highway, north of Camp Olowalu. Refer to **Figure ~~16~~25**. Olowalu Elua Associates, LLC manages and maintains the operation. The farm spends an average of $450.00 on 500,000 gallons of water a month. The palms are sold locally on Maui to landscape companies as well as individuals, generating approximately $3,000.00 annually, covering expenses (Tremble, 2011). As is the case with Olowalu Ekolu, LLC, Olowalu Elua Associates, LLC views the operation as a temporary income-generating use for the property. Olowalu Elua Associates, LLC intends to continue the farming operation up until the development of Olowalu Town.

- **Olowalu Cultural Reserve**

The Olowalu Cultural Reserve (OCR) supports and promotes the revitalization of traditional Hawaiian culture by providing cultural and educational experiences for Hawai`i residents and visitors. The OCR is restoring former irrigation systems and lo`i for taro cultivation, and is planting other native crops. Currently, about five (5) acres are used to demonstrate the cultivation of taro, sweet potato, breadfruit, banana, sugarcane, kukui, ti, kava, and many other crops. Project plans include expanding the OCR, which will allow more varieties and greater quantities of native crops to be grown at the OCR.

- **Informal Uses**

In addition to the formal agricultural leases, there are several informal agricultural uses within the Master Plan Area for Alternatives 1 and 2. Olowalu Elua Associates, LLC allows a small-scale subsistence cattle rancher to use approximately 200 acres of land for grazing. The rancher raises approximately 20 head of cattle in Olowalu. There is no formal lease for this grazing use and the rancher does not pay rent. Similar to the cattle rancher, Olowalu Elua Associates, LLC allows a small retired horse ranch to utilize its lands for grazing at no charge. These grazing activities are viewed as a temporary use that is

mutually beneficial to both the ranchers and Olowalu Elua Associates, LLC. The ranchers are able to utilize land for grazing at no cost. The grazing helps to control weeds and grasses on the property, mitigating fire hazards.

In addition to small scale cattle and horse ranching, there is a small juice and fruit stand and garden. The juice and fruit stand is located on the mauka side of Honoapi`ilani Highway near Olowalu General Store. In addition to the roadside stand, the operator cultivates a variety of fruit on approximately 0.75 acre of land adjacent to the stand. The fruit grown on this land is sold at the roadside stand. The stand operator provides a proof of insurance and pays for water usage, but does not make annual rent payments.

- **Maui Paintball**

Mr. Clint Hansen operates Maui Paintball on TMK(2)4-8-003:113 (por.) and 114 (por.) in Olowalu. County Special Permit No. CUP 2011/0001 was approved by the Maui Planning Commission on November 22, 2011, which allows the paintball operation in the County Agricultural District on ten (10) acres of land. The permit will expire on September 30, 2016 unless a time extension is granted. Also, Special Management Area Minor Permit No. SM2 2011/0108 was issued on November 28, 2011 for the construction of the paintball fields and related improvements. Maui Paintball is currently in operation. This is a temporary use on the properties (West Maui Land Company, 2015).

b. Potential Impacts and Mitigation Measures

Since preparation of the Draft EIS, an Impacts on Agriculture Study was prepared by Plasch Econ Pacific LLC. Refer to **Appendix "N-1".**

1. Impact on the Supply of Agricultural Land

The proposed Master Plan for Alternative 1 involves the reclassification of approximately ~~460~~434 acres of "Agricultural" lands to the "Urban" and "Rural" State Land Use designations. Approximately ~~290~~266 acres would be reclassified to "Urban" while ~~170~~168 acres would be reclassified to "Rural". Alternative 2 involves the reclassification of approximately 396 acres of agricultural lands. Approximately 228 acres to Urban and 168 acres to Rural. In total, the reclassification of ~~460 acres of~~ "Agricultural" lands represents approximately less than 0.2 percent of the roughly ~~235,770~~242,720 acres of "Agricultural" lands on the island of Maui.

Since 1990, the contraction and eventual closure of Pioneer Mill Co. (sugarcane) and Maui Land and Pineapple Co. released over 19,000 acres of good farmland in Central and West Maui. While some of this former plantation land was planted in other crops (e.g., seed corn and coffee) and some were developed for homes, most of it remains available for farming. Since the closure of Pioneer Mill Co. there have been other agricultural uses in Olowalu as identified in **Figure 25**. Currently, the majority of the agricultural lands in Olowalu have remained fallow with only Olowalu Nui Farm, Olowalu Ekolu Palm Tree Farm, and Olowalu Elua Palm Tree Farm in operation.

2. Impact on Diversified Agriculture Opportunities in the Region

The ~~project~~two (2) alternatives will result in the loss of agricultural lands that could be used for diversified agriculture. However, the decline of plantation agriculture on Maui and statewide, has made additional land available for diversified agriculture. The amount of land released from plantation agriculture has exceeded the demand for diversified agriculture lands. The closure of Wailuku Sugar Company and Pioneer Mill, as well as Maui Land & Pineapple Company's exit from the pineapple growing business in 2009 has resulted in thousands of acres of land being released from plantation agriculture. While some of these former plantation lands have been developed, converted to other uses, or used to cultivate other crops, much of it has remained fallow or been used for grazing. As such, the proposed reclassification

of ~~460~~approximately 434 and 396 acres, respectively, of "Agricultural" lands in Olowalu is not expected to impact diversified agriculture on Maui or in the State as a whole.

Assuming typical field farming of vegetables, annual production of food crops by small farms could total over 650,000 pounds per year, thereby contributing to food self-sufficiency and food security. Farm employment could total about three (3) full-time equivalent farm jobs.

For comparison, the entire County has an estimated 1,700 acres in food crops (vegetables, melons, and fruits) grown mostly for the Hawai`i market. Statewide, the supply of good farmland exceeds 170,000 acres compared to about 87,400 acres in crop, of which about 10,300 acres are food crops grown mostly for the Hawai`i market, and about 77,100 acres are crops grown mostly for export (sugar, seeds, macadamia nuts, coffee, etc.). The supply of available farmland is large because all but two (2) of Hawai`i's many sugar and pineapple plantations closed.

Hawai`i has a long history of strong support of agriculture. But since 1983, there has been no significant growth in diversified crop acreage with the single exception of seed corn, which has grown at an average rate of 300 acres per year. Following the closures of plantations on O`ahu, food-crop acreage expanded there, but this was followed by declines on the Neighbor Islands.

The Olowalu Nui farm and ~~rooster farm~~other agricultural operations were ~~heavily subsidized~~strongly supported by the landowners ~~during its start years where rents were~~in terms of rents and water rates that were not charged ~~and only until recently water has been charged~~or heavily discounted, especially during the initial years of operations. Land, climatic, and economic conditions remain challenging, as evidenced by the limited number of establishments that have succeeded in cultivating on former sugarcane lands in Olowalu. The soils within the Master Plan area for Alternatives 1 and 2 contain rocks and stones, requiring more intensive cultivation methods than other areas. In addition, new agricultural ventures in Olowalu would require costly infrastructure improvements to start up. As previously

mentioned, the irrigation system is dated and would require improvements and upgrades for most new ventures. OWC, Inc. estimates that an upgrade to the irrigation system would cost over $1 million (Tremble, 2011).

Crops that may be grown in Olowalu include bananas, nursery products, papayas, pineapples, and vegetables, among others. Coffee has been grown in some areas formerly used for plantation agriculture, including Kā`anapali on the slopes of the West Maui Mountains. However, Olowalu lands are not ideal for coffee production. Cloudless, dry, high-temperature areas are not favorable to coffee. Temperature is the key factor in coffee production and the Olowalu area is too hot for this crop (Bittenbender, 2008).

In addition to traditional crops, interest in biofuel crops has grown, particularly in response to efforts to reduce Hawai`i's dependence on imported fossil fuels. Crops can be grown to produce biomass or serve as feedstock to produce fuels. However, large land areas are required to achieve viability for biofuel crops. Oahu Ethanol Corporation, for example, aims to have 15,000 acres for growing sweet sorghum. Their initial goal was to start with 5,000 to 7,200 acres (Yerton, 2006). This amount far exceeds Olowalu Town's 636 acres.

Alternatively, hydroponic farming could produce about 4.6 million pounds per year, or the equivalent of about 190 acres in field farming.

According to the Impacts on Agriculture Study, in advanced economies, such as Europe, the U.S. mainland, and Hawai`i, there is a strong and well-established trend of growing vegetables and melons hydroponically in greenhouses. For example, most tomatoes sold in U.S. supermarkets are now grown hydroponically. In comparison to field farming, hydroponic farming in greenhouses provides higher quality produce; generates far higher yields; allows for year-round production regardless of season; provides secure production unaffected by droughts and storms; does not require good-quality farmland; requires much less land, water and energy; and requires no pesticides or herbicides.

The Master Plan for Alternatives 1 and 2 will result in a relatively small loss of prime agricultural land. With the relatively slow growth in demand for farmland over the past 30 years, and the trends toward hydroponic farming, agricultural productivity requirements can be effectively and efficiently addressed through modern and technologically advanced farming methods. As a result, ample farmland will remain available to accommodate the future growth of diversified agriculture, food self-sufficiency, and food security. In compliance with constitutional mandates and State and County plans, more than sufficient land is being preserved to accommodate the future growth of agriculture while addressing other community needs (i.e., housing, commercial and industrial needs, recreation, etc.).

The primary factors that have limited the growth of diversified agriculture in Hawai`i are listed below:

- Hawai`i's subtropical climate is not well-suited to the commercial production of major crops that grow better in the temperate mainland climates.
- For certain crops, special hybrids adapted to Hawai`i's subtropical climate are yet to be developed.
- For some crops, local varieties are not perfect substitutes for imports (e.g., premium-priced sweet Maui onions versus inexpensive storage onions).
- Crop pests are more prevalent and more expensive to control in Hawai`i than they are on the mainland where the cold winters kill many pests.
- Fruit-fly infestations prevent exportation of many crops, or require expensive treatment.
- Most soils in Hawai`i have low nutrient levels and therefore require high expenditures for fertilizer.
- Hawai`i suffers from high farm-labor costs, largely because the agriculture industry must compete against the visitor industry and related industries for its labor.

- Compared to many other farm areas that supply U.S. markets, the cost of shipping agricultural supplies and equipment to Hawai`i is high, as is the cost of exporting produce from Hawai`i to mainland markets. High shipping costs are due to Hawai`i's remote location and to Federal regulations that require use of American built ships and U.S. crews between U.S. ports.

- For a number of crops, consumption volumes in Hawai`i are too small to support large, efficient farms (i.e., the volumes are too small to realize economies of scale).

- Trends toward crops that are certified as safe and toward a single supplier of many food items favor large farms.

- Hawai`i farmers must compete against highly efficient mainland and foreign farms which, in a number of cases, can deliver produce to Hawai`i more cheaply than can local producers. This is due to economies of scale and, in comparison to Hawai`i, low costs for land, labor, supplies, fertilizer, pest control, equipment, etc.

- Some crops cannot be produced profitably in the summer due to competition from low-cost fruit and vegetable imports from California, other states, and Mexico.

Impact on Existing Agriculture

While Olowalu lands were once used for sugarcane cultivation, ~~the majority~~most of the "Agricultural" lands in the Master Plan area has remained fallow since the closure of Pioneer Mill in 1999. The primary agricultural uses within the Master Plan area for Alternatives 1 and 2 today are the Olowalu Nui farm, ~~rooster farm,~~ and the palm tree farms. The palm tree farms, which ~~is~~are operated by the project's landowners, Olowalu Ekolu, LLC~~, is~~ and Olowalu Elua, LLC are viewed as ~~a~~ temporary agricultural endeavors that will cease when development of Olowalu Town commences. Olowalu Ekolu, LLC and Olowalu Elua, LLC do~~es~~ not plan for the long term operation of the palm tree farms and do~~es~~ not plan to relocate it to another location.

Olowalu Nui Hydroponic ~~Tomato~~ Farm

The Olowalu Nui farm is located on the fringe of the proposed Olowalu Town, in an area of the Master Plan for Alternatives 1 and 2 designated for rural lots and rural/park land. The project developers have discussed the proposed Master Plan with the farm owner and will continue to engage the owner in discussions as plans for Olowalu Town progress. The project developers will maintain flexibility in land uses to allow for Olowalu Nui farm to continue to operate in its current location if it wishes to or provide assistance to the farm if it were to relocate to one of the agricultural lots adjacent to Olowalu Stream.

~~Casco Rooster Farm~~

~~If residential or commercial uses were developed in areas surrounding the Casco Rooster Farm, nuisance complaints associated with noise would be anticipated. Roosters naturally crow and there are not many mitigation measures to control this noise.~~

~~Casco Rooster Farm does not have replacement land currently available if they were required to relocate from Olowalu. Mr. Casco indicated that he would look at other areas on the island and would relocate somewhere if the relocation area has no plans for development in the foreseeable future. Mr. Casco noted that a lengthy relocation period, such as six (6) months, would make the relocation process much more affordable. This would allow Mr. Casco to do the improvements and relocation slowly over time. Due to the nature of the farm, the relocation process would not result in the loss of animals or sales. The project developers have discussed the proposed Olowalu Town with Mr. Casco and will continue to coordinate with him as plans for the development progress. The project developers will explore ways to assist Casco Rooster Farm, if relocation is necessary.~~

Other Agriculture

The other existing agricultural uses within the Master Plan area for Alternatives 1 and 2 are limited to informal uses such as cattle and

horse grazing and a roadside fruit and juice stand. The project developers will discuss the proposed Olowalu Town project with these agricultural users and provide ample notification prior to development in the areas that would affect them.

Impact on Surrounding Agricultural Uses

Lands mauka of the proposed Master Plan for Alternatives 1 and 2 are designated as "Agricultural" by the State Land Use Commission. The majority of the "Agricultural" lands surrounding Olowalu Town is owned by the State of Hawai`i and is primarily fallow.

Olowalu Town has been designed to minimize potential impacts to surrounding agricultural uses. In particular, urban uses will be concentrated makai of the proposed relocated and widened Honoapi`ilani Highway. Lands closest to surrounding "Agricultural" lands will be designated as "Rural" and will be limited to low-density rural lots. The "Rural" designated lands are envisioned as a transition zone between the agricultural lands and the proposed urban town centers. This buffer zone of low-density rural lots seeks to mitigate potential nuisance complaints related to any future agricultural endeavors on the surrounding lands from new residents or businesses in the urban areas of Olowalu Town.

Proposed Agricultural Lots and Other Offsetting Benefits

Although the proposed Olowalu Town will commit agricultural lands to other uses, it will provide for agricultural lots along Olowalu Stream. Approximately ~~40 to 50~~28 acres are planned for agricultural and farming activities. These lots, which will be a minimum of two (2) acres each, will be located along Olowalu Stream. ~~Between 15 and 20~~About 14 agricultural lots are planned in the Master Plan for Alternatives 1 and 2. The development of the infrastructure, such as the ~~potable~~drinking and R-1 recycled water transmission lines and roadway systems, will benefit existing and future agricultural uses that will utilize the same infrastructure.

In addition to providing agricultural lots, the Master Plan for Alternatives 1 and 2 will provide other benefits to the community and surrounding areas. The project will convert underutilized vacant lands into a sustainable, mixed-use community. By developing areas currently dominated by dry vegetation, the project will also reduce wildfire threats by removing fuel for fires. Doing so will benefit surrounding agricultural lands, which are threatened by wildfires. In summary, the benefits of the proposed project are expected to outweigh the loss of ~~460~~434 and 396 acres, respectively, of "Agricultural" land.

4. Housing

a. Existing Conditions

In Olowalu, the 2010 U.S. Census recorded a total of 40 housing units. Thirty-five of the units were occupied, of which 14 were owner-occupied and 21 were renter-occupied. Of the remaining five (5) units, four (4) were used seasonally and one (1) was vacant.

Maui's real estate market saw significant increases between 2000 and 2005. However, like many places across the State and nation, the County experienced a downturn in its housing market in recent years due to the economic recession and more stringent lending practices. Through 2009, residential sales statistics showed lower median prices, lower sales volume, and longer marketing times. ~~However, 2010 and 2011 show some evidence of stability. Between~~However, between January 1, ~~2011~~2014 and ~~September 30, 2011~~December 31, 2014, the median sales price for single-family residences and condominiums in Maui County was $~~432,000.00~~530,000.00 and $~~314,000.00~~373,000.00, respectively. ~~Housing~~Single-family housing prices in Lāhainā are higher than prices in the County as a whole, while condominiums were slightly lower. During the same time period, the median price for a single-family home in Lāhainā was $~~606,050.00~~606,250.00 while condominiums sold for a median price of $~~345,000.00~~352,000.00. During the same period for Olowalu, two (2) homes were sold at a median sales price of $1,175,000.00 There are no condominiums in Olowalu, while two (2) lots were sold with a median sales price of $3,775,000.00 (Realtors Association of Maui, ~~November 2011~~March 2015).

Socio-economic forecast data prepared for the County of Maui's 2030 General Plan Update process reflect a continuing increase in housing demand through the planning horizon year of 2030. For the Lāhainā region, total housing demand for the year 2030 is estimated to be 15,037 units, with a total resident demand of 11,369 units. These figures compare to the 2005 housing demand estimate of 7,644 units and a 2005 resident demand of 7,121 units (County of Maui, June 2006).

Socio-economic forecast data prepared for the County of Maui's 2030 General Plan Update process reflect a continuing increase in housing demand through the planning horizon year of 2030. The 2011 Hawai`i Housing Study prepared for the Department of Housing and Human Concerns also indicated the continuing increase in housing demand. Of the 48,817 units in the County of Maui in 2011, West Maui has 4,022 units. Twenty-one (21) percent of the units were crowded, double-up, or both indicating a shortage of resident housing. By comparison, County-wide the units that were crowded, double-up, or both was 19 percent. The MIP adopted in 2012 identified future growth areas to meet future housing demand and included Olowalu Town in the plan's Urban and Rural Growth Boundaries.

b. <u>Potential Impacts and Mitigation Measures</u>

Although the MIP allocates housing to the various community plan regions, it is also important to recognize that those seeking housing opportunities do not necessarily observe projections identified in each of the community plan regions. Other factors determine where residents choose to live, such as, but not limited to location, cost, housing types, available services, employment, recreation, and the environment. Therefore, although the forecasts used in the MIP indicates a surplus of dwelling units in the West Maui Community Plan area, the availability of units associated with the Master Plan for Alternatives 1 and 2 should not be restricted to only West Maui but should be considered in the context of the housing needs of the entire island of Maui.

The projections of the Planning Department held value and purpose with respect to guiding land use allocation decisions through the MIP development process. The projections should be considered a long range planning tool with a degree of flexibility. From a project planning and development standpoint, factors which affect development feasibility and timing include

market conditions, financial capacity of the development entity, and regulatory, infrastructural and policy considerations affecting a particular parcel or region (e.g. water availability).

In the 18 years leading up to 2030, there will likely be fallout in the planned projects that comprise the 11,369 forecasted units. In the past there have been numerous projects planned and approved which have been either delayed or never built. Whether for financial reasons or regulatory or policy constraints, certain projects will not be built. From a technical and analytical standpoint, the assumption that some projects will not be implemented, combined with an unconstrained free market assumption (i.e., units in West Maui will not necessarily be purchased by those living in West Maui), provides a reasonable basis for deriving market absorption conclusions as set forth in **Appendix "L"**.

The Master Plan for Alternatives 1 and 2 will provide approximately 1,500 residential units in a variety of product types including much needed affordable housing. ~~A~~The Market Study which was prepared for the proposed project estimated that the project's 1,500 units could be absorbed within eight (8) to 10 years. Refer to **Appendix "~~K~~L"**.

The Master Plan for Alternatives 1 and 2 will heavily target the workforce market segment desiring a small-scale community environment. Statistical evidence has shown that regardless of conditions, this market segment has the most demand. Although the pricing of the project units have not been determined, the proposed ~~project is~~alternatives are anticipated to give entry level market participants an opportunity for home ownership.

The ~~proposed project is~~alternatives are subject to the workforce housing requirement as set out in the Residential Workforce Housing Ordinance enacted in December 2006 (MCC, Section 2.96.040) and amended by Ordinance No. 4177 effective December 22, 2014. ~~The ordinance provides that residential developments where more than half of the units and/or lots in the development sell for less than $600,000.00, at least 25 percent of the total number of units and/or lots must be made affordable to workforce households. In developments where more than half of the units and/or lots sell for more than $600,000.00, at least 50 percent of the total number of units and/or lots must be made affordable to workforce households. It is noted that the~~

~~foregoing requirements apply to projects where workforce housing is provided on-site.~~

The Master Plan for Alternatives 1 and 2 will provide ~~750~~ affordable units ~~to meet the Workforce Housing Ordinance requirements. Previously, **Table 4** provided a breakdown of the proposed affordable units by income category~~in accordance with Chapter 2.96, MCC. The allocation of units across income categories will comply with the requirements set forth ~~in the Workforce Housing Ordinance~~in a housing agreement with the County's Department of Housing and Human Concerns.

Sale prices for the affordable units will be based on County standards and median income levels at the time of sale. Although the sale prices of the market units have not been set, the proposed project is intended to serve the workforce housing demand for Maui residents. As such, residents will have selection priority over non-residents, consistent with County regulations. ~~The required workforce housing units will remain affordable for 25 years and will be subject to the resale restrictions established in the Workforce Housing Ordinance.~~See **Appendix "O"**.

Infrastructure improvements will be phased concurrently with residential development within the Master Plan for Alternatives 1 and 2 to ensure that new residences are adequately served by basic services.

C. PUBLIC SERVICES

1. Solid Waste Disposal

a. Existing Conditions

~~Single~~The County of Maui provides single-family residential solid waste collection service ~~is provided by the County of Maui~~ on a weekly basis. Residential solid waste collected by County crews is disposed at the County's Central Maui Landfill, located four (4) miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts commercial waste from private collection companies. The County of Maui's 2009 Integrated Solid Waste Management Plan (ISWMP) utilized the 2030

population projections and estimates that the Central Maui Landfill has adequate capacity to accommodate commercial and residential waste needs through the year 2026 (Gershman, Brickner & Bratton, Inc., 2009). Privately owned facilities, such as the Maui Demolition and Construction Landfill and the Pohakulepo Concrete Recycling Facility, accept solid waste and concrete from demolition and construction activities. These facilities are located at Mā`alaea, near Honoapi`ilani Highway's junction with North Kihei Road and Kūihelani Highway. A County supported green waste recycling facility is located at the Central Maui Landfill.

To facilitate solid waste collection services for the West Maui region, a refuse transfer station, referred to as the Olowalu Recycling and Refuse Convenience Center, has been established at the former County Olowalu Landfill site which is located immediately adjacent to the northern boundary of the Master Plan. Refer to **Figure 4**. The County of Maui does not provide solid waste collection in the Olowalu area.

b. <u>Potential Impacts and Mitigation Measures</u>

According to the Department of Environmental Management (DEM), Solid Waste Division, as Olowalu Town is constructed and the number of homes increase the County of Maui can make provisions to service the single-family homes in the area with one (1) automated truck and driver which can accommodate up to 1,000 single-family residential homes. The single- family residential users will pay appropriate user fees to the County of Maui for its solid waste collection. Solid waste collection for the multi-family units, commercial and public facilities will require a private refuse collection company (Takamine, 2012).

All solid waste generated by the proposed project will be disposed of at the Central Maui Landfill in Pu`unēnē by County collection crews or private refuse collection company, as applicable.

According to the ISWMP, the per-capita residential waste disposal rate for Maui island, excluding Hana, is 2.3 tons per household annually. Based on this waste disposal rate per household, at full-build-out, the proposed project is expected to generate approximately 3,450 tons of residential solid waste annually. The per-capita waste disposal rate for commercial uses in the

ISWMP is 1.58 tons per employee annually. The commercial uses in the Master Plan ~~are~~for Alternatives 1 and 2 is expected to generate 1,000 jobs. At full-build out, commercial solid waste is expected to be 1,580 tons annually. Total solid waste from the Master Plan for Alternatives 1 and 2 is expected to be approximately 5,030 tons annually. In 2007, the ISWMP estimated the existing Central Maui Landfill (Phases IV-VI) had remaining capacity of 780,000 tons. According to the ISWMP, the existing landfill has adequate capacity to accommodate residential and commercial waste needs through the year 2026 which is within the build-out period of the Master Plan for Alternatives 1 and 2. In the ISWMP, the ~~Department of Environmental Management (~~DEM~~)~~ anticipates that additional land will be acquired for future capacity at the landfill (Integrated Solid Waste Management Plan, 2009).

Since the preparation of the Draft EIS, the County of Maui on January 10, 2014 signed an agreement with Maui Resource Recovery Facility, LLC to finance, design, build, own and operate an Integrated Waste Conversion and Energy Facility on Maui that is expected to divert approximately 85 percent of the County's municipal solid waste from the Central Maui Landfill (Pacific Business News, 2014). The facility is expected to be fully operational in 2018 (Maui News, 2015). It is expected the new facility will extend the capacity of the Central Maui Landfill to meet the future solid waste needs for the island of Maui, including the Master Plan areas for Alternatives 1 and 2.

~~As~~Further, as a LEED ND project, the Master Plan for Alternatives 1 and 2 will be built upon practices aimed at reducing the amount of solid waste generated by the project. As such, a solid waste management program will be incorporated into the Master Plan for Alternatives 1 and 2 to reduce solid waste generated by the project. Additionally, recycling will be a major component of the solid waste management program. The following recommended measures by LEED ND will be considered for the Master Plan for Alternatives 1 and 2:

- Include as part of the *project* at least one (1) recycling or reuse station, available to all project occupants, dedicated to the separation, collection, and storage of materials for recycling; or locate the project in a local government jurisdiction that provides recycling services. The recyclable materials must include, at a minimum, paper, corrugated cardboard, glass, plastics and metals.

- Include as part of the project at least one (1) drop-off point, available to all project occupants, for potentially hazardous office or household wastes; or locate the project in a local government jurisdiction that provides collection services. Examples of household hazardous wastes include paints, solvents, oil, and batteries. If a plan for post collection disposal or use does not exist, establish one.

- Include as part of the project at least one (1) compost station or location, available to all project occupants, dedicated to the collection and composting of food and yard wastes; or locate the project in a local government jurisdiction that provides composting services. If a plan for post collection use does not exist, establish one.

- On every mixed-use or nonresidential *block* or at least every 800 feet, whichever is shorter, include recycling containers adjacent to other receptacles or recycling containers integrated into the design of the receptacle.

- Recycle and/or salvage at least 50 percent of nonhazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and specifies whether the materials will be stored on-site or comingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume but must be consistent throughout.

As the project progresses, a solid waste management plan will be developed for the Master Plan for Alternatives 1 and 2 prior to its implementation.

2. Medical Facilities

a. Existing Conditions

The only major medical facility on the Island is Maui Memorial Medical Center, located approximately 16 miles from Olowalu, midway between Wailuku and Kahului. The ~~231~~213-bed facility provides general, acute, and emergency care services (Maui Memorial Medical Center, 2014). A West Maui Hospital is proposed near ~~the Lāhainā Civic Center complex at~~ Ka`anapali.

Regular hours are offered by private medical practices in Lāhainā, which include the Maui Medical Group, Lāhainā Physicians, West Maui Healthcare Center, and Kaiser Permanente Lāhainā Clinic.

b. Potential Impacts and Mitigation Measures

Demand for medical services will increase over time, as population growth occurs. The proposed Master Plan for Alternatives 1 and 2 will help to accommodate a portion of the island's growth over the next 10 years. It is anticipated that growth in medical facilities and service provision will occur in a similar incremental fashion to meet the medical service needs of the island's residents and visitors. Support services which may be implemented as part of the Master Plan for Alternatives 1 and 2 would include medical, social service office space, senior care, urgent care, and "age in place" housing units. As the Master Plan for Alternatives 1 and 2 proceeds through the development process, ongoing dialogue with key medical service providers will continue.

As a major regional facility, community hospitals are not constructed in every community. As stated previously, the island of Maui is served by the Maui Memorial Medical Center located in Central Maui which will continue to serve West Maui, including Olowalu. However, a privately owned and operated community hospital and medical center is planned in Kā`anapali in the Kā`anapali 2020 project by Newport Hospital Corporation. Located approximately eight (8) miles from Olowalu Town, this facility is intended to serve the West Maui region, including Olowalu Town. The planned community hospital and medical center in Kā`anapali will make it more convenient for West Maui residents who currently need to travel to Central Maui for hospital care, eliminate potential medical problems when the highway to Central Maui is closed, as well as relieve population growth induced impacts on Maui Memorial Medical Center. The West Maui Hospital and Medical Center is targeted to open in 2017 (West Maui Hospital and Medical Center, 2015).

~~As noted previously, the Master Plan will provide lands for a fire department and emergency services which can provide additional medical and first responder services to the West Maui region, especially the area Lāhainā side~~

~~of the tunnel. These services currently are provided by the Lāhainā Fire Station.~~

The Master Plan for Alternatives 1 and 2 is not anticipated to adversely impact medical services.

3. Police and Fire Protection and Emergency Services

a. Existing Conditions

The Master Plan area ~~is~~for Alternatives 1 and 2 is within the Lāhainā Police Station service area, which services all of the Lāhainā district. The Lāhainā Station is located in the Lāhainā Civic Center complex at Wahikuli, approximately 7.5 miles from the Master Plan area.

Fire prevention, suppression and protection services for the Lāhainā District are provided by the Lāhainā Fire Station, also located in the Lāhainā Civic Center and the Napili Fire Station, located in Napili. The Lāhainā Fire Station includes an engine and a ladder company. The Napili Fire Station consists of an engine company. Ambulance service is provided from the Napili Fire Station.

Information received from the State Civil Defense agency confirms that there is an existing civil defense siren located on the makai side of Honoapi`ilani Highway near Camp Olowalu.

b. Potential Impacts and Mitigation Measures

The Maui Police Department commented that OTMP at full build-out will require an additional patrol beat. A new patrol beat will require six (6) police officers to cover a 24-hour period over a seven-day work week and would operate out of the Lāhainā Police Station. The new police beat is estimated to cost $360,000.00 annually for salaries and benefits and $51,000.00 for a new police vehicle which is replaced every four (4) years. A new Police Station in OTMP is not required at this time. If deemed necessary in the future, a police substation can be accommodated in Olowalu Town (Hudson, 2012).

The Master Plan for Alternatives 1 and 2 includes future areas to accommodate facilities that may be necessary for police and fire protection and emergency service. Although the Lāhainā Fire Station is located just 7.5 miles away from the Master Plan area for Alternatives 1 and 2, the Maui Fire Department has indicated that 1,500 new homes would impact emergency services. The Fire Department indicated that a future facility for emergency services would help to mitigate the impact and compliment protection provided on the north (Lāhainā) side of the Honoapi`ilani Highway tunnel. The Master Plan for Alternatives 1 and 2 includes areas along the relocated and widened Honoapi`ilani Highway for future emergency facilities.

The Department of Fire and Public Safety (Fire) supports the establishment of the new fire station in OTMP. Discussion with Fire indicated that a new fire station will require a total of 15 personnel to cover three (3) shifts with five (5) personnel each. A new fire station will require a fully equipped fire engine which is estimated to cost approximately $1 million. To operate the new fire station will cost approximately $1.25 million annually. It is estimated that a new fire station will cost $11 million to construct (Haake, 2012).

The West Maui area is susceptible to wildfires and the location of a new fire station in Olowalu will improve ~~the~~ Fire's ~~Department's~~ response time to such fires in the Pali to Lāhainā Town area. Through consultation with Fire, the department has indicated that although the alternatives should diminish the likelihood of such fires, the project's design should include measures that may address impacts to the project from wildfires which originate in surrounding outside areas. The department provided the example of designing greenways at the outer edge of the project that offer a defensible space against wildfires. It is noted that a significant area of the alternatives are envisioned for parks, greenways and open space.

The ~~applicant~~Applicants will continue to dialogue with the police and fire departments to ensure the location and adequate area for future facilities within the Master Plan for Alternatives 1 and 2 are accommodated.

The existing siren will provide coverage of the central area of the OTMP. Additional omni-directional 121 db(c) sirens will be required to complete coverage of the proposed development for Alternatives 1 and 2. The Applicants will coordinate with the State Civil Defense Agency, the placement

of the additional sirens and the timing when installation of the sirens are warranted.

4. Educational Facilities

a. Existing Conditions

The West Maui region is served by four (4) public schools (Lāhaināluna High School, Lāhainā Intermediate School, Princess Nahi`ena`ena Elementary School, and Kamehameha III Elementary School) operated by the State of Hawai`i, Department of Education (DOE) and two (2) smaller private schools (Sacred Hearts School and Maui Preparatory Academy). All four (4) of the public schools are located within Lāhainā town and three (3) of those schools are located along Lāhaināluna Road, mauka of Honoapi`ilani Highway. The enrollments in the four (4) schools have grown significantly in concert with the growth of residential development in the West Maui area. See **Table ~~19~~31**.

Table ~~19~~31. Actual and Projected Enrollments at Department of Education Schools in West Maui

~~School~~	~~Actual Enrollment~~			~~Rated Capacity~~	~~Projected Enrollment~~
	~~SY 09-10~~	~~SY 10-11~~	~~SY 11-12~~		~~SY 15-16~~
~~Lāhaināluna High School~~	~~969~~	~~1027~~	~~1057~~	~~969~~	~~1081~~
~~Lāhainā Intermediate~~	~~693~~	~~653~~	~~651~~	~~571~~	~~672~~
~~Kamehameha III Elementary~~	~~713~~	~~733~~	~~760~~	~~646~~	~~788~~
~~Princess Nahi`ena`ena Elementary~~	~~610~~	~~607~~	~~643~~	~~612~~	~~675~~
~~Source: Department of Education, 2011.~~					

	Actual Enrollment *SY 2014-15	**Projected Enrollment (SY 2015-16)
Lāhaināluna High School	1,014	1,081
Lāhainā Intermediate	635	672
Kamehameha III Elementary	773	788
Princess Nahi`ena`ena Elementary	724	675
Source: *Department of Education School Enrollment, 2014. **Analysis of the West Maui School Impact District, 2010.		

School bus transportation is currently provided to Olowalu residents to Princess Nahi`ena`ena Elementary, Lāhāina Intermediate and Lāhāinaluna High School. There is one (1) route from Olowalu Town which uses a 42-passenger bus (Joseph, 2012). University of Hawai`i Maui College (UH-Maui), which is located in Kahului, is a branch of the University of Hawai`i system. In addition, there is a UH-Maui Lāhainā Education Center that opened in West Maui in Fall 2007. UH-Maui is the primary higher education institution serving Maui.

The OCR currently provides educational experiences relating to its archaeological and cultural heritage to various groups, especially school children.

b. <u>Potential Impacts and Mitigation Measures</u>

Initially, until a new educational facility is constructed in the Master Plan for Alternatives 1 and 2, students would utilize the available school bus service to Lāhainā Town. If the student enrollment increases beyond the existing 42-passenger bus, the bus can be increased to a 72-passenger bus or separate routes established to the different schools (Joseph, 2012). Ongoing dialogue with the DOE to assess the impact of the proposed Master Plan for Alternatives 1 and 2 upon regional educational facilities will continue throughout the land entitlement process and implementation of the project. Based on the DOE's ~~student generation rates~~formula to determine impact fees for the West Maui Impact District, the proposed project's 600 single-family units and 900 multi-family units are anticipated to generate 462 new elementary, middle, and high school students. See **Table ~~20~~32**.

Table ~~20~~32. Estimated New Students at Olowalu Town Master Plan for Alternatives 1 and 2

	~~Single-Family Student Generation Rate~~	~~Single-Family Students [a]~~	~~Multi-Family Student Generation Rate~~	~~Multi-Family Students [b]~~	~~Total Students~~
~~Elementary~~	~~0.22~~	~~132~~	~~0.09~~	~~81~~	~~213~~
~~Middle~~	~~0.12~~	~~72~~	~~0.04~~	~~36~~	~~108~~
~~High~~	~~0.16~~	~~96~~	~~0.05~~	~~45~~	~~141~~
~~TOTAL~~	~~0.5~~	~~300~~	~~0.18~~	~~162~~	~~462~~

~~Notes:~~
~~[a] Based on 600 single-family residences.~~
~~[b] Based on 900 multi-family residences.~~
~~Source: Department of Education, 2010.~~

	Units	Formula	Total Students
Single Family	600	0.5 X 600	300
Multi Family	900	0.18 X 900	162
		TOTAL	462

Source: Department of Education, West Maui Impact Fee Schedule, 2014

It is noted that the foregoing figures presented in **Table 32** provides a rough estimate of the number of students to reside in the project at maturity. As pointed out by the DOE, the proposed project may have an Olowalu Student Generation Rate (SGR), which is different from the West Maui District-wide average. The addition of approximately 462 new students to public schools in West Maui would require increased DOE resources in the district. Impacts to the DOE's resources in West Maui will be mitigated through fulfillment of school impact fees or other measures approved by the DOE. The project falls within the West Maui School Impact District. The ~~a~~Applicants will coordinate with the DOE to ensure that assessment policy provisions are appropriately addressed.

The proposed ~~project~~alternatives also ~~calls for the~~include provision of approximately 10 to 15 acres for an educational facility. The specifics of the educational (or learning) facility has not been determined. During "Olowalu Talk Story" and subsequent discussions through community outreach with

residents, nonprofit groups, government agencies and legislators, a variety of suggestions were received regarding the type of school that should be established in Olowalu. ~~It has~~The suggestions included a DOE-operated school, charter school and private school ranging from an elementary, middle, and high school, as well as a combined elementary/middle school.

On multiple occasions it has been suggested that the future educational or learning facility within the Master Plan for Alternatives 1 and 2 could potentially incorporate lessons learned within the OCR as core components of its curriculum. As the Master Plan for Alternatives 1 and 2 progresses through the entitlement process, refinement of the scope of the educational or learning facility will be ~~developed~~undertaken with the community and the DOE.

5. Recreational Facilities

a. Existing Conditions

West Maui is served by numerous recreational facilities offering diverse opportunities for the region's residents. There are seventeen (17) County parks and three (3) State beach parks in West Maui. Approximately one-third of the County parks are situated along the shoreline.

In addition, Kā`anapali and Kapalua Resorts operate world-class golf courses which are available for public use.

Public access is available to the Olowalu shoreline, which offers opportunities for surfing, swimming, fishing, snorkeling, and diving. However, within the Olowalu vicinity, there are no improved parking areas and no park facilities, such as restrooms, showers, or picnic tables.

b. Potential Impacts and Mitigation Measures

Increased demand for recreational resources, including inland, coastal and ocean recreational resources, will be mitigated through the provision of parks and recreational-related improvements throughout the Master Plan for Alternatives 1 and 2. Such parks and recreational-related improvements, while located within the Master Plan area for the respective alternatives, will be open to and enjoyed by the public. The Master Plan for Alternatives 1 and

2 includes provisions for active and passive parks, as well as open space areas, in keeping with the sustainable planning principles employed in the plan formulation process. Recreational-related improvements call for the following:

- Enhanced access to the existing government beach reserve along the Olowalu shoreline (for Alternative 1)
- Expanded streamside parks providing mauka-makai access and related passive park experiences along the Olowalu Stream
- A comprehensive and inter-connected greenway system for walking, jogging, and biking
- A mauka community park connected to the greenway system
- Enhancement of the OCR
- ~~Provide c~~Camping facilities ~~like~~such as those provided at Camp Olowalu
- Shoreline parks (for Alternative 1)
- Neighborhood parks

As previously noted, **Figure ~~1~~524** provides a conceptual site plan that indicates the location of parks and recreational facilities, and open space areas. The parks are envisioned to allow uses currently permitted by the County of Maui while recreational facilities may include canoe clubs, a private museum, and small commercial facilities, such as snack shops and concession stands. Alternative 1 includes the area makai of Honoapi`ilani Highway with approximately 23 acres of parks and open space and proposes enhancement of public access and development of shoreline parks. Alternative 2 excludes the makai area and retains the existing public access.

It should be noted that the proposed park space included in the Master Plan for Alternatives 1 and 2 exceeds the minimum park dedication requirements for new subdivisions established by Chapter 18.16.320 of the MCC. The park dedication requirement is 500 square feet for each lot or unit. Workforce housing lots or units have a lower park dedication requirement of 250 square feet per unit. Based on these standards and requirements for workforce

housing, ~~the project's 750~~approximately 1,125 market-rate units and ~~750~~375 workforce housing units would be needed. This would require approximately 13 acres of park land dedication for the market units and two (2) acres for the workforce housing totaling 15 acres.

According to the National Parks and Recreation Associations' (NPARA) Recreation, Park and Open Space Standards and Guidelines, approximately 6.25 to 10.5 acres of park land and open space should be provided for every 1,000 population. The Master Plan for Alternatives 1 and 2 estimates a population of 4,239. Based on the recommended standards and guidelines approximately 25 to 42 acres of park land and open space is recommended.

The Master Plan ~~provides for~~for Alternative 1 sets aside approximately 223 acres ~~of~~available for park and open space use. Alternative 2 sets aside approximately 200 acres available for park and open space use.

Olowalu Town, LLC and Olowalu Ekolu, LLC will continue ongoing coordination regarding the proposed parks and recreation concepts and proposals with the County Department of Parks and Recreation (DPR) and State Department of Land and Natural Resources (DLNR).

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

The only major roadway facility providing vehicular access to and from the Olowalu area is Honoapi`ilani Highway, a State-owned and maintained highway linking West Maui with the central valley of the island. Honoapi`ilani Highway primarily serves as access for vehicles traveling to and from the Lāhainā, Kā`anapali and Kapalua resort areas. Through Olowalu Village, Honoapi`ilani Highway is a two-lane major arterial highway generally aligned in an east to west direction following the coastline with turning lanes in place at intersection and access points, such as at the Olowalu General Store and former manager's house. The highway has a posted speed limit of 35 miles per hour (mph) in the vicinity of the Olowalu General Store, which

increases to 45 mph outside of this area. The highway has two (2) 12-foot-wide lanes with paved shoulders varying in widths from about 6 to 10 feet wide.

A former cane haul road also runs parallel along the mauka (inland) side of the highway. This cane haul road is generally routed near the highway but diverts inland behind the Olowalu General Store. The cane haul road formerly served as an access road for the Pioneer Mill property/cane land.

Luawai Street north of Kapa`iki is an undivided two-way paved agricultural roadway that provides access to homes in the 14-lot Olowalu Mauka subdivision. Luawai Street connects to Honoapi`ilani Highway directly across Camp Olowalu. Intersection improvements ~~are proposed~~constructed in conjunction with the Olowalu Mauka subdivision ~~to~~ includes, but are not limited to, storage lanes, deceleration lanes, and bike lanes. Construction of these improvements ~~is anticipated to be initiated by December 2011~~have been completed.

The Pali to Puamana Parkway Master Plan, prepared for the County of Maui in 2005, identifies the long-range planning policy for lands along the shoreline. Included in this plan was the possibility of the State Department of Transportation (HDOT) widening of Honoapi`ilani Highway between Ukumehame and Launiupoko where it would connect to the proposed Lāhainā By-Pass Road. In Olowalu, the Master Plan proposes a 160-foot wide right-of-way for a by-pass highway inland from the shoreline and maintaining the existing Honoapi`ilani Highway as a landscape multi-purpose pathway. The Master Plan also identified three (3) parks in the area, Awalua Park, Olowalu Beach Park, and Hekili Point Beach Park (Planning Department, 2008).

In 2007, the HDOT prepared an Environmental Impact Statement Preparation Notice for the Honoapi`ilani Highway Realignment/Widening project (Mā`alaea to Launiupoko) in response to capacity limitations and roadway safety and reliability issues. Highway improvements may involve widening portions of the existing highway and/or constructing a new highway along a different alignment. In the Olowalu area, relocation of Honoapi`ilani Highway further inland is proposed (HDOT, 2007).

In 2012, the HDOT, in coordination with the Federal Highways Administration (FHWA) and with the cooperation of the landowner, West Maui Land Company, proposed the relocation of the Lāhainā By-Pass Southern Terminus to the vicinity of the former Olowalu landfill. Erosion along the highway in the Launiupoko area and a projected rise in traffic congestion between the current bypass terminus point at Launiupoko to the vicinity of the Olowalu landfill site were cited as reasons for the change in alignment (HDOT, 2012). This roadway improvement is included in the 2015-2018 State Transportation Improvement Program (STIP).

Traffic in Olowalu Town is primarily traffic passing through between Lāhainā and Central Maui. ~~Traffic~~In consultation with the HDOT, traffic counts in October 2010 taken Lāhainā-side of the Olowalu Recycling and Refuse Convenience Center indicated a daily traffic volume of 22,840 vehicles. See **Appendix "~~M~~P"**. In February 2013, new traffic counts were taken and included in the updated TIAR dated April 2015. See **Appendix "P-1"**. Based on the 2013 traffic counts, it is estimated in 2015 that Honoapi`ilani Highway has a daily traffic volume of 26,325 vehicles.

The Updated TIAR reviewed available data and determined that an annual traffic volume growth rate of approximately 1 percent would be appropriate for Honoapi`ilani Highway, resulting in a total growth of 9 percent between 2015 and full buildout of the OTMP in 2024. This 9 percent growth rate was applied to the existing through traffic volumes on Honoapi`ilani Highway to derive future year traffic volumes without the OTMP project in place. The current average daily traffic (ADT) volume was estimated utilizing the 1 percent annual growth rate from the 2013 traffic counts. Based on the updated traffic volume the updated TIAR estimated the background growth rate would be 11 percent from 2013 to full buildout in 2024. Assuming the growth rate of 11percent from 2013 to 2024, the background traffic volume growth on Honoapi`ilani Highway would be 2,325 vehicles resulting in an ADT volume of 28,650 vehicles in the future year of 2024 without the project in place.

The TIAR analyzed future traffic with the OTMP at the following intersections:

- North Access Outside Limits of Olowalu Town (Olowalu Transfer Station)

- Olowalu O-turn 1 Access
- Olowalu O-turn 2 Access
- New Access to Existing Honoapi`ilani Highway (RIRO Access)
- South Access Outside Limits of Olowalu Town at Ehehene Street

The restricted right-in/right-out or "RIRO" access, allowing right turns in from the southbound direction from Lahaina and right turn exits from the town towards Mā`alaea. No access would be allowed via left turns into or from the town. Any movements into the town from the south would have to be made via another access point followed by internal connections to the RIRO. Left turns from the part of the town with RIRO access would have to be made via internal connection to another of the two points of access.

With the project at full buildout it is projected that the ADT volume would be 32,680 vehicles at the Olowalu Transfer Station, 32,150 vehicles at Olowalu O-turn 1 Access, 34,220 vehicles at Olowalu O-turn 2 Access, 31,775 vehicles at the RIRO Access, and 31,335 at the South Access Outside of Olowalu Town. (See Figure 10 in Appendix P-1) The estimated daily maximum capacity of the realigned four-lane Honoapi`ilani Highway through OTMP is 55,500 vehicles, while the existing two-lane Honoapi`ilani Highway is estimated as 33,300 vehicles.

The estimated Level of Service (LOS) for all intersections, except the existing roadway south of the limits of OTMP, for the project is LOS "D" as identified in **Table 33**.

Table 33. Capacity, ADTs and Levels of Service for Honoapi`ilani Highway In Full Buildout Year of 2024

Segment of Honoapi`ilani Highway	Daily Maximum Capacity(1)	Predicted ADT	Volume to Capacity Level	Predicted LOS (Based on Daily Volume)(2)	Comments
North of Transfer Station	55,500	32,680	0.59	D	Assumes widening to two (2) through lanes in each direction
Transfer Station to O-turn 1	55,500	32,150	0.60	D	
O-turn 1 to O-turn 2	55,500	34,220	0.62	D	
O-turn 2 To RIRO	55,500	31,775	0.57	D	
RIRO to Existing Roadway	55,500	31,775	0.57	D	
Existing Roadway South of Olowalu Town Project	33,300	31,335	0.94	E	Under capacity on daily basis

(1) From Highplan calculations. See appendices for detailed outputs and information on Highplan.
(2) Note: Based on hourly peak volumes, LOS is C.
Source: TIAR, 2015

An analysis was made of a.m. and p.m. peak hour traffic operations for weekdays at full buildout of the OTMP in the year 2024 using the methods of the Highway Capacity Manual and the Synchro software package including its SimTraffic simulation model to provide estimates of traffic congestion measures including delays and queue lengths. Based on the 2013 traffic counts, peak hours of traffic was determined as 7:00 to 8:00 a.m. and 4:00 to 5:00 p.m. since these hours would also tend to coincide with the peak hours of traffic generation for the new town. LOS at full buildout was established for the am and pm peak hour traffic operations with LOS "D" acceptable for morning and afternoon peak traffic and LOS "E" or worse (reaching or exceeding capacity) would need to be reviewed closely to determine if any changes or improvements could be made to move the LOS to an acceptable level. On heavily traveled streets such as Honoapi'ilani Highway, it is not uncommon for side street left turn movements to have LOS "D" or "E" due to the difficulty in making the maneuver. In some cases, LOS E may be considered acceptable if the volume of traffic experiencing the LOS E is low and/or if the impacts of mitigating the LOS E are not reasonable due to cost, disruption of natural resources or other reasons. Generally, efforts were made to avoid any movements having LOS E or to minimize the overall impacts.

However, there are some side street left turn movements where the cost of improving the LOS E is not reasonable and/or where it would have an undue effect on the major traffic flows on the arterial highway.

Access Points

As required by the HDOT, three (3) access points on the realigned Honoapi`ilani Highway are proposed. To the north, Olowalu Access O-turn 1, middle Olowalu Access O-turn 2 and a RIRO at the southern end of the OTMP. Scenarios evaluated included the proposed O-turns and typical traffic signals for the recommended project internal (community) and external (outside town) capture rate of 64/36 percent and the HDOT capture rate of 25/75 percent. The HDOT capture rate increases trips to and from the town via Honoapi`ilani Highway by a factor of 2.56 for the full day with an increase of 2.44 for the a.m. peak hour and 2.48 for the p.m. peak hour. While the project recommended capture rate increases trips to and from the town via Honoapi`ilani Highway by a factor of 1.0 (daily, a.m., and p.m.).

The following **Table 34** provides the detail results for the O-turn intersections in the network for the a.m. and p.m. peak hours for the project recommended internal capture rate of 64 percent.

Table 34. Traffic Flow Measures with Project Recommended Internal Capture Rate with O-turns

Location	Movement	A.M. Peak Hour			P.M. Peak Hour		
		Speed (MPH)	Delay (Sec/Veh)	LOS	Speed (MPH)	Delay (Sec/Veh)	LOS
Transfer Station	NBD	28	2.5	A	28	2.9	A
	SBD	29	0.2	A	29	0.2	A
	WBD Lt	NA	8.7	A	NA	14.4	B
O-Turn 1W	NBD Lt	23	2.6	A	22	2.7	B
	NBD	27	0.3	A	27	1.1	A
	SBD	29	1.0	A	29	1.7	A
	WBD Lt	NA	2.1	A	NA	4.2	A
Olowalu Access 1	SBD	28	0.4	A	28	0.6	A
	SBD Rt	23	2.2	A	23	2.0	A
	NBD	28	0.8	A	28	0.9	A
	EBD Rt	NA	1.8	A	NA	2.1	A
	WBD	NA	0.7	A	NA	4.2	A
O-Turn 1E	SBD	27	3.2	A	26	1.7	A
	SBD Lt	23	1.4	A	22	3.7	A
	EBD Lt	11	1.8	A	NA	2.2	A
	NBD	28	1.2	A	28	1.3	A
O-Turn 2W	NBD Lt	24	3.2	A	23	3.6	A
	NBD	28	1.2	A	27	1.4	A
	SBD	29	0.8	A	28	1.2	A
	WBD Lt	NA	1.8	A	NA	3.3	A
Olowalu Access 2	SBD	28	0.7	A	28	0.9	A
	NBD	28	0.7	A	28	0.7	A
	EBD	NA	2.2	A	NA	3.0	A
	WBD	NA	0.8	A	NA	0.8	A
O-Turn 2E	SBD Lt	21	2.8	A	NA	3.3	A
	SBD	25	1.5	A	25	1.9	A
	EBD Lt	NA	1.9	A	NA	2.7	A
	NBD	28	1.6	A	28	1.7	A
RIRO	SBD	29	0.6	A	28	1.3	A
	SBD Rt	20	1.4	A	26	0.2	A
	EBD	NA	0.5	A	NA	0.6	A
2-1Merge	SBD	27	1.3	A	15	14.6	B
Merge	SBD	27	1.4	A	10	30.2	D
Ehehene Street	SBD	27	4.3	A	27	5.5	A
	SBD Lt	22	11.8	B	21	17.1	C
	NBD	27	2.1	A	26	3.1	A
	WBD	NA	57.0	F	NA	>200	F

Source: TIAR, 2015

NBD - North Bound Driveway
SBD - South Bound Driveway
WBD, Lt - West Bound Driveway, Left
NBD, Lt - North Bound Driveway, Left
SBD, Rt - South Bound Driveway, Right
EBD, Rt - East Bound Driveway, Right
SBD, Lt - South Bound Driveway, Left
EBD, Lt - East Bound Driveway, Left
EBD - East Bound Driveway
WBD - West Bound Driveway

The following **Table 35** provides the detail results for the O-turn intersections in the network for the a.m. and p.m. peak hours for the HDOT internal capture rate of 25 percent.

Table 35. Traffic Flow Measures with HDOT 25 Percent Internal Capture Rate with O-turns

Location	Movement	A.M. Peak Hour			P.M. Peak Hour		
		Speed (MPH)	Delay (Sec/Veh)	LOS	Speed (MPH)	Delay (Sec/Veh)	LOS
Transfer Station	NBD	28	3.0	A	27	3.3	A
	SBD	29	0.2	A	29	0.3	A
	WBD Lt	NA	14.6	B	NA	17.9	C
O-Turn 1W	NBD Lt	22	2.9	A	16	0.7	A
	NBD	27	1.2	A	26	0.8	A
	SBD	29	1.2	A	28	2.1	A
	WBD Lt	NA	2.8	A	7	9.2	A
Olowalu Access 1	SBD	28	0.1	A	28	0.8	A
	SBD Rt	23	0.1	A	23	3.3	A
	NBD	28	0.9	A	28	1.0	A
	EBD Rt	NA	3.0	A	NA	6.7	A
	WBD	NA	0.6	A	NA	0.6	A
O-Turn 1E	SBD	25	2.2	A	24	3.3	A
	SBD Lt	21	5.0	A	20	5.9	A
	EBD Lt	NA	2.6	A	NA	2.2	A
	NBD	28	1.4	A	28	1.5	A
O-Turn 2W	NBD Lt	23	3.4	A	10	36.5	E
	NBD	27	1.4	A	26	2.4	A
	SBD	29	1.0	A	28	1.8	A
	WBD Lt	NA	2.2	A	NA	10.4	B
Olowalu Access 2	SBD	28	0.6	A	28	1.1	A
	SBD Rt	23	2.8	A	21	5.2	A
	NBD	27	0.7	A	27	0.7	A
	EBD	NA	0.6	A	NA	11.2	B
	WBD	NA	0.7	A	NA	0.8	A
O-Turn 2E	SBD Lt	19	3.9	A	14	10.8	B
	SBD	23	2.4	A	16	9.4	A
	EBD Lt	NA	2.6	A	NA	4.4	A
	NBD	28	1.8	A	28	1.8	A
RIRO	SBD	29	0.2	A	26	56.6	F
	SBD Rt	26	0	A	25	3.7	A
	EBD	NA	0.6	A	NA	0.6	A
2-1Merge	SBD	27	1.5	A	5	76.4	F
Merge	SBD	27	1.7	A	7	50.4	E
Ehehene Street	SBD	27	4.6	A	27	5.5	A
	SBD Lt	21	17.8	C	9	118.3	F
	NBD	27	0.8	C	24	5.3	A
	WBD	NA	90.1	F	NA	>200	F

Source: TIAR, 2015

NBD - North Bound Driveway
SBD - South Bound Driveway
WBD, Lt - West Bound Driveway, Left
NBD, Lt - North Bound Driveway, Left
SBD, Rt - South Bound Driveway, Right
W - West
EBD, Rt - East Bound Driveway, Right
SBD, Lt - South Bound Driveway, Left
EBD, Lt - East Bound Driveway, Left
EBD - East Bound Driveway
WBD - West Bound Driveway
E - East

The following **Table 36** provides the detail results for the typical traffic signal intersections in the network for the a.m. and p.m. peak hours for the project recommended capture rate of 64 percent.

Table 36. Traffic Flow Measures with Project Recommended Internal Capture Rate with Traffic Signals

Location	Movement	A.M. Peak Hour			P.M. Peak Hour		
		Speed (MPH)	Delay (Sec/Veh)	LOS	Speed (MPH)	Delay (Sec/Veh)	LOS
Transfer Station	NBD	38	5.3	A	38	5.7	A
	SBD	43	0.4	A	42	0.7	A
	WBD	NA	18.4	C	NA	47.8	D
Olowalu Access 1	NBD Lt	15	54.6	D	15	52.4	D
	NBD	30	13.4	B	29	14.5	B
	SBD Lt	29	13.2	B	26	20.5	C
	SBD	34	10.3	B	30	17.1	B
	EBD Lt	NA	44.7	D	NA	47.7	D
	EBD Th	NA	32.4	C	NA	34.1	C
	EBD Rt	NA	1.1	A	NA	1.5	A
	WBD Lt	NA	49.9	D	NA	50.5	D
	WBD Th	NA	48.4	D	NA	49.5	D
	WBD Rt	NA	1.2	A	NA	1.1	A
Olowalu Access 2	NBD Lt	11	51.0	D	12	45.8	D
	NBD	28	10.9	B	28	11.4	B
	SBD Lt	22	27.5	C	18	39.3	D
	SBD	31	13.0	B	25	22.8	C
	EBD Lt	NA	41.9	D	NA	54.3	D
	EBD Th	NA	32.3	C	NA	36.0	D
	EBD Rt	NA	1.4	A	NA	2.1	A
	WBD Lt	NA	46.9	D	NA	44.1	D
	WBD Th	NA	53.3	D	NA	48.9	D
	WBD Rt	NA	0.7	A	NA	0.8	A
RIRO Access 3	NBD	42	0.9	A	42	0.9	A
	SBD Th	36	3.8	A	32	7.0	A
	SBD Rt	30	5.2	A	28	6.9	A
	EBD	NA	4.7	A	NA	12.5	B
Ehehene Street	NBD	40	1.8	A	34	2.6	A
	SBD Lt	33	8.7	A	20	24.9	C
	SBD	41	2.4	A	40	2.9	A
	WBD	NA	63.2	E	NA	>200	F

Source: TIAR, 2015
NBD - North Bound Driveway
SBD - South Bound Driveway
WBD, Lt - West Bound Driveway, Left
NBD, Lt - North Bound Driveway, Left
SBD, Rt - South Bound Driveway, Right
WBD Th - West Bound Driveway, Through
SBD Th - South Bound Driveway, Through
EBD, Rt - East Bound Driveway, Right
SBD, Lt - South Bound Driveway, Left
EBD, Lt - East Bound Driveway, Left
EBD - East Bound, Driveway
WBD - West Bound, Driveway
EBD Th - East Bound Driveway, Through

The following **Table 37** provides the detail results for the typical traffic signal intersections in the network for the a.m. and p.m. peak hours for the HDOT internal capture rate of 25 percent.

Table 37. Traffic Flow Measures with HDOT 25 Percent Internal Capture Rate with Traffic Signals

Location	Movement	A.M. Peak Hour			P.M. Peak Hour		
		Speed (MPH)	Delay (Sec/Veh)	LOS	Speed (MPH)	Delay (Sec/Veh)	LOS
Transfer Station	NBD	37	5.8	A	37	5.7	A
	SBD	43	0.5	A	41	0.6	A
	WBD	NA	7.0	A	NA	>200	F
Olowalu Access 1	NBD Lt	15	55.3	D	17	45.1	D
	NBD	27	17.7	B	28	16.4	B
	SBD Lt	25	23.9	C	24	24.6	C
	SBD	30	16.2	B	25	26.1	C
	EBD Lt	NA	41.2	D	NA	102.8	F
	EBD Th	NA	26.6	C	NA	37.1	D
	EBD Rt	NA	1.8	A	NA	5.2	A
	WBD Lt	NA	50.6	D	NA	49.8	D
	WBD Th	NA	44.2	D	NA	49.6	D
	WBD rt	NA	1.1	A	NA	1.2	A
Olowalu Access 2	NBD Lt	12	45.4	D	13	43.7	D
	NBD	26	14.2	B	28	11.7	B
	SBD Lt	19	36.9	E	16	48.9	D
	SBD	27	18.9	B	18	42.5	D
	EBD Lt	NA	47.4	D	NA	207.1	F
	EBD Th	NA	27.2	C	NA	73.9	F
	EBD Rt	NA	2.5	A	NA	8.5	A
	WBD Lt	NA	48.2	D	NA	48.1	D
	WBD Th	NA	51.2	D	NA	45.2	D
	WBD Rt	NA	0.7	A	NA	0.7	A
RIRO Access 3	NBD	42	0.9	A	42	0.9	A
	SBD Th	33	5.5	A	14	43.4	D
	SBD Rt	30	5.1	A	13	41.1	D
	EBD	NA	8.4	A	NA	41.5	D
2 Lane/4 Lane Transition	NBD	40	1.2	A	39	1.5	A
	SBD	29	8.3	A	6	104.4	F
Ehehene Street	NBD	40	2.1	A	33	6.4	A
	SBD Lt	28	18.7	B	13	57.2	E
	SBD	41	2.7	A	40	2.8	A
	WBD	NA	58.0	F	NA	>200	F

Location	Movement	A.M. Peak Hour			P.M. Peak Hour		
		Speed (MPH)	Delay (Sec/Veh)	LOS	Speed (MPH)	Delay (Sec/Veh)	LOS

Source: TIAR, 2015
NBD - North Bound Driveway
SBD - South Bound Driveway
WBD, Lt - West Bound Driveway, Left
NBD, Lt - North Bound Driveway, Left
SBD, Rt - South Bound Driveway, Right
WBD Th - West Bound Driveway, Through
SBD Th - South Bound Driveway, Through
EBD, Rt - East Bound Driveway, Right
SBD, Lt - South Bound Driveway, Left
EBD, Lt - East Bound Driveway, Left
EBD - East Bound, Driveway
WBD - West Bound, Driveway
EBD Th - East Bound Driveway, Through

b. Potential Impacts and Mitigation Measures

The Master Plan for Alternatives 1 and 2 proposes to relocate and widen Honoapi`ilani Highway further inland of its present alignment in accordance with the Hawai`i Statewide Transportation Plan, Maui Long-Range Land Transportation Plan and County's proposed Pali to Puamana Parkway Master Plan, and in conjunction with the Honoapi`ilani Highway Realignment/ Widening project (Mā`alaea to Launiupoko) by the HDOT. The relocation and widening project will relocate the highway from existing shoreline erosion problems, improve highway capacity and improve the reliability of access to and from the West Maui region. The proposed relocation and widening of the highway has been designed as a ~~200~~160 feet wide corridor to accommodate mass transit or light rail, if needed in the future. It will also include a new bridge crossing at Olowalu Stream.

Portions of the existing highway corridor with its rows of monkey pod trees will be preserved and incorporated into the Master Plan for Alternatives 1 and 2 as a low speed/low volume coastal roadway providing access to the shoreline and the Master Plan area for Alternatives 1 and 2. The project will also include an internal roadway network. The principal secondary roadways will have a makai to mauka orientation that will provide visual and physical connection from the shoreline to the mountains. ~~Two~~As requested by HDOT, two (2) makai to mauka connections are proposed with the relocation and widening of Honoapi`ilani Highway that will provide access from the makai section to the mauka section of the Master Plan area for Alternatives 1 and 2. Additionally, an access to the existing Honoapi`ilani Highway will be provided at the southern end of Olowalu from the proposed relocated and widened Honoapi`ilani Highway. A ~~third~~ roadway connection is proposed

under the proposed relocated and widened Honoapi`ilani Highway that will connect the makai and mauka sections of the Master Plan for Alternatives 1 and 2 without having to cross the relocated hightway. Luawai Street will also be configured to accommodate the Master Plan for Alternatives 1 and 2, but will continue to provide access to the 14-lot Olowalu Mauka Subdivision. Refer to **Figure 4** and **Figure 5**.

In accordance with New Urbanism principles, a significant design criteria of the Master Plan for Alternatives 1 and 2 is to ensure the project is a mixed-use community providing residents access to daily needs, goods, and services within walking distance to minimize the number of daily vehicle trips within and outside the Master Plan. A network of interconnected streets, walkways, greenways and bikeways throughout the community is proposed to encourage different modes of transportation, including walking, biking, and mass transit. Pedestrian and bicycle access across the relocated Honoapi`ilani Highway is proposed to cross via grade separations or under proposed bridges that will be required to cross existing gulches.

A Preliminary Traffic Impact Analysis Report (TIAR) for the build out of the Master Plan ~~has been~~for Alternative 1 was prepared by Roger D. Dyar, Consulting Transportation Engineer. According to the TIAR, it is estimated that without the Master Plan for Alternative 1 the average daily traffic volume of approximately 24,700 vehicles will occur by future year 2020. Olowalu Town is estimated to generate approximately 32,800 total trips per day with about 26,700 of these trips being within the Master Plan area for Alternative 1. Olowalu Town will generate about 6,100 new trips per day leaving and entering the town with this traffic using the relocated Honoapi`ilani Highway to travel to or from other island destinations. Approximately 60 percent, or 3,600 vehicles, will travel towards Lāhainā while 40 percent, or 2,500 vehicles, will travel towards Mā`alaea. The proposed relocation and widening of Honoapi`ilani Highway will provide additional capacity which will be able to accommodate the additional traffic volume from the Master Plan for Alternative 1 as well as increased traffic from growth in West Maui. It is estimated that the Level of Service (LOS) of the highway will be C or better. Refer to **Appendix "~~MP~~"**.

The adoption of the MIP on December 28, 2012 deleted the area makai of Honoapi`ilani Highway from the Urban and Rural Growth Boundaries.

Alternative 2 is consistent with the MIP and proposes the housing units and commercial uses mauka of Honoapi`ilani Highway. Since publication of the Draft EIS, new traffic counts were conducted in 2013 and is included in the final TIAR prepared by Roger D. Dyar, consulting transportation engineer. Refer to **Appendix "P-1"**. The Final TIAR includes a 25 percent internal capture rate recommended by the HDOT and a 64 percent internal capture rate recommended by the transportation consultant.

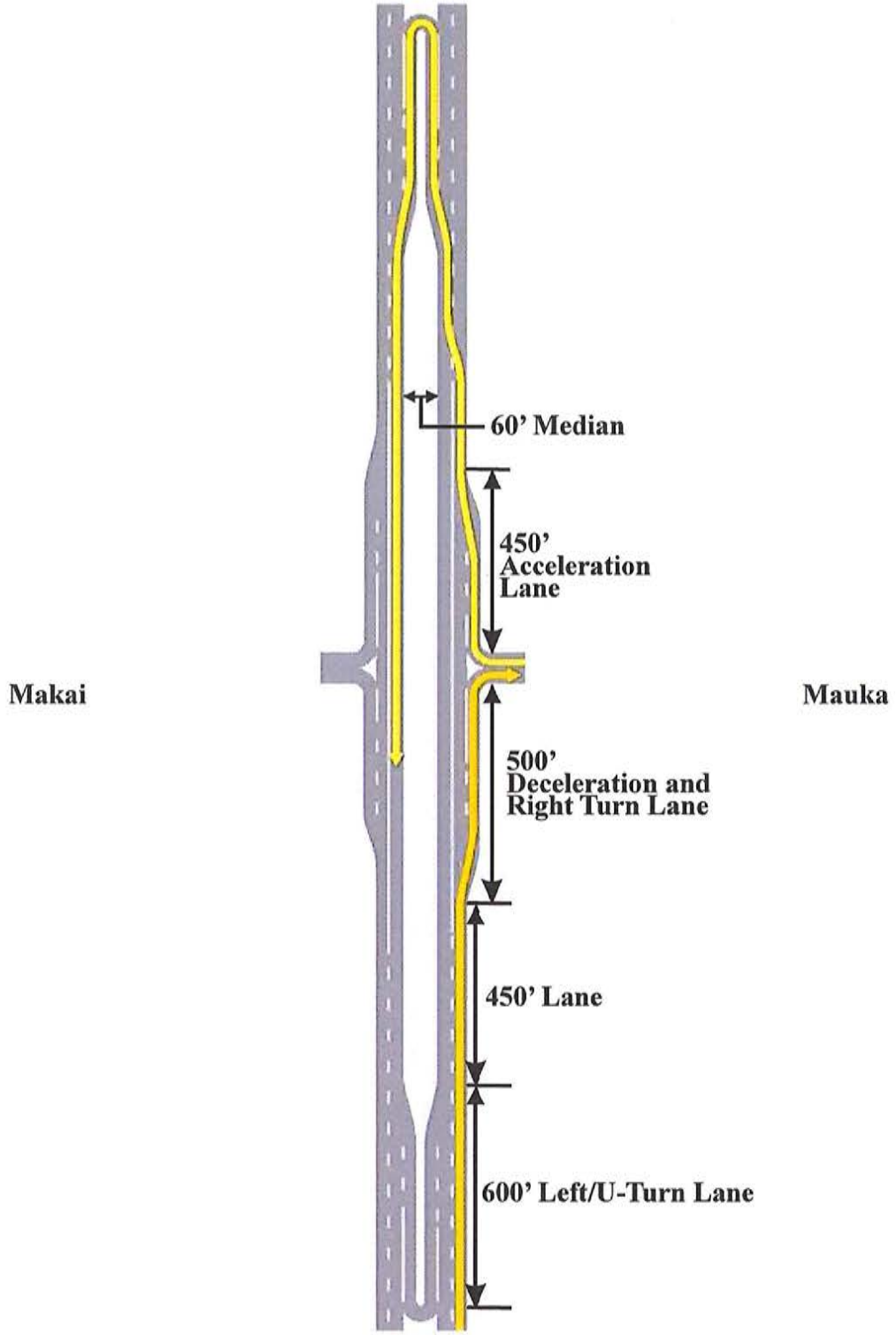
To maintain continuous through traffic on the relocated Honoapi`ilani Highway, the Master Plan for Alternatives 1 and 2 proposes to install two (2) "O-Turns" also known as "Michigan U-Turns" as well as a third restricted right-in/right-out access point near the Mā`alaea-side terminius of the relocated highway. See **Figure ~~17~~26**. The "O-Turn" works by preventing drivers from making left turns across traffic at would-be intersections. Drivers safely take a U-Turn with the help of merge lanes and enter into the flow of traffic going in the opposite direction. Then by merging to the right lane, drivers may turn right and reach their destination. Olowalu Town, LLC and Olowalu Ekolu, LLC have had several meetings with the HDOT which have been encouraging in terms of utilizing the "O-Turn" design in the HDOT highway system.

The Preliminary TIAR concluded the following:

1. The preliminary plan and roadway access plan indicates that the roadway capacity will be sufficient to accommodate the traffic added by the Master Plan.

2. The analysis of the daily capacity and traffic flow indicates the proposed roadway and access system will be sufficient.

In coordination with the HDOT, an updated TIAR was prepared. The updated TIAR recommends the following:



Source: Roger D. Dyar Consulting Transportation Engineer

Figure ~~17~~26 Proposed Olowalu Town Master Plan
O-Turn Concept

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/Oturnconcept

1. The proposed access plan should be approved with the O-turns. The design of the O-turns should include the following general concepts:

   A. For both O-turns there should be channelized right turns exiting the town on both sides of Honoapi`ilani Highway for traffic entering from both makai and mauka of the highway. There should be acceleration lanes in conformance to HDOT standards associated with the channelized right turns.

   B. For both O-turns there should be channelized right turns for traffic entering the town both makai and mauka of the highway with deceleration lanes. These should have added lanes into the town so as to allow free flow off the highway. At some point there would need to be tapers down to the expected internal roadway design.

   C. At the U-turn locations in each direction in each O-turn, there should be acceleration lanes for traffic entering Honoapi`ilani Highway that would then merge over to enter the right turn deceleration lanes to enter the town.

   D. The O-turns, including the actual locations for U-turns should be designed to accommodate trucks as per HDOT standards.

   E. Adequate signing for the new town should be provided to provide advice of destinations for drivers on Honoapi`ilani Highway. It will be necessary to distinguish between the portions of the town makai and mauka of the highway with names or a naming convention to be determined. This is needed so as to eliminate confusion for first-time visitors to the town so that they get into the proper deceleration lane for travel into the correct O-turn both makai and mauka of the highway.

   F. Provisions should be made to include technology and accommodations for a "smart highway" in the design phase. This might include the provision of video cameras and other detection devices that could be part of an HDOT or island operated traffic center in the future. Provisions for potential underground conduit should be considered in the utility plan development process.

   G. Provisions for adequate roadway lighting should be considered early in the design process.

H. Provision for pedestrian facilities along Honoapi`ilani Highway should be considered early in the design process. While it is anticipated the town plan will include a grade separated access from makai of the highway to mauka of the highway, there should also be considerations given to the possibility of pedestrian and bicycle crossings of the highway to and from the town and/or along any pathways adjacent to the highway in the future. This effort will need to take into account any HDOT standard policies for non-motorized traffic facilities and amenities.

2. A staging plan will be required for the future for the anticipated building of the new highway and for the transition from the existing highway to the new divided highway facility.

3. There should be consideration of a staging plan wherein one O-turn may be built at a time with some sort of temporary access for the other location(s). Additional study would be needed at some point in the future for this possible scenario. Generally this would be covered in the HDOT stipulation for an update of this report every three (3) years.

4. There should be some consideration to the possible removal of the right-in, right-out (RIRO) if the O-turns are going to be the access plan. This is due to the close proximity of the RIRO to the O-turn location on the south side of the Olowalu Town Access 2. If the RIRO were removed it would provide a longer distance for stacking for the O-turn as well as longer acceleration lane lengths. Since the volume using the RIRO is so low, it is expected the net effect on the other two (2) main access points would be negligible. This option can be reviewed further as the development takes shape. It may be desirable to retain a RIRO further south as an emergency access only.

The Final TIAR has been submitted to the HDOT. Coordination with the HDOT is considered an ongoing process, with actions and agreements evolving as conditions change over time. In this regard, the HDOT's review of the Final TIAR is addressed as an unresolved issue.

As the Master Plan for Alternatives 1 and 2 progresses and more specific plans are developed and more specific land use entitlements are requested, additional traffic study and assessments will be conducted ~~to provide:~~for each phase of development.

~~1. A detailed analysis of peak hour conditions for Olowalu Town.~~

~~2. A detailed analysis of traffic movements, internal and external of Olowalu Town.~~

~~3. A detailed analysis of options for new highway access and traffic control, including a comparative assessment of O-turn and conventional traffic signals.~~

2. Water

a. Existing Conditions

Ground Water Resources

According to the Impacts on Water Resources Study prepared by Tom Nance Water Resource Engineering (Refer to **Appendix "~~C~~D"**), the State of Hawai`i Commission on Water Resources Management (CWRM) in its 1990 Water Resources Protection Plan (WRPP) set the sustainable yield for the Olowalu Aquifer System as three (3) million gallons per day (MGD) based on: 1) recharge to groundwater of four (4) to seven (7) MGD; 2) the assumption of all of the developable supply is basal groundwater with an initial head (i.e. water level) of five (5) feet; and 3) an analytical method that, for the basal groundwater conditions assumed, calculated that 44 percent of the aquifer's recharge can be developed as its sustainable yield. In 2008, the CWRM reduced the sustainable yield to two (2) MGD using the lower end of the estimated aquifer recharge.

Recharge calculations utilized by the CWRM are based on annual averages of rainfall, surface runoff, and evapotranspiration (ET). In relatively dry areas such as Olowalu, the use of annual averages to compute recharge often results in an overestimate of ET and a resulting underestimate of recharge and the sustainable yield as illustrated in the U.S. Geological Survey (USGS) Scientific Investigations Report 2007-5103. Using a daily time step method of computation, the USGS calculated the recharge to be 16 MGD.

The USGS Scientific Investigation Report 2012-5010 modified the method of computing recharge in the earlier 2007 USGS report. These modifications resulted in a slight increase in the weighted average recharge in the Olowalu Aquifer from 16.12 MGD (USGS, 2007) to 17.15 MGD (USGS, 2012).

Using the CWRM methodology to derive the sustainable yield from recharge, the USGS study suggests that the Olowalu Aquifer System may have a developable supply on the order of seven (7) MGD.

During the plantation period, Pioneer Mill Company developed two (2) wells ("O" Pump and "N" Pump) for irrigation purposes. Both wells are capable of producing 1.0 MGD of slightly brackish water suitable for supplemental irrigation use.

Water quality samples were taken from the Olowalu Wells and Olowalu Stream, as identified in **Table 38**.

Table 38. Water Quality of Samples from Olowalu Wells and Olowalu Stream

Sample Location	Sample Date	Forms of Nitrogen				Forms of Phosphorus			Silica (µM)	Salinity (PPT)
		NO_3 (µM)	NH_4 (µM)	DON (µM)	TN (µM)	PO_4 (µM)	DOP (µM)	TP (µM)		
Olowalu-Elua Well	6-11-10	4.00	0.90	16.70	21.60	0.70	1.60	2.30	760	0.175
Olowalu-Elua Well	6-09-11	7.60	39.40	12.50	12.50	0.64	1.36	2.00	726	0.183
Olowalu Shaft - Pump N	6-11-10	34.40	2.10	2.80	2.80	3.30	1.70	5.00	844	0.294
Olowalu Stream at 520'	6-11-10	0.40	0.80	20.20	20.20	0.60	1.70	2.30	721	0.160
Olowalu Stream at 210'	6-11-10	0.20	0.80	22.40	22.40	0.40	1.50	1.90	698	0.177

Notes:
1. Samples collected by Tom Nance of TNWRE
2. Water quality analyses by Marine Analytical Specialists.
3. The symbol µM stands for micro-molar. To convert µM to milligrams per liter (mg/l), multiply by the atomic weight and divide by 1000.

NO_3 = Nitrate
NH_4 = Ammonium
DON = Dissolved Organic Nitrogen
TN = Total Nitrogen
PO_4 = Phosphate
DOP = Dissolved Organic Phosphorus
TP = Total Phosphorus
Source: Tom Nance Water Resource Engineering

The water chemistry at the lower site was identical to the upper site, indicating that the water had emerged into the stream was probably discharged from high level ground compartments. Refer to **Appendix "D"**.

Surface Water Resources

Surface runoff results from the inefficiencies of Olowalu Ditch and the changes to rainfall-runoff. As observed in 2010, water diverted from the stream into the ditch was estimated to be about two (2) MGD. The flowrate recorded prior to discharge into the open storage reservoir was less than 0.9 MGD. The difference is attributed to leakage in transit, with essentially all of that leakage returning back to the stream and ultimately disappearing into the streambed below the 200-foot elevation.

Olowalu Water Company

The County of Maui, Department of Water Supply (DWS) presently does not service the Olowalu area. Water supply for the limited number of residential and commercial uses (including the Master Plan area for Alternatives 1 and 2) in the Olowalu area is provided by Olowalu Water Company, Inc. (OWC). OWC is a privately owned public water system (PWS) identified as DOH Public Water System No. 209 and State Well No. 4937-02, regulated by the State of Hawai`i, Public Utilities Commission (PUC). OWC provides both ~~potable~~drinking water and non-~~potable~~drinking irrigation water for residents and agricultural uses in Olowalu. The OWC received a Certificate of Public Convenience and Necessity (CPCN) from the PUC to provide ~~potable~~drinking water service in August of 2000. In November 2003, OWC amended the CPCN to add the sale of irrigation water from its ~~potable~~drinking and non-~~potable~~drinking water systems.

On August 17, 2011, the PUC approved a water rate increase to OWC for a total annual revenue increase of approximately $43,000.00 for its operating expenses. On March 12, 2012, the rate for both drinking and non-drinking water increased (Olowalu Water Company, 2015).

Water sources are from groundwater and surface water sources. The ~~potable~~drinking groundwater source is from the Olowalu Elua Well located

approximately 4,500 feet inland of the ocean at an elevation of 205 feet above mean sea level (MSL), and 100 feet west of Olowalu Stream.

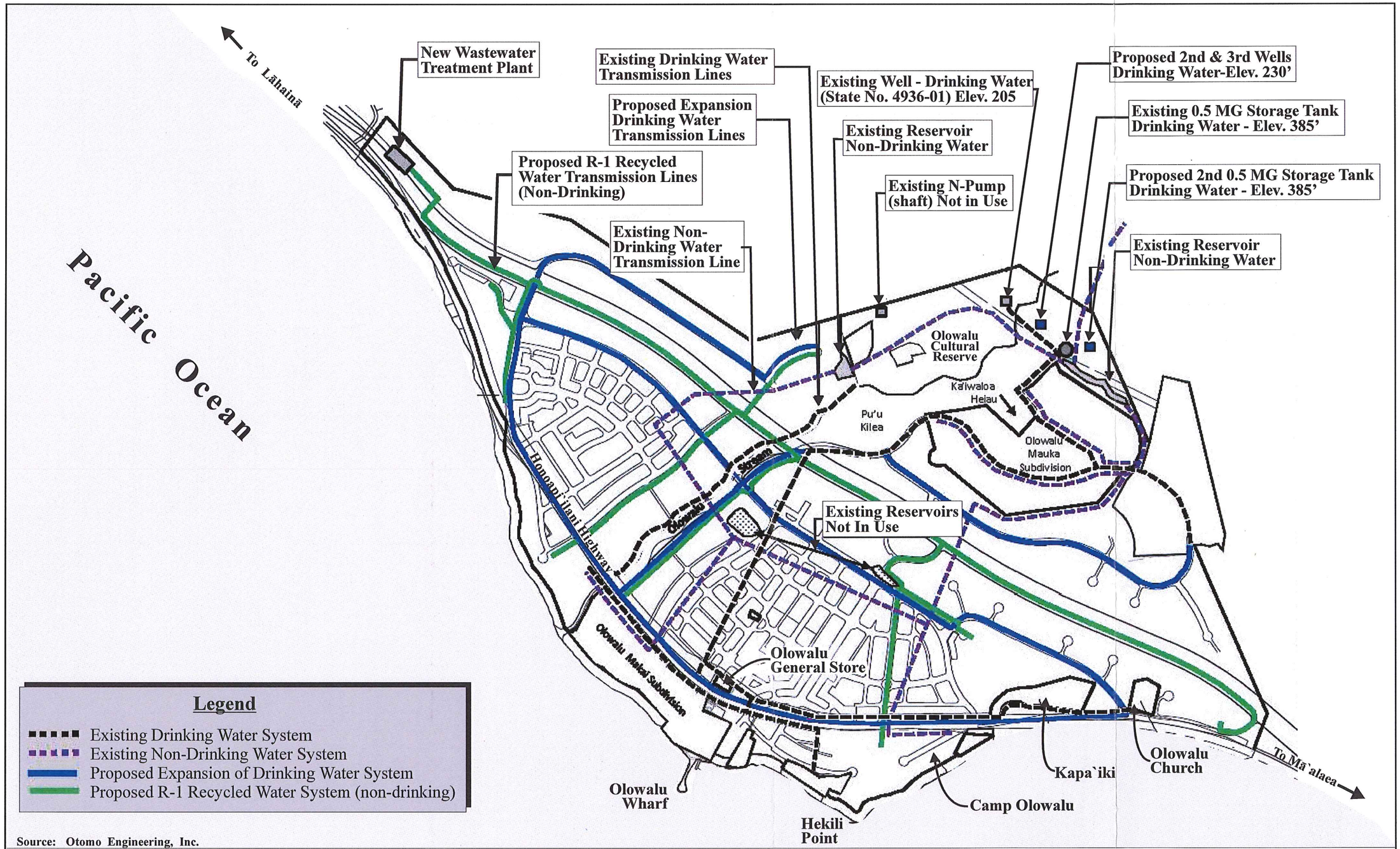
The Olowalu Elua Well provides freshwater with very low chlorides of 20 milligrams per liter (mg/L). The current pumping capacity of the well is approximately 250 gallons per minute (GPM) or 0.36 MGD. The extrapolation of the well's specific capacity suggests that it may be capable of producing approximately 400 GPM or 0.6 MGD. A 500,000 gallon storage tank with a 385-foot spillway is located above the Olowalu Mauka Subdivision. See **Figure ~~18~~27**.

The non-~~potable~~drinking surface water used for irrigation is provided by an existing diversion in Olowalu Stream at the 502 foot elevation, a 1.1-mile long conveyance ditch and tunnel system, and a main lined open storage reservoir at about the 360 foot elevation. The low head diversion dam on Olowalu Stream and conveyance ditch system is referred to as the Olowalu Ditch. There are also three (3) other lower elevation and unlined reservoirs, one (1) of which is still in use. Historically, the ditch system has averaged four (4) to five (5) MGD and daily flows have rarely dropped below two (2) MGD.

Year-round average supply from the PWS has varied between 0.04 and 0.06 MGD with an approximate year round average of 0.055 MGD. This system also provides fire protection to the existing Olowalu Mauka and Makai subdivisions.

b. <u>Potential Impacts and Mitigation Measures</u>

According to the Preliminary Engineering Report (PER) prepared by Otomo Engineers (Refer to **Appendix "~~B~~C"**), preliminary estimates indicate the average daily ~~potable~~drinking water demand for the Master Plan will be approximately 672,300 gpd, ~~which includes the users of the existing water system.~~due to sustainable measures proposed by LEED ND and incorporated into the Master Plan for Alternatives 1 and 2. The standards used in the PER reflect this reduced usage of water and for planning purposes is based on an estimated 900 single-family units and 600 multi-family units. The approximate 672,300 gpd is the total average daily demand for all drinking water uses, including the existing users of the existing water system.



Source: Otomo Engineering, Inc.

Figure ~~18~~27

Proposed Olowalu Town Master Plan

Existing and Conceptual Water System

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

OlowaluTown/MasterPl/Final EIS/ExistConceptWaterSystem

For comparison, the DWS's current planning standard for single-family units is 600 gpd and 560 gpd for multi-family units, which is higher than the standards used in the PER. Based on the DWS standards it is estimated that water for the single-family units would be approximately 540,000 gpd and 336,000 gpd for the multi-family units, totaling 876,000 gpd for the 1,500 new units. It is further estimated that water usage for the existing users including full buildout of the 14-lot Olowalu Mauka Subdivision will be approximately 75,000 gpd. Based on the DWS standards it is estimated the average daily demand for water will be approximately 951,000 gpd which is within the sustainable yield of the Olowalu Aquifer of 2.0 MGD established by the CWRM.

The existing water system will require the installation of a second well to meet the increased demand and a third well for back-up purposes. A new storage tank will also be constructed near the existing storage tank to meet the storage requirements of the project. Distribution lines will be installed from the storage tanks throughout the project site and will also include the installation of fire hydrants at appropriately spaced intervals. Refer to **Figure ~~18~~27**.

The maximum fire flow demand for the project will be based on the commercial and multi-family portions of the development at 2,000 GPM for a two- (2) hour duration with a maximum hydrant spacing of 250 feet. The DWS standards also require a minimum flow of 500 GPM with 500 foot hydrant spacing for agricultural use and 1,000 GPM with 350 foot hydrant spacing for rural and single-family residential uses. The existing water system providing fire protection to the Olowalu Mauka and Makai subdivisions will need to be upgraded to provide fire protection to the Master Plan area. The Applicants also propose to upgrade the water system to Olowalu General Store and Kapa`iki. Refer to **Figure ~~18~~27**.

For irrigation purposes, it is estimated that the Master Plan for Alternatives 1 and 2 will need approximately 0.65 MGD of water. A key component of the Master Plan's Integrated Resource Management Plan for Alternatives 1 and 2 is to significantly reduce or eliminate the use of ~~potable~~ groundwater (for drinking purposes) for irrigation needs. As such, irrigation water will be provided by multiple sources, including 0.24 MGD of R-1 water from the wastewater system, 0.39 MGD from surface water supplied by the Olowalu Ditch, and 0.02 MGD (as a year-round average) would be periodically

supplemented by Pumps "N" or "O". The existing non-~~potable~~drinking water system will be expanded to service the Master Plan for Alternatives 1 and 2 to include additional storage and distribution lines, as necessary.

These improvements will provide sufficient and reliable water supply to meet the ~~potable~~drinking, non-~~potable~~drinking and fire protection needs of the Master Plan for Alternatives 1 and 2 and existing users.

Water Resources

It is estimated that groundwater discharged at the shoreline will be reduced by six (6) percent, with an increase in nitrogen by 10 percent and a decrease in phosphorus by about one (1) percent ~~and is~~. These changes are not anticipated to have an impact on water quality. Refer to **Appendix "~~C~~D"**.

~~As projected,~~For planning purposes, the estimated 900 single-family and 600 multi-family units of the Master Plan ~~will~~for Alternatives 1 and 2 and the existing users is estimated to require approximately ~~0.60~~0.95 MGD of groundwater for ~~potable~~drinking water use and 0.02 MGD of brackish water from Pump "N" or "O" for irrigation use. This will increase the use of groundwater to ~~0.70~~0.97 MGD, including the existing users of ~~potable~~drinking water. The projected future groundwater use of ~~0.70~~0.97 MGD is ~~substantially below~~within the sustainable yield of two (2) MGD established by the CWRM.

Of the estimated 0.65 MGD of water needed for irrigation purposes, approximately 0.39 MGD would be provided by surface water supplied by the Olowalu Ditch. The Olowalu Ditch is estimated to transport approximately two (2) MGD while only 0.9 MGD discharges into the storage reservoir due to leakage. Appropriate repair and maintenance of the ditch will supply the additional surface water needed for irrigation and will not create a difference in surface water discharge at the shoreline by Olowalu Stream.

3. Wastewater Systems

a. Existing Conditions

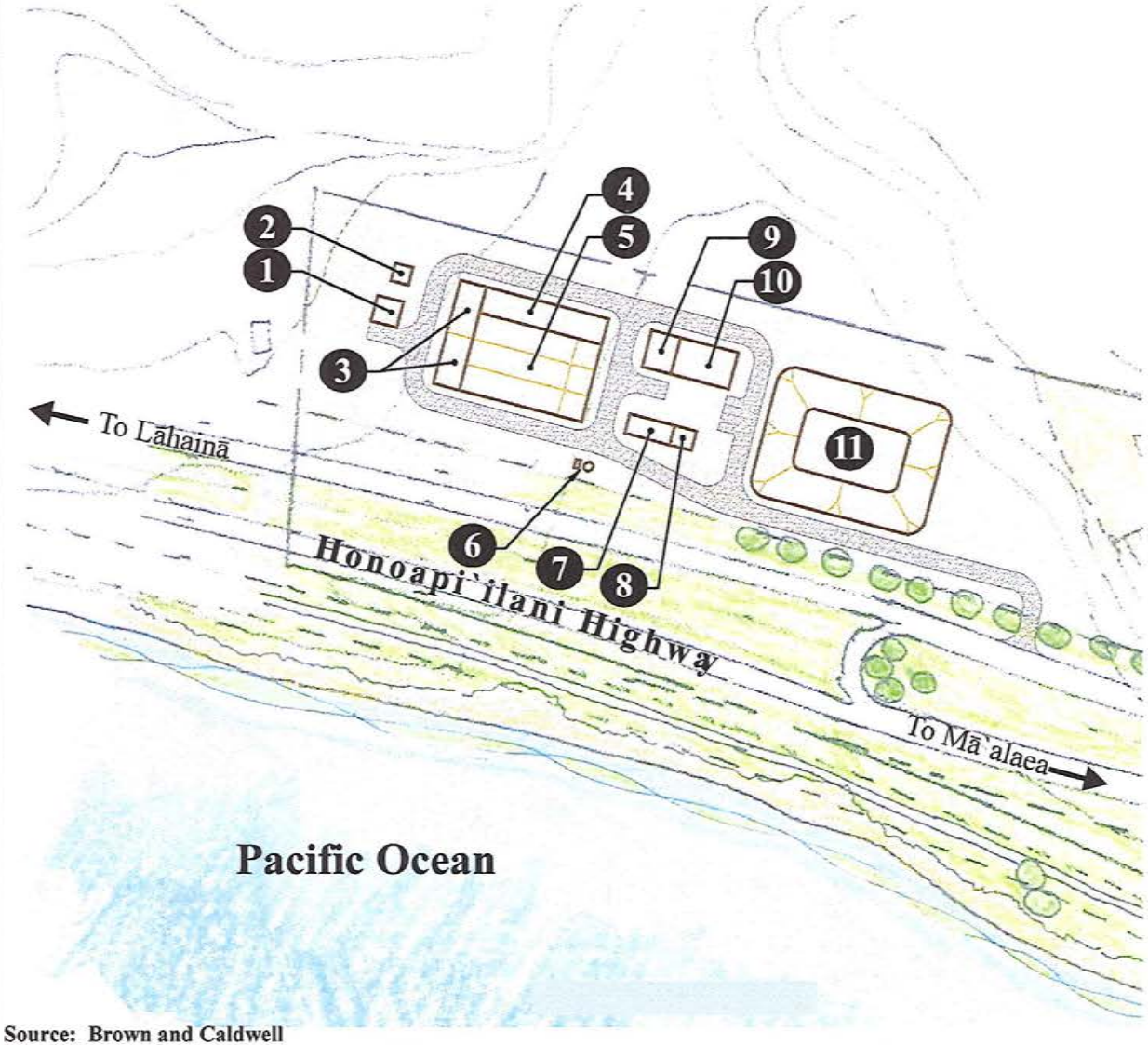
There are no County operated wastewater disposal facilities in the Olowalu area. The Olowalu community is serviced by independent private wastewater facilities. The residents at Kapa`iki have individual cesspools.

b. Potential Impacts and Mitigation Measures

A Wastewater Management Plan was prepared by Brown and Caldwell. See **Appendix "~~N~~Q"**. Based on County of Maui standards it is estimated that the Master Plan for Alternatives 1 and 2 will generate approximately 0.525 MGD of wastewater at buildout. A wastewater management plan was developed to handle the wastewater generated by the Master Plan for Alternatives 1 and 2 in accordance with the following goals:

- No injection wells for effluent disposal purposes.
- Provide for a high degree of water recycling to make the best use of water resources.
- Incorporate nutrient removal technology to protect the environment.
- Incorporate natural treatment systems where feasible and appropriate.
- Use conservative planning assumptions to ensure a high factor of safety.
- Meet or exceed all regulatory requirements.

Wastewater generated by the Master Plan for Alternatives 1 and 2 will be collected and pumped to a Wastewater Treatment Plant (WWTP) to be located adjacent to the Olowalu Recycling and Refuse Convenience Center, where the wastewater will be treated to DOH R-1 recycled water standards and Total Nitrogen (TN) reduced to less than 10 milligram/Liter (mg/L). The conceptual site plan for the WWTP identifying the components of the WWTP are shown in **Figure ~~19~~28**. Conceptually, the R-1 recycled water will be pumped to a storage tank located above the Olowalu Mauka subdivision to be used for irrigation. Supplemental groundwater will be added to the storage tank when



KEY

1. Headworks
2. Biofilter
3. Equalization Basins
4. Aerobic Sludge Digester
5. Membrane Bioreactor
6. Plant Drain Pump Station
7. UV Disinfection
8. Effluent Pump Station
9. Sludge Dewatering
10. Operations Building
11. Emergency Storage Basin

Source: Brown and Caldwell

Figure ~~19~~28

Proposed Olowalu Town Master Plan

Conceptual Wastewater Treatment Plant Site Plan

NOT TO SCALE

MUNEKIYO HIRAGA

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

Olowalu Town/MasterPl/Final EIS/ConceptualWastewaterTrtmtPlantSitePlan

the R-1 recycled water supply is insufficient to meet the irrigation demands of the Master Plan for Alternatives 1 and 2. During wet weather periods there may be excess recycled water that will require disposal by innovative natural treatment systems dependent primarily on natural components (e.g., vegetation, soil, etc.), which include a constructed wetland and soil aquifer treatment system. It is estimated that 90 percent of the recycled water will be used for irrigation purposes over the course of an average precipitation year.

The wastewater management system will include two (2) natural treatment systems that depend primarily on natural components to dispose of the excess recycled water. Such systems are designed to protect the environment by providing additional treatment benefits. The natural treatment systems include a constructed wetland and a soil aquifer treatment system. Refer to **Appendix "~~N~~Q"**.

The constructed wetland will be sized to treat the entire peak day wet weather flow of approximately 2.01 MGD and include open water areas and will provide additional (effluent polishing) treatment of recycled water as it flows through the wetland by naturally-occurring bacteria attached to the submerged vegetation, as well as by physical and chemical processes. The wetland will also provide bird habitat and a public open space amenity accessible to walking paths.

A soil aquifer treatment system will be used to dispose of excess recycled water after it has received the additional treatment benefits~~ that the~~. During most months the basins will be dry. During the wet winter months there may be excess recycled water that will flow to the soil aquifer treatment system. There will be additional treatment benefits, such as reduction of nutrients, and the removal of heavy metals, trace organic compounds and endocrine disrupting chemicals as the recycled water percolates through the soil at the bottom of the basins.

At full buildout, the wastewater treatment plant is expected to produce approximately nine (9) wet tons of sludge per week or about one (1) truck load. The dewatered sludge will be trucked to the Central Maui Landfill for processing with other wastewater sludge generated on the island. Currently, wastewater sludge is composted at the landfill. The proposed wastewater management system meets its goals, as follows:

- The project will not have injection wells for effluent disposal purposes.

- Provision of a high degree of water recycling to make the best use of water resources.

- Incorporation of non-chemical nutrient removal technology to protect the environment.

- Incorporation of natural treatment systems.

Through addressing the foregoing system goals, the Master Plan ~~is~~for Alternatives 1 and 2 is not anticipated to create significant adverse impacts on the environment and community.

4. Drainage

a. Existing Conditions

According to the PER, there are no existing drainage improvements within the project area. However, there are several unnamed drainageways that traverse the site in the north to south direction, as well as Olowalu Stream which direct both onsite and offsite surface runoff towards Honoapi`ilani Highway, which acts as a berm retaining or trapping a majority of the runoff mauka of the highway. Existing swales along the highway convey runoff into the HDOT drainage system consisting of grated inlet catch basins and inlet headwall structures which intercept surface runoff along the highway shoulder and conveys it under the highway via several drainage culverts to allow runoff to continue downstream into the ocean.

There are several retention basins and drainage culverts within the surrounding existing subdivisions and improved areas that have been developed. The existing retention basins were designed to accommodate only the increase in surface runoff due to the development of those areas.

There are four (4) distinct drainage areas within the Olowalu area that extend mauka. It is estimated that the existing onsite runoff for a 100-year, 24-hour storm from the four (4) drainage areas within Olowalu is approximately 1,010

cubic feet per second (cfs) and approximately 322 acre-feet of runoff volume. Refer to **Appendix "~~B~~C"**.

b. <u>Potential Impacts and Mitigation Measures</u>

The PER estimates the post development runoff from the built out Master Plan for Alternative 1 for a 100-year, 24-hour storm will be approximately 1,710 cfs and approximately 395 acre-feet of runoff volume, creating an increase of 700 cfs and 73 acre-feet of runoff volume. Alternative 2 involves a reduced drainage area and is estimated to have an onsite runoff volume of 57 acre-ft. See **Appendix "C-1"**.

According to the PER, the project will not involve significant alterations to the existing drainage pattern. Runoff will be collected by various methods, such as curb and grated inlet catch basins and conveyed by an underground drainage system to onsite retention basins and underground retention systems within the Master Plan area for Alternatives 1 and 2. The retention basins will generally be located within the parks and open space areas throughout the Master Plan area for Alternatives 1 and 2. The Master Plan for Alternatives 1 and 2 proposes approximately 223 acres and 200 acres, respectively, for parks and open space throughout the project, of which approximately 140 acres are available for drainage improvements. Approximately 15 to 20 percent of the 140 acres would be utilized for stormwater retention. Overflow from the retention basins will be allowed to continue downstream along the existing drainage pattern at no greater than pre-development rates. Project implementation, therefore, will not have an adverse effect to downstream properties and the nearshore environment. It is noted that Alternative 2 will retain the area makai of Honoapi`ilani Highway in its existing uses. Drainage patterns and existing conditions will remain unchanged. Refer to **Appendix "C-1"**.

The existing drainageways and Olowalu Stream traversing the Master Plan area for Alternatives 1 and 2 will remain generally in its natural condition except at road crossings where appropriate sized drainage culverts will be installed to allow runoff to continue downstream. The area around the drainageways will be graded and vegetated such that it will not have the existing runoff rates increased by the addition of runoff from the project improvements. The improvements will be designed in accordance with

Chapter 4, "Rules for the Design of Storm Drainage Facilities in the County of Maui".

The Master Plan for Alternatives 1 and 2 will be able to utilize the existing relatively flat topography with slopes between three (3) and five (5) percent and limit the need for extensive grading. Site specific grading plans and Best Management Practices (BMPs) will be developed to include construction and long-term measures to reduce erosion and mitigate adverse impacts to the environment.

The Stormwater Quality Enhancements Study for the Master Plan for Alternatives 1 and 2 proposes to implement an aggressive stormwater quality management program that aims to reduce the amount of stormwater from a development and to improve the quality of the runoff that occurs. The goals of the BMPs for the Master Plan for Alternatives 1 and 2 are as follows:

- Increase the volume of stormwater that infiltrates into the soil.
- Reuse stormwater where feasible.
- Improve the quality of stormwater that does run off.

To accomplish these goals, stormwater BMPs are being considered for the project as previously identified in **Table ~~10~~21**. Implementation of BMPs will reduce the amount of stormwater runoff from the project and improve the quality of the runoff that may occur. These BMP measures will reduce adverse impacts to downstream properties and the nearshore environment due to runoff from the Master Plan area for Alternatives 1 and 2. Refer to **Appendix "~~B-1~~C-2"**.

5. Electrical, Telephone and CATV Considerations

a. Existing Conditions

Electrical power and telephone service are provided to the Olowalu area by Maui Electric Company, Ltd. (MECO) and Hawaiian Telcom, via overhead lines along Honoapi`ilani Highway. MECO's 69 kilovolt overhead transmission lines from Central Maui to the Lāhainā-Kapalua area extend

along the lands situated mauka of the Honoapi`ilani Highway. Oceanic Time Warner does not currently provide cable service to the Olowalu area.

b. Potential Impacts and Mitigation Measures

Coordination with MECO and Hawaiian Telcom will be undertaken to ensure that all electrical and telephone service requirements for the proposed project are adequately addressed. Electrical and telephone distribution systems will be extended to serve the Master Plan for Alternatives 1 and 2. As the population increases in OTMP, the Applicants will coordinate with the cable company to discuss cable expansion requirements.

It is noted that energy saving measures prescribed by the U.S. Green Building Council will be utilized in all vertical construction. The principles of the LEED Green Building Rating System will be employed to advance energy sustainability principles envisioned for the Master Plan for Alternatives 1 and 2. Moreover, renewable energy systems will be further studied and explored ~~by the project'sNatural Resource Engineer~~ as project planning continues. Examples of such systems include the use of photovoltaic-generated energy to pump R-1 effluent from the project's wastewater treatment system to higher elevation storage tanks or reservoirs. The use of hydro-power from Olowalu Stream flows or from the gravity flow of the R-1 recycled water leaving the storage tanks or reservoirs may also be considered as part of the project's utilization goal for energy efficient and sustainable systems.

As the project progresses through the development process, the following LEED ND recommendations will be considered for the Master Plan for Alternatives 1 and 2:

- Encourage the design and construction of energy-efficient buildings that reduce air, water, and land pollution and adverse environmental effects from energy production and consumption.
- Design or construct buildings beyond the prerequisite, to be certified under LEED green building rating systems.
- For new single-family residential buildings and new multi-unit residential buildings three (3) stories or fewer, 90 percent of the buildings must achieve a Home Energy Rating System (HERS) index score of at least 75.

- Encourage building orientations that provide natural lighting and cooling effects to reduce dependency on artificial lighting and air conditioning.

- Incorporate on-site nonpolluting renewable energy generation, such as solar, wind, geothermal, small-scale or micro hydroelectric, and/or biomass, with production capacity of at least five (5) percent of the project's annual electrical and thermal energy cost.

- Encourage the development of energy-efficient neighborhoods by employing district heating and cooling strategies that reduce energy use and adverse energy-related environmental effects.

- Design, purchase, or work with the local government to install all new infrastructure, including but not limited to traffic lights, street lights, and water and wastewater pumps, to achieve a 15 percent annual energy reduction below an estimated baseline energy use for this infrastructure.

E. CUMULATIVE AND SECONDARY IMPACTS

1. Context for Cumulative Impact Analysis

Pursuant to Section 11-200-2 of the HAR, Chapter 200, entitled Environmental Impact Statement Rules, a cumulative impact means:

> *The impact on the environment which results from the incremental impact of the 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.*

A key element in understanding the requirement for assessing cumulative impacts, therefore, is the need to recognize what constitutes "reasonably foreseeable actions". Projects having relevance in this regard are the land use entitlements in Olowalu which are identified on the West Maui Community Plan, which include Kapa`iki and the surrounding agriculture designated lands.

2. Cumulative Impact Evaluation Parameters

To ensure that cumulative impacts are analyzed in a structured and systematic manner, parameters described in **Table ~~21~~39** have been used to address cumulative effects.

Table ~~21~~39. Criteria for Evaluating Cumulative Impacts

Assessment Criteria	Basis for Impact Evaluation
Time Crowding	Effects of frequent and repetitive actions on the environment
Time Lags	Delayed effects of a proposed action
Space Crowding	Effects of spatial density on the environment
Cross Boundary	Effects of an action occurring away from the source
Fragmentation	Effects or changes in landscape pattern
Compounding Effects	Effects arising out of multiple pathways
Indirect Effects	Secondary effects
Triggers and Thresholds	Effects defined by agency laws, policies or regulations

3. Methodology for Addressing Cumulative Impacts

A list of potential cumulative impact issues and concerns were identified through full review of comment letters received on the ~~EA/EISPN~~Draft EIS. While the issues and concerns addressed a broad range of impact considerations, screening of these issues and concerns was required to ensure that the scope of the cumulative impact assessment fell within the scope of a "cumulative impact" analysis, as set forth in Section 11-200-2 of the HAR, Chapter 200. Issues and concerns relating to cumulative impacts, as well as secondary impacts are listed below:

1. Impacts on natural resources, such as coastal ecosystems

2. Impacts to archaeological and cultural resources, including traditional and customary practices

3. Impacts of the proposed action on neighboring land uses, (e.g., Kapa`iki, Olowalu Makai Subdivision ~~and~~, 14-lot Olowalu Mauka Subdivision, and Olowalu General Store)

4. Implementation relationship between Master Plan for Alternatives 1 and 2 and the provision of infrastructure and public facilities systems

5. Impacts on State and County transportation systems (e.g., Honoapi`ilani Highway)

6. Impacts of the proposed action on shoreline access and recreational use of the shoreline

7. Impacts to the County land use plans

8. Impacts to the County water resources

The next step in the analysis involved the identification of applicable evaluative criteria to each of the issues and concerns raised. This step resulted in the formulation of an evaluative criteria matrix, as presented in **Table ~~22~~40**.

Table ~~22~~40. Evaluation Criteria Matrix

Assessment Criteria	Issues to be Addressed
Time Crowding	a. Impacts to natural resources b. Effects on water resources c. Impacts on archaeological and cultural resources d. Impacts on shoreline access and recreation
Time Lags	a. Impacts on County land use plans b. Effects on County water resources c. Effects on the State and County transportation systems
Space Crowding	a. Impacts to existing neighboring land uses b. Impacts to water resources c. Impacts on natural resources d. Impacts on archaeological and cultural resources
Cross Boundary	a. Effects on County land use plans b. Effects on State and County transportation systems
Fragmentation	a. Impacts upon existing neighboring land uses
Compounding Effects	a. Impacts on County land use plans b. Impacts on infrastructure systems and public services
Indirect Effects	a. Impacts to County land use plans b. Impacts on infrastructure systems and public services
Triggers and Thresholds	a. Effects on water resources b. Effects on State and County transportation systems

4. Cumulative Impact Assessment

Based on the methodology described in the previous sections, an analysis of each assessment criteria was undertaken for each applicable issue/concern. The analyses are presented below.

a. **Time Crowding Effects on Natural Resources, Water Resources, Archaeological and Cultural Resources and on Shoreline Access and Recreation**

Time crowding refers to the repetitive and frequent effects from an action upon a particular component of the environment. For example, from a natural resource perspective, time crowding effects may be possible depletion of a resource or opportunity based on recurring impacts on that resource or opportunity.

Natural Resources

Natural resources having a potential time crowding relationship to the Master Plan for Alternatives 1 and 2 include marine waters, marine biota, flora and fauna. The time crowding effect associated with marine waters, for example, includes potential water quality degradation, with repetitive contributions of stormwater runoff from the project site. The time crowding effect on flora and fauna relates to displacement of onsite flora and fauna and their habitat on an incremental basis over the anticipated construction build-out period.

With regard to the marine biota and flora and fauna, biological resource investigations have concluded that populations of reef fish in the area are typical of Hawai`i reefs~~ and there are no rare,~~. No threatened or endangered species ~~or their habitat~~ were found within the Master Plan area and along its offshore waters.

The endangered nēnē goose may use a portion of an irrigated pasture as a temporary habitat. Development of the Master Plan will retain some of the existing reservoirs that will remain available for wildlife. No mitigation measures are necessary. The OCR has succeeded in cultivating native dry land species which the Master Plan for Alternatives 1 and 2 will incorporate in its landscaping, to the extent practicable. Refer to **Appendices ~~"D"~~, "E"~~ and "E-1"~~, "F"**, and **"F-1"**.

~~With respect to marine waters, appropriate stormwater runoff mitigation will be required in accordance with County drainage regulations.~~ Information received from NOAA, NMFS identified three (3) marine species protected under the ESA. They included the threatened green sea turtle, endangered

hawksbill sea turtle, and endangered Hawaiian monk seal. Consultation with USFWS and NOAA will continue through project design to ensure the protection of ESA protected species, such as designing the outdoor lighting to be shielded and directionally downward. Measures such as developing an educational program, including appropriate signage within the project limits, to inform residents and visitors to Olowalu of the need to minimize human disturbances and interactions with Hawaiian monk seals will be coordinated with USFWS and NOAA. Although not listed under the ESA, it was noted by several commenters of the Draft EIS that the Olowalu waters are home to manta rays and is a nursery for black tip reef sharks, as well as frequented by tiger sharks.

Sediments from stormwater runoff is a major stressor of corals in the area. The OTMP proposes implementation of Stormwater Quality Enhancements (refer to **Table 21** and **Appendix "C-2"**) to reduce sediments and stormwater runoff from entering the ocean.

Proposed surface and subsurface retention basins, as well as LID measures in the Stormwater Quality Enhancements (refer to **Appendix "C-2")**, will handle 100 percent of the increased stormwater runoff from the project at full build-out as well as retaining a portion of the pre-development runoff. Project plans will also include mechanical filtration measures to mitigate impacts to the ocean's water quality. Properly managed, the use of the mechanical filtration measures and the retention basins with its natural filtering characteristics and implementation of the Stormwater Quality Enhancements and recommended BMPs will ensure that water quality degradation will not occur as a result of time crowding effects. It is anticipated the reduction of stormwater runoff to the ocean will improve water quality in the nearshore waters, especially at Olowalu Stream. Refer to **Appendices "BC"** and **"~~B-1~~C-2"**.

The implementation of BMPs and the reduction of stormwater runoff and sediments to the ocean primarily from Olowalu Stream is expected to improve the limited affected areas of the reefs off Olowalu and maintain the ecological settings unaffected by most human activities, with the exception of fishing. Refer to **Appendix "~~D~~E"**.

Water Resources

According to the Impact on Water Resources Study prepared by Tom Nance Water Resource Engineering, the Olowalu Aquifer has sufficient resource to accommodate existing users and the Master Plan. ~~Although the~~The CWRM in 2008 set the sustainable yield at two (2) MGD~~, the~~ using the low estimated recharge of 3.89 MGD. The 2012 USGS study suggests that the Olowalu Aquifer System may have a developable supply of approximately seven (7) MGD based on a higher estimated recharge of 16.12 MGD to 17.15 MGD. Preliminary calculations indicate that based on DWS standards at full build-out, utilizing for planning purposes 900 single-family and 600 multi-family units, it is estimated that daily ~~potable~~drinking water demand for the Master Plan~~ and~~, all existing users and the eventual buildout of the Olowalu Mauka Subdivision is approximately ~~672,300~~951,000 GPD, which is ~~well below~~within the threshold of the sustainable yield established by the CWRM. Refer to **Appendix "~~C~~D"**.

It is also estimated that approximately 0.65 MGD of total non-~~potable~~drinking water will be needed of which 0.24 MGD will be provided by the R-1 water from the wastewater system, and 0.39 MGD from surface water supplied by an improved Olowalu Ditch system that will reduce leakage from the system. Additionally, 0.02 MGD of brackish water (as a year round average) would be periodically supplemented by Pumps "N" or "O".

Archaeological and Cultural Resources

Several archaeological inventory surveys have been conducted within the project area. An Archaeological Literature Review was prepared by CSH for the proposed action. Refer to **Appendix "~~F-1~~G-1"**. Interim protection measures during construction will be implemented and long-term preservation measures shall be implemented in accordance with the Secretary of the Interior's Standards for Historic Preservation Projects to protect archaeological and cultural resources. As the Master Plan is developed during the ten (10) year period as may be required, site specific detailed archaeological surveys will be conducted and as appropriate, mitigation measures incorporated into the Master Plan, in consultation with SHPD.

A ~~Preliminary~~Final Cultural Impact Study prepared by CSH indicated there are traditional cultural practices that need to be preserved and safeguarded. Refer to **Appendix "H-1"**. Traditional access between the mountains and ocean, abundant ocean resources and rich forest resources need to be preserved and protected to ensure the quality of these resources are not degraded or over-used by the new residents and public. However, an increase in traditional Hawaiian fishing and gathering practices are viewed as a good thing.

Cultural participants noted that Olowalu, besides limu gathering, has excellent opportunities for fishing. The waters of Olowalu contain subsistence resources for the community and is known for its `ō`io, aku, and akule fishing. Concerns voiced included sediment-laden runoff and potential injection wells degrading the waters of Olowalu. As noted previously, measures proposed in the Stormwater Quality Enhancements are expected to reduce sediments and stormwater runoff from entering the ocean. Also, OTMP proposes to utilize a constructed wetland and soil aquifer treatment system to treat wastewater prior to reuse of the R-1 recycled water. These measures are proposed to mitigate potential impacts to water quality and marine resources at Olowalu. Refer to **Appendix "H-1"**.

The OCR will ensure that access between the mountains and ocean is maintained and preserved in perpetuity~~ and work~~. The ongoing work of the OCR includes the perpetuation of traditional Hawaiian agriculture, as well as restoration of native plants and historic properties, and educational and outreach programs developed by members of the OCR. Work in the OCR will safeguard the natural, archaeological and cultural resources in the Olowalu Ahupua`a. Development of the Master Plan for Alternatives 1 and 2 will incorporate environmental systems that will protect the environment. As such, adverse impacts to cultural resources are not anticipated.

Shoreline Access and Recreation

The shoreline area located within the State of Hawai`i beach reserve area is designated~~ as~~ "Conservation" ~~on the State land use map~~by the State Land Use Commission. The beach reserve is not included in the Master Plan for Alternatives 1 and 2. The Master Plan does not propose any changes to the SLU "Conservation" ~~designated lands~~district lands in ~~the Master Plan~~Olowalu. Accordingly, those lands will remain designated as

"Community Plan", "Open Space" or "Park" land under the West Maui Community Plan.

~~The~~As previously noted, the Master Plan observes an existing minimum 150 ~~feet~~-foot shoreline setback from the current shoreline where no development is proposed except for public access to and along the shoreline and non-structural recreational park~~s~~ uses. It is noted that Alternative 1 encompasses both mauka and makai lands, while Alternative 2 covers land mauka of Honoapi`ilani Highway. Refer to **Figures 4** and **5**. The setback was established in 2000 as part of the SMA Use Permit granted for the Olowalu Mauka subdivison, as well as in~~In~~ recognition of potential concerns related to shoreline erosion and sea level rise that may result in an inland recession of the shoreline and disappearance of the beach reserve over time~~, a~~. The existing minimum 150-foot shoreline setback area will be maintained within the Master Plan during its development to prevent future endangerment of structures, as well as ensure public access to the shoreline. Refer to **Figure 4** and **Figure 5**.

Makai of the existing Honoapi`ilani Highway, the Master Plan for Alternative 1 proposes establishing significant land areas as "Open Space" or "Park" to provide continuous access to and along the shoreline and greater opportunities for recreational purposes. Alternative 2 will retain the makai lands in its existing use, which includes limited public access to the shoreline. Once Honoapi`ilani Highway is relocated further mauka, the existing highway will become a lower speed roadway that will provide safer access to the recreational uses in the makai shoreline area as well as to the Master Plan area.

b. <u>Time Lag Effects on County Land Use Plans, County Water Resources and State and County Transportation Systems</u>

Time lag effects refer to changes to the environment which may occur over a longer duration. Such effects, for example, may include changes in microclimates resulting from changes in land cover characteristics. Such changes may not be immediately identified, but may, over a period of time, become apparent. The applicability of time lag effects to cumulative impact issues has been evaluated with regard to the County's land use plans, County water resources and the State and County transportation systems.

County Land Use Plans

The Master Plan ~~is~~for Alternatives 1 and 2 is consistent with the themes and principles of the Maui County General Plan Countywide Policy Plan. Refer to Chapter ~~III~~IV, Section ~~D~~F. The ~~draft~~ Maui Island Plan (MIP) ~~which~~ will guide long range planning for the island ~~is currently under review by the Maui County Council. Both the General Plan Advisory Committee (GPAC) and Maui Planning Commission (MPC) recommended inclusion of the Master Plan in the Urban and Rural Growth Boundaries for the West Maui region. Olowalu Town, LLC and Olowalu Ekolu, LLC will continue to be an active participant in the MIP process to encourage the County Council to include the Master Plan in the growth boundaries of the MIP. If the MIP is adopted prior to the Final EIS, conformity with the MIP will be addressed.~~and was approved by Ordinance No. 4004 on December 28, 2012.

The MIP included portions of the OTMP in the Urban Growth Boundary (UGB) and the Rural Growth Boundary (RGB). The makai (ocean-side) portion of the OTMP was not included in the directed growth maps. However, the MIP includes language that the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan. Alternative 1, in an application for a community plan amendment, will request inclusion of the makai portion in the UGB. The proposed request is in accordance with the MIP in order "to enhance public shoreline access and open space; protect adjacent coastal and marine ecosystems (including the reefs of Olowalu); and implement the proposed Pali to Puamana Parkway Plan" (MIP at 8-64).

Alternative 2 implements OTMP in accordance with the current UGB and RGB of the MIP. However, exclusion of the makai lands leaves the area in its present use and does not enhance shoreline access, parks, and recreational facilities, or implement the intent of the Pali to Puamana Parkway Plan to provide shoreline parks.

It should be noted that "the distinct boundaries of the parks and open space, specific locations of the recreational uses, and the precise amenities will be further defined during the West Maui Community Plan Update and the project review and approval process" (MIP at 8-64). As such, during the community

plan amendment process, the parks and open space areas and uses will be further defined.

In addition to the State Land Use Commission district boundary amendment, the Master Plan for Alternatives 1 and 2 will require a community plan amendment and change in zoning to establish appropriate underlying land use designations. The approving authority for the community plan amendment request and the change in zoning request is the Maui County Council. Applications will be filed with the County of Maui~~ after the MIP has been adopted~~.

The County's proposed Pali to Puamana Parkway Master Plan proposes to preserve lands on the makai side of a future mauka relocation of Honoapi`ilani Highway for parks and open space. The plan includes the ~~Master Plan~~OTMP area and identifies a mauka alignment of the highway and parks makai of the existing and realigned Honoapi`ilani Highway at both ends of ~~the Master Plan~~Olowalu at Camp Olowalu and on lands north of Olowalu Stream. The ~~Master Plan~~OTMP as identified in Alternative 1 is consistent with the purpose of the proposed Pali to Puamana Parkway Master Plan and includes a future mauka relocation and widening of Honoapi`ilani Highway, an expanded Camp Olowalu area as "Park" and "Open Space", and a portion of the area north of Olowalu Stream and along the shoreline within the 150 feet shoreline setback area as "Park" and "Open Space". ~~A~~In Alternative 1, a sizable amount of park and open space area makai of the existing highway has been provided in the vicinities recommended by the Pali to Puamana Parkway Master Plan. Refer to **Figure 4**.

It is noted that the proposed Pali to Puamana Parkway Master Plan has not been adopted by the County of Maui through an amendment to the West Maui Community Plan. However, both Alternatives 1 and 2 include the corridor for the realignment of Honoapi`ilani Highway inland from the shoreline and retention of the existing highway. Alternative 1 also promotes the intent of the Pali to Puamana Parkway Master Plan to establish parks, open space, and recreational amenities on the makai-side of Honoapi`ilani Highway. Although it maintains existing public access to the shoreline and recreational uses, Alternative 2 lands lie mauka of Honoapi`ilani Highway and does not affect park and open space development potential on the makai side of the highway.

County Water Resources

The County's Water Use and Development Plan was adopted in 1990 and is currently being updated by the DWS. Significant changes have occurred since development of the plan such as the demise of large scale agriculture (sugarcane and pineapple) by Pioneer Mill Company and Maui Land and Pineapple Company, who were major users of surface water and groundwater in West Maui. The plan also envisioned the development of brackish groundwater sources as ~~potable~~drinking water in areas such as Olowalu by utilizing new technologies, such as reverse osmosis, electrophoresis, and solar powered stills to reduce chloride levels to acceptable levels.

The Master Plan for Alternatives 1 and 2 proposes to expand and upgrade the existing public water system servicing Olowalu Town, including those to existing users, and installing two (2) new ~~potable~~drinking water wells in the Olowalu Aquifer. Besides improving the ~~potable~~drinking water source, the upgrade of transmission lines will provide improved fire protection to Olowalu. The approximate total ~~potable~~drinking water demand, including current water users, is estimated as ~~672,300~~951,000 GPD, well below the two (2) MGD sustainable yield for the Olowalu Aquifer. The lower demand for ~~potable~~drinking water is due to the proposed reuse of R-1 recycled water and repair of the leaks in the Olowalu Ditch system for irrigation purposes, as well as on an as-needed basis brackish water from pumps "N" and "O".

The Master Plan for Alternatives 1 and 2 will require two (2) new wells in the Olowalu Aquifer. The future development of the new wells will follow the process for well construction and pump installation set forth under Chapter 174, HRS, with the likely imposition of conditions. Pump capacity limits for the wells, will be required to respect the Olowalu Aquifer's two (2) MGD sustainable yield, although the 2012 U.S.G.S. study has indicated the sustainable yield may be greater at 7.0 MGD.

Measures such as the use of recycled water and repairs to the existing Olowalu Ditch for irrigation reduces the use of ~~potable~~drinking water for such purpose and ensures long-term water availability will be provided for the project and existing users. As a self–sustaining privately-owned public water system with an independent source not connected to the County's West Maui water system,

the Master Plan for Alternatives 1 and 2 will not affect the County's water system.

State and County Transportation Systems

Both the Hawai`i Statewide Transportation Plan and Maui Long-Range Land Transportation Plan recommend improving Honoapi`ilani Highway to a four-lane roadway. The HDOT's Honoapi`ilani Highway Realignment/ Widening Mā`alaea to Launiupoko project and County's Pali to Puamana Master Plan proposes to relocate Honoapi`ilani Highway further mauka to facilitate the State's and County's vision to move the highway inland, away from its existing, more environmentally sensitive coastal alignment. In accordance with these plans the Master Plan for Alternatives 1 and 2 includes the corridor for a future relocated highway following a mauka alignment.

Existing traffic flows through Olowalu is primarily through traffic entering or leaving West Maui communities. Construction of the future relocated highway will allow traffic to continue to flow freely through Olowalu while the existing Honoapi`ilani Highway will become a local roadway providing access mainly to the Master Plan area and shoreline recreation areas. The future widening of the relocated highway to four (4) lanes will provide increased highway capacity to accommodate future traffic flows to the West Maui region as well as accommodate a future transit system.

In terms of time lag, therefore, processes are in place to ensure that the County's land use plans and State and County transportation plans are implemented and that water resources of the Olowalu Aquifer are adequately protected. Approval processes for the two (2) new wells ensure that long-term water availability will be provided for the project, within the context of protocols and measures designed to protect the integrity of the Olowalu Aquifer.

c. Space Crowding Effects on Existing Neighboring Land Uses, Water Resources, Natural Resources and Archaeological and Cultural Resources

Space crowding refers to the effects of added density of the proposed Master Plan for Alternatives 1 and 2 upon the Olowalu community, including

neighboring landowners. In this regard, comments were raised expressing concern regarding the density of the project and the effects of the project's added population.

Existing Neighboring Land Uses

The Master Plan for Alternatives 1 and 2 proposes the addition of another 1,500 dwelling units, plus commercial and public/quasi-public uses. The estimated population of the Master Plan for Alternatives 1 and 2 at full build out is approximately 4,239 persons. The Master Plan ~~was~~for Alternatives 1 and 2 was developed with the input of the residents of Olowalu and neighboring landowners to ensure that impacts on the existing community are appropriately addressed. In particular, the proposed SmartCode will be incorporated into the Project District ordinance development standards to encourage the orderly development of a sustainable community.

To minimize impacts to Kapa`iki, park land is proposed adjacent to Kapa`iki as a separation from the urban town center. To moderate the effects of added densities, the future relocation and widening of Honoapi`ilani Highway and lower density rural lots serve as a transition zone between the country town centers and the existing 14-lot Olowalu Mauka agricultural subdivision. The proposed agricultural lots along Olowalu Stream will minimize impacts to the OCR, while the Olowalu Makai agricultural subdivision will preserve the low density character along the shoreline. Olowalu Stream and the OCR preserve the physical connection between the ocean and mountains, as well as separating the urban densities into two (2) lower density urban centers to encourage a country town character rather than a single consolidated higher density urban center.

In summary, the Master Plan for Alternatives 1 and 2 considers spatial relationships which seek to ensure an integrated land plan encompassing density allocations which respect surrounding land uses, as well as land use transitions which preserve character distinctions among the various land use types (i.e., urban-agricultural conflicts are avoided with appropriate land use transitions).

Water Resources

The Master Plan for Alternatives 1 and 2 will create additional water usage needs in order to accommodate the increased population. The need for additional water will improve the existing service in Olowalu Town with an expanded and upgraded water source and transmission system, including fire protection, for the existing residents. The improved water system serves to mitigate space crowding effects on water resources which may otherwise occur.

Natural Resources

The Master Plan for Alternatives 1 and 2 will create increased stormwater runoff and additional wastewater and solid waste disposal needs.

Stormwater runoff will be collected by a system of retention basins and filtration measures that will accommodate 100 percent of the increased runoff as well as a portion of the pre-development runoff. The drainage system is expected to prevent flooding in the area, as well as improve the near shore water quality by removing a portion of the sediment that currently enters the ocean. The construction of an environmentally sound wastewater treatment facility adjacent to the County's Recycling and Refuse Convenience Center will provide the opportunity for portions of the existing community to connect to the system and eliminate individual cesspools and septic systems ~~and accommodate solid waste from the Master Plan~~.

The foregoing measures serve to mitigate the space crowding effects on natural resources which may otherwise occur.

Archaeological and Cultural Resources

As stated previously, the proposed agricultural lots along Olowalu Stream will minimize impacts to the OCR by providing a buffer from the two (2) country town centers. The OCR is an integral part of the Master Plan for Alternatives 1 and 2. The OCR, with the continued support of Olowalu Town LLC and Olowalu Ekolu, LLC, will be able to implement its mission to create an educational and cultural pu`uhonua or sanctuary in Olowalu.

d. **Cross Boundary Effects on County Land Use Plans and State and County Transportation Systems**

Cross boundary effects refer to the effects the proposed action will have on areas outside the limits of the affected action. For example, the ~~withdrawal of water in one aquifer may affect the water level in an adjacent aquifer or over pumping of a well in close proximity to another well can result in less pumpage capacity from the adjacent well~~effects of increased land uses and improved infrastructures may encourage intensification in the use of neighboring properties.

The evaluative criteria for cross boundary effect considers whether the proposed action will affect future land uses and transportation systems for the West Maui region.

County Land Use Plans

Future land uses are guided by the County's General Plan, including the community plans. As previously stated, the County of Maui as part of updating its General Plan ~~is in the process of adopting~~ adopted the MIP ~~which proposes to~~by Ordinance No. 4004 effective on December 28, 2012. The MIP established ~~Urban Growth Boundaries~~ UGB and ~~Rural Growth Boundaries~~RGB for the island of Maui. The MIP ~~is a comprehensive review of~~comprehensively considered the future land use needs for Maui to the year 2030 in order to accommodate anticipated growth. In the context of this comprehensive planning process for the West Maui region, ~~both the GPAC and MPC have recommended inclusion of the Master Plan in the Urban Growth Boundary and Rural Growth Boundary in Olowalu. Olowalu Town LLC and Olowalu Ekolu LLC continue to participate in the MIP process to ensure the Master Plan is included in the MIP. The General Plan update process then, seeks to look at the West Maui region comprehensively, with the results being full consideration of cross boundary effects.~~portions of the OTMP were included in the MIP UGB and RGB.

As noted previously, the MIP included a provision that allows consideration of the makai lands in the UGB in the context of the West Maui Community Plan Update or a community plan amendment. Alternative 1 will pursue inclusion of the makai lands in the UGB during the community plan

amendment process. Alternative 2 is in compliance with the MIP's UGB and RGB.

Further, during the General Plan Update and adoption of the MIP, the Maui County Council comprehensively reviewed the West Maui region and was fully aware of cross boundary effects on the adjacent land uses, especially on Kapai`ki, OCR, Olowalu General Store, and the 14-lot Olowalu Mauka Subdivision. Proposed mitigation includes developing park land as a buffer area adjacent to Kapai`ki, expansion of the OCR, and developing agricultural lots along Olowalu Stream, developing the commercial core adjacent to Olowalu General Store, and developing proposed rural lots as a transition in land uses between the urban uses and the 14-lot Olowalu Mauka agricultural subdivision.

State and County Transportation Systems

~~The 2002 Hawai`i Statewide Transportation Plan provides policy-guidance to the horizon year 2025 for the development and management of Hawai`i's transportation systems. The goals of the Plan were to achieve a multi-modal transportation system, ensure the safety and security of our transportation systems, protect and support Hawai`i's unique environment, improve the quality of life, support Hawai`i's economic vitality, and implement a Statewide planning process.~~The 2014 Federal-Aid Highways 2035 Transportation Plan for the District of Maui was prepared to aid the State of Hawai`i in its decision making process relating to its long range transportation planning to the Year 2035 to modernize its transportation systems, improve safety and meet the sustainable goals of the State of Hawai`i. To increase roadway capacity, safety, and multi-modal facilities, the 2035 Transportation Plan recommends two (2) additional travel lanes for Honoapi`ilani Highway. The Master Plan for Alternatives 1 and 2 include the corridor for the realignment of Honoapi`ilani Highway further inland while maintaining the existing highway. This will provide an additional two (2) lanes of travel in the Olowalu Town area.

As part of the Statewide planning process, the HDOT has initiated the Honoapi`ilani Realignment/Widening (Mā`alaea to Launiupoko) project to connect to the Lāhainā Bypass currently under construction. The relocation and widening project will relocate the highway away from existing shoreline

erosion problems, improve highway capacity, and improve the reliability of access to and from the West Maui region. HDOT is in the process of preparing an EIS for the project. Olowalu Town LLC and Olowalu Ekolu, LLC, in conjunction with discussions with the HDOT, have included a future relocated highway through Olowalu to accommodate a future four-lane divided highway and landscaping. Ongoing dialogue with the HDOT is envisioned to determine the preferred alignment of the relocated highway.

In 2012, the HDOT, in coordination with FHWA and with the cooperation of the landowner, West Maui Land Company, proposed the relocation of the Lāhainā By-Pass Southern Terminus to the vicinity of the former Olowalu landfill. This roadway improvement is included in the 2015-2018 STIP. The proposed realignment of Honoapi`ilani Highway in Olowalu connects to the Lāhainā By-Pass.

The County of Maui Long-Range Land Transportation Plan, February 1997, recommended island-wide highway improvements which included widening of Honoapi`ilani Highway to a four-lane roadway four (4) miles west of Mā`alaea Harbor to the Lāhainā Bypass. In 2005, the County prepared the Pali to Puamana Parkway Master Plan which recommended realigning the highway further mauka from the shoreline and development of open space and parks makai of the new highway alignment. The Master Plan ~~is~~for Alternatives 1 and 2 is a refinement of this Plan in Olowalu and is consistent with the purpose of the County's proposed Pali to Puamana Parkway Master Plan. The Master Plan for Alternatives 1 and 2 includes a mauka relocation of Honoapi`ilani Highway~~,~~. Makai of Honoapi`ilani Highway, Alternative 1 includes an open space/park north of Olowalu Stream and south at Camp Olowalu while Alternative 2 does not affect land use conditions makai of the highway. The Pali to Puamana Parkway Master Plan recommended approximately 28 acres for park use in Olowalu~~, while the Master Plan includes approximately 223 acres of green space which includes parks, open space, landscape medians and grassed swales along roadways and large lawns at public and civic facilities.~~ makai of Honoapi`ilani Highway. Alternative 1 proposes approximately 23 acres makai of Honoapi`ilani Highway for park use. Alternative 2 does not include the makai lands.

Inasmuch as the Master Plan ~~has~~for Alternatives 1 and 2 has been and will continue to be a part of larger ongoing planning processes, it is anticipated that cross boundary effects will be appropriately addressed.

e. **Fragmentation Effects on Existing Neighboring Land Uses**

Fragmentation refers to changes to landscape patterns as a result of a proposed action. For example, fragmentation of a historic district may occur if development approvals for a project having non-historic architectural design elements are approved and developed adjacent to such district. Fragmentation may also result with the construction of a new highway through a habitat area, where the functional continuity of the habitat may be disrupted by the highway.

Existing Neighboring Land Uses

In the case of the Master Plan for Alternatives 1 and 2, the development will create a new community in the once thriving plantation town of Olowalu which will alter the area's character. The issue is whether an increase in the urban and rural landscape is deemed to be an adverse effect on Olowalu and the West Maui region. As stated previously, in its comprehensive review of the West Maui region, the ~~GPAC and MPC recommended the Master Plan be included in the growth boundaries of the MIP. As such, if the MIP is adopted to include portions or the entire Master Plan then such changes are planned in the context of future growth in Olowalu and the West Maui region.~~Maui County Council included portions of OTMP in the UGB and RGB of the MIP through Ordinance No. 4004 effective on December 28, 2012. The MIP also included provisions that will allow consideration of the makai lands in the UGB through the proposed community plan amendment process. Location of population growth to Olowalu will disperse growth outside of the Lāhainā to Kapalua area and reduce the outward expansion of the urban boundaries between these existing urban centers.

Historically, Olowalu has been a distinct and separate community with its own sense of place. The Olowalu Ahupua`a boundaries and the mountain ridges surrounding Olowalu physically separates it from Ukumehame and Launiupoko. The Master Plan ~~has~~for Alternatives 1 and 2 has been developed in consultation with the existing Olowalu Town community in order to ensure

a cohesive development pattern compatible with the existing landscape. The Master Plan for Alternatives 1 and 2 proposes to develop two (2) small country town cores with a country town character that will integrate into the existing community.

The formulation of the preferred infrastructure system elements required careful engineering analysis, taking into account land use relationships, environmental impact mitigation, and relationships to existing and planned infrastructure systems. The alignment of the mauka Honoapi`ilani Highway and site planning for infrastructure, such as the wastewater facility and public services considered the location of sensitive habitat, endangered and threatened flora and fauna, archaeological and cultural sites and other environmental constraints. These constraints were evaluated to minimize any disruptions to the environment and community.

f. Compounding Effects on County Land Use Plans and Infrastructure Systems and Public Services

Compounding effects relate to the additive and synergistic effects of impacts arising out of multiple pathways. For example, the implementation of new infrastructure which will ultimately serve new residential communities must be analyzed not only in terms of the Master Plan for Alternatives 1 and 2 itself, but also the reasonable foreseeable future developments which may develop as a result of the Master Plan for Alternatives 1 and 2.

County Land Use Plans

With regard to the Master Plan for Alternatives 1 and 2, compounding effects were assessed in connection with anticipated growth within Olowalu and the West Maui region.

Implementation of the Master Plan for Alternatives 1 and 2 will accommodate future population growth outside of Lāhainā town reducing the land use practice of outward urban sprawl between Lāhainā and Kapalua. The physical constraints of the West Maui Mountains surrounding Olowalu, current land ownership and environmental constraints limit future opportunity to develop Olowalu beyond the Master Plan for Alternative 1. Also, the land uses north and south of the Master Plan area for Alternatives 1 and 2 are limited to

agriculture, park and open space and are not proposed for any housing developments.

Infrastructure Systems and Public Services

The nearest existing agricultural subdivisions located at Launiupoko and Ukumehame have self-contained infrastructure to serve their developments and are not conveniently located adjacent to Olowalu to take advantage of the new infrastructure being provided in the Master Plan for Alternatives 1 and 2. As such, benefits of new infrastructure, except for the regional highway improvement, to be constructed in conjunction with the Master Plan for Alternatives 1 and 2 in the foreseeable future will accrue primarily to existing residents and future residents of the Master Plan for Alternatives 1 and 2.

If public facilities, such as a school, police and fire station, are constructed within the Master Plan for Alternatives 1 and 2, these services will become available to existing residents creating new operational relationships among the Master Plan residents of Alternatives 1 and 2, existing residents and agencies providing the respective public services. For example, new police and fire protection services in Olowalu will reduce the service area limits of the Lāhainā fire and police stations, thereby creating operational improvements for these services. From a recreational services perspective, the OCR, as well as the open space and park lands proposed in the Master Plan for Alternatives 1 and 2, will be open to residents and visitors outside of Olowalu, thereby relieving demand on other existing recreational facilities.

g. ~~Indirect Effects~~Secondary Impacts on County Land Use Plans and Infrastructure Systems and Public Services

Indirect effects are also referred to as secondary impacts, secondary effects, or indirect impacts. According to Section 11-200-2 of the Hawaii Administrative Rules, Chapter 200, entitled Environmental Impact Statement Rules, a secondary impact or indirect effect means:

> *Effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and*

related effects on air and water and other natural systems, including ecosystems.

County Land Use Plans

The indirect effect associated with the Master Plan for Alternatives 1 and 2 pertains to its implications for future growth in Olowalu and the West Maui region. Implementation of the Master Plan for Alternatives 1 and 2 will accommodate future population growth outside of Lāhainā Town reducing the land use practice of outward urban sprawl. This particular indirect effect will allow for the development of a new sustainable community while enabling a more moderate pace of development in existing urbanized areas of West Maui. As stated previously, the physical constraints of the West Maui Mountains surrounding Olowalu, current land ownership and environmental constraints limit future opportunity to develop Olowalu beyond the Master Plan area for Alternative 1, while opportunity exists to expand into the makai lands. The Master Plan for Alternatives 1 and 2 as a sustainable community proposes to include potential employment centers and public services to reduce the need to commute outside of the Master Plan for Alternatives 1 and 2. Importantly, the Master Plan ~~is~~for Alternatives 1 and 2 is envisioned as a housing project for residents that will encourage in-migration from other areas of Maui so workers who work in West Maui but live outside of the district can reduce their commute time and distance.

Infrastructure Systems and Public Services

New infrastructure needs created by the Master Plan for Alternatives 1 and 2 will result in additional water usage, increased stormwater runoff; additional wastewater and solid waste disposal needs in order to accommodate the increased population. The need for these services will improve the existing services in Olowalu Town with an expanded and upgraded water source and transmission system, including fire protection, for the existing residents. Stormwater runoff will be collected by a system of retention basins and filtration measures that will prevent flooding in the area, as well as improve the near shore water quality by removing a portion of the sediment that currently enters the ocean. The construction of an environmentally sound wastewater treatment facility adjacent to the County's Recycling and Refuse Convenience Center will provide an opportunity for portions of the existing

community to connect to the system and eliminate individual cesspools and septic systems as well as create an opportunity for the convenience center to expand into the Master Plan area for Alternatives 1 and 2. The Master Plan for Alternatives 1 and 2 will also require an increase in energy. To reduce dependency on fossil fuels, the Master Plan for Alternatives 1 and 2 proposes to utilize renewable energy systems, such as hydro-electric power, photo voltaic, solar, etc.

In this context, the Master Plan for Alternatives 1 and 2 is anticipated to have beneficial indirect or secondary impacts in the West Maui region.

h. Triggers and Thresholds Effects on Water Resources and State and County Transportation Systems

Triggers and thresholds refer to impacts which may be tied to indicators established through laws, policies, regulations or standards. Triggers and thresholds may include standards which identify key indicators which, when exceeded, would require special study or mitigation efforts. In traffic analysis for example, the LOS "F" reflects a worst case condition in terms of traffic operations. Such a LOS would require that traffic mitigation be implemented to bring conditions back within the acceptable range of operations.

Water Resources

With regards to the Master Plan for Alternatives 1 and 2, the parameter identified as requiring evaluation with respect to triggers and thresholds is the effect of the project on water resources. The threshold which must be considered is the two (2) MGD sustainable yield of the Olowalu Aquifer. The Master Plan for Alternatives 1 and 2 will require two (2) additional wells, however, at full build-out the project is estimated to require ~~672,300~~951,000 GPD, ~~well below~~within the two (2) MGD sustainable yield for the Olowalu Aquifer, although the U.S.G.S. has indicated the sustainable yield may be greater at 7.0 MGD. The future development of the new wells will follow the process for well construction and pump installation set forth under Chapter 174, HRS. Pump capacity limits for the wells will be required to respect the Olowalu Aquifer's two (2) MGD sustainable yield.

State and County Transportation Systems

The proposed Master Plan for Alternatives 1 and 2 envisions a system of arterials, collectors and local roads, integrated to provide an efficient and effective network for multiple forms of transportation including automobiles, bicycles, pedestrian and mass transit. Traffic impact evaluation will be required on an ongoing basis, over the 10-year project development timeframe to ensure that appropriate design features are incorporated into project plans as each phase of transportation infrastructure is implemented. In particular, at each phase of Project District development, traffic operations will need to be considered to ensure that applicable HDOT and County of Maui operational thresholds are met, either through design measures or transportation management measures.

i. Summary

The evaluation of cumulative and secondary impacts addressed key issues raised through the EIS process. Each issue has been analyzed with respect to applicable cumulative impact evaluative criteria. In general, appropriate mitigation measures and/or regulatory oversight processes have been identified to ensure that cumulative impacts for each key issue is managed, such that adverse conditions affecting the natural and man-made environments are mitigated and/or minimized.

~~III. ALTERNATIVES ANALYSIS~~

III. ~~ALTERNATIVES ANALYSIS~~

~~This chapter addresses alternatives considered in the development of the Master Plan and its various implementation components.~~

~~A. PREFERRED ALTERNATIVE~~

~~The preferred alternative described in Chapter I of this document was developed through an extensive community-based planning process referred to as "Olowalu Talk Story", which began in November 2005. The "Olowalu Talk Story" workshop or planning charette included the input of participants consisting of residents, community organizations, professionals, town planners, and government agencies. Project plans were continuously evaluated, assessed, and updated to incorporate the views of the participants and their stated desires in order to preserve Maui's quality of life, provide affordable housing for local residents, and preserve natural resources. Significant natural resources that were identified in the planning process for preservation or protection in recognition of the ahupua`a system of land management included the Olowalu Cultural Reserve (OCR), the archaeological and cultural resources of Olowalu, Olowalu Stream, Kapa`iki, the historic Olowalu Church, Camp Olowalu (formerly Pecusa), Olowalu Wharf, Olowalu General Store, the monkey pod trees on Honoapi`ilani Highway, the makai open spaces and recreational uses, and the coastal waters of Olowalu.~~

~~Refinement of the Master Plan has been through continued dialogue with interested parties established during "Olowalu Talk Story", especially with the residents of Olowalu. The preferred alternative of the Master Plan took six (6) years to develop and numerous iterations of the plan. The basic concepts of a sustainable and walkable community have been incorporated in the Master Plan. The country town centers are on relatively flat land and residential uses are within a five (5) minute walk to or one fourth mile of centers of activity to reduce the dependency on the automobile.~~

~~Concurrent with the refinement of the Master Plan, Olowalu Ekolu, LLC and Olowalu Town, LLC have participated in the Maui Island Plan (MIP) process to include the Master Plan in the proposed Urban Growth and Rural Growth Boundaries. Both the General Plan Advisory Committee and Maui Planning Commission have recommended the Master Plan in the MIP which is under review by the Maui County Council.~~

~~B. NO ACTION OR AGRICULTURAL SUBDIVISION ALTERNATIVE~~

~~On September 12, 2000 the Olowalu lands were granted Special Management Area Use Permit No. 990021 to develop the existing agricultural lots, including the Olowalu Makai Subdivision and Olowalu Mauka Subdivision. The agricultural lots sold in the Olowalu Makai Subdivision and portion of the lots in the Olowalu Mauka Subdivision have limited agricultural use, mainly landscaping or agricultural conservation. The lots are not being utilized for commercial farming. Of the remaining agricultural lots under the control of Olowalu Ekolu, LLC and Olowalu Town, LLC, there is limited diversified farming occurring on the properties. These include a tomato farm, cattle and horse grazing, and raising roosters. It is noted that these current agricultural enterprises share the benefit of low lease rents which support the business-side element of the farming operations.~~

~~The No Action Alternative would result in the continued sale of the remaining agricultural lots and the current limited agricultural use of the lots. While this option is considered a potential alternative use, the planning context for the proposed Master Plan is that of creating a comprehensively planned sustainable community which meets housing needs for local residents. The latter priority, established by the applicant, is deemed to yield a greater community benefit than the No Action Alternative. The rationale for the foregoing is provided below.~~

~~With the demise of Pioneer Mill in 1999 and cessation of pineapple cultivation in West Maui in 2009, there is an abundance of agricultural lands available for farming operations. Existing constraints, such as the ease in getting out-of-State agricultural products to State-wide markets at lower cost, limits diversified agriculture from expanding at a pace that would absorb the available agricultural lands. In the foreseeable future, there is no cash crop similar to sugarcane or pineapple envisioned that will be able to absorb the available vacant agricultural lands that were created with the demise of these two (2) plantations. There is interest in bio-fuel crops by the last remaining plantation on Maui. However, from an economic feasibility perspective, growing of such crops will more than likely require large-scale commercial farms rather than smaller diversified agricultural lots, such as those found in Olowalu.~~

~~With the surplus of agricultural lands available for farming operations on Maui, planning for future communities on the island must then discern lands which are most appropriate for meeting the needs of the island's residents and businesses, from historic, spatial relationship, infrastructural and environmental points of view. Based on the planning analysis and technical studies conducted for the Master Plan, the Olowalu area is considered a functionally appropriate opportunity for new community development.~~

~~C. DEFERRED ACTION ALTERNATIVE~~

~~The Deferred Action Alternative means that the land use entitlements and development implementation phases of the project would be undertaken at some future point in time. As noted previously, the proposed action has been in the planning and analyses phases of work since 2005. The process for securing appropriate land use entitlements typically span a number of years, to be followed by detailed design and engineering. In order to successfully program work for new community development, careful plotting of development milestones is needed to ensure that unnecessary delays are minimized. The Deferred Action Alternative is not considered applicable in this case as the need for a new community addressing local housing needs fall within a more immediate timeframe to coincide with the County of Maui's comprehensive planning processes of the MIP and update of the West Maui Community Plan.~~

~~D. OTHER USES ALTERNATIVE~~

~~From a master planning standpoint, alternative uses considered included developing resort uses, such as hotel units, with limited commercial support services to take advantage of the natural resources, especially the shoreline and ocean resources; as well as developing the area as a suburban residential area. These types of uses, however, are viewed as more traditional, taking away opportunity for focusing on a comprehensively planned sustainable community. The applicant's proposal is based on a philosophical priority which yields the land uses, product mixes and spatial relationships identified in the Master Plan.~~

~~E. INFRASTRUCTURE DEVELOPMENT CONSIDERATIONS~~

~~As a sustainable community, creative solutions for infrastructure systems will be required. The formulation of the preferred infrastructure system elements required careful engineering analysis, taking into account land use relationships, environmental impact mitigation, and relationships to existing and planned infrastructure systems. The basis for developing the preferred infrastructure system alternatives are described below.~~

~~Wastewater treatment and disposal requires utilization of technology that eliminates injection wells, locates facilities down gradient of water resources, locates facilities outside of any potential hazard area, such as the flood zones, and locates facilities in an area readily accessible, with limited impacts on existing and proposed residential and commercial uses. The wastewater facility site was selected on the northern portion of the property adjacent to the existing County of Maui's Recycling and Refuse Convenience Center which generates existing nuisances from noise, dust and odors and is accessible from an existing driveway.~~

~~Additionally, the site needed to be accessible to large landscaped areas in order to utilize the R-1 recycled water for irrigation, as well as provide for the natural treatment systems consisting of a constructed wetland and soil aquifer treatment system. The facility's proposed location next to the County's Recycling and Refuse Convenience Center also will accommodate the solid waste to be generated by the project.~~

~~The existing private water system needs to be upgraded with additional source wells, storage and transmission lines. The area on the mauka side of the future relocated Honoapi`ilani Highway near the existing well and water storage tank was selected as the most likely area for the new source wells and storage for convenient connection to the existing system. This location is up-gradient to allow gravity flow transmission lines and minimize the need for pump stations to supply potable water to the proposed and existing communities.~~

~~The alignment of the future relocated highway was designed to be consistent with the County's Pali to Puamana Master Plan, as well as the objectives of the Hawai`i Department of Transportation's (HDOT) Honoapi`ilani Highway Realignment/Widening Project (Mā`alaea to Launiupoko). The mauka alignment was selected based on the criteria of the Federal Highway Administration (FHWA) and HDOT, the topography of the site, and the existing natural constraints of the property where it narrows at both entrances to Olowalu along the shoreline. Relocating the highway further mauka will change the existing Honoapi`ilani Highway from a higher speed arterial to a lower-speed secondary roadway. The lower-speed secondary roadway will enhance and improve traffic safety of recreational users seeking to access the shoreline and create the opportunity to expand parks with associated amenities along the shoreline.~~

~~Drainage will be handled through a system of retention basins located within the approximate 140 acres of 223 acres of open space and park lands in the Master Plan. There is adequate acreage of open space and park lands included in the Master Plan to handle not only drainage but to provide necessary open spaces and park lands for both passive and active recreation. As a fundamental design criterion, the drainage system also needed to retain all the post development flows, as well as some of the pre-development flows in order to minimize impacts on the nearshore water quality, especially at the Olowalu Stream outlet.~~

~~F. SUMMARY~~

~~The alternatives considered by the applicant in formulating plans and systems for the Master Plan were based on lengthy study, in recognition that planning for a new sustainable community requires diligent and detailed analysis across a range of disciplines. The evaluation~~

~~of alternatives also involved a full process of community engagement which facilitated the identification of design and engineering options and their evaluative criteria.~~

~~III.~~IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

~~III.~~IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

A. STATE CONSTITUTION

Hawaii Constitution Article XI. Sec. 1 states:

> *For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.*
>
> *All public natural resources are held in trust by the State for the benefit of the people.*

Article XI. Sec 7. states:

> *The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people.*
>
> *The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources.*

The proposed action is not in conflict with the provisions of the State Constitution.

~~A~~B. STATE LAND USE DISTRICT

Chapter 205, Hawai`i Revised Statutes (HRS), relating to the State Land Use Commission (SLUC), establishes four (4) major land use ~~d~~Districts in which all lands in the state are placed. These ~~d~~Districts are designated as "Urban", "Rural", "Agricultural", and "Conservation". The Master Plan area ~~is~~for Alternatives 1 and 2 is located within the "Agricultural" ~~d~~District with limited areas falling in the "Conservation" District. Refer to **Figure 5~~6~~**.

A State Land Use (SLU) District Boundary Amendment (DBA) for those portions of the Master Plan area for Alternatives 1 and 2 located within the "Agricultural" ~~d~~District for reclassification to the "Urban" ~~d~~District and "Rural" ~~d~~District is being requested as part of the land use entitlements process to enable implementation of the proposed project. The proposed project ~~does not~~may include passive recreational uses within the Conservation District but will not involve development~~ within the Conservation district~~, such as single-family residences, nor does it propose reclassification of these lands. In Alternative 1, approximately 266 acres will be reclassified from the "Agricultural" District to the "Urban" District and approximately 168 acres to the "Rural" District. In Alternative 2, approximately 228 acres will be reclassified from the "Agricultural" District to the "Urban" District and approximately 168 acres to the "Rural" District. SLUC Rules (Section 15-15-50, Hawaii Administrative Rules (HAR)) require projects seeking reclassification to the "Urban" District to demonstrate that development of the project will be accomplished before ten (10) years after the date of the SLUC's approval of the DBA. In the event that full Urban development cannot be substantially completed within ~~ten (10) years or seek incremental approval~~that timeframe, the Applicants must submit a schedule of development of the total of the project showing 10-year increments. The market study indicated the project, once all land use entitlements are obtained, can be absorbed within eight (8) to ten (10) years~~ within the time frame of the SLUC~~. Criteria considered in the reclassification of lands are set forth in the SLUC Rules (Chapter 15-15, HAR). These criteria are discussed in the following section of this report~~:~~.

~~B~~C. STATE LAND USE DISTRICT CRITERIA

URBAN DISTRICT

Pursuant to Section 15-15-18 of HAR, the proposed Master Plan for Alternatives 1 and 2 meets the standards for determining the "U" Urban District boundaries, as follows:

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

Historically, Olowalu included concentrations of people and structures from pre-contact to the present day. As a plantation community, Olowalu was a thriving community consisting of housing, employment centers, such as the Olowalu Mill and its surrounding agricultural fields. The old wharf was used to transport agricultural goods, and the existing Olowalu Store served as the community's gathering place. The demise of sugarcane in West Maui marked the decline in the community. The

Master Plan for Alternatives 1 and 2 proposes to establish a new community in this former plantation town.

(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;

The Master Plan for Alternatives 1 and 2 proposes to establish a new community in the once thriving Olowalu plantation town through the creation of new opportunities for housing, employment, and support services. The Master Plan for Alternatives 1 and 2 includes a range of land uses. ~~The~~ Within the area proposed for the "Urban" District, the proposed project includes an estimated 375,000 square feet of commercial space. At full build-out, the project is expected to support approximately 1,000 jobs in commercial and industrial sectors. The Master Plan for Alternatives 1 and 2 would also provide for approximately 1,500 new residential units. Although the proposed project has a greater number of housing units than jobs, the Master Plan ~~is~~for Alternatives 1 and 2 is located in proximity to major employment centers in West Maui, including Lāhainā, Kā`anapali, and Kapalua. As previously mentioned, the Master Plan for Alternatives 1 and 2 will target the workforce market segment, which has consistently been in high demand. Central Maui has historically housed the largest proportion of the island's workforce population and many residents commute from Wailuku and Kahului to jobs in West Maui. The proposed project will provide workforce housing opportunities closer to West Maui employment destinations.

The "Conservation" District and "Agricultural" District lands are aimed at preserving the cultural history of the area and re-establishing the once thriving ahupua`a agricultural system of the early Hawaiians. The Rural and Urban land uses are envisioned to be the main centers of housing and employment opportunities with their supporting services.

(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; and

The Master Plan for Alternatives 1 and 2 includes basic services, such as opportunities for public facilities, including, but not limited to, parks, schools,

police, and fire. Approximately 223 acres and 200 acres, respectively, of active and passive parks and open space will be provided in the Master Plan for Alternatives 1 and 2. Additional detail regarding public facilities within the Master Plan for Alternatives 1 and 2 will be discussed with appropriate State and County agencies as the planning process for the project progresses to detailed engineering and design phases of project development. Infrastructure services, such as a private water system, wastewater treatment facility, and a future corridor for the inland relocation of Honoapi`ilani Highway, are addressed by the Master Plan for Alternatives 1 and 2.

(C) Sufficient reserve areas for foreseeable urban growth;

The Master Plan ~~is~~for Alternatives 1 and 2 represents a comprehensively planned community intended to be implemented over a 10-year horizon and includes sufficient areas for foreseeable urban growth. In a larger regional and islandwide context, the County of Maui's 2030 General Plan update process ~~will~~ examined ~~other~~ areas appropriate for urban growth. The General Plan's Maui Island Plan (MIP) component ~~is specifically designed to~~ establishes urban and rural growth areas on directed growth maps through the year 2030. ~~The General Plan Advisory Committee (GPAC) recommended that the Olowalu Master Plan be included within these directed growth boundaries. The Maui Planning Commission (MPC) recommended that the portion of the Master Plan mauka of Honoapi`ilani Highway be located within the directed growth boundaries. The MIP was transmitted to the Maui County Council on October 16, 2009 and is currently under review. See **Appendix "O"**.~~The MIP was adopted by Ordinance No. 4004, effective on December 28, 2012. The Implementation component of the MIP was adopted by Ordinance No. 4126, effective on May 29, 2014. As a directed growth strategy, the MIP identifies the Olowalu area for future growth by including Olowalu in the Urban Growth Boundaries (UGB) and Rural Growth Boundaries (RGB) on the directed growth maps. The MIP's UGB and RGB at Olowalu encompass lands mauka of Honoapi`ilani Highway. The MIP states that "the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan" (MIP at 8-64).

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

The Master Plan ~~has~~for Alternatives 1 and 2 has been formulated to accommodate natural and man-derived constraints, such as flood, tsunami, soil conditions, historic and cultural sites, and related land use-governing environmental parameters. It should be noted that ~~the Master Plan~~ Alternative 1 observes ~~a minimum~~the existing 150-foot shoreline setback~~, as well as maintenance of the~~ while Alternative 2 does not impact the properties makai of Honoapi`ilani Highway and the existing shoreline setback. Both Alternatives 1 and 2 maintain the Olowalu Cultural Reserve (OCR) to preserve archaeological, historic, and cultural resources. ~~The proposed Master Plan~~Alternatives 1 and 2 do~~es~~ not propose any development within the portion of the Master Plan area that is within Flood Zone VE. Apart from this, construction within flood hazard areas will be in compliance with Maui County Code (MCC) Section 19.62.060, relating to standards for development within flood hazard areas. It is noted that the proposed drainage improvements are expected to prevent the existing low level flooding in the AE Zone (less than one (1) foot) that occur in portions of the Master Plan area).

(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 or county community plans or development plans;

While the Master Plan area ~~is~~for Alternatives 1 and 2 is not contiguous to other urban lands ~~or currently~~it is designated on the ~~County General Plan~~MIP for future urban growth~~, the~~. ~~Master Plan is~~Alternatives 1 and 2 are viewed as an opportunity to establish a village community in the former plantation town of Olowalu to meet the island's growing need for housing. In this context, except for lands makai of Honoapi`ilani Highway, the ~~GPAC recommended~~County Council approved inclusion of the Master Plan area in the Urban and Rural Growth Boundaries of the directed growth maps of the MIP. ~~The MPC as well, recommended the Master Plan be included in the future growth boundaries. The Planning Department's recommendation to the Maui County Council, however, excludes the Master Plan from designation as a future urban and rural growth area. The MIP was transmitted to the Maui County Council on October 16, 2009 and is currently under review. The applicant will continue its participation in the MIP process to ensure appropriate consideration for urban and rural growth boundaries for the Master Plan. However,~~

~~due to the uncertainties surrounding the timing of the County Council's approval of the MIP and the lengthy entitlement process for the proposed project, the applicant is continuing to proceed with the DBA and other entitlement approvals for the proposed project while the MIP review continues. If the MIP is adopted prior to the submittal of the Final EIS, the Final EIS will address the project's compliance with the MIP goals, objectives, and policies. Refer to **Appendix "O"**.~~

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

As noted, the context for urban growth direction up to 2030, is being addressed through the MIP. ~~Although the process of deliberating and delineating the MIP maps is ongoing, the applicant is actively participating in the process, as reflected in the GPAC's and MPC's recommendations to include the Master Plan in the island's directed growth boundary.~~ The MIP designates Olowalu as an appropriate location for new urban concentrations. The MIP's UGB and RGB at Olowalu encompass lands mauka of Honoapi`ilani Highway. The MIP states that "the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan" (MIP at 8-64). As such, Alternatives 1 and 2 are appropriate locations for new urban concentrations.

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

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

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

~~The Master Plan~~ Alternatives 1 and 2 involves the establishment of a community in the former plantation town of Olowalu to provide workforce housing opportunities within the community and in closer proximity to jobs in West Maui. Planning for the proposed project via a master planning framework has considered the criteria for land use standards conformance. It is in this master planning context, that conformance to the standards have been addressed. The ~~applicant~~Applicants proposes to reclassify ~~460 acres~~approximately 434 acres in Alternative 1 and 396 acres in Alternative 2 of SLU "Agricultural" District land to the SLU "Urban" District and "Rural ~~designation~~"

District. This represents less than ~~0.02~~0.18 and 0.17 percent, respectively of the roughly 235,770 acres of agricultural lands on the island of Maui.

(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;

~~The Master Plan is~~Alternatives 1 and 2 are envisioned to establish a new, spatially and functionally integrated community at the location of the former Olowalu plantation town. Infrastructure services, parks and the right-of-way for the future inland relocation of Honoapi`ilani Highway will be provided by the Applicants. ~~The Master Plan~~ Alternatives 1 and 2 includes provisions for public services, such as educational facilities, police and fire protection services. Based on the master planning framework used in project planning, there is no unreasonable investment in public infrastructure or support services anticipated. Property tax revenues, mainly from the commercial uses, generated by the new development would help to offset County investment in public infrastructure or support services.

(8) It may include lands with a general slope of twenty per cent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state, or county agency, are adequate to protect the public health, welfare and safety, and the public's interests in the aesthetic quality of the landscape.

The Master Plan's urban-related uses for Alternatives 1 and 2 are to be located on lands with three (3) to five (5) percent slope and do not include lands with a general slope of twenty percent or more.

RURAL DISTRICT

Pursuant to HAR Section 15-15-21, the Master Plan for Alternatives 1 and 2 meets the standards for determining the "R" rural district boundaries, as follows:

(1) Areas consisting of small farms; provided that the areas need not be included in this district if their inclusion will alter the general characteristics of the areas;

The Master Plan for Alternatives 1 and 2 includes a range of land uses, including proposed rural lots which are envisioned to be adjacent to existing agricultural lands and serve as a transitional zone between the agricultural lands and the proposed urban town centers. The Master Plan envisions a reclassification of approximately 168 acres

from the SLU "Agricultural" District to the SLU "Rural" District. The ~~rural~~ lots in the "Rural" District will also provide residential flexibility which is not found within the ~~agricultural~~SLU "Agricultural" ~~d~~District.

(2) Activities or uses as characterized by low-density residential lots of not less than one-half acre and a density of not more than one single-family dwelling per one-half acre in areas where "city-like" concentration of people, structures, streets, and urban level of services are absent, and where small farms are intermixed with the low-density residential lots; and

The ~~rural designated~~SLU "Rural" District lands are envisioned to be a transitional zone between the existing agricultural lands and the future urban town center. The lots will range from the minimum one-half acre to larger lots and provide for larger residential house lots.

(3) It may also include parcels of land which are surrounded by, or contiguous to this district, and are not suited to low-density residential uses for small farm or agricultural uses.

~~The~~Less than 0.1 percent of land within the State of Hawai`i is in the "Rural" District. Accordingly, the areas proposed for "Rural" reclassification are not surrounded by or contiguous to ~~rural~~"Rural" District lands. However, these areas are designated within the RGB of the directed growth maps of the MIP. The Rural District lands within the Master Plan serve as a transition zone between the urban uses and agricultural lots. ~~Currently, there are no Rural-designated lands in Olowalu.~~ Areas proposed for "Rural" designation are envisioned as a low-density residential transition zone between the existing agricultural lands and the future urban town centers and does not preclude small-scale agricultural operations. The proposed Rural District designation is not anticipated to adversely impact neighboring agricultural activity on lands within the Agricultural District.

~~C~~D. 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. Examples of State objectives and policies relevant to the proposed Master Plan project are ~~as follows~~discussed below:

1. **Section 226-5 Objective and policies for population.**

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.

To achieve the population objective, it shall be the policy of this State to:

a. Manage population growth statewide in a manner that provides increased opportunities for Hawai`i's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.

b. Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.

c. Promote increased opportunities for Hawai`i's people to pursue their socio-economic aspirations throughout the islands.

d. 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.

2. **Section 226-6 Objectives and policies for the economy--in general.**

Planning for the State's economy in general shall be directed toward achievement of the following objectives:

a. Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai`i'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.

b. 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.

To achieve the economic objectives, it shall be the policy of the State to: Promote and protect intangible resources in Hawai`i, such as scenic beauty and the Aloha spirit, which are vital to a healthy economy.

3. **§Section 226-11 Objectives and policies for the physical environment--land-based, shoreline, and marine resources.**

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:

a. Prudent use of Hawai`i's land-based, shoreline, and marine resources.

b. Effective protection of Hawai`i's unique and fragile environmental resources.

To meet these objectives, it shall be the State policy to:

a. Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

b. Take into account the physical attributes of areas when planning and designing activities and facilities.

c. Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.

4. **§Section 226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources.**

Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai`i's scenic assets, natural beauty, and multi-cultural/historical resources.

To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:

a. Promote the preservation and restoration of significant natural and historic resources.

b. Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.

c. Protect those special areas, structures, and elements that are an integral and functional part of Hawai`i's ethnic and cultural heritage.

d. Encourage the design of developments and activities that complement the natural beauty of the islands.

5. **§Section 226-13 Objectives and policies for the physical environment--land, air, and water quality.**

Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:

a. Maintenance and pursuit of improved quality in Hawai`i's land, air, and water resources.

b. Greater public awareness and appreciation of Hawai`i's environmental resources.

To achieve the land, air, and water quality objectives, it shall be the policy of this State to:

a. Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.

b. Encourage design and construction practices that enhance the physical qualities of Hawai`i's communities.

6. **§Section 226-14 Objective and policies for facility systems--in general.**

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.

To achieve the general facility systems objective, it shall be the policy of this State to:

a. Accommodate the needs of Hawai`i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.

b. Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.

c. Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

7. **Section 226-15 Objectives and policies for facility systems--solid and liquid wastes.**

Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:

a. Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.

b. Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.

To meet these objectives, it shall be the State's policy to encourage the adequate development of sewerage facilities that complement planned growth.

8. **Section 226-16 Objective and policies for facility systems--water.**

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.

To achieve the facility systems water objective, it shall be the policy of this State to:

a. Coordinate development of land use activities with existing and potential water supply.

b. Reclaim and encourage the productive use of runoff water and wastewater discharges.

c. Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.

d. Support water supply services to areas experiencing critical water problems.

e. Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.

9. **Section 226-17 Objectives and policies for facility systems--transportation.**

Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:

a. An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.

b. A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.

To achieve the transportation objectives, it shall be the policy of this State to:

a. Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter.

b. Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs.

c. Encourage transportation systems that serve to accommodate present and future development needs of communities.

d. Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai`i's natural environment.

e. Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation.

10. <u>Section 226-18 Objectives and policies for facility systems--energy.</u>

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:

a. Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;

b. Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased.

To achieve the energy objectives, it shall be the policy of this State to:

a. Promote all cost-effective conservation of power and fuel supplies through measures, including:

(1) Development of cost-effective demand-side management programs

(2) Education, and

(3) Adoption of energy-efficient practices and technologies

11. <u>Section 226-19 Objectives and policies for socio-cultural advancement--housing.</u>

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 Hawai`i'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 Hawai`i'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 Hawai`i's people.

To achieve the housing objectives, it shall be the policy of this State to:

a. Effectively accommodate the housing needs of Hawai`i's people.

b. Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.

c. Increase home ownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.

d. Foster a variety of lifestyles traditional to Hawai`i through the design and maintenance of neighborhoods that reflect the culture and values of the community.

12. <u>Section 226-23 Objective and policies for socio-cultural advancement--leisure.</u>

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. To achieve the leisure objective, it shall be the policy of this State to:

a. Foster and preserve Hawai`i's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.

b. 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.

c. Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.

d. 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.

e. Ensure opportunities for everyone to use and enjoy Hawai`i's recreational resources.

f. Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.

13. <u>Section 226-25 Objective and policies for socio-cultural advancement--culture.</u>

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 Hawai`i's people.

To achieve the culture objective, it shall be the policy of this State to:

a. Foster increased knowledge and understanding of Hawai`i's ethnic and cultural heritages and the history of Hawai`i.

b. Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai`i's people and which are sensitive and responsive to family and community needs.

The foregoing State Plan objectives and policies will be advanced through the implementation of the proposed Master Plan for Alternatives 1 and 2.

The State Plan also includes priority guidelines which identify desirable courses of action in six (6) 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, and principles of sustainability. Examples of State priority guidelines relevant to the proposed Master Plan for Alternatives 1 and 2 are discussed below:

1. Section 226-103 Economic priority guidelines.

Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai`i's people and achieve a stable and diversified economy:

- 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 Hawai`i's unique location and available physical and human resources.
  (B) A clean industry that would have minimal adverse effects on Hawai`i's environment.
  (C) An industry that is willing to hire and train Hawai`i'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.

Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:

- 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.
- Assist in providing adequate, reasonably priced water for agricultural activities.
- Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.
- Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.
- Support the continuation of land currently in use for diversified agriculture.

Priority guidelines for water use and development:

- Maintain and improve water conservation programs to reduce the overall water consumption rate.
- Encourage the improvement of irrigation technology and promote the use of non-drinking water for agricultural and landscaping purposes.

Priority guidelines for energy use and development:

- Encourage the development, demonstration, and commercialization of renewable energy sources.
- Encourage the development and use of energy conserving and cost-efficient transportation systems.

2. **Section 226-104 Population growth and land resources priority guidelines.**

Priority guidelines to effect desired statewide growth and distribution:

- Manage a growth rate for Hawai`i's economy that will parallel future employment needs for Hawai`i's people.
- Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.
- Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.

Priority guidelines for regional growth distribution and land resource utilization:

- Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.
- Pursue rehabilitation of appropriate urban areas.
- Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.
- Identify critical environmental areas in Hawai`i 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.

- Utilize Hawai`i'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.
- Protect and enhance Hawai`i's shoreline, open spaces, and scenic resources.

3. **Section 226-105 Crime and criminal justice.**

Priority guidelines in the area of crime and criminal justice:

- Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.

4. **Section 226-106 Affordable housing.**

Priority guidelines for the provision of affordable housing:

- Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.
- Encourage the use of alternative construction and development methods as a means of reducing production costs.
- Encourage public and private sector cooperation in the development of rental housing alternative.
- Give higher priority to the provision of quality housing that is affordable for Hawai`i's residents and less priority to development of housing intended primarily for individuals outside of Hawai`i.

5. **Section 226-107 Quality education.**

Priority guidelines to promote quality education:

- Explore alternatives for funding and delivery of educational services to improve the overall quality of education;
- Development resources and programs for early childhood education.

6. Section 226-108 Sustainability.

Priority guidelines and principles to promote sustainability shall include:

- Encouraging balanced economic, social, community, and environmental priorities;
- Promoting a diversified and dynamic economy;
- Encouraging respect for the host culture;
- Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;
- Considering the principles of the ahupua`a system; and
- Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawai`i.

7. Section 226-109 Climate Change Adaptation.

Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:

- Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;
- 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;
- Explore adaptation strategies that moderately harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;
- 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;
- Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;

- Encourage planning and management of the natural and built environments that effectively integrate climate change policy.

There are also priority guidelines identified in the Hawai`i State Plan that require consideration of competing policy directions. These are illustrated by the following:

1. The priority guidelines to promote the growth and development of diversified agriculture and aquaculture includes the following:

   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.

   Comment: With the demise of the plantation in 1999, the former sugarcane lands have been left fallow and unproductive. Limited agricultural uses exist on these former sugarcane lands consisting of the tomato and tree farms and the efforts of the OCR to re-establish the *lo`is* and promote native plants. Although land is being removed from agricultural use, it will have other benefits to the community which advance other priority guidelines. The Master Plan for Alternatives 1 and 2 will provide housing and employment opportunities as well as preserve cultural resources and enhance recreation in the Olowalu area.

   As noted previously, according to the Agricultural Assessment, agriculture in the future will become more efficient in the use of land and resources. Hydroponic farming, represented by the tomato farm, will increase and will produce higher yields on less land, use of less water, and is not dependent on soil characteristics.

2. The priority guidelines and principles for regional growth distribution and land resource utilization also includes the following:

   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.

   Comment: Although Alternatives 1 and 2 are not within an existing urban area, they are located in an area historically utilized for housing first by native Hawaiians and more recently as plantation housing before enactment of Chapter 205, HRS and

the State Land Use Districts. Basic infrastructure, such as drinking and non-drinking water systems and transportation networks, are available in Olowalu Town. Implementation of the Master Plan for Alternatives 1 and 2 will be undertaken concurrent with the development of infrastructure and public services and facilities, such as development of a sewage treatment facility and transmission lines, construction of a drainage system, additional transportation networks, upgraded water systems and provisions for public facilities such as fire and police protection, educational facility and parks. In this context, the Master Plan for Alternatives 1 and 2 meets the intent of the priority guidelines relating to growth and land resources while providing housing and employment opportunities to Maui residents.

The State Functional Plans define actions for implementation of the Hawai`i State Plan through the identification of needs, problems and issues, and recommendations on policies and priority actions which address the identified areas of concern. ~~Twelve (12)~~Thirteen (13) State Functional Plans were adopted in the 1980s and updated in 1984, 1989, 1990, and 1991. The proposed Master Plan ~~is~~for Alternatives 1 and 2 is consistent with the following State Functional Plans' objectives:

1. **<u>Education Functional Plan</u>**

Objective A(4): Services and Facilities. Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual community needs.

**Objective C(2): Hawai`i's Cultural Heritage.** Promote educational programs which enhance understanding of Hawai`i's cultural heritage.

<u>Comment:</u> ~~The Master Plan~~Alternatives 1 and 2 include~~s the~~ provision ~~of~~for educational facilities. It is envisioned that the future educational facilities within the Master Plan for Alternatives 1 and 2 will incorporate lessons learned within the OCR as core components of its curriculum.

2. **<u>Employment Functional Plan</u>**

Objective D: Improve Quality of Life for workers and families.

<u>Comment:</u> The proposed project provides for a mix of commercial, public/quasi-public, and residential facilities, allowing residents the opportunity to live near

employment opportunities. The Master Plan for Alternatives 1 and 2 will also provide workforce housing opportunities in closer proximity to resort- and tourism-related jobs in Lāhainā, Kā`anapali, and Kapalua. Currently, the majority of workforce housing on the island is located in Central Maui and many people commute from Wailuku and Kahului to jobs in West Maui.

3. Historic Preservation Functional Plan

Objective A: Identification of historic properties.

Objective B: Protection of historic properties.

Objective C: Management and treatment of historic properties

Objective D: Provision of adequate facilities to preserve historic resources.

Comment: ~~The proposed Master Plan~~Alternatives 1 and 2 include~~s~~ the 74-acre OCR. It is envisioned that the future education facilities within the Master Plan for Alternatives 1 and 2 will incorporate lessons learned within the OCR as core components of its curriculum. Also, the significant archaeological, historic and cultural sites and features are being preserved in accordance with the preservation and maintenance plans approved by SHPD.

The Applicants and their consultants are conducting additional research relating to preserving and enhancing the project's sense of place. Such research includes reviewing historic land use records, maps and surveys, as well as interviews with kupuna to assemble names of Hawaiian families who are descendants of Olowalu or who resided in Olowalu; as well as the historic Hawaiian place names in the area, including the names of small districts within the Olowalu Ahupua`a. As the Master Plan progresses to implementation, consideration will be given to re-establishing these family names and historic place names in public places such as civic facilities, parks, streets and other places.

4. Housing Functional Plan

Objective A: Homeownership for at least sixty percent, or roughly 248,500 households by the year 2000.

Objective B: Acquire and designate land suitable for housing development in sufficient amount to locate the deficit in housing units by the year 2000.

Comment: The proposed Master Plan for Alternatives 1 and 2 will provide for a mix of residential housing types for a variety of income groups. ~~Half of the proposed 1,500 units will be reserved for workforce housing serving households earning between 80 percent and 160 percent of median income.~~Affordable housing will be provided in accordance with Chapter 2.96, Maui County Code (MCC), Workforce Housing Policy. However, as much as possible, the Applicants propose to provide as much affordable housing, as possible, greater than the requirements of Chapter 2.96, MCC.

5. Recreation Functional Plan

Objective II.C: Improve and expand the provision of recreation facilities in urban areas and local communities.

Objective III.A: Prevent the loss of access to shoreline and upland recreation areas due to new developments.

Objective IV.A: Promote a conservation ethic in the use of Hawai`i's recreational resources.

Objective IV.B: Prevent degradation of the marine environment.

Objective V.A: Properly maintain existing parks and recreation areas.

Comment: The proposed project includes provisions for active and passive parks, as well as open space areas. Approximately 223 acres of the Master Plan for Alternative 1 and approximately 200 acres for Alternative 2, have been designated for drainage, park and open-space. The Master Plan for Alternative 1 also provides for the preservation and enhancement of shoreline access to the existing beach reserve area and shoreline in the vicinity of the project. Alternative 2 will maintain existing access to the shoreline.

6. Transportation Functional Plan

Objective I.B: Reduction of travel demand through zoning and decentralization initiatives.

Objective I.E: Planning and designing State highways to enhance inter-regional mobility.

Objective II.A: Development of a transportation infrastructure that supports economic development initiatives.

Comment: The Master Plan ~~involves~~for Alternatives 1 and 2 includes the corridor for the proposed relocation of Honoapi`ilani Highway along a mauka alignment to provide a route which is consistent with the County of Maui's proposed Pali to Puamana Parkway Master Plan. The Pali to Puamana Parkway Master Plan includes recommendations for parks and open space areas makai of Honoapi`ilani Highway. The recent MIP recognizes that the location of these boundaries requires further review. As such, the MIP states that "the distinct boundaries of the parks and open space, specific location of the recreational uses, and the precise amenities will be further defined during the West Maui Community Plan Update and the project review and approval process". Alternative 1, during the various entitlement processes, will develop more specificity as to the location, uses and amenities to be provided. Alternative 2 does not include the makai lands which will remain in its existing condition.

The project is also coordinating the mauka alignment with the proposed Honoapi`ilani Highway Realignment/Widening from Mā`alaea to Launiupoko with the State of Hawai`i, Department of Transportation (HDOT). The mauka realignment of Honoapi`ilani Highway will facilitate the State's and County's vision to move the highway inland, away from its existing, more environmentally sensitive coastal alignment. In addition, the project is designed to be a pedestrian-friendly community which will allow residents to live within walking distance of corner stores, schools, parks, employment opportunities, gathering centers, beaches/shoreline, and other social and civic resources, reducing reliance on automobiles.

E. STATE OF HAWAI`I PLANS

1. Federal-Aid Highways 2035 Transportation Plan for the District of Maui:

In July 2014, the HDOT prepared the Federal-Aid Highways 2035 Transportation Plan for the District of Maui, to aid the State of Hawai`i in its decision making process relating to its long range transportation planning to the year 2035 in modernizing transportation systems, improving safety on highways, and meeting the State's ambitious, yet obtainable, sustainability goals. The Plan applies to Federal-aid

highways on Maui. Honoapi`ilani Highway (Route 30), between Main Street in Wailuku to Front Street in Lāhainā, is categorized as a National Highways System facility or Federal-aid highway.

Starting from the south shoreline, Honoapi`ilani Highway is classified as a principal arterial, changes to a minor arterial through Lāhainā, and then becomes a collector roadway through Kapalua. These highways serve as the primary "belt road" access around West Maui and connects the area's town and communities. Honoapi`ilani Highway from Wailuku through Mā`alaea, Lāhainā, and Kā`anapali would expect to see greater volumes by 2035. Nearly 51,000 daily vehicles could be expected to travel on the highway near Kā`anapali. This represents roughly 30 percent growth in traffic over existing conditions and would result in increased daily congestion and travel times between communities.

Issues identified in the 2035 Transportation Plan include 1) congestion, 2) shoreline and hillside protection of roadways, 3) improving safety for non-motorized modes of transportation, and 4) improving transit services. To increase roadway capacity, safety and multi-modal facilities, the 2035 Transportation Plan recommends two additional travel lanes for Honoapi`ilani Highway from Mā`alaea to Launiupoko, as well as from Wailuku to Mā`alaea. The estimated costs in 2011 dollars was $650 million and $121.4 million, respectively.

Implementation of the 2035 Transportation Plan will be conducted in a three (3) tier system. Tier 1 is the Statewide Transportation Improvement Program (STIP), which identifies projects that can be reasonably completed with available funds within four (4) years. Tier 2 is the Mid-Range Plan between the STIP and Long-Range Plan which are solutions that are anticipated to take eight (8) to ten (10) years to implement. Tier 3 is the Long-Range Plan which are solutions that are anticipated to take between ten (10) to twenty (20) years to implement.

The 2015-2018 STIP includes the following improvements to Honoapi`ilani Highway (See **Table 41**):

Table 41. 2015-2018 STIP For Honoapi`ilani Highway

Project #	Project Description	Estimated Construction
MS6	Honoapi`ilani Highway Realignment, Phase 1B2 - Hokiokio Place to Relocated Southern Terminus west of the former Olowalu Landfill and Phase 1C - Keawe Street Extension to North of Kā`anapali Connector. Estimated total project cost is $95,000,000.00 for the continuation of Lāhainā Bypass from Hokiokio Place to Relocated Southern Terminus and from Keawe Street Extension to North of the Kā`anapali Connector.	FY 2018
MS7	Honoapi`ilani Highway (Route 30), Safety Improvements from Ukumehame to Olowalu with an estimated Project Cost of $1,500,000.00. The scope of work includes, but is not limited to, installation of milled rumble strips on centerline and shoulders, pavement markings; and signing.	FY 2017
MS8	Honoapi`ilani Highway (Route 30), preservation improvements in the vicinity of Olowalu for shoreline protection for approximately 1,000 feet of Honoapi`ilani Highway on the west side of Hekili Point with an estimated cost of $3,500,000.00.	FY 2015

2. Ocean Resources Management Plan (ORMP)

The Ocean Resources Management Plan (ORMP) is a comprehensive plan mandated by HRS Chapters 205A and 225M. The ORMP is prepared to address activities by agencies and entities in the State of Hawai`i. The ORMP provides a framework and implementation strategy for State agencies and others working with State agencies. The framework considers ecological, cultural, historic, aesthetic, recreational, scenic, and open space values. The framework considers coastal hazards and it balances protection with economic development in marine and coastal areas.

The ORMP pays serious attention to and is investing in effective ocean management to protect the public health, promote public recreation, respect traditional practices, advance food security, enhance tourist activity, and grow Hawai`i's economy as a whole. The 2006 ORMP represents Phase I (2006-2012) of a phased approach to move from a sector-based approach implemented by jurisdictional entities to a place-based approach implemented by a broad base of stakeholders.

The 2013 ORMP addresses priorities for the Adaptation Phase (2013-2020). The third phase is termed Institutionalization (2020-2030) and will more firmly implant the perspectives in agency work plans. The final phase is termed Mainstreaming (2030 and beyond) and will come when the perspectives are practiced as standard, without the need to consider them for priority attention.

The 2013 ORMP establishes the following management priorities, which are the goals and actions agencies of the State of Hawai`i have committed to address and to make substantial and measurable progress during the period of 2013 to 2018. Collectively they contribute to resource protection.

Perspective 1: Connecting Land and Sea
Management Priority #1 Appropriate Coastal Development
Management Priority #2 Management of Coastal Hazards
Management Priority #3 Watershed Management

Perspective 2: Preserving our Ocean Heritage
Management Priority #4 Marine Resources
Management Priority #5 Coral Reef
Management Priority #6 Ocean Economy
Management Priority #7 Cultural Heritage of the Ocean

Perspective 3: Promoting Collaboration and Stewardship
Management Priority #8 Training, Education, and Awareness
Management Priority #9 Collaboration and Conflict Resolution
Management Priority #10 Community and Place-Based Ocean Management Projects
Management Priority #11 National Ocean Policy and Pacific Regional Ocean Initiatives

The ORMP includes goals to achieve the management priorities, which are being implemented in the Master Plan for Alternatives 1 and 2:

Management Priority #1 Appropriate Coastal Development:

Goal A: Adoption of county plans which specify guidance on coastal development.

Goal B: Strengthen and integrate data management to ensure appropriate coastal development.

Goal C: Expand options to protect existing developments from further coastal erosion.

Comment: The MIP includes a portion of the Master Plan for Alternative 1 and the Master Plan for Alternative 2 in the UGB and RGB of the directed growth

map for the Olowalu region. The MIP excluded the makai lands, however, in conjunction with a community plan amendment the makai area may be considered for development in the context of implementing the Pali to Puamana Parkway Master Plan and protecting water quality and the reefs.

Structures within the Master Plan for Alternative 1 will be located outside of the existing 150-foot shoreline setback area, which may be affected by shoreline erosion as identified on the County of Maui-adopted Erosion Rate Maps for the Olowalu Region. Alternative 2 does not include the lands makai of Honoapi`ilani Highway. Refer to **Figure 16**, **Figure 17** and **Figure 21**.

Management Priority #2 Management of Coastal Hazards

Goal A: Support adoption of county laws for Best Management Practices to reduce risks from coastal hazards, including the impacts from climate change.

Goal B: Complete coastal mapping of the Main Hawaiian Islands to assist with management of coastal hazards such as coastal erosion and sea level rise.

Goal C: Collaborate and support county and state efforts to develop climate change risk analysis and adaptation strategies for public facilities.

Comment: The National Oceanic and Atmospheric Administration's (NOAA) anticipated 3-feet sea level rise projections for the Olowalu region by 2100. The result of this increase is estimated to be near the shoreline and is not projected to reach beyond the existing 150-foot shoreline setback area. Refer to **Figure 19**, **Figure 20**, and **Figure 21**.

Management Priority #3 Watershed Management

Goal A: Increase the amount of protected watershed priority areas based on climatic conditions (elevation and moisture zones) and land cover types that provide higher recharge and fog capture as stated in the "Rain Follows the Forest Plan" (2011).

Goal B: Improve coastal and stream water quality.

Comment: Alternatives 1 and 2 of the Olowalu Town Master Plan (OTMP) propose Stormwater Quality Enhancements to improve water quality by minimizing runoff and sedimentation into Olowalu Stream and the ocean, to protect the coastal marine environment. Refer to **Appendix "C-2"**.

Management Priority #4 Marine Resources

Goal A: Promote protection and sustainable use of marine resources.

Goal B: Reduce and remove accumulated marine debris on all islands and shores.

Goal C: Minimize the spread of aquatic invasive species from bays where there is coral or water quality degradation.

Goal D: Minimize the likelihood of aquatic invasive species introductions and spread into and within Hawai`i from sources associated with vessels.

Goal E: Promote fishing practices that increase fish stocks.

Comment: The proposed Stormwater Quality Enhancements to minimize runoff and sedimentation into the ocean are expected to improve water quality and protect coral and marine life along the Olowalu coastline.

Management Priority #5 Coral Reef

Goal A: Improve the health and productivity of coral reef ecosystems at priority sites identified by the Hawai`i Coral Reef Program.

Goal B: Implement place-based projects that demonstrate effective stewardship practices that can be applied to other areas.

Goal C: Implement an effective day-use moorings program that minimizes impacts to coral reef ecosystems and user conflicts.

Comment: As noted previously, the Stormwater Quality Enhancements are expected to improve the health and productivity of coral reef ecosystems along the Olowalu coastline by minimizing stormwater runoff and sedimentation.

Management Priority #6 Ocean Economy

Goal A: Develop aquaculture standards, based on current scientific data, to support culturally, environmentally, and economically sustainable operations which increase production for local consumption.

Goal B: Encourage use of ocean-based energy to contribute towards achieving Hawai`i Clean Energy Initiative while balancing the need to protect ocean resources.

Goal C: Ensure a healthy shipping industry that uses ocean and coastal resources sustainably.

Goal D: Ensure a healthy tourism industry that uses ocean and coastal resources sustainably.

Comment: The Applicants have identified multiple mitigation measures and practices which promote environmental and energy sustainability.

Management Priority #7 Cultural Heritage of the Ocean

Goal A: Preserve cultural heritage of the ocean and protect Native Hawaiian rights for access and gathering in ocean and on coastline, and protect ocean and coastal resources upon which Native Hawaiian cultural practices depend.

Goal B: Support restoration of Hawaiian fishponds through permitting, community projects, and technical assistance.

Comment: The OCR extends from the mountains to the ocean along Olowalu Stream reflecting the ahupua`a system of land management. The OCR and public access along the coastline preserves the cultural heritage of the ocean and protect Native Hawaiian rights for access and gathering in the ocean and on the coastline, and protects ocean and coastal resources upon which Native Hawaiian cultural practices depend.

Management Priority #8 Training, Education, and Awareness

Goal A: Develop training curriculum, at the fundamental and advanced levels, for state and county agency staff as well as boards and commissions working on ocean and coastal protection and begin annual training.

Goal B: Partner to expand existing citizen stewardship awareness and active engagement curriculum for widespread dissemination through various community outlets.

Comment: The OCR non-profit organization includes programs that educate the public on Native Hawaiian heritage, as it establishes Hawaiian agriculture, restoration of stream flow to Olowalu Stream and restoration of native habitats within the OCR.

Management Priority #9 Collaboration and Conflict Resolution

Goal: Fully utilize the ORMP Policy Group as a forum to discuss State ocean resource management, and to raise and resolve issues, and to resolve conflicts when appropriate.

Comment: To the extent practicable and appropriate, the Applicants will support partnerships aimed at resolving issues and conflicts.

Management Priority #10 Community and Place-Based Ocean Management Projects

Goal A: Advance community level eco-based, place-based ocean management projects currently in place.

Goal B: When funding becomes available, assist in the creation of additional community level ecobased, place-based ocean management projects.

Goal C: Partner with communities to better manage Hawai`i's marine resources.

Comment: As noted previously, the OCR is a community based non-profit group that educates the public on Native Hawaiian heritage, establishes Hawaiian agriculture, restores stream flow to Olowalu Stream and restores native habitats within the OCR.

Management Priority #11 National Ocean Policy and Pacific Regional Ocean Initiatives

Goal A: Contribute to the Pacific Regional Priorities for Pacific Regional Ocean Partnership, which include, but are not limited to, climate change adaptation and the support of Coastal and Marine Spatial Planning.

Goal B: Formalize Hawai`i Sub-Regional Ocean Partnership using existing partnerships and focus on ORMP implementation.

Goal C: Through the Regional Planning Body, establish a coastal and marine spatial plan to be used throughout the Pacific Region.

Comment: To the extent practicable and appropriate, the Applicants will support partnerships and collaboration which advance coastal and marine planning initiatives.

~~D.~~F. MAUI COUNTY GENERAL PLAN

As indicated by the Maui County Charter, the purpose of the General Plan shall be:

> *...indicate desired population and physical development patterns for each island and region within the County; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns, and characteristics of future developments. The General Plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.*

Chapter 2.80B of the Maui County Code (MCC), relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a MIP. The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010. ~~The MIP is currently in the process of review and formulation by the Maui County Council.~~

With regard to the Countywide Policy Plan, Section 2.80B.030 of the MCC states the following.

> *The countywide policy plan shall provide broad policies and objectives which portray the desired direction of the County's future. The countywide policy plan shall include:*
>
> *1. A vision for the County;*
>
> *2. A statement of core themes or principles for the County; and*
>
> *3. A list of countywide objectives and policies for population, land use, the environment, the economy, and housing.*

Core principles set forth in the Countywide Policy Plan are listed as follows:

1. Excellence in the stewardship of the natural environment and cultural resources;
2. Compassion for and understanding of others;
3. Respect for diversity;
4. Engagement and empowerment of Maui County residents;
5. Honor for all cultural traditions and histories;
6. Consideration of the contributions of past generations as well as the needs of future generations;
7. Commitment to self-sufficiency;
8. Wisdom and balance in decision making;
9. Thoughtful, island-appropriate innovation; and
10. Nurturance of the health and well-being of our families and our communities.

Congruent with these core principles, the Countywide Policy Plan identifies goals objectives, policies and implementing actions for pertinent functional planning categories, which are identified as follows:

1. Natural environment

2. Local cultures and traditions

3. Education

4. Social and healthcare services

5. Housing opportunities for residents

6. Local economy

7. Parks and public facilities

8. Transportation options

9. Physical infrastructure

10. Sustainable land use and growth management

11. Good governance

With respect to the Master Plan for Alternatives 1 and 2, the following goals, objectives, policies and implementing actions are illustrative of the project's compliance with the Countywide Policy Plan.

GOALS, OBJECTIVES AND POLICIES

Protect the Natural Environment

Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.

Objective: Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.

Policies: Perpetuate native Hawaiian biodiversity by preventing the introduction of invasive species, containing or eliminating existing noxious pests, and protecting critical habitat areas.

Preserve and reestablish indigenous and endemic species' habitats and their connectivity.

Restore and protect forests, wetlands, watersheds, and stream flows, and guard against wildfires, flooding, and erosion.

Protect baseline stream flows for perennial streams, and support policies that ensure adequate stream flow to support native Hawaiian aquatic species, traditional kalo cultivation, and self-sustaining ahupua`a.

Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural shoreline processes.

Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.

Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.

Expand coordination with the State and nonprofit agencies and their volunteers to reduce invasive species, replant indigenous species, and identify critical habitat.

Comment: The Applicants recognize the importance of the environment, history and culture of Olowalu. This recognition resulted in following the ahupua`a concept in the planning of the Master Plan for Alternatives 1 and 2. In following this concept, a significant element of the Master Plan for Alternatives 1 and 2 is Olowalu Stream and the OCR which provides the mauka to makai orientation of the ahupua`a. The Applicants are working actively with the OCR to preserve the historic and cultural sites and to remove invasive species and re-establish the *lo`i* and native species within the cultural reserve.

Objective: Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.

Policies: Protect and restore nearshore reef environments and water quality.

Protect marine resources and valued wildlife.

Improve the connection between urban environments and the natural landscape and incorporate natural features of the land into urban design.

Utilize land-conservation tools to ensure the permanence of valued open spaces.

Mitigate the negative effects of upland uses on coastal wetlands, marine life, and coral reefs.

Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.

Restore watersheds and aquifer-recharge areas to healthy and productive status and increase public knowledge about the importance of watershed stewardship, water conservation, and groundwater protection.

Comment: To minimize or mitigate impacts on the environment, especially the nearshore reef environment, the Master Plan for Alternatives 1 and 2 will utilize technology that eliminates the use of injection wells and development of a drainage system incorporating detention and retention basins and other measures, such as Low Impact Development (LID) to prevent sediments from entering the ocean. The Applicants propose to continue to work with the OCR in their efforts to restore watershed areas in Olowalu Valley and restore the stream flow within Olowalu Stream.

Alternative 1 includes approximately 223 acres and Alternative 2 includes approximately 200 acres for drainage, parks and open space. Alternative 1 includes proposed development of shoreline recreation and public access areas makai of Honoapi`ilani Highway and maintaining the existing 150 ft. shoreline setback. Alternative 2 does not include the makai lands. The existing public access and recreation areas, as well as, the existing 150 ft. shoreline setback will be maintained.

Objective: Improve the stewardship of the natural environment.

Policies: Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.

Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.

Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.

Improve efforts to mitigate and plan for the impact of natural disasters, human-influenced emergencies, and global warming.

Regulate access to sensitive ecological sites and landscapes.

~~**Policy:**~~ Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.

Comment: The planning of the Master Plan involved a community based planning process, "Olowalu Talk Story", involving more than 1,350 participants. Key values expressed by the participants were the need to protect the environment, preserve culture, provide affordable housing, improve infrastructure, strengthen the island's economy and preserve and enhance shoreline access. The planning of the Master Plan for Alternatives 1 and 2 involved numerous studies analyzing the existing environment and identifying potential impacts and mitigation measures to ensure these values are reflected in the Master Plan.

The proposed project will preserve and enhance public access to shoreline resources. ~~The~~In Alternative 1, the existing 150-~~feet~~foot shoreline setback established through SMA Permit No. SM1 990021, enhanced parks, public access, and open space on the makai side of Honoapi`ilani Highway will create a continuous shoreline access from the Lāhainā side to Mā`alaea side of Olowalu. Alternative 2 does not involve the makai lands. The existing 150-foot shoreline setback, public access and recreational uses will be maintained. The Master Plan for Alternatives 1 and 2 also includes the 74-acre OCR which protects archaeological and cultural resources in Olowalu.

Objective: Educate residents and visitors about responsible stewardship practices and the interconnectedness of the natural environment and people.

Policies: Expand education about native flora, fauna, and ecosystems.

Comment: The Applicants will continue to support the OCR education programs for residents and visitors. The stewardship practices within the cultural reserve and the concept of interconnectedness of the natural environment and people as traditionally practiced by Hawaiians in the ahupua`a is of particular importance in the education process.

Preserve Local Cultures and Tradition

Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents' multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.

Objective: Perpetuate the Hawaiian culture as a vital force in the lives of residents.

Policies: Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.

Prohibit inappropriate development of cultural lands and sites that are important for traditional Hawaiian cultural practices, and establish mandates for the special protection of these lands in perpetuity.

Promote the use of ahupua`a and moku management practices.

Recognize and preserve the unique natural and cultural characteristics of each ahupua`a or district.

Encourage schools to promote broader incorporation of Hawaiian and other local cultures history and values lessons into curriculum.

Ensure the protection of Native Hawaiian rights.

Promote, encourage, and require the correct use of traditional place names, particularly in government documents, signage, and the tourism industry.

Objective: Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.

Policy: Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.

Objective: Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.

Policies: Foster teaching opportunities for cultural practitioners to share their knowledge and skills.

Support the development of cultural centers.

Support programs and activities that record the oral and pictorial history of residents.

Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.

Objective: Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.

Policies: Protect and preserve lands that are culturally or historically significant.

Perpetuate the authentic character and historic integrity of rural communities and small towns.

Protect summits, slopes, and ridgelines from inappropriate development.

Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.

Foster partnerships to identify and preserve or revitalize historic and cultural sites.

Comment: The 74-acre OCR was established in ~~2000~~1999 to preserve and protect the historical, cultural, and spiritual resources within the Olowalu ahupua`a. The OCR is an integral part of the Master Plan for Alternatives 1 and 2, respecting the natural environment and its historic and cultural heritage. The Master Plan ~~is~~for Alternatives 1 and 2 is modeled after the ahupua`a system of land use recognizing the importance of Olowalu Stream and the connection between the ocean and mountain environment, as well as the rich cultural heritage of the area. The Applicants will continue to support the efforts of the OCR to document and preserve the culture and history of Hawaiians as well as efforts to practice sustainability within the context of the ahupua`a. Towards this end, the Applicants have initiated research to document the traditional place names of Olowalu to be incorporated into the OTMP in its street

names and identification of public facilities. It is envisioned that the future educational facilities within the Master Plan for Alternatives 1 and 2 will incorporate lessons learned within the OCR as core components of its curriculum.

~~The Master Plan~~Both Alternatives 1 and 2 seek~~s~~ to establish a thriving village community at Olowalu as a sustainable, integrated living and working village similar to the former plantation town. The project includes rural designated lands that are envisioned to be a transitional zone between the existing agricultural lands and future town centers. To minimize and mitigate impacts to historic Kapa`iki Village from the newer portion of the Master Plan for Alternatives 1 and 2, parks and open space areas are proposed adjacent to portions of the village. The development of the Master Plan for Alternatives 1 and 2 will not intrude into the historically and culturally sensitive areas, such as the historic Olowalu Church and `Awalau Cemetery.

Improve Education

Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.

Objective: Provide nurturing learning environments that build skills for the 21st century.

Policies: Encourage collaborative partnerships to improve conditions of learning environments.

Promote development of neighborhood schools and educational centers.

Integrate schools, community parks, and playgrounds, and expand each community's use of these facilities.

Design school and park facilities in proximity to residential areas.

Encourage alternative learning and educational opportunities.

Implementing Action: Develop safe walking and bicycling programs for school children.

Objective: Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.

Policies: Promote the teaching of traditional practices, including aquaculture; subsistence agriculture; Pacific Island, Asian, and other forms of alternative health practices; and indigenous Hawaiian architecture.

Integrate cultural and environmental values in education, including self sufficiency and sustainability.

Foster a partnership and ongoing dialogue between business organizations, formal educational institutions, and vocational training centers to tailor learning and mentoring programs to County needs.

Objective: Maximize community-based educational opportunities.

Policies: Support the development of a wide range of informal educational and cultural programs for all residents.

Attract learning institutions and specialty schools to diversify and enhance educational opportunities.

Support community facilities such as museums, libraries, nature centers, and open spaces that provide interactive-learning opportunities for all ages.

Comment: As previously mentioned, the Master Plan for Alternatives 1 and 2 includes the OCR and is envisioned that the future educational facilities within the Master Plan areas will incorporate lessons learned within the OCR as core components of its curriculum.

Expand Housing Opportunities for Residents

Goal: Quality, island-appropriate housing will be available to all residents.

Objective: Reduce the affordable housing deficit for residents.

Policies: Ensure that an adequate and permanent supply of affordable housing, both new and existing units, be made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.

Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.

Provide for a range of senior-citizen and special needs housing choices on each island that affordably facilitates a continuum of care and services.

Develop neighborhoods with a mixture of accessible and integrated community facilities and services.

Support the opportunity to age in place by providing accessible and appropriately designed residential units.

Objective: Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small-town character.

Policies: Seek innovative ways to develop ohana cottages and accessory-dwelling units as affordable housing.

Design neighborhoods to foster interaction among neighbors.

Encourage a mix of social, economic, and age groups within neighborhoods.

Develop workforce housing in proximity to job centers and transit facilities.

Objective: Increase and maintain the affordable housing inventory.

Policy: Recognize housing as a basic human need and work to fulfill that need.

Comment: The proposed Master Plan for Alternatives 1 and 2 will provide for a mix of residential housing types for a variety of income groups. ~~Half of the proposed 1,500 units will be reserved for workforce housing serving households earning between 80 percent and 160 percent of median income.~~ Affordable housing in accordance with Chapter 2.96, MCC will be provided. Applicants will enter into an affordable housing agreement with the Department of Housing and Human Concerns (DHHC) at the appropriate time. The residential units will be developed in the context of a comprehensive master plan that provides for a mix of commercial, public/quasi-public, and residential facilities, allowing residents the opportunity to live near job opportunities. ~~In addition to the jobs, the Master Plan~~Both Alternatives 1 and 2 will also provide workforce housing opportunities in closer proximity to

resort- and tourism-related jobs in Lāhainā, Ka`anapali, and Kapalua. Currently, the majority of workforce housing on the island is located in Central Maui and many people commute from Wailuku and Kahului to jobs in West Maui.

The Countywide Policy Plan also includes the following housing policies that set forth policy priorities which the Master Plan may not directly address:

- Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.

- Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.

Comment: Although the Master Plan for Alternatives 1 and 2 does not promote infill housing in an urban area, it is located in an area that has been traditionally used for housing by plantation workers. As stated previously, implementation of the Master Plan will be undertaken concurrent with the development of infrastructure and public services and facilities. The Master Plan for Alternatives 1 and 2 will promote housing in an area historically used for housing.

Portions of the Master Plan for Alternatives 1 and 2 is located on prime and potentially productive agricultural lands, however, since the demise of the sugar plantation in 1999, much of the land has remained vacant. Marginal use of the land has been by the hydroponic tomato farm which are not dependent on prime soil characteristics and the tree farms makai of Honoapi`ilani Highway. It is anticipated that agriculture in Hawai`i will become less dependent on prime soil characteristics and innovative practices such as hydroponics will increase. It is noted that 14 agricultural lots are proposed along Olowalu Stream to encourage the future owners to practice traditional Hawaiian agriculture in cooperation with the OCR.

In general, the Countywide Policy Plan seeks to be as comprehensive as possible in guiding decisions based on a diverse set of policy directions addressing various functional categories. It is recognized that the comprehensiveness of the policy coverage does result in competing priorities among policy statements. The assessment of consistency with this general planning document has been conducted in the context of the overall Master Plan for Alternatives 1 and 2 and the larger body of policy

statements set forth by the Countywide Policy Plan, including policies to which the proposed action do not directly address.

Strengthen the Local Economy

Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.

Objective: Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.

Policies: Support economic decisions that create long-term benefits.

Support home-based businesses that are appropriate for and in character with the community.

Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.

Support and encourage traditional host-culture businesses and indigenous agricultural practices.

Support public and private entities that assist entrepreneurs in establishing locally operated businesses.

Objective: Diversify and expand sustainable forms of agriculture and aquaculture.

Policies: Encourage healthy and organic farm practices that contribute to land health and regeneration.

Support cooperatives and other types of nontraditional and communal farming efforts.

Comment: The Master Plan for Alternatives 1 and 2 will generate positive economic impacts during the construction period, as well as at full build-out of the project. According to the Economic and Fiscal Impact study prepared for the project, total construction expenditures are expected to total approximately $465.6 million ~~and~~. The OTMP is expected to create an average of 377 direct and indirect jobs on Maui annually over the 10-year development period. Upon completion, the Master Plan for Alternatives 1 and 2 could result in approximately 1,000 jobs in the commercial and industrial sectors of the project. Employment attributed to the Master

Plan ~~is~~for Alternatives 1 and 2 is expected to total approximately 4,770 jobs over the term of the development.

The Countywide Policy Plan also includes the following Economic Policy relating to the use of agricultural lands:

- Prioritize the use of agricultural land to feed the local population and promote the use of agricultural lands for sustainable and diversified agricultural activities.

Comment: Both Alternatives 1 and 2 include 14 agricultural lots along Olowalu Stream to encourage the future owners to practice traditional Hawaiian agriculture in cooperation with the OCR and promote sustainable and diversified agricultural activities.

Improve Parks and Public Facilities

Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.

Objective: Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.

Policies: Protect, enhance, and expand access to public shoreline and mountain resources.

Expand and enhance the network of parks, multi-use paths, and bikeways.

Assist communities in developing recreational facilities that promote physical fitness.

Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.

Expand affordable access to recreational opportunities that support the local lifestyle.

Objective: Improve the quality and adequacy of community facilities.

Policies: Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.

Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.

Comment: The proposed project includes provisions for active and passive parks, as well as open space areas. Approximately 223 acres of the Master Plan in Alternative 1 and approximately 200 acres in Alternative 2 have been designated for drainage, park and open-space.

Diversify Transportation Options

Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.

Objective: Provide an effective, affordable, and convenient ground-transportation system that is environmentally sustainable.

Policies: Plan for the efficient relocation of roadways for the public benefit.

Support the use of alternative roadway designs, such as traffic-calming techniques and modern roundabouts.

Increase route and mode options in the ground-transportation network.

Ensure that roadway systems are safe, efficient, and maintained in good condition.

Reserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.

Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.

Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.

Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.

Develop and expand an attractive, island-appropriate, and efficient public-transportation system.

Objective: Reduce the reliance on the automobile and fossil fuels by encouraging walking, bicycling, and other energy-efficient and safe alternative modes of transportation.

Policies: Make walking and bicycling transportation safe and easy between and within communities.

Require development to be designed with the pedestrian in mind.

Support the reestablishment of traditional trails between communities, to the ocean, and through the mountains for public use.

Objective: Improve and expand the planning and management of transportation systems.

Policies: Encourage progressive community design and development that will reduce transportation trips.

Support the revision of roadway-design criteria and standards so that roads are compatible with surrounding neighborhoods and the character of rural areas.

Plan for multi-modal transportation and utility corridors on each island.

Utilize transportation-demand management as an integral part of transportation planning.

Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.

Comment: The Master Plan ~~is~~for Alternatives 1 and 2 is designed to be a pedestrian-friendly community which will allow residents to live within walking distance of corner stores, schools, parks, employment opportunities, gathering centers, beaches/shoreline, and other social and civic resources, reducing reliance on

automobiles. Alternatives 1 and 2 encourage multi-modal transportation such as bicycling. The realigned Honoapi`ilani Highway corridor will be wide enough to accommodate future alternative transportation modes.

The project will maximize circulation and connectivity within the development through a "gridded" network of pedestrian friendly roadways. Smart Growth principles will be applied in establishing roadway standards and internal streets, parkways, alleys, and lanes will be designed to accommodate a series of interconnected greenways/bikeways for walking or biking. As the project progresses, a transportation demand management plan will be developed for the project to further reduce the demand for automobiles.

Improve Physical Infrastructure

Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.

Objective: Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.

Policies: Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.

Develop and fund improved water-delivery systems.

Ensure a reliable and affordable supply of water for productive agricultural uses.

Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require ~~potable~~drinking water.

Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.

Explore and promote alternative water-source-development methods.

Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.

Objective: Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.

Policy: Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.

Objective: Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.

Policies: Promote the use of locally renewable energy sources, and reward energy efficiency.

Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.

Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.

Objective: Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.

Policies: Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.

Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas.

Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.

Objective: Improve the planning and management of infrastructure systems.

Policies: Ensure that infrastructure is built concurrent with or prior to development.

Require new developments to contribute their pro rata share of local and regional infrastructure costs.

Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.

Ensure that infrastructure is built concurrent with or prior to development.

Ensure that basic infrastructure needs can be met during a disaster.

Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimizes delivery inefficiencies.

Comment: Although one of the objectives of the Countywide Policy Plan is to direct growth to areas with available infrastructure capacity, with ~~this~~ regard ~~into~~ the West Maui region, there are limited available infill areas to accommodate growth. The MIP identifies the Kahoma Village and Kahoma Residential projects as infill. Both projects are in the process of finalizing permitting requirements. Accommodation of growth in West Maui will likely occur by extending into areas surrounding the existing urban areas such as ~~the Pulelehua project~~Kā`anapali 2020 or the creation of new towns such as the proposed Master Plan for Alternatives 1 and 2, both of which will require the expansion of infrastructure. ~~The Master Plan~~Both Alternatives 1 and 2 propose~~s~~ to establish a new sustainable mixed-use community in an area of the once thriving plantation town of Olowalu.

The Olowalu community will be developed concurrently with appropriate infrastructure in phases spread out over a period of approximately 10 years. To ensure development sustainability, the Master Plan for Alternatives 1 and 2 calls for the use of state-of-the art engineering and design principles for water, wastewater, drainage, and energy systems. ~~Potable~~Drinking water will be provided through ~~an~~ expansion of an existing private water system ~~to meet the Master Plan's~~. It is estimated with implementation of proposed conservation and sustainable measures average daily water demand will be approximately 672,300 gpd ~~average daily demand~~. Based on Department of Water Supply standards, the estimated average daily water demand is 951,000 gpd for the 1,500 residential units and existing users. The anticipated water demand is below the 2.0 mgd sustainable yield of the Olowalu Aquifer. Wastewater treatment and disposal will be provided via a small privately owned and operated treatment plant which will yield R-1 quality water to be used to meet irrigation demands for the community. ~~A significant infrastructure component of the Master Plan is the proposed relocation of Honoapi`ilani Highway along a mauka alignment to provide a route which is consistent with the County of Maui's proposed Pali to Puamana Master Plan. The project is also coordinating the mauka alignment with the proposed Honoapi`ilani Highway Realignment/Widening from Mā`alaea to Launiupoku with the HDOT. The mauka realignment of Honoapi`ilani Highway will~~

~~facilitate the State's and County's vision to move the highway inland, away from its existing, more environmentally sensitive coastal alignment.~~

A significant infrastructure component of the Master Plan for Alternatives 1 and 2 is the corridor for the proposed relocation of Honoapi`ilani Highway along a mauka alignment. The proposed alignment meets the purpose of the County of Maui's proposed Pali to Puamana Parkway Master Plan. Alternative 1 will also "preserve open space along the coastline of West Maui" (Pali to Puamana FEIS) by including significant makai parks and open space areas while Alternative 2 maintains the existing conditions. The mauka realignment of Honoapi`ilani Highway will facilitate the State's and County's vision to move the highway inland away from its existing more environmentally sensitive coastal alignment. The Applicants will continue to participate in the HDOT and County of Maui efforts to implement the proposed realignment and widening of Honoapi`ilani Highway.

According to the Assessment of Economic and Fiscal Impacts~~, it is~~ estimated that the infrastructure improvements will be $50.0 million for the internal roadways and utilities, $15 million for the wastewater treatment facility and R-1 transmission lines, $18 million for the new highway and bridge crossing over Olowalu Stream, $5 million for parks improvements, and $5 million for a small-scale renewable energy system. The total estimated construction expenditures for infrastructure and vertical construction for the Master Plan is estimated as $465.6 million. Refer to **Appendix "~~L~~M"**.

As refinements to the Master Plan for Alternatives 1 and 2 is made, consideration will be given to discourage the development of critical infrastructure systems within hazard zones such as the tsunami-inundation zone to the extent practicable. Public facilities and emergency services will be sited in appropriate locations in support of the health, safety, and welfare of the Olowalu community. The project will be designed in compliance with flood hazard area development regulations and appropriate mitigation measures will be utilized to ensure that basic infrastructure needs can be met during disasters. ~~Public~~As appropriate, public facilities within the Master Plan for Alternatives 1 and 2 will be developed to meet public shelter specifications during disasters.

Promote Sustainable Land Use and Growth Management

Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.

Objective: Improve land use management and implement a directed-growth strategy.

Policies: Establish, map, and enforce urban- and rural-growth limits.

Direct urban and rural growth to designated areas.

Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.

Discourage new entitlements for residential, resort, or commercial development along the shoreline.

Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.

Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.

Establish and maintain permanent open space between communities to protect each community's identity.

Preserve the public's rights of access to and continuous lateral access along all shorelines.

Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.

Protect summits, slopes, and ridgelines from inappropriate development.

Comment: The Countywide Policy Plan encourages a directed growth strategy in the MIP. The MIP designated Olowalu as an appropriate location for future growth. The MIP included the Master Plan area in the UGB and RGB of the directed growth map. While the UGB and RGB areas are located mauka of Honoapi`ilani Highway, makai lands may be considered during the update or amendment to the West Maui

Community Plan. As such, the Master Plan for Alternatives 1 and 2 has been deemed an appropriate area for future growth. The Applicants seek to establish a sustainable community at the former plantation town of Olowalu. The Master Plan for Alternative 1 and 2 are guided by values and principles of sustainability balancing the needs of Maui's growing population while maintaining and respecting cultural, historical, and natural resources.

Alternative 1 proposes some residential development makai of Honoapi`ilani Highway, while Alternative 2 does not include the makai lands. In Alternative 1, a major portion of the makai area is to be used for public parks and open space. At a minimum, development in Alternative 1 will be at least 150 feet away from the shoreline to accommodate for shoreline erosion and sea-level rise. The major portion of the town centers and residential developments are located mauka of the Highway. To maintain the small town character of Olowalu, the Master Plan for Alternatives 1 and 2 are separated into two (2) sections by Olowalu Stream and the OCR.

The Master Plan for Alternative 1 will maintain continuous public lateral access along the shoreline while Alternative 2 will maintain the existing public access. The approximate 223 acres in Alternative 1 and approximate 200 acres in Alternative 2 of drainage, open space and park lands will provide opportunity for recreational uses. Olowalu Stream and the OCR provide continuous mauka to makai access from the mountains to the ocean. In addition, the summits, slopes and ridgelines located mainly on the outskirts of Olowalu and within Olowalu Valley are not identified for development.

Objective: Improve planning for and management of agricultural lands and rural areas.

Policies: Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.

Provide opportunities and incentives for self-sufficient and subsistence homesteads and farms.

Comment: Portions of the Master Plan for Alternatives 1 and 2 are located on prime agricultural lands. Since the termination of sugar cultivation in 1999, there has been limited use of portions of the former sugarcane land. It is anticipated that agriculture in Hawai`i will become less dependent on prime soil characteristics and innovative practices such as hydroponics will increase. As previously noted,

agricultural lots are proposed along Olowalu Stream to encourage future owners to practice traditional Hawaiian agriculture in cooperation with the OCR.

Objective: Design all developments to be in harmony with the environment and to protect each community's sense of place.

Policies: Support and provide incentives for green building practices.

Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.

Ensure that adequate recreational areas, open spaces, and public-gathering places are provided and maintained in all urban centers and neighborhoods.

Ensure business districts are distinctive, attractive, and pedestrian-friendly destinations.

Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.

Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.

Ensure better connectivity and linkages between land uses.

Adequately buffer and mitigate noise and air pollution in mixed-use areas to maintain residential quality of life.

Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.

Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.

Comment: The Master Plan for Alternatives 1 and 2 will implement the principles of sustainability through LEED. It will incorporate innovative, efficient, and sustainable technologies to minimize adverse impacts to the environment. It is

envisioned as a pedestrian-friendly mixed use community developed concurrent with infrastructure and public services and facilities.

The character of Olowalu will be incorporated into the architecture and landscaping for the Master Plan for Alternatives 1 and 2 to ensure the expansion is a cohesive part of the original community. Siting of the commercial center incorporates Olowalu General Store to ensure the continued economic viability of the Store. Parks and open space areas are adjacent to Kapai`ki Village maintaining its unique identity while the higher density town center is located further north.

As a sustainable community, a network of streets, pedestrian paths, bikeways, and bus stops are proposed to encourage alternative modes of transportation to reduce dependency on the automobile. The Master Plan for Alternatives 1 and 2 has been formulated to ensure that within a 10 minute walk residents are able to obtain goods and services as well as get to places of employment.

Objective: Improve and increase efficiency in land use planning and management.

Policies: Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.

Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.

Promote creative subdivision designs that implement: best practices in land development, sustainable management of natural and physical resources, increased pedestrian and bicycle functionality and safety, and the principles of livable communities.

Comment: ~~There are limited urban infill opportunities to meet the demands of West Maui's growing population. As such, the applicant seeks to establish a sustainable community at the former plantation town of Olowalu. The Master Plan is guided by values and principles of sustainability by balancing the needs of Maui's growing population while also maintaining and respecting cultural, historical, and natural resources. The Master Plan will be a pedestrian-friendly mixed use community. Infrastructure improvements will be constructed concurrently with the~~

~~project and will incorporate innovative, efficient, and sustainable technologies to minimize adverse impacts to the environment.~~

~~The Master Plan will preserve important open space and cultural resources. Approximately 223 acres of parks and open space will be provided. In addition, no development will occur within 150 feet of the shoreline.~~

The development of ~~the Master Plan~~both Alternatives 1 and 2 embodies the core principles advocated by the Countywide Policy Plan. Importantly, since 2005, the Maui community, especially the Olowalu community, has been involved in the project's planning process. Respecting its natural environment and cultural heritage, ~~the Master Plan is~~both Alternatives 1 and 2 are modeled after the Hawaiian ahupua`a system of land use recognizing the importance of Olowalu Stream and the connection between the ocean and mountain environments, as well as the rich cultural heritage of the area. ~~The Master Plan~~ Both Alternatives 1 and 2 incorporate~~s~~ the principles of sustainability, cultural preservation and economic diversity to create neighborhoods sensitive to its environment and cultural heritage.

~~The Master Plan~~ Both Alternatives 1 and 2 propose~~s~~ to establish an economic base consisting of agriculture, community needs, and support services and new entrepreneurialism to support the community's sustainability goals. The Master Plan ~~is~~for Alternatives 1 and 2 is envisioned to disperse population growth into a distinct community from Lāhainā Town separated by agricultural open space and topographic boundaries. The Master Plan alternatives include~~s~~ retaining approximately 28 acres of agricultural lands in Olowalu as 14 agricultural homestead~~s and~~, as ~~part of~~well as expand the OCR in order to perpetuate native Hawaiian agricultural practices.

In summary, ~~the Master Plan is~~both Alternatives 1 and 2 are consistent with the themes and principles of the Countywide Policy Plan.

<u>Maui Island Plan</u>

~~The second component of the Maui County General Plan 2030 is the MIP. The MIP will set forth an islandwide land use strategy for Maui and encompasses a managed and directed growth plan which includes the delineation of urban and rural growth boundaries. The MIP has undergone review by the GPAC and the MPC and is currently under review by the Maui County Council. Both the GPAC and MPC recommended the inclusion of the Master Plan in the MIP. The Planning Director's transmittal of the MIP to the Maui County Council on~~

~~October 16, 2009 excluded the Master Plan from the MIP's directed growth boundaries. While the process for review and approval of the MIP is ongoing, the applicant will continue to be an active participant in the MIP process. Due to the uncertainties surrounding the timing of the County Council's approval of the MIP and the lengthy entitlement process for the proposed project, the applicant is continuing to proceed with land entitlement applications for the proposed project while the MIP review continues. If the MIP is adopted prior to the submittal of the Final EIS, the Final EIS will address the project's compliance with the MIP goals, objectives, and policies. It is noted that the respective regional community plans will be updated following the adoption of the MIP. Refer to **Appendix "O"**.~~The MIP is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and sewage systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*
2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

It is noted that Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the Maui County Code, relating to the General Plan, was amended via Ordinance No. 3979, October 5, 2012, to provide that the implementation program component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. In December 2013 and March 2014, the Council approved time extensions for approval and adoption of the implementation chapter of the MIP. The implementation program component of the MIP was adopted by Ordinance No. 4126 on May 29, 2014.

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*
3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

An essential element of the MIP is its directed growth plan which provides a management framework for future growth in a manner that is fiscally, environmentally, and culturally prudent. Among the directed growth management tools developed through the MIP process are maps delineating UGB, small town boundaries (STB), and RGB. The respective boundaries identify areas appropriate for future growth and their corresponding intent with respect to development character.

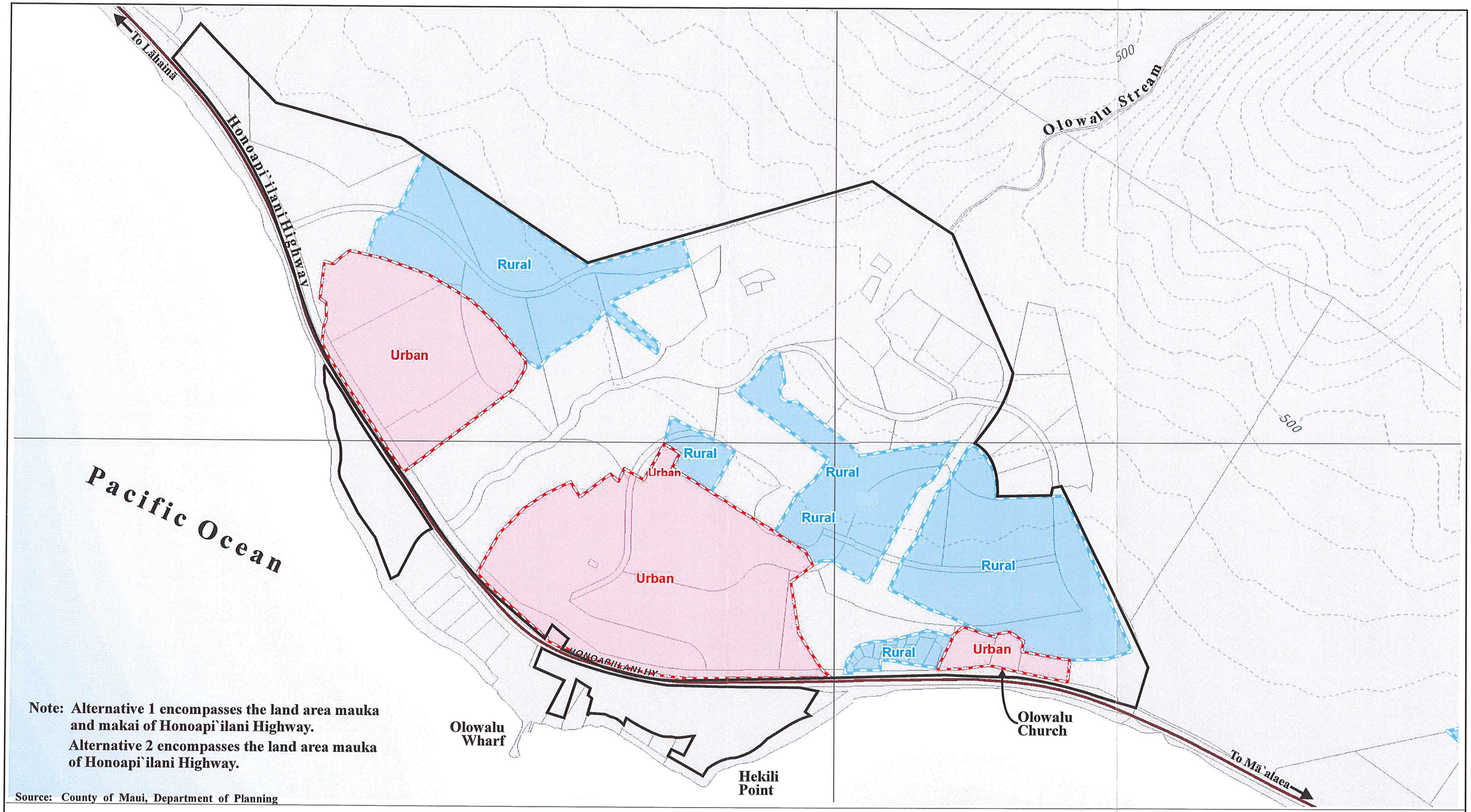
The MIP designates Olowalu as an appropriate location for future growth on its Directed Growth Maps. The mauka portion of the proposed Master Plan for Alternative 1 is located within the UGB and RGB. The lands makai of Honoapi`ilani Highway in Alternative 1 are not included in the UGB. However, the MIP states that "the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan" (MIP at 8-64). Such delineation may consider the need to protect adjacent coastal and marine ecosystems (including the reefs at Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway plan. See **Figure 29** and **Appendix "R"**.

Alternative 2 does not include the makai lands and is in the UGB and RGB in the MIP. Refer to **Figure 29** and **Appendix "R"**.

In addition, both Alternatives 1 and 2 have been reviewed with respect to pertinent goals, objectives, policies and implementing actions of the MIP. A summary of policy statements most relevant to the proposed action is provided below:

CHAPTER 1 POPULATION

Goal: Maui's people, values, and lifestyles thrive through strong, healthy, and vibrant island communities.



Note: Alternative 1 encompasses the land area mauka and makai of Honoapi`ilani Highway.
Alternative 2 encompasses the land area mauka of Honoapi`ilani Highway.

Source: County of Maui, Department of Planning

Figure 29

Proposed Olowalu Town Master Plan

Maui Island Plan Map

NOT TO SCALE

Prepared for: Olowalu Town, LLC and Olowalu Ekolu, LLC

MUNEKIYO HIRAGA

OlowaluTown/MasterPl/Final EIS/MIP Map

Objective: Greater retention and return of island residents by providing viable work, education, and lifestyle options.

Policy: Expand housing, transportation, employment, and social opportunities to ensure residents are able to comfortably age within their communities.

CHAPTER 2 HERITAGE

Cultural, Historic, and Archaeological Resources

Goal: Our community respects and protects archaeological and cultural resources while perpetuating diverse cultural identities and traditions.

Objective: An island culture and lifestyle that is healthy and vibrant as measured by the ability of residents to live on Maui, access and enjoy the natural environment, and practice Hawaiian customs and traditions in accordance with Article XII, Section 7, Hawai`i State Constitution, and Section 7-1, Hawai`i Revised Statutes (HRS).

Policies: Ensure traditional public access routes, including native Hawaiian trails, are maintained for public use.

Support the education of visitors and new residents about the customs and etiquette of the Hawaiian culture, as well as other cultures.

Objective: Enhance the island's historic, archaeological, and cultural resources.

Policy: Support opportunities for public involvement with the intent to facilitate the protection and restoration of historic and archeological sites, including consultation with stakeholders.

Shoreline, Reefs, and Nearshore Waters

Goal: An intact, ecologically functional system of reef, shoreline, and nearshore waters that are protected in perpetuity.

Objective: Improved reef health, coastal water quality, and marine life.

Policy: Create additional mechanisms, where needed, to contain and control runoff and pollution.

Objective: Water quality that meets or exceeds State Clean Water Act standards.

Policies: Reduce the amount of impervious surface and devise site plan standards that aim to minimize storm runoff and Nonpoint Source (NPS) pollution.

Require an on-site monitoring program, where applicable, when grading may pose a threat to water quality or when recommended in the Erosion and Sediment Control Plan (ESCP).

Avoid development actions that impair Maui's reef systems and remove identified stressors.

Phase out cesspools and restrict the use of septic systems in ecologically sensitive coastal areas by converting to environmentally-friendly alternative sewage treatment systems, and connecting to central sewerage systems when and where feasible.

Prohibit the development of new wastewater injection wells, except when unavoidable for public health and safety purposes.

Implementing Action: Transition from the use of wastewater injection wells to appropriate, environmentally sound methods of wastewater disposal, and promote the beneficial reuse of wastewater effluent.

Objective: Acquire additional shoreline lands and shoreline access rights.

Watersheds, Stream and Wetlands

Goal: Healthy watersheds, streams, and riparian environments.

Objective: Greater protection and enhancement of watersheds, streams, and riparian environments.

Policies: All present and future watershed management plans shall incorporate concepts of ahupua`a management based on the interconnectedness of upland and coastal ecosystems/species.

Support regulations to require developments to utilize ahupua`a management practices.

Work with private and non-profit entities to educate the public about the connection between upland activities within the watershed and the impacts on nearshore ecosystems and coral reefs.

Objective: Decreased NPS and point source pollution.

Policies: Support the use of Low Impact Development (LID) techniques such as those described in the State of Hawai`i LID Practitioner's Guide (June 2006), as amended.

Encourage farmers and ranchers to use agricultural Best Management Practices (BMPs) to address NPS pollution.

Objective: Greater preservation of native flora and fauna biodiversity to protect native species.

Policies: Work with appropriate agencies to eliminate feral ungulate populations and invasive species.

Support the work of conservation groups and organizations that protect, reestablish, manage, and nurture sensitive ecological areas and threatened indigenous ecosystems.

Implementing Action: Develop strategic partnerships with conservation groups and organizations to maximize Federal, State, County, and private funding; and increase cooperation to achieve conservation goals.

Objective: Enhance the vitality and functioning of streams, while balancing the multiple needs of the community.

Wildlife and Natural Areas

Goal: Maui's natural areas and indigenous flora and fauna will be protected.

Objective: A comprehensive management strategy that includes further identification, protection, and restoration of indigenous wildlife habitats.

Policy: Identify and inventory the following:

(1) Natural, recreational, and open space resources;
(2) Flora and fauna with medium, high, and very high concentrations of threatened or endangered species; and
(3) Location and extent of invasive species.

Objective: A decrease in invasive species through programs and partnerships that eradicate undesirable species and protect native habitat.

Objective: Greater protection of sensitive lands, indigenous habitat, and native flora and fauna.

Policies: Secure an interconnected network of sensitive lands, greenways, watercourses, and habitats.

Protect Maui's sensitive lands.

Scenic Resources

Goal: Maui will continue to be a beautiful island steeped in coastal, mountain, open space, and historically significant views that are preserved to enrich the residents' quality of life, attract visitors, provide a connection to the past, and promote a sense of place.

Objective: A greater level of protection for scenic resources.

Policies: Protect views to include, but not be limited to, Haleakalā, `Īao Valley, the Mauna Kahalawai (West Maui Mountains), Pu`u O`la`i, Kaho`olawe, Molokini, Moloka`i, and Lāna`i, Mauna Kea, Mauna Loa, sea stacks, the Pacific Ocean, and significant water features, ridgelines, and landforms.

Protect "night sky" resources by encouraging the implementation of ambient light ordinances and encouraging conversion of all sources that create excessive light pollution, affecting our ability to view the stars.

Protect ridgelines from development where practicable to facilitate the protection of public views.

Protect scenic resources along Maui's scenic roadway corridors.

Implementing Action: Establish design guidelines that integrate techniques such as development clustering, greenbelts, and open space buffers, site plan configuration to protect view planes, building design and height limitations, setbacks from public roadways, landscaping, and other techniques.

CHAPTER 3 NATURAL HAZARDS

Goal: Maui will be disaster resilient.

Objective: Greater protection of life and property.

Policy: Encourage the use of construction techniques that reduce the potential for damage from natural hazards.

CHAPTER 4 ECONOMIC DEVELOPMENT

Economic Diversification

Goal: Maui will have a balanced economy composed of a variety of industries that offer employment opportunities and well-paying jobs and a business environment that is sensitive to resident needs and the island's unique natural and cultural resources.

Objective: A more diversified economy.

Policies: Support the creation of new jobs and industries that provide a living wage.

Facilitate and expedite permits and approvals.

Objective: Increase activities that support principles of sustainability.

Policies: Support industries that are sustainable, and culturally and environmentally sensitive.

Encourage and support local businesses.

Support the development of economic development clusters in targeted industry sectors.

Encourage all businesses to save energy, water, and other resources.

Objective: Improve the island's business climate.

Policies: Ensure an adequate supply of affordable workforce housing.

Develop neighborhoods and communities that are attractive to the workforce of a diversified economy.

Visitor Industry

Objective: Comprehensively manage future visitor-unit expansion.

Policy: Allow, where permitted by the community plan, the development of business hotels and small, sensitively-designed inns.

Agriculture

Goal: Maui will have a diversified agricultural industry contributing to greater economic, food, energy security, and prosperity.

Policies: Strive to substitute food/agricultural product imports with a reliable supply of locally produced food and agricultural products.

Encourage growing a diverse variety of crops and livestock to ensure the stewardship of our land while safeguarding consumer safety.

Implementing Action: Encourage the development of community gardens, including gardens on greenbelts that separate communities.

Emerging Sectors

Goal: A diverse array of emerging economic sectors.

Policy: Support new industries that are environmentally and culturally sensitive such as health and wellness, sports and outdoor activities, cultural activities, the arts, film-making, entertainment, and digital media.

Small Business Development

Goal: Small businesses will play a key role in Maui's economy.

Policies: Assist traditional "mom and pop" business establishments.

Support community markets and venues that sell locally-made produce, goods, and services.

Health Care Sector

Goal: Maui will have a health care industry and options that broaden career opportunities that are reliable, efficient, and provide social well-being.

Objective: Expand the economic benefits of the health care sector.

Policy: Encourage expansion and improved access to emergency care in all communities.

Education and Workforce Development

Goal: Maui will have effective education and workforce development programs and initiatives that are aligned with economic development goals.

Policy: Encourage the education and training of our residents to meet the needs of a diversified economy.

CHAPTER 5 HOUSING

Goal: Maui will have safe, decent, appropriate, and affordable housing for all residents developed in a way that contributes to strong neighborhoods and a thriving island community.

Objectives: More livable communities that provide for a mix of housing types, land uses, income levels, and age.

Provide affordable housing, rental or in fee, to the broad spectrum of our island community.

Provide infrastructure in a more timely manner to support the development of affordable housing.

Policies: Prioritize the development of infrastructure that supports the development of affordable housing.

Tailor infrastructure requirements to correspond with appropriate level-of-service standards to help control housing costs and to maintain safety.

Objectives: A wider range of affordable housing options and programs for those with special needs.

Reduce the cost to developers of providing housing that is affordable to families with household incomes 160 percent and below of annual median income.

Policy: Require the construction of affordable for-sale and rental housing units as part of the construction of new housing developments.

CHAPTER 6 INFRASTRUCTURE AND PUBLIC FACILITIES

Wastewater

Goal: Maui will have wastewater systems that comply with or exceed State and Federal regulations; meet levels-of-service needs; provide adequate capacity to accommodate projected demand; ensure efficient, effective, and environmentally sensitive operation; and maximize wastewater reuse where feasible.

Policy: Establish new wastewater treatment plant(s) outside the tsunami zone.

Objective: Adequate levels of wastewater service with minimal environmental impacts.

Policies: Meet or exceed all State and Federal standards regulating wastewater disposal or reuse.

Strongly encourage the phase out of cesspools.

Objective: Increase the reuse of wastewater.

Water

Goal: Maui will have an environmentally sustainable, reliable, safe, and efficient water system.

Objectives: More comprehensive approach to water resources planning to effectively protect, recharge, and manage water resources including watersheds, groundwater, streams, and aquifers.

Increase the efficiency and capacity of the water systems in striving to meet the needs and balance the island's water needs.

Policies: Maximize the efficient use of reclaimed wastewater to serve non-drinking water needs.

Acquire and develop additional sources of drinking water.

Transportation

Goal: An interconnected, efficient, and well-maintained, multimodal transportation system.

Objective: Provide for a more integrated island-wide transportation and land use planning program that reduces congestion and promotes more efficient (transit-friendly) land use patterns.

Policies: Plan for an integrated multi-modal transportation system comprised of public transit, bicycle, pedestrian, automobile, and other transportation modes.

Refocus transportation investment from the construction of additional roadways only for the automobile to the expansion of a multimodal transportation system.

Encourage the use of "complete streets" design methods.

Objective: Safe, interconnected transit, roadway, bicycle, equestrian, and pedestrian network.

Policies: Ensure transit-, roadway-, and pedestrian-facilities design and level-of-service standards respect the unique character of our communities.

Prioritize transportation improvements list to cost-effectively meet existing and future needs consistent with the MIP.

Require new development, where appropriate, to integrate sidewalks, pathways, bikeways, and transit infrastructure into new commercial and residential projects while enhancing community character.

Transit

Goal: An island-wide transit system that addresses the needs of residents and visitors and contributes to healthy and livable communities.

Objective: An integrated transit system that better serves all mobility needs of Maui's residents and visitors.

Policies: Maximize access to public transit in town centers, commercial districts, and employment centers.

Expand regional and inter-regional transit services, where appropriate, in heavily traveled corridors and within communities.

Increase the frequency of current service, add additional bus routes as demand requires, and transition to nonpolluting transit vehicles, as funding permits.

Provide adequate transit infrastructure (e.g., bus pullouts, waiting benches and shelters, signs) along existing and future transit right-of-ways.

Parks

Goal: Maui will have a diverse range of active and passive recreational parks, wilderness areas, and other natural-resource areas linked, where feasible, by a network of greenways, bikeways, pathways, and roads that are accessible to all.

Policies: Support, consistent with the MIP, the implementation of open-space and recreational plans, such as the Pali to Puamana Parkway Master Plan and the *Upcountry Greenways Master Plan.*

Utilize the ahupua`a approach by integrating mauka-to-makai natural landscapes into an island-wide parks and recreation functional plan.

Provide a balanced mix of passive and active parks, including neighborhood, community, and regional parks, in each community plan area.

Objective: Achieve parks and recreation opportunities to meet the diverse needs of our community.

Policies: Establish appropriate level-of-service standards at the neighborhood, community, and regional levels.

Identify and acquire parks and recreational facilities that address existing park inadequacies and complement and enhance neighborhoods, communities, and natural land features.

Design park facilities to preserve and enhance natural site characteristics, maximize views, protect environmental and cultural sites, and minimize water demands.

Acquire lands along the shoreline, between coastal roadways and the ocean.

Encourage the development of regional parks, district parks, and greenways in a manner that helps to contain sprawl, provide separation between distinct communities, or offer open space within urban communities.

Require large master-planned communities that incorporate a mixture of park facilities pursuant to parks standards and functional plans.

Support public-private partnerships to implement the acquisition and development of parks when consistent with the General Plan.

Objective: An expanded network of greenways, trails, pathways, and bikeways.

Policies: Link existing and future park sites, natural areas, the shoreline, and residential areas with a network of bikeways, pedestrian paths, trails, and greenways.

Collaborate with the State and private land owners to ensure perpetual access and proper stewardship of traditional trails and access systems.

Public Facilities

Goal: Maui will have adequate public facilities that meet the diverse needs of residents.

Policies: Adequately plan and fund public safety facilities (fire, police, ambulance, civil defense) to meet community needs.

Encourage public-private partnerships to identify and resolve public facility plan shortcomings when consistent with the General Plan.

Incorporate community/area residents' input to determine the appropriate location and design of public facilities.

Schools and Libraries

Goal: Maui will have school and library facilities that meet residents' needs and goals.

Objective: Assist in providing appropriate school and library facilities in a timely manner and in strategic locations.

Policies: Work in partnership with all educational institutions to meet current and future needs including appropriate location, timing, and design of future facilities.

Encourage the Department of Education to build and maintain smaller, community-oriented schools.

Support partnerships (public/private/nonprofit) to build and staff new schools and improve existing facilities.

Objective: Provide a more expansive network of safe and convenient pedestrian-friendly streets, trails, pathways, and bikeways between neighborhoods and schools where appropriate.

Policy: Encourage the State to build new school facilities in appropriate locations that minimize time and distance for students to travel to and from school.

Implementing Action: Encourage the State to build new school facilities in appropriate locations that minimize time and distance for students to travel to and from school.

Health Care

Goal: All of Maui residents will have the best possible health care to include healthy living, disease prevention, as well as acute and long-term care.

Policies: Support the immediate development of a critical access hospital in West Maui.

Improve medical service to remote and outlying regions.

Energy

Goal: Maui will meet its energy needs through local sources of clean, renewable energy, and through conservation.

Policies: Support energy efficient systems, processes, and methods in public and private operations, buildings, and facilities.

Encourage the installation of renewable energy systems, where appropriate.

CHAPTER 7 LAND USE

Agricultural Lands

Policy: Strongly discourage the conversion of productive and important agricultural lands (such as sugar, pineapple, and other produce lands) to rural or urban use, unless justified during the General Plan update, or when other overriding factors are present.

Objective: Support and facilitate connectivity between communities.

Policy: Discourage land use and urban design that impedes interconnectivity between adjacent communities.

Rural Areas

Goal: Maui will have a rural landscape and lifestyle where natural systems, cultural resources, and farm lands are protected and development enhances and compliments the viability and character of rural communities.

Policies: Focus development to areas inside urban, small town, and rural growth boundaries to preserve natural, cultural, and agricultural resources.

Encourage the use of alternative stormwater management techniques that minimize land disturbance and preserve natural drainage features.

Encourage green belts, open space buffers, and riparian zones to minimize conflicts between agriculture and residential uses.

Objective: More appropriate service/infrastructure standards to enhance and protect the island's rural character and natural systems.

Policies: Minimize impermeable surfaces within rural areas.

Use infrastructure, public service, and design standards that are appropriate to rural areas.

Discourage land use and urban design that impede interconnectivity between adjacent communities.

Urban Areas

Goal: Maui will have livable human-scale urban communities, an efficient and sustainable land use pattern, and sufficient housing and services for Maui residents.

Objective: Facilitate and support a more compact, efficient, human-scale urban development pattern.

Policies: Encourage the development and implementation of neighborhood design standards that are environmentally friendly, such as LEED for Neighborhood Development (LEED –ND) standards.

Promote agriculture by encouraging community gardening, community-supported agricultural programs, and farmers markets within and adjacent to urban areas.

Discourage land use and urban design that impedes inter-connectivity between adjacent communities.

Objective: Facilitate more self-sufficient and sustainable communities.

Policies: When developing new communities, provide sufficient lands for commercial, appropriate industrial, educational, spiritual, and non-profit uses to serve the daily needs of community residents.

Site community facilities such as schools, parks, libraries, and community centers within walking and biking distance of residences.

Develop communities that provide sufficient parks, schools, libraries, and other essential public facilities and services to serve resident needs.

Promote agriculture by encouraging community gardening, edible landscaping, community-supported agricultural programs, and farmers markets within and adjacent to urban areas.

CHAPTER 8: DIRECTED GROWTH

The Directed Growth Maps include UGB, RGB, and STB as a directed growth strategy for Maui island. According to the MIP the UGBs, STBs, and RGBs are used to identify and protect farms and natural areas from sprawl and to promote the efficient use of land, and the efficient provision of public facilities and services within the respective growth boundaries. The UGBs, STBs, and RGBs take into account future growth projections through 2030, the availability of infrastructure and services, environmental constraints, and an approximate density of land development to determine the placement of the boundary. Land outside of the UGB is intended to remain rural in character with a strong agricultural and natural-resource

presence. The MIP designated Olowalu as an appropriate location for future growth and establishes UGB and RGB boundaries in this locale.

Alternative 1 and Alternative 2 of the OTMP have been reviewed with respect to the following directed growth goals and policies of the MIP:

Urban and Small Town Growth Area

Goal: Maui will have well-serviced, complete, and vibrant urban communities and traditional small towns through sound planning and clearly defined development expectations.

Policies: Community plans shall provide for urban density land use designations only within UGBs and Small Towns. The County may only support and approve State Urban Land Use Designations for areas within UGBs, STBs, and Rural Villages.

New development shall be consistent with the UGBs, STBs, and all other applicable policies of the MIP. New urban-density development shall not be allowed outside of a UGB or STB.

Rural Growth Areas

Goal: Maui will maintain opportunities for agriculture and rural communities through sound planning and clearly defined development expectations.

Policies: New development shall be consistent with RGB and all other applicable policies and requirements of the MIP. Public, quasi-public, civic, and limited commercial or industrial uses may be allowed in the RGB when the proposed uses demonstrate a public need and are consistent with the Community Plan and zoning.

Environmental protection and compatibility will be a top priority in rural growth areas.

Rural growth areas include Rural Residential Areas and Rural Villages. Rural residential areas may be designated when they are located in association with or on the border of urban growth areas or small towns; and/or when they

provide for complete, self-sufficient rural communities with a range of uses to be developed at densities that do not require urban infrastructure.

Urban-scale infrastructure and public facilities shall not be provided in rural areas except as described in the defined Level-of-Service (LOS) standards. There should be no expectations of urban services in rural areas.

The unique character and function of existing small towns and rural communities shall be protected to retain and preserve their sense of place.

Preserve rural landscapes in which natural systems, cultural resources, and agricultural lands are protected and development compliments rural character and contributes to the viability of communities and small towns.

The MIP addresses the following regions: Wailuku-Kahului; Kīhei-Mākena, Makawao-Pukalani-Kula; Pa`ia-Ha`ikū; West Maui; and Hāna. The West Maui region includes the Olowalu sub-region. According to the MIP, Olowalu Town is intended to meet the needs of Maui residents as a revitalized and sustainable community. Olowalu Town will provide housing, employment, recreational, and cultural opportunities in the context of a mixed-use sustainable community that preserves the area's natural cultural and historic resources. It is envisioned as a pedestrian-friendly community that integrates a variety of housing types with employment opportunities, commercial, and recreational uses developed concurrently with public services and infrastructure.

Olowalu Town will be designed to recognize and perpetuate the land and resource management system of the ahupua`a, provide public access between the ocean and mountains, and protect the natural environment.

UGB and RGB were established in Olowalu mauka of Honoapi`ilani Highway. Refer to **Figure 29** and **Appendix "R"**. However, the MIP states that "the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan" (MIP at 8-64). Such delineation may consider the need to protect adjacent coastal and marine ecosystems, enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway plan. The distinct boundaries of parks and open space, specific location of the recreational uses, and the precise amenities will be further defined during the West Maui Community Plan update and

the project review and approval process. Both Alternatives 1 and 2 will require a Community Plan Amendment.

~~F~~G. WEST MAUI COMMUNITY PLAN

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a community plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas including infrastructure-related parameters. The proposed Master Plan project is located within the West Maui Community Plan region. The existing land use designations for the Master Plan area under the Community Plan are set forth in the existing West Maui Community Plan Land Use Map. The lands underlying the Master Plan area are designated "Agricultural", "Open Space", and "Park (Golf Course)" on the Land Use Map. Refer to **Figure 8** and **Table 4**.

At the appropriate time, the ~~a~~Applicants will file a Community Plan Amendment (CPA) application to change the designation from "Agricultural", "Conservation", and "Park (Golf Course)" to "Project District" to reflect the land use spatial relationships and allocations set forth in the proposed Master Plan. This land use entitlement action will apply to both Alternative 1 and Alternative 2.

Examples of goals, objectives, and policies from the West Maui Community Plan supporting the proposed Master Plan are provided below:

LAND USE

Goal:

An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of residents and visitors in a manner that provides for the stable social and economic well-being of residents and the preservation and enhancement of the region's open space areas and natural environmental resources.

Objectives and Policies:

- Protect and enhance the quality of the marine environment.

- Preserve and enhance the mountain and coastal scenic vistas and the open space areas of the region.

- Establish an appropriate supply of urban land within the region to meet the needs of the community over the next 20 years. The Community Plan and its map shall define the urban growth limits for the region and all zoning requests and/or proposed land uses and developments shall be consistent with the West Maui Community Plan and its land use map.

- Where possible, relocate the Honoapi`ilani Highway south of Puamana in order to reduce potential inundation and disruption of service due to storm-generated wave action. Where the highway is relocated for the purpose stated, lands makai of the new alignment shall be designated Open Space (OS) or Park (Pk) to provide for ocean-related recreational use. Notwithstanding the foregoing, continued agriculture use shall be allowed within these areas.

- Provide and maintain parks and beach access for the present and future needs of residents and visitors. For the areas outside Lāhainā town, establish or expand parks and public shoreline areas to include but not limited to the following:

  - The development of a public beach park at Olowalu near Camp Pecusa for camping and ocean-related recreational and educational activities. The final boundaries of this park shall be determined in consultation with the landowner. However, if agriculture in the area is decreased by 50 percent, 20 acres of park land shall be considered for addition to the 10 acres of park land currently designated in the Land Use Map.

Comment: The Master Plan for Alternatives 1 and 2 is designed to utilize a system of detention and retention basins and other LID measures to handle stormwater runoff to reduce impacts to the quality of the marine environment, primarily from sediments. Alternatives 1 and 2 also propose to realign portions of Honoapi`ilani Highway further mauka. This realignment will address the existing erosion problem affecting the highway as well as create opportunities for open space and parks at each end of Olowalu, including near Camp Pecusa (now known as Camp Olowalu). The Master Plan for Alternative 1 will also create lateral access along the shoreline within the existing 150 feet shoreline setback area from one end of Olowalu to the other. Alternative 2 will leave the makai lands in its current use and will not affect public lateral shoreline access. As stated previously, the Master Plan for Alternatives 1 and 2 will require an application for a Community Plan Amendment which will be filed with the County of Maui.

ENVIRONMENT

Goal:

A clean and attractive physical, natural and marine environment in which man-made developments on or alterations to the natural and marine environment are based on sound environmental and ecological practices, and important scenic and open space resources are preserved and protected for public use and enjoyment.

Objectives and Policies:

- Encourage soil erosion prevention measures and the installation of siltation basins to minimize downstream sedimentation and degradation of nearshore and offshore water quality.

- Integrate stream channels, gulches and other areas deemed unsuitable for development into the region's open space system for the purposes of safety, open space relief, greenways for public use and visual separation. Existing development of these stream channels, gulches and other areas shall be maintained and shall not be expanded. Drainage channels and siltation basins should not be considered for building sites, but used, rather, for public open space.

- Encourage park, golf course, landscape and agricultural uses of treated effluent. Plan for wastewater reuse in the design of new parks, golf courses, and open spaces.

- Prohibit the dumping of heavy metals, oil and untreated sewage on land and in the nearshore waters and provide accessible and safe disposal for hazardous materials.

- Promote the planting of trees and other landscape planting to enhance streetscapes and the built environment.

- Protect the shoreline and beaches by preserving waterfront land as open space wherever possible. The protection shall be based on a study and analysis of the rate of shoreline retreat plus a coastal hazard buffer zone. Where new major waterfront structures or developments are to be approved, preservation should

be assured for 50-100 years by employing a shoreline setback based on the rate established by the appropriate study.

- Promote drainage and stormwater management practices that prevent flooding and protect coastal water quality.

Comment: Both Alternatives 1 and 2 propose to develop a drainage plan that will minimize the potential low level flooding (less than one foot) from stormwater runoff in Olowalu. The drainage plan will utilize a system of detention and retention basins and LID measures to prevent sediments in stormwater runoff from entering Olowalu Stream and the nearshore waters reducing degradation of water quality. Olowalu Stream and other sensitive areas, such as the OCR and shoreline areas, will be part of a system of open space, greenways, and parks that provide relief from the built environment.

As stated previously, no development is proposed in the existing 150 feet shoreline setback area which is the maximum setback established by the Maui Planning Commission. The maximum setback will allow public access and enjoyment of the shoreline area and ocean. As previously noted, the Master Plan for Alternative 1 encompasses lands mauka and makai of Honoapi`ilani Highway, while Alternative 2 excludes the makai lands.

The project's sewage treatment plant eliminates the need for injection wells and will produce R-1 recycled water to be utilized for irrigation purposes, especially for the public landscape areas.

ECONOMIC ACTIVITY

Goal:

A diversified economy that provides a range of stable employment opportunities for residents, allows for desired commercial services for the community, and supports the existing visitor and agricultural industries, all in a manner that will enhance both the community's quality of life and the environment.

Comment: Olowalu Town is envisioned as a sustainable community that provides housing, employment, infrastructure, facilities, services, and recreation within a 10 minute walk reducing the community's dependency on the automobile while promoting

a healthy community that preserves the community's historic, cultural, and natural resources.

CULTURAL RESOURCES

Goal:

To preserve, protect and restore those cultural resources and sites that best represent and exemplify the Lāhainā region's pre-contact, Hawaiian Monarchy, missionary and plantation history.

Objectives and Policies:

- Preserve and protect significant archaeological, historical and cultural resources that are unique in the State of Hawai`i and Island of Maui.
- Foster an awareness of the diversity and importance of cultural resources and of the history of Lāhainā.
- Encourage and protect traditional shoreline and mountain access, cultural practices and rural/agricultural lifestyles.
- Ensure adequate access to our public shoreline areas for public recreation, including lateral continuity.
- Promote distinct cultural resources as an identifying characteristic of the region.
- Ensure that new projects or developments address potential impacts on archaeological, historical, and cultural resources and identify all cultural resources located within the project area as part of initial project studies. Further require that all proposed activity adequately mitigate potential adverse impacts on cultural resources.
- Support public and private efforts to inventory, evaluate and register historic and archaeological sites to expand the public's knowledge of the region's cultural resources.
- Recognize the importance of buffer areas to enhance and protect historical or archaeological sites.
- Recognize areas of historic vegetation and significant native vegetation zones as cultural resources.

- Encourage community stewardship of historic sites.
- Encourage the development of "cultural parks" for visitation and education.
- Encourage cultural and educational programs to perpetuate Hawaiian and other ethnic heritages.
- Important site types and areas in the West Maui region include but are not limited to the following:
    - Olowalu Church ruins
    - Olowalu heiau
    - Stream valley sites
    - Plantation ditch system
    - Plantation buildings
    - Lo`i terraces and `auwai
    - Camp Pecusa
    - Olowalu petroglyphs
    - Olowalu Landing

Implementing Actions:

Develop cultural parks appropriate for public visitation and education programs in various areas of the region.

Identify specific historical or archaeological sites for protection and interpretation.

Comment: The Master Plan's intent is to avoid historic and cultural sites which meet the SHPD's criteria for preservation such as, but not limited to, burials, heiaus, and historic plantation features. A significant part of the Master Plan for Alternatives 1 and 2 is the OCR which contains many historic and cultural sites, such as the Olowalu Petroglyphs and heiaus, which are being preserved as well as interpreted. Within the OCR, there are ongoing efforts to restore the former lo`i and native vegetation. There are also ongoing educational programs available to the public that

document and perpetuate the Hawaiian culture. The Applicants propose to continue to support the efforts of the OCR.

The Applicants will continue to support ongoing research on Olowalu documenting the plantation place names and persons who lived in Olowalu. Both Alternatives 1 and 2 will incorporate the historic place names, as appropriate.

HOUSING

Goal:

A sufficient supply and choice of attractive, sanitary and affordable housing accommodations for a broad cross section of residents.

Objectives and Policies:

- Accommodate the 20-year housing needs of the planning region.
- Provide a variety of affordable housing opportunities, including improved lots and self-help projects and special needs housing for the elderly, single parent families, homeless and disabled.
- Coordinate the planning, design and construction of public infrastructure improvements with major residential projects that have an affordable housing component.
- Promote efficient housing designs in order to reduce residential home energy consumption.
- Maintain acceptable standards for affordable housing projects, including but not limited to, the installation of sidewalks and provision of adequate off-street parking.
- Support efforts to develop housing for the elderly and for the homeless.

Comment: Both Alternatives 1 and 2 propose to provide a variety of housing types for all income groups of Maui residents, including affordable units and homes for the elderly. Sustainability standards will be incorporated into the planning, design, and construction of the housing units and public infrastructure, such as those relating to the utilization of innovative technology for wastewater treatment and disposal, as well as reduction in energy consumption.

URBAN DESIGN

Goal:

An attractive and functionally integrated urban environment enhances neighborhood character, promotes quality design at the resort destinations of Ka`anapali and Kapalua, defines a unified landscape planting and beautification theme along major public roads and highways, watercourses, and at major public facilities, and recognizes the historic importance and traditions of the region.

Objectives and Policies:

- Enhance the appearance of major public roads and highways of the region.
- Improve pedestrian and bicycle access within the region.
- Enhance the appearance of major public roads and highways in the region.
- Improve pedestrian and bicycle access within the region.
- Integrate stream channels and gulches into the region's open space system for the purposes of safety, open space relief, greenways for public use and visual separation. Drainage channels and siltation basins should not be used for building sites, but, rather, for public open space. Drainage channel rights-of-way and easements may also be used for pedestrian walkways and bikeway facilities.
- Promote a unified street tree planting scheme along major highways and streets. Hedge planting should be spaced and limited in height, in order to provide vistas to the shoreline and mountains.
- Maintain shrubs and trees at street intersections for adequate sight distance.
- Save and incorporate healthy mature trees in the landscape planting plans of subdivisions, roads or any other construction or development.
- Incorporate drought-tolerant plant species in future landscape planting.
- Existing and future public rights-of-way along roads and parks shall be planted with appropriate trees, turfgrass and ground covers.
- Emphasize contrasting earth-tone color schemes for buildings and avoid bright or garish colors.

Comment: As a planned sustainable community, the Master Plan proposes to develop design criteria for streets, buildings, public facilities and landscaping to ensure an attractive and functionally integrated environment that embodies the characteristics of a "walkable" community which holds positive implications for energy conservation and efficiency objectives. These urban design principles will equally apply to Alternative 1 and Alternative 2.

INFRASTRUCTURE

Goal:

Timely and environmentally sound planning, development, and maintenance of infrastructure systems which serve to protect and preserve the safety and health of the region's residents, commuters, and visitors through the provision of clean water, effective waste disposal and efficient transportation systems which meet the needs of the community.

Objectives and Policies (Transportation):

- Support ridesharing, programs to promote safe bicycle and pedestrian travel, alternative work schedules, traffic signal synchronization and other transportation demand management strategies.

- Promote residential communities that provide convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks and public facilities, in order to minimize use of automobile.

Implementing Action

- Widen the existing highway to four (4) lanes from the Pali to Lāhainā Town and from Kā`anapali Parkway to Office Road.

- Provide a landscaped buffer area along Honoapi`ilani Highway to enhance both pedestrian and vehicular circulation, as well as to soften the effects of the built environment.

Objectives and Policies (Water and Utilities):

- Protect groundwater resources in the region.

- Improve the quality of domestic water.

- Coordinate expansion of and improvements to water system to coincide with the development of residential expansion areas.

- Promote conservation of drinking water through the use of treated wastewater effluent for irrigation.

- Encourage the installation of underground electrical, telephone and cable television lines.

- Encourage reasonable rates for water and public utility services.

Objectives and Policies (Liquid and Solid Waste)

Improve sewage treatment services for Lāhainā and provide services to residential expansion areas in the following manner:

- Recycle wastewater

- Extend sewage treatment service to populated areas not currently serviced.

Objectives and Policies (Drainage):

- Construct necessary drainage improvements in flood-prone areas, incorporating landscaped swales and unlined channels to provide open space continuity. Urge the use of landscaped/green belt drainage channels as opposed to concrete-lined channels or culverts.

- Insure that new developments will not result in adverse flooding conditions for downstream properties by requiring onsite retention facilities for stormwater run off generated by the development.

Objectives and Policies (Energy):

- Promote energy efficiency as the energy resource of first choice and seek to increase energy efficiency in all sectors in the community.

- Promote the environmentally sensitive use of renewable energy resources, such as biomass, wind, and solar.

- Support energy efficient technologies in conjunction with new urban development and encourage energy efficient building design and site development practices.

Comment: Infrastructure is planned to be constructed concurrent with the development of the Master Plan for Alternatives 1 and 2. Major infrastructure will include realignment of Honoapi`ilani Highway further mauka as part of the proposed widening and realignment of the highway from Mā`alaea to Launiupoko, as well as realigning the existing highway away from shoreline erosion; construction of a wastewater treatment plant that will eliminate the existing use of cesspools and septic systems; construction of a R-1 recycled water system for irrigation; upgrades to the existing drinking water system including source development and fire protection infrastructure; and construction of future roadways to provide connectivity within the Master Plan area, and limiting the need to utilize the future realigned highway for local traffic.

As mentioned previously, as a planned sustainable community, design criteria for streets, buildings, public facilities and landscaping will be formulated to ensure an attractive and functionally integrated environment that embodies the characteristics of a "walkable" community.

SOCIAL INFRASTRUCTURE

Goal:

Develop and maintain an efficient and responsive system of public services which promotes a safe, healthy and enjoyable lifestyle, and offers opportunities for self improvement and community well being.

Objectives and Policies (Recreation and Open Space):

- Provide adequate community-oriented park facilities including facilities for field and court games, children's play and picnicking within, or adjacent to, existing and future residential areas at the following existing or planned park sites:

    - Major residential projects.

- Provide resource-oriented regional park facilities and public access along the shoreline for picnicking, camping, informal play, swimming, sunbathing, and

other coastal-related activities along coastal lands makai of the existing or future realigned coastal highways from Honokahua Bay to the district's north boundary and from Puamana to the district's south boundary, except for the agriculture designated lands makai of the highway at Olowalu.

- Establish adequate public access to suitable mauka recreational areas for hiking, hunting, camping, nature study, and other back country, leisure time activities, based on a mountain access study.

- Provide public camping areas along the shoreline of the region, such as at Olowalu near Camp Pecusa.

- Ensure adequate public access to shoreline areas, including lateral access to establish the continuity of public shorelines.

- Establish park areas appropriate for nature study.

~~**Objectives and Policies (Education):**~~

- ~~Encourage the development of child care and pre-school facilities, in conjunction with major centers of employment.~~

Objectives and Policies (Health and Public Safety):

- Support the appropriate level of police services in consideration of the region's resident and visitor population.

- Encourage the expansion of community and social service facilities and programs in West Maui in convenient and accessible locations through public and private partnerships.

- Support the expansion of child care facilities in West Maui.

Objectives and Policies (Education):

- Ensure adequate school facilities and education opportunities within the region.

- Encourage the development of child care and pre-school facilities, in conjunction with major centers of employment.

Comment: Both Alternatives 1 and 2 incorporate public facilities such as future sites for a police station, fire station, ambulance services, and an educational facility. The Applicants will continue to coordinate with public agencies to ensure that public facilities and services are provided in a timely manner. The Applicants propose to provide its "pro rata" share to such improvements. In addition, open space and park lands for recreation are encompassed by both Alternative 1 and Alternative 2. Continuation of Camp Pecusa (now known as Camp Olowalu) as well as enhanced public access to and along the shoreline are envisioned by the Master Plan for Alternative 1.

~~G~~H. COUNTY ZONING

The proposed Master Plan is predominantly zoned "Agricultural" by the County. A portion of the Master Plan on the makai side of Honoapi`ilani Highway is zoned "R-3 Residential", and "A-2 Apartment" on Land Zoning Map No. 7 Olowalu Town. Refer to **Figure 9** and **Table ~~6~~4**.

To implement the Master Plan for both Alternatives 1 and 2, a Project District zoning designation will be required. In addition, a Project District Phase I approval, setting forth the zoning performance standards, including permitted land uses, accessory uses, special uses, densities, height, setbacks, lot dimensions, and other development standards will be required. In this regard, ~~Olowalu Town, LLC and Olowalu Ekolu, LLC~~the Applicants propose~~s~~ the use of a model SmartCode, which serves as a unified development ordinance that encourages a market-driven alternative to conventional residential development. The ~~proposed code~~Project District application for the Master Plan will address traditional neighborhood design attributes which promote walkability, reduce the number and length of automobile trips, provide neighborhoods of appropriate scale and quality, provide building concentrations at easy walking distance from public transportation, provide a full range of housing product types, and provide a suitable mix of civic buildings and spaces. Refer to **Appendix "~~A-2~~A-3"**.

The SmartCode is a transect-based code which establishes a geographic cross-section divided into six (6) transect zones or communities, as follows, T-1 Natural Zone; T-2 Rural Zone, T-3 Sub-Urban Zone, T-4 General Urban Zone, T-5 Urban Center Zone and T-6 Urban Core Zone. The transect, as a framework, identifies a range of habitats from the most natural to the most urban. The transect integrates environmental and zoning methodologies. The Project District application will incorporate these transects

in proposing densities, heights, setbacks, lot dimensions, and other development standards within the Master Plan. The six (6) transects are described, as follows:

T-1 Natural Zone: Consists of lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.

T-2 Rural Zone: Consists of sparsely settled lands in open or cultivated state. These include woodland, agricultural land, grassland and irrigable desert. Typical buildings are farmhouses, agricultural buildings, cabins, and villas.

T-3 Sub-Urban Zone: Consists of low density residential areas, adjacent to higher zones and some mixed use. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.

T-4 General Urban Zone: Consists of a mixed use but primarily residential urban fabric. It may have a wide range of building types, such as single, sideyard and rowhouses. Setbacks and landscaping are variable. Streets with curbs and sidewalks define medium-sized blocks.

T-5 Urban Center Zone: Consists of higher density mixed use building that accommodates retail, offices, rowhouses and apartments. It has a tight network of streets, with wide sidewalks, street tree planting and buildings set close to the sidewalks.

T-6 Urban Core Zone: Consists of the highest density and height, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks, street tree planting and buildings set close to the wide sidewalks.

In addition to the six (6) transect zones, the SmartCode may include a Civic Zone and Special Districts, as follows:

Civic Zone: Consists of civic buildings and/or civic spaces appropriate to their transect zone.

Special Districts: Consist of areas with buildings that by their function, disposition, or configuration cannot, or should not, conform to one or more of the six (6) normative transect zones.

In conjunction with the Project District Phase I processing, the model SmartCode will be modified to accommodate the local character of Olowalu, public input from residents, local and State government, elected officials, design professionals and community groups.

~~H~~I. PROJECT DISTRICT PROCESSING REQUIREMENTS

The implementation of the Master Plan will follow the requirements of Chapter 19.45 of the MCC relating to Project District Processing Regulations. Project District Phase II and Phase III approvals will be sought as each phase of implementation is detailed and designed. This land use entitlement process affects both Alternative 1 and Alternative 2.

~~I~~J. COASTAL ZONE MANAGEMENT

The 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 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 United States territorial sea (~~Chapter~~HRS Section 205A-1, HRS). The County of Maui utilizes its SMA regulatory mechanism to implement the HCZMP. Portions of the Master Plan are within the County of Maui's SMA. As specific project components are implemented, applications for SMA permits will be filed for any "development" as that term is defined under HCZMP. Refer to **Figure ~~8~~10**. As set forth in Chapter 205A, HRS, this section addresses the project's relationship to applicable CZM 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) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation; and waters having recreational value consistent with public safety standards and conservation of natural resources;

(v) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

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

(vii) 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, county planning commissions; and crediting such dedication against the requirements of Section 46-6, HRS.

Response: As discussed in Chapter II, recreational opportunities will be provided through additional park and open space areas included as part of the proposed project. The Master Plan for Alternatives 1 and 2 includes provisions for approximately 223 acres in Alternative 1 and approximately 200 acres in Alternative 2 of active and passive parks, as well as drainage and open space areas.

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 archeological resources;

(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Response: Several archaeological inventory studies were conducted within the Master Plan boundaries that documented the archaeological, cultural and historic sites and recommended mitigation. Cultural Surveys Hawai`i, Inc. prepared an archaeological literature review of these studies for the Master Plan for Alternatives 1 and 2 and compiled a comprehensive list of the ongoing recommended mitigation for these sites that will be implemented in the Master Plan. As such, the Master Plan ~~will~~is not expected to adversely impact archaeological, cultural and historic resources that are significant in Hawaiian and American history and culture.

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 which are not coastal dependent to locate in inland areas.

Response: The Master Plan area ~~is~~for Alternatives 1 and 2 is located along the coastal plain and foothills of Olowalu. ~~The Master Plan~~Both Alternatives 1 and 2 offer~~s~~ an architecturally integrated plan which sets standards for height, landscaping and open space corridors. Approximately 223 acres in Alternative 1 and approximately 200 acres in Alternative 2 of parks and open space will be provided in the Master Plan. As discussed in Chapter III, design and performance standards will be implemented to mitigate impacts to scenic resources.

4. Coastal Ecosystems

Objective

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

Policies

(A) Improve the technical basis for natural resource management;

(B) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

(C) 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

(D) Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

Response: Appropriate Best Management Practices (BMPs), erosion-control measures, and a stormwater quality management program will be implemented to minimize the effects of stormwater runoff resulting from the implementation of the Master Plan for Alternatives 1 and 2 and to ensure that coastal ecosystems are not adversely impacted by construction and ongoing activities. Further, to reduce impacts on Olowalu Stream, the stream area is included in the OCR. ~~Within~~ Master Plan actions within the OCR~~, the Master Plan~~ is limited to the preservation of archaeological, historic and cultural sites and agricultural activities envisioned to incorporate the ahupua`a system of agriculture practiced by early Hawaiians.

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 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: In order to develop the Master Plan for Alternatives 1 and 2, an economic impact study was prepared as a key component for the establishment of an Olowalu Town community. The Master Plan ~~is~~for Alternatives 1 and 2 is envisioned to stimulate the economy both short term and long term. According to the 2011 Economic and Fiscal Impact study prepared for the project, total construction expenditures are expected to total $465.6 million and create an average of 377 direct and indirect jobs on Maui annually over the 10-year development period. Upon completion, ~~the Master Plan~~Alternatives 1 and 2 could result in approximately 1,000 jobs just in the commercial and industrial sectors of the project. Employment attributed to the Master Plan is expected to total approximately 4,770 jobs over the term of the development.

6. Coastal Hazards

Objective

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

Policies

(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;

(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;

(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program;

(D) Prevent coastal flooding from inland projects; and

(E) Develop a coastal point and nonpoint source pollution control program.

Response: As described in Chapter III, both alternatives of the Master Plan area falls within multiple flood zone categories. Land planning principles will be employed to respect flood-sensitive areas. It is noted that the proposed Master Plan ~~does~~for Alternatives 1 and 2 does not propose any development

within the portion of the Master Plan area that is within Flood Zone VE. Apart from this, construction within flood hazard areas will be in compliance with Section 19.62.060, relating to standards for development within flood hazard areas. Drainage improvements will be designed in accordance with applicable regulatory standards to ensure that the project will not adversely affect downstream properties from the effects of flooding and erosion. Results of the preliminary engineering report, including drainage, are discussed in Chapter III. In addition, ~~the Master Plan~~as previously noted, both Alternatives 1 and 2 observe~~s~~ an existing 150-foot shoreline setback established through a SMA Permit approved in 2000 to ensure development is not threatened by shoreline erosion, storm wave action, and sea level rise.

7. Managing Development

Objective

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

Policies

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

(B) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and

(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Response: In addition to the numerous community meetings held to develop the Master Plan, public input ~~will be~~was solicited in coordination with the processing of the ~~Draft~~ EIS, pursuant to the Chapter 343, HRS, EIS review process. The DBA, CPA, CIZ, Project District, and SMA application processes involve review by various governmental agencies, including the SLUC, the MPC and the Maui County Council. The public is afforded the opportunity to participate in hearings on these processes. Coordination with other

organizations and individuals will be undertaken in conjunction with the foregoing processes.

Applicable Federal, State, and County requirements will be adhered to in the planning, design, and construction of the project.

8. Public Participation

Objective

Stimulate public awareness, education, and participation in coastal management.

Policies

(A) Maintain a public advisory body to identify coastal management problems and to provide policy advice and assistance to the coastal zone management program;

(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-related issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: The Master Plan was developed utilizing a community-based planning process referred to as "Olowalu Talk Story". The 10-day long series of workshops held in November 2005, involved more than 1,350 participants to help guide the formulation of the Master Plan. Olowalu Town, LLC's planning consultant, Duany Plater-Zyberk & Company, took the input provided at the workshops to develop the land plan concept. Values expressed at the workshops included, among several, the need to protect the environment, preserve culture, provide affordable housing, improve infrastructure, strengthen the island's economy, and preserve and enhance shoreline access.

The ~~applicant continues~~Applicants continue to recognize the importance of community input with ongoing meetings with local residents and organizations.

Public input will continue to be solicited in coordination with the processing of the ~~Draft EIS, pursuant to the Chapter 343, HRS environmental assessment review process, the~~ State DBA, County CPA, CIZ, Project District, and SMA processes. All aspects of development will be conducted in accordance with applicable Federal, State and County standards.

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 and to minimize loss of improvements due to erosion;

(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: In broad terms, the project will utilize appropriate BMPs and implement a stormwater quality management program to manage overall drainage for the Master Plan area. In the long term, ~~the Master Plan~~both Alternatives 1 and 2 will contain a comprehensive drainage system that will retain project-related incremental increases in runoff. As previously stated, the Master Plan observes an existing minimum 150~~-feet~~-foot shoreline setback established through a SMA Permit granted in 2000 to ensure the development is not threatened by shoreline erosion, storm wave action, and sea level rise.

10. Marine Resources

Objective

Implement the State's ocean resources management plan.

Policies

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(B) Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(C) Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;

(D) 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;

(E) 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

(F) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: A marine biological and water quality baseline study has been ~~undertaken~~completed for the Olowalu area. The study found that the existing episodic discharge of land-derived sediment is the most pervasive stress to the reefs off Olowalu. However, the area of such discharge is limited and does not affect all areas of the reef but primarily near Olowalu Stream. Construction of the project's drainage system and retention basins are designed to handle the post-development stormwater runoff and a portion of the pre-development runoff. The drainage improvements, BMPs and implementation of a stormwater quality management program during development of ~~the Master Plan~~both Alternatives 1 and 2 are expected to mitigate any impacts to water quality and are expected to improve water quality by reducing sediments onto the reefs.

In addition to the aforementioned objectives and policies, SMA permit review criteria, pursuant to §205A - 30.5 (a) provides that:

No special management areas 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.

Response: Designs for outdoor lighting will consider the need to respect the night sky, while providing an appropriate level of safety and security. Placement and designs of lighting fixtures in common and public areas will address the need to minimize light "spillage" across project boundary lines and towards the shoreline.

~~J~~K. SHORELINE SETBACK RULES

The coastal areas of the Master Plan ~~are~~for Alternative 1 ~~located within~~encompass the shoreline setback area, while Alternative 2 does not include the makai lands and will not affect the shoreline area. SMA Permit No. 990021 established a minimum 150~~ft.~~-foot shoreline setback for the makai properties along the shoreline. Refer to **Figure ~~4~~21**. Condition No. 29 of the permit states *"no structures shall encroach into the Shoreline Setback Area to ensure that future shoreline erosion and storm-wave action will not adversely affect structural development on the properties."* See **Appendix "PS"**. As such, work within the shoreline setback area will be limited to landscaping and related permitted public access improvements to and along the shoreline.

Further, Condition No. 30 requires public lateral pedestrian access along the shoreline in the shoreline setback area and that landscaping within 50 feet of the shoreline should be spaced far enough apart so as not to interfere with lateral access. In addition, a mauka to makai access from Honoapi`ilani Highway to the Olowalu Mill site and Olowalu Landing, as well as beach parking, has been provided in accordance with Condition No. 30. The Condition also requires public access from both ends of the Olowalu makai properties which is from Camp Olowalu on the Mā`alaea side and from ~~p~~Parcel 124 from the Lāhainā side.

~~K~~L. ~~OTHER STUDIES~~COUNTY OF MAUI PLANS

1. Water Use and Development Plan

The County of Maui's Water Use and Development Plan (WUDP) was adopted in 1990 and is currently being updated by the Department of Water Supply. Significant changes have occurred since the development of the plan, such as

the ~~demise~~termination of large scale agriculture (sugarcane and pineapple) by Pioneer Mill Company and Maui Land and Pineapple Company who were major users of surface water and groundwater in West Maui. The plan also envisioned the development of brackish groundwater resources as ~~potable~~drinking water in areas such as Olowalu by utilizing new technologies to reduce chloride ~~levels~~ to acceptable levels.

In accordance with the WUDP, the Olowalu Water Company, Inc. (OWC) manages a privately-owned public water system regulated by the Public Utilities Commission. The expansion of the OWC's water system will include two (2) additional wells for ~~potable~~drinking water and is consistent with the WUDP.

~~2. Statewide Transportation Plan~~

~~3.~~2. Maui Long Range Transportation Plan

The County of Maui Long-Range Transportation Plan, February 1997, recommended island-wide improvements which included widening Honoapi`ilani Highway to a 4-lane roadway four (4) miles west of Mā`alaea Harbor to the Lāhainā Bypass. In 2005, the County prepared the Pali to Puamana Parkway Master Plan which recommended realigning the highway further mauka from the shoreline.

The Master Plan includes realignment of Honoapi`ilani Highway as a future 4-lane roadway with provisions for a transit corridor inland of the shoreline in accordance with the Maui Long-Range Transportation Plan and the County's Pali to Puamana Parkway Master Plan.

3. Pali to Puamana Parkway Master Plan

The Pali to Puamana Parkway Master Plan was prepared by the County of Maui in 2005. According to the Master Plan report:

> *The purpose of the Plan is to serve as a foundation for a public policy promoting responsible land preservation and development in the coastal zone. The objectives of the plan are: 1) to recommend a proposed realignment of the Honoapi`ilani*

Highway from Papalaua Park to Puamana Park; 2) to recommend a proposed open space preserve and to protect the shoreline environment; 3) to increase roadway capacity; 4) to protect public health and safety by getting the highway out of the tsunami inundation zone; and 5) to recommend methods of accommodating new land uses for the area through the implementation of the West Maui Community Plan.

Included in this plan was the possibility of the HDOT widening of Honoapi`ilani Highway between Ukumehame and Launiupoko where it would connect to the proposed Lāhainā By-Pass Road. In Olowalu, the Master Plan proposes a 160-foot wide right-of-way for the by-pass highway inland from the shoreline and maintaining the existing Honoapi`ilani Highway as a landscape multi-purpose pathway. The Master Plan also identified three (3) parks in the area, `Awalua Park, Olowalu Beach Park, and Hekili Point Beach Park (Planning Department, 2008).

In order to implement the Pali to Puamana Master Plan, an amendment to the West Maui Community Plan is necessary. An Environmental Assessment (EA) for the Community Plan Amendment, Papalaua to Puamana (aka Pali to Puamana Parkway) was prepared and approved in 2008. According to the EA, the Olowalu area has approximately 58.31 acres of land that will be affected by the proposed land use designations for the Pali to Puamana Parkway Master Plan. Within the Olowalu area, most of the land is designated by the State of Hawai`i as "Agricultural" and is privately owned (46.1 acres) and identified for park and open space use. The land areas will need to be acquired by the State, County or a non-profit organization in order to implement the Pali to Puamana Parkway Master Plan. Since completion of the EA, the County of Maui has not initiated the land use entitlement process. (Planning Department, 2008).

Portions of the Pali to Puamana Parkway Master Plan area has been acquired by the County of Maui. In 2014, the Council authorized the purchase of the Launiupoko lands north of the former Olowalu landfill site from West Maui Land Company. Once this purchase is completed, the remaining major privately-owned land is in Olowalu. The other areas not owned by the County of Maui are owned by the State of Hawai`i.

In 2007, the HDOT prepared an Environmental Impact Statement Preparation Notice (EISPN) for the Honoapi`ilani Highway Realignment/Widening project (Mā`alaea to Launiupoko) in response to capacity limitations and roadway safety and reliability issues. Highway improvements may involve widening portions of the existing highway and/or constructing a new highway along an inland alignment (HDOT, 2007).

In 2012, the HDOT in coordination with the Federal Highways Administration (FHWA) and West Maui Land Company, proposed the relocation of the Lāhainā Bypass Southern Terminus to the vicinity of the former Olowalu landfill. Erosion along the highway in the Launiupoko area and a rise in traffic congestion between the current bypass terminus point at Launiupoko to the vicinity of the former Olowalu landfill were cited as reasons for the change in alignment (HDOT, 2012). The relocation of the Lāhainā Bypass Southern Terminus is included in the 2015-2018 STIP with construction anticipated to be initiated in 2018.

4. Beach Management Plan for Maui

The Beach Management Plan for Maui (Plan) provides objectives and recommendations for the management of Maui's shoreline resources. The plan seeks to promote beach preservation and sustainable development of the coastal zone.

Guidelines for Shoreline Protection Measures

Objectives:

- To establish guidelines for determining the most appropriate type of coastal protection for a particular location.
- To provide an alternative to owners of eroding coastal properties who do not wish to pursue shore protection measures.

Recommendation:

- Encourage hazard avoidance in the form of retreat or relocation where possible.

- Require compensatory mitigation where lateral access and/or beach resources are lost or impounded by development.

Comment: Alternative 1 will respect the existing 150-foot shoreline setback as a hazard avoidance measure. This alternative will support lateral access and the protection of beach resources. Alternative 2 does not encompass lands makai of Honoapi`ilani Highway.

Sea-Level Rise

Objective:

- To recognize and plan for potential impacts of sea-level rise on low-lying coastal lands.

Recommendation:

- Take sea-level rise into consideration when reviewing development or development of low-lying and coastal areas.

Comment: The Master Plan for Alternative 1 does not propose any structural development within the existing 150-foot shoreline setback area, which accommodates both shoreline erosion and anticipated sea-level rise to 2100. Alternative 2 does not include land makai of Honoapi`ilani Highway or within the existing 150-foot shoreline setback area.

Coral Reefs Ecosystems, Water Quality and Upland

Objective:

- To reduce impacts to water quality and coral reef ecosystems

Recommendations:

- Aim to eliminate the need for wastewater injection wells

- Evaluate site plans with an eye to minimize both impervious coverage such as pavement and disruption of natural drainage and vegetation.

Encourage the use of pervious materials that allow for the infiltration of stormwater.

Comment: The proposed wastewater treatment facility will not include injection wells. The LID measures in the Stormwater Quality Enhancement study proposes to allow stormwater runoff to percolate into the ground, as well as filter sediments to reduce runoff and improve water quality entering Olowalu Stream and the ocean.

Proactive Development of Coastal Lands

Objective:

- To encourage proactive shoreline developments and increase awareness of coastal hazards

Recommendations:

- Encourage developers and landowners to pre-consult with various experts and governmental agencies familiar with coastal erosion in order to get appropriate recommendations on project design
- Encourage greater setbacks for large structures such as hotels and condominiums, and slab-on-grade structures
- Discourage slab-on-grade construction for coastal properties
- Encourage minor structures to be non-permanent and portable

Comment: As stated previously, the Master Plan for Alternative 1 does not propose any structural development within the existing 150-foot shoreline setback area, which accommodates both shoreline erosion and anticipated sea-level rise to 2100. Alternative 2 does not include land makai of Honoapi`ilani Highway or within the existing 150-foot shoreline setback area.

~~T~~M. OTHER REGULATORY APPROVALS

In connection with the filing of the ~~Draft~~ EIS document, coordination has been undertaken with the U.S. Department of the Army regarding permitting requirements associated with the Master Plan within the project area and surrounding environs.

Similar coordination with the State Department of Health (DOH) and State Office of Planning has been conducted to determine the applicability of Section 401 Water Quality Certification, and CZM Consistency Approval, respectively. Chapter ~~VIII~~X summarizes the regulatory permits and approvals which may be required for the proposed project.

V. SUMMARY OF UNAVOIDABLE IMPACTS AND COMMITMENTS OF RESOURCES

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A. UNAVOIDABLE IMPACTS

The proposed development of the Master Plan for Alternatives 1 and 2 will result in certain unavoidable construction-related environmental impacts as outlined in Chapter ~~III~~III.

In the short term, construction associated with the proposed development will generate noise impacts. The dominant source of noise will be from heavy construction equipment. Sound attenuating construction equipment will be used, where practicable. In addition, limiting hours of operation to standard curfew periods and administrative controls and construction barriers, as required, will minimize noise impacts caused by construction.

Unavoidable air quality impacts will also arise as a result of construction activities, such as the generation of dust and other airborne pollutants. Appropriate Best Management Practices (BMPs) will be incorporated to mitigate adverse impacts such as, but not limited to, stabilization of disturbed areas, thorough watering of exposed surfaces, limiting the area to be disturbed, erection of wind screens and regular maintenance of construction equipment to minimize construction-related impacts.

Long-term noise impacts may occur along the future bypass alignment. Appropriate mitigation measures will be incorporated to mitigate adverse impacts such as increasing the roadway right-of-way (ROW) width, establishing additional setbacks between the ROW and existing/future structures and sound attenuating walls.

B. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The Master Plan for Alternatives 1 and 2 will commit approximately ~~460~~434 acres in Alternative 1 and approximately 396 acres in Alternative 2, of ~~agricultural~~ State Land Use (SLU) "Agricultural" District designated land formerly used for sugarcane cultivation to rural and urban uses to implement the mixed use community including affordable housing for local residents. The production of sugarcane ceased at this location over ~~ten (10)~~15 years ago and a small portion is now being utilized for limited diversified agriculture consisting of non-income generating grazing to manage vegetation to minimize wildfire hazards, a tomato farm

and tree farms. Refer to **Figure ~~16~~25**. The loss of this acreage is not anticipated to adversely impact diversified agriculture on Maui due to the fact that the portion to be removed from agriculture represents ~~only 0.02~~ less than 0.2 percent of agricultural lands on the island for both Alternatives 1 and 2. A portion of the existing agricultural lands along Olowalu Stream are proposed to continue in diversified agriculture. The existing tomato farm ~~and rooster farm~~ to be displaced can relocate to these lots as the project is developed, should the farmer~~s~~ decide to continue their agriculture operations. Adequate relocation time and coordination efforts will be undertaken to ensure a smooth transition for ~~these~~this farm~~s~~.

The visual landscape of Olowalu Town will be changed from an agricultural landscape to one which reflects a mixed-use residential community. Development of the project will, therefore, alter the existing landscape. However, this is not a new landscape given the previous thriving plantation town that existed until the 1930s. Land use site planning for the Master Plan for Alternatives 1 and 2 and proposed development standards are envisioned to ~~minimize~~manage these changes so that the new town centers maintain a country town character that integrates into the existing Olowalu community. The Master Plan for Alternatives 1 and 2 utilize~~s~~ lower density transition zones consisting of rural and agricultural lots to minimize landscape changes created by the town centers. As well, the Master Plan for Alternative 1 maintains a significant area of the makai shoreline area as park and open space, while Alternative 2 maintains the existing uses. ~~and the~~ The Olowalu Stream corridor is maintained as a contiguous physical and visual open space from the shoreline to the mountains. As such, the changes in the visual landscape are addressed to ensure that adverse impacts upon scenic or open space resources are appropriately managed.

From an infrastructure use perspective, project implementation will result in alterations of existing hydrology (drainage), largely due to the increase in impervious surface area, and other impacts related to wastewater, water, road usage, parks, and public services. However, these impacts will be mitigated through investment in additional resources, including a master drainage system, upgrade and expansion to the private water system, private wastewater treatment plant without injection wells, proposed inland relocation of Honoapi`ilani Highway, park and open space areas, and potential sites for public/quasi-public facilities.

The drainage system for the Master Plan for Alternatives 1 and 2 will be designed to retain all increases in post-development peak runoff such that downstream properties and water quality in the nearshore waters of Olowalu will not be adversely impacted. Opportunities to further increase the amount of runoff retained onsite, thereby improving nearshore water quality will be evaluated during the design phases of the proposed development. In addition,

a stormwater quality management program will be implemented for the Master Plan for Alternatives 1 and 2 to reduce and mitigate impacts to nearshore water quality.

The privately operated and maintained water supply system by the Olowalu Water Company, Inc. will commit water resources for the upgrade and expansion of the system. Department of ~~Water Supply~~Health (DOH), Commission on Water Resources Management (CWRM) and Public Utilities Commission (PUC) requirements will be fulfilled, as applicable, by the Applicants. Two (2) new wells will be installed to ensure system reliability and the transmission system upgraded and expanded to provide adequate fire protection for the existing community and the Master Plan areas for Alternatives 1 and 2. Irrigation water will be provided by upgrading the existing Olowalu Ditch, use of brackish water from Pumps "N" or "O", and use of R-1 recycled water from the wastewater treatment facility. The private water system is regulated by the State of Hawai`i ~~Department of Health (~~DOH~~)~~ and the ~~Public Utilities Commission (~~PUC~~)~~.

Comprehensive testing of the groundwater from the existing and proposed wells and ongoing monitoring will be required as part of the DOH approval process to ensure that water quality needs, prescribed standards for drinking water supplies and use of the R-1 water is maintained through the life of the project. Over the long term, should water quality exceed defined parameters, the appropriate level of pre-treatment will be applied at that time to ensure that water quality standards are maintained as required by law. Also, the PUC regulates the private water system to ensure reliable water is provided to the community at a fair rate structure.

Utilizing innovative technology, a private wastewater treatment facility will be constructed which requires no injection wells. Two (2) natural treatment systems consisting of a constructed wetland and soil aquifer treatment system will be used to dispose of any excess recycled water. It is estimated that approximately 90 percent of the recycled water will be used over the course of an average precipitation year.

Additional traffic is anticipated with the completion of the Master Plan for Alternatives 1 and 2 due to project generated traffic flows and increased ambient traffic associated with regional population growth. The proposed bypass highway with "O" turns will ensure the continuous flow of traffic through Olowalu. The existing Honoapi`ilani Highway will become a secondary roadway providing access to the shoreline and the Master Plan areas for Alternatives 1 and 2.

Enhanced parks and open space areas are proposed throughout the Master Plan for Alternatives 1 and 2 to provide both local and regional recreational opportunities. ~~The~~For

Alternative 1, the strategic location of habitable structures mauka of the existing 150 feet shoreline setback will ensure public access to and along the shoreline, and protect such structures from shoreline erosion storm wave action and sea level rise. ~~Also, the~~The Master Plan for Alternatives 1 and 2 include~~s potential areas for~~ land use allocations committed to public facilities such as a school and emergency services.

VI. RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

VI. RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Though utilized to support commercial sugarcane production in the past, the project site has remained out of use for large-scale crop cultivation since 1999 when Pioneer Mill Company ceased its operations. In light of the shortage of affordable housing units that currently exist on Maui, especially in West Maui, coupled with the scarcity of entitled, undeveloped residential lands in the West Maui region, the conversion of a portion of the agricultural lands in Olowalu for use as housing for residents and supporting commercial uses for the residential community presents a beneficial opportunity. Agriculture will continue on the approximate ~~161~~28 acres of land ~~in~~consisting of 14 farmsteads. Additionally, the expansion of the OCR will promote traditional Hawaiian agriculture and restoration of native plants within the Master Plan~~, but~~ for Alternatives 1 and 2. Agriculture focuses on creation of smaller-scale individual diversified farms compatible with the Hawaiian ahupua`a system of agriculture and not toward the past large-scale cultivation model.

The project's anticipated short- and long-term housing and economic benefits are expected to outweigh that of the current underutilized short-term uses at the site. The total construction cost of the project is estimated at approximately $465.6 million, which includes relocation of Honoapi`ilani Highway, site utility improvements and vertical construction costs. As a result, the development of the project is anticipated to result in a considerable injection of funds into the local economy, More specifically, the Assessment of Economic and Fiscal Impact (August 2011), prepared by ACM Consultants, Inc. concludes that the project will result in economic benefits including, but not limited to, the provision of ~~750~~ affordable housing units in compliance with Chapter 2.96, Maui County Code, payment of State/County tax revenues, as well as development of a Wastewater Treatment Plant, R-1 water irrigation system to eliminate injection wells, a privately developed water supply system for not only the Master Plan area but portions of the existing residents of Olowalu, interior roadways, parks and potential sites for public facilities such as a school and emergency services.

Employment attributed to the development ~~to the development~~ totaled approximately 4,770 jobs over the ten-year term of the project. It is forecasted that construction will generate an annual average of 186 jobs directly related to construction and another 191 indirect jobs annually, resulting in an estimated annual average of 377 Maui jobs tied to the development of the project. Meanwhile, indirect employment on Oahu could possibly add an average 100 jobs per year. At full build-out, the

project would support long-term employment through the provision of commercial and ~~industrial~~retail/office space within the Master Plan area for Alternatives 1 and 2. It is estimated that approximately 1,000 jobs would be established in the commercial and ~~industrial~~retail/business sectors of the project. It should be noted that not all of these jobs would be new as some existing Maui businesses may relocate to the project.

The annual net revenue for the State of Hawai`i and the County of Maui to support the project at full build-out is estimated at negative $377,000.00 for the State and positive ~~$986,000.00~~1.6 million for the County. Negative net annual revenues to the State is typical in the case of affordable housing developments due to the low tax burden placed on homeowners and the relative lower income levels of families expected to reside in the housing units.

It is unlikely that current short-term use of the project site will yield more than limited agricultural cultivation, considering the current market-based conditions for productive long-term agricultural use for large-scale crop cultivation. In evaluating the conversion of underutilized agricultural lands against the provision of new housing inventory for Maui's working families and supporting commercial uses which will sustain the local economy, the latter is anticipated to result in greater long-term productivity for the region.

VII. UNRESOLVED ISSUES

VII. UNRESOLVED ISSUES

The evaluation of the Master Plan for Alternatives 1 and 2 in this Final Environmental Impact Statement (EIS) provides a thorough analysis of the potential environmental impacts. The following section ~~summarizes~~addresses the issues that remained unresolved at the time of ~~writing~~publication of the Draft EIS and have been considered in the Final EIS for the proposed Master Plan for Alternatives 1 and 2:

A. FORMULATION OF UNILATERAL AGREEMENT AND MARKETING PROGRAM FOR AFFORDABLE UNITS

Implementation of the project will address the shortage of affordable housing currently being experienced on Maui and will be processed in accordance with Chapter 2.96, Maui County Code (MCC). The Applicants will be working alongside the County of Maui, Department of Housing and Human Concerns (DHHC) as the project proceeds to formulate a unilateral agreement and marketing program for the Project's affordable units. The sales prices for affordable units will be established at the time of development and will be based on Maui's median family income at that time. The ~~a~~Applicants will formulate and execute the affordable housing agreement with the DHHC prior to project implementation. Prior to obtaining building permits for the construction of the first units in Olowalu Town, the Applicants will be required to enter into an affordable housing agreement with the DHHC. The agreement will establish the sale and rental prices of the affordable units as well as include a marketing program for the units. It is anticipated that construction will commence sometime in 2018.

B. ~~COMPLETION OF 2030 GENERAL PLAN UPDATE (MIP)~~MAUI ISLAND PLAN

On December 28, 2012, the Maui Island Plan (MIP) was enacted by the County of Maui through Ordinance No. 4004. The implementation program component of the MIP was adopted by Ordinance No. 4126 on May 29, 2014.

The proposed Master Plan for Alternative 1 mauka of Honoapi`ilani Highway is located within the Urban Growth Boundary (UGB) and Rural Growth Boundary (RGB). The lands makai of Honoapi`ilani Highway in Alternative 1 are not included in the UGB. However, the MIP states that "*the future delineation of potential urban growth areas makai of the existing*

Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan" (MIP at 8-64). Such delineation may consider the need to protect adjacent coastal and marine ecosystems (including the reefs at Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway plan. This unresolved issue will require further review by the Maui County Council in the context of a Community Plan Amendment.

Alternative 2 is located mauka of Honoapi`ilani Highway and within the UGB and RGB of the MIP.

C. SATISFACTION OF PUBLIC FACILITIES CONTRIBUTION REQUIREMENTS

Olowalu Town LLC and Olowalu Ekolu LLC are proposing to facilitate the construction of a school and emergency services (i.e., police, fire and ambulance) within the Master Plan for Alternatives 1 and 2 through the contribution of land and have designated lands that would be appropriate for such uses. Development of these facilities will offset the impact of the proposed Master Plan for Alternatives 1 and 2. Although preliminary discussions have been held with the appropriate government agencies, additional coordination with the agencies will be undertaken to determine specific locations for such uses as well as the ~~a~~Applicant's fair share contribution prior to project implementation.

Prior to the issuance of construction permits sometime in 2018 by the County of Maui, including building permits, fulfillment of impact fees for education and park facilities will be required to ensure the Applicants pay their fair share for public facilities. Lacking similar impact fees for police, fire and emergency services, the Applicants will work with the appropriate agencies to establish facility requirements which most effectively meet the needs of the community.

D. REALIGNMENT OF HONOAPI`ILANI HIGHWAY

The Olowalu Town Master Plan (OTMP) for Alternatives 1 and 2 includes the corridor for the realignment of Honoapi`ilani Highway inland from the shoreline. The specific realignment and design parameters through Olowalu have not yet been determined by the State of Hawai`i Department of Transportation (HDOT) ~~who are in the process of preparing~~, as they are continuing the preparation of the Environmental Impact Statement (EIS) for the Realignment/Widening of Honoapi`ilani Highway (Mā`alaea to Launiupoko). The Applicants

will continue coordination with HDOT ~~as work on the HDOT EIS continues. Once determined, the Master Plan will be revised to be consistent with the HDOT's preferred realignment~~on the alignment as it traverses Olowalu. The OTMP makes accommodations for a future right-of-way (ROW) that also include enough width to accommodate a future transit system. It is anticipated that the HDOT planning process will take several years to complete. As the OTMP is implemented, the Applicants will coordinate with HDOT to ensure that ROW alignment, construction phasing and integration requirements for the realigned Honoapi`ilani Highway are satisfactory to the HDOT.

E. TRAFFIC IMPROVEMENTS

Although a Final Traffic Impact Analysis Report (TIAR) (**Appendix "P-1")** was prepared, as the project progresses through the land use entitlement and permitting processes, more defined project plans will be developed. As more specific details are developed, additional TIARs will be prepared and additional traffic improvements may be required by the HDOT and Department of Public Works (DPW). These improvements will be implemented in coordination with HDOT and DPW.

The Applicants' are committed to continue providing current traffic studies at appropriate implementation intervals. The Final TIAR (**Appendix "P-1"**), which has been submitted to the HDOT, will establish the basis for continued dialogue with HDOT to ensure that program concepts for mitigation measures and their implementation timeframes can be advanced. While multiple meetings/conferences have been held with the HDOT, coordination with the HDOT is considered an ongoing process, with actions and agreements evolving as conditions change over time. In this regard, the HDOT's review of the Final TIAR is addressed herein as an unresolved issue. Additionally, as coordination with HDOT continues, the Applicants' total financial contribution for area roadway improvements will be addressed.

F. CULTURAL RESOURCES

Cultural participants identified several concerns related to management of ocean resources, commercialized ocean activities, preservation of cultural sites, and preservation of cultural traditions. The following concerns expressed by the participants will require further discussions between the cultural participants, the Applicants, and as may be appropriate, with Federal, State and County agencies, as plans are refined and implemented throughout the land use and permitting processes:

- Creation of an Olowalu Community Marine Management Group as a community group that could function as a shoreline monitoring check both during construction and periodically following construction.

- Implementation of shoreline restrictions, similar to traditional kapu seasons or periods, as a means to maintain the health of the environment and allow recovery.

- Creation of a protected area that extended from the shoreline to 20 fathoms out.

- Future assessments of makai resources by Native Hawaiian cultural practitioners and integrating these assessments with scientific assessments to provide guidance for resource management decisions.

- Urban design guidelines to maintain open space and visual connection mauka to makai from the built environment.

- Recommendations relating to access, preservation and maintenance of Ka`iwaloa Heiau (SIHP 50-50-08-0004).

- Potential funding sources for the Olowalu Cultural Reserve.

VIII. COMMUNITY MEETINGS

VIII. COMMUNITY MEETINGS

In November 2005, the Applicants conducted a week-long community-based planning workshop, which included participation by residents of Olowalu and Maui Island. The goal was to involve the community in the initial planning process for Olowalu Town, which was in advance of the General Plan Update initiated by the County of Maui in 2006. In 2005, sixty-five thousand (65,000) *Olowalu Talk Story* newspapers were mailed to mailboxes on the island ahead of the workshop. Over 1,350 people participated in *Olowalu Talk Story*, of which 51 percent were long-standing residents who lived on Maui for more than 20 years.

The workshop format started with input from the participants during the planning and design workshop and included residents, professionals, town planners, and government agencies with valuable knowledge and experiences. Project plans were continuously evaluated, assessed, and updated to incorporate the views of the participants and their stated desires in order to preserve Maui's quality of life, provide affordable housing for local residents, and preserve natural resources.

Since 2005, the Applicants have continued the community-based planning process and continued to meet with neighborhood boards, community organizations, non-profit groups, and elected and appointed government officials through community presentations, dialogue and feedback. In July 2007, Olowalu Town, LLC published and mailed a 12-page newspaper to every postal address on Maui to provide an update on the results of *Olowalu Talk Story*, and sought additional community feedback. See **Appendix "~~Q~~T"**.

IX. LIST OF PERMITS AND APPROVALS

IX. LIST OF PERMITS AND APPROVALS

The following is a preliminary list of permits and approvals that are anticipated for project implementation:

Federal

1. Jurisdictional Determination, Department of Army

2. Department of Army Permit, as applicable

State of Hawai`i

1. State Land Use District Boundary Amendment

2. National Pollutant Discharge Elimination System (NPDES) permits, as applicable

3. Section 401 Water Quality Certification, as applicable

4. Coastal Zone Management Consistency Determination, as applicable

5. Permit to work within State right-of-way, Department of Transportation

6. Noise Permit, Department of Health, as applicable

7. Public Utilities Commission Approval

8. Well Permits, Commission on Water Resources Management

County of Maui

1. Community Plan Amendment

2. Change in Zoning

3. Project District Phase I, Phase II and Phase III Approvals

4. Special Management Area Use Permit (for actions falling within the SMA)

5. Flood Development Permit, as applicable

6. Subdivision Approval

7. Construction Permits

X. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

X. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies, organizations and individuals received a copy of the project's Environmental Assessment (EA)/Environmental Impact Statement Preparation Notice (EISPN) for review and comment. Comments and responses to substantive comments received on the EA/EISPN are included herein.

FEDERAL AGENCIES

1. Ranae Ganske-Cerizo, Soil Conservationist
   Natural Resources Conservation Service
   U.S. Department of Agriculture
   77 Hookele Street, Suite 202
   Kahului, Hawai'i 96732

2. George Young
   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

3. Director of Facilities Engineer
   U.S. Army Support Command Hawai'i
   Attn: Environmental Management Office
   Fort Shafter, Hawai'i 96858-5000

4. Patrick Leonard
   Field Supervisor
   U. S. Fish and Wildlife Service
   300 Ala Moana Blvd., Rm. 3-122, Box 50088
   Honolulu, Hawai'i 96813

5. Gordon Furutani, Field Office Director
   U.S. Department of Housing and Urban Development
   500 Ala Moana Boulevard, Suite 3A
   Honolulu, Hawai'i 96813

6. U.S. Geological Survey
   677 Ala Moana Blvd., Suite 415
   Honolulu, Hawai'i 96813

7. U.S. National Marine Fisheries Service
   2570 Dole Street, #114
   Honolulu, Hawai'i 96822

8. Commanding Officer
   U. S. Coast Guard Station Maui
   233 Mā`alaea Road
   Wailuku, Hawai'i 96793

9. U.S. EPA - Pacific Islands Office
   U.S. EPA, Region 9
   P.O. Box 50003
   Honolulu, Hawai'i 96850

STATE AGENCIES

10. Brennon Morioka, Director
    Hawai'i Department of Transportation
    869 Punchbowl Street
    Honolulu, Hawai'i 96813-5097

11. Major General Robert G.S. Lee, Director
Hawai'i State Civil Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96816-4495

12. Russ Saito, State Comptroller
Department of Accounting and General Services
1151 Punchbowl Street, #426
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13. Sandra Lee Kunimoto
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1428 South King Street
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14. Theodore Liu, Director
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220 South King Street
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15. Karen Seddon
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Hawai'i Housing Finance and Development Corporation
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16. **DBEDT Energy Resources & Technology Division**
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17. Kathryn Matayoshi, Acting Superintendent
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P. O. Box 2360
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18. Clyde Namuo
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19. Kaulana Park, Chairman
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20. Lillian B. Koller, Director
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21. Laura H. Thielen, Chairperson
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22. Abbey Seth Mayer, Director
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23. Heidi Meeker
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24. Lindsay Ball
Complex Area Superintendent
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25. Patti Kitkowski
Acting District Environmental Health Program Chief
State of Hawai'i
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26. Chiyome Fukino, M.D., Director
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27. **Department of Health**
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P.O. Box 3378
Honolulu, Hawai'i 96801

28. 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

29. Darwin Ching, Director
Department of Labor and Industrial Relations
830 Punchbowl Street
Honolulu, Hawai'i 96813

30. Dr. Puaalaokalani Aiu, Administrator
State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawai'i 96707

31. State Historic Preservation Division
130 Mahalani Street
Wailuku, Hawai'i 96793

32. Dan Davidson, Executive Officer
State of Hawai'i
State Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804

33. **U.H. Environmental Center**
2500 Dole Street, Krauss Annex 19
Honolulu, Hawai'i 96822

34. Rosalyn H. Baker, Senator
Hawai'i State Senate
Hawai'i State Capitol, Room 210
415 S. Beretania Street
Honolulu, Hawai'i 96813

35. Angus L.K. McKelvey, Representative
House of Representatives
Hawai'i State Capitol, Room 315
415 S. Beretania Street
Honolulu, Hawai'i 96813

COUNTY AGENCIES

36. Charmaine Tavares, Mayor
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

37. Deidre Tegarden, Director
County of Maui
Office of Economic Development
2200 Main Street, Suite 305
Wailuku, Hawai'i 96793

38. Gen Iinuma, Administrator
Maui Civil Defense Agency
200 South High Street
Wailuku, Hawai'i 96793

39. Jeff Murray, Fire Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawai'i 96732

40. Lori Tsuhako, Director
County of Maui
Department of Housing and Human Concerns
One Main Plaza
2200 Main Street, Suite 546
Wailuku, Hawai'i 96793

41. Tamara Horcajo, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoa Street
Wailuku, Hawai'i 96793

42. Danny Mateo, Council Chair
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

43. Michael Molina, Council Vice-Chair
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

44. Councilmember Gladys Baisa
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

45. Councilmember JoAnne Johnson
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

46. Councilmember Sol Kahoohalahala
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

47. Councilmember Bill Medeiros
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

48. Councilmember Wayne Nishiki
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

49. Councilmember Joseph Pontanilla
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

50. Councilmember Michael Victorino
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

51. Kathleen Aoki, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawai'i 96793

52. **Maui Planning Commission**
c/o Department of Planning
250 South High Street
Wailuku, Hawai'i 96793

53. Gary Yabuta, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawai'i 96793

54. Milton Arakawa, Director
County of Maui
Department of Public Works
200 South High Street
Wailuku, Hawai'i 96793

55. Cheryl Okuma, Director
County of Maui
Department of Environmental Management
2200 Main Street, Suite 100
Wailuku, Hawai'i 96793

56. Donald Medeiros, Director
County of Maui
Department of Transportation
200 South High Street
Wailuku, Hawai'i 96793

57. Jeffrey Eng, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawai'i 96793

OTHER CONSULTED PARTIES

58. Greg Kauhi, Manager – Customer Operations
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawai'i 96733

59. **Hawaiian Telcom**
60 South Church Street
Wailuku, Hawai'i 96793

60. University of Hawai'i Maui College Library
310 W. Kaahumanu Avenue
Kahului, Hawai'i 96732

61. Lāhainā Public Library
680 Wharf Street
Lāhainā, Hawai'i 96761

62. Star Advertiser
Restaurant Row
7 Waterfront Plaza, Suite 210
500 AlaMoana Blvd
Honolulu, Hawai'i 96813

63. Maui News
100 Mahalani Street
Wailuku, Hawai'i 96793

64. English Mountain Estates
R.M. Hughes, Vice President
P.O. Box 1203
Lāhainā, Hawai'i 96767

65. John and Erin Crinion
P.O. Box 187
Lāhainā, Hawai'i 96767

66. Randy D. Ragon
713-A Front Street
Lāhainā, Hawai'i 96761

67. Henry Vandervelde
P.O. Box 792106
Paia, Hawai'i 96779

68. Derek and Amy Driver
5506 Deloache Avenue
Dallas, Texas 75220

69. Bruce Curtis
P.O. Box 10541
Lāhainā, Hawai'i 96761

70. Gabija McLauchlin
1431 Riverplace Blvd. #1610
Jacksonville Beach, Florida 32207

71. Theo Morrison, Executive Director
Lāhainā Restoration Foundation
648 Wharf Street, Suite 102
Lāhainā, Hawai'i 96761

72. Joan McKelvey, President
Lāhainā Town Action Committee
Board of Directors
648 Wharf Street, Suite 102
Lāhainā, Hawai'i 96761

73. **Maui Memorial Medical Center**
221 Mahalani Street
Wailuku, Hawai'i 96793

74. Ken Hansen
Newport Hospital Corporation
1010 Front Street #101A
Lāhainā, Hawai'i 96761

75. Bill East
Olowalu Makai-Komohana Homeowners Association
Management Consultants
P.O. Box 10039
Lāhainā, Hawai'i 96761

76. Joe Pluta, President
West Maui Improvement Foundation
P.O. Box 10338
Lāhainā, Hawai'i 96761

77. Zeke Kalua, Executive Director
West Maui Taxpayers Association
P.O. Box 10338
Lāhainā, Hawai'i 96761

78. Norma Barton, Executive Director
Lāhainā Bypass Now
505 Front Street, Suite 220A
Lāhainā, Hawai'i 96761

79. Margaret Schlachter
4435 L. Honoapi`ilani Dr. #240
Lāhainā, Hawai`i 96761

80. Irene Bowie, Executive Director
Maui Tomorrow Foundation
55 North Church Street, Suite A5
Wailuku, Hawai`i 96793

81. Wallace H. Fujii
Fujii Family Ltd. Partnership
P.O. Box 511
Kahului, Hawai`i 96733

JUL 12 2010
JUL 12 2010

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

REPLY TO
ATTENTION OF:

July 09, 2010

Regulatory Branch

File Number POH-2010-0175

Orlando "Dan" Davidson
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Davidson,

We have received your request for the Department of the Army to review and comment on the Environmental Impact Statement Preparation Notice (EISPN) for the proposed Olowalu Town Project at TMK (2) 4-8-003:084, 098 through 118, and 124, Olowalu, Island of Maui, Hawaii. We have assigned the project the reference number **POH-2010-0175**. Please cite the reference number in any future correspondence concerning this project. We completed our review of the submitted document 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 Department of the Army (DA) permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging and other activities occurring in, over, or under navigable waters of the U.S. The line of jurisdiction extends to the Mean High Water Mark for tidal waters. Section 404 requires that a DA permit be obtained for the discharge (placement) of dredge and/or fill material into waters of the U.S., including wetlands. The line of jurisdiction extends to the Mean Higher High Water Mark for tidally influenced waters, the Ordinary High Water Mark for non-tidal waters and the approved delineated boundary for wetlands.

Based on the information provided, the project site abuts the Pacific Ocean, a navigable water subject to Corps jurisdiction. Therefore, Section 10 authorization may be required should activities extend seaward of the Mean High Water Mark. Additionally, it appears the Olowalu Stream is a tributary to the Pacific Ocean, and is thus a water of the U.S. subject to Corps jurisdiction. Also be advised that any tributaries discharging into the Olowalu Stream may also be subject to Corps jurisdiction. The Corps does not have sufficient information to determine if the project site encompasses additional unidentified waters of the U.S. or whether such waters are proposed for impact, which may require authorization under Section 404. When developing the Environmental Impact Statement (EIS), we recommend you conduct a thorough aquatic resource survey, describing any wetlands, drainage ditches, gulches, gullies, streams, etc., on-site, especially those that may be impacted by any of the proposed project components. In addition, include sufficient information concerning the scope of work, including the use of Best Management Practices, i.e. silt fences and sandbag berms within the vicinity and in close proximity to potentially regulated bodies of water.

Only the Corps of Engineers has the authority to determine if any of these aquatic features are or are not waters of the U.S., potentially subject to regulations under Section 10 and/or Section 404. As such, we encourage the landowner to submit a request for an approved jurisdictional determination (JD) for these water bodies. Your request to the Corps should include descriptions of aquatic features proposed for impact, flow duration of each feature and the flow path of each feature into navigable waters. For instance: "the unnamed ditch contains flow for two consecutive weeks annually and, from the project impact site, flows for 700 linear feet prior to discharge into X Stream. X Stream flows year-round and flows 1,200 feet prior to discharge into the Pacific Ocean." For wetlands, you should submit a wetland delineation conducted in accordance with the Corps of Engineers 1987 Wetland Delineation Manual and the Hawai'i and Pacific Islands Regional Supplement. We recommend the applicant also include a vicinity map, map of the water bodies and flow paths and on-site photographs so the Corps may conduct an approved JD, if necessary.

If any water bodies are determined to be waters of the U.S., the applicant must obtain authorization from the Corps prior to discharge of dredged or fill material into these water bodies. Fill material, permanent or temporary, may include, but is not limited to: rock, dirt, sand, sandbags, concrete, piping a water of the U.S. or diverting a water of the U.S. into a pipe. The applicant should contact the Corps to determine if any of the proposed work constitutes a "discharge of fill" and submit an application and associated drawings that meet our drawing recommendations found at *http://poh.usace.army.mil/EC-R/EC-R.htm*. The Corps will then review the application to ensure it complies with all necessary federal laws and regulations. Note that if the fill results in the loss of waters of the U.S. and/or associated functions, the applicant may be required to provide compensatory mitigation for any unavoidable impacts. A request for an approved JD can be submitted prior to, or concurrently with, an application for the proposed work.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Should you have any questions, please contact Ms. Jessie Pa'ahana at *808.438.9258* or via email at *Jessie.K.Paahana@usace.army.mil*. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at *http://per2.nwp.usace.army.mil/survey.html*.

Sincerely,

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

Copy furnished:
Colleen Suyama, Munekiyo & Hiraga, Inc., 305 High Street, Suite 104, Wailuku, Hawaii 96793

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii (POH-2010-0175)

Dear Mr. Young:

Thank you for your comments dated July 9, 2010. Copies of your letter have been forwarded to the appropriate consultants to address in their respective studies. We acknowledge that any proposed work within the navigable waters and waters of the U.S. will require a Department of Army (DA) permit.

For your information, Mr. Robert Hobdy has prepared a flora and fauna survey for the subject property, as well as an aquatic resources survey, and Dr. Steven Dollar, of Marine Research Consultants, Inc., has prepared a marine water quality and biotic community study for the project which addresses the marine ecosystem. Further, the civil engineer for the project will address Best Management Practices (BMPs) for the project. The results and copies of their studies will be included in the Draft Environmental Impact Statement (EIS) being prepared.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

excellence in process management

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering
Robert Hobdy
Steve Dollar, PhD., Marine Research Consultants, Inc.
K:\DATA\OlowaluTown\MasterPl\Draft EIS\Armyresponse.ltr.doc

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

JUL 16 2010

TAKE PRIDE IN AMERICA

July 15, 2010

Mr. Orlando "Dan" Davidson
Executive Director
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Davidson:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for Proposed Olowalu Town Project at TMK (2)4-8-003:84, 98 through 118, and 124, Olowalu, Maui, Hawaii

Thank you for forwarding the subject EISPN for review and comment by the staff of the U.S. Geological Survey Pacific Islands Water Science Center. We regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

Ronald L. Rickman
Acting Center Director

cc: Colleen Suyama, Project Manager, Munekiyo & Hiraga, Inc., Wailuku, Hawaii

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Ronald L. Rickman
Acting Center Director
U.S. Geological Survey
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Rickman:

Thank you for your letter of July 15, 2010 on the proposed Olowalu Town Master Plan informing us that your staff is unable to review the proposed project.

It should be noted that applicants have undertaken coordination with the U.S. Geological Survey (USGS) on the project and is participating in the West Maui Task Force regarding the West Maui Groundwater Availability Study that is currently being prepared.

A copy of your letter will be included in the Draft Environmental Impact Statement (EIS) for the project. Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

excellence in process management

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stephen B. Gingerich, U.S. Geological Survey
K:\DATA\OlowaluTown\MasterPl\Draft EIS\USGSresponse.ltr.doc

JUL 27 2010

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
COMPTROLLER

SANDRA L.YAHIRO
DEPUTY COMPTROLLER

(P)1212.0

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL 26 2010

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

Subject: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project at TMK: (2) 4-8-003:84, 98 through 118, and 124 Olowalu, Maui, Hawai'i

Thank you for the opportunity to provide comments on the Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project. This proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer.

If you have any questions, please call me at 586-0400 or have your staff call Mr. Clarence Kubo of the Public Works Division at 586-0488.

Sincerely,

RUSS K. SAITO
State Comptroller

c: Mr. Orlando "Dan" Davidson, Land Use Commission

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

State Comptroller
Department of Accounting and
General Services
P.O. Box 119
Honolulu, Hawaii 96810-0119

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Coppa:

Thank you for your department's letter of July 26, 2010 on the proposed Olowalu Town Master Plan. We appreciate your department's review of the Environmental Impact Statement Preparation Notice (EISPN) and your conveying confirmation that the proposed project does not impact your department's projects or facilities and that the department has no comments at this time.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
Cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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JUL 22 2010

LINDA LINGLE
GOVERNOR

KAREN SEDDON
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:

10:PEO/115

July 21, 2010

Mr. Orlando "Dan" Davidson, Executive Director
State Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

✓Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Davidson and Ms. Suyama:

Re: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project, TMK: (2) 4-8-003: 84, 98 thru 118, 124, Olowalu, Maui, Hawaii

The proposed Olowalu Town Project combines various land uses including housing. Approximately 1,500 residential dwelling units are proposed for development, including single family houses, apartments, live-work apartments, cottages, rural homes and farmsteads. We are pleased to note that the housing units will be offered at a wide-range of income levels. Further, the workforce housing will be provided in compliance with Chapter 2.96 of the Maui County Code and details on the workforce housing allocations by income categories will be addressed in the Draft EIS.

The proposed project, and in particular residential use, is consistent with the affordable housing policy set forth in the Hawaii State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost, densities, style and size of housing.

Thank you for the opportunity to comment.

Sincerely,

Karen Seddon
Executive Director

10

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Karen Seddon, Executive Director
Department of Business, Economic Development and Tourism
Hawaii Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Seddon:

Thank you for your letter of July 21, 2010 providing comments on the Proposed Olowalu Town Master Plan. As stated in the Environmental Impact Statement Preparation Notice (EISPN), the project will meet the workforce housing guidelines of Chapter 2.96 of the Maui County Code. We appreciate your agency's determination that the Olowalu Town Master Plan is consistent with the affordable housing policy set forth in the Hawaii State Plan.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft EIS. Further, a copy of the Draft Environmental Impact Statement (EIS) will be forwarded to your office for review and comment.

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excellence in process management

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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SEP 22 2010

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
ABBEY SETH MAYER
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
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

Ref. No. P-13113

September 21, 2010

Mr. Orlando Davidson
Executive Officer
Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Mr. Davidson and Ms. Suyama:

Subject: LUC Docket A10-786, Olowalu Town LLC/Olowalu Ekolu LLC
Proposed Olowalu Town Master Plan
Environmental Impact Statement Preparation Notice
TMK(s) (2) 4-4-003: 084, 098 through 118, and 124 (portions)
Olowalu, Maui, Hawai'i

The Office of Planning (OP) appreciates the opportunity to comment on the Environmental Impact Statement Preparation Notice (EISPN) for the above referenced proposal, for which the landowner(s) have filed a petition to reclassify approximately 320 acres of land from the State Agricultural District to the State Rural and Urban Districts. The petitioners propose to develop a master-planned community on approximately 636.48 acres of land at Olowalu.

OP will be coordinating the State's position on the petition with respect to areas of cross-cutting State concern. It is very important that the Draft Environmental Impact Statement (DEIS) fully identify and discuss potential impacts, including cumulative and secondary impacts, of the proposed project, as well as recommendations for mitigating potential adverse impacts, on the following areas of State concern.

1. **Groundwater and Surface Water Resources.** Water resource protection and water quality are critical State issues. The DEIS should discuss the water requirements of the proposed project, the proposed potable and non-potable water

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sources to be used for the project, and measures proposed to reduce water demand and promote water reuse in the project. This discussion should identify whether the proposed project is within a designated Water Management Area, the impact of the project on the sustainable yield of affected aquifers, and the impact of the project on projected water use and system improvements contained in the County's water use and development plan.

The DEIS should provide an assessment of projected water use and impacts on affected groundwater and surface water resources under both single well and second well development scenarios. The DEIS should clarify the source of untreated agricultural water and how it will be used in the project. Existing diversions and current water use from Olowalu Stream should be quantified and discussed, as well as the cumulative water demand from the project and existing users that will be met by continued diversion of stream water and any plans for restoration of stream flows. Groundwater withdrawal for the project and its potential impact on Olowalu Stream and other surface and coastal water resources and habitats need to be addressed. The DEIS should also discuss the potential impact of proposed development along the stream corridor and how these impacts will be mitigated.

The DEIS should explain the factors that might constrain widespread use of native Hawaiian and drought resistant species in the project area.

2. **Agricultural Lands.** Preservation of important agricultural lands is a priority for the State and Counties. The DEIS should quantify the total amount of agricultural land being proposed for development under the proposed Master Plan and the amount of agricultural land that is being proposed for reclassification by their respective ALISH classification and Land Study Bureau overall productivity rating. The DEIS's agricultural impact assessment being conducted should include documentation of existing agricultural activity within and in the vicinity of the Master Plan area, and discuss the impact of the proposed development and loss of agricultural lands on localized agricultural activities and agriculture on Maui. The DEIS should explain how existing and proposed agricultural activity will be promoted and protected in Master Plan development and buildout. The DEIS should also discuss how adverse impacts from the loss of agricultural lands would be mitigated, including consideration of protection of an equivalent amount of quality agricultural lands elsewhere.

3. **Cultural, Archaeological, and Historic Resources**–The DEIS should include a complete inventory of archaeological and historic sites found on the subject property, and identify the status of any monitoring and preservation plans being prepared for or approved by the State Historic Preservation Division. The DEIS should identify and describe any cultural resources and cultural practices,

including visual landmarks, if applicable, on the subject property and within the ahupua'a in which the property is situated. The DEIS should discuss the impact of the proposed project on identified cultural resources and practices, alternatives considered, and proposed mitigation measures.

OP recommends the DEIS include a map that overlays the conceptual Master Plan with identified sites and resources to enable the reviewer to visualize the relationship between proposed development and existing resources to be preserved and protected. We understand that the DEIS will describe the Olowalu Cultural Preserve, existing and planned activities and resource management, how it is managed and administered, and what relationship, if any, it will have with the proposed new town.

4. **Coastal Zone Management (CZM) Concerns.** The State oversees protection of natural, cultural, and economic resources within the coastal zone, which 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 United States territorial sea (§205A-1, Hawaii Revised Statutes). The DEIS should note this definition of the coastal zone, and discuss how the proposed project will balance the competing values of economic development and preservation of coastal resources, including the following CZM objective areas.

   The DEIS should include a map delineating the proposed 150-foot shoreline setback on the conceptual Master Plan.

   a. **Coastal and Ocean Resources.** The State has an affirmative duty to protect Hawaii's nearshore waters. The DEIS should provide an inventory of and discuss important coastal and marine resources and ecosystems that may be impacted by the proposed project. Recent studies have indicated the presence of wastewater effluent in coastal waters off Lahaina from injection wells at the municipal wastewater treatment plant. The DEIS should discuss how wastewater and stormwater generated by the project will be prevented from adversely impacting nearshore waters, species, and habitats.

      The DEIS should discuss the impact of the project on existing site and offsite hydrology and how the project will manage stormwater and runoff. OP recommends the use of green infrastructure, specifically the use of low impact development design and other best management practices (BMPs) that promote onsite infiltration and minimize runoff from storm events. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

b. **Coastal and Other Hazards.** The DEIS should describe any hazard conditions that are relevant to the site, such as potential risk or harm from tsunami, hurricane, wind, storm wave, sea level rise, flood, erosion, volcanic activity, earthquake, landslide, subsidence, and point and nonpoint source pollution. The DEIS should describe the measures that are proposed to mitigate any hazard impacts. It should discuss how climate change and the potential for sea level rise and storm events might impact the proposed community over time.

OP recommends the DEIS provide a map that overlays the FIRM zones and tsunami evacuation zone on the conceptual Master Plan for the reviewer. The DEIS should also include a discussion of wildfire hazards and any mitigation measures that might be required to address any potential threat from wildfires.

c. **Coastal-dependent Uses, Beach Protection, and Scenic Resources.** The DEIS should discuss why the proposed development needs to be located on the coast, the economic uses that will be of benefit to the State, as well as the measures to be taken to enhance beach protection and access. The DEIS should also discuss the project's impact on scenic views to and from the coast and how these will be mitigated.

d. **Recreational Resources.** The DEIS should include a complete description of recreational uses and facilities on or near the project site, and discuss how the impact of increasing users on these resources, in particular, coastal and ocean recreational resources, will be mitigated and managed during project development and at buildout.

5. **Affordable Housing.** Increasing the supply of affordable housing is a critical State and County issue. The DEIS should specifically discuss how the Petitioner plans to meet the County affordable housing and workforce housing requirements, to include a discussion of how the project's proposed residential product types will be allocated among the market and various affordable housing target populations, and the expected price ranges for the different product types.

6. **Impact on State Facilities.** The DEIS should include a discussion of anticipated short- and long-term project impacts on State-funded facilities, including schools, highways, harbors, and airports, and document State agency concerns related to their respective State facilities and resources. The DEIS should cite the measures proposed to mitigate the project's impacts on State facilities and describe discussions held with State agencies to address their concerns.

7. **Energy Use and Impacts.** The DEIS should quantify the projected energy requirements of the project by type of use, and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources, and otherwise advance State efforts to increase energy efficiency and alternative energy use under the Hawai'i Clean Energy Initiative. OP recommends the project's energy and resource use be evaluated with respect to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating systems for new construction and neighborhood development. The DEIS should also identify any generating or transmission capacity constraints that may arise as a result of the proposed project and other projects planned for the region. The DEIS should also discuss the degree to which the project promotes transportation energy savings and reduces vehicular trips for project residents and users within the project and the region.

8. **Biota.** The DEIS should include an inventory of flora and fauna, including invertebrates, found on or in proximity to the project site and in any lava tubes and caves that may be on the property. Flora and fauna of concern should not be limited to listed threatened or endangered species or those under consideration for listing, and should include those species and ecosystems identified as "rare" by The Nature Conservancy of Hawai'i. The DEIS should also discuss measures to be taken to protect rare, threatened or endangered species or ecosystems of concern. Consideration should be given to conducting field observations in both wet and dry season surveys to capture the fullest range of flora and fauna.

   It is unclear from the EISPN how much of the conceptual Master Plan area has been surveyed for biological resources. The DEIS should clearly identify the surveys that are being relied on, the area they cover, and when they were conducted. Given the scale of the project, additional biological surveys may be warranted.

   The EISPN notes the presence of o'opu in Olowalu Stream. The scale of the project may require an updated stream assessment to establish a current baseline of the stream system and biota.

9. **Conservation District.** The DEIS should provide an inventory of conservation resources within the Master Plan area and identify potential impacts on these resources from proposed development, and how these impacts will be mitigated.

10. **Conformance with County Plan Designations and Urban Growth or Rural Community Boundaries.** Act 26, Session Laws of Hawaii 2008, reaffirmed the Land Use Commission's duty to consider any proposed reclassification with respect to the Counties' adopted general, community, or development plans. Thus, the DEIS should discuss the proposed project's consistency with the County land

use plans. If the proposed project is not consistent with the County plans, would require a County plan amendment, or lies outside a County urban growth or rural community boundary, then the DEIS should provide an analysis and discussion of the following:

a. **Alternative Sites Considered.** The DEIS should describe and discuss alternative sites that were considered for the project, and discuss why the project could not be accommodated on lands within the urban growth or rural community boundary, if the County plan delineates such boundaries, or on land already designated by the County for similar uses.

b. **Impact on Surrounding Lands.** The DEIS should discuss what the impacts of changing the County plan designation or extending the urban growth or rural community boundary would have on the surrounding lands. In particular, the DEIS should address how the proposed Rural District designation would impact neighboring agricultural activity on land in the Agricultural District. The DEIS should also discuss how rural and agricultural land use within and in proximity to the project will be maintained over the long-term.

c. **Significant Public Benefit.** The DEIS should discuss what, if any, public benefits are provided by the proposed project above that already required under existing approval and permitting requirements.

11. **Sustainability Analysis.** The adoption of sustainable building and development practices has long-term environmental, social, and economic benefits to Hawai'i's residents and communities. OP appreciates the considerable attention to sustainability principles reflected in the conceptual Master Plan. The EIS process is extremely valuable as a means to identify and discuss the specific sustainable design and development practices, including green building practices, which will be incorporated in the proposed project. The Office of Environmental Quality Control's *Guidelines for Sustainable Building Design in Hawai'i* and the U.S. Green Building Council's (U.S. GBC) LEED programs for new construction and its pilot program for neighborhood development (LEED-ND) offer guidelines and checklists for this purpose.

The LEED-ND rating system, in particular, is especially useful in profiling how a project protects and enhances the overall health, natural environment, and quality of life of communities. The rating system provides a range of development features and strategies that promote efficient water, energy, and resource use, including waste reduction, as well as location and design elements to reduce transportation impacts.

OP recommends that the DEIS include an analysis of the project with respect to the LEED-ND system, and provide a discussion of the LEED elements that will or could be incorporated into the project. This information would greatly aid agencies, decision makers, and the public in reviewing the project application.

12. **Solid Waste Management.** The DEIS should quantify the volume of solid waste likely to be generated by the project, and describe the impact the project will have on the County's existing and planned capacity for managing solid waste as represented in the County's solid waste management plan. The DEIS should discuss any mitigation measures to be taken to reduce solid waste generation and ensure that recycling and reuse are incorporated in the project.

13. **Public Health.** If the project will have a potential to generate hazardous materials or result in the possible contamination of the air, soil, or water, please discuss how public health and safety will be protected.

    The DEIS should identify and discuss any potential health and environmental threats that may be present due to contamination from past or current use of the site, including findings from Phase I or Phase II environmental site assessments conducted at the project site. OP recommends that an ASTM 1527-05 Phase I Environmental Site Assessment or equivalent be conducted for the Master Plan area, if one has not already been conducted. The Department of Health's Office of Hazard Evaluation and Emergency Response should be consulted as to issues to be addressed in the conduct of any site assessments for the project area.

14. **Development Timetable.** The EISPN noted that the proposed Master Plan will be developed over a 30-year time horizon. The State Land Use Commission (LUC) requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals. The DEIS should reference LUC rules (Section 15-15-50, Hawai'i Administrative Rules) and provide a schedule of development for each phase of the total project and a map showing the location and timing of each phase or increment of development. This development schedule will be critical for the review of the petition for the proposed district boundary amendment.

15. **Miscellaneous Comments**

    a. **Section IV, Alternatives to the Proposed Action.** The section needs to evaluate distinct alternatives to the proposed action, such as a smaller footprint for the proposed new community or the potential for siting the proposed development package in another location/s on the island. As currently written, the alternatives discussed are design variants on the preferred alternative. Furthermore, the discussion of the Deferral of

Action alternative needs to be evaluated separately from the No Action alternative, as it represents a later timeframe for development.

b. **Section V, Summary.** This section needs to identify and discuss unavoidable impacts and irretrievable commitments for both the construction and operational (full buildout) phases of the proposed project.

c. The list of permits/approvals should identify the type of permit/s that may be required, rather than stating "as appropriate."

d. **Table 2, Master Plan Land Use Allocation Summary.** The land use category of "Natural" should be changed to a more appropriate label, such as "Open Space", as this category includes ball fields, active parks, and "gathering facilities".

e. **Smart Code.** The DEIS should discuss how the proposed Smart Code would be implemented and integrated with existing County land use regulatory tools.

f. The sustainable yield for the Olowalu Aquifer cited on pages 54 and 55 is not consistent.

g. The "Wetland Assessment Report" cited as being included in the EISPN should be included in the DEIS.

OP looks forward to receiving the DEIS with the potential impacts and mitigation measures for the above issues addressed. If you have any questions, please call Ruby Edwards of the Land Use Division at (808) 587-2817.

Sincerely,

Abbey Seth Mayer
Director

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Jesse Souki, Director
Office of Planning
State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804

SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan Project at Olowalu, Maui, Hawaii

Dear Mr. Souki:

Thank you for your department's letter of September 21, 2010 providing comments on the proposed Olowalu Town Master Plan. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC (applicant), we offer the following information in response to your remarks, which have been organized in the same order as they appear in your letter:

Groundwater and Surface Water Resources

The average daily potable demand for the project is 672,300 gallons per day, which includes existing users, which will be provided by the privately-owned Olowalu Water Company, Inc. The potable demand of existing and future users are well below the 2.0 million gallon per day (MGD) sustainable yield established by the Commission on Water Resources Management (CWRM). Based on the water consultant's consultation with the U.S. Geological Survey (USGS), it estimated that the aquifer may have a sustainable yield of 7.0 MGD. The surface and groundwater in Olowalu has not been designated by the CWRM as a water management area.

The estimated water needs of the Olowalu Town Master Plan will be reduced through implementation of appropriate building and landscape efficiency measures recommended by the Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) included in the Draft Environmental Impact Statement (EIS). Further, the Olowalu Master Plan proposes to utilize the R-1 Recycled water from the wastewater treatment plant to reduce its dependency on surface and groundwater sources for irrigation.

A Water Resources Study has been prepared by Tom Nance which has been summarized and included in the Draft EIS. The study identifies the existing diversions and current water use from Olowalu Stream. Olowalu Stream is located within the Olowalu Cultural Reserve (OCR) and agricultural uses are proposed adjacent to the OCR and stream to minimize the impacts associated with urban development.

Agricultural Lands

The Olowalu Town Master Plan proposes to redistrict approximately 460 acres of agricultural lands which comprises approximately 0.02 percent of the agricultural lands in Maui. We acknowledge the project area includes important agricultural lands, however, these lands are limited to 19 percent of the 636 acres of agricultural lands in the Olowalu Town Master Plan. Thirty-nine (39) percent are considered "Other Important" agricultural lands while the remaining 42 percent are unclassified.

The agricultural impact assessment to be included in the Draft EIS includes documentation of existing agricultural activity within the Master Plan area, and discusses the impact of the proposed development and loss of agricultural lands.

Approximately 15 to 20 agricultural lots will be created along Olowalu Stream which will be used as small farmsteads for diversified agriculture as well as provide a physical separation between the two (2) country town centers. If desired, the existing agricultural uses can be relocated to these farm lots. The applicants will work with the existing agricultural users in transitioning to the new farm lots. In addition, the OCR is continuing its efforts to re-establish the former lo'is for taro cultivation as well as planting native habitat.

Cultural, Archaeological, and Historic Resources

Several archaeological inventory surveys have been prepared for the Olowalu lands. An archaeologist and cultural specialist have been contracted to prepare an Archaeological Literature Review and Cultural Impact Assessment for the Draft EIS. In addition, as requested, the project archaeologist will provide a status of monitoring and preservation plans approved for the Olowalu lands. Your comments have been forwarded to the consulting archaeologist and cultural specialist.

As requested, the Draft EIS includes a map that overlays the conceptual Master Plan with identified sites and resources. The Draft EIS also includes a description of the OCR which manages 74 acres within Olowalu.

Coastal Zone Management (CZM) Concerns)

A portion of the Olowalu lands are located within the Special Management Area of the Island of Maui. As such, the land use regulatory section of the Draft EIS will address the CZM objectives and policies as established in Chapter 205A, Hawaii Revised Statutes, and the Special Management Area Rules of the Maui Planning Commission.

With regard to the specific issues noted in your letter, we provide the following information.

- The Draft EIS will include a map delineating the proposed 150-foot shoreline setback.

- Marine water quality and biological studies and their findings and proposed mitigation measures will be included in the Draft EIS to address your comments on coastal and ocean resources.

- The wastewater management plan for the Olowalu Town Master Plan does not require the use of injection wells and proposes to use the R-1 recycled water for irrigation. Excess recycled water will be handled by utilizing two (2) natural systems that depend primarily on natural components to dispose of the excess recycled water.

- A stormwater management plan will be included in the Draft EIS to address short-term and long-term measures to manage runoff from the Olowalu Town Master Plan.

- Coastal and other hazards, such as flooding, tsunami and wildfires, will be included in the Draft EIS. To address climate change and the potential for sea level rise, the Olowalu Town Master Plan proposes to maintain a 150-feet shoreline setback and limit uses to public access, open space and recreational uses within the setback. The conceptual Master Plan proposes the country town centers and residential uses to be developed landward of the 150-feet shoreline setback area.

- The Olowalu Town Master Plan includes a conceptual green space plan which identifies the provision of approximately 223 acres of parks and open space along the shoreline to maintain public access to the ocean as well as provide enhanced recreational use of the shoreline. The creation of green spaces makai of Honoapi'ilani Highway will enhance public views to the shoreline from the State highway.

Affordable Housing

The Draft EIS will discuss housing affordability requirements, including applicable provisions of Chapter 2.96, Maui County Code, as amended, relating to the County of Maui's Workforce Housing Policy.

Impact on State Facilities

The Draft EIS will address the short- and long-term impacts of the project on State-funded facilities, such as but not limited to schools and transportation infrastructure, and proposed mitigation measures. Comments from State agencies and discussions held with these agencies will be included in the Draft EIS.

Energy Use and Impacts

The intent of the Olowalu Town Master Plan is to develop a sustainable community. Sustainability measures will be discussed in the Draft EIS. As a proposed LEED ND design objectives, as well as the use of renewable energy systems will be incorporated within the project, which may include solar and hydroelectric systems, to help generate electricity for the Master Plan.

Maui Electric Company, Ltd. (MECO) has indicated that it may need to complete system upgrades along with securing a new substation site to accommodate the anticipated electrical load of Olowalu Town Master Plan. As the project progresses through the development process, the applicants will coordinate the project with MECO.

Biota

A flora and fauna study, as well as an aquatic resources survey for the project have been completed. The findings and proposed mitigation measures will be included in the Draft EIS. According to the consulting biologist, the study was conducted during the dry season and if there were any species that bloomed during the wet season their remains would have been evident during the field survey. In addition, a marine water quality study has been completed which discusses marine communities and ecosystems, marine water quality, and the nearshore environment. This study as well, will be included in the Draft EIS. Regarding your comment on the Nature Conservancy of Hawai'i listing, as a non-regulatory body, their list is not readily available to the public. Efforts were made to obtain the list which were unsuccessful during the preparation of the Draft EIS, and has not been included in the biological studies.

Except for the upper reaches of Olowalu Stream mauka of Pu'u Kilea, the stream bed to the ocean outlet is dry except during episodic storm events. O'opu in the stream was not found in the Olowalu Town Master Plan area.

Conservation District

Approximately 15 acres in the Master Plan area consisting of a portion of the shoreline area and mauka lands are located within the State Conservation District. However, the applicant is not requesting reclassification of Conservation District lands and, except for landscaping, the proposed Master Plan does not involve development within the Conservation District. As such, adverse impacts to Conservation District resources are not anticipated as a result of the project.

Conformance with County Plan Designation and Urban Growth or Rural Community Boundaries

The Draft EIS will evaluate the project's consistency with County plans. The Olowalu Town Master Plan will require a community plan amendment and zoning change from the County of Maui. We note that the County of Maui is in the process of establishing urban and rural growth boundaries as part of the Maui Island Plan (MIP). To date, both the General Plan Advisory Committee (GPAC) and the Maui Planning Commission (MPC) have recommended inclusion of portions of the Olowalu Town Master Plan in the urban and rural growth boundaries for the West Maui region. Copies of the GPAC and MPC directed growth boundary maps will be included in the Draft EIS. The Olowalu Town Master Plan will be consistent with the maps adopted by the County in the MIP.

The Draft EIS will discuss the impact on surrounding land uses associated with implementation of the Master Plan. The proposed lower density rural lots along the relocated Honoapi'ilani Highway is intended to provide a transition zone between the country town centers and the mauka agricultural lots of the Olowalu Mauka Subdivision. The rural and agricultural designated lots would be retained over the long term since land use entitlements from the State Land Use Commission (SLUC) and County of Maui will be required in order to implement uses other than those allowed in the rural and agricultural districts. As requested, the Draft EIS will discuss the public benefits from the Olowalu Town Master Plan.

Sustainability Analysis

As previously stated, the Olowalu Town Master Plan is intended to be developed as a sustainable community. The Master Plan is designed to meet the certification requirements of LEED ND. The Draft EIS will identify in more specificity, the sustainable design and development practices to be incorporated into the Olowalu Town Master Plan.

Solid Waste Management

The Draft EIS will discuss solid waste to be generated by the project, its impacts and proposed mitigation measures. The intent is to develop a sustainable community and as such the Draft EIS will discuss measures to reduce the amount of solid waste generated within the project.

Public Health

The previous landowner conducted a limited Phase 1 environmental site assessment in 1998 for the Master Plan area. At that time, consultation with the State Office of Hazard Evaluation and Emergency Response (HEER) was conducted. HEER commented that pesticides used by the sugar cane industry in recent times and their residuals should not pose a significant human health risk because of their rapid decomposition in soil. Sugar cane cultivation on the property ended 12 years ago in 1999. Also, monitoring of the potable water well by the Olowalu Water Company, Inc. has not detected contaminants associated with the cultivation of sugar cane. In keeping with these findings, further Phase 1 environmental site assessments are not anticipated.

Development Timetable

Since the preparation of the EISPN, a market study has been completed for the Draft EIS which indicated the Olowalu Town Master Plan can be absorbed within eight (8) to 10 years. As such, once the land use entitlements are obtained, the Olowalu Town Master Plan can be substantially completed within the 10-year horizon established by the SLUC. As requested, the Draft EIS will reference the SLUC Rules (Section 15-15-50, Hawaii Administrative Rules) and will include a development schedule for the Master Plan.

Miscellaneous Comments

a. ***Section IV, Alternatives in the Proposed Action:*** The Draft EIS will expand the alternatives beyond design variants of the preferred alternative, including identifying the "No Action" and "Deferred Action" as separate alternatives.

However, the smaller footprint alternative was not considered since the preferred alternative reflects a low rise country town character with larger residential and rural lots radiating outward from the country town centers while maintaining project density to make it economically feasible. Reducing the footprint will likely increase spatial densities by reducing lot sizes that will probably require the project to assume a more vertical design character to maintain the same units and associated uses to support the community.

Similarly, the alternative location scenario has not been considered since the applicants have pursued development of this site since 2006 and have placed significant efforts and resources to the eventual development of the property. In these efforts, the applicants have participated in the MIP process.

b. ***Section V, Summary:*** The summary section of the Draft EIS will identify and discuss unavoidable impacts and irretrievable commitments for both the construction and operational (full buildout) phases of the proposed project.

c. ***List of Permits:*** Until the development is reviewed by the agencies, during the construction phase, it is unclear what permits will be required. For this reason, some permits that may be required are identified "as appropriate".

d. ***Table 2, Master Plan Land Use Allocation Summary:*** As recommended, the category "Natural" will be identified as "Open Space".

e. ***SmartCode:*** The Draft EIS will discuss the SmartCode for the Olowalu Town Master Plan. During the County of Maui's review of land entitlements the Petitioners will request adoption of the proposed SmartCode as part of the Project District zoning to be established in the Maui County Code for Olowalu.

f. ***Sustainable Yield:*** The Draft EIS will include the correct sustainable yield of 2.0 MGD, as identified in the State's Water Resources Protection Plan of 2008. The water consultant in consultation with the U.S.G.S. has indicated that the sustainable yield of the Olowalu Aquifer System may be 7.0 MGD higher which is presented in the Water Resources Protection Plan of 2008 based on another established calculation methodology. Nevertheless, the projected future

groundwater use of existing users and the Olowalu Town Master Plan would still be substantially below the 2.0 MGD sustainable yield. A report addressing the groundwater and surface water resources in the Olowalu area will be included in the Draft EIS.

g. ***Wetland Assessment:*** The "Wetland Assessment Report" cited in the EISPN was conducted for a project proposed for Parcel 124 which has since been abandoned. As such, the report is not included in the Draft EIS. Instead the biological consultant has prepared an aquatic resources study that includes an assessment of wetland resources and will be included in the Draft EIS.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter shall be included in the Draft EIS. A copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:lh
Cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Tom Nance, Tom Nance Water Resource Engineering
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AUG 06 2010

LINDA LINGLE
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

August 4, 2010

Ms. Colleen Suyama
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

Environmental Assessment/Environmental Impact Statement Preparatory Notice
Proposed Olowalu Town Master Plan, Olowalu, Maui, Hawaii

Thank you for the opportunity to comment on this development. After careful review of the project description and the accompanying maps and diagrams, we have several comments to make.

We feel that there is a need for a more extensive discussion of natural hazard mitigation. The area has a history of wildfires, in addition to being near the shoreline and therefore susceptible to coastal inundation from tsunamis and tropical cyclones. In addition, planned community locations along streams and in high risk flood zones raise concerns about flooding. We recommend that, since all Hawaiian Islands remain susceptible to these natural hazards, potential damage from these events are mitigated by strict compliance with all applicable building codes. We also suggest that public facilities be constructed to meet public shelter specifications.

We do concur with the inclusion of the referenced Cultural and Archaeological Inventory Surveys to safeguard these types of resources. We anticipate reviewing the Draft Environmental Impact Statement when it is completed and will make any further comments at that time. If you have any questions, please call Mr. Richard Stercho, Assistant Public Relations Officer, at (808) 733-4300, extension 583.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

c: Orlando "Dan" Davidson, Land Use Commission

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Edward T. Teixera, Vice Director of Civil Defense
Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Texeira:

Thank you for your letter of August 4, 2010 providing comments on the proposed Olowalu Town Master Plan. As requested, the Draft Environmental Impact Statement (EIS) will provide an expanded discussion on natural hazards mitigation.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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LINDA LINGLE
GOVERNOR

JUL 27 2010

KATHRYN S. MATAYOSHI
INTERIM SUPERINTENDENT

STATE OF HAWAI'I

DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

July 26, 2010

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

Subject: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project, TMK (2) 4-8-003:84, 98-118, and 124, Olowalu, Maui

The Department of Education (DOE) has reviewed the Environmental Impact Statement Preparation Notice for the proposed Olowalu Town Project.

The DOE expects that this project will have a significant impact on its facilities. Additional students generated from this project would severely tax the DOE's resources in West Maui.

The DOE is in the process of implementing school impact fee districts. Should this project fall within a future school impact fee district, it will be subject to the district's impact fees.

Thank you for the opportunity to provide comments. If you have any questions, please call Jeremy Kwock of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

Kathryn S. Matayoshi
Interim Superintendent

KSM:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Orlando Davidson, Land Use Commission, Executive Director
Lindsay Ball, CAS, Hana/Lahainaluna/Lanai/Molokai Complex Areas

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Kathryn S. Matayoshi, Superintendent
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Matayoshi:

Thank you for your letter of July 26, 2010 providing comments on the proposed Olowalu Town Master Plan. We understand that the Department of Education (DOE) has implemented a school impact fee for the West Maui District and the Olowalu Town Master Plan may be subject to such fees. To ensure continued and effective communication on the proposed project, our office will contact the DOE to arrange a future meeting to discuss school-related issues.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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AUG 06 2010

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

August 5, 2010

Ms. Colleen Suyama
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

Subject: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project
TMK: (2) 4-8-003:84, 98 through 118 and 124

Thank you for the opportunity to comment on this project. We have the following comments:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work.

3. All requirements of HAR, Chapter 11-62, "Wastewater Systems" must be complied with. Plan review and approval of all new wastewater disposal systems are required prior to construction of the systems. If you have any questions, please contact Roland Tejano, Environmental Engineer at 808 984-8232.

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

Patti Kitkowski

Patti Kitkowski
Acting District Environmental Health Program Chief

c EPO
Orlando Davidson

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Patti Kitkowski, District Environmental
Health Program Chief
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793-2102

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Kitkowski:

Thank you for your letter of August 5, 2010 providing comments on the proposed Olowalu Town Master Plan. In response to your comments, we acknowledge a National Pollutant Discharge Elimination System (NPDES) permit may be required for the project, as well as other requirements relating to noise and wastewater systems.

As recommended, we have reviewed the standard comments found at your department's website and have the following response:

Waterbody type and class

1. The aquatic resources study prepared by Robert Hobdy, Environmental Consultant, identified the waterbodies in the Master Plan area which will be included in the Draft Environmental Impact Statement (EIS).

Existing water quality management actions

2. Once the project has obtained its entitlements and continues towards development, the applicants consultants will submit a list of all permits issued in the Master Plan area as well as identifying additional permits that may be required prior to construction activities.

3. As previously stated, once the project has obtained its entitlements and continues towards development, the applicants' consultants will provide any planning documents, groups and projects that include specific prescriptions for water quality management within the Master Plan area.

Pending water quality management actions

4. Olowalu Beach at Mile Post 14 is listed on the List of Impaired Waters in Hawaii with a Low Priority rating which identified turbidity as the pollutant. Olowalu Stream is not listed.

5. To improve water quality in the Olowalu area, the Master Plan proposes to construct a drainage system that will contain 100 percent of the increased stromwater runoff as well as a portion of the existing runoff. Also, the Master Plan will implement a stormwater management program. Both the Preliminary Engineering Report and Stormwater Quality Enhancement Study will be included in the Draft EIS.

Please note that the Master Plan proposes to follow the Leadership in Energy and Environmental Design for Neighborhood Developments (LEED ND) and incorporate the smart growth and sustainability measures of New Urbanism in the project to reduce environmental impacts that may result from the proposed development.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering, Inc.
Ray Matasci, Brown & Caldwell
K:\DATA\OlowaluTown\MasterPl\EISPN\DOHMauiresponse.ltr.doc

AUG 16 2010

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
DOH/CWB

08019PSW.10

August 11, 2010

Mr. Orlando "Dan" Davidson
Executive Director
Land Use Commission
PO Box 2359
Honolulu, Hawaii 96804

Dear Mr. Davidson:

SUBJECT: **Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project at TMK (2)-4-8-003:84, 98 through 118, and 124 Olowalu, Maui, Hawaii**

The Department of Health, Clean Water Branch (CWB), has reviewed the document and CD received July 8, 2010 regarding the subject project and offers these comments. Please note that our review is based solely on the document for the subject project and its compliance with 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://hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Anti-degradation 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 are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. This includes areas used for a construction base yard and the storage of any construction related equipment, material, and waste products. An NPDES permit is required before the start of the construction activities.

b. Hydrotesting water,

c. Construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI forms may be picked up at our office or downloaded from our website at http://hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html

3. For other types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 2 or Class AA waters, an NPDES individual permit will need to be obtained. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://hawaii.gov/health/environmental/water/cleanwater/forms/environmental/water/cleanwater/forms/indiv-index.html

4. Please call the Army Corps of Engineers at (808) 438-9258 to determine which Department of the Army (DA) permit(s) shall be required for the subject project. Permits may be required for work performed in, over, and under navigable waters of the United States. Projects requiring a DA permit also require a Section 401 Water Quality Certification (WQC) from our office.

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at http://hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,

ALEC WONG, P.E. CHIEF
Clean Water Branch

SW:ml

c: DOH-EPO #I-3247 [via email only]
Ms. Colleen Suyama, Munekiyo and Hiraga, Inc.

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Alec Wong, P.E., Chief
Clean Water Branch
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Wong:

Thank you for your letter of August 11, 2010 providing comments on the proposed Olowalu Town Master Plan. We acknowledge receipt of the Department of Health's standard comments and regulatory requirements.

The project will obtain all required permits, including those pertaining to the National Pollutant Discharge Elimination System (NPDES) permitting requirements, Hawaii Administrative Rules (HAR) Section 11-54-1.1, and Section 401 Water Quality Certification (WQC), as may be applicable to the project.

As requested, we have reviewed the Clean Water Branch Standard Comments dated August 22, 2008 and provide the following responses:

Permit Issuance

As previously stated, as the project continues through the development process all required permits will be obtained. As recommended, continuing coordination with the Army Corps of Engineers will be conducted to determine whether a Department of Army (DA) permit will be required. If required, the DA permit and Section 401 WQC will be obtained.

Monitoring

We acknowledge effluent discharge and/or receiving water monitoring may be required as conditions of a Section 401 WQC and NPDES permits.

Enforcement

We acknowledge that noncompliance with water quality requirements may be subject to penalties.

Polluted Runoff Control Projects

We understand federal grants may be available for projects addressing activities related to polluted runoff control as outlined in the State's Coastal Nonpoint Pollution Control Management Plan and/or Hawaii's Implementation Plan for Polluted Runoff Control.

Thank you again for your participation in the Chapter 343, Hawaii Revised Statutes (HRS) review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering
Craig Lekuen, Brown & Caldwell
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AUG 1 1 2010

LINDA LINGLE
GOVERNOR

LILLIAN B. KOLLER, ESQ.
DIRECTOR

HENRY OLIVA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment and Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813-2936

August 2, 2010

Refer to: 10:0518

Ms. Colleen Suyama, Project Manager
Munekioy & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

RE: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR PROPOSED OLOWALU TOWN PROJECT AT TMK (2) 4-8-003:84,98 THROUGH 118, AND 124, OLOWALU, MAUI, HAWAII

Dear Ms. Suyama:

Thank you for your letter dated July 2, 2010, requesting a review of an environmental impact statement preparation notice for the Olowalu Town Project. The Director of the Department of Human Services (DHS) has forwarded her letter to me for a response.

After a review the proposed project environmental impact statement, we do not have any comments or recommendations to offer at this time.

Please feel free to contact Ms. Linda Fukunaga, Maui Section Administrator at 243-5878 should you have any questions.

Sincerely,

Pankaj Bhanot

Pankaj Bhanot
Division Administrator

c: Lillian B. Koller, Director, Department of Human Services
Orlando "Dan" Davidson, Land Use Commission

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Pankaj Bhanot, Administrator
Department of Human Services
Benefit, Employment and Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813-2936

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Bhanot:

Thank you for your letter of August 2, 2010 on the proposed Olowalu Town Master Plan. We appreciate your review of the Environmental Impact Statement Preparation Notice (EISPN) and your conveying confirmation that the department has no comments at this time.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
K:\DATA\OlowaluTown\MasterPl\Draft EIS\DHSresponse.ltr.doc

AUG 06 2010

LINDA LINGLE
GOVERNOR

PEARL IMADA IBOSHI
DIRECTOR

COLLEEN Y. LaCLAIR
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813
www.hawaii.gov/labor
Phone: (808) 586-8844 / Fax: (808) 586-9099
Email: dlir.director@hawaii.gov

August 4, 2010

Ms. Colleen Suyama
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

This is in response to your request for comments on the environmental impact statement preparation notice for the proposed Olowalu Town project in Olowalu, Maui. The Department of Labor and Industrial Relations does not have any comments.

Should you have any questions, please call me at (808) 586-8844, or Mr. Patrick Fukuki, our Business Management Officer, at (808) 586-8888.

Sincerely,

Colleen Y. LaClair

for PEARL IMADA IBOSHI
Director

c: Land Use Commission

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Dwight Takamine, Director
Department of Labor and
Industrial Relations
830 Punchbowl Street, Room 321
Honolulu, Hawaii 96813

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Takamine:

Thank you for your department's letter of August 4, 2010 on the proposed Olowalu Town Master Plan. We appreciate your department's review of the Environmental Impact Statement Preparation Notice (EISPN) and your conveying confirmation that the department has no comments at this time.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your department's letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
Cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

AUG 06 2010

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

August 5, 2010

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Ms. Colleen Suyama, Project Manager

Ladies and Gentlemen:

Subject: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town 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 comment.

Other than the comments from Division of Boating & Ocean Recreation, Commission on Water Resource Management, Office of Conservation & Coastal Lands, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Charlene E. Unoki

for Morris M. Atta
Acting Administrator

Cc: State Land Use Commission

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 12, 2010

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
x Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x Land Division –Maui District
x Historic Preservation

From:

RECEIVED
LAND DIVISION
2010 JUL 22 A 10:09
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

To:

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by August 6, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(X) We have no comments.
( ) Comments are attached.

Signed:
Date: 7/20/10

JUL15'10PM 1:40BOR DIV

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2010 JUL 22 A 10:08
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

LAURA H. THIELEN
CHAIRPERSON

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

LENORE N. OHYE
ACTING DEPUTY DIRECTOR

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

July 20, 2010

TO: Morris Atta, Administrator
Land Division

FROM: Lenore N. Ohye, Acting Deputy Director Lenore N. Ohye
Commission on Water Resource Management

SUBJECT: Olowalu Town EISPN

FILE NO.: N/A
TMK NO.: (2) 4-8-003:various

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

Our comments related to water resources are checked off below.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ OTHER:

The ground water source for this project is Well No. 4936-01, which has been pumping an average of about 43,000 gpd over the first months of this year. The document states that the adopted sustainable yield for the aquifer tapped by this well is 3 mgd, although this number was revised to 2 mgd in the 2008 Water Resource Protection Plan. The surface water portion for the project draws from Olowalu Stream, which is stated to have yielded in excess of 4 mgd, without qualifying this number; we believe this suggests it is a high number. The diversions are subject to a DLNR lease, also to any competing user petitioning for allocations of this public trust asset or for restoration. Estimated water demand is based upon use on 22 agricultural lots on 636 acres, but the maps provided do not show this. Estimates should reflect County standards, at minimum, and identify reasonable beneficial use in more detail.

If there are any questions, please contact Charley Ice at 587-0218.

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2010 AUG 2 P 3:08
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
ACTING FIRST DEPUTY

LENORE N. OHYE
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF:OCCL:AB

Correspondence: MA-11-6

AUG - 2 2010

MEMORANDUM

TO: Charlene Unoki, Assistant Administrator
Land Division

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: Olowalu Town Project EISPN
LOCATION: Olowalu, Maui, TMKs: various
APPLICANT: Munekiyo & Hiraga, Inc.

The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) has reviewed the information provided regarding the Olowalu Town Project Environmental Impact Statement Preparation Notice (EISPN).

The OCCL notes that there are four project parcels that appear to be located in the Conservation District: TMKs: (2) 4-8-003:084, 108, 118, and 124.

According to the applicant, no development is planned for the Conservation District land within the project area. The OCCL has no comments at this time regarding the Town plan as provided in the EISPN. However, should the applicant propose any land use[1] in the Conservation District, the OCCL should be contacted to determine what type of authorization may be required for this action.

Should you have any questions, contact Audrey Barker of our office at (808) 587-0316 or audrey.t.barker@hawaii.gov.

---

[1] As defined in HAR §13-5-2 Definitions, "land use" means: (1) The placement or erection of any solid material on land if that material remains on the land more than fourteen days, or which cause a permanent change in the land area on which it occurs; (2) The grading, removing, harvesting, dredging, mining or extraction of any material or natural resource on land; (3) The subdivision of land; or (4) The construction, reconstruction, demolition, or alteration of any structure, building, or facility on land.

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Russell Y. Tsuji, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
Post Office Box 621
Honolulu, Hawaii 96809

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Tsuji:

Thank you for your department's letter of August 5, 2010 providing comments on the proposed Olowalu Town Master Plan. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC, we offer the following information in response to comments from the Commission on Water Resource Management (CWRM) and the Office of Conservation and Coastal Lands (OCCL):

Response to CWRM Comments:

1. Coordination with the County Department of Water Supply (DWS) is being undertaken through the Chapter 343, HRS process. In addition, both the County Planning Department and DWS will be commenting agencies in the State Land Use District Boundary Amendment process.

2. As the project proceeds through the land use entitlement processes, design guidelines and standards for the proposed project will be developed to include water efficient fixtures. As a proposed Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) project, to the extent practicable, water efficient practices will be implemented throughout the development. Water conservation and drought planning measures, including the use of native plants, will be implemented to reduce overall water demands. To further reduce demand for freshwater resources, wastewater effluent will be treated to R-1 quality for irrigation reuse.

3. In the interest of minimizing impacts on the area's hydrology and coastal ecosystems, Best Management Practices (BMPs) for stormwater management will be implemented, both during construction and in designing the project's drainage system. Retention and detention systems will be employed to accommodate the incremental increase in runoff attributed to the development of the proposed master plan. Notably, these drainage systems will be designed to meet and exceed County drainage standards. A Preliminary Engineering Report (PER), of which will include a preliminary drainage analysis, is being prepared for the proposed project. The results of the PER will be discussed in the Draft EIS. Also, a stormwater management plan is being prepared for the Olowalu Town Master Plan.

4. The use of alternative water sources for the proposed project will be pursued, to the extent practicable. As discussed above, wastewater effluent treated to R-1 quality will be utilized for irrigation purposes, thereby reducing demands on freshwater sources.

5. As noted previously, a PER is being prepared that will analyze the project's domestic water demand requirements, including fire flow, storage, and transmission system components. The project's water resource engineering consultant is preparing a report addressing groundwater and surface water resources in the Olowalu area, including potential impacts and mitigation measures. The results of the PER and water resource study will be presented and discussed in detail in the Draft EIS.

Response to OCCL Comments:

The applicants acknowledge Parcels 84, 108, 118 and 124 are located in the Conservation District and confirm that no land use, as defined by Section 13-5-2, Hawaii Administrative Rules, is planned for the Conservation District lands within the Master Plan area.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft EIS. Further, copies of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Orlando "Dan" Davidson, State Land Use Commission
Bill Frampton, Olowalu Town, LLC
Tom Nance, Tom Nance Water Resource Engineering
Stacy Otomo, Otomo Engineering, Inc.
K:\DATA\OlowaluTown\MasterPl\Draft EIS\DLNRlandresponse.ltr.doc

OCT 01 2010

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 30, 2010

Munekyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Ms. Colleen Suyama, Project Manager

Ladies and Gentlemen:

Subject: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town 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 Historic Preservation for their review and comment.

The Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Charlene Unoki
Assistant Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

LENORE N. OHYE
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

September 23, 2010

LOG NO: 2010.2734
DOC NO: 1009MD19
Archaeology
Culture & History

TO: Charlene Unoki, Assistant Administrator
DLNR Land Division
PO Box 621
Honolulu, HI 96809

FROM: Theresa K. Donham, Acting Archaeology Branch Chief
State Historic Preservation Division

RECEIVED
LAND DIVISION
2010 SEP 29 A 11: 24
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Environmental Impact Statement Preparation Notice for Proposed
Olowalu Town Project
Olowalu Ahupuaʻa, Lāhainā District, Island of Maui
TMK: (2) 4-8-003:084, 098-118 & 124

Thank you for the opportunity to comment on the aforementioned project, which we received on July 15, 2010. We apologize for the delay in our reply.

The proposed Olowalu Town Master Plan will impact an area with extensive historic properties. A proposed 110-acre preservation site is being considered, and will be detailed in the upcoming draft EIS and cultural impact statement. An initial archaeological inventory survey was conducted between 1999-2000 by Xamanek Researches, and a supplemental survey following a fire was conducted in 2007 by Scientific Consultant Services, Inc. We look forward to reviewing the DEIS.

If you have questions about this letter please contact Morgan Davis at (808) 243-5196 or via email to: Morgan.E.Davis@hawaii.gov.

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Russell Y. Tsuji, Administrator
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Tsuji:

On behalf of the applicants, Olowalu Town LLC and Olowalu Ekolu LLC, thank you for the letter from the State Historic Preservation Division (SHPD) dated September 23, 2010 providing comments on the proposed Olowalu Town Master Plan. The Draft Environmental Impact Statement (EIS) will include a thorough analysis of the previous archaeological inventory surveys conducted on the property cited in the SHPD's memorandum and any additional information that may be warranted. Tanya Lee-Greig of Cultural Surveys Hawai`i, Inc. is the archaeological consultant for the project and will coordinate the work necessary for the project with the SHPD.

Thank you again for your department's participation in the Chapter 343, HRS review process. A copy of SHPD's letter will be included in the Draft EIS. Further, copies of the Draft EIS will be forwarded to your office and SHPD for review and comment.

305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Pua Aiu, Ph.D., SHPD Administrator
Morgan Davis, Maui Archaeologist
Tanya Lee-Greig, Cultural Surveys Hawaii, Inc.
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SEP 21 2010

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

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

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

IN REPLY REFER TO:

HWY-PS
2.6554

September 20, 2010

Mr. Orlando "Dan" Davidson
Executive Director
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Davidson:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for Proposed Olowalu Town Master Plan
Olowalu, Maui – TMK(2) 4-8-003:84, 98 through 118, and 124

Thank you for the opportunity to review the subject EISPN. We apologize for the delay in response and would like to provide the following comments:

1. Honoapiilani Highway is currently an access controlled State facility and is functionally classified as a Principal Arterial roadway. The proposed realignment of Honoapiilani Highway shall continue the classification as a Principal Arterial roadway and shall require the facility to be designed to meet the specified classification standards, as well as remain an access controlled facility.

2. A Traffic Impact Analysis Report (TIAR) for the subject development area is to be developed and is to address all mitigation corresponding to the number of units built in each of the phases. The TIAR is to be provided to the department for review and approval.

If you have any questions, please contact Ken Tatsuguchi, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

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

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Glenn T. Okimoto, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Okimoto:

Thank you for your department's letter of September 20, 2010 providing comments on the proposed Olowalu Town Master Plan. We acknowledge Honoapiilani Highway is a State facility classified as a Principal Arterial roadway and any realignment of the highway will be designed to meet specified classification standards, as well as remain an access controlled facility. Transportation Consultant Roger Dyar has prepared a Preliminary Traffic Impact Analysis Report (TIAR) identifying impacts and mitigation measures which will be included in the Draft Environmental Impact Statement (EIS). A Final TIAR will be prepared to incorporate and address comments received during the Draft EIS process. The Final TIAR will be included in the Final EIS for the proposed project.

We anticipate ongoing discussions with your department regarding the relocation of Honoapi`ilani Highway further inland of the shoreline in conjunction with the Realignment/Widening of Honoapi`ilani Highway from Mā`alaea to Launiupoko Study.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter will be included in the Draft EIS. Further, copies of the Draft EIS will be forwarded to your office for review and comment.

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If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:lh
Cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Roger Dyar
Stacy Otomo, Otomo Engineering, Inc.
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CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director

AUG 17 2010

TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

August 12, 2010

Ms. Colleen Suyama
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

SUBJECT: **OLOWALU TOWN PROJECT**
EIS PREPARATION NOTICE
TMK (2) 4-8-003:084, 098 - 118, AND 124, OLOWALU

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:

   a. None.

2. Wastewater Reclamation Division (WWRD) comments:

   a. None. There is no County wastewater system in the area of the subject project.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

CHERYL K. OKUMA
Director of Environmental Management

xc: Mr. Orlando "Dan" Davidson, Executive Director
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Kyle Ginoza, Director
Department of Environmental Management
One Main Plaza, Suite 100
2200 Main Street
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Ginoza:

Thank you for your department's letter of August 12, 2010 on the proposed Olowalu Town Master Plan. We appreciate your department's review of the Environmental Impact Statement Preparation Notice (EISPN) and your conveying confirmation that the department has no comments at this time.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
Cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Craig Lekuen, Brown and Caldwell
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305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

SEP 14 2010

CHARMAINE TAVARES
MAYOR

JEFFREY A. MURRAY
CHIEF

ROBERT M. SHIMADA
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY
FIRE PREVENTION BUREAU

313 MANEA PLACE • WAILUKU, HAWAII 96793
(808) 244-9161 • FAX (808) 244-1363

September 10, 2010

Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High St.
Wailuku, HI 96793

Re : EISPN for proposed Olowalu Town Project
(2) 4-8-003: 84,98-118, and 124
Olowalu, Maui, HI

Dear Ms. Suyama,

Thank you for the opportunity to comment on EISPN for the proposed Olowalu Town Project. At this time, our office has the following general comments to provide as information in your on-going design process.

Fire department access roads:

- All roads shall be a minimum of 20 feet in clear width. Cul-de-sacs shall be a minimum of 32 feet in clear width. Dead ends in excess of 150 feet in length shall be provided with a turn-around with a minimum outside-turning-radius of 41 feet. The maximum grade for residential subdivisions is 14% and agricultural subdivisions is 18%.

Water supply for fire protection:

- A minimum of 2000 gpm with maximum hydrant spacing shall be provided for business/commercial areas. Apartment and townhouse areas shall be provided with a minimum of 1500 gpm at a maximum hydrant spacing of 250 feet. Single-family areas shall be provided with 1000 gpm at a maximum hydrant spacing of 350 feet.
If these two points are addressed, our office will not have any objection to this change of location.

A more detailed look at roads and water supply for fire protection will be done during the subdivision process, however this information should be valuable in your design.

Although Lahaina Fire station is only 7.5 miles away, the impact of 1500 more homes on emergency services will be felt. The inclusion of a future facility for fire/police/medic is a great idea. Extension and inclusion of these services into this town will help to lessen the impact and compliment the protection provided on the Lahaina side of the tunnel.

If there are any questions or comments, please feel free to contact me by phone at 244-9161 ext. 23 or by mail.

Sincerely,

Paul Haake
Captain, Fire Prevention Bureau
313 Manea Place
Wailuku, HI 96793

cc: Orlando "Dan" Davidson, Executive Director, Land Use Commission

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Paul Haake, Captain
County of Maui
Department of Fire and Public Safety
313 Manea Place
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Captain Haake,

Thank you for your letter of September 10, 2010 providing comments on the proposed Olowalu Town Master Plan. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC, we offer the following information in response to your remarks:

1. The applicants will work with the Department of Fire and Public Safety to ensure all roadways, cul-de-sacs, dead ends and alleyways are designed and constructed to meet public health and safety requirements. The existing topography or slope of the property ranges from five (5) percent to 15 percent and the grades for residential subdivisions will not exceed 14 percent and agricultural subdivisions will not exceed 18 percent.

2. In accordance with Section 16.04B.140, MCC, within Olowalu Town, minimum fire flow and hydrant spacing will comply with the requirements of 2,000 gallons per minute (gpm), 250 feet apart for business/commercial areas; 1,500 gpm, 250 feet apart for apartment and townhouse areas; and 1,000 gpm, 350 feet apart for single-family residential areas.

3. The applicants acknowledge that the Fire Prevention Bureau will review access roads and water supply for fire protection in greater detail during the subdivision process.

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4. It is recognized that the build-out of 1,500 homes 7.5 miles south of the Lahaina Fire Station will have an impact on emergency response service limits. In the interest of mitigating impacts on emergency response services and ensuring the safety of future residents, the proposed Olowalu Town master plan includes areas along the future Honoapi`ilani Highway Bypass which can be used for a future facility for fire and medical emergency response teams. The applicants have had several informal discussions with fire department individuals to better understand how Olowalu Town can have a positive impact towards enhanced fire protection in Olowalu and West Maui. We look forward to additional meetings with your department in regards to how Olowalu Town can help the County provide enhanced services for fire protection.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Orlando "Dan" Davidson, State Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering, Inc.
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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

AUG 04 2010
CHARMAINE TAVARES
Mayor
LORI TSUHAKO
Director
JO-ANN T. RIDAO
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

July 30, 2010

Ms. Colleen Suyama
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

Subject: Environmental Impact Statement Preparation Notice For Proposed Olowalu Town Project at Olowalu. Maui, Hawaii, TMK (2) 4-8-003: 84, 98 through 118 and 124

Thank you for the opportunity to review the above subject Environmental Impact Statement Preparation Notice. The Department would like to offer the following comments:

1. Applicant has indicated workforce housing will be provided in keeping with the requirements of Chapter 2.96, Maui County Code.

2. Applicant has also indicated that the Draft EIS will detail the anticipated workforce housing allocations by income categories. We would like to reserve our opportunity to provide additional comments at the time of our review of the Draft EIS.

Please call Mr. Buddy Almeida of our Housing Division at 270-7355 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

cc: Director of Housing and Human Concerns
Orlando "Dan" Davidson

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Wade T. Oshiro, Housing Administrator
Department of Housing and Human Concerns
35 Lunalilo Street, Suite 102
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Oshiro:

Thank you for your letter of July 30, 2010 providing comments on the proposed Olowalu Town Master Plan. As stated in the Environmental Impact Statement Preparation Notice (EISPN), the Olowalu Town Master Plan will comply with the workforce housing requirements of Chapter 2.96, Maui County Code. As noted, the Draft Environmental Impact Statement (EIS) will detail the anticipated workforce housing allocations by income categories.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your letter will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

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JUL 26 2010

CHARMAINE TAVARES
Mayor

TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

July 20, 2010

Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

SUBJECT: Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Project
TMK: (2) 4-8-003:084, 98 thru 118, and 124
Olowalu, Maui, Hawai'i

Dear Ms. Suyama:

Thank you for the opportunity to review and comment on the subject project.

The department is concerned that adequate land be set aside for development of active recreational park facilities for the residents as well as the surrounding communities. This amount is significantly greater than the 500 square feet per unit required by Section 18.16 of the Maui County Code (park dedication requirements). The project will be required to go through several land use entitlement processes. We would like to continue discussions with the applicant on the size and location of the proposed park lands.

Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning & Development, at (808) 270-7931 should you have any questions.

Sincerely,

TAMARA HORCAJO
Director of Parks & Recreation

xc: Orlando "Dan" Davidson, Executive Director, Land Use Commission
Patrick Matsui, Chief of Parks Planning and Development

TH:PTM:ca
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MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Glenn Correa, Director
Department of Parks and Recreation
700 Hali'a Nakoa Stret, Unit 2
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Correa:

Thank you for your department's letter of July 20, 2010 providing comments on the proposed Olowalu Town Master Plan. We acknowledge that the Olowalu Town Master Plan will be subject to the requirements of Section 18.16 of the Maui County Code relating to park dedication. We note that the project will provide park space that exceeds the minimum park dedication requirements set forth by the County. Approximately 140 acres of park and open space will be included in the Master Plan. As development of the Olowalu Town Master Plan progresses through the various land use entitlements, we will continue to coordinate the park requirements for the project with the Department of Parks and Recreation.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

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If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
K:\DATA\OlowaluTown\MasterPl\EISPN\DPRresponse.ltr.doc

CHARMAINE TAVARES
Mayor
KATHLEEN ROSS AOKI
Director
ANN T. CUA
Deputy Director

JUN 15 2010

COUNTY OF MAUI
DEPARTMENT OF PLANNING

June 7, 2010

Ms. Colleen Suyama
Munekiyo and Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

SUBJECT: COMMENTS REGARDING THE EISPN FOR THE PROPOSED OLOWALU TOWN MASTER PLAN, TMK'S (2) 4-8-003: 084, 098-118, and 124, OLOWALU, MAUI, HAWAII (EAC 2010/0009)

The Department of Planning (Department) has the following comments regarding the Environmental Assessment/Environmental Impact Statement Preparation Notice (EISPN) received by the Department on May 13, 2010.

The Department understands the proposed action includes the following:

- A State district boundary amendment (DBA) from Agriculture to Urban and Rural for approximately 320 acres of land;
- The amendment will provide for the development of the Olowalu Town project on approximately 636 acres to be phased over a period of 30 years;
- The Olowalu Town project will involve approximately 1,500 residential units, commercial and civic uses, parks and recreation sites, a cultural preserve, agricultural uses, a private domestic water system, a private wastewater system, and the relocation of Honoapi'ilani Highway.

Based on the foregoing, the Department provides the following comments on the EISPN:

1. All maps need to be to drawn to scale, especially the Master Plan, Figure 4 as it forms the basis for the DBA.
2. On Figure 4 - Master Plan, expand the legend to include excluded lands and agricultural lands. Also, the Rural designation in the legend should be colored blue to coincide with the color on the map. Identify in the legend what the color beige designates.
3. On page 13 – Project Need:
   a. Update the figures for projected housing needs, based on the most recent Census updates.
   b. Include a reference to the Department's Long Range Division that estimates the need for housing in West Maui to be only 3,456 additional units by the year 2030, beyond those lands already entitled;
   c. Include a reference to the number of units that would be provided for per the Department's recommended growth areas in the draft Maui Island Plan;

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

4. Many maps should have the term "Existing" added to their specific title to clarify existing from proposed. For example, Figure 5 could be misinterpreted to be identifying proposed State land use designations.
5. On page 15, West Maui Community Plan Amendment: It appears that some of the land has a Single Family (SF) designation in the Community Plan. This should be confirmed and this paragraph revised accordingly.
6. On page 15 – Change in Zoning:
    a. It appears some of the land has a Hotel District zoning. This should be confirmed and this paragraph revised accordingly.
    b. Clarify whether the "SmartCode" zoning will be a standard template crafted by Andres Duany or will be customized for Maui.
7. Obtain a Zoning Confirmation Form for all parcels within the entire Olowalu Town project. Then include a table indicating all existing and proposed State land use designations, community plan designations and zoning districts.
8. On Figure 6, Community Plan map: Revise the map to use colored lines to distinguish the designations easier.
9. On page 17 – Special Management Area Use Permit: Because a portion of the project is within the SMA, the <u>entire</u> project will be subject to the SMA regulations. The text needs to be revised to indicate this.
10. Figure 7 – Special Management Area Boundary Map: This map is inconsistent with the County Kiva SMA map. Update the map to be consistent with the County Kiva map or provide the basis for the boundaries of Figure 7.
11. On page 19, provide a population for the historic Olowalu plantation town.
12. On page 30, Flood and Tsunami Hazards:
    a. Provide a map indicating the tsunami inundation zone.
    b. Explain how development within the tsunami and flood hazard areas will be mitigated; and
    c. Explain why density should be created in tsunami and flood hazard areas.
13. Figure 12 – Flood Insurance Rate Map: Revise the map so it is more legible, such as using greater detail and darker colors to designate the flood hazard areas.
14. On page 42 – Shoreline Access:
    a. Indicate whether the 3 proposed parks will be open to the public.
    b. Include a map indicating how public access will be provided to the shoreline, including parking and pedestrian paths.
15. On page 46, include a market study that will indicate the extent that residents will have to commute away from the Olowalu Town for employment and other needs.
16. On page 46 – Housing: Provide a pro forma that indicates how affordable housing can be provided when the proposal will incur the costs of providing infrastructure including the relocated highway, wastewater treatment plants, medical, educational, police and fire facilities.
17. On page 48, Medical Facilities: Indicate the conditions under which medical facilities "may be implemented as part of the Master Plan".
18. On page 48 – Police and Fire Protection: Indicate under what conditions additional facilities will be generated by the Olowalu Town; and whether land and facilities will be provided by the Olowalu Town developers or will have to be provided by the County.
19. On page 53, Roadways:
    a. Include in the Traffic Impact Analysis Report (TIAR) an analysis of the Olowalu Town's impacts on the Honoapi'ilani Highway traffic flow between Ma'alaea and Lahaina due to:

i. Construction to re-align the highway; and
ii. The increase in traffic generated from each phase of the build-out of the Olowalu Town.

b. Explain how the commuting generated by adding 1,500 new residential units - incorporating the market analysis regarding the extent that residents will have to commute away from the Olowalu Town for employment and other needs - will impact tourists and workers using the highway to reach Ma'alaea or Lahaina.
c. Provide an analysis of the economic effects that would result from such impacts to tourists and workers.

20. On page 56 – Wastewater Systems: Include a cost-estimate of the initial construction and on-going maintenance of the wastewater systems and who will pay such costs.
21. On pages 59-63 – State Land Use District Criteria:
    a. Compare the amount of trading and employment that the proposal will generate on-site, with the amount of trading and employment that residents of the proposal will need to find off-site.
    b. Clarify which basic services the proposal will definitely provide, which may be provided, and which will definitely not be provided.
    c. Provide an analysis of the acreage proposed in the draft Maui Island Plan that would serve as reserve areas for foreseeable urban growth, including specific numbers for West Maui.
    d. Explain how the project's proposal to increase densities to urban and rural levels in tsunami and floodplain zones, is consistent with State DBA criteria.
    e. Provide an explanation as to how the project complies with State DBA criteria that says land contigous with an existing urban designation shall be given more consideration than non-contiguous land.
    f. Explain why the proposed State DBA should not wait until the adoption of urban growth boundaries per the Maui Island Plan.
    g. Explain how the project complies with criteria that says a State DBA to urban may include lands which do not conform to such criteria, "when surrounded by or adjacent to existing urban development".
    h. Explain how the project complies with criteria that says a State DBA will not include land, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services.
    i. Explain how the proposed Rural designated lands comply with State DBA criteria that says such lands may include land not surrounded by or contiguous to Rural lands if they are not suited for farm or agricultural uses.
22. On page 80, explain how the proposal complies with the following objectives/policies of the Countywide Policy Plan:
    a. "Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity."
    b. "Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas."
    c. "Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner."
    d. "Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources."
23. On page 84 – Maui Island Plan: Explain why the proposed DBA should be reviewed prior to the final adoption of the urban and rural growth boundaries in the draft Maui Island Plan that is currently under review by the County Council.

If you require further clarification, please contact Senior Planner Jeff Hunt at jeff.hunt@mauicounty.gov or phone (808) 270-7821.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for KATHLEEN ROSS AOKI
Planning Director

xc: Jeffrey S. Hunt, AICP, Senior Planner
Milton Arakawa, Director, Department of Public Works
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General File
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CHARMAINE TAVARES
Mayor
KATHLEEN ROSS AOKI
Director
ANN T. CUA
Deputy Director

AUG 0 6 2010

COUNTY OF MAUI

DEPARTMENT OF PLANNING

August 6, 2010

Ms. Colleen Suyama
Munekiyo and Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Suyama:

SUBJECT: COMMENTS REGARDING THE EISPN FOR THE PROPOSED OLOWALU TOWN MASTER PLAN; TMK'S: (2) 4-8-003: 084, 098-118, and 124, OLOWALU, MAUI, HAWAII (EAC 2010/0009)

The Department of Planning (Department) has the following comments in regard to the letter dated July 2, 2010 requesting comments on the Environmental Assessment/Environmental Impact Statement Preparation Notice (EISPN). This letter supersedes the Department's previous letter dated June 7, 2010, regarding this EISPN.

The Department understands the proposed action includes the following:

- A State District Boundary Amendment (DBA) from Agriculture to Urban and Rural for approximately 320 acres of land;
- The amendment would provide for the development of the Olowalu Town project on approximately 636 acres to be phased over a period of 30 years; and
- The Olowalu Town project would involve approximately 1,500 residential units, commercial and civic uses, parks and recreation sites, a cultural preserve, agricultural uses, a private domestic water system, a private wastewater system, and the relocation of Honoapi'ilani Highway.

Based on the foregoing, the Department provides the following comments on the EISPN:

1. If the Maui Island Plan is adopted prior to the submittal of the Final Environmental Impact Statement (EIS), then include in the Final EIS an analysis of how the proposed project complies with the Maui Island Plan;
2. All maps need to be to drawn to scale, especially the Master Plan, Figure 4 as it forms the basis for the DBA;
3. On Figure 4 - Master Plan, provide a complete legend to include excluded lands and agricultural lands. Also, the Rural designation in the legend should be colored blue to coincide with the color on the master plan. Identify in the legend what the colors black and beige designate. The master plan should indicate the boundary of the cultural reserve;
4. On page 13 – Project Need:
   a. Update the figures for projected housing needs, based on the most recent Census updates.

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MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

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b. Include a reference to the Department's Long Range Division that estimates the need for housing in West Maui to be only 3,456 additional units by the year 2030, beyond those lands already entitled;

c. If the Maui Island Plan is adopted prior to the submission of the Final EIS and the project area is not included in the Urban Growth Boundaries please explain why the housing units are needed outside the approved Urban Growth Boundaries; and

d. Provide an analysis as to why another 1,500 housing units are needed in addition to the Department's recommended 3,651 units.

5. Many maps should have the term "Existing" added to their specific title to clarify existing from proposed. For example, Figure 5 could be misinterpreted to be identifying proposed State land use designations.

6. On page 15, West Maui Community Plan Amendment: It appears that some of the land has a Single-Family (SF) designation in the Community Plan. This should be confirmed and this paragraph revised accordingly.

7. On page 15 – Change in Zoning:

   a. It appears some of the land has a Hotel District zoning. This should be confirmed and this paragraph revised accordingly; and

   b. Clarify whether the "SmartCode" zoning will be a standard template crafted by Andres Duany or will be customized for Maui.

8. Obtain a Zoning Confirmation Form for all parcels within the entire Olowalu Town project. Then include a table indicating all existing and proposed State land use designations, community plan designations and zoning districts.

9. On Figure 6, Community Plan map: Revise the map to use colored lines to distinguish the designations easier.

10. On page 17 – Special Management Area Use Permit: Because a portion of the project is within the SMA, parcels located within the SMA including those in which a portion is within the SMA will be subject to the SMA regulations. The text needs to be revised to indicate this.

11. Figure 7 – Special Management Area Boundary Map: This map is inconsistent with the County Kiva SMA map. Update the map to be consistent with the County Kiva map or provide the basis for the boundaries of Figure 7.

12. On page 19, provide a population for the historic Olowalu plantation town and how the proposed Olowalu Town compares to the historic plantation town in terms of residents, stores, community facilities, etc.

13. On page 29, provide a justification for converting prime agricultural land into non-agricultural uses.

14. On page 30, Flood and Tsunami Hazards:

   a. Provide a map indicating the tsunami inundation zone;

   b. Provide information and maps indicating where the tsunami and floodplain zones will be in one hundred years based on anticipated sea level rise;

   c. Explain how development within the existing and anticipated tsunami and flood hazard areas will be mitigated;

   d. Explain why density should be created in tsunami and flood hazard areas; and

e. Add a section addressing wildland fire hazards existing conditions and impacts and mitigation including fire breaks, landscaping, building design and an evacuation plan; and explain why density should be created in an area that has been prone to wildfires.

15. Figure 12 – Flood Insurance Rate Map: Revise the map so it is more legible, such as using greater detail and darker colors to designate the flood hazard areas.
16. On page 38 - Archaeological Investigations: Include a map of archeological sites that are within and adjacent to the project site.
17. On page 42 - Scenic and Open Space Resources: Provide photos of existing views of the area, and computer generated photos of the area with the proposed development.
18. On page 42 – Shoreline Access:
    a. Indicate whether the three (3) proposed parks will be open to the public; and
    b. Include a map indicating how public access will be provided to the shoreline, including parking and pedestrian paths.
19. On page 45 – Economy: Include a market study that indicates the type of employment that would occur within the project for its residents; and the extent that residents will have to commute away from the Olowalu Town for employment and other needs.
20. On page 46 – Housing:
    a. Provide data on the range, type, sizes, income level, and demographic group regarding the affordable housing;
    b. Explain how affordable housing can be provided when the proposal will incur the costs of providing infrastructure including the relocated highway, wastewater treatment plants, medical, educational, police and fire facilities;
    c. Describe how it will be assured that the housing units will be purchased and used by residents, as opposed to visitors and/or second home-owners; and
    d. Indicate how the affordable housing units will initially be affordable and then remain affordable.
21. On pages 47-58, facilities and infrastructure are discussed. Include information that clearly indicates what land and/or facilities/infrastructure will be provided and/or maintained by the Olowalu Town developers or will have to be acquired and/or provided and/or maintained by the County or State; a schedule of when the facilities/infrastructure will need to be established; and what short-term and long-term fiscal impacts to the County or State would result.
22. On page 47 – Solid Waste: Indicate the distance the transfer station is from the proposed project.
23. On page 48 - Medical Facilities: Indicate the conditions under which medical facilities "may be implemented as part of the Master Plan".
24. On page 48 – Police and Fire Protection: Indicate under what conditions additional facilities will be generated by the Olowalu Town.
25. On page 49 – Educational Facilities: Include an analysis of the anticipated demographics of the proposal and whether the demographics will generate the need for any new facilities within the project.
26. On page 50 – Recreational Facilities: Include a site plan indicating the location of all recreational facilities, including parks, greenways, parking, and bicycle and pedestrian paths. Indicate whether the public will have access to such facilities.
27. On page 53 - Roadways:

a. Include in the Traffic Impact Analysis Report (TIAR) an analysis of the Olowalu Town's impacts on the Honoapi'ilani Highway traffic flow between Ma'alaea and Lahaina due to:
   i. Construction to re-align the highway; and
   ii. The increase in traffic generated from each phase of the build-out of the Olowalu Town.

b. Explain how the commuting generated by adding 1,500 new residential units - incorporating the market analysis regarding the extent that residents will have to commute away from the Olowalu Town for employment and other needs - will impact tourists and workers using the highway to reach Ma'alaea or Lahaina;

c. Provide an analysis of the economic effects that would result from such impacts to businesses that are dependent upon such tourists and workers; and

d. Provide more details on the innovative design standards to be used in conjunction with the relocated highway.

28. On page 54 – Water:
   a. Provide the reference for the statement that the Olowalu aquifer has an estimated sustainable yield of 2.0 mgd; and
   b. Provide an engineering report with calculations regarding demand generated by the proposal and a plan for the development of any additional water sources.

29. On page 56 – Wastewater Systems:
   a. Provide an engineering report regarding the anticipated capacity of the treatment system, what methodology it will use, and whether injections wells will be used. Include a map of the entire system.

30. On page 56 – Drainage:
   a. Provide a report on the quality of the nearby marine resources, especially the coral reefs. Provide an engineering report on the proposed drainage system, the best management practices for its construction, and the anticipated impacts to the marine resources from the drainage system.

31. On pages 59-63 – State Land Use District Criteria:
   a. Compare the amount of trading and employment that the proposal will generate on-site, with the amount of trading and employment that residents of the proposal will need to find off-site;
   b. Clarify which basic services the proposal will definitely provide, which may be provided, and which will definitely not be provided;
   c. Explain how the project's proposal to increase densities to urban and rural levels in tsunami and floodplain zones, is consistent with State DBA criteria;
   d. Provide an explanation as to how the project complies with State DBA criteria that says land contiguous with an existing urban designation shall be given more consideration than non-contiguous land;
   e. Explain why the proposed State DBA should not wait until the adoption of urban growth boundaries per the Maui Island Plan;
   f. Explain how the project complies with criteria that say a State DBA to urban may include lands which do not conform to urban criteria, "when surrounded by or adjacent to existing urban development;"

g. Explain how the project complies with criteria that say a State DBA will not include land, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services; and

h. Explain how the proposed Rural designated lands comply with State DBA criteria that say such lands may include land not surrounded by or contiguous to Rural lands if they are not suited for farm or agricultural uses.

32. On page 80, explain how the proposal complies with the following objectives/policies of the Countywide Policy Plan:

a. "Reduce the affordable housing deficit for residents."

b. "Ensure that basic infrastructure needs can be met during a disaster."

c. "Require new developments to contribute their pro rata share of local and regional infrastructure costs."

d. "Ensure that infrastructure is built concurrent with or prior to development."

e. "Capitalize on existing infrastructure capacity as a priority over infrastructure expansion."

f. "Perpetuate the authentic character and historic integrity of rural communities and small towns."

g. "Direct urban and rural growth to designated areas."

h. "Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources."

i. "Discourage new entitlements for residential, resort, or commercial development along the shoreline."

j. "Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise."

k. "Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources."

l. "Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity."

m. "Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas."

n. "Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner."

33. On page 84 – Maui Island Plan: Explain why the proposed DBA should be reviewed prior to the final adoption of the urban and rural growth boundaries in the draft Maui Island Plan that is currently under review by the County Council.

Thank you for the opportunity to comment. If you require further clarification, please contact Senior Planner Jeffrey Hunt by email at jeff.hunt@mauicounty.gov or by phone at 270-7821.

Sincerely,

for KATHLEEN ROSS AOKI
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Jeffrey S. Hunt, AICP, Senior Planner
Milton Arakawa, Director, Department of Public Works
Orlando "Dan" Davidson, Executive Director, State Land Use Commission
EAC File
General File

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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

William Spence, Director
Planning Department
250 S. High Street
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Spence:

Thank you for your Department's letters of June 7, 2010 and August 6, 2010, providing comments on the proposed Olowalu Town Master Plan. It is understood that the comments provided in the letter dated August 6, 2010 supersede the comments provided in the Department's previous letter dated June 7, 2010. On behalf of the applicants, Olowalu Town LLC and Olowalu Ekolu, LLC, the following information is offered in response to comments provided on August 6, 2010. (The numbered responses below correspond to the comments as presented in your letter.)

1. The Maui Island Plan (MIP) process has been underway for a number of years and the draft MIP document is currently being reviewed by the Maui County Council. Should the MIP be adopted prior to the submittal of the Final Environmental Impact Statement (EIS), the Final EIS will address the project's compliance with the MIP goals, objectives, and policies.

2. The master plan map and state land use district maps will be scaled and refined to address the Department's comments. To the extent possible, other figures in the Draft EIS will also be scaled. However, some figures that are provided for informational purposes may not be scaled.

3. The Master Plan figure in the Draft EIS will be revised to address the Department's comments.

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4. The Draft EIS will provide an updated discussion of projected housing needs, relative to the figures provided by the most recent census. Please note that the project is expected to be completed over the course of 10 years within the 2030 horizon for the Department's projections. A market study will be prepared for the project addressing housing needs. A copy of the market study will be included and discussed in the Draft EIS.

   As noted in our response to Comment No. 1, should the MIP be adopted prior to submission of the Final EIS, the Final EIS will discuss the project's provision of housing in relation to the MIP's Urban and Rural Growth Boundaries and recommendations for housing.

5. Where applicable, figures provided in the Draft EIS will be revised to distinguish existing conditions from proposed conditions.

6. The portions of land designated SF, Single Family by the West Maui Community Plan are owned by others and are not part of the Master Plan area. Because the proposed Community Plan Amendment does not seek to re-designate these areas, they were not included in the discussion on Page 15.

7. Prior to submitting the Draft EIS, confirmation of the land use designations will be obtained from the Department and the zoning section of the Draft EIS revised accordingly. The Project will utilize Andres Duany's "SmartCode", however, it will be calibrated to be consistent with the character of Maui's small towns.

8. Zoning confirmation forms will be obtained for each of the parcels in the Olowalu Town Master Plan. The existing land use designations for each parcel will be identified in a table in the Draft EIS. The Master Plan crosses parcel boundaries, as such we are unable to include a similar table for the proposed land use designations by specific parcels. However, a table will be included in the draft EIS identifying the proposed land use designations.

9. The Community Plan land use map provided in the Draft EIS is the available map in the West Maui Community Plan but it will be revised to be clearer to the reader.

10. We would like to further discuss the Department's determination that when a portion of the parcel is located within the Special Management Area (SMA), the entire parcel will be subject to the SMA Rules of the Maui Planning Commission (MPC). In this regard, the applicant looks forward to working with the Department to comply with applicable requirements of the SMA rules.

11. The SMA boundary map provided in the Draft EIS was prepared from the State of Hawaii Geographic Information System data files which are based on the County Special Management Area maps.

12. The Draft EIS will include a discussion of the population of the proposed Olowalu Town project as it relates to the historic Olowalu plantation town.

13. The Draft EIS will incorporate an agricultural assessment including a discussion of the project's proposed use of "Prime" agricultural lands for non-agricultural uses.

14. The tsunami inundation zone is indicated by Flood Zone VE on the Flood Insurance Rate Map which will be included in the Draft EIS. It is noted that the proposed Master Plan does not propose any development within the portion of the Master Plan area that is within Zone VE. Apart from this, construction within flood hazard areas will be in compliance with Section 19.62.060, Maui County Code (MCC), relating to standards for development within flood hazard areas. A discussion on natural hazards (including flooding, sea level rise and wildfires), and where applicable, proposed mitigation will be included in the Draft EIS.

15. The FIRM figure in the Draft EIS will be revised to be clearer to the reader.

16. The Draft EIS will include an Archaeological Literature Review which will include a more thorough discussion of the results of archaeological inventory surveys conducted within the Master Plan area. A map depicting locations of archaeological sites within the Master Plan area will accompany this discussion.

17. Photos of existing views from Honoapiilani Highway and the future bypass in the Master Plan area and photos with the proposed development from the proposed bypass highway will be incorporated into the Draft EIS.

18. The preservation and enhancement of public access to shoreline resources is an integral element of the proposed Olowalu Town Master Plan. The Draft

EIS will include a discussion of public access to beach reserves and shoreline resources.

19. An economic and fiscal impact study for the proposed Olowalu Master Plan is currently being prepared. The economic and fiscal impact study will examine the type of employment that will be generated by the project to reduce the number of commuters to jobs outside of Olowalu.

20. The Draft EIS will provide further detail on the range of housing types, sizes and income groups in relation to the provisions of Chapter 2.96 MCC relating to the Residential Workforce Housing Ordinance. An economic and fiscal impact analysis will be included in the Draft EIS to address the anticipated costs to construct the Olowalu Town Master Plan and the cost to State and County governments for public services.

    The applicants will coordinate the sales of the required affordable housing units with the Department of Housing and Human Concerns (DHHC) to ensure the units are in compliance with Chapter 2.96 MCC and are sold or rented at affordable rates and remain affordable. The intent of the applicant is to provide affordable housing to residents of Maui.

21. Depending on the progress of ongoing discussions with the agencies we will provide any available information on which infrastructure and facilities will be dedicated to the County and which will be privately maintained. Preliminarily, it is anticipated that infrastructure design and construction will occur over 10 years, beginning in 2015. Fiscal impacts resulting from the installation of the project's facilities and infrastructural components will be addressed in the Draft EIS through the preparation of a Fiscal/Economic Impact Assessment Report.

22. The Olowalu transfer station is located immediately north of the Master Plan area. This information will be incorporated into the Draft EIS.

23. The proposed Master Plan will provide lands for fire department and emergency medical facilities which can provide medical and first responder services to the region. These services currently do not exist in the region and would serve as an improvement over existing conditions. Also, the town centers have ample business and commercial designated lands where medical clinics, doctor offices, and urgent care services can be established to help meet the needs of the community and greater West Maui region.

Ongoing coordination with medical service providers will be carried out as the project proceeds through the entitlement process.

24. The proposed Master Plan includes an area for a future facility for emergency response teams. In relation to this, the EA/EISPN was provided to the Maui Police Department (MPD) and the Department of Fire and Public Safety (DFPS) for review and comment. Any input provided by the MPD and DFPS will be discussed in the Draft EIS.

25. Consultation with the Department of Education (DOE) has been ongoing to determine educational impacts resulting from the proposed Master Plan. This coordination will continue throughout the land use entitlements process. From the onset of the planning and design of Olowalu Town, the applicants have acknowledged and recognized the importance of including lands within the Master Plan for educational facilities and learning centers. Preliminary discussions regarding possible type, size, and style of education facilities have been ongoing since early on in the process. These discussions have occurred at the Olowalu Talk Story sessions, during community presentations, as well as at meetings with the DOE and other elected officials. The applicants will continue to work with the DOE, the community and the elected officials to address school impact requirements for the project.

26. A conceptual site plan illustrating the parks and open space will be included in the Draft EIS. As with the beach reserves and shoreline resources, public access to recreational facilities is an integral planning component of Olowalu Town. Consultation with the Department of Parks and Recreation has been ongoing to determine appropriate park assessment requirements for the proposed project and will continue throughout the land use entitlements process.

27. The Preliminary Traffic Impact Analysis Report (TIAR) will address traffic impacts associated with the project on the existing Honoapiilani Highway and future construction of the Honoapiilani Highway realignment. Also examined by the TIAR will be the anticipated trips to be generated by the proposed 1,500 residential units. The TIAR, its results, and recommendations will be discussed in the Draft EIS. Additionally, innovative design standards for the relocated highway will be discussed.

It is anticipated that the employment centers proposed within the Olowalu Town Master Plan will reduce the number of commuters to other employment centers outside of the Master Plan area. It is also envisioned that existing

commuters to the West Maui region will purchase homes in Olowalu to reduce their commute distance and time. The Master Plan has been designed to include the existing Olowalu General Store into the town center so new customers residing in the housing units, as well as recreational users of the parks and open space areas, will shop at the existing businesses further reducing the need to commute outside of Olowalu.

28. A hydrology study for the Master Plan is currently being prepared. The results of this study, which will address available water resources, will be discussed in the Draft EIS. In addition, a Preliminary Engineering Report (PER) will be included in the Draft EIS to evaluate the Master Plan's projected water demands and water source development. The results of the PER will be incorporated into the Draft EIS. A reference for the sustainable yield of Olowalu aquifer will be provided in the Draft EIS.

29. A Wastewater Management Plan will be prepared to examine and define the Master Plan's wastewater system infrastructure requirements. The Master Plan envisions a wastewater treatment system which will be utilized to treat effluent to R-1 quality. The R-1 water will be utilized for irrigation in order to eliminate the need for injection wells. The report and related conceptual wastewater system plans will be included and discussed in the Draft EIS.

30. In recognition of the nearshore marine resources of the Olowalu area, a Marine Water Chemistry and Biotic Community Study will be included in the Draft EIS to document existing resources and evaluate the potential drainage-related impacts of the project. The results of this report will be included in the Draft EIS. In the interest of minimizing impacts on the area's hydrology, Best Management Practices (BMPs) for stormwater management will be implemented, both during construction and in designing the project's drainage system. Retention and detention systems will be designed to accommodate the incremental increase in runoff attributed to the development of the proposed master plan. Notably, these drainage systems will be designed to meet and exceed County drainage standards. The above-mentioned PER being prepared will include a drainage assessment section. The results of the PER will be discussed in the Draft EIS. In addition, a stormwater management plan is being prepared and will be included in the Draft EIS.

31. An evaluation of the project's compliance with the State Land Use District Criteria for the reclassification of land from the Agricultural to the Urban and Rural Districts will be provided in the Draft EIS.

The State District Boundary Amendment (DBA) is being processed concurrent with review of the Draft MIP, a comprehensive plan update process that has been ongoing for a number of years. Should the draft MIP be adopted in law prior to completion of the Chapter 343, HRS process for this project, an analysis of the project's compliance with the goals, objectives, policies, and actions of the new MIP will be provided in the Final EIS.

32. The project's compliance with the objectives and policies of the Countywide Policy Plan will be discussed in the Draft EIS, to include the objectives and policies cited in the Department's letter.

33. The applicants have actively participated in the MIP review process, through the General Plan Advisory Committee (GPAC) and MPC review periods, and now during the County Council's review of this important comprehensive planning document. The relationship between the State Land Use Commission's review of the DBA petition and the County Council's review of the MIP will be addressed in the Draft EIS. The State Land Use Commission's review of the DBA will occur following completion of the Chapter 343, HRS EIS process, the latter of which is expected to occur concurrently with the Maui County Council's review of the draft MIP.

Thank you again for the Department's participation in the EIS preparation process. A copy of the Department's letters will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to your office for review and comment. If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn

cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering Inc.
Tom Nance, Tom Nance Water Resource Engineering
Steven Dollar, PhD, Marine Research Consultants, Inc.
George Rixey, Architect, Artel Inc.
Roger Dyar, Consulting Transportation Engineer
Craig Lekuen, Brown and Caldwell

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CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

JUL 23 2010

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

July 20, 2010

Ms. Colleen Suyama, Project Manager
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Ms. Suyama:

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR THE PROPOSED OLOWALU TOWN PROJECT; TMK: (2) 4-8-003:084, 98 THRU 118, 124

We reviewed the subject application and have the following comments:

1. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui county Code and rules and regulations.

2. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

3. As applicable, worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls
xc: Highways Division
Engineering Division
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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

David Goode, Director
County of Maui
Department of Public Works
200 South High Street, Room 434
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Goode:

Thank you for your department's letter of July 20, 2010 providing comments on the proposed Olowalu Town Master Plan. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC (applicant), we offer the following information in response to your remarks:

1. The proposed project will be carried out in compliance with all applicable rules and regulations set forth by the Hawaii Revised Statutes (HRS) and the Maui County Code (MCC).

2. You have the applicant's assurances that project construction plans will be designed in conformance with applicable specifications and standards for road, bridge, and public works construction.

3. You have the applicant's assurances that, as applicable, worksite traffic control plans/devices will be in conformance with the 2003 Manual on Uniform Traffic Control Devices for Streets and Highways.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter will be included in the Draft Environmental Impact Statement (EIS). Further, copies of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:lh
cc: Orlando "Dan" Davidson, State Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering, Inc.
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CHARMAINE TAVARES
MAYOR

JUL 15 2010

DON A. MEDEIROS
Director
WAYNE A. BOTEILHO
Deputy Director
Telephone (808) 270-7511
Facsimile (808) 270-7505

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

July 12, 2010

Ms. Colleen Suyama
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: EIS for Proposed Olowalu Town Project

Dear Ms. Suyama,

Thank you for the opportunity to comment on this project. We would like you to incorporate a bus stop and shelter into this development. The location will be determined after more detail is provided about the development.

Please feel free to contact me if you have any questions.

Sincerely,

Don Medeiros
Director

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

JoAnne Johnson-Winer, Director
Department of Transportation
County of Maui
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Johnson-Winer:

Thank you for your department's letter of July 12, 2010 providing comments on the proposed Olowalu Town Master Plan. In response, we note that the Olowalu Town Master Plan is envisioned to be a sustainable community encouraging pedestrian, bicycle, and multi-modal transportation systems. As development of the Olowalu Town Master Plan progresses, we will work with the County of Maui Department of Transportation to identify an appropriate location for a bus stop and shelter within the project.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter will be included in the Draft EIS. Further, a copy of the Draft Environmental Impact Statement (EIS) will be forwarded to your office for review and comment.

305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

excellence in process management

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
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AUG 18 2010

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

August 5, 2010

Ms. Colleen Suyama
Munekiyo & Hiraga
305 High St., Ste 104
Wailuku, HI 96793

Re: TMK: (2) 4-8-003:084, 098-118 & 124
Project Name: Proposed Olowalu Town Master Plan
Environmental Impact Statement Prep Notice (EISPN)

Dear Ms. Suyama:

Thank you for the opportunity to comment on the Environmental Impact Statement Prep Notice. The proposed development involves the construction of approximately 1,500 residential dwellings as well as appropriate infrastructure in phases spread over a period of approximately 30 years.

Source Availability, System Infrastructure and Consumption
The EISPN states that the project site will be served by the Olowalu Water Company, LLC, a private water utility company regulated by the Public Utilities Commission. Irrigation water will be provided by small, privately owned and operated treatment plants which will yield R-1 quality water. In addition, the document states that anticipated potable demand would be about 750,000 gallons per day (gpd). Absent detailed information, anticipated demand would be between approximately 900,000 and a little more than 2 million gpd, according to system standards. Please note that as of 2008, the sustainable yield set by the Commission on Water Resource Management for the Olowalu aquifer is 2 million gallons per day (mgd).

DWS does not review or set requirements on private water systems for domestic and fire protection purposes. However, fire protection should be a requirement in this fire prone area. We recommend that the water systems be built in accordance with the Statewide Water System Standards including appropriate backflow preventers, and that the DEIS reflect this.

We also note that the Planning Department included Olowalu within a planned protected area of the draft Maui Island Plan.

Conservation
To alleviate demand on the Olowalu system, please find attached a conservation checklist for the home and yard, condominiums and our planting brochure. We recommend that the following

"By Water All Things Find Life"

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice or TDD)

Printed on recycled paper

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conservation measures be included in the project design and noted in the draft EIS:

- Use Non-potable Water: Use brackish water for landscaping, dust control and other non-potable purposes where feasible.
- Use Climate-adapted Plants: Consider using climate-adapted native plants for all landscaping. The project is located in the "Maui County Planting Plan" - Plant Zone 3. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species.
- Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators. Such models should be avoided.
- Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Regular maintenance programs should be established.
- Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, water closets, and hose bibs.
- Prevent Over-Watering By Automated Systems: Provide rain shut offs and smart controllers on all automated irrigation systems. Any controllers which do not provide for soil moisture or evapotranspiration based response should be checked and reset at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.
- Limit Irrigated Turf: Limit irrigated turf to 25% or less of total landscaped area. Low-water use shrubs and ground covers can be equally attractive and require substantially less water that turf.
- Look for Opportunities to Conserve Water: A few examples of these are as follows: When clearing driveways, etc. of debris, use a broom instead of a hose. When washing cars, use a hand-operated spray nozzle instead of an open hose. Additionally, check for leaks in faucets and toilet tanks.

Pollution Prevention

We note that a portion of the master plan is only a few feet away from the shoreline. Cumulative impacts of increasing density this close to the shoreline should be considered. To address concerns regarding impacts to near shore waters as well as groundwater protection, the mitigation measures listed below should be implemented during construction:

- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the ground.
- Staging and storage of construction machinery and storage of debris should not take place on any sandy beach areas.
- Properly install and maintain erosion control barriers such as silt fencing or straw bales.
- Disturb the smallest area possible.
- Keep run-off on site.
- No construction or toxic materials or debris should be placed where it may enter the ocean

or discharged into coastal waters. Debris shall be disposed of outside the coastal zone.

- Construction debris and sediment should be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters.

We have attached Best Management Practices (BMPs) for stabilizing shoreline to prevent erosion as well as EPA's Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters for reference.

Should you have any questions, please contact our Water Resources and Planning Division at 808-244-8550.

Sincerely,

Jeffrey K. Eng, Director

mlb
cc: applicant, Executive Director Land Use Commission, engineering division

Attachments: Plant Brochure: "Saving Water in the Yard"; Checklist of Water Conservation Ideas for Home and Yard and Condominiums", BMPs for stabilizing shoreline

Best Management Practices
Shoreland
Stabilizing your Shoreline to Prevent Erosion

Erosion is a natural process and, therefore , some sediment does end up in surface water. Clearing shoreland vegetation and beach rocks, and increasing runoff to the shore will accelerate shoreline erosion.

Increased runoff is especially detrimental to high bluffs (Figure 1). Slumping of waterfront bluffs results from unstable soil, usually because surface and groundwater is reaching the bluff. On lakes, waves can erode supporting soil at the bottom of the bluff and cause slumping. Along river bluffs, river currents may erode the supporting soil.

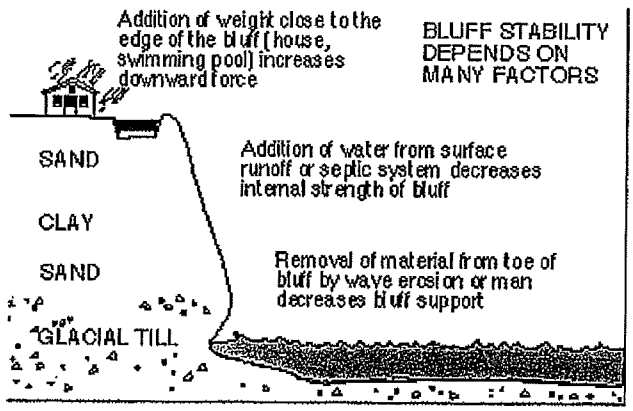

Figure 1 - Factors that can make bluffs unstable

Erosion of higher shoreline bluff areas can be prevented by:

- retaining moisture absorbing vegetation on the bluff
- outletting rain gutters and diverting surface runoff away from the bluff
- reducing runoff rate toward the bluff
- minimizing paved areas that increase runoff
- limiting groundwater flow toward the bluff
- installing septic systems and drainfields away from the bluff
- avoiding additional weight on the bluff edge, such as pools, buildings, or storage sheds

On property with steep slopes or bluffs, reducing the amount of water reaching the bluff will help with the stabilization. If diverting water away from the bluff is impractical, it should be routed through a non-perforated plastic drain pipe that outlets at the very bottom of the bluff. Rock should be placed around outlet to prevent erosion at the bottom of the drain. Surface water and some ground water can be intercepted before it reaches the bluff by installing a "French drain" (Figure 2).

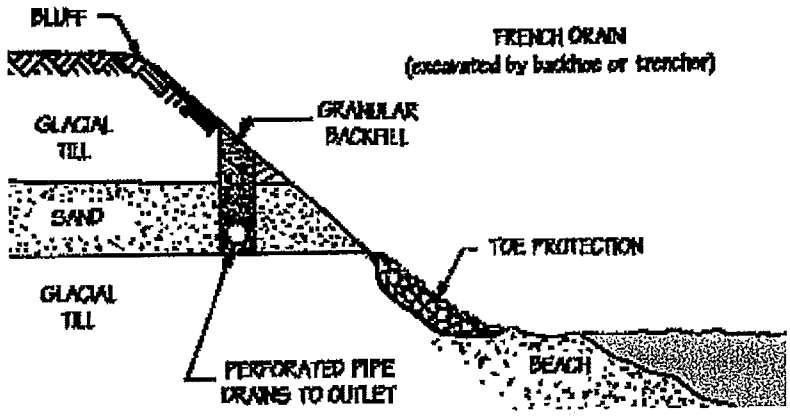

Figure 2 - French drains intercept surface water and increase soil stability. Deeper drains will intercept more ground water, but shallower drains are effective also and may cause less disturbance on the bluff. The maximum depth for French drains is 15 to 20 feet.

A French drain is a narrow trench set back from, but parallel to the top of the bluff and filled with free-draining sand or gravel. A perforated, corrugated plastic pipe at the bottom collects water and should drain away from the bluff. The entire perforated length of pipe must be wrapped with fabric or a filter sock. Installing deeper drains will intercept more ground water and provide better protection for the bluff.

No additional weight such as building, garage slab, or vehicle should be placed near the top of the bluff. Septic systems and swimming pools are especially inappropriate near the top of a bluff because they add weight and water.

For most property that slopes toward water , leaving the natural shoreland undisturbed is often the best and least inexpensive protection against erosion. A filter strip of thriving vegetation on and near the shore binds the soil and minimizes soil loss from surface runoff and waves, and from use by people (Figure 3). Existing vegetation can be enhanced by planting woody or aquatic plants.

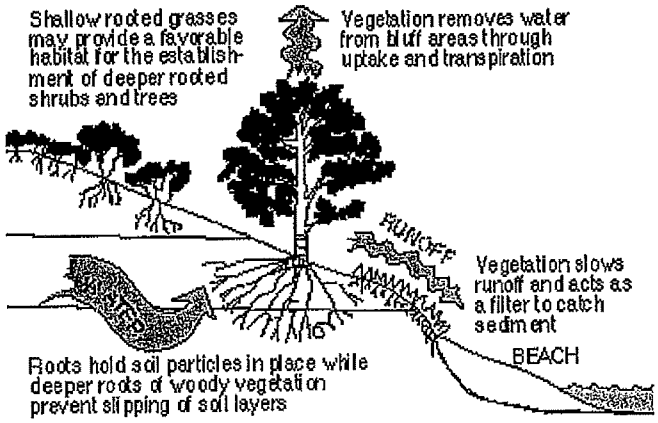

Figure 3 - Well-established vegetation on the shore stabilizes the soil and helps remove water

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Regardless of the natural protection on your shore, the right combination of conditions (such as high ocean level and wind direction) can result in a severe wave pounding, and shoreland soil may need additional protection.

Placement of large rock, usually refers to as rip-rap, is the preferred and most common form of shore protection (Figure 4).

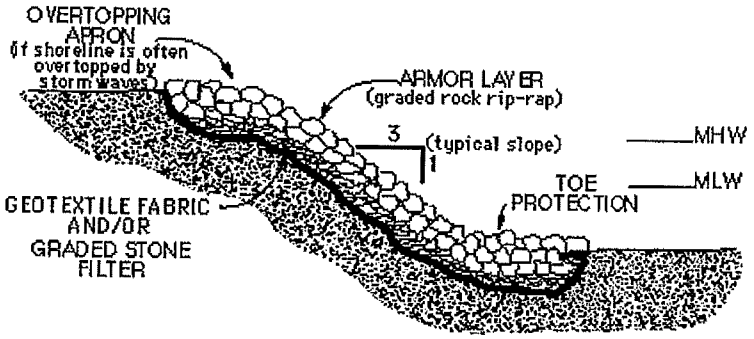


Figure 4 - Proper rip-rap placement (MHW = mean high water, MLW = mean low water)

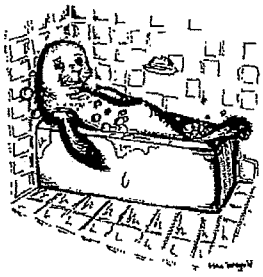
If rip-rap is used, crushed or blasted rock locks together better than rounded boulders, but can be very expensive unless it is already available.

Geotextile fabric is usually place beneath the rock rip-rap to prevent soil loss through rip-rap openings. It is easy to place and provides an excellent filter barrier (Figure 4). In order to prevent punctures, plenty of slack should be provided over protruding objects that cannot be removed. A layer of sand or fina gravel can be placed on the fabric for extra protection against puncture. Enough fabric should be laid out so that the rip-rap periphery can be "wrapped" by bringing the fabric up and back down into the rip-rap. This will help hold the rip-rap together as one structural unit. Keep in mind that sunlight will degrade exposed fabric. As an alternative to the fabric, a graded filter layer can be used beneath rip-rap to prevent soil loss through the rip-rap openings. Sufficient rock must be placed at the base of the rip-rap for toe protection.

Source: University of Minnesota Extension - WW-06946

A Checklist of Conservation Ideas for the Home

Shaving & Brushing Teeth: Stopper the sink and fill the basin half way when you shave, and you use just ½ a gallon! Turn off the water while brushing your teeth. Replace your faucet aerator and save over 500 gallons per year, they are free from the Department of Water Supply (244-8550).



Bathing & Showering: Make a habit of showering quickly or using a partially filled tub. Or try the "navy shower." Turn on the water to get wet, turn it off to soap up, and turn it back on to rinse off. It's a great conservation technique, especially in drought emergencies. Use a bucket to catch the water as it warms up, then water your plants with the water.

House Plants & Fish Tanks: If you have a fish tank, you probably clean it regularly. Use the dirty water to water your house plants. It saves using the same water twice, and the plants love the water, which is rich in nitrogen and phosphorous!

Food Prep: If you like to rinse off vegetables and fruits, stopper the sink or use a tub instead of using running water. And when you're finished, turn on the garbage disposal as you pull the plug or water your plants with the water.

Doing Dishes: It is more water efficient to wash full loads. If you do wash dishes by hand, stopper the sink and run the disposal as you pull the plug.

Washing Machines: A water-efficient washing machine can save up to 20 gallons per load. With the average household washing 6 loads per week, that's a lot of water! Statistics on energy savings potential indicate that highly efficient washing machines save from 35% to 65% on energy used for washing!

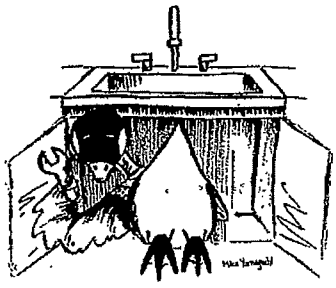
For a Cold Glass of Water: Keep a pitcher of cool water in the refrigerator. Running the water until it turns cool can waste a gallon for each glass. Letting the water sit in the fridge can also allow any chlorine to dissipate, and improve the taste.

Toilets: Some people toss and flush away tissues, cigarettes or bits of trash in the toilet. Use a wastebasket instead. If everyone in the U.S. flushed just once less per day, we could save a sea full of water a mile wide, a mile long, and four feet deep, every day! Installing a water conserving or dual flush toilet can save more than 17 gallons per person per day. Even a low cost installing a toilet flapper can save more than 5 gallons per person per day.

Showerheads: Replacing your old showerhead with a low flow one can save as much as 7.2 gallons per person per day. You can also receive these free from the Department of Water Supply.

Faucets: Replacing your old faucets with more efficient models can save 4 gallons per person per day. Faucet aerators or spray taps can also help, by mixing air with water. This cuts the flow and reduces splashing, while leaving enough pressure to cut the soap and grease.

Check For Leaks: Leaking faucets cost you money! Even a slow drip wastes 15 gallons per day. A 1/8" stream can waste 400 gallons per day. Unfortunately, the average non-conserving home looses more than 10% of the water it pays for to leaks! Check for leaks regularly. Try putting 10 drops of food coloring in your toilet tank. Don't flush, just wait 15 minutes. If colored water shows up in the bowl, your tank is leaking. Check your water meter while no water is running in your house. If the meter is registering, you have a leak . Check your faucets twice a year. If any drip after you've turned them off firmly, turn off the supply line, take the faucet apart, and replace the washer. And don't forget the faucets outside of the house.



Pipes Break - Be Prepared: If a pipe breaks in your home, you could experience flooding and property damage as well as huge water waste unless you quickly shut your valve. Locate your valve and mark it for quick, easy identification. Learn how to shut it properly, and teach your family to do so as well.

"By Water All Things Find Life"

A Checklist of Conservation Ideas for the Yard

Xeriscaping: This is a landscaping technique which utilizes native drought tolerant plants. Most of these plants only require water to become established. They are adapted to thrive on available nutrients. A handbook on this technique will be available soon from the Department of Water Supply (244-8550).

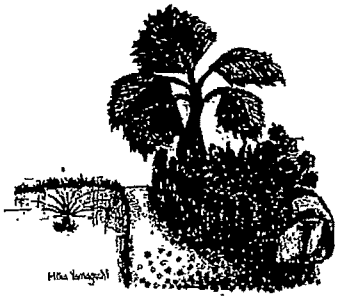
Limit Lawn Size: Most turf grasses require 30-50% more water than shrubs and ground covers. Limit the use of grass and lawns to active picnicking and play areas. Shade in these areas will reduce moisture loss and make a cool area for children to play. If you mow the grass too short, root shock will cause your grass to turn yellow despite your watering!

Soils & Mulch: Soils are not all alike. Sandy soils require more frequent watering than clay soils. You can have your soils tested. Call the Ag Extension Service at MCC for advice (244-3242). Compost or other organic material will also help soils hold moisture and support heartier, more drought-tolerant plants. Try leaves, grass clippings, manure, aged sawdust, wood chips, or humic acid. Mulching is an excellent way to hold moisture, keep the ground from overheating, and discourage weeds. You should also loosen the soil by rototilling or spading while you add the organic matter.

Designing for Irrigation Zones: Zone your plants so that each area has similar water needs. This will enable you to water more efficiently, and keep the plants healthier. Limit thirsty plants to small decorative borders around the house itself or in specific viewing areas or shady areas.

Irrigation Systems: Drip irrigation is designed to get water slowly and directly to the roots of plants. Use sprinklers with low, flat spray patterns and larger drops of water. Check timers on irrigation controllers and adjust them monthly to water appropriately for the season. If you use a hose, set a kitchen timer or buy a timer attachment that hooks on between the faucet and hose. This will help remind you not to over-water one area. Use a soaker hose on slopes to reduce run-off.

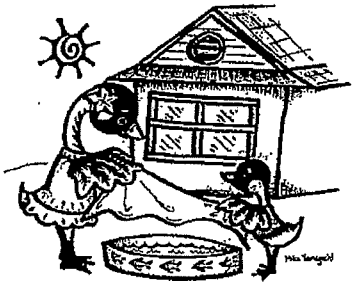
Choosing Native Plants -- A Hawaiian Sense of Place: Plant shrubs and trees that nature designed to look green and full here on Maui without a lot of water. once they are grown in, you can cut back or stop watering, depending upon your location.



Watering: If you do have a lawn, water only when it needs it. A good deep soaking is better than a light sprinkling. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, it could use a bit. The best time of day to water is early in the morning before the sun and wind.

Watching the Weather: never water while it's raining! Install rain-shutoffs or soil moisture sensors on automated systems. Teach your family to turn off your irrigation in the rain. Sunny, exposed areas and slopes need to be watered more frequently than shady areas. Place your plants appropriately.

Cover Pools and Jacuzzis: They're fun, but they can waste a lot of water! An average sized pool loses about 1,000 gallons of water per month to evaporation. A pool cover can cut these losses by 90%!



Washing the Car: Do you wash your car at home? Use a bucket, or a hose with a trigger nozzle to avoid wasting water. Wet the car thoroughly, and then turn off the hose while you wash the car! Swab the car with soapy water from a bucket. You can use the hose again for a final rinse. Better still, take your car to a car wash. Most of the car washes on Maui are fitted with recirculating water.

A Clean Sweep: Did you know that 5 minutes of unnecessary hosing will waste 25 gallons of water? Try sweeping sidewalks and driveways.

Find and Repair Leaks: Your garden hose and irrigation lines can carry thousands of gallons per day, so you can imagine a leak outdoors wastes a lot of water! Check and repair all of your outdoor fixtures regularly.

"By Water All Things Find Life"

A Checklist of Water Conservation Ideas for Condominiums

COOLING

Cooling Towers

Cooling Towers are used to reject heat from air conditioning systems. In a cooling tower, a circulating stream of warm water contacts an air flow, causing evaporation of a portion of the water. When this water evaporates, the water which remains behind is cooled. The cooled water then circulates through a cooling system, warms and then returns to the tower.

- ☞ Understand Your System: Prepare an inventory of each cooling tower you have, its cooling capacity, and the equipment or processes that it serves
- ☞ If you purchase chemicals for the treatment of the recirculating cooling tower water, have the chemical vendor explain the purpose and action of each chemical.
- ☞ Have your chemical vendor provide a written report of each service call, and be sure that the vendor explains the meaning of each analysis performed as well as the test results.
- ☞ Tell your chemical vendor that water conservation is a priority, and ask about alternatives that may reduce the amount of water bled-off from the towers.
- ☞ Have vendors bid for your facility's water cooling tower water treatment. Require a predetermined minimum level of water efficiency. Have them provide figures showing projected annual water and chemical consumption and costs.
- ☞ Consider incorporating sulfuric acid to reduce carbonate scale and achieve significantly higher cycles of concentration. If you use sulfuric acid, be sure to observe appropriate safety precautions.
- ☞ Ozone is another alternative that can help remove dissolved minerals and act as a biocide. Again, observe the appropriate safety precautions.
- ☞ If available, use reclaimed water as a source of cooling tower make-up water.
- ☞ Blow-down water is the release of some of the circulating water to remove suspended and dissolved solids left behind as pure water evaporates from the system. Re-use blow down where possible for non-potable uses.

Evaporative Coolers

Evaporative coolers lower air temperature by increasing the humidity of incoming air being drawn into a building. The air's ambient or "dry bulb" temperature is lowered when the air absorbs water vapor. After a short period of operation, the recirculating air in the cooler reaches wet bulb temperature, which is theoretically the lowest temperature to which the entering air may be cooled. Some evaporative coolers have recirculation pumps.

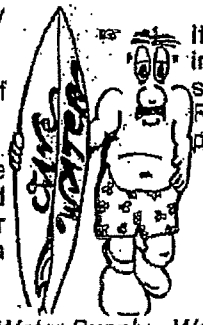
All evaporative coolers require either a small amount of bleed-off or regular cleaning to maintain and prevent damage to the coolers pads. The principle opportunity for conservation in evaporative cooling is to reduce the amount of water bled-off, and to reuse that water wherever possible.

- ☞ Be sure your coolers have pumps to recirculate the water. This decreases water consumption and increases cooling efficiency.
- ☞ Check to make sure you are not bleeding off an excessive amount of water. For a typical small cooler, anything more htan a few gallons per hour may be excessive.
- ☞ Pipe the bleed-off water from your coolers to help water a landscaped area!

Eliminate Once Through Cooling!

Some coolers pass water through the equipment only once, and then discard it. "Single pass" technology is not good for two reasons. First, these single pass coolers use too much water! Secondly, they do not cool as effectively, because the water does not cool to wet bulb temperature. This type of cooling is illegal under Maui County Codes! Make sure your air conditioners, ice makers and other cooling systems are not single pass models!

- ☞ Replace single-pass cooling models with air-cooled or recirculating models
- ☞ Connect to a recirculating cooling water loop. Or retrofit models to be recirculating.
- ☞ If a piece of equipment can not be replaced immediately, remember, it is illegal to dump single pass cooling water into the sewer system. Re-use this water for landscaping or other non-potable uses.



For More Information Contact the Maui County Board of Water Supply - Water Resources & Planning Division @ 243-7199

A Checklist of Water Conservation Ideas for Condominiums

PLUMBING MEASURES FOR EACH UNIT

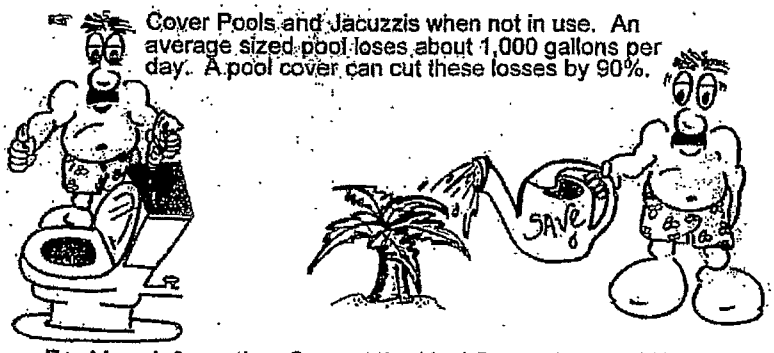
- Replace toilets with Ultra Low Flush Models, or retrofit with low flow flappers. Contact the Maui County Board of Water Supply at 243-7199 or the Wastewater Division at 243-7417 for more information.
- Retrofit faucets with aerators, or consider alternative faucet types such as self closing or, automatic sensor controlled faucets.
- Replace showerheads with low flow models. Contact the Maui County Board of Water Supply at 243-7199, or the Public Works Wastewater Division at 243-7417 to find out how you can get these!
- Check for leaks! Check for leaks! Check for leaks! Do dye tablet or food coloring tests in toilets to check for hidden leaks. Check for dripping faucets indoors and out!

COMMON LAUNDRY AREAS

- Efficient washing machines can save up to 20 gallons per load. These also save on energy. If you are replacing laundry facilities don't even consider anything but the new horizontal axis models. These not ony save up to 40% of water used, but deliver even more substantial energy savings - up to 65%!
- Water boilers also require blow-down, or bleed-off, just like air conditioners. Monitor total dissolved solids, and blow down only when necessary!
- Avoid excessive filter or softener back flush. Back flush only when needed.

NON-LANDSCAPED AREAS OUTDOORS

- Never hose your sidewalks and driveways. This is a complete waste of water, and a hose can use 25 gallons in just 5 minutes. Remember: A broom is best.
- Check for leaks! Note the number of outdoor faucets on the outsides of buildings. Make a list and check every one regularly.
- Cover Pools and Jacuzzis when not in use. An average sized pool loses about 1,000 gallons per day. A pool cover can cut these losses by 90%.



EDUCATION

- Knowledge is power. Educate people about how they can help to save water at your building or facility. You may be surprised at how willing people are to chip in, once they know what to do!

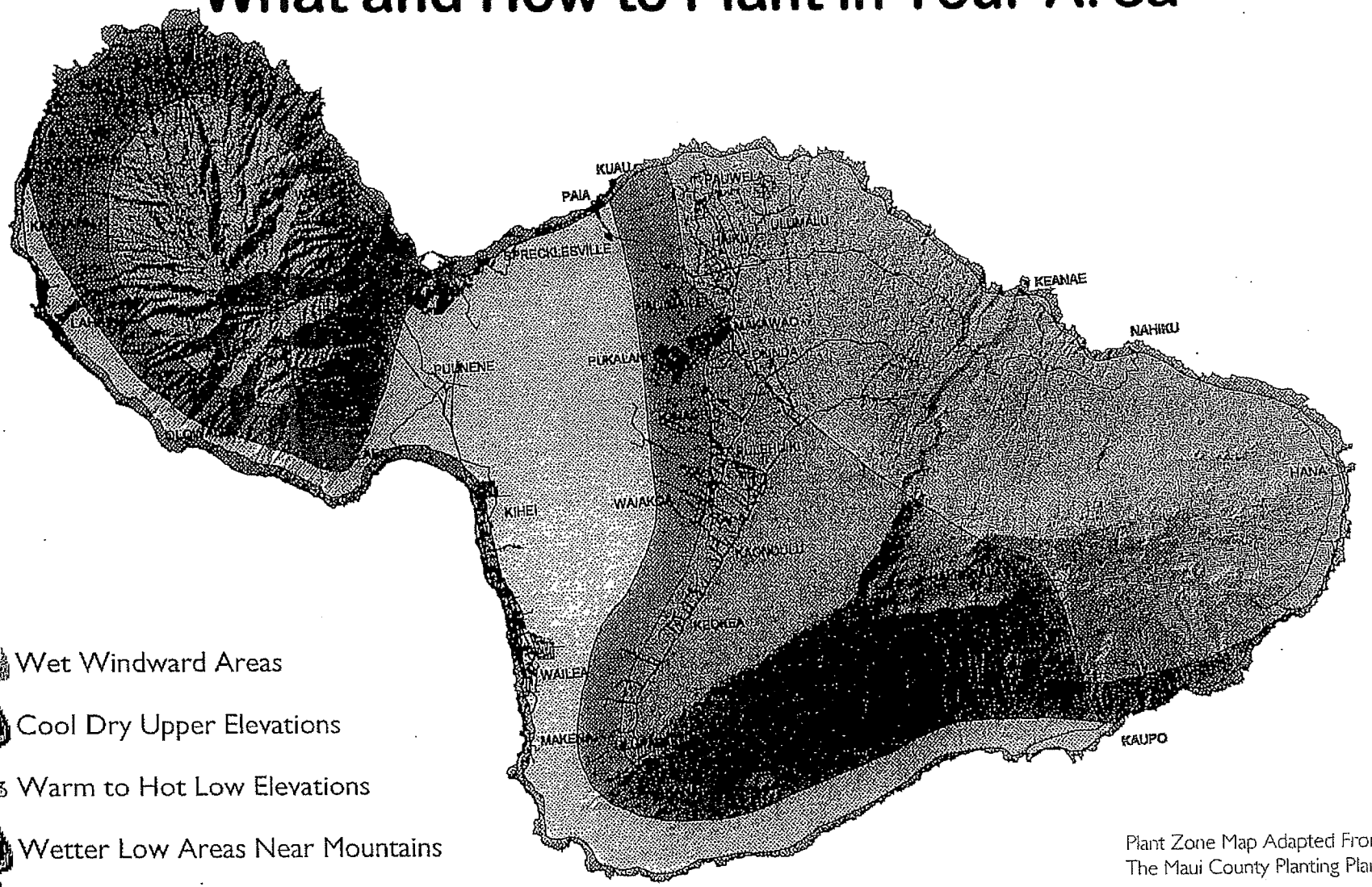
LANDSCAPES

- Understand your system: Develop a schematic of all water entry points. Know where your faucets, time clocks, solenoids, booster pumps, sprinklers, bubblers, valves, pipes and etc. are located.
- Make a checklist of system elements and check each one regularly for leaks! Finding and repairing leaks can lead to big savings, especially in irrigation systems!
- Use turf only where actually necessary. Avoid turf except in picnic or active play areas.
- Choose the right plants. Native plants appropriate for your region are best. These save water, because they are adapted to survive on the natural rainfall of the area. Besides saving water, they also help to avoid the spread of invasive alien plant species which can destroy native ecosystems. And they contribute to the true Hawaiian sense of place.
- Avoid over-watering! Use soil moisture over-rides and rain-shutoffs on all automated systems. Reset controllers at least once per month to account for changing evapotranspiration.
- Zone your plants. This means that plants with similar water needs should be grouped together. This avoids wasting water, overwatering some plants and under-watering others.
- Never water during the heat of the day. The best time to water is just around sunrise. Everings are also acceptable. Once the sun comes up, the evapotranspiration rate soars, and much of your water is wasted.
- Having your soil tested also helps you to learn what type of watering is needed. Clay soils take from ¼ to ½" of water per hour before water starts running off and being wasted. Sandy soils require somewhat more frequent, shorter watering.
- Mulch, compost or other organic material will help soils hold moisture, keep the ground from overheating and discourage weeds. Loosening the soil while you add the organic matter will also help keep your lawn healthier
- Root feeder or water aerator probes around trees and bushes will help to direct water where it is needed. You can also build a watering basin in the soil around the base of your plants to help the water soak in deeply.

For More Information, Contact the Maui County Board of Water Supply - Water Resources & Planning Division @ 243-7199

Saving Water in The Yard

What and How to Plant in Your Area



1 Wet Windward Areas

2 Cool Dry Upper Elevations

3 Warm to Hot Low Elevations

4 Wetter Low Areas Near Mountains

4 Windward Coastal Salt Spray Zones

Plant Zone Map Adapted From
The Maui County Planting Plan

Tips From The Maui County Department of Water Supply

By Water All Things Find Life

Zone-specific Native and Polynesian plants for Maui County

Zone 1

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia arecina	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	Pritchardia forbesiana	lo'ulu	15'			
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Cordyline fruticosa	ti, ki	6			
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Charpentiera obovata		15'			
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcellatus	'akiohala, hau-hele	8'			
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 2

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia mauiensis var. diffusa	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Charpentiera obovata		15'			
Tr	Erythrina sandwicensis	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 2

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Sophora chrysophylla	mamane	15'	15'	1,000' to 3,000'	Medium
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	Eragrostis variabilis	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u'aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Boerhavia repens	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Cressa truxillensis	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Heliotropium anomalum var. argenteum	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr	Sesuvium portulacastrum	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
Gr - Sh	Lycium sandwicense	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P.	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Bidens mauiensis	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	Bidens menziesii ssp. menziesii	ko'oko'olau	1'	3'		
Sh	Bidens micrantha ssp. micrantha	ko'oko'olau	1'	3'		
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Gossypium tomentosum	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Canthium odoratum	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Diospyros sandwicensis	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	Erythrina sandwicensis	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Nesoluma polynesicum	keahi	15'	15'	sea to 3,00'	Dry
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Reynoldsia sandwicensis	'ohe makai	20'	20'	1,000' to 3,000'	Dry
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	Eragrostis variabilis	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia arecina	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	Pritchardia forbesiana	lo'ulu	15'			
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia australis	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req
Sh	Artemisia mauiensis var. diffusa	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Bidens menziesii ssp. menziesii	ko'oko'olau	1'	3'		
Sh	Bidens micrantha ssp. micrantha	ko'oko'olau	1'	3'		
Sh	Cordyline fruticosa	ti, ki	6			
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Canthium odoratum	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	Charpentiera obovata		15'			
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Diospyros sandwicensis	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	Hibiscus furcellatus	'akiohala, hau-hele	8'			
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pandanus tectorius	hala, puhala (HALEIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Santalum ellipticum	coastal sandalwood, 'iliahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Sophora chrysophylla	mamane	15'	15'	1,000' to 3,000'	Medium
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 5

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis variabilis	emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Boerhavia repens	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Cressa truxillensis	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Heliotropium anomalum var. argenteum	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'aka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Sesuvium portulacastrum	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lycium sandwicense	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia australis	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Bidens mauiensis	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Gossypium tomentosum	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 5

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcellatus	'aklohala, hau hele	8'			
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet
V	Ipomoea pes-caprae	beach morning glory, pohuehue	1			

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	Acacia mearnsii	Mimosaceae
blackberry	Rubus argutus	Rosaceae
blue gum	Eucalyptus globulus	Myrtaceae
bocconia	Bocconia frutescens	Papaveraceae
broad-leaved cordia	Cordia glabra	Boraginaceae
broomsedge, yellow bluestem	Andropogon virginicus	Poaceae
buffelgrass	Cenchrus ciliaris	Poaceae
butterfly bush, smoke bush	Buddleja madagascariensis	Buddlejaceae
cats claw, Mysore thorn, wait-a-bit	Caesalpinia decapetala	Caesalpiniaceae
common ironwood	Casuarina equisetifolia	Casuarinaceae
common velvet grass, Yorkshire fog	Holcus lanatus	Poaceae
fiddlewood	Citharexylum spinosum	Verbenaceae
fire tree, faya tree	Myrica faya	Myricaceae
glorybower	Clerodendrum laponicum	Verbenaceae
hairy cat's ear, gosmore	Hypochoeris radicata	Asteraceae
haole koa	Leucaena leucocephala	Fabaceae
ivy gourd, scarlet-fruited gourd	Coccinia grandis	Cucurbitaceae
juniper berry	Citharexylum caudatum	Verbenaceae
kahili flower	Grevillea banksii	Proteaceae
klu, popinac	Acacia farnesiana	Mimosaceae
logwood, bloodwood tree	Haematoxylon campechianum	Caesalpiniaceae
loquat	Eriobotrya japonica	Rosaceae
meadow ricegrass	Ehrharta stipoides	Poaceae
melaleuca	Melaleuca quinquenervia	Myrtaceae
miconia, velvet leaf	Miconia calvescens	Melastomataceae
narrow-leaved carpetgrass	Axonopus fissifolius	Poaceae
oleaster	Elaeagnus umbellata	Elaeagnaceae
oriental mangrove	Bruguiera gymnorrhiza	Rhizophoraceae
padang cassia	Cinnamomum burmanii	Lauraceae
palmgrass	Setaria palmifolia	Poaceae
pearl flower	Heterocentron subtriplinervium	Melastomataceae
quinine tree	Cinchona pubesens	Rubiaceae
satin leaf, caimitillo	Chrysophyllum oliviforme	Sapotaceae
silkwood, Queensland maple	Flindersia brayleyana	Rutaceae
silky oak, silver oak	Grevillea robusta	Proteaceae
strawberry guava	Psidium cattleianum	Myrtaceae
swamp oak, saltmarsh, longleaf ironwood	Casuarina glauca	Casuarinaceae
sweet vernalgrass	Anthoxanthum odoratum	Poaceae
tree of heaven	Ailanthus altissima	Simaroubaceae
trumpet tree, guarumo	Cecropia obtusifolia	Cecropiaceae
white ginger	Hedychium coronarium	Zingiberaceae
white moho	Heliocarpus popayanensis	Tiliaceae
yellow ginger	Hedychium flavescens	Zingiberaceae

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
	Jasminum fluminense	Oleaceae
	Arthrostema ciliatum	Melastomataceae
	Dissotis rotundifolia	Melastomataceae
	Erigeron karvinskianus	Asteraceae
	Eucalyptus robusta	Myrtaceae
	Hedychium gardnerianum	Zingiberaceae
	Juncus planifolius	Juncaceae
	Lophostemon confertus	Myrtaceae
	Medinilla cumingii	Melastomataceae
	Medinilla magnifica	Melastomataceae
	Medinilla venosa	Melastomataceae
	Melastoma candidum	Melastomataceae
	Melinis minutiflora	Poaceae
	Olea europaea	
	Oxyspora paniculata	Melastomataceae
	Panicum maximum	Poaceae
	Paspalum urvillei	Poaceae
	Passiflora edulis	Passifloraceae
	Phormium tenax	Agavaceae
	Pinus taeda	Pinaceae
	Prosopis pallida	Fabaceae
	Pterolepis glomerata	Melastomataceae
	Rhodomyrtus tomentosa	Myrtaceae
	Schefflera actinophylla	Araliaceae
	Syzygium jambos	Myrtaceae
Australian blackwood	Acacia melanoxylon	Mimosaceae
Australian tree fern	Cyathea cooperi	Cyatheaceae
Australian tree fern	Sphaeropteris cooperi	Cyatheaceae
Beggar's tick, Spanish needle	Bidens pilosa	Asteraceae
California grass	Brachiaria mutica	Poaceae
Chinese banyon, Maylayan banyon	Ficus mirocarpa	Moraceae
Chinese violet	Asystasia gangetica	Acanthaceae
Christmasberry, Brazilian pepper	Schinus terebinthifolius	Anacardiaceae
Formosan koa	Acacia confusa	Mimosaceae
German ivy	Senecio mikanioides	Asteraceae
Japanese honeysuckle	Lonicera japonica	Caprifoliaceae
Koster's curse	Clidemia hirta	Melastomataceae
Lantana	Lantana camara	Verbenaceae
Mauritius hemp	Furcraea foetida	Agavaceae
Mexican ash, tropical ash	Fraxinus uhdei	Oleaceae
Mexican tulip poppy	Hunnemannia fumariifolia	Papaveraceae
Mules foot, Madagascar tree fern	Angiopteris evecta	Marattiaceae
New Zealand laurel, karakaranut	Corynocarpus laevigatus	Corynocarpaceae
New Zealand tea	Leptospermum scoparium	Myrtaceae
Pampas grass	Cortaderia jubata	Poaceae
Panama rubber tree, Mexican rubber tree	Castilloa elastica	Moraceae
Shoebutton ardisia	Ardisia elliptica	Myrsinaceae
banana poka	Passiflora mollissima	Passifloraceae

Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.[1] When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porus soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.[2] Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, it's canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.[3] Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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[1] K. Nagata, P.6

[2] K. Nagata, P.9

[3] Nagata, P.9

Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which preform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.[4] A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.[5]

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.[6] Well-drained soil is one of the most important things when planting natives as you will see in the next section.

Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

WATER REQUIREMENT	WATERING FREQUENCY
Heavy	3x / week
Moderate	2x / week
Light	1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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[4] Nagata, p. 6.

[5] Nagata, p. 8

[6] Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.[7]

Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.[8]

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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[7] Bornhorst, p. 19-20

[8] Nagata, p. 6

Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thourough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants.* The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trimm off some of the leaves to compensate for the loss.[9]

Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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[9] Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.

The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.[10] Macadamia nut hulls are also easy to find and can make a nice mulch.[11]

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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[10] Bornhorst, p. 24

[11] Nagata, p. 7

ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

Zone 1:

Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

Zone 2:

Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

Zone 3:

Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

Zone 4:

Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

Zone 5:

Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

PLACES TO SEE NATIVES ON MAUI:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

1. Hoolawa Farms — 575-5099
   P O Box 731
   Haiku HI 96708

2. The Hawaiian Collection — 878-1701
   1127 Manu Street
   Kula HI 96790

3. Kula Botanical Gardens — 878-1715
   RR4, Box 228
   Kula HI 96790

4. Maui Botanical Gardens — 249-2798
   Kanaloa Avenue, Kahului
   across from stadium

5. Kula Forest Reserve
   access road at the end of Waipoli Rd
   Call the Maui District Office — 984-8100

6. Wailea Point, Private Condominium residence — 875-9557
   4000 Wailea Alanui, Kihei
   public access points at Four Seasons Resort or
   Polo Beach

7. Kahanu Gardens, National Tropical Botanical Garden — 248-8912
   Alau Place, Hana HI 96713

8. Kahului Library Courtyard — 873-3097
   20 School Street
   Kahului HI 96732

PLACES TO BUY NATIVE PLANTS ON MAUI

1. Ho'olawa Farms
   Anna Palomino
   P O Box 731
   Haiku HI 96708
   575-5099

   * The largest and best collection of natives in the state. They will deliver, but worth the drive to go and see! Will propagate upon request

2. Kahanu Gardens
   National Tropical Botanical Garden
   Alau Place, Hana
   248-8912

3. Kihana Nursery
   1708 South Kihei Road
   Kihei HI 96753
   879-1165

4. Kihei Garden and Landscape
   Waiko Road, Wailuku
   P O Box 1058
   Puunene HI 96784
   244-3804

5. Kula Ace Hardware and Nursery
   3600 Lower Kula Road
   Kula HI 96790
   876-0734
   * many natives in stock
   * get most of their plants from Ho'olawa Farms
   * they take special requests

6. Kulamanu Farms - Ann Carter
   Kula HI 96790
   878-1801

7. Maui Nui Botanical Gardens
   Kanaloa Avenue
   (Across from stadium)
   Kahului HI 96732
   249-2798

8. Native Gardenscapes
   Robin McMillan
   1330 Lower Kimo Drive
   Kula HI 96790
   870-1421

   * grows native plants and installs landscapes including irrigation.

9. Native Hawaiian Tree Source
   1630 Piiholo Road
   Makawao HI 96768
   572-6180

10. Native Nursery, LLC
    Jonathan Keyser
    250-3341

11. New Moon Enterprises - Pat Bily
    47 Kahoea Place
    Kula HI 96790
    878-2441

12. Waiakoa Tree Farm - Kua Rogoff
    Pukalani HI 96768
    Cell - 264-4166

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

David Taylor, Director
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Taylor:

Thank you for your department's letter of August 5, 2010 providing comments on the proposed Olowalu Town Master Plan. We acknowledge that as of 2008, the sustainable yield for the Olowalu aquifer established by the State Commission on Water Resource Management (CWRM) is two (2) million gallons per day (MGD). It should be noted that the water consultant in consultation with the U.S. Geological Survey has indicated that the sustainable yield of the Olowalu Aquifer System may be 7.0 MGD which is higher than what is presented in the Water Resources Protection Plan of 2008 based on another established calculation methodology. Nevertheless, the projected future groundwater use of existing users and the Olowalu Town project would fall below the 2.0 MGD sustainable yield of the Olowalu aquifer. More detailed information for the project will be included in the Preliminary Engineering Report for the project which will address infrastructure requirements, as well as anticipated demand for water. Your recommendation that the water system be built in accordance with the Statewide Water System Standards, as well as, the recommended conservation and pollution prevention measures listed in your letter have been forwarded to the applicants and their engineering consultant for consideration.

Thank you again for your participation in the Chapter 343, HRS review process. A copy of your department's letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

305 High Street, Suite 104 • Wailuku, Hawaii 96793 • ph: (808)244-2015 • fax: (808)244-8729 • planning@mhplanning.com • www.mhplanning.com

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering
Tom Nance, Tom Nance Water Resource Engineering
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AUG 0 2 2010

CHARMAINE TAVARES
MAYOR

200 South High Street
Wailuku, Hawaii 96793-2155
Telephone (808) 270-7855
Fax (808) 270-7870
e-mail: mayors.office@mauicounty.gov

OFFICE OF THE MAYOR
County of Maui

July 28, 2010

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR PROPOSED OLOWALU TOWN PROJECT TMK (2) 4-8-003:84, 98 THROUGH 118, AND 124, OLOWALU, MAUI, HAWAII

Dear Ms. Suyama:

Thank you for the opportunity to comment on the Environmental Impact Statement Preparation notice for the proposed Olowalu Town project located in Olowalu, Maui, Hawaii. It is important that all projects constructed in Maui County comply with all State of Hawaii and County of Maui zoning ordinances, the General Plan, the Maui Island Plan and community plans. At this time my office has no other comments on this project.

Sincerely,

CHARMAINE TAVARES
Mayor, County of Maui

CT:RS/ec
c: Orlando Davidson, Executive Director, Land Use Commission

Olowalu Talk Story
A Community-Based Planning Process

December 28, 2011

Mayor Alan Arakawa
County of Maui
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Honorable Mayor Arakawa:

We are in receipt of a previous letter from former Mayor Charmaine Tavares dated July 28, 2010 providing comments on the proposed Olowalu Town Master Plan. See **Exhibit "A"**. Olowalu Town, LLC and Olowalu Ekolu, LLC (Applicant), continue to monitor and, as necessary, participate in the formulation of the Maui Island Plan (MIP).

We note that both the General Plan Advisory Committee and the Maui Planning Commission have voted to recommend inclusion of portions of the Olowalu Town Master Plan on the directed growth maps of the MIP.

With this in mind, we look forward to working with your office and administration in collaborative fashion to ensure that the benefits attributed to the Olowalu Town Master Plan will accrue to all of Maui's residents. As the Environmental Impact Statement (EIS) process continues, we also look forward to personally meeting with you to discuss key elements of this project.

A copy of former Mayor Tavares' letter will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to your office for your review and comment.

Olowalu Town LLC
2035 Main Street
Suite 1
Wailuku, HI 96793

Tel: 808 249.2930
Fax: 808 249.2333
talkstory@olowalu.net
www.olowalu.net

Photo: Olowalu Sugar Mill and Oceanside Camp, Hawaii State Archives.

Olowalu Talk Story

If additional information or clarification is required, please do not hesitate to contact me at 249-2224.

Very truly yours,

William Frampton
Olowalu Town, LLC

WF:tn
Attachment
cc: Dan Davidson, Land Use Commission (w/attachment)
Peter Martin, Olowalu Ekolu, LLC (w/attachment)
Colleen Suyama, Munekiyo & Hiraga, Inc. (w/attachment)
K:\DATA\OlowaluTown\MasterPl\Draft EIS\Mayorresponse.ltr.doc

132

CHARMAINE TAVARES
MAYOR

AUG 0 2 2010

200 South High Street
Wailuku, Hawaii 96793-2155
Telephone (808) 270-7855
Fax (808) 270-7870
e-mail: mayors.office@mauicounty.gov

OFFICE OF THE MAYOR
County of Maui

July 28, 2010

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR PROPOSED OLOWALU TOWN PROJECT TMK (2) 4-8-003:84, 98 THROUGH 118, AND 124, OLOWALU, MAUI, HAWAII

Dear Ms. Suyama:

Thank you for the opportunity to comment on the Environmental Impact Statement Preparation notice for the proposed Olowalu Town project located in Olowalu, Maui, Hawaii. It is important that all projects constructed in Maui County comply with all State of Hawaii and County of Maui zoning ordinances, the General Plan, the Maui Island Plan and community plans. At this time my office has no other comments on this project.

Sincerely,

CHARMAINE TAVARES
Mayor, County of Maui

CT:RS/ec
c: Orlando Davidson, Executive Director, Land Use Commission

EXHIBIT A

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

MAY 20 2010

May 18, 2010

Mr. Dan Davidson
State Land Use Commission
Post Office Box 2359
Honolulu, Hawaii, 96804

Subject: Environmental Assessment/Environmental Impact Statement Preparation Notice for Proposed Olowalu Town Master Plan
Tax Map Key: (2) 4-8-003:084, 98 through 118, and 124
Honoapi'ilani Highway
Olowalu, Maui, Hawaii

Dear Mr. Davidson,

Thank you for allowing us to comment on the Environmental Assessment/Environmental Impact Statement Preparation Notice for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) will be requiring access and electrical easements for our facilities to serve the subject project site. Also, we highly encourage the customer's consultant to submit survey and civil plans to us as soon as practical to address and coordinate any possible relocations of our facilities. Since this project's anticipated electrical demand may have a substantial impact to our system, we encourage the customer's electrical consultant to submit the electrical demand requirements and project time schedule as soon as practical so that service can be provided on a timely basis. MECO may need to complete system upgrades along with securing a new substation site to accommodate the anticipated electrical load.

We also suggest that the customer or their consultant contact our Renewable Energy Department at 871-8461, for the installation of the photovoltaic and hydro-power systems.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,

Kyle Tamori
Staff Engineer

c: Munekiyo & Hiraga, Inc. – Ms. Colleen Suyama

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Kyle Tamori, Engineer
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui Hawaii

Dear Mr. Tamori:

Thank you for your letter of May 18, 2010 providing comments on the Olowalu Town Master Plan. As development of the Olowalu Town Master Plan progresses, our engineering consultant will coordinate the electrical needs of the project with Maui Electric Company (MECO) to ensure timely service. As recommended, our engineering consultant will be contacting MECO's Renewable Energy Department regarding the project's proposed integration of renewable energy systems to provide electricity, including installation of photovoltaic and hydro-power systems.

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to your office for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Program Manager

CS:tn
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
Stacy Otomo, Otomo Engineering, Inc.
K:\DATA\OlowaluTown\MasterPl\EISPN\MECOresponse.ltr.doc

Margaret Schlachter
Owner of:
4435 L. Honoapiilani Dr. # 240
Lahaina, HI

July 19, 2010

Mr. Dan Davidson
POBox 2359
Honolulu, HI 96804

LAND USE COMMISSION
STATE OF HAWAII
2010 JUL 22 A 7:56

Re: Olowalu Development

Dear Mr. Davidson:
I am copying this quote from a recent real estate professionals' meeting:

> *One Realtor worried about a large oversupply of housing for sale: about 3,000 listings today at the Realtors Association's Multiple Listing Service, and probably another 1,500 in various forms of foreclosure and distress that are going to be piled on top of that.*

It seems to me with so many units empty, for sale, in foreclosure, and more becoming available in the foreseeable future, why do we need to add 1500 more units at this time? All these empty units are going to put tremendous pressure on sales prices and rental rates. So many people have left the island because of job losses. Where are these 1500 families going to come from to fill the new town? Why don't we wait until such time as the now available housing has been absorbed, vacancies are becoming more scarce, people have found jobs again and are looking for housing, before slapping up more new housing. The developers are the ones to profit, and that's about it. I have a feeling that with so many people on the mainland having lost savings and equity in their homes, the demand of the "boomers" for 2nd homes in Maui has dropped signficantly. That money is not going to come back anytime soon. There will be less need for housing on Maui because of this.

Maui has enough housing for a long time to come.

Respectfully yours,

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Ms. Margaret Schlachter
4435 Lower Honoapiilani Drive, #240
Lahaina, Hawaii 96761

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Schlachter:

Thank you for your letter dated July 19, 2010 providing comments on the subject project. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC, we offer the following information in response to your remarks.

While we recognize your comments in regards to current market conditions, the economy is anticipated to improve in the coming years. We note that population projections for Maui Island reflect growth in the island's population through 2030 and beyond. In light of these conditions, the build-out period of the proposed 1,500 housing units will span a timeline of approximately 10 years. The applicants view this implementation timeframe as reasonable in terms of establishing a balanced market approach to housing inventory delivery.

In this regard, a market study for the proposed Olowalu Town Master Plan is currently being prepared to evaluate housing absorption rates, together with the range of businesses and services that will be supported by the project's residential neighborhoods. The results of this market study will help to formulate the phasing of each neighborhood within the Master Plan, as well as identify the types and number of jobs that will be created over time as the community matures. It is highlighted that the Master Plan is intended to provide housing opportunities for the target market of Maui residents over both the near and long term. A copy of the market study will be included in the Draft EIS.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

excellence in process management

Thank you again for your participation in the Chapter 343, HRS, review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS). Further, a copy of the Draft EIS will be forwarded to you for review and comment.

Should you have any questions, please feel free to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:tn
cc: Orlando "Dan" Davidson, State Land Use Commission
Bill Frampton, Olowalu Town, LLC
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CORRESPONDENCES ON VARIOUS MATTERS FROM/TO RANDY D. RAGON

July 20, 2010

Orlando " Dan" Davidson
State of Hawaii Land Use Commission
P. O. Box 2359
Honolulu, Hi 96804

Re: Comments for EIS Preparation Notice
Olowalu Ekolu LLC application submitted on May 13, 2010.

Dear Dan,
I am writing on behalf of the Olowalu residents who submitted a Notice of Intent to Intervene in the Petition to Amend the State Land Use Boundaries filed by Olowalu Town LLC and Olowalu Ekolu LLC .
I am submitting a package of documents that clearly show the applicant has not complied with conditions of the SMA permits issued in 2000 and that the permit expired in 2005 and was never renewed by the developer. This blatant noncompliance by the developer has damaged our entire community as well as our coastal environment and historical sites. The health, safety and welfare of our residents and natural environment continue to be at risk.
The residents see little value in the EIS process if the applicant does not comply with the permit conditions and the government enforcement agencies do not properly enforce the permit conditions. Now, ten years later the applicant is back asking for approval to build 1500 more homes in our community.
We respectfully ask that the commission considers the performance history of the applicant who has blatantly disrespected the residents of our community, the significant historical past of Olowalu, our ocean environment and our governing authorities.
Please contact me if you have any questions or concerns after reviewing the documentation. I can be reached at 808-298-1461 or by email at rr077@hotmail.com or you can write me at 713-A Front St. Lahaina, Hi. 96761

Sincerely,

Randy D. Ragon

LAND USE COMMISSION
STATE OF HAWAII
2010 JUL 22 A 7 49

138 A

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

February 25, 2010

Certified Receipt No. (7008 1300 0000 5090 3943)
Olowalu Elua Associates L.L.C.
Mr. Peter Martin
33 Lono Ave, Suite 450
Kahului, Hawaii 96732

Dear Mr. Martin:

SUBJECT: FIRST (1ST) REQUEST FOR CORRECTION FOR A NON-CONFORMITY WITHIN THE SPECIAL MANAGEMENT AREA (SMA)

TMK: TOTAL OF 732 .98 ACRES OF WHICH 659.963 ACRES ARE MAUKA OF HONOAPIILAI HIGHWAY AND 73.017 ACRES LIE MAKAI OF THE HIGHWAY. THE SUBJECT PROPERTY IS COMPRISED OF 49 EXISTING TAX MAP PARCELS. ON THE LANDS MAUKA OF HONOAPIILANI HIGHWAY, THERE ARE 38 EXISTING TAX MAP PARCELS. ON THE MAKAI LANDS, THERE ARE 11 TMK PARCELS, LAND IN OLOWALU FOR SUBDIVISION DEVELOPMENT. THE PROPOSED ACTION WITHIN THE COUNTY SMA INNVOLVES THE CONSOLIDATION AND RESUBDIVISION OF FOUR (4) LOTS INTO SEVEN (7) LOTS.

MAUKA LANDS: TMK: 4-8-3:10, 50-70, 73-82; 4-8-4; 11-16

MAKAI LANDS: TMK: 4-8-3: 5, 41-49 AND 84

RFS No.: 10-0000452
Description: Failure to comply with all SMA conditions for SMA Use Permit for Olowalu Subdivision Olowalu, Maui, Hawaii (SM1 990021)

Based on the evidence collected on February 2, 2010, we find that the non-compliance with SMA Conditions listed under SMA1 9990021 is in violation with §12-202-23, SMA Rules for the Maui Planning Commission, as amended. Please comply with all of the SMA conditions by **March 27, 2010**. Evidence of the aforementioned non-conformity includes: full review of the SMA Use Permit conditions and supporting documents. Condition numbers 2, 4, 8, 11, 12, 14, 19, 32 and 33 out of the 32 conditions listed in SM1 990021 have not been completed. Attached is a copy of SM1 990021 permit dated September 19, 2000.

250 SOUTH HIGH STREET WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735, FACSIMILE (808) 270-7934
CURRENT DIVISION (808) 270-8205, LONG RANGE DIVISION (808) 270-7214, ZONING DIVISION (808) 270-7253

Please be advised that a follow-up investigation will be performed, and if not in compliance, you will be subject to civil and criminal enforcement action. Should you have any questions concerning this notice, you may contact me at Sonny.Huh@mauicounty.gov or (808)270-7810.

Sincerely,

for

Sonny Huh
Zoning Inspector

xc: Jay Arakawa, Supervising Zoning Inspector (via e-mail)
Sonny Huh, Zoning Inspector (via e-mail)
RFS No. 10-0000452 (KIVA related document; RFS Project File)
General File

AHS:FAC:JAA:SH:ckk

S:\ZONING\RFS\2010\0452_OLOWALU_MAUIKA_SMA\NOW\NOW1.DOC (rev. 11.09)

140

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

April 26, 2010

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
#7007 2560 0001 7799 7861

Olowalu Elua Associates, LLC
33 Lono Avenue, Suite 450
Kahului, Hawaii 96732

Attention: Mr. Peter Martin

Dear Mr. Martin:

SUBJECT: REQUEST FOR SERVICE NO. 10-0000452: FAILURE TO COMPLY WITH SPECIAL MANAGEMENT AREA (SMA) USE PERMIT FOR THE OLOWALU SUBDIVISION, LOCATED AT OLOWALU, MAUI, HAWAII; TMK(S): (2) 4-8-003:005, 10 (POR.), 41, 42, 43, 50 (POR.), 63 (POR.), AND 78 (POR.); AND (2) 4-8-004:011, 12, 13, 14, 15, AND 16 (SM1 99/0021)

This is in reply to your letter dated March 15, 2010, attached as Exhibit No. 1, a response letter to our Notice of Warning issued on February 25, 2010.

The following are responses to your replies to Conditions No. 2, 4, 8, 11, 12, 14, 19, 32, and 33, attached to SM1 99/0021. The original conditions of approval for SM1 99/0021 are attached as Exhibit No. 2:

Condition No. 2 - The project was to commence no later than September 30, 2002, which it did; however, Condition No. 2 states that the project "shall be completed within five years after the date of initiation." Failure to complete this project within the five-year period coupled with no recorded and/or approved time-extension requests may indicate that this SMA Use Permit 99/0021 has been automatically terminated;

Condition No. 4 - Final construction does not appear to have been completed and current construction does not appear to be in accordance with preliminary subdivision plans received on November 9, 1999. Dirt fire roads do not appear to have been completed according to the Uniform Fire Code with the road ending in a locked gate at the Honoapiilani Highway, the preservation plan is not fully implemented, few greenways have been installed, bikeways are not evident, and highway improvements for ingress and egress off the Honoapiilani Highway have not commenced. The interior road system as originally designed on the subdivision plan does not appear to match that which was constructed. The road identified as Luawai Street at the Olowalu Mauka Subdivision sign is not in agreement with the plans filed with the County and appears to have been constructed without revisions to the subdivision map;

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

Condition No. 8 - Full compliance with government regulations has not occurred as the project is out of compliance with both the SMA conditions and the Conservation District Use Permit (CDUP) conditions as noted in this letter;

Condition No. 11 - The property has not been developed in substantial compliance with the representations made to the Maui Planning Commission (Commission). At this time it appears this failure to develop the property in accordance with the SMA may lead to the revocation of this SMA Use Permit 99/0021;

Condition No. 12 - Infrastructure improvements including roads, traffic related improvements, greenways, and possibly drainage have not been completed prior to final subdivision approval and bonds are not on file with the County per the wording of Condition No. 12;

Condition No. 14 - The roadways do not appear to have been constructed in substantial compliance with the greenway plan. The greenways do not appear to have been completed per the application plan and neither have improvements been made for a channelized intersection and means of ingress and egress from the Honoapiilani Highway as noted in the subdivision plans;

Condition No. 19 - The preservation plan has not been implemented. There is no evidence of viewing platform construction for historical sites No. 4710 and No. 4718 as outlined in the Department of Land and Natural Resources (DLNR) letter of March 7, 2002. The growth of invasive species of trees and bushes is evident especially at the important site No. 04, Kawaialoa/Kaiwaloa heiau. Little to no maintenance appears to be occurring on numerous sites. There is no interpretative signage evident at the sites. The condition of the petroglyph viewing site in the Olowalu valley is in very poor condition. There is no interpretative signage, the red railings are unsafe and deteriorated, and the platforms for viewing are nonexistent;

Condition No. 32 - No roadway improvements for ingress and egress from the Honoapiilani Highway to the Mauka Subdivision have been initiated per the Environmental Assessment (EA) and the Subdivision plans. The originally approved highway improvements consisted of Driveways A, B, C, and D as noted in the Final EA and plans submitted to the Commission for review and approval. Driveways A, B, C, and D are depicted on the original subdivision plans that were included in the traffic study and EA submitted by the developer in connection with the issuance of the SMA. The developer is now proposing a relocation of Driveway D. This revised proposal was discussed with the Maui Department of Transportation (DOT) in 2003. However, no EA has been completed to date although a Draft EA is being processed by Munekiyo & Hiraga, Inc. as of late 2009. This relocation of Driveway D may be problematic in its connection with the internal road system for the development, the increase in traffic in this area, and the plan originally approved by the Commission. The relocation of Driveway D does not connect to an approved Olowalu Mauka subdivision access road approved in the original subdivision. Failure to complete a channelized intersection according to plan with left turn lanes, acceleration lanes, bike lanes, and paved shoulders is a violation of the SMA conditions. Although there was a caveat to hold off developing the highway improvements if a phasing plan for project development was agreed to, no phasing plan is evident and at this stage of the development there should have been roadway improvements as initial phases of

the project have been completed. There is no evidence of this "phasing plan" on file with the DOT. The inability of the Developer to move forward on this critical road improvement signals non-compliance with the SMA conditions. The efficacy of a relocation of Driveway D from that originally proposed is not evidenced in any updated traffic report analysis on file. The original Olowalu Mauka roadway system connects to the original location of Driveway D, not the relocated Driveway D as proposed; and

Condition No. 33 - The roadway light within the subdivision meeting a maximum wattage of 100 w hps does not appear to have been completed.

In conclusion, the Olowalu Subdivision is in noncompliance with SM1 99/0021 according to a project site visit held on January 22, 2010, for Conditions No. 2, 4, 8, 11, 12, 14, 19, 32, and 33, as approved by the Commission on September 19, 2000.

Thank you for responding to your Notice of Warning. Please be advised that a Notice of Violation will be issued if the responsible party does not show any effort to comply with our Notice of Warning. Should you require further clarification, please contact Staff Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

Kathleen R. Aoki for

JEFFREY S. HUNT, AICP
Planning Director

Attachments
xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Kurt F. Wollenhaupt, Staff Planner
Sonny Huh, Zoning Inspector, Zoning Administration and Enforcement Division
Project File
General File
JSH:KFW:vb
K:\WP_DOCS\PLANNING\SM1\1999\99sm121Olowalu\Review\Department Response to NOW Letter.DOC

LINDA LINGLE
GOVERNOR

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

BRENNON T. MORIOKA
DIRECTOR

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

IN REPLY REFER TO:

HWY-PS
2.4811

March 24, 2010

Mr. Randy Ragon
President
Olowalu Mauka Homeowners Association
713-A Front Street
Lahaina, Hawaii 96761

Dear Mr. Ragon:

Subject: Olowalu Mauka Subdivision Roadway Improvements
Request for Information
Maui, Lahaina, TMK: (2) 4-8-3:10, 50-70, 73-82 and 84; 4-8-4: 11-16

We apologize for the delay in responding to your request for information regarding the highway improvements for the Olowalu Mauka Subdivision and understand your concerns with the development.

The developer had been required to complete all necessary roadway improvements prior to occupancy under the conditions set forth by the Special Management Area Permit (SMA) approval letter dated September 19, 2000 from the Maui County Department of Planning which defines under condition No. 32 that the "Construction of the improvements shall be completed prior to occupancy of the agricultural lots unless a phasing plan for the improvements is reviewed and approved by the Department of Transportation." Per our records, no such approval of a phasing plan has been granted to the developer. Do keep in mind that the State Department of Transportation is not responsible for enforcing any conditions set forth by the County. The responsibility of the conditions imposed upon the developer and established within the SMA approval lies with Maui County.

We understand that you were provided access to the files in the Highways Division, Maui District Office and were given copies of various documents that you needed. It is our understanding from the attachments in your request that you already have the SMA approval, Environmental Assessment (EA), and Traffic Impact Analysis Report (TIAR) for the subject

subdivision. The files within our Highways Division branch offices include the aforementioned documents and several departmental correspondence letters from various years. We will be glad to offer you copies of the correspondence we have for a fee of $0.25 per page as described in Part 2, Chapter 4 Government Records, Processing Requests to Inspect or Copy, of the Department's Service Manual.

Additionally, we have been consulted on the relocation of Driveway "D" for the subject subdivision. For your information, a supplemental EA is not required, as determined by the accepting agency, Department of Land and Natural Resources (DLNR). A copy of DLNR's letter dated January 21, 2010 to our Department is attached. Also, it is our understanding that the relocation of the driveway will trigger a SMA.

If you have any questions, please contact Ken Tatsuguchi, Head Planning Engineer, Highways Division, at (808) 587-1830.

Very truly yours,

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

Attachment

JVK 0015

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

2010 JAN 25 A 8:39

DEPT OF TRANSPORTATION

2010 FEB -1 P 12:41

HIGHWAYS DIVISION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

MEMORANDUM:

JAN 21 2010

TO: Brennan T. Morioka, Director
Department of Transportation

FROM: Laura H. Thielen, Chairperson
Department of land and Natural Resources

SUBJECT: Request for Determination that an Environmental Assessment is not Necessary for the Relocation of a Planned Driveway in Regards to the Development of Olowalu Lands, Olowalu, Maui

We have reviewed your request for a determination as to whether an environmental assessment (EA) is necessary for the relocation of a driveway/access way at Olowalu, Maui. We have also reviewed a November 5, 2009 letter from the Office of Environmental Quality Control (OEQC) written to Ms. Colleen Suyama (consultant) regarding the driveway relocation. We have reviewed this letter, which appears to conclude that the proposed action may not trigger the full application of Chapter 343, HRS. Our interpretation of the OEQC letter, along with our understanding of the situation, and with information provided by your office, is discussed below.

The Department of Land and Natural Resources (DLNR) accepted a final environmental assessment (FEA) and a Finding of No Significant Impact (FONSI) to the environment in June 2000 for the Olowalu lands. One aspect of the FONSI/FEA was the development of a driveway/access way from Honoapiilani Highway to the Olowalu lands. According to the information provided, the proposed driveway/access way will be relocated approximately one mile from its original location. You indicate that the relocation will result in a decrease in cumulative impacts. The Suyama letter also indicates that the change is due to constraints encountered at the original driveway location such as safety and drainage issues.

When the DLNR accepted the final environmental assessment (FEA) in June 2000, it included a fairly wide area, which includes the area targeted for the relocation of the driveway/access way. Based on the scope of the proposed action, we have determined that the project would have no additional impacts beyond those disclosed, assessed, and mitigated under the June 2000 FEA. Thus, we have determined that the proposed action is covered by the June 2000 FEA and a new EA is unnecessary. However, please consult with our Department's Historic Preservation Division to insure that all current cultural and archeological requirements are met. In addition, please consult with the County of Maui Planning Department to ensure that you are in compliance with all County of Maui requirements.

Please feel free to call Sam Lemmo at 587-0377, should you have any questions on this matter.

RECEIVED
JAN 28 2010

146

MCCORRISTON MILLER MUKAI MACKINNON LLP

ATTORNEYS AT LAW

RANDALL K. SCHMITT
ATTORNEY

DIRECT #S:
PHONE - (808) 529-7422
FAX - (808) 535-8018

December 30, 2009

To Whom It May Concern

Re: Olowalu Mauka Subdivision

Dear Homeowner/Broker:

As you may know, this firm represents the Olowalu Mauka Subdivision homeowners with respect to certain unfulfilled conditions of the development by the project developer, Olowalu Elua Associates ("OEA"). As you may know, we have been in active discussions with OEA for over a year now in an effort to rectify these unfulfilled conditions which include the following:

1. Unbuilt highway improvements, including unbuilt turn lanes and access locations;
2. Existing access road issues, including proper location, unsafe curves, easement and liability and maintenance concerns with existing access;
3. Drainage and landscaping improvements and infrastructure problems;
4. Unfulfilled SMA Permit conditions;
5. Unfulfilled Conservation District Use Permit conditions;
6. Emergency fire road completion and liability concerns;
7. Irrigation system filtration problems;
8. Various bonds for incomplete subdivision improvements.
9. Several other miscellaneous issues such as water tower color and landscaping, subdivision lighting, entryway signage and design and landscaping.

We have not come to a resolution on any of these items at this stage and have been compelled to seek assistance from various State and County agencies to obtain completion of these items and others in order to fulfill the conditions upon which this subdivision was approved.

P.O. Box 2800 • Honolulu, Hawaii 96803-2800
Five Waterfront Plaza, 4th Floor • 500 Ala Moana Boulevard • Honolulu, Hawaii 96813
Telephone: (808) 529-7300 • FAX: (808) 524-8293

It is the individual responsibility of homeowners and their listing agents to insure that all proper disclosures are fully and timely made. This letter is not meant to be a full and complete disclosure of all of the problems with or lack of compliance by OEA just a reminder that these enumerated problems (and others) exist. It is an individual's own responsibility to insure the full nature and scope of these issues is explored, understood and disclosed as may be appropriate.

If you have any questions or concerns related to these conditions, please feel free to contact me directly.

Sincerely,

McCORRISTON MILLER MUKAI MacKINNON LLP

Randall K. Schmitt

Randall K. Schmitt

RKS:jmc

cc: Randy Ragon (via email)

218712.2

McCORRISTON MILLER MUKAI MACKINNON LLP

ATTORNEYS AT LAW

RANDALL K. SCHMITT
ATTORNEY

DIRECT #S:
PHONE - (808) 529-7422
FAX - (808) 535-8018

April 27, 2010

VIA ELECTRONIC MAIL rr077@hotmail.com

Mr. Randy D. Ragon
Olowalu Mauka HOA
713-A Front Street
Lahaina, Hawai`i 96761

Re: Olowalu Mauka Property Situation

Dear Mr. Ragon:

As you know, this firm was retained by the Olowalu Mauka Homeowners' Association ("HOA") to assist it with certain matters relating to the promises made to its various members related to the development. These matters include working with the Developer, Olowalu Elua Associates, the State Depart of Transportation and the County of Maui to get these various breaches of contract and violations of permits rectified. This process is far from complete and currently because of the status of the various breaches by the Developer of the SMA Permit, there are serious questions about whether any construction could have been undertaken on the property and/or whether any future development can be undertaken. This would include any future construction until these problems are resolved and a potential "No Occupancy" order to landowners. This would render the properties within the Project in a complete state of limbo because there could be no construction, no use and no sales until the various and sundry permitting issues are resolved. For the time being, therefore, it is virtually impossible to determine the value of any current owner's rights or interest in their property.

This process of investigation was initially undertaken by Lorie Kruse and it was her diligence in investigating the situation, including the involvement of and representations made by various members of the Mancini & Welch firm, including but not limited to Tom Welch, which brought to light the string of permit violations and other contractual breaches by the Developer and its various agents. This process continues and we are hopeful of making progress towards correcting the situation within the next year although a major part of the process needs to be the active involvement of the Developer in actually completing its promises.

Land Entitlement Obligations
Governmental Issues Contracts

P.O. Box 2800 • Honolulu, Hawaii 96803-2800
Five Waterfront Plaza, 4th Floor • 500 Ala Moana Boulevard • Honolulu, Hawaii 96813
Telephone: (808) 529-7300 • FAX: (808) 524-8293

Sincerely,

McCORRISTON MILLER MUKAI MacKINNON LLP

Randall K. Schmitt

Randall K. Schmitt

RKS:jmc

58691/227120.1

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

I. FINDINGS OF FACT

A. General – The Olowalu Mauka Subdivision

1. Olowalu Elua Associates, LLC ("Developer") purchased large tracts of land in the District of Olowalu from Amfac when the plantation stopped sugar cane production in the mid-1990s.

2. In 1999, the Developer submitted applications to subdivide lands in Olowalu ("Project") under Ordinance 2372. See Letter from County of Maui Department of Public Works and Waste Management ("DPW"), to Bob Horcajo, Project Manager for Olowalu Elua Assocates, LLC, dated September 20, 1999, attached hereto as Exhibit "1A," at 1.

3. Ordinance 2372 allows for the consolidation and resubdivision of lands, provided that no greater number of lots is created. See Maui County Code § 18.04.020.C.

4. In order to obtain final subdivision approval, the Developer was required to fulfill all the requirements of the Department of Land and Natural Resources ("DLNR") Historic Preservation Division, the Maui County Planning Department, and the Department of Public Works. See Exh. "1A" at 1.

5. As a portion of the subdivided lands were within the Conservation District, a Conservation District Use Application ("CDUA") was required of the Developers. See Exh. "1A" at 2.

6. The Developer was required to obtain a Special Management Area ("SMA") Permit as a portion of the lands to be developed fell within the Special Management Area. See Exh. "1A" at 2; Letter from DPW to Horcajo, dated October 22, 1999, attached hereto as Exhibit "1B" at 1.

7. Frampton & Ward, LLC ("Frampton & Ward"), Wailuku, Maui-based real estate developers, assisted the Developer in obtaining final approval of the Project. See Olowalu Mauka Subdivision Fact Sheet, attached hereto as Exhibit "2".

8. Frampton & Ward entered into an agreement with the Developer to build a proposed master planned community "Olowalu Town" on lands owned by the Developer, for which Frampton & Ward also have an option to purchase. See Exh. "2".

9. Frampton & Ward and the Developer formed Olowalu Town, LLC to market, promote and construct their development scheme. See Exh. "2".

10. Bill Frampton and David Ward, principals of Frampton & Ward, are the managing members of Olowalu Town, LLC, and the Developer is a "silent partner." See Exh. "2".

B. General - The Environmental Assessment, SMA and CDUA Permit Conditions

11. As part of the SMA permit approval process, a Final Environmental Assessment ("EA") for the Project was performed. See Final Environmental Assessment, Subdivision of Olowalu Lands, prepared for Olowalu Associates, LLP, May 2000, available online.

12. The EA included a traffic analysis which determined that left turn bays, and acceleration and deceleration lanes were required at three of the four planned Project driveways. See Olowalu Makai and Mauka Subdivisions Traffic Impact Analysis Report, issued August 1999, attached hereto as Exhibit "3" at 21-22.

13. In September 2000, the Maui County Planning Commission granted approval of the SMA permit subject to 36 conditions. See Letter from the County of Maui Department of Planning to Horcajo, dated September 19, 2000, attached hereto as Exhibit "4".

14. Pursuant to the Planning Commission's conditions, construction of the Project was to be initiated by September 30, 2002 and completed within 5 years. See Exh. "4" at 1-2.

15. Pursuant to the Planning Commission's conditions, the Developer was to develop the property in substantial compliance with the representations made to the Planning Commission in obtaining the SMA permit, and in accordance with the preliminary subdivision plans. See Exh. "4" at 2.

16. Pursuant to the Planning Commission's conditions, all infrastructure improvements, including fire, drainage, and traffic-related improvements, were to be completed prior to final subdivision approval, or be bonded in accordance with Title 18, Maui County Code. See Exh. "4" at 3.

17. Pursuant to the Planning Commission's decisions, unless approved by the Department of Transportation ("DOT"), highway improvements had to be completed prior to occupancy of the lots. See Exh. "4" at 7.

18. In October 2001, the DLNR approved the CDUA subject to 14 conditions. See Letter from State of Hawaii, DLNR, Land Division, to Horcajo, dated October 18, 2001, attached hereto as Exhibit "5".

19. Pursuant to the DLNR approval, all construction on the Project was to be initiated within one year of approval and completed within three years, in accordance with the submitted construction plans. See Exh. "5" at 1.

20. All mitigation measures set forth in the CDUA application materials and the EA were incorporated as conditions of the CDUA permit. See Exh. "5" at 2.

C. **The Developer Violated the SMA Permit Conditions**

21. The Developer submitted a written response to the SMA permit conditions issued by the Planning Commission in its Final Compliance Report for the Project, assuring the

Planning Commission that infrastructure improvements would be constructed prior to occupancy of the lots. See Special Management Use Permit Final Compliance Report, dated March 2002, attached hereto as Exhibit "6" at 4.

22. Pursuant to the SMA permit conditions, fully channelized intersections were to be provided to the subdivisions and road improvements were to be undertaken. See Exh. "4" at 7.

23. Final approval of the Project by the Planning Commission was issued April 2002. See Letter from DPW to Horcajo, dated April 30, 2002, attached hereto as Exhibit "7" at 1.

24. The Developer violated the SMA permit conditions by failing to construct many infrastructure improvements prior to final approval and occupancy, and by failing to file a bond with Maui County.

a. As of the drafting of this document, the Developer still has not constructed highway improvements for the Project, although these planned improvements are within the SMA and subject to the conditions of the SMA permit.

b. The Developer notified the lot owners in the subdivision that it had decided not to construct the required highway intersection.

c. Despite the Developer's failure to construct the required improvements, several lots in the subdivision are occupied and/or turned into condominiums with the potential to house twice as many residents as contemplated in the Project plans.

d. Although in its Final Compliance Report, the Developer assured the Planning Commission that all improvements would be completed prior to occupancy, the Developer radically changed its plans in June 2003 by having the DOT sign off on building permits to allow lot occupancy before the highway improvements were constructed. See Letter from Maui Land Company, Inc. to DOT, dated June 26, 2003, attached hereto as Exhibit "8".

Martin letter

e. In March 2005, the Developer transmitted a Warranty and Guaranty of Improvements for the Project and it was then returned by the Public Works Department. See Letter from West Maui Land Company, Inc. to DPW, dated March 17, 2005, attached hereto as Exhibit "11".

f. Representatives from the Public Works Department advised lot owners that the Warranty and Guaranty of Improvements for the Project was most likely returned to the Developer because the subdivision was processed under Ordinance 2372 as a "lot realignment" which does not customarily require a bond, unaware that the SMA permit conditions required a bond for incomplete infrastructure improvements.

25. The Developer violated the conditions of the SMA permit by failing to construct a fully channelized intersection.

a. In its original plans, the Developer consolidated three highway intersections into one intersection in a new location. See Print of Preliminary Layout of Proposed Subdivision Access on Highway, dated February 19, 2003, attached hereto as Exhibit "9".

b. Frampton & Ward met with the DOT and represented that the Developer would be constructing the new intersection with a left turn lane, acceleration lane, bike lanes and paved shoulders.

c. The DOT recommended approval for building permits only after receiving representations from Frampton & Ward that they would construct the elaborate channelized intersection. See Memorandum from DOT to Land Use & Codes Administration, dated July 14, 2003, attached hereto as Exhibit "10".

d. The Developer, represented by principal Jim Reilly, met with subdivision lot owners in 2003 and provided a schematic of the intersection that it claimed would be constructed, but ultimately did not make any improvements to the highway entrance. See Memorandum from Olowalu Elua Associates, LLC to Olowalu Community Members, dated October 7, 2003, attached hereto as Exhibit "12".

e. The lot owners eventually requested an additional meeting with the Developer a couple years after meeting with Jim Reilly to discuss the failed SMA permit conditions, including the lack of proper ingress and egress to the subdivision. Although the Developer, represented by principal Peter Martin, attended the meeting, he left shortly after announcing that the Developer would not be constructing the mandated highway intersection. In April 2009, Mr. Martin told owners that the Developer did not feel the highway improvements were important.

26. The Planning Commission is aware of the Developer's violation of SMA permit conditions, but has not taken any corrective action to enforce the terms of the SMA permit.

D. The Developer Violated the CDUA Permit Conditions

27. The Developer has violated the conditions of their CDUA permit by failing to fully implement its Historic Preservation Plan and failing to construct the channelized highway intersection.

28. Olowalu has significant archeological sites, and the Developer's Historic Preservation Plan approved by the DLNR promised, pursuant to their CDUA permit approval, that the Developer would construct viewing platforms for certain sites, as well as boundary markers and signs. See Historic Preservation Plan, attached hereto as Exhibit "13A"; Letter from DLNR to Horcajo, dated March 7, 2002, attached hereto as Exhibit "13B" at 2.

29. The CDUA permit incorporated all mitigation measures set for in the Developer's application materials and EA as conditions of the permit, including the Historic Preservation Plan and the construction of the channelized highway intersection. See Exh. "5" at 2.

30. The Developer failed to construct platforms and erect signs at archeological sites.

E. **Additional Violations by the Developer**

31. The County of Maui Department of Planning approved the Developer's landscaping plan which provided that over 200 trees would be planted in the subdivision. See Letter from the County of Maui Department of Planning to Heidi Bigelow, Olowalu Elua Associates, LLC, dated May 29, 2003, attached hereto as Exhibit "14".

a. The landscaping plan also stated that the Developer would emphasize the use of native and Polynesian plants for greenways, the cultural reserve, roadway landscaping and the beach reserve because native plants are more adaptable to the area, conserve water and further protect the watershed from degradation due to alien invasive species. See Letter from Olowalu Elua Associates, LLC to County of Maui Department of Water Supply, dated March 16, 2000, attached hereto as Exhibit "15".

b. The Developer violated the landscaping plan approved by the Department of Planning by planting only a fraction of the promised trees and plants in the subdivision.

32. To address the Department of Planning's comments on its construction plans, the Developer informed the Department of Planning that, as a condition of the SMA permit, one of the roadway lights in the subdivision would meet the maximum wattage of 100w hps as an internal road intersection. The Developer violated the SMA permit conditions by failing to implement this roadway light. See Letter from Frampton & Ward, LLC to County of Maui Department of Planning, dated April 16, 2003, attached hereto as Exhibit "16" at 3.

33. The Developer violated the terms of the sales agreements by failing to install electrical transformers and failing to build the subdivision in accordance with the plans and specifications approved by the County of Maui.

a. The sales agreements for parcels sold by the Developer state that the Developer would install electrical and telephone service in the subdivision at no expense to the buyers. See Relevant Portions of the Sales Agreement Between Olowalu Elua Associates, LLC and Lot Buyers, attached hereto as Exhibit "17" at 1.

b. The sales agreements for parcels sold by the Developer state that the Developer agreed to complete all subdivision infrastructure improvements and utility services in accordance with the plans and specifications for the subdivision approved by the County of Maui. See Exh. "17" at 2.

34. The Developer has violated its agreement with subdivision lot owners by failing to maintain the subdivision in the manner in which it represented to the lot owners. Specifically, the Developer has failed to maintain the subdivision in the following ways:

a. Water pressure within the subdivision is a major problem that the Developer has failed to address;

b. The inferior water filtration system has created water quality problems causing a large expense for the subdivision's Homeowner's Association;

c. Sprinkler heads need constant replacement and landscaping in the common area and personal landscaping has been lost due to seashells and other debris in the irrigation water;

d. Grass in the common area was installed in an inferior manner by the Developer so that maintenance is costly to the Homeowner's Association;

35. The Developer violated the law in the following manner:

a. In connection with the development of Olowalu lands, the Developer removed 12 cubic yards of coral to use as "fill" on the wharf and additional cement was added to the coral without permits or proper government authority. The coral mound measured roughly 40 feet by 50 feet and the Developer was found to be in violation of Conservation District law and State law, and fined. See Letter from DLNR to Olowalu Elua Associates, LLC, dated April 25, 2000, attached hereto as Exhibit "18A" at 1; Letter from DLNR to Olowalu Elua Associates, LCC, dated July 5, 2000, attached hereto as Exhibit "18B" at 2; Letter from DLNR to Olowalu Elua Associated, LLC, dated July 21, 2000, attached hereto as Exhibit "18C" at 2; Final Environmental Assessment After-The-Fact Approvals for Work Performed at Olowalu, Maui, Hawaii, dated June 2001, attached hereto as Exhibit "18D".

b. The Developer removed sugar cane within the State beach reserve without authorization resulting in damage to hau trees, and was found to be in violation of Conservation District law and State law, and fined. See Exh. "18A" at 1; Exh. "18B" at 1-2; Exh. "18C" at 2; Exh. "18D".

c. The Developer received a Notice of Warning regarding a zoning violation and SMA and CDUA violations pertaining to its commercial use of property in Olowalu without proper permits to protect the oceanfront environment as well as cultural and historical resources. See Notice of Warning, Department of Planning, dated October 17, 2005, attached hereto as Exhibit "19".

F. The Developer's Violations Caused Dangerous Conditions in the Subdivision

36. The Developer only installed a promised "fire road" after a dangerous fire burned through Olowalu, destroying one house and closing the highway, even though the Project's plans submitted to the County depicted a gravel road exist to the highway at the end of the subdivision

for the purpose of allowing exit in case of fire.

a. During the fire, residents could only use the one road currently available to exit the subdivision, which had flames impeding on either side.

b. The "fire road" the Developer eventually constructed was created by the Developer merely clearing land leaving a dirt path. It stops short of the main highway and ends in a field. Apparently, the State owns the land between the field and the main highway and the Developer was stopped from constructing the "fire road" further due to talks with Councilwoman JoAnne Johnson.

c. The "fire road" is not graveled and as such does not meet the requirements of the Uniform Fire Code, which the Developer represented to residents of the subdivision that it would comply with.

d. The Developer transferred maintenance of the "fire road" to the Homeowner's Association, and maintenance in this unfinished condition will be costly and will create increased liability and safety concerns. The Developer also tried to pass liability for Luawai Street to the Homeowner's Association, which is not on the original subdivision map and is being used as an easement road so owners may access their lots.

37. Numerous traffic accidents and two traffic-related deaths occurred on the highway in front of Olowalu in 2008 because the only means of ingress and egress to the subdivision is near a dangerous stretch of highway due to the Developer failing to construct a channelized intersection exiting and entering the highway.

a. A personal injury or wrongful death lawsuit caused by a traffic accident or fatality entering or exiting the subdivision would cost taxpayer dollars, as the County would most likely be named in such a lawsuit. Taxpayers would further have to finish the development

if the Developer runs out the statute. Homeowners carry this liability as well as the liability if somebody is injured on Luawai Street or in the subdivision. One house has already burned down.

b. Traffic load will only increase as more households are established in the Project area, and the community will bear the burden associated with traffic impact from the subdivision.

II. CONCLUSIONS OF LAW

1. The Developer breached its contract with the Olowalu Mauka Subdivision Lot Owners by failing to build the subdivision in accordance with the plans and specifications approved by the County of Maui. Specifically, the Developer:

a. Failed to construct a fully channelized highway intersection prior to final Project approval by the County and prior to occupancy, pursuant to SMA and CDUA permit conditions;

b. Failed to file a bond with the County of Maui in the instance that all infrastructure improvements were not completed by final Project approval, pursuant to SMA permit conditions;

c. Failed to fully implement the Developer's Historic Preservation Plan, pursuant to CDUA permit conditions;

d. Failed to properly implement the landscaping plan approved by the Department of Planning;

e. Failed to implement a roadway light meeting the maximum wattage of 100w hps, pursuant to SMA permit conditions;

f. Failed to abide by Conservation District and State law in the development of Olowalu lands.

2. The Developer breached its contract with Olowalu Mauka Subdivision Lot Owners by failing to implement the Project plans and maintain the subdivision in the manner promised in the sales agreement and/or represented to the Owners. Specifically, the Developer:

a. Failed to install electrical and telephone service in the subdivision at no expense to the buyers;

b. Failed to address the inadequate water pressure within the subdivision;

c. Failed to address the inferior water filtration system that has created water quality problems causing a large expense for the subdivision's Homeowner's Association;

d. Failed to address the inadequate irrigation system allowing seashells and other debris into the irrigation water, causing the need for constant replacement of sprinkler heads and landscaping in the common area and on personal lots;

e. Installed grass in the common area in an inferior manner so that maintenance is costly to the Homeowner's Association;

f. Failed to provide safe living conditions for Olowalu residents.

3. The Developer breached its covenant of good faith and fair dealing with the Olowalu Mauka Subdivision Lot Owners for reasons specified in Conclusions of Law ¶¶ 1-2.

JAMES "KIMO" APANA
Mayor

CHARLES JENCKS
Director

DAVID C. GOODE
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH M. NAGAMINE, L.S., P.E.
Land Use and Codes Administration

RONALD R. RISKA, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

ANDREW M. HIROSE
Solid Waste Division

BRIAN HASHIRO, P.E.
Highways Division

September 20, 1999

Mr. Bob Horcajo, Project Manager
OLOWALU ELUA ASSOCIATES, LLC
173 Ho'Ohana Street, Suite 201
Kahului, Hawaii 96732

SUBJECT: **OLOWALU MAUKA SUBDIVISION**
TMK:(2) 4-8-003:010, 050-070, & 073-082
TMK:(2) 4-8-004:011-016
LUCA FILE NO. 4.766

Dear Mr. Horcajo:

Preliminary approval was granted to the subject subdivision on August 23, 1999. As requested, since this is a consolidation of 38 lots and resubdivision into 34 lots and 5 roadway lots, this subdivision is being processed under Ordinance 2372.

Based upon Section 18.04.020(C) of the Maui County Code (MCC), final approval shall be contingent upon compliance with the following conditions:

1. Comply with requirements/comments from the State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division. For further information, please contact Ms. Cathleen Dagher at (808) 692-8023.

2. Rev 10/22/99 Comply with requirements/comments from the Department of Planning. For further information, please contact Mr. Aaron Shinmoto at 270-7253.

4/4/00 3. Rev 10/19/99 Comply with requirements/comments from the Department of Public Works and Waste Management, Engineering Division. For further information, please contact Mr. Lloyd Lee at 270-7745.

EXHIBIT 1A

4. Requirement from the Department of Finance, Real Property Tax Division:

   Complete and return the enclosed tax information notice to the Land Use and Codes Administration.

5. In accordance with Section 18.12.030(E)(13.a.) of the Maui County Code (MCC), submit a certificate signed and acknowledged by all persons vested with record title in the land subdivided consenting to the preparation and recording of the plat, provided that no consent is required by any person having any non-governmental easement, lease or license affecting the land subdivided, provided further that the director shall not approve any subdivision that causes any lot to be landlocked on the land subdivided or any adjacent land.

6. In accordance with Section 18.12.040(B) MCC, submit a copy of any deed restrictions or covenants applicable to the subdivision. If there are none, please indicate this in writing.

7. In accordance with Section 18.12.040(C) MCC, submit a tax clearance certificate (issued by Department of Finance, Real Property Tax Division) to show written proof that all taxes and assessments on the tract are paid to date. An "Application for Tax Clearance" form is enclosed for your use. **NOTE:** The tax clearance certificate shall be valid at the time of final subdivision approval.

8. Since a portion of this subdivision is within the Conservation district, submit written documentation from the State of Hawaii, Department of Land and Natural, Land Division (Planning Branch, #587-0386), whether a Conservation District Use Application (CDUA) is required. If a CDUA is required, then submit a copy of the approved CDUA permit.

9. The subdivider should verify with the Department of Planning if a Special Management Area Permit (SMA) is required for the subject subdivision.

10. All existing structures shall meet the minimum setback requirements from all newly created boundaries.

Advised Bob that access not required for existing land locked parcels. If existing parcels do have access, he should show access on map. 2/8/02 cire

11. Access shall be provided to Honoapiilani Highway for Exclusions 1, 2, 3, 4, and 5, TMK:(2) 4-8-003:071 & 072. **NOTE:** Exclusion 4 as shown on the preliminary plat should be separated into Exclusions 4 and 5, TMK:(2) 4-8-003:024 & 012, respectively. See comments noted on the enclosed approved preliminary plat.

12. In accordance with Chapter 19.30A (Agricultural District) MCC, based upon a gross area of 640.15 acres for TMK:(2) 4-8-003:010 (as certified by the Real Property Tax Division on March 1998), the subject parcel may be subdivided into a maximum of <u>thirty-four (34) lots</u>:

- 14 - two acre minimum lots
- 11 - fifteen acre minimum lots
- 6 - twenty-five acre minimum lots
- 3 - forty acre minimum lots

13. In accordance with Section 19.30A.040 MCC, the subdivider shall allocate the maximum number of lots that can be created between the original lot and any new lot created as a result of the subdivision. This allocation of lots shall be recorded with the Bureau of Conveyance. Submit this document for our review and approval prior to the recordation with the Bureau of Conveyances. Since a maximum of thirty-four lots may be created from the subject parcel and thirty-four lots are being created with this subdivision, <u>no additional lots</u> may be created in the future. A blank standard form agreement is enclosed for your use. This agreement shall reflect the fact that, pursuant to Chapter 19.30A (Agricultural District) of the Maui County Code, none of the lots being created can be resubdivided, unless otherwise allowed by Chapter 19.30A.

14. Submit fifteen (15) prints of the final plat. The final plat shall be in accordance with the provisions of Chapter 18.12 (Final Plat) MCC and shall include all revisions addressing the comments noted on the enclosed preliminary plat.

Within one (1) year from the date of preliminary approval of the subdivision, all requirements shall be completed, unless an extension of time is granted. Applications for extension of time should be made in writing to the Department of Public Works and Waste Management at least fifteen days before the expiration date.

If you have any questions regarding this letter, please call Mr. Glen Ueno of our Land Use and Codes Administration at 270-7252.

Very truly yours,

CHARLES JENCKS
Director of Public Works
And Waste Management

Enclosures: Preliminary Plat
Deferred Tax Information Notice
Application For Tax Clearance
Agreement For Allocation Of Future Subdivision Potential

GAU S:\LUCA\ALL\SUBD\LUCASUBD\R6G4\4#766-1.pre

xc: Engineering Division w/preliminary plat
Dept. of Finance, Real Property Tax Div. (unmarked preliminary plat only)
Dept. of Finance, Tax Map Div. (unmarked preliminary plat only)
Dept. of Planning

[illegible] KIMO APANA
Mayor

CHARLES JENCKS
Director

DAVID C. GOODE
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
LAND USE AND CODES ADMINISTRATION
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LLOYD P.C.W. LEE, P.E.
Engineering Division

ANDREW M. HIROSE
Solid Waste Division

BRIAN HASHIRO, P.E.
Highways Division

October 22, 1999

Mr. Bob Horcajo, Project Manager
OLOWALU ELUA ASSOCIATES, LLC
173 Ho Ohana Street, Suite 201
Kahului, Hawaii 96732

SUBJECT: OLOWALU MAUKA SUBDIVISION
TMK: (2) 4-8-003:010, 050-070, & 073-082
TMK: (2) 4-8-004:011_016
LUCA FILE NO. 4.766

Dear Mr. Horcajo:

Condition no. 2 of our September 20, 1999 preliminary approval letter has been revised with the following:

2. Requirements/comments from the Department of Planning:

a. Project shall conform to SMA rules and regulations.

b. Portions of the project is within Flood Zone C, however, if any work is done within the project's existing drainageways, a flood development permit may be required.

c. Portions of the project are within Flood Zones AO (1 feet), B, A4 (BFE = 34'-73' MSL, 1929 NGVD). The portions of the project that is within Flood Zone A4 is also within the Foodway district. A no rise analysis is required for any work within the Floodway district. The construction plans and final plat shall conform to Section 19.62 of the MCC. A flood development permit may be required.

d. The Planning Department's letter of September 23, 1999 to Mike Munekiyo (enclosed) are incorporated in its entirety as additional comments to this subdivision request.

If you have any questions regarding this letter, please call Mr. Aaron Shinmoto at 270-7253.

EXHIBIT 1B

Very truly yours,

for CHARLES JENCKS
Director of Public Works
and Waste Management

Enclosure
cy S:\LUCA\ALL\SUBD\LUCASUBD\REG4\4#766-3.ll
xc: Dept. of Planning

FACT SHEET

Olowalu Talk Story: A Community Based Planning Workshop

PROPOSED UNDERTAKING: OLOWALU TALK STORY: a Community Based Planning Workshop. The purpose of the Community Based Planning Workshop is to invite the community to participate in creating a Master Plan which will be used to guide the "re-establishment" of a livable community at Olowalu.

SUBJECT PROPERTY DESCRIPTION : The subject property is located in Olowalu on the westside of Maui and is flanked by the Pacific Ocean and the West Maui Mountains. The property contains approximately 600 acres of land consisting of 22 parcels. The vast majority of this land area is designated as Agriculture, while a small portion of the land is designated Conservation, and even smaller portion designated as Residential.

OWNERSHIP/ DEVELOPERS: Olowalu Elua Associates, LLC (OEA), a Maui-based company, owns a majority of the Olowalu proper and currently possesses 600 +/- acres. The remaining 100 +/- acres is owned by approximately 50-75 individuals.

Frampton & Ward, LLC (F&W) has entered into a Development Agreement with OEA on August 2005. The agreement provides that F&W shall be the Developer for the proposed Master Planned Community of Olowalu with an option to purchase the land currently owned by OEA. F&W will be developing the Olowalu property under a Hawaii-based limited liability company, **Olowalu Town, LLC (OL)**, of which Bill Frampton and Dave Ward are the Managing Members. The Managing Members have "decision making authority"; while OEA will be "silent Partners."

COMMUNITY-BASED PLANNING PROCESS: The purpose of the Community Based Planning Workshop is to invite the community to participate in creating a Master Plan which will be used to guide the *Re-Establishment* of a livable community at Olowalu. The workshops will be a "hands-on" experience which encourages the community to state their goals, desires, and needs regarding the future of Olowalu. Two (2) to three (3) workshops take place each day, each one designed to cover specific land use components/issues which affect a Community. Our planning consultant (see below) will set up a fully equipped design studio to draw up the concepts discussed by the community during the workshops. The illustrations are continually presented back to the community for their immediate feedback and refinement. This "real time" community planning process promotes a sense of "co-authorship" amongst the participants while they are formulating the Master Plan.

EXHIBIT 2

Appendix C

Traffic Impact Analysis Report

EXHIBIT 3

ATA

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AUSTIN, TSUTSUMI & ASSOCIATES, INC.
CONTINUING THE ENGINEERING PRACTICE FOUNDED BY H. A. R. AUSTIN

OLOWALU MAKAI AND MAUKA SUBDIVISIONS

TRAFFIC IMPACT ANALYSIS REPORT

I. INTRODUCTION

This report documents the findings of the traffic impact analysis study conducted by Austin, Tsutsumi & Associates, Inc. to evaluate the potential traffic impact on Honoapiilani Highway by the proposed subdivision of lands at Olowalu, Maui, Hawaii.

A. Project Description

Olowalu Elua Associates, LLC proposes to subdivide lands at Olowalu, Maui, Hawaii into agricultural lots. Pursuant to Section 19.30A of the Maui County Code relating to the Agricultural District, a total of nine (9) lots will be created on lands situated makai of Honoapiilani Highway. In addition to the subdivision of lands makai of the Highway, Olowalu Elua Associates, LLC proposes to subdivide the lands mauka of the Highway to create 34 lots.

A Special Management Area (SMA) Use permit application will be filed for the proposed creation of seven subdivided lots on the makai side of Honoapiilani Highway. The seven lots, along with two existing makai lots not affected by the SMA permit application, yield a total of nine lots makai of the highway. Although the mauka lands do not fall within the County's SMA boundaries, and accordingly, are not subject to the County's SMA requirements, this study considers the cumulative traffic impact of the proposed subdivisions by evaluating the potential traffic generated from both makai and mauka lands. Hence, for the overall identification of potential traffic impacts, a total of 43 agricultural lots are assessed in this study.

Construction of the lots is expected to be completed in the Year 2005; however, the construction of the homes will be undertaken by the buyers. Occupancy of the homes will be dependent upon the individual schedules of the buyers, but it is estimated that

most of the buyers would construct and occupy their dwelling units within a five-year period. Hence, Year 2005 is utilized for future conditions when the project is expected to be fully occupied. The buyers are expected to be a mixture of local residents and recreational users (part-time vacation or second homes).

The proposed project is located at Olowalu, Maui as shown in Figure 1 and in the vicinity map provided in Figure 2. The project consists of two agricultural subdivisions, which are referred to as the Makai and Mauka Subdivisions, and shown in Figure 3. There will be 9 lots in the Makai Subdivision and 34 lots in the Mauka Subdivision.

The Makai Subdivision (consisting of 7 SMA lots in TMK 4-8-02:05, 41-45 and 2 existing non-SMA lots in TMK 4-8-03:44 and 84) is located on the makai side of Honoapiilani Highway in the vicinity of the Olowalu General Store and Chez Paul restaurant. The agricultural lots in the Makai Subdivision will be served by two driveways, one on each side of the Olowalu Stream. A single lot on the north side of the Olowalu Stream will have a separate access, which is referred to as Driveway B. Access to the other lots in the Makai Subdivision will be at an existing driveway located opposite of the north driveway of the Olowalu General Store/Chez Paul restaurant parking lot, labeled as Driveway C. The Makai Subdivision also contains an existing camping facility, known as Camp Pecusa, which is accessed by a separate, unofficial driveway. The camping facilities are mainly utilized by local groups during the weekends. Presently, there are no plans to change the Camp Pecusa facilities or alter its driveway.

The Mauka Subdivision (TMK 4-8-03:10, 50-70, 73-82, and 4-8-4:13-16) is proposed to access Honoapiilani Highway via two new driveways, labeled as Driveway A and Driveway D. It is anticipated that access on Honoapiilani Highway for Driveway A will be requested when the mauka area is subdivided for development. An existing private road, which serves as access for Pioneer Mill properties, is located on the mauka side of Honoapiilani Highway and runs parallel to the Highway. The 34 lots in the Mauka Subdivision will be able to utilize this private road to conduct lots internally within the mauka area without traveling onto Honoapiilani Highway. The proposed project driveways are shown in Figure 3, the project site map.

B. Study Methodology

The purpose of the study is to identify, quantify and mitigate the potential impacts on Honoapiilani Highway by the vehicular trips generated by the proposed subdivisions. The roadway improvements which would be required to accommodate the future regional traffic growth as well as the project-generated traffic are identified, as needed.

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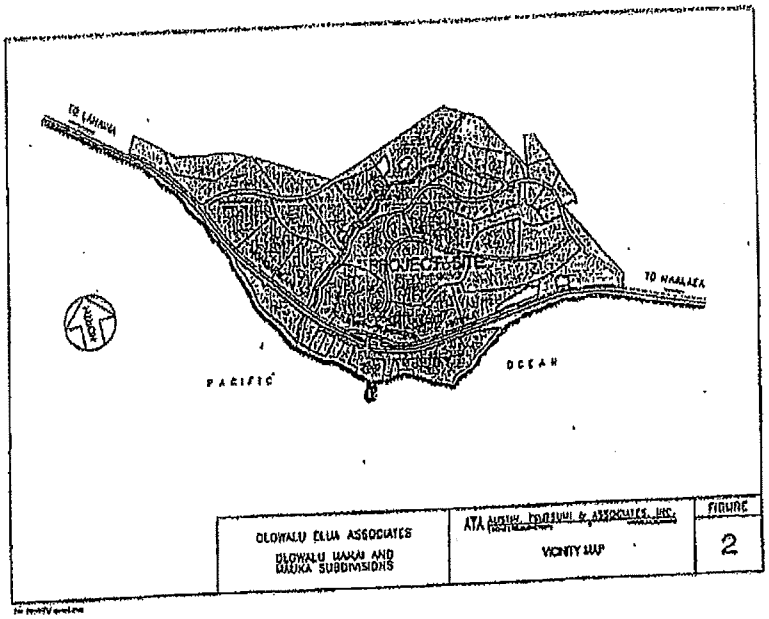
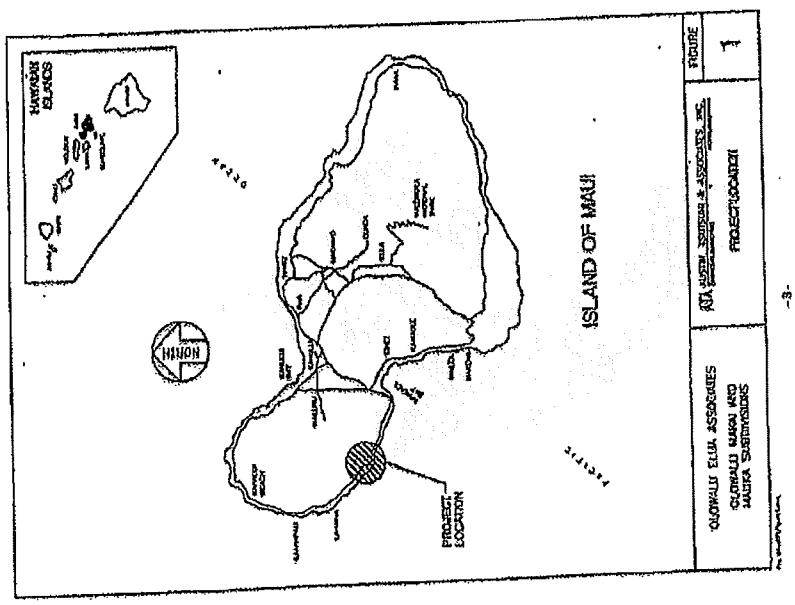
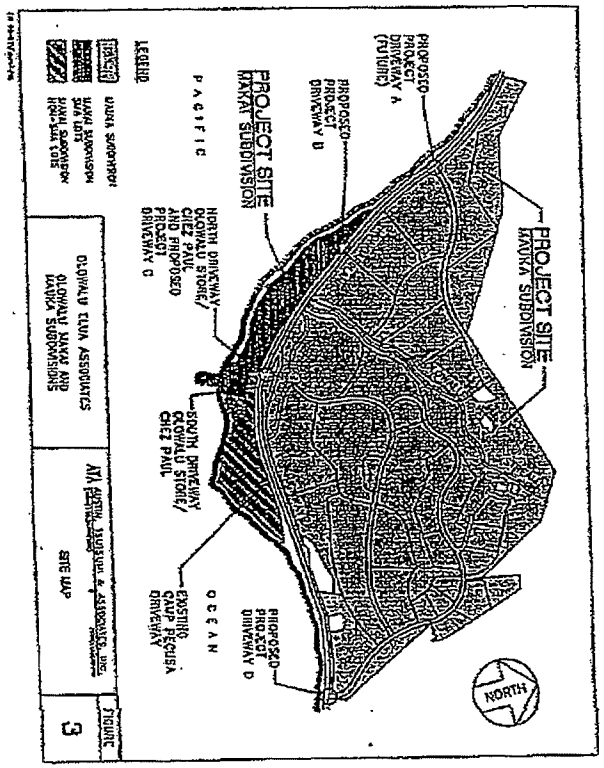

TO LAHAINA
PROJECT SITE
TO MAALAEA
NORTH
PACIFIC
OCEAN
OLOWALU ELUA ASSOCIATES
OLOWALU MAKAI AND MAUKA SUBDIVISIONS
ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
VICINITY MAP
FIGURE
2


HAWAIIAN ISLANDS
NORTH
ISLAND OF MAUI
PROJECT LOCATION
OLOWALU ELUA ASSOCIATES
OLOWALU MAKAI AND MAUKA SUBDIVISIONS
ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
PROJECT LOCATION
FIGURE
1



Traffic counts were taken on Honoapiilani Highway in the vicinity of the project to quantify existing traffic operations during the morning and afternoon peak periods of traffic. Field observations were also conducted during the course of the day while the traffic counts were being taken. In order to assess the traffic impacts of the Olowalu subdivisions in context with the regional traffic growth in the area, future traffic volumes were forecasted without and with the project-generated traffic. The traffic impacts of the proposed project were determined through the analytical comparison of these two future traffic assignments.

II. EXISTING CONDITIONS

A field investigation was undertaken to develop a description of existing traffic conditions and roadway infrastructure at the study intersections. Information relevant to the study includes the number of travel lanes, traffic control devices, traffic volumes and the current traffic conditions on the existing roadway system.

Twenty-four hour traffic counts were taken on Honoapiilani Highway during Tuesday-Wednesday, February 2-3, 1999. In addition, turning movements into and out of the north and south driveways of the Olowalu General Store and the Chez Paul restaurant parking lot were observed during portions of the morning and afternoon peak periods on February 3, 1999. Weather conditions were generally sunny and windy with intermittent rain.

A. Existing Roadway System

Honoapiilani Highway is a two-lane major State Highway linking Wailuku with West Maui. In the vicinity of the project, Honoapiilani Highway has two 12-foot travel lanes with paved shoulders of varying widths. Channelization, including left turn bays and acceleration and deceleration lanes, exist at selected intersections. The project is located in a rural area with a speed limit of 45 miles per hour, which is reduced to 35 miles per hour in the vicinity of the Olowalu General Store.

The parking lot shared by the Olowalu General Store and Chez Paul restaurant is paved and accessed by two driveways on Honoapiilani Highway. The north driveway forms a four-legged (cross) intersection with Honoapiilani Highway and a driveway for Pioneer Mill residences on the makai side of the highway. Separate left turn lanes are provided for the northbound and southbound directions of Honoapiilani Highway at the intersection. Guardrails front large trees on both sides of the highway at the

intersection. Several of the large trees were noted to restrict sight distance for motorists exiting the parking lot on the mauka side of the highway. In order to obtain a better or longer sight distance before entering the highway, it appears that many motorists were using an open, gravelly area to enter Honoapiilani Highway; the gravelly area is contiguous to the Olowalu paved parking lot and is located to the north of the parking lot's north driveway.

The south driveway at the Olowalu General Store/Chez Paul restaurant parking lot is an unpermitted access utilized by many large, northbound trucks. The south driveway forms an unsignalized T-intersection with Honoapiilani Highway. The Honoapiilani Highway northbound left turn storage lane/taper for the intersection with the Pioneer Mill residences/north parking lot driveways extends past the south parking lot driveway. None of the southbound highway traffic entered at the south driveway during the period when manual traffic counts were being taken.

The Olowalu General Store serves as a convenience stop, where motorists stop for morning coffee break and/or to pick-up a bento for lunch. During the weekdays, the Olowalu General Store is open from 6:00 AM to 6:30 PM. The Chez Paul restaurant serves only dinner and is officially opened at 5:30 PM. A structure is located on the south side of the restaurant; however, the structure appears to be vacant and none of the motorists utilizing the parking lot were observed to enter or exit the structure.

A private road is located on the mauka side of the highway; this private road parallels the highway and serves as an access road for Pioneer Mill property/cane land. Private homes are located mauka of the store and these residents also utilize the Olowalu General Store/Chez Paul restaurant driveways to access Honoapiilani Highway.

B. Existing Traffic Operations

The speed limit on the highway is 45 miles per hour on either side of the Olowalu General Store and is reduced to 35 miles per hour in the vicinity of the store. The afternoon peak period of traffic conditions are noticeably busier than the morning peak period of traffic. Motorists entering the highway experienced varying lengths of delays; some motorists waited for a few seconds while others waited for over a minute for suitable gaps in the highway traffic.

1. Existing Traffic Volumes

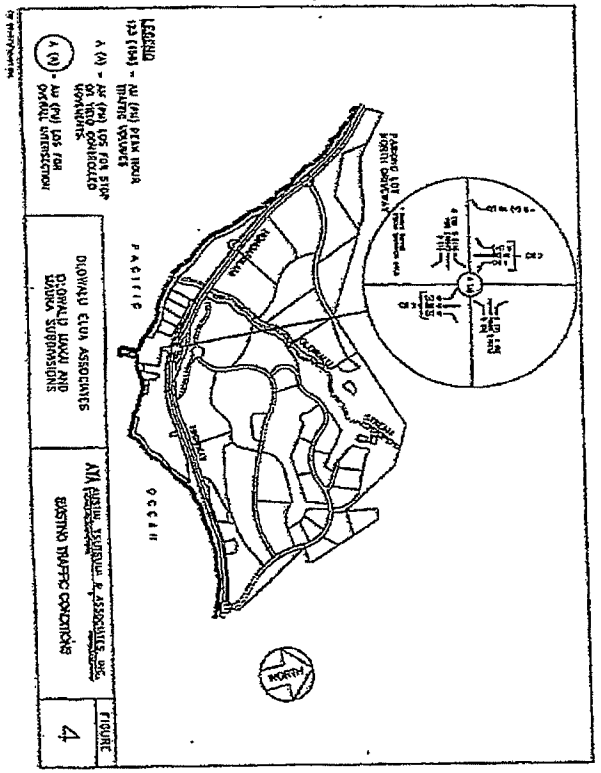
Twenty-four hour machine counts were taken during February 2-3, 1999 on Honoapiilani Highway between the two driveways to the Olowalu General Store/Chez Paul restaurant parking lot. Manual counts of driveway volumes were also taken during portions of the morning and afternoon peak periods of traffic. The existing traffic volumes for the morning and afternoon peak hours of traffic are shown in Figure 4.

2. Technical Analysis

The existing traffic volumes were analyzed by the methodology described in the 1994 Highway Capacity Manual for two-lane highways and for unsignalized intersections. Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from free flow conditions at LOS A to congested conditions at LOS F. The volume-to-capacity (v/c) ratio serves as an indicator of the utilization of the available capacity of a roadway facility. Detailed descriptions of Levels of Service for two-lane highways and unsignalized intersections are contained in Appendix E.

The results of the two-lane highway analyses show that the existing v/c ratio for Honoapiilani Highway is presently at 0.63 during the morning peak hour of traffic and at 0.78 during the afternoon peak hour of traffic, indicating the highway operates at LOS E for both peak hours of traffic.

The overall operations of the intersection of Honoapiilani Highway and the north driveway of the Olowalu General Store/Chez Paul restaurant parking lot are currently at LOS A. The left turn movements from Honoapiilani Highway into the north parking lot driveway operate at LOS B during the morning and afternoon peak hours of traffic. The left turn movements into the mauka driveway (Pioneer Mill residences) operate at LOS A and LOS B during the morning and afternoon peak hours of traffic, respectively. The traffic exiting at the north parking lot driveway and the mauka driveway (from the Pioneer Mill residences) both experience LOS C conditions during the morning peak period of traffic. The operating conditions for mauka driveway drops to LOS E during the afternoon peak hour of traffic, but the north parking lot driveway remains at LOS C.



Field observations noted a wide range in the variation of the delays experienced by traffic entering or exiting the Olowalu General Store parking lot or the driveway to private homes on the makai side of the highway. A few motorists could enter or exit the parking lot with little or no delay (LOS A), while other motorists waited over a minute (LOS F) for a suitable gap in highway traffic to execute their turning movements.

III. FUTURE BASE YEAR 2005 CONDITIONS WITHOUT THE PROJECT

The Year 2005 was selected for future baseline traffic conditions. While completion of construction and occupancy of the homes would be undertaken by the individual buyers, estimates are that most of the buyers are expected to occupy their homes by the Year 2005.

A. Background Traffic Growth

Future traffic volumes in the vicinity of the project are expected to increase due to changes in defacto growth on Maui. A growth factor of 2.1 percent per year was derived through review of historical State DOT traffic counts on Honoapiilani Highway in the Olowalu area, and forecasts of traffic volumes in the 1997 Maui Long-Range Land Transportation Plan (MLRLTP) report. The growth factor was applied to the existing traffic volumes to estimate future base traffic volumes in Year 2005.

B. Future Base Volumes and Level of Service Analysis

The future base traffic volumes without the project are shown in Figure 5. The level of service analyses for unsignalized intersections and two-lane highways were applied to the projected volumes and are summarized below.

With the projected increases in traffic volumes, the two-lane highway analysis shows Honoapiilani Highway would have a v/c ratio of 0.73 in the morning peak hour of traffic, or LOS E. During the afternoon peak hour of traffic, the v/c ratio would be at 0.81, or operating conditions at LOS E.

For the Honoapiilani Highway intersection with the Olowalu General Store north parking lot driveway, the overall intersection operating conditions are expected to be at LOS A. The Honoapiilani Highway left turn movements into the north parking lot driveway would be at LOS B during the morning and afternoon peak hours of

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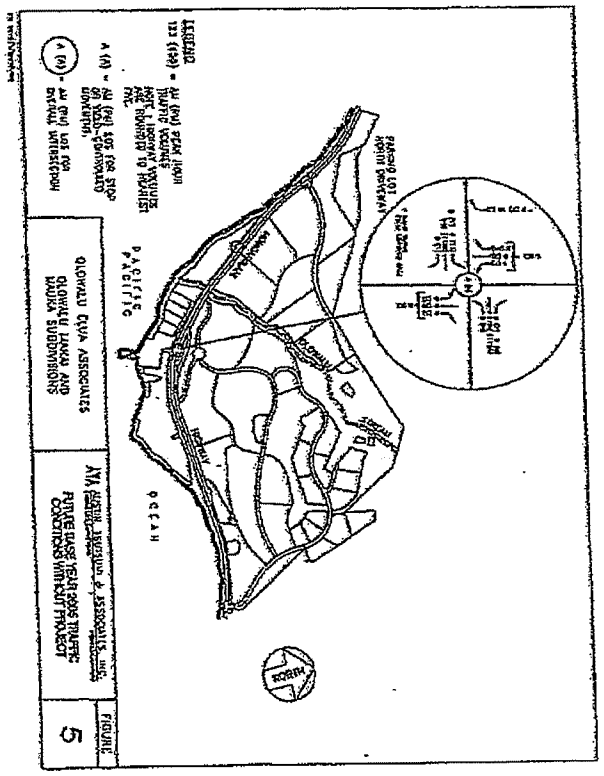


traffic. The left turn movements into the Pioneer Mill residence mokai driveway would operate at LOS A during the morning peak hour of traffic and at LOS B during the afternoon peak hour of traffic. The traffic exiting from the mokai driveway (Pioneer Mill residence) would be expected to experience longer delays at LOS D during the morning peak hour of traffic and at LOS F during the afternoon peak hour of traffic. Traffic exiting from the north driveway of the parking lot would operate at LOS C conditions during the morning and afternoon peak hours of traffic. The traffic volumes at the north driveway of the Glowalu General Store parking lot do not meet the warrants for traffic signals.

IV. PROJECT-GENERATED TRAFFIC VOLUMES

The development of the project traffic is undertaken in three sequential steps: trip generation, trip distribution and traffic assignment. Trip generation identifies the project-generated traffic volumes and trip distribution determines the direction of travel (to origin and destination) for the project traffic. Traffic assignment designates the roadways which would be utilized by the project traffic. Each of these steps is explained in further detail in the following sections.

A. Trip Generation

Trip generation quantifies the number of trips that would enter and exit the project site. The vehicular trips are directly related to project land uses. The Institute of Transportation Engineers has compiled trip generation data collected across the nation and established direct correlation between vehicle trip rates and various types of land uses. The trip generation rates for the project were based on trip rates compiled by the Institute of Transportation Engineers in a report entitled, Trip Generation, 5th Edition, and are shown in Table 1. The project traffic volumes are quantified in Table 2.

Table 1
TRIP GENERATION RATES

Land Use Parameter	Single Family Dwelling Unit	Recreational Homes Dwelling Unit
Daily	9.55	3.16
AM Peak Hour		
Enter	0.19	0.11
Exit	0.55	0.05
PM Peak Hour		
Enter	0.65	0.11
Exit	0.35	0.15

Table 2
PROJECT-GENERATED TRIPS

	Daily	AM Peak Hour Enter	AM Peak Hour Exit	PM Peak Hour Enter	PM Peak Hour Exit
Makai Subdivision					
5 Single Family Dwelling Units	26	1	3	3	2
4 Recreational Dwelling Units	12	0	0	0	1
Subtotal	60	1	3	3	3
Mauka Subdivision					
17 Single Family Dwelling Units	162	3	9	11	6
17 Recreational Dwelling Units	54	2	1	2	2
Subtotal	216	5	10	13	8
Total	276	6	13	16	11

B. Trip Distribution

Trip distribution determines the direction of travel for origins and destinations) of the project-generated trips. The trip distribution was derived from review of existing and projected population and employment data in the MUPLTP, historical traffic counts collected by the State DOT, and consideration of the travel time or proximity to nearby land uses. Although the MUPLTP indicates that 75-80 percent of the population and employment would be expected to be located south of the Olowalu area, most residents would probably prefer to travel to the Lahaina area for employment or shopping since it is closer than Wailuku/Kahului or Kihei.

The traffic entering or exiting the project subdivisions would travel in two primary directions: north or south. For the project trip distribution, the project traffic was distributed equally between the two directions, or 50% northbound and 50% southbound.

C. Traffic Assignment

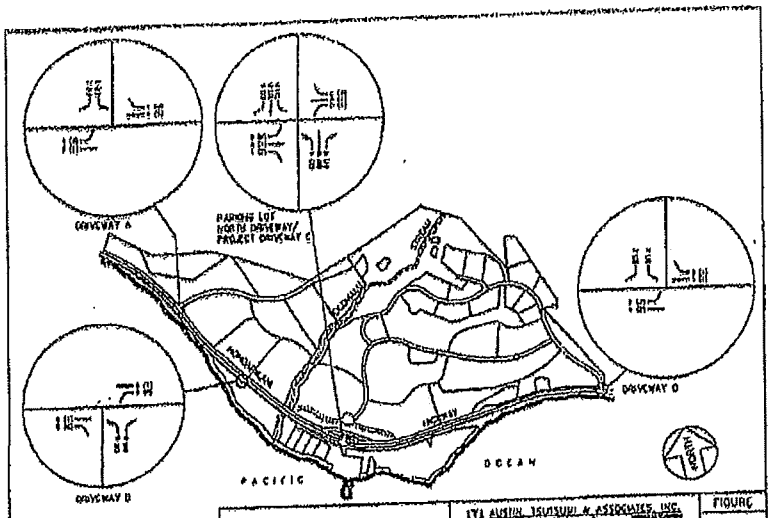
The traffic assignment determines the routes travelled and the driveways utilized by the project traffic. The project traffic is assigned onto Honoapiilani Highway since it is the only route which connects Olowalu to the rest of the island. The Makai Subdivision traffic will utilize Driveways B and C. Although the traffic generated by the Mauka Subdivision could utilize the Olowalu Store/Chez Paul parking lot driveways, the Mauka Subdivision traffic was assigned to Driveways A and Driveways D as these driveways provide more direct connections to the highway. Also, since there are no changes planned for Camp Pecusa, none of the project traffic was assigned to its driveway. The project traffic assignment is provided in Figure 5.

V. FUTURE YEAR 2005 CONDITIONS WITH THE PROJECT

The future traffic conditions with project-generated traffic are derived by adding the project-generated traffic volumes to the Year 2005 baseline traffic volumes.

A. Future Traffic Volumes with Project-Generated Traffic

The future traffic assignment with the project-generated traffic is shown in Figure 6. The analysis results are described in the following pages.



LEGEND
123 (456) = AM (PM) PEAK HOUR TRAFFIC VOLUMES

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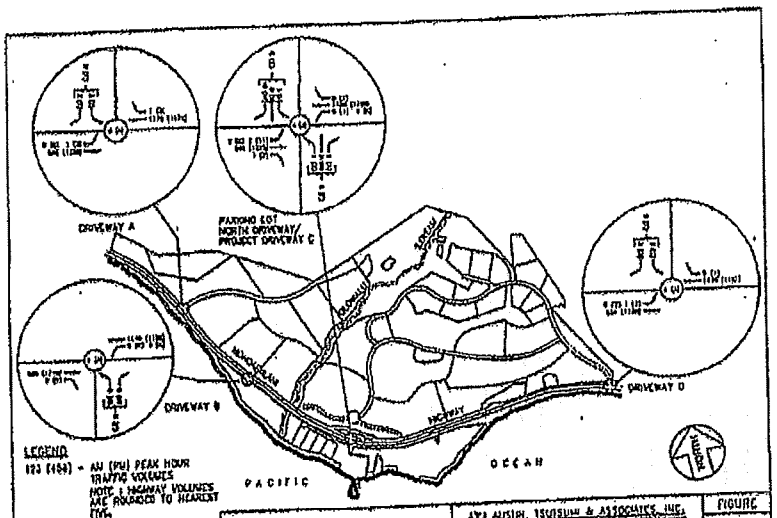
OLOWALU MAKAI AND MAUKA SUBDIVISIONS

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.

PROJECT GENERATED TRAFFIC

FIGURE 6



LEGEND
123 (456) = AM (PM) PEAK HOUR TRAFFIC VOLUMES
NOTE: HIGHWAY VOLUMES ARE ROUNDED TO NEAREST 10VPH
A (A) = AM (PM) LOS FOR STOP OR YIELD-CONTROLLED MOVEMENT.
A (A) = AM (PM) LOS FOR OVERALL INTERSECTION

OLOWALU ELUA ASSOCIATES
OLOWALU MAKAI AND MAUKA SUBDIVISIONS

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.

FUTURE YEAR 2005 TRAFFIC CONDITIONS WITH PROJECT

FIGURE 7

B. Analysis Results

The future traffic volumes with the project traffic were analyzed by the 1994 HCM two-lane highway methodology and also by the unsignalized intersection methodology for the four Honoapiilani Highway intersections in this study.

During the morning peak hour of traffic, Honoapiilani Highway in the vicinity of the project would operate at a v/c ratio of 0.72 and LOS E. During the afternoon peak hour of traffic, Honoapiilani Highway, in the vicinity of the project, would operate at a v/c ratio of 0.89 and LOS E.

The intersection analyses results show that the four intersections in this study would be expected to operate with overall traffic conditions at LOS A. The left turns into parking lot and project driveways would be at LOS B during the morning and afternoon peak hours of traffic, except for the left turn movements into Project Driveway B and Project Driveway C (former Pioneer Mill residences) which would be at LOS A during the morning peak hour of traffic.

The motorists exiting from the north parking lot driveway would operate at LOS C during the morning and afternoon peak hours of traffic. The motorists exiting at Project Driveway C would be expected to experience LOS C during the morning peak hour of traffic and LOS F during the afternoon peak hour of traffic.

Traffic exiting from Project Driveway A and Project Driveway D would operate at LOS D and LOS F during the morning and afternoon peak hours of traffic, respectively. Traffic exiting at Project Driveway B would experience LOS C during the morning peak hour of traffic and at LOS F during the afternoon peak hour of traffic.

The traffic volumes at the project driveways do not meet the warrants for traffic signals. The net change in the Honoapiilani Highway v/c ratios due to the project traffic results in an increase of only 0.01 for the morning and afternoon peak hours of traffic.

C. Warrants for Left-Turn Storage Bay

Traffic volume warrants were developed by M.D. Harmelink to assess the need for separate left-turn lanes at unsignalized intersections. The future traffic volumes at each of the project driveways meet these volume warrants. Left-turn bays should be provided at each of the project driveways so left-turning movements do not hinder through traffic on Honoapiilani Highway. The left-turn bays at Driveways A, C and D should have a storage length for at least two vehicles; the left-turn bay at Driveway B should have sufficient storage length for at least one vehicle.

D. MUALTP Considerations

The MUALTP, which evaluated long-term regional traffic growth on the island of Maui, recommends the widening of Honoapiilani Highway from two to four lanes from Lahaina to the Olowalu area between the years 2006-2020. Since the proposed Olowalu Subdivisions will be developed on both sides of Honoapiilani Highway, the planning of these subdivisions should incorporate the provision for the future widening of Honoapiilani Highway.

VI. SUMMARY OF FINDINGS AND RECOMMENDATIONS

This section summarizes the findings and recommendations of the traffic impact analysis report for the Olowalu Maui and Maui subdivisions. The analysis results are presented in Tables 3 and 4 for two-lane highway and unsignalized intersections, respectively.

Table 3
TWO-LANE HIGHWAY
ANALYSIS RESULTS

	AM Peak Hour		PM Peak Hour	
	v/c Ratio	Level of Service	v/c Ratio	Level of Service
Existing Conditions	0.63	E	0.76	E
Future Base Conditions without Project	0.71	E	0.83	E
Future Traffic Conditions with Project	0.72	E	0.89	E

A. Findings

1. Existing Conditions

Traffic on Honoapiilani Highway operates at LOS E with v/c ratios of 0.83 and 0.76 during the morning and afternoon peak hours of traffic, respectively.

Overall, the intersection of the Olowalu General Store north driveway and Honoapiilani Highway is at LOS A. The northbound left turn movements are at LOS A during the morning peak hour of traffic and at LOS B during the afternoon peak hour of traffic. The southbound left turn movements are at LOS E during the morning and afternoon peak hours of traffic. The traffic exiting from the north parking lot driveway is at LOS C during the morning and afternoon peak hours of traffic. The traffic exiting from the makai driveway (Pioneer Mill residences) is at LOS C during the morning peak hour of traffic and at LOS E during the afternoon peak hour of traffic.

2. Future Base Year 2005 Traffic Conditions Without Project Traffic

Traffic on Honoapiilani Highway would operate at LOS E at a v/c ratio of 0.71 during the morning peak hour of traffic, and at LOS E at a v/c ratio of 0.88 during the afternoon peak hour of traffic.

The overall traffic conditions at the Olowalu General Store north driveway would be at LOS A. The southbound left turn movement into this driveways would operate at LOS B during both peak hours of traffic. The northbound left turn movement into the makai driveway (Pioneer Mill residences) would operate at LOS A during the morning peak hour of traffic and at LOS B during the afternoon peak hour of traffic. The traffic exiting from the north parking lot driveway would be at LOS C during the morning and afternoon peak hours of traffic. Traffic exiting at the makai driveway for the Pioneer Mill residences would be expected to experience longer delays at LOS D during the morning peak hour of traffic and at LOS F during the afternoon peak hour of traffic. The traffic volumes exiting the north parking lot driveway do not meet the warrants for traffic signals.

B. Future Year 2005 Traffic Conditions with Project Generated Traffic

The Makai Subdivision would generate 4 vehicular trips during the morning peak hour of traffic and 6 vehicular trips during the afternoon peak hour of traffic. The Mauka Subdivision would generate 15 vehicular trips and 21 vehicular trips during the morning and afternoon peak hours of traffic, respectively.

For the two-lane highway analysis, the results would be similar to future base traffic conditions without the project. The Honoapiilani Highway traffic would operate with a v/c ratio of 0.72 at LOS E during the morning peak hour of traffic and a v/c ratio of 0.89 at LOS E during the afternoon peak hour of traffic.

The results for the four intersections in this study would be similar to the future base conditions without the project at the Olowalu General Store north driveway intersection. The overall intersection operations at the four intersections are expected to remain at LOS A. The Honoapiilani Highway left turn movements into the north parking lot driveway and the project driveways would be at LOS B, except for the left turn movements into Project Driveway B and Project Driveway C (former Pioneer Mill residences) which would be at LOS A during the morning peak hour of traffic. Traffic exiting the north parking lot driveway would operate at LOS C during the morning peak hour and afternoon peak hours of traffic. Traffic exiting from the Driveway C and from Driveway B would be at LOS C during the morning peak hour of traffic and LOS F during the afternoon peak hour of traffic. The traffic exiting at Driveway A and at Driveway D would experience longer delays at LOS D and LOS F during the morning and afternoon peak hours of traffic, respectively. The traffic volumes at the Honoapiilani Highway intersections with parking lot and project driveways do not meet the warrants for traffic signals. In the MLRLTP, the widening of Honoapiilani Highway is recommended for the time period between Year 2006 and Year 2020.

B. Recommendations

The following roadway improvements are recommended to accommodate the traffic generated by the proposed Olowalu Makai and Mauka Subdivisions:

- For Driveways A, C and D, left turn bays and deceleration and acceleration lanes for right turn movements into and out the project driveways should be provided at these project driveways so project traffic turning into and out of the project driveways does not delay motorists in the through lanes. The storage length of

the left turn bays should be adequate to accommodate at least two vehicles, exclusive of taper. For the Honoapiilani Highway T-intersections with Driveways A and D, a refuge lane in the median should be provided. Left turn movements from the project driveways onto Honoapiilani Highway would use the refuge lane as a shelter or to accelerate to merge with through traffic; the refuge lane would allow the left-turning movement to be executed in two steps and reduce delays for the project traffic.

- For Driveway B, a left turn bay with storage length for a single vehicle should be provided. Deceleration and acceleration lanes are not recommended for this single lot driveway.

The recommendations, described below, would allow Honoapiilani Highway to be improved to serve the future growth in regional highway traffic volumes expected beyond Year 2005:

- Adequate right-of-way should be reserved along the Honoapiilani Highway corridor to allow for the future widening of Honoapiilani Highway from Lahaina to Olowalu, as identified in the MLRLTP. The widening of Honoapiilani Highway would be needed for the future conditions with or without the proposed Olowalu Makai and Mauka Subdivisions. The MLRLTP indicates that the widening would be required between Year 2006 and Year 2020.

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APPENDICES

JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director

RECEIVED
BY _____ DATE 9/21/00

COUNTY OF MAUI
DEPARTMENT OF PLANNING

September 19, 2000

Mr. Robert Horcajo
Olowalu Elua Associates, LLC
173 Ho Ohana Street, Suite 201
Kahului, Hawaii 96732

Dear Mr. Horcajo:

RE: Special Management Area (SMA) Use Permit for the Proposed Olowalu Subdivision at TMK: 4-8-003:5, 10 (Por.), 41, 42, 43, 50 (Por.), 63 (Por.), and 78 (Por.) and 4-8-004:11, 12, 13, 14, 15, and 16 at Olowalu, Maui, Hawaii (SM1 990021)

At its regular meeting on September 12, 2000, the Maui Planning Commission (Commission) conducted a public hearing on the above-referenced application. At the meeting, the Commission clarified the record as follows:

1. Commissioner Star Medeiros who was a member of the Citizens Advisory Committee (CAC) for the West Maui Community Plan clarified the park designation and language. During the CAC's discussions on the park site at Olowalu, the reduction of 50 percent of agriculture related to the reduction of sugar cane cultivation and not to other agricultural crops that could be grown on the site. As such, the 50 percent reduction of agriculture has occurred. Based on the language, the applicant is advised that a 30-acre park should be reserved on the Camp Pecusa side of the makai lands in Olowalu.

NO

2. Commissioner Joe Bertram III requested that the applicant work with Maui Electric Company to encourage energy efficiency in the project and use of alternative energy options such as solar panels.

The Commission, after due deliberation, voted to grant approval of the Special Management Area Use Permit, subject to the following conditions:

STANDARD CONDITIONS:

1. That construction of the proposed project shall be initiated by September 30, 2002. Initiation of construction shall be determined as construction of offsite improvements, issuance of a foundation permit and initiation of construction of the foundation, or issuance of a building permit and initiation of building construction, whichever occurs first. Failure to comply

Not Done

EXHIBIT 4

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

within this two (2) year period will automatically terminate this Special Management Area Use Permit unless a time extension is requested no later than ninety (90) days prior to the expiration of said two (2) year period. The Planning Director shall review and approve a time-extension request but may forward said request to the Maui Planning Commission for review and approval.

2. That the construction of the project shall be completed within five (5) years after the date of its initiation. Failure to complete construction of this project will automatically terminate the subject Special Management Area Use Permit. A time extension shall be requested no later than ninety (90) days prior to the completion deadline. The Planning Director shall review and approve a time-extension request but may forward said request to the Maui Planning Commission for review and approval. *

NO *

3. The permit holder or any aggrieved person may appeal to the Maui Planning Commission any action taken by the Planning Director on the subject permit no later than ten (10) days from the date the Director's action is reported to the Commission.

NO * 4. That final construction shall be in accordance with preliminary subdivision plans included in the submittal received on November 9, 1999.

5. That appropriate measures shall be taken during construction to mitigate the short-term impacts of the project relative to soil erosion from wind and water, ambient noise levels, and traffic disruptions. *

6. That the subject Special Management Area Use Permit shall not be transferred without prior written approval in accordance with Section 12-202-17(d) of the Special Management Area Rules of the Maui Planning Commission. However, in the event that a contested case hearing preceded issuance of said Special Management Area Use Permit, a public hearing shall be held upon due published notice, including actual written notice to the last known addresses of parties to said contested case and their counsel.

7. That the applicant, its successors and permitted assigns shall exercise reasonable due care as to third parties with respect to all areas affected by subject Special Management Area Use Permit and shall procure at its own cost and expense, and shall maintain during the entire period of this Special Management Area Use Permit, a policy or policies of comprehensive liability insurance in the minimum amount of ONE MILLION AND NO/100 DOLLARS ($1,000,000.00) naming the County of Maui as an additional named insured, insuring and defending the applicant and County

of Maui against any and all claims or demands for property damage, personal injury and/or death arising out of this permit, including, but not limited to: (1) claims from any accident in connection with the permitted use, or occasioned by any act or nuisance made or suffered in connection with the permitted use in the exercise by the applicant of said rights; and (2) all actions, suits, damages and claims by whomsoever brought or made by reason of the nonobservance or nonperformance of any of the terms and conditions of this permit. Proof of a policy naming County of Maui as an additional named insured shall be submitted to the Planning Department within ninety (90) calendar days from the date of transmittal of the decision and order.

NO 8. That full compliance with all applicable governmental requirements shall be rendered.

9. That the applicant shall submit plans regarding the location of any construction-related structures such as, but not limited to trailers, sheds, equipment and storage areas and fencing to be used during the construction phase to the Maui Planning Department for review and approval.

10. That the applicant shall submit to the Planning Department five (5) copies of a detailed report addressing its compliance with the conditions established with the subject Special Management Area Use Permit. A preliminary report shall be reviewed and approved by the Planning Department prior to issuance of a grading permit. A final compliance report shall be submitted thirty (30) days after the completion of the subdivision to the Planning Department for review and approval.

NO 11. That the applicant shall develop the property in substantial compliance with the representations made to the Commission in obtaining the Special Management Area Use Permit. Failure to so develop the property may result in the revocation of the permit.

PROJECT SPECIFIC CONDITIONS:

NO 12. That the applicant shall be responsible for all required infrastructural improvements including, but not limited to water source and system improvements for both domestic and fire protection, drainage improvements, traffic-related improvements, wastewater system improvements, and utility upgrades. Said improvements shall be constructed concurrently with the development and shall be completed prior to final subdivision approval or bonded in accordance with Title 18, Maui County Code, relating to the subdivision ordinance.

13. That as represented by the applicant, an approximate 54-acre cultural reserve for historic and cultural preservation operated and managed by the Olowalu Cultural Reserve, a non-profit organization, shall be established in perpetuity to ensure preservation of historic and cultural resources, as well as to perpetuate the Hawaiian culture and continued access to Native Hawaiians to "gather", to perform religious practices, and to attend to their own kuleana. Access to the cultural reserve shall be open to the general public as a cultural reserve. Access for recreational purposes shall be as approved by the Olowalu Cultural Reserve (as amended).

they are doing this cultural reserve

14. As represented by the applicant, the roadways for the proposed subdivisions shall be constructed in substantial compliance with the proposed greenway plan identified in the application. For each phase of development, final plans for the applicable increments of the approximate sixty (60) acres of greenways shall be submitted to the Maui Planning Department for review and approval. Said greenway areas shall be regularly maintained and access to the greenways shall be open to the general public for access and recreational purposes (as amended).

Not done *

15. That the applicant shall establish an irrigation system for the proposed agricultural subdivisions which addresses the supply, storage, and distribution of irrigation water to the proposed lots, and is secured in terms of permit acquisition, quality, quantity, availability, and year-round operations and maintenance. Documentation that the irrigation system has been established shall be submitted to the Maui Planning Department within ninety (90) days of construction of the subdivision.

Not properly maintained - Inferior construction & engineering

16. That the applicant shall prepare a dust- and erosion-control plan for review and approval by the Maui Planning Department to ensure that any fallow agricultural lands do not create future adverse dust and erosion impacts on the surrounding area. Said plan shall be reviewed and approved by the appropriate State of Hawaii agencies and implemented as soon as practicable by the applicant and its assigns and successors. A copy of the approved dust- and erosion-control plan for the agricultural lands shall be submitted to the Maui Planning Department and the Department of Public Works and Waste Management for our records (as amended).

?

17. That potential buyers will be advised that the lots are for sale as commercial agricultural lots and of Hawaii's Right to Farm Act which prohibits conditions, covenants, and restrictions that will prevent or impede reasonable agricultural use of the lots.

18. That the Maui/Lanai Islands Burial Council shall review the mitigation proposals for all burials.

19. That the applicant shall submit a detailed preservation plan (scope of work) for the sites identified for preservation to the Department of Land and Natural Resources, State Historic Preservation Division (SHPD), for approval. This plan will include buffer zones, interim protection measures (as needed), and long-range preservation plans. No land alteration may occur in the vicinity of these sites until minimally the buffer zones and interim protection measures are approved and the SHPD verifies the interim protection measures are in place. No preservation activities may occur in these sites until the preservation plan is approved. The SHPD shall verify in writing to the County when the plan has been successfully executed.

20. That archaeological data recovery shall occur at the sites identified in the survey reports. The applicant shall submit an archaeological data recovery plan (scope of work) for these sites to the SHPD for approval. The SHPD shall verify in writing to the County when the plan has been successfully executed.. Further, as noted, the gleyed marsh soils shall also undergo archaeological data recovery. Minimally, data recovery fieldwork must be successfully concluded (and verified in writing by SHPD) prior to land alteration in this part of the project area. The SHPD shall verify in writing to the permitting agencies when the plan has been successfully completed.

21. That archaeological monitoring of land-altering construction in the sand areas along the shore shall occur, as a contingency to identify, document, and treat any burials that might be found. A monitoring plan (scope of work) shall be submitted to and be approved by the SHPD prior to the beginning of the monitoring. This plan must specify how any burials that are found will be documented archaeologically, notification procedures, and treatment measures that will be taken. This scope should be completed before a monitoring contract is negotiated.

22. All preservation areas and buffer zones shall be clearly marked on the subdivision plans and recorded with the property documents to ensure that future owners of the lots are aware of these restrictions to the lots.

23. That as represented by the applicant, the oral history work shall be expanded to include more people of the Olowalu area, such as existing and former residents, persons who have knowledge of their ancestors living in the area, and the kupunas.

24. That adequate buffers between the cultural preserve areas and the agricultural lots shall be established to ensure that the cultural experience is not impacted by the agricultural use and structures on the adjoining lots. Mitigation measures from high boundary

walls, residences, farm buildings, and operations shall be submitted to the Maui Planning Department for review and approval.

relocation of driveway "D" involves removal of monkey pod trees

* 25. Unless removal is necessary for intersection improvements, to the extent practicable, the Monkey Pod trees within the subject property on both sides of Honoapiilani Highway shall be retained and consideration shall be given to extending the Monkey Pod trees as part of the cultural landscape (as amended).

26. That structures located within the floodway Flood Zone A0 and A4 shall be constructed above the flood elevation. Measures such as post and pier construction shall be considered to conform to the Flood Hazard District and to allow flood waters to continue to traverse the property (as amended).

*27. That future buyers of lots shall be informed that development within flood hazard areas shall be implemented in accordance with Chapter 19.62, Maui County Code (as amended).

Violated this see: Finer improved

28. That use of soil as fill is prohibited within the Shoreline Setback Area, except for clean sand. Further, any grading or mining of a coastal dune is prohibited.

29. That a minimum shoreline setback of 150 ft. from the certified shoreline shall be established for all lots on the makai portion of the subdivision regardless of a government beach reserve fronting the subdivided lots. No structures shall encroach into the Shoreline Setback Area to ensure that future shoreline erosion and storm-wave action will not adversely affect structural development on the properties.

30. That public lateral pedestrian access along the shoreline within the Shoreline Setback Area shall be provided. Landscaping in the area within 50 ft. of the shoreline should be spaced far enough apart so as not to interfere with lateral access. Further, as represented by the applicant, mauka/makai public shoreline access from Honoapiilani Highway and public beach parking shall be provided near the Olowalu Mill site to Olowalu Landing, as well as access points to the shoreline from both ends of the makai Olowalu lands. Documentation that access, as required, has been provided shall be filed with the Departments of Public Works and Waste Management, Parks and Recreation, and Planning prior to final subdivision approval (as amended).

31. As represented by the applicant, the existing cane haul road (approximately 80 ft. wide) on the mauka side of Honoapiilani Highway shall be set aside as a reserve (Roadway Lot 39) for

future roadway expansion or relocation of Honoapiilani Highway (as amended).

32. That roadway improvements to Honoapiilani Highway, including left-turn storage lanes, acceleration and deceleration lanes, driveway connections, etc., as identified in the applicant's Traffic Impact Assessment Report (TIAR), and as required by the Department of Transportation shall be provided in conjunction with the development of the subdivision. The roadway improvements shall be reviewed and approved by the Department of Transportation. Construction of the improvements shall be completed prior to occupancy of the agricultural lots unless a phasing plan for the improvements is reviewed and approved by the Department of Transportation. — no phasing plan

This did not happen

*

33. That the outdoor lighting plans for the subdivision shall be submitted to the Maui Planning Department for review and approval to reduce the negative impacts on seabirds, especially the dark-rumped petrel (Pterodroma phaeopygia sandwichensis) which is a federally endangered species. All potential owners of the lots shall be informed that appropriate measures approved by the Maui Planning Department shall be taken to reduce the negative impacts of night lights (as amended).

NO

34. That future buyers of the lots shall be informed that there may be potential waste from the old mill site (Olowalu Mill) and other vacated agricultural industrial areas. Remedial cleanup must be conducted before any new development occurs.

?

35. That future buyers of the lots shall be informed of the survey monuments located within the boundaries of their lots which need to be protected from any development activities. Further, in the event the survey monuments are disturbed or destroyed during development of the subdivision or properties, it will be the responsibility of the applicant, assigns or successors to reference and replace the monuments.

36. That Condition Nos. 16, 17, 21, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, and 35 shall run with the land and shall be set forth in a unilateral agreement recorded by the applicant with the Bureau of Conveyances within sixty (60) days from the date of receipt of this decision. A copy of the recorded unilateral agreement shall be filed with the Planning Director and the Director of the Department of Public Works and Waste Management within ten (10) days of recordation.

The conditions of this Special Management Area Use Permit shall be enforced pursuant to Sections 12-202-23 and 12-202-25 of the Special Management Area Rules for the Maui Planning Commission.

Further, the Commission adopted as its Findings of Fact, Conclusions of Law, Decision and Order the Planning Department's Report and Recommendation Report prepared for the September 12, 2000 meeting and authorized the Planning Director to transmit said Decision and Order for the Commission.

Thank you for your cooperation. If additional clarification is required, please contact Ms. Colleen Suyama, Staff Planner, of this office at 270-7735.

Very truly yours,

JOHN E. MIN
Planning Director

JEM:CMS:cmb
c: Clayton Yoshida, AICP, Deputy Planning Director
Aaron Shinmoto, Planning Program Administrator (2)
LUCA (2)
Department of Water Supply
Michael Munekiyo, AICP, Munekiyo, Arakawa & Hiraga, Inc.
Patricia Nishiyama, Na Kupuna O Maui
Ed Lindsey
Buck Buchanan
Timothy Johns, Department of Land and Natural Resources
Kazu Hayashida, Department of Transportation
James Nakatani, Department of Agriculture
Gary Gill, Department of Health
Colleen Suyama, Staff Planner
Project File
General File
(K:\\Planning\SM1\99SM121\99SM121v)

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AGRICULTURE
COMMERCIAL FORESTRY
PROGRAMS
PUBLIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

BoF:FB:TC

File: CDUA MA-3056

OCT 18 2001

Mr. Robert Horcajo
Olowalu Elua Associates, LLC
173 Ho Ohaana Street, Suite 201
Kahului, HI 96732

Dear Mr. Horcajo:

SUBJECT: Conservation District Use Application (CDUA) for waterline improvements and a consolidation and re-subdivision of land at Olowalu, Maui

I am pleased to inform you that on October 12, 2001, the Board of Land and Natural Resources (Board) approved your CDUA for the waterline and subdivision at Olowalu, Maui, with the following conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, State and county governments, and the applicable parts of Section 13-5-42, HAR;

2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;

3. The applicant shall comply with all applicable Department of Health administrative rules;

4. Any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within three years of the approval of such use. The applicant shall notify the Land Division in writing when construction activity is initiated and when it is completed;

EXHIBIT 5

5. All mitigation measures set forth in the application materials and in the Final Environmental Assessment for this project are hereby incorporated as conditions of the permit;

6. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;

7. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;

8. In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;

9. In the event that unrecorded historic remains (i.e., artifacts, or human skeletal remains) are inadvertently uncovered during construction or operations, all work shall cease in the vicinity and the applicant shall immediately contact the State Historic Preservation Division;

10. The applicant shall provide documentation (e.g. book and page or document number) that the permit approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;

11. Within one year of The Board's approval of After-the-Fact CDUP MA-3014 (August 24, 2002), the applicant shall designate a public access easement and parking through the subject lands to allow public access to the shoreline. A metes and bounds description of the access and parking shall be provided to the Chairperson for his review and approval;

12. Access to the West Maui Forest Reserve, Lihau Natural Area Reserve, and State Game Management Area, shall be provided through the proposed Cultural Reserve in the project area unless provided elsewhere.

13. Other terms and conditions as may be prescribed by the Chairperson; and

14. That failure to comply with any of these conditions may render this Conservation District Use Permit null and void.

Please contact Traver Carroll of our Planning Branch at 587-0439 should you have any questions on this matter.

Please acknowledge your receipt of this permit and acceptance of conditions by signing in the space provided below and returning a copy to us.

Sincerely,

HARRY YADA, Administrator
Land Division

Receipt acknowledged:

Oct. 19 2001

Signature Date

cc: Board Chair
Maui Board Member
County of Maui, Department of Planning
DOH/OHA
DOCARE/HPD/DAR

FINAL COMPLIANCE REPORT

SPECIAL MANAGEMENT USE PERMIT

(SM1 990021)

02 MAR 15 P3:44
DEPT OF PLANNING
RECEIVED

OLOWALU MAUKA LANDS

LAHAINA, MAUI

March 2002

Olowalu Elua Associates, Inc.
173 Ho'ohana Street, Suite 201
Kahului, Hawaii 96732
Telephone: (808) 877-4202
Fax: (808) 877-9409

EXHIBIT 6

FINAL COMPLIANCE REPORT

SPECIAL MANAGEMENT USE PERMIT
(SM1 990021)

OLOWALU MAUKA LANDS
LAHAINA, MAUI

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A Master Subdivision Plan

B Construction Related Structures Plan .

C Irrigation System Plan

D Final Plat-Olowalu Mauka Subdivision (LUCA FILE No. 4.766)

INTRODUCTION

INTRODUCTION

Olowalu Elua Associates, LLC applied for a Special Management Area Use Permit for the subdivision of lands at Olowalu, Lahaina, Maui. At a public hearing on September 12, 2000, the Maui Planning Commission granted approval of the SMA Use Permit, subject to thirty six (36) conditions.

Pursuant to Condition # 10 of the SMA Use Permit, a Preliminary Compliance Report dated November 29, 2000 was submitted to the Maui County Planning Department for review and approval. Based on comments from the Planning Department review, this Final Compliance Report is being submitted to the Planning Department for review and approval.

As the project is being developed in phases, namely makai (oceanside of highway) and mauka (mountainside of highway), separate Final Compliance Reports will be submitted for each phase. The Final Compliance Report for the makai lands was approved September 28, 2001. This report is for the mauka lands.

SPECIAL MANAGEMENT AREA USE PERMIT APPROVAL LETTER AND REVIEW OF PRELIMINARY COMPLIANCE REPORT

RESPONSE TO SMA USE PERMIT CONDITIONS-MAUKA REPORT

Conditions:

1. Applicant is expected to initiate construction of the proposed project by September 30, 2002.

2. Applicant expects that the construction of the project will be completed within five (5) years after the date of its initiation.

3. Applicant understands that applicant or any aggrieved person may appeal to the Maui Planning Commission any action taken by the Planning Director on the subject permit no later than ten (10) days from the date the Director's action is reported to the Commission.

4. Applicant acknowledges that final construction shall be in accordance with preliminary subdivision plans included in the SMA submittal received by the Planning Department on November 9, 1999.

5. Applicant acknowledges that appropriate measures shall be taken during construction to mitigate the short-term impacts of the project relative to soil erosion from wind and water, ambient noise levels, and traffic disruptions.

6. Applicant understands that subject SMA Use Permit shall not be transferred without prior written approval by the Planning Commission.

7. A $1,000,000 comprehensive liability insurance policy naming the County of Maui as additional insured, is attached under **IV. Individual Reports-Insurance Binder.**

8. Applicants intends to comply will all government requirements.

9. A *Revised* Construction Related Structures Plan is herewith submitted under **IV. Individual Reports-*Revised* Construction Related Structures Plan.** This plan was approved on September 28, 2001 with the Final Compliance Report for the makai lands.

10. A Preliminary Compliance Report dated November 29, 2000 was submitted to the Planning Department for review and approval. This Final Compliance Report for the makai lands was approved September 28, 2001.

11. Applicant intends to develop the property in substantial compliance with the representations made to the Commission in obtaining the SMA Use Permit.

12. Applicant acknowledges that all required infrastructure improvements shall be constructed concurrently with the development and shall be completed prior to final subdivision approval or bonded in accordance with Title 18, Maui County Code.

13. Applicant acknowledges that an approximate 54-acre cultural reserve will be established in perpetuity, to be managed by the Olowalu Cultural Reserve, a non-profit organization. Access shall be open to the general public as a cultural reserve, however, access for recreational purposes shall be as approved by the Olowalu Cultural Reserve.

14. A *Revised* Greenway System Plan is herewith submitted under **IV. Individual Reports-*Revised* Greenway System Plan**. This plan was approved on September 28, 2001 with the Final Compliance Report for the makai lands.

15. An Irrigation System Plan for the proposed agricultural subdivision is herewith submitted under **IV. Individual Reports-Irrigation System Plan**.

16. A *Revised* Dust and Erosion Control Plan is herewith submitted under **IV. Individual Reports-*Revised* Dust and Erosion Control Plan**. This plan was approved on September 28, 2001 with the Final Compliance Report for the makai lands. Copies of the approved plan were previously submitted to the Planning Department and Department of Public Works and Waste Management.

17. Through the recordation of the SMA Unilateral Agreement and the Declaration of Covenants, Conditions and Restrictions, as encumbrances on the property, potential buyers will be advised of Hawaii's Right to Farm Act and that lots are being sold as commercial agricultural lots.

18. The Maui/Lanai Island Burial Council approved the Preservation Plan for the mauka lands during its February 22, 2000 meeting. A copy of the Preservation Plan and approval letter are herewith attached **under IV. Individual Reports-Burial Preservation Plan-Mauka Lands.**

19. The State Historic Preservation Division (SHPD) has reviewed and approved the Mitigation and Preservation Plan for archaeological sites within the Olowalu mauka lands. A copy of the final approval letter dated March 7, 2002 is herewith submitted with this report under **IV. Individual Reports-Archaeological Mitigation and Preservation Plan-Mauka Lands.** No land alteration will occur in the vicinity of any sites without verification by SHPD that the approved interim protection measures are in place.

20. The State Historic Preservation Division (SHPD) has reviewed the Mitigation and Preservation Plan for archaeological sites within the Olowalu Mauka

Lands. As all the sites were being preserved, no data recovery actions were taken. A copy of the final approval letter dated March 7, 2002 is herewith submitted with this report under **IV. Individual Reports- Archaeological Mitigation and Preservation Plan-Mauka Lands.**

21. The State Historic Preservation Division (SHPD) has reviewed the Mitigation and Preservation Plan for archaeological sites within the Olowalu Mauka Lands. There are no required monitoring areas within the mauka lands, therefore, no report is being submitted.

22. All archaeological preservation areas and buffer zones are identified on the subdivision final plat and will be noted as an encumbrance on conveyance documents for the affected lots. Upon recordation, a copy of the final plat will be forwarded to the Planning Department. **See Exhibit D.**

23. It was the intent that most of the oral history work previously started by applicant would be expanded by the Olowalu Cultural Reserve (OCR), the Lessee of the cultural reserve. The Olowalu Cultural Reserve however, have not organized themselves enough to continue the oral history at this time.

24. A *Revised* Cultural Reserve Buffer Plan is herewith submitted **under IV. Individual Reports-*Revised* Cultural Reserve Buffer Plan.** This plan was approved on September 28, 2001 with the Final Compliance Report for the makai lands.

25. Unless removal is necessary for intersection improvements, applicant will retain the Monkey Pod trees along the highway, both within applicants property and the State Honoapiilani Highway right of way. Applicant will consider the addition of Monkey Pod trees along the highway corridor, as part of the cultural landscape.

26. Through the recordation of the Unilateral Agreement and the Declaration of Covenants, Conditions and Restrictions, as encumbrances on the property, all lots within the Flood Zone AO and A4 will be subject to requirements that structures will be constructed above the flood elevation and that measures such as post and pier construction shall be considered to allow flood waters to traverse the property.

27. Through the recordation of the Unilateral Agreement and the Declaration of Covenants, Conditions and Restrictions, as encumbrances on the property, future buyers of lots shall be informed that development within flood hazard areas shall be implemented in accordance with Chapter 19.62, Maui County Code.

28. As none of the mauka lands front the shoreline, there is no report being submitted regarding the prohibition of soil as fill material or coastal dune actions.

29. Through the recordation of the Unilateral Agreement and the Declaration of Covenants, Conditions and Restrictions, as encumbrances on the property, a shoreline setback of 150 ft from the certified shoreline will be established for all the makai lots of the subdivision regardless of a government beach reserve fronting the subdivided lots. No structures shall encroach into this Shoreline Setback Area.

30. This condition pertains to lateral shoreline access and mauka/makai access from Honoapiilani Highway to the shoreline, therefore, no report is being submitted.

31. Roadway lot #39 of the mauka subdivision, 80 ft wide and within the existing cane haul road corridor, is being set aside as a reserve for future roadway expansion or relocation of Honoapiilani Highway. **See Exhibit D.**

32. Plans for required roadway improvements involving Honoapiilani Highway have been reviewed and approved by the State Department of Transportation. Roadway improvements shall be provided in accordance with said approval prior to occupancy of the subdivided lots, unless a phasing plan for said improvements is approved by the DOT. *

33. An *Revised* Outdoor Lighting Plan is herewith submitted under **IV. Individual Reports-*Revised* Outdoor Lighting Plan.** This plan was approved on September 28, 2001 with the Final Compliance Report for the makai lands.

34. Through the recordation of the "Unilateral Agreement" and the "Declaration of Covenants, Conditions and Restrictions" as encumbrances on the property, future buyers of lots shall be informed that there may be potential waste from the old Olowalu Mill site and other vacated agricultural industrial areas, and that remedial cleanup must be conducted before any new development occurs.

35. Through the recordation of the "Unilateral Agreement" and the "Declaration of Covenants, Conditions and Restrictions" as encumbrances on the property, future buyers of lots shall be informed that any survey monuments within their property, if any, need to be protected from any development activities. Also, it is the lot owners responsibility to reference or replace any disturbed or destroyed monuments.

36. An executed and recorded Unilateral Agreement is herewith submitted under **IV. Individual Reports-Unilateral Agreement.**

JAMES "KIMO" APANA
Mayor

DAVID C. GOODE
Director

MILTON M. ARAKAWA, A.I.C.P.
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH M. NAGAMINE, L.S., P.E.
Land Use and Codes Administration

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

JOHN D. RABDER
Solid Waste Division

BRIAN HASHIRO, P.E.
Highways Division

April 30, 2002

Mr. Robert Horcajo, Project Manager
OLOWALU ELUA ASSOCIATES, LLC
173 Hoohana Street; Suite 201
Kahului, Hawaii 96732

SUBJECT: **OLOWALU MAUKA SUBDIVISION**
TMK: (2) 4-8-003:010, 050-070, & 073-082
(2) 4-8-004:011-016
LUCA FILE NO. 4.766

Dear Mr. Horcajo:

Final approval for the subject subdivision (consolidation of 38 lots and resubdivision into 34 lots and 5 roadway lots) has been granted on April 30, 2002. This final approval is based upon Section 18.04.020(C) of the Maui County Code (Ordinance 2372). An approved final plat is enclosed for your records.

The State of Hawaii, Department of Land and Natural Resources, State Historic Preservation Division has attached the following condition to this final approval:

"..the terms specified in the accepted preservation plan and burial treatment plan are followed and an acceptable archaeological monitoring plan for sites 4820 and 4821 is submitted to this office for review prior to the commencement of any ground-altering activities. In addition, an acceptable report documenting the findings of the monitoring activities will be submitted to this office for review upon 180 days following the completion of the proposed undertaking."

In accordance with Section 18.04.020(D) of the Maui County Code, the lots created by this subdivision shall not qualify for this exception with respect to any subsequent consolidation/resubdivision of any of the parcels.

EXHIBIT 7

If you have any questions regarding this letter, please call Mr. Lance Nakamura of our Land Use and Codes Administration at 270-7252.

Very truly yours,

DAVID GOODE
Director of Public Works
And Waste Management

Enclosure: Approved Final Plat
LSN:sy S:\LUCA\ALL\SUBD\LUCASUBD\REG4\4766-1.fin

xc: Dept. of Finance, Real Property Tax Division w/final plat
Dept. of Finance, Tax Map Division w/final plat
Building Permit Section w/final plat
Engineering Division w/final plat
Dept. of Planning w/final plat
Dept. of Water Supply w/final plat
Police Dept. w/final plat
State Dept. of Health w/final plat
Maui Electric Co. w/final plat

WEST MAUI LAND COMPANY, INC.

LAUNIUPOKO • OLOWALU • KAUAULA • KANOMA • MAKILA

33 Lono Ave., Suite 450
Kahului, Maui, Hawaii 96732

Phone: (808) 877-4202
Fax: (808) 877-9409

June 26, 2003

Mr. Ferdinand Cajigal
State Department of Transportation, Maui Division
650 Palapala Drive
Kahului, HI 96732

Re: Follow-up on May 22, 2003 meeting regarding DOT sign off on three Building Permits to construct farm dwellings on existing lots and construction plan approval for Olowalu Mauka Subdivision.

Dear Mr. Cajigal:

On May 22, 2003, Kirk Tanaka, David Ward, Heidi Bigelow and I met with you to discuss the Proposed Highway Access for Olowalu Mauka, building permits being delayed until the County obtains an approval letter from the State DOT and construction plan approval for 14 lot Olowalu Mauka Subdivision. In the meeting, it felt as though we found solutions to the concerns at hand that could be fairly efficiently resolved. More than a month later, we have not made much progress. I understand you are busy, but we are anxious to resolve these issues and move forward. To my knowledge, our consultants have provided you with all the information requested in a timely manner.

Of the items discussed, my highest priority is getting the building permits processed for the three Olowalu Mauka lot owners who are unable to obtain building permits until an 'Approval letter from the State Department of Transportation for access onto a State Highway' is received. (Copies of the Department of Public Work's comments are attached.) In our meeting, it was agreed that DOT would write approval letters.

To review, the Olowalu Mauka lots, which have been in existence since the early 1900s, were consolidated and reconfigured under County Ordinance No. 2372 in April 2002. This process is also called a lot line adjustment subdivision. Each lot has the same legal rights as before the consolidation/resubdivision. There were no additional lots created in the Olowalu Mauka Subdivision. As these lot owners hold legal title and pay real property taxes, they are allowed to build houses. Before the re-configuration and still today, lot owners can access the highway at any of the numerous permitted accesses from the Olowalu Dump along our property to the Ukumehame Access. Perhaps until the access across from Camp Pecussa is approved, we could direct the lot owners to use our cane road to access at the Olowalu dumpsite for safety reasons. Please let us know how we get this resolved quickly and efficiently.

My second priority is to obtain construction plan approval from the State DOT for roadway and related infrastructure for the fourteen Olowalu Mauka Subdivision lots. In the May 22, 2003 meeting you questioned why the plans were even sent to your office since the improvements do not touch a State Highway. In fact, the improvements are approximately ½ mile away. We agreed, but acknowledge that once the County sent them to DOT and required approval, we must get a response. My understanding was that DOT would notify Public Works that they would not be reviewing the construction plans other than for drainage since the improvements were not in the vicinity of the State Highways. We have received all approvals from all other agencies, and are anxious to receive approval from DOT.

I will call to set up a meeting. The lot owners are frustrated. Please call me at 877-4202 or 283-1273 if you would like to discuss further.

Sincerely,
WEST MAUI LAND COMPANY, INC.

Peter Martin

Enclosures

EXHIBIT 8

ME 02-01

Tanaka Engineers, Inc.
871 Kolu Street, Suite 201 Wailuku, Maui, Hawaii 96793-1436
Phone: (808) 242-6861 Fax:(808) 244-7287 E-Mail: ttanaka@gte.net

civil engineering land surveying construction management inspectional services

State of Hawaii
Department of Transportation
Highways Division
650 Palapala Drive
Kahului, HI 96732

Attn: Mr. Paul Chung, P.E.

Date February 19, 2003
Project: Olowalu Mauka Subdivision
ME 02-01
Proposed Access Relocation

Gentlemen:

We are sending you: ☑ Herewith ☐ Separately

Sent by: ☐ Mail ☑ Deliver ☐ Pick-Up ☐ Fax

☐ Revised Drawings ☑ Prints ☑ For Approval ☐ For Your Use
☐ Specifications ☐ Tracings ☐ As Requested ☐ Approved as Noted
☐ Letter ☐ Invoice ☐ For Submission ☐ Other: See Remarks

No. of Copies	Description
1	Print of Preliminary Layout of Proposed Subdivision Access on Highway at Sta. 36+40±

Remarks: Please review the attached intersection layout for our meeting on February 24 at 1:00 p.m. Mr. David Ward, owner's representative, will also be at the meeting.

Thank you for your support and attention to this matter.

Very truly yours,

RHidalgo

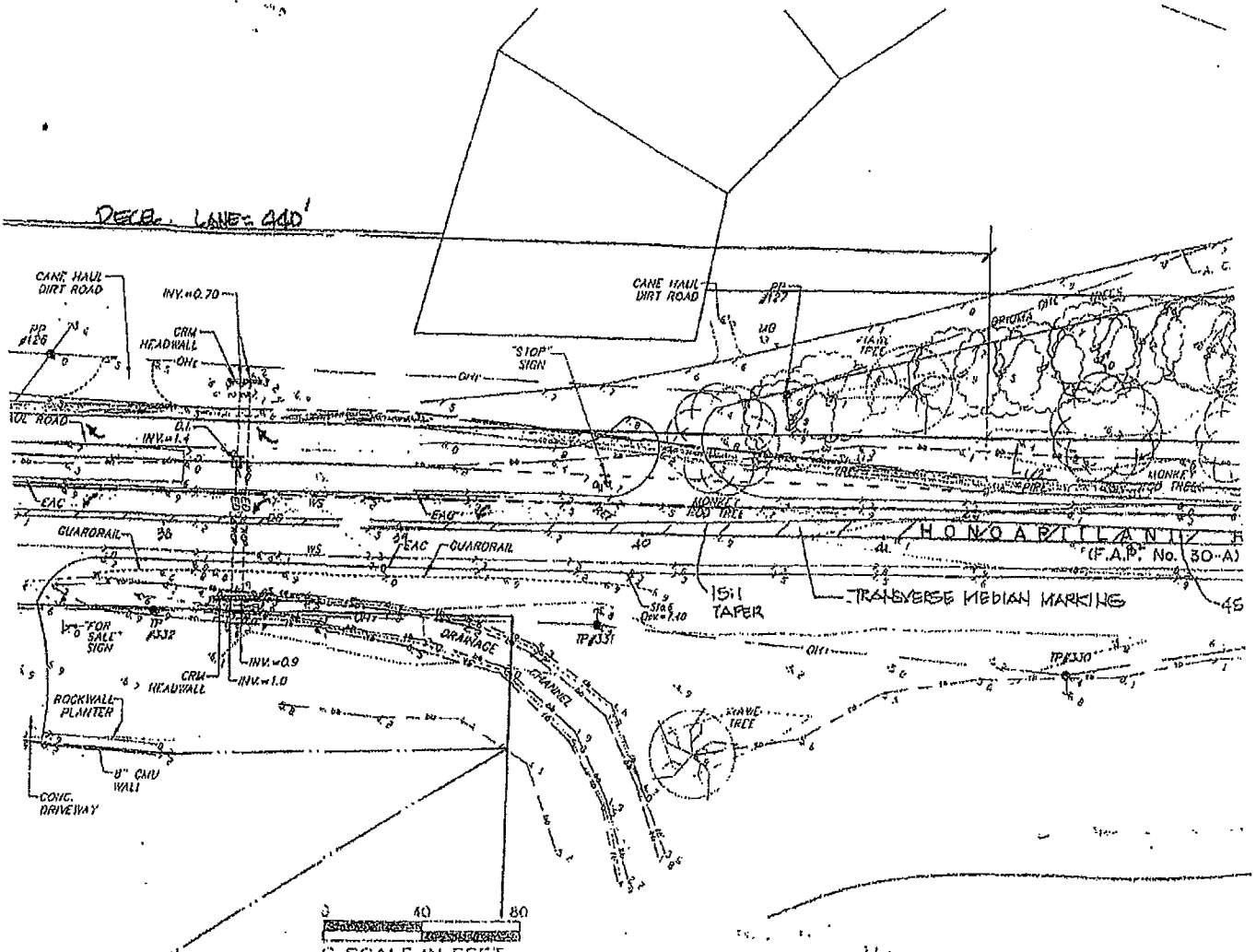
Rogelio Hidalgo, P.E., L.S.
Project Engineer

0323

c: Mr. David Ward (via Fax)

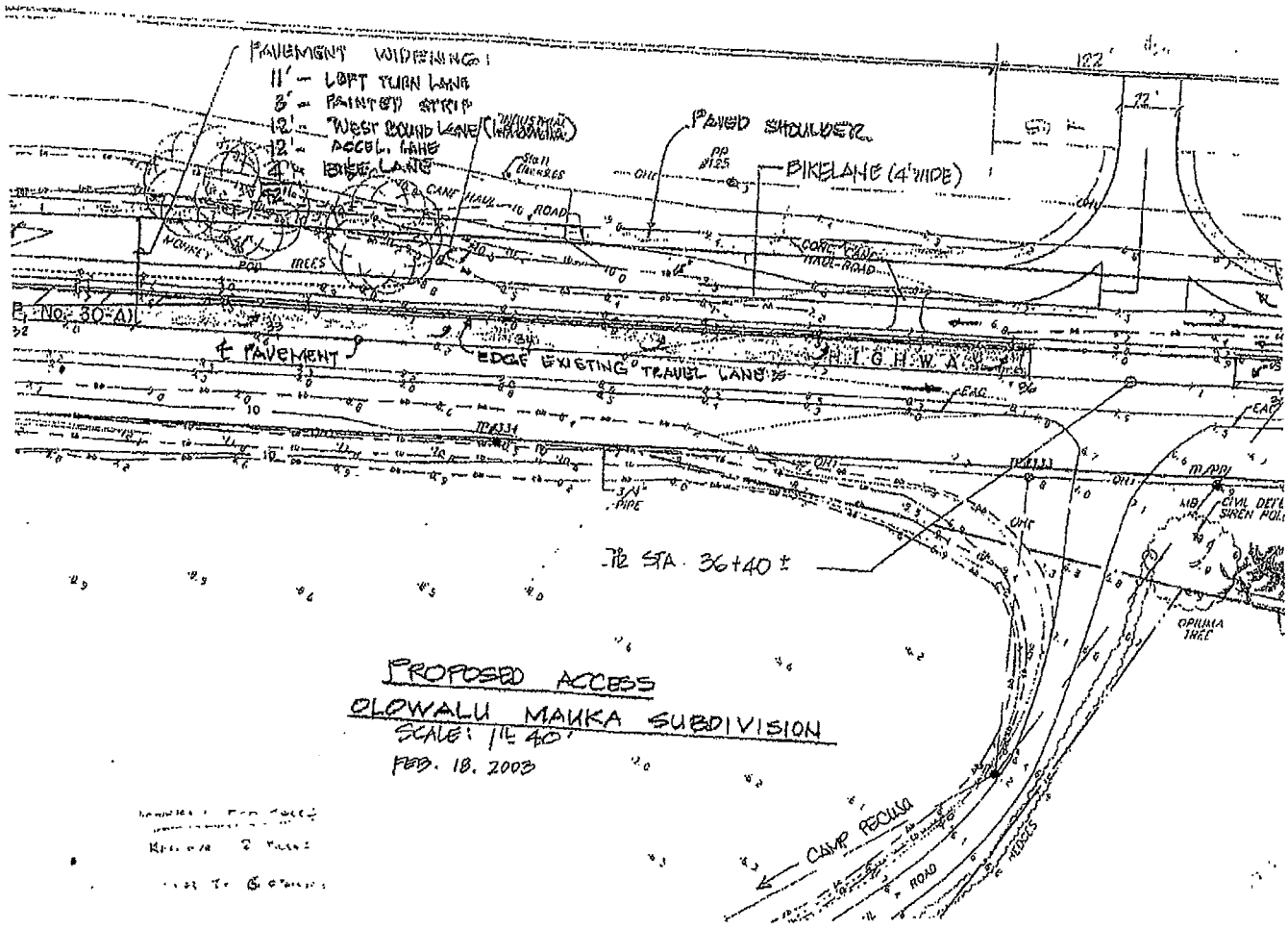
EXHIBIT 9

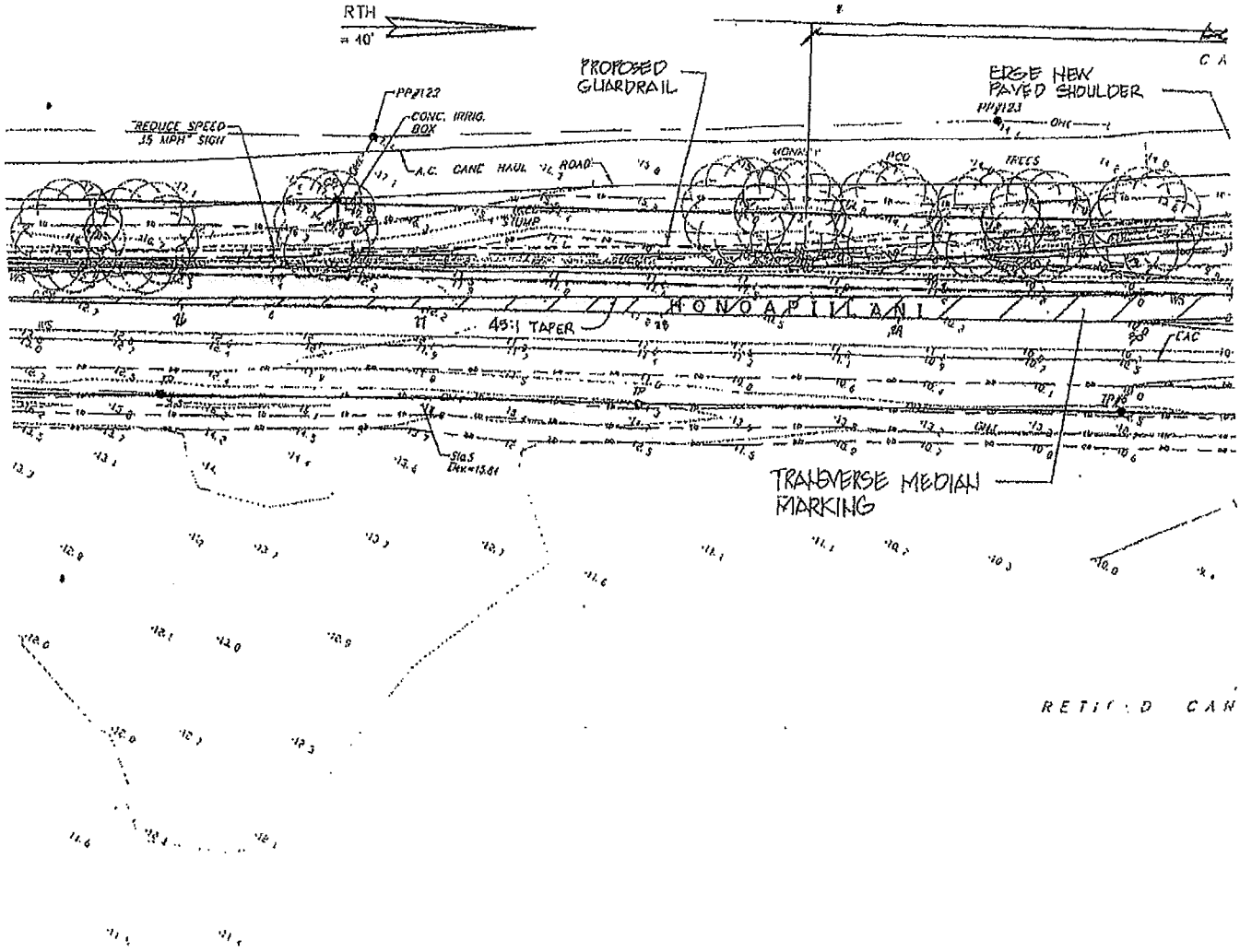
J.N. 01-099

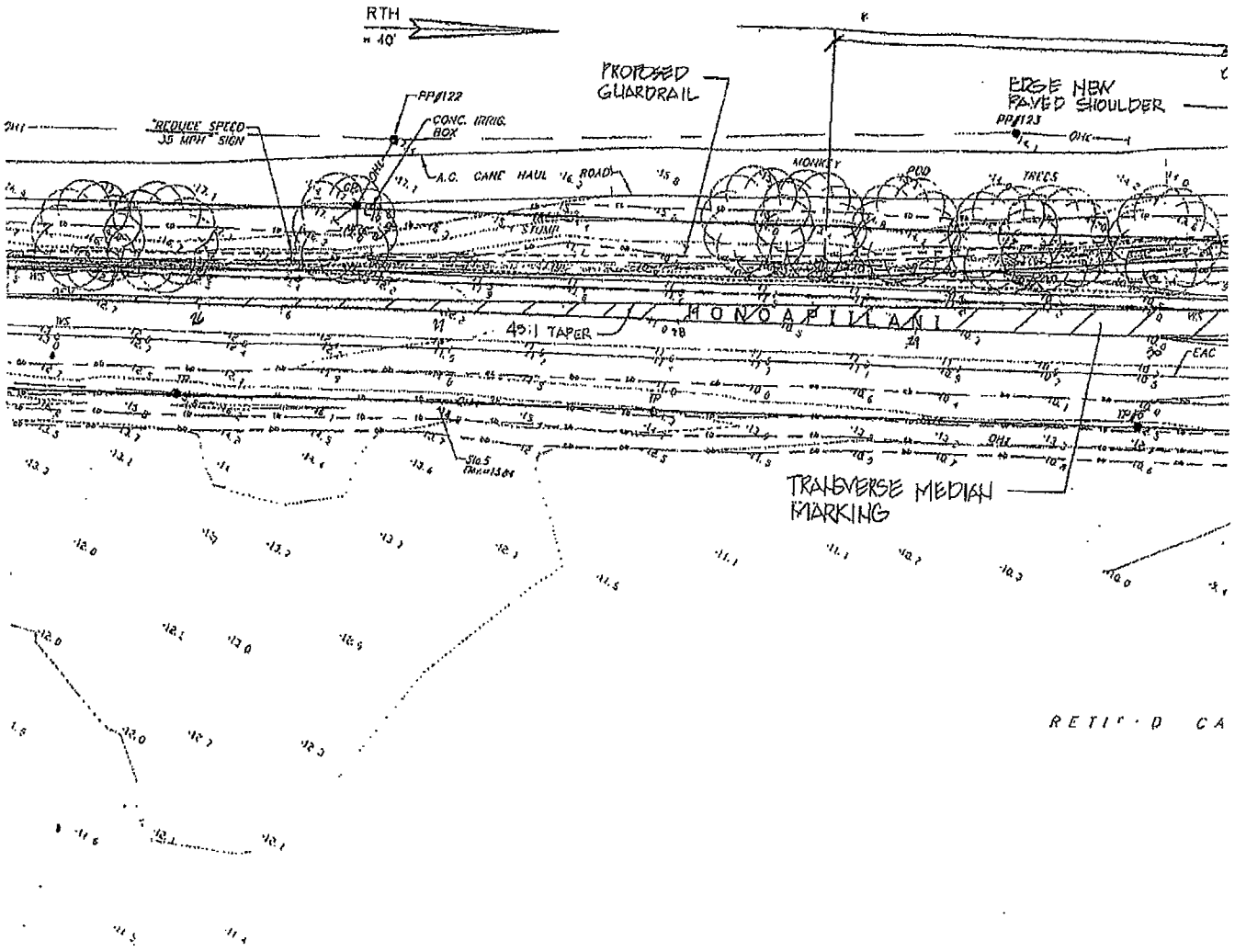


(2) 4-8-03 (PORTION)

FEET, SUITE 201


PAVEMENT WIDENING:
11' - LEFT TURN LANE
3' - PAINTED STRIP
12' - WEST BOUND LANE
12' - ACCEL. LANE
4' - BIKE LANE
PAVED SHOULDER
BIKELANE (4' WIDE)
CANE HAUL ROAD
MONKEY POD TREES
℄ PAVEMENT
EDGE EXISTING TRAVEL LANE
HIGHWAY
PIPE
STA. 36+40 ±
OPIUMA TREE
CAMP PECUNIA
ROAD
HEDGES
PROPOSED ACCESS
OLOWALU MAUKA SUBDIVISION
SCALE: 1" = 40'
FEB. 18, 2003


RTH
= 40'
PROPOSED GUARDRAIL
EDGE NEW PAVED SHOULDER
PP#123
PP#122
CONC. IRRIG. BOX
"REDUCE SPEED 35 MPH" SIGN
A.C. CANE HAUL ROAD
TREES
HONOAPIILANI
45:1 TAPER
TRANSVERSE MEDIAN MARKING
RETI D CAN.


RTH
PROPOSED GUARDRAIL
PP#122
CONC. IRRIG. BOX
"REDUCE SPEED 35 MPH" SIGN
A.C. CANE HAUL ROAD
MONKEY POD TREES
EDGE NEW PAVED SHOULDER
PP#123
MONOAPILLANI
45:1 TAPER
EAC
TRANSVERSE MEDIAN MARKING

LINDA LINGLE
GOVERNOR

RODNEY K. HARAGA
DIRECTOR

Acting Deputy Director
GLENN M. OKIMOTO

IN REPLY REFER TO:
HWY-M2.323-03

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MAUI DISTRICT
650 PALAPALA DRIVE
KAHULUI, HAWAII 96732

July 14, 2003

MEMORANDUM

TO: Bert Ratte
Land Use & Codes Administration

FROM: Paul M. Chung
State Highways

SUBJECT: Olowalu Mauka Subdivision – Phase 1
LUCA No. 4.766
ME 02-01

Thank you for the opportunity to review and comment on the construction plans for the subject project. Based upon our review of the plans, it appears that all of our concerns have been addressed. Therefore, we recommend approval of these construction plans.

If there are any questions or concerns, please call me at 873-3535.

/pmc

cc: Kirk Tanaka

EXHIBIT 10

WEST MAUI LAND COMPANY, INC.
LAUNIUPOKO • OLOWALU • KAUAULA • KAHOMA • MAKILA

33 Lono Ave., Suite 450
Kahului, Maui, Hawaii 96732

Phone: (808) 877-4202
Fax: (808) 877-9409

March 17, 2005

Transmittal

Lance Nakamura
County of Maui
Department of Public Works & Waste Management
250 South High St.
Wailuku, HI 96793

Re: Warranty & Guaranty of Improvements

Dear Mr. Nakamura,

Please find enclosed the following Warranty and Guaranty of Improvements for your action and files:

1. Mahanalua Nui Subdivision Phase III, File No. 4.827
2. Makila Plantation Subdivision Phase II, File No. 4.838
3. Olowalu Mauka Subdivision, File No. 4.766
4. Mahanalua Nui Subdivision Phase IV, File No. 4.883

I am enclosing Mahanalua Nui Subdivision Phase IV so it is available for execution upon completion and approval of improvements.

Please contact me at 877-4202 or via email heidi@westmauiland.com if you have any questions or need additional information.

RECEIVED
MAR 18 2005
DEVELOPMENT SERVICES ADMINISTRATION
COUNTY OF MAUI

Sincerely,
WEST MAUI LAND COMPANY, INC.

Heidi Bigelow

Enclosures

EXHIBIT 11

OLOWALU ELUA ASSOCIATES LLC
33 Lono Avenue, Suite 450 • Kahului, Maui, Hawaii 96732
Telephone (808) 877-4202 • Facsimile (808) 877-9409

Date: October 7, 2003

To: Olowalu Community Members

From: Olowalu Elua Associates LLC

Re: Olowalu Mauka Highway Access &
Olowalu Conceptual Master Plan

Dear Olowalu Community Member:

We are writing to thank those of you who were able to attend the meeting on August 19, 2003 and to give an overview and update of the Mauka Highway Access and Olowalu Master Plan to those of you who were unable to attend.

Olowalu Mauka Highway Access
We are working with State Department of Transportation to develop a safe intersection for Olowalu Mauka Subdivision and Olowalu Village. The new intersection is located across from the Camp Pecusa entrance. Plans include acceleration and deceleration lanes, a left-hand turn lane and striped median. Enclosed for your information is a schematic plan of the proposed intersection and relocated cane haul road along with landscape concept sketches of entry. We were hopeful that the intersection improvements could be in place in 12 to 18 months, but have recently been told that an Environmental Assessment (EA) may be required which could add another year to process.

Olowalu Conceptual Master Plan
Enclosed is the conceptual master plan that we are proposing for the Olowalu area. This plan is a product of five years of brainstorming and numerous layouts for the area. We started by relocating the highway Mauka and providing greenways and beach parks at the popular surf and snorkel locations with beach accesses in between. The heart of the town centers on an oceanfront community park with mixed-use buildings intended for small businesses that would benefit the Olowalu residents, such as a mom and pop grocery store, daycare, café, restaurant, bed & breakfasts/inns and cultural museum. Smaller lots (a blend of affordable and market prices) abut the Community Park and existing Olowalu Village, and larger ½ to 2-acre lots are proposed to complete the Makai community. The existing fourteen 3 to 6-acre lots in Olowalu Mauka are surrounded by greenways and cultural reserves with a few additional 15 to 25-acre lots proposed Mauka of the relocated highway.

EXHIBIT 12

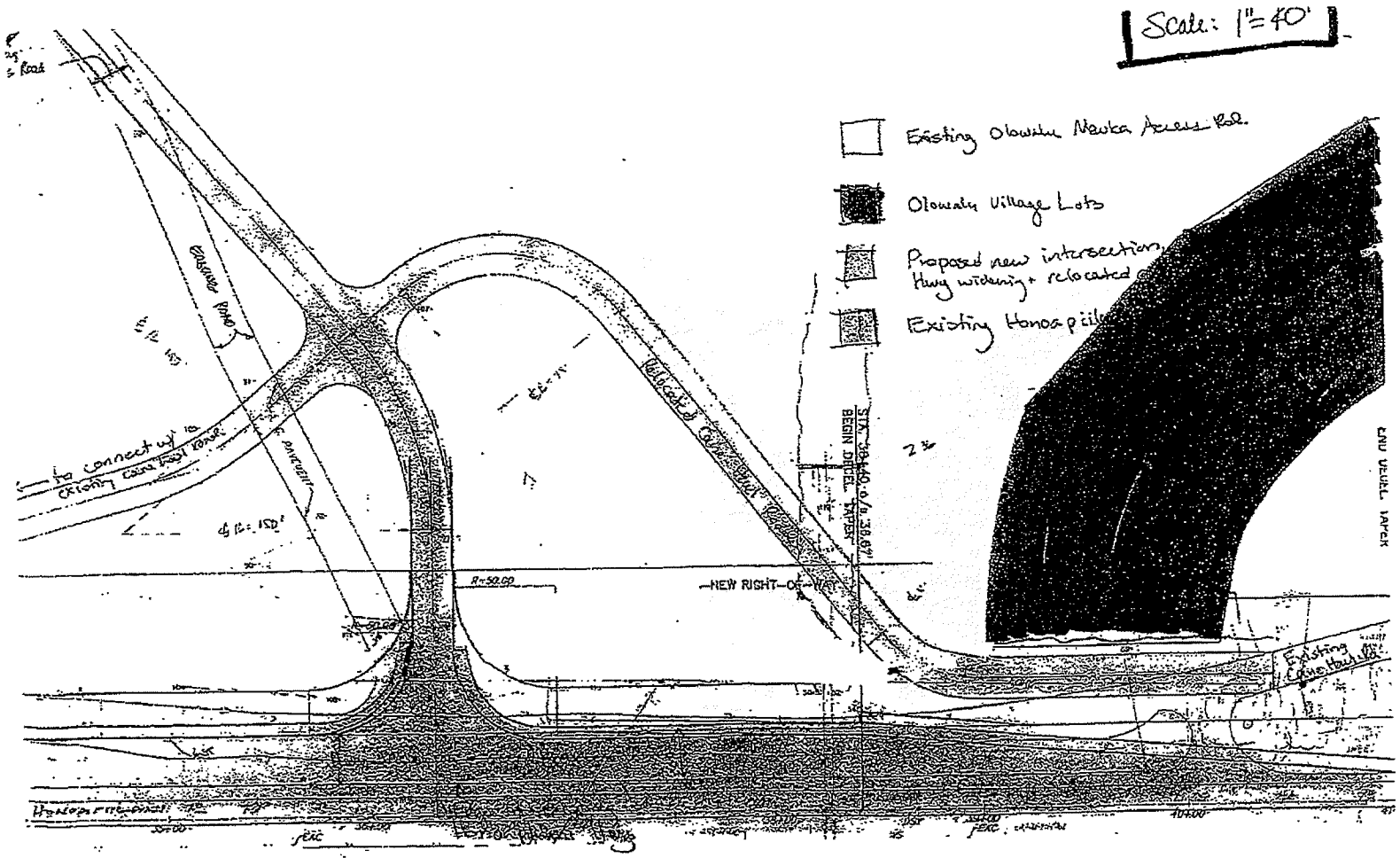
The application process for the Olowalu Master Plan is complex and lengthy. We believe it will take about five years to complete the Change in Zoning, and then between ten and fifteen years to complete build out of the project. Before we submit a formal application, there is much work to be done. You are among the first to see the plan since this is your town. We plan on holding ongoing community meetings, and will keep you posted on the progress. There is ample opportunity for public testimony and input through out the process.

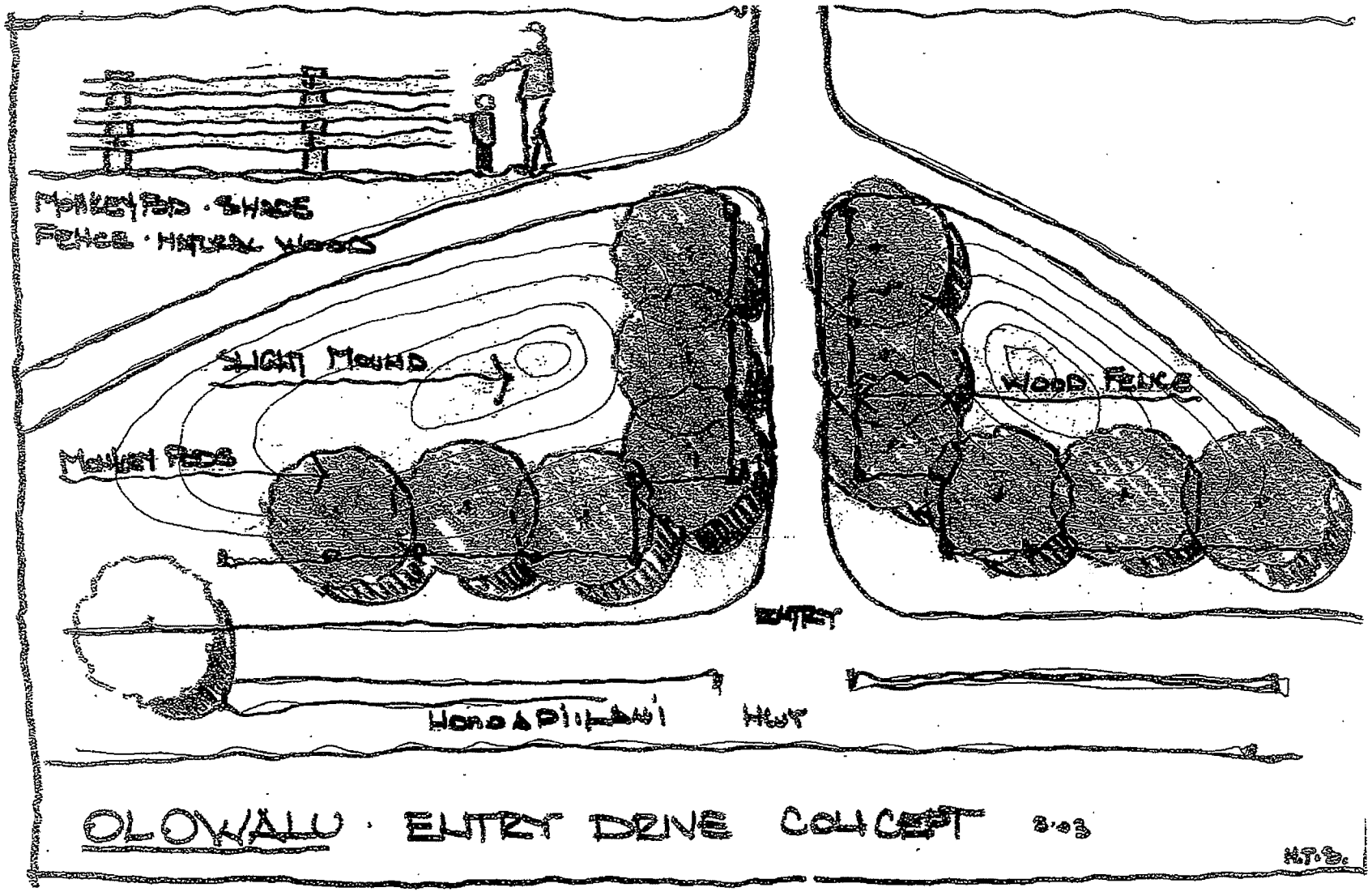
Sincerely,
Olowalu Elua Associates, LLC

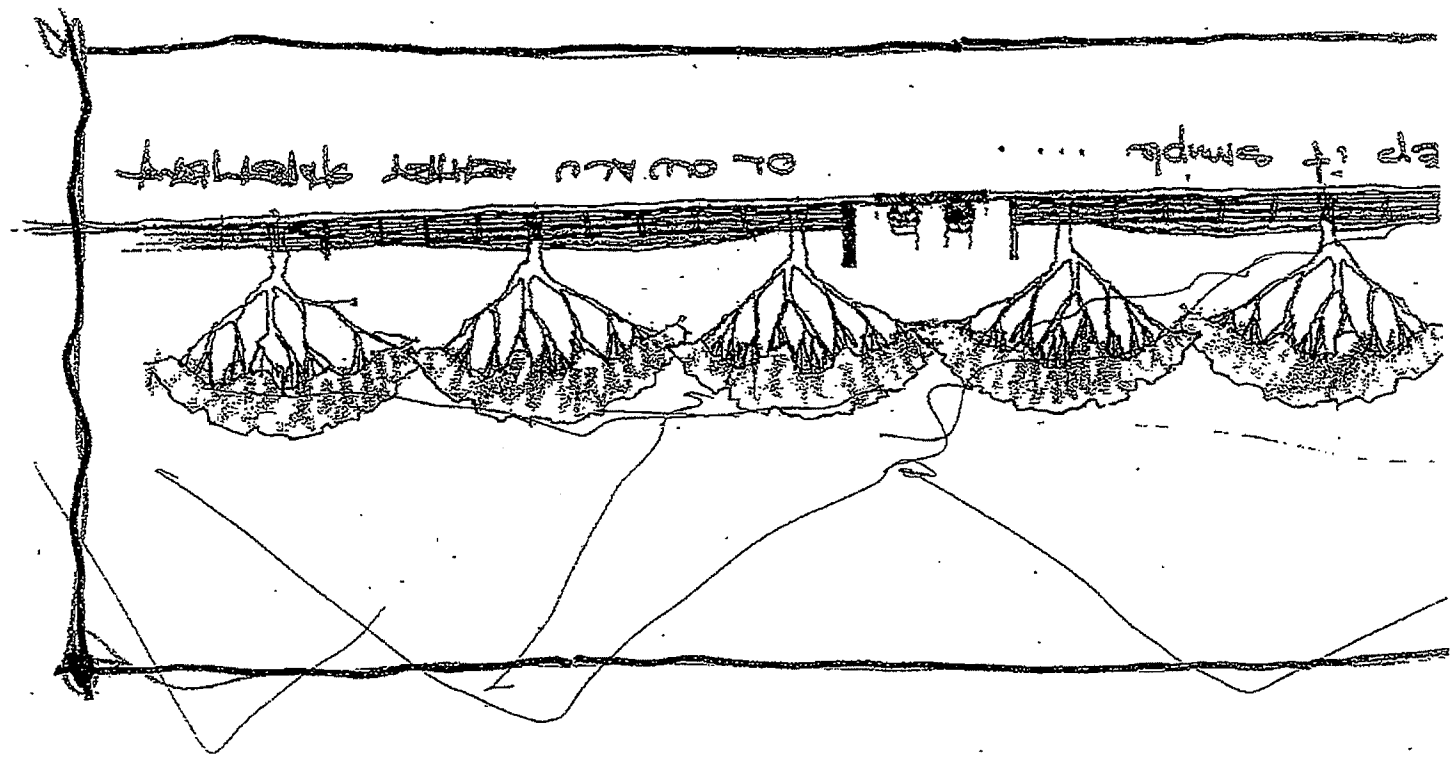
Peter Martin

Jim Riley

Enclosures


Scale: 1"=40'
Existing Olowalu Nauka Access Rd.
Olowalu Village Lots
Proposed new intersection, Hwy widening + relocated
Existing Honoapiil
to connect w/ a existing Cane Haul Road
Relocated Cane Haul Road
NEW RIGHT-OF-WAY
BEGIN DECEL TAPER
END DECEL TAPER
Existing Cane Haul Rd.
R=50.00


MONKEYPOD · SHADE
FENCE · NATURAL WOOD
SLIGHT MOUND
MONKEY PODS
WOOD FENCE
ENTRY
HONOAPIILANI HWY
OLOWALU · ENTRY DRIVE CONCEPT 8·03
N.T.S.



INTRODUCTION

Xamanek Researches was contacted during late August 1998 by Mr. Robert Horcajo, Project Manager, Olowalu Elua Associates LLC, Kahului, Maui, regarding the Olowalu project area at Olowalu *ahupua'a*, Lahaina District, Maui. The overall project area encompassed much of the existing Olowalu *ahupua'a* and a small portion of Ukumehame *ahupua'a* (Figure 1). We were asked to prepare and submit a proposal for an archaeological inventory survey, following an onsite meeting.

Xamanek Researches was subsequently contracted to carry out an inventory survey of the c. 732 acre property, which was to be carried out in two phases. Phase 1 focussed on the area *makai* (southwest) of Honoapi'ilani Highway, while Phase 2 was carried out on the area *mauka* (northeast) of the road. We located Site 50-50-08-4693, a precontact burial ground on the eastern portion of the *makai* project area, in November 1998. A burial preservation plan for Site 4693 was prepared in consultation with the Maui/Lana'i Islands Burial Council (MLIBC) [Fredericksen and Fredericksen, 28 Feb. 1999]. Fieldwork on the *mauka* project area began in late 1998 and continued through June 1999. We identified 11 sites that contain or are thought likely to contain human remains during the Phase 2 inventory survey. We recently prepared a burial treatment plan for these 11 sites on behalf of Olowalu Elua Associates, LL. The Maui/Lanai Islands Burial Council (MLIBC) at its November 2000 meeting approved this treatment plan (Fredericksen and Fredericksen November 2000). The following preservation plan for these sites has been prepared in order to address State Historic Preservation Division requirements for these sites on the *mauka* portion of the Olowalu project area. This plan has again been prepared on behalf of Olowalu Elua Associates, LLC.

EXHIBIT 13A

BACKGROUND RESEARCH

In precontact times, Olowalu—the largest and deepest valley in Lahaina district—had extensive taro *lo'i* in both the stream valley and the alluvial fan below. Production of taro was continued into the 20th century in the *kuleana* near the ocean according to Handy and Handy (1972, p. 492). A total of 34 Land Commission Awards are located on the *mauka* project area, and numbers of these were awarded for taro and/or house lot use (Figure 1). Several of these LCAs are probably the *kuleana* noted above by Handy and Handy, and are situated near what was formerly the mouth of Olowalu Stream. This stream was rechanneled near the beginning of the 1900s, and its mouth now lies c. 1 km to the northwest of its former bed. The agricultural productivity of Olowalu supported a sizable population into historic times. As long as there was water available, the hot climate was ideal for producing taro.

Coastal Olowalu was the site of the historic Olowalu Massacre, which took place in 1790, by the hand of Captain Simon Metcalf, as retaliation for the theft of a longboat. He lured Hawaiians to the side of his vessel, Eleanora, and opened fire on the canoes—at point blank range. It was reported that the bodies of the slain warriors were recovered from the ocean, and "heaped upon the sand" where family members came to mourn and identify their dead (Kamakau, 1992, p. 147). Although less dramatically destructive than the Olowalu Massacre incident, the influence of foreigners began making a more subtle long-term impact on native Hawaiians in this part of Maui and elsewhere. Commercial activities in Lahaina town, the capital of the Hawaiian Islands after the time of Kamehameha I, drew people away from their homes in Olowalu. By 1819 whaling ships had begun to arrive off Lahaina, and their provisioning became a lucrative new venture. Following a few years later were the missionaries from New England. By 1832, the census recorded by the missionaries placed the population of Olowalu at 832 souls.

The Olowalu Sugar Company is said to have been an enterprise of King Kamehameha V, who reigned from 1863 to 1872. This plantation began operating sometime during his reign under the name of West Maui Sugar Company. It was incorporated as the Olowalu Sugar Company in 1881, and continued to operate as such until Pioneer Mill Company purchased it in 1931. The Olowalu Sugar Mill was decommissioned in 1933. However, sugarcane continued to be cultivated on the property until 1999, when Pioneer Mill ended an era of sugarcane production.

PAGE 5 MISSING FROM ATTACHMENTS
SENT BY RANDY RAGON

SUMMARY OF ARCHAEOLOGICAL FINDINGS ON THE MAUKA PROJECT AREA

A total of 34 archaeological sites were identified during our 1999 inventory survey (Figure 1 and Table 1). Twenty-eight of these are previously unrecorded cultural resources. These various sites include an unnamed *heiau* (Site 4718); temporary habitation areas and rock overhang shelters; agricultural terraces; a possible *heiau*, a pre- and post-contact burial ground on Pu'u Kilea (Site 4715); two petroglyph panels; a probable burial cave (Site 4699); a possible ceremonial site; plantation era retaining walls; a plantation ditch irrigation system; and a plantation hydropower facility. A total of 11 sites on the *mauka* project area are thought to contain or contain human remains and/or burials.

These 11 culturally significant sites will be addressed by the following preservation plan. Sites discussed in this plan include Kawaialoa/Kaiwaloa *heiau* (Site 04), a coffin burial associated with the old stone Hawaiian Protestant Church (Site 1603), a probable burial cave (Site 4699), Feature B at Site 4707, Feature E at the Site 4710 habitation complex, Feature B at Site 4712, the Pu'u Kilea Burial Ground (Site 4715), two or more probable burials at a small unnamed *heiau* (Site 4718), The Awalua Cemetery[3] (Site 4758), and two surface scatters of previously disturbed human remains (Site 4820 and 4821). Refer to Figure 2 for site locations within the proposed Green Way open area for the Olowalu Development.

[3] The Awalua Cemetery was formerly known as the "Japanese Cemetery," a reflection of its past plantation-era usage. This site was referred to as the "Puha Cemetery" in the Burial treatment Plan, reflecting traditional use of the cemetery. Given the broad usage span of Site 4758, a more inclusive name was suggested at the 25 January 2001 meeting of the Maui/Lana'i Islands Burial Council meeting. The name 'Awalua' was chosen, because it refers to the area. This name change was approved by lineal descendents present at the meeting (Ms. Katie Nahina, Ms. Adeline Rodrigues, and Mr. William Waiohu).

TABLE 1

Significance Evaluations—Proposed Mitigation

SIHP # -50-50-08-	Significance criterion	Components/ features	Status[4]	Condition[5]	Age[6]	Proposed mitigation
04	C, D, E	*heiau*	U	Very good	I	Interpretive preservation[7]
3180	D	1	A	G	H	NLS[8]
4699	D and E	9	varies	G	I/H	Passive preservation
4700	D	9	U	G	I	Passive preservation—DR on Features B, J
4701	D	1	A	F	I	DR to determine function
4702	D	1	A	G	H	NLS
4703	D	3	A	varies	?	NLS
4704	C, D, E	7	U	G	I	Preservation—DR if impacted
4705	D	2	U	G	I	Passive preservation
4706	D	1	U	G	I	Passive preservation
4707	D, E	2	A	F-P	I	DR to ascertain age and function
4708	D	2	A	G	I/H	Interpretive preservation
4709	C, D	4	A	G	H	NLS
4710	D, E	7	A	G-F	I	Preservation
4711	D	2	U	G-P	I	NLS
4712	D	2	A	G	I	DR to ascertain if burial present
4713	D	1	U	G	I/H	Passive preservation
4714	D	1	U	G	I	Passive preservation
4715	D, E	cemetery	U	G	I/H	Preservation
4716	D	2	A	F	I/H	DR to determine function of Feature B
4717	D	5	U	G-P	H	NLS
4718	C, D, E	3 (*heiau*)	A	P	I	Interpretive preservation
4719	D	1	A	P	H	NLS
4720	D	1	A	G	H	NLS
4721	D	1	A	F	H	NLS
4758	D, E	cemetery	U	F	H	Preservation
1200	C, D, E	petroglyphs	A	F	I	Preservation
1201	D	1	A	F	I	Preservation as part of complex.
1603	D, E	burials	A	F	H	Preservation[7]
3172	D	Water delivery system	U	G	H	Preservation as an operating water system
4820	D, E	Surface scatter of human remains	A	P	I	Monitoring to recover remains
4821	D, E	Surface scatter of human remains	A	P	I	Monitoring to recover remains
4822	D	Pond sediments	A	P	I/H	DR-pollen samples, C14 dates
4823	D	Marsh deposits	U	G	I/H	DR-pollen samples, C14 dates

[4] A=altered; U=unaltered
[5] G=good; F=fair; P=poor
[6] I=indigenous; H=historic
[7] Consultation with Native Hawaiian community recommended prior to implementation.
[8] No longer significant—sufficient information has been collected.
[9] Although the parcel on which this church is located is outside the property boundary, the portion in which at least one burial was found is within the project area. This will be preserved.

PRESERVATION PLAN FOR MAUKA PROJECT AREA SITES WITH HUMAN REMAINS, BURIALS, AND PROBABLE AND POSSIBLE BURIAL FEATURES

This overall preservation plan will present the proposed preservation treatment measures for the 11 sites that were addressed in the November 2000 burial treatment plan for the *mauka* project area. The following sites contain or are thought to contain burials and/or human remains. Human remains were located at Site 1603 (Old Stone Church), and Sites 4820 and 4821 (both surface scatters of previously disturbed human remains) during inventory level work. The remaining eight sites are thought to contain burials and/or human remains. While we did not physically identify human burials at these remaining eight sites, cultural and lineal descendents from Olowalu indicated that burials are present at four of these sites. Sites in this category include Kawaialoa/Kaiwaloa *heiau*—Site 04, the Pu'u Kilea Burial Ground—Site 4715, the small unnamed *heiau*—Site 4718, and the Awalua Cemetery—Site 4758. The four remaining sites are considered to contain probable or possible burial features. These include Site 4699, Site 4704, Site 4710, and Site 4712. Site 4699, a small lave tube, contained the remains of an old *hala* mat bundle that we did not further investigate. Individual preservation proposals are presented below for 9 of the 11 sites.[10] Refer to Figure 2 for general site locations on the *mauka* project area.

The following plan outlined here follows suggestions in the SHPD rules (HAR Title 13, Subtitle 6, Chapter 148, pp. 2-5).

[10] Sites 4820 and 4821 consist of surface scatters of previously disturbed human remains. These human remains will be reinterred at the Awalua Cemetery (Site 4758) per the MLIBC approved November 2000 burial treatment plan (Fredericksen and Fredericksen 2000).

Identification of Site(s) to be preserved

Nine of the 11 sites that contain or are thought to contain human remains and/or burials are recommended for in-place preservation on the Olowalu *mauka* project area in this December 2000 plan. Previously disturbed human remains recovered from Sites 4820 and 4821 shall be reinterred at the Puha Cemetery—Site 4758 (hereafter referred to as Awalua Cemetery) per the MLIBC approved Burial Treatment Plan (Fredericksen and Fredericksen, November 2000). Please note that the nine sites covered in this preservation plan **do not** include all sites to be preserved on the *mauka* project area. These other sites will be included in the final preservation plan for the Olowalu *mauka* project area (see Table 1). This first portion of the preservation plan has been prepared in order to address preservation treatment proposals for the sites that are covered by the November 2000 Burial Treatment Plan for the *mauka* project area. These sites include Kawaialoa/Kaiwaloa *heiau* (Site 04); a coffin burial associated with the old stone Hawaiian Protestant Church (Site 1603), a probable burial cave (Site 4699), a possible burial mound at Site 4707, a probable burial at the Site 4710 habitation complex, a possible burial feature at Site 4712, the Pu'u Kilea Burial Ground (Site 4715), two or more probable burials at a small unnamed *heiau* (Site 4718), The Awalua Cemetery (Site 4758), and two surface scatters of previously disturbed human remains (Sites 4820 and 4821).

Preservation Tasks

Recommended mitigation measures for the above sites include interpretive preservation for three sites, "as is" preservation for six sites, and reinterment of the recovered human remains from Sites 4820 and 4821.[11] Sites proposed for interpretive preservation include Site 04 (Kawaialoa/Kaiwaloa *heiau*), Site 4710, and Site 4718 (small unnamed *heiau*). Sites proposed for "as is" preservation include Site 1603 (Old Stone Church coffin burial), Site 4699 (Feature D burial cave), Site 4707, Site 4712, Site 4715 (Pu'u Kilea Burial Ground), and Site 4758 (Awalua Cemetery). Signage will be designed and worded to describe and/or identify the above sites. While some of these sites have limited interpretive value, signage is nevertheless recommended for all nine sites. It is felt that this step is necessary, in order to help ensure their long-term integrity.

Short-term preservation

To help ensure protection of the cultural features during future project construction, it is recommended that the nine sites scheduled for preservation be marked prior to construction with orange-plastic construction fencing or other means of delineating the site preservation perimeters in order to reduce the possibility of inadvertent damage. It is also recommend that all nonnative trees be flush cut within the

[11] Recall that these two sites lie in former sugar cane fields and consist of previously disturbed human remains.

recommended site preservation areas and the tree roots left in place to rot. This methodology will help minimize potential disturbance to the sites slated for preservation.

Long-term preservation

As noted earlier, three sites (Sites 04, 4710, and 4718) are recommended for interpretive preservation, and six sites (Sites 1603, 4699, 4707, 4712, 4715, and 4758) are recommended for "as is" preservation. Comments and recommendations from Native Hawaiian lineal and cultural descendents of Olowalu have been included in the recommended long-term actions for each of these sites listed below:

Sites Recommended for interpretive preservation

Site 04 – Kawaialoa/Kaiwaloa *heiau* (Figure 3)

1. Interpretive preservation is recommended for this large *heiau*. This impressive structure is constructed with large rounded boulders and cobbles, and measures c. 50 meters (165 feet) N-S by c. 36 meters (120 feet) E-W. Several probable burials are likely contained in this site.[12] The *heiau* has been placed in the proposed Cultural Reserve for Olowalu.[13] Site 04 is bounded by three parcels that are slated for development (Lots 6, 7 and 8).[14]

2. Interpretive signage shall be placed on the northern (*mauka*) side of the Site 04 preservation area. This sign should be placed where it is clearly visible at the trail terminus/parking area. The placement of this sign will help to inform the public of the site's overall significance. However, given the site's cultural significance, it has been requested that access to the interior of the *heiau* be reserved for traditional Native Hawaiian cultural purposes.[15] Text and graphics will relay basic information about the *heiau*.

3. Provisions for access to the interior will be made for Native Hawaiians who wish to visit the *heiau* for traditional cultural purposes. Access to the interior of the structure by the general public will not be encouraged.

4. It is recommended that a path lead from the interpretive sign to a natural viewing platform that overlooks the site. The intention of this platform is to

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[12] Walker noted that burials were contained in Site 04 in his island inventory in 1931. At the writing of this preservation plan, contemporary informants Ms Katie Nahina, Mr. William Waiohu, and Ms. Adeline Rodrigues, all lineal and cultural descendants of Olowalu, have indicated that traditional burials are indeed contained within Kawaialoa/Kaiwaloa *heiau*.

[13] A nonprofit corporation—Olowalu Cultural Reserve—has been formed under 503 C3 rules to administer the c. 75-acre Cultural Reserve in Olowalu.

[14] Mr. Robert Horcajo, Project Manager for Olowalu Elua Associates, LLC, has indicated that all parcels bordering the proposed Cultural Reserve will have a set back buffer of nearly 10 meters (30 feet), as required by a condition of the SMA permit.

[15] This request has been put forth by lineal descendents of Olowalu, including Ms. Katie Nahina, Ms. Adeline Rodrigues, and Mr. William Waiohu.

[illegible] plants such as 'Ilima (Sida fallax) in the site preservation area. A request has been made to mark the boundaries of the preservation area with a native hedge and boulders to help buffer the preservation area from the planned development of Olowalu.

6. Olowalu Elua Associates LLC shall maintain a preservation area buffer of c. 30 meters (100 feet) for Site 04.

Site 4710 – habitation complex with probable burial—Feature E (Figure 4)

1. This late pre- to early post-European contact habitation complex consists of seven features including a probable burial (Feature E). It is located along the northeastern crest of Olowalu Valley relatively near the northern boundary of the project area. Interpretive preservation is recommended for this complex because it is a rare surviving example of a habitation complex that includes agricultural terraces in the project area. This site has been placed in the proposed Cultural Reserve for Olowalu. Site 4710 is bounded to the south by Parcel 6, a property slated for development. The southern portion of this site has been impacted by previous earth disturbance activities associated with sugarcane agricultural operations.

2. Interpretive signage shall be placed on the southern side of the Site 4710 preservation area. This sign should be placed where it is clearly visible at the trail head/parking lot. The placement of this sign will help to inform the public of the site's function and age. Text and graphics will relay basic information about Site 4710.

3. Access to the site will be from the proposed Cultural Reserve. The site will be readily visible from a natural viewing platform just to the south of the exposed portion of this complex.

4. It is recommended that a path lead from the interpretive sign to a viewing platform that overlooks this site. The intention of this platform is to help

[16] Ms. Katie Nahina, a lineal and cultural descendant of Olowalu, has indicated that a group that includes her son, Mr. Daniel Kalanihou Lunalilo Nahina, and Mr. Ke'eaumoku Kapu, a family member, shall serve as caretakers of this *helau*.

reduce foot traffic to the site preservation area itself. The suggested location of this platform is on top of existing sugar plantation era fill just to the south of the exposed portion of Site 4710, between Features A and B.

5. At this time, minimal landscaping actions are recommended for Site 4710, including flush cutting *kiawe* trees and other alien tree species that are in and nearby the site. It may be possible—over time—to encourage drought tolerant native plants such as *'ilima* (*Sida fallax*) in the site preservation area. The boundaries of the preservation area shall be marked with a native hedge and/or boulders or other method of demarcation approved by SHPD and the MLIBC to help buffer the preservation area from the planned development of Olowalu.

6. The Olowalu Cultural Reserve shall maintain a preservation area buffer of c. 10 meters (30 feet) around Site 4710.[17]

Site 4718 – small unnamed *heiau* (Figure 5)

1. This c. 12 meter (40 foot) by 18 meter (60 foot) structure is interpreted as the small, unnamed *heiau* noted by Walker in his earlier survey of 1929-30. The statewide inventory failed to relocate this site in 1972-73. Xamanek Researches noted at least three probable burial features within this enclosure (i.e. Features A, B and C). In addition, oral informants Mr. Sonny Waiohu and Mr. William Waiohu recounted that human remains disturbed by field tilling activities were reburied in the interior of Site 4718 (personal communication, 1999). Ms. Katie Nahina also indicated at the 25 January 2001 MLIBC meeting that her grand uncle (Mr. Alfred Kalanihou Keao Casson, deceased 1982) told her to take care of this *heiau* because burials were contained in it. The exterior of this structure has been previously impacted by sugarcane field operations and is in generally poor condition. Site 4718 will be contained within the proposed "Green Way" for the Olowalu development.

2. Interpretive signage shall be placed on the southeastern side of the Site 4718 preservation area. This sign should be placed where it is clearly visible at the trail head/parking area; text and graphics will help relay basic information about Site 4718.

3. Provisions for access to the site will be made for the general public. However, it has been requested that access to the interior of Site 4718 be for traditional Native Hawaiian cultural practices due to the site's significance.[18]

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[17] Lot 6 will also have a Cultural Reserve set back of c. 10 meters (30 feet) as a condition of the SMA permit.

[18] This request has been made by lineal and cultural descendents of Olowalu, including Ms. Katie Nahina, Ms. Adeline Rodrigues and Mr. William Waiohu.

4. It is recommended that a cinder path lead from the interpretive sign to a viewing area at the southwestern end of the structure. The intention of this viewing area is to help reduce foot traffic to the interior of the structure. Additional signage will be placed at this location requesting that people only enter the interior of the *heiau* for traditional Native Hawaiian cultural practices.

5. At this time, minimal landscaping actions are recommended for Site 4718, including flush cutting *kiawe* trees and other alien tree species that are in and nearby the site. It may be possible—over time—to encourage drought tolerant native plants such as *'ilima* (*Sida fallax*) within the site preservation area. The boundaries of the preservation area will be marked with a native hedge and/or boulders or other method of demarcation approved by the SHPD and the MLIBC to help buffer the preservation area from the planned development of Olowalu. Specific drainage measures shall be designed and implemented to channel runoff away from the Site 4718 preservation area.

6. Olowalu Elua Associates, LLC or its assignee shall maintain a preservation area buffer of c. 30 meters (100 feet) for Site 4718.[19]

Sites recommended for "as is" preservation

Site 1603—coffin burial associated with Old Stone Church (Figures 6 and 7)

1. Xamanek Researches inadvertently disturbed a coffin burial during inventory level testing in a sugarcane field *mauka* (northwest) of the existing church building (Site 1603). This burial lies within c. 0.8 meter (2.5 feet) of the surface of the former sugarcane field. The burial is contained in a probable redwood coffin and is thought to be from the latter 1800s. A lineal and cultural descendent of Olowalu—Ms. Adeline Rodrigues—has indicated that additional graves also are present in this area that was formerly in cane cultivation for over 50 years. Ms. Rodrigues believes that the bulk of the remaining burials present on the former church property are of Hawaiian ancestry.[20] No formal, interpretive access is proposed for this site because of cultural considerations.[21] Passive, "as is" preservation is recommended.

[19] Mr. Robert Horcajo, Project Manager for Olowalu Elua Associates, LLC has indicated that Site 4718 will be contained within the Green Way for the proposed Olowalu development. This open area will also provide additional buffer for the site preservation area.

[20] According to Mrs. Rodrigues and the church deed, the church's property formerly extended onto Olowalu Elua Associates, LLC land. The Pioneer Mill Co. acquired the *mauka* portion of the property in the 1930s, in exchange for land *makai* of the church building. Ms. Rodrigues, a lineal descendant of Olowalu, has indicated that some of her relatives are buried in the Site 1603 preservation area.

[21] Olowalu Elua Associates, LLC will create a preservation easement that will encompass the proposed preservation area. This easement will be offered to the United Church of Christ Hawaii Foundation. If accepted, the church would subsequently determine access considerations.

Olowalu Elua Associates, LLC shall create a preservation easement upon the former church land that totals c. 1.5 acres.[22]

2. The identified burial shall be capped with concrete in order to help ensure its long-term integrity. Screened sand would be placed over the burial prior to the placement of the cement cap.

3. Signage is suggested for the preservation area to help identify it and ensure its long-term integrity. Signage, if deemed appropriate, should be placed on the southern side of the proposed preservation area.

4. It is suggested that the governing body of the church make decisions regarding access to the preservation area.

5. At the writing of this plan, minimal landscaping actions other than the removal of sugar cane are proposed for the preservation area. However, the perimeter of the preservation area shall be marked with a hedge of native plants and/or a boulder alignment or other method of demarcation approved by the SHPD and the MLIBC to help buffer the preservation area from the planned development of Olowalu. Drip irrigation should be used, in order to avoid unnecessary intrusion into the ground. Olowalu Elua Associates, LLC or its assignee shall maintain the Site 1603 preservation area..

Site 4699—including Feature D burial cave (Figure 8)

1. Site 4699 lies along an exposed and weathered basalt ridge and overlooks the nearby shoreline. The Feature D burial cave is part of a complex of temporary habitation rock shelters and overhangs. Xamanek Researches located a *hala* mat bundle in the Feature D cave during inventory level work. No subsurface investigation was carried out due to safety and cultural considerations. The presence of this very old matting in a very constricted lava tube strongly suggests a burial function.

2. Given the isolated nature of this burial cave, it is strongly recommended that the small entrance to the Feature D cave be sealed with boulders, rebar and cement. This measure will help to ensure the long-term integrity of the probable burial that is contained within this lava tube.

3. As noted above, Site 4699 lies along a ridge of weathered basalt. This site stretches along a relatively linear distance of c. 150 meters (490 feet). Signage is suggested for the Site 4699 preservation area to help identify it and ensure its long-term integrity. However, given the linear nature of this site, it is suggested that the signage be placed on the southern side of the site, in the vicinity of Feature I.

[22] Mr. Robert Horcajo, Project Manager for Olowalu Elua Associates, LLC, has indicated that the developer will offer this easement to the church.

4. At the writing of this plan, no landscaping actions other than the possible removal of *kiawe* trees are recommended. Trees chosen for removal would need to be flush cut and their trunks subsequently poisoned.

5. Olowalu Elua Associates, LLC or its assignee shall maintain a preservation area buffer of 10 meters (30 feet) for Site 4699.

Site 4707—including Feature B possible burial mound (Figure 9)

1. This site lies near the mouth of Olowalu Valley, and is close to the northern boundary of the project area. Olowalu Stream passes within 15 meters to the west of Site 4707. No human remains were found during our inspection of this site. Feature A, a tumbled rock and rubble alignment extends beyond the project boundary. Feature B, a rock mound is interpreted as a possible burial.

2. Feature B and a portion of Feature A are contained in the Cultural Reserve.[23]

3. Signage is recommended for Site 4707 to help identify it and ensure its long-term integrity. Given its location within the Cultural Reserve, it appears that a buffer area of 10 meters (30 feet) is adequate for this site. The Olowalu Cultural Reserve shall maintain the preservation buffer of 10 meters (30 feet).

4. At the writing of this plan, no landscaping actions other than the possible removal of trees is recommended. Trees chosen for removal would need to be flush cut and subsequently poisoned. Future landscaping in the preservation area should include native vegetation.

Site 4712— including Feature B possible burial mound (Figure 10)

1. Site 4712 is located on the southeastern slope of Pu'u Kilea. This site is composed of a terrace (Feature A) and an oval rock mound (Feature B). Given the location of Feature B and its relative proximity to the Pu'u Kilea burial ground (Site 4715), it is interpreted as a possible burial mound.

2. All of Pu'u Kilea lies in the designated Cultural Reserve.

3. Signage is recommended for Site 4712 to help identify it and ensure its long-term integrity. Given its location within the Cultural Reserve, it appears that a buffer area of 10 meters (30 feet) is adequate for this site. It is, however, recommended that a more substantial gate be placed at the bottom of the old access road that leads to the top of the *pu'u*.

4. At the writing of this plan, no landscaping actions are recommended for Site 4712.

[23] Site 4707 extends beyond the project area to the northeast onto State property.

Site 4715—Pu'u Kilea burial ground (Figure 11)

1. Site 4715 is located on summit of Pu'u Kilea. This site consists of numbers of rock features that are interpreted as graves. We estimate that as many as 33 graves may be contained in this burial area. All of these features consist of mounds and low platforms. Many of the platforms are paved with *'ili 'ili* pebbles. The Nahooikaika family and Ms. Katie Nahina reported that they have relatives buried at Site 4715. This area is interpreted as a traditional burial ground.

2. All of Pu'u Kilea lies in the designated Cultural Reserve.

3. Signage is recommended for Site 4715 to help identify it and ensure its long-term integrity. It is recommended that signage be placed at the top of the old access road near the USGS Kilea benchmark.

4. Given the location of Site 4715 on Pu'u Kilea within the Cultural Reserve, a landscape buffer of c. 10 meters (30 feet) beyond the burial ground is suggested. At the preparation of this plan, low impact landscaping actions are recommended and include the removal—flush cutting—of *ko'a haole* trees present in the burial area and the immediate vicinity (i.e. a band c. 30 feet beyond the burial area). It is, however, recommended that a more substantial gate be placed at the bottom of the old access road that leads to the top of the *pu'u*.

Site 4758—Awalua Cemetery (Figure 12)

Site 4758—Awalua Cemetery—was previously informally referred to as the "Japanese Cemetery", reflecting plantation-era use of this burial area. This cemetery was also briefly known as the "Puha Cemetery".[24] Xamanek Researches noted what appeared to be at least 60 graves at this cemetery during our inventory survey. Observed grave markers included a granite gravestone, concrete monuments, some engraved concrete headstones, water worn basalt uprights (some with inscriptions), some simple wooden uprights, water worn rock mounds and rectangular alignments. A cane fire swept through this cemetery and destroyed many of the wooden grave markers and cracked several headstones just before the completion of our inventory survey.[25] It appears probable that additional burials are contained in Site 4758. A former sugarcane field road passes just to the south of the cemetery.

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[24] At the 25 January 2001 MLIBC meeting, lineal and cultural descendents of Olowalu (Ms. Katie Nahina, Ms. Adeline Rodrigues and Mr. William Waiohu [MLIBC member]) agreed that the name be changed to "Awalua Cemetery," to reflect the traditional name of this area. It was also felt that the name 'Awalua' would be more inclusive, because this cemetery contains both traditional and plantation-era burials.

[25] It is important to note that many of the former wooden markers appeared to be quite old, suggesting that the cemetery had not been burned over by cane fires in many years.

1. The Awalua Cemetery will be contained within the proposed Green Way system for the Olowalu development and bordered by residential lots. The proposed Green Way is up to 150 feet (45 meters) wide in the vicinity of Site 4758. Property set backs on the adjacent residential lots are 15 feet.

2. Signage is recommended for Site 4758 to help identify it and ensure its long-term integrity. It is recommended that signage be placed on the southwestern side of the cemetery where an existing field road provides access to the cemetery. Mr. William Waiohu, MLIBC member and lineal descendent of Olowalu, believes that this road follows an old trail. He has requested that the *makai* or southwestern portion of this field road be left in place to provide access to the Site 4758 preservation area from the old government road.

3. At the preparation of this plan, low impact landscaping actions are recommended for the Awalua Cemetery. These actions include the removal of *kiawe* trees (i.e. flush cutting and stump poisoning) and other non-native vegetation within the preservation area. The boundary of the preservation area shall be marked with boulders and/or a hedge of native plants or other form of demarcation approved by the SHPD and the MLIBC. Olowalu Elua Associates, LLC, or its assignee shall maintain a preservation buffer of c. 20 meters (60 feet) around Site 4758.[26] Specific drainage measures shall be designed and implemented to channel runoff away from the site preservation area.

Perpetual Maintenance and Access of Preservation Areas

As previously noted, this preservation plan covers the nine sites that contain or are thought to possibly contain burials and/or burial features. Sites 04, 4707, 4710, 4712, and 4715 lie within the proposed Cultural Reserve, Sites 4718 and 4758 are contained within the proposed Green Way system, and Sites 1603 and 4699 lie within the planned subdivision. Specific drainage measures shall be designed and implemented to channel runoff away from all nine site preservation areas. Maintenance and access issues are presented for these three groups below.

Sites within the Cultural Reserve (Sites 04, 4707, 4710, 4712, and 4715)

The nonprofit corporation—Olowalu Cultural Reserve--shall maintain the five site preservation areas within the Cultural Reserve. Precautions against unnecessary intrusions at each of the above site preservation areas shall be the responsibility of the Olowalu Cultural Reserve. The preservation areas shall be generally cleared by hand. However, hand-held weed eaters and chain saws could be used when necessary. Use of larger equipment is not recommended, and would need to be discussed with the Maui/Lana'i Islands Burial Council, the SHPD Burials Program, and the SHPD Maui staff archaeologist.

[26] This buffer area does not include the 15 foot set back on the lots that border the preservation area.

Daylight access hours are suggested for access to the five site preservation areas within the Reserve. Access to the Site 04 preservation area for traditional Native Hawaiian cultural practices will also be the responsibility of the Olowalu Cultural Reserve. Minimal suggested times for traditional Native Hawaiian access to the interior of Kawaialoa/Kaiwaloa *heiau* (Site 04) are from 8:00 a.m. to sunset. Permission for visitation to Site 04 at any other time would need to be approved by the Olowalu Cultural Reserve and recognized caretakers.

As noted previously, Site 04 and Site 4710 are recommended for some level of interpretive preservation. These sites are located in topographic settings that allow the placement of viewing platforms. The use of viewing platforms should assist in limiting casual foot traffic into both of the site preservation areas. In particular, Kawaialoa/Kaiwaloa *heiau* is well suited for this level of preservation treatment. The placement of such a viewing platform on the northern side of this site will provide a clear view of the structure and should help to reduce casual traffic into the interior of this *heiau*.[27] This platform could be constructed from wood or large field rocks and fill soil, and placed in the former sugarcane field that will lie within the c. 30 meter (100 foot) buffer area for the site. A viewing platform is also recommended for Site 4710. This platform could be located to the southeast of the exposed portion of this habitation area on old plantation era push/fill. Access to both preservation areas would be from the via an access road/trail easement from the Cultural Reserve. A gate could be placed on this access road, which would help to limit casual vehicular traffic to either of the above site preservation areas.

The three remaining sites within the Cultural Reserve include Site 4707, Site 4712, and 4715. Access to these sites shall occur from within the Reserve. As previously mentioned, these sites are recommended for "as is" preservation. Of the three, the Pu'u Kilea burial ground is the most culturally significant. It is recommended that a more substantial gate be placed at the base of the old summit access road. This will help to control vehicular access to the site preservation area.

Signage will need to be placed at all of the site preservation areas within the Cultural Reserve. This action will help to ensure the long-term integrity of these sites.

Sites within the Green Way (Sites 4718 and 4758)

The landowner or a future assignee shall maintain the preservation areas for the Site 4718 *heiau* and the Awalua Cemetery (Site 4758). Precautions against unnecessary intrusions at each of the above site preservation areas shall be the responsibility of the landowner, or its future assignee. The preservation areas shall be generally cleared by hand. However, hand-held weed eaters and chain saws could be used when necessary. The use of larger equipment is not recommended, and would need to be discussed with

[27] A sign at the viewing platform location informing the general public that access to the interior of the *heiau* is for traditional Native Hawaiian cultural practices only would also help reduce casual traffic into this significant site.

the Maui/Lana'i Islands Burial Council, the SHPD Burials Program, and the SHPD Maui staff archaeologist.

Daylight access hours are suggested for access to both of the site preservation areas within the Green Way. Access to the interior of the Site 4718 preservation area for traditional Native Hawaiian cultural practices will be the responsibility of the landowners' association or its future assignee. Minimal suggested times for access to the interior of this *heiau* for traditional Native Hawaiian cultural practices are from 8:00 a.m. to sunset. Permission for access to the Site 4718 preservation area at any other times would need to be approved by the landowner or its future assignee.

Sites within the Olowalu residential area (Sites 1603 and 4699)

As noted earlier, the Site 1603 coffin burial will be contained within a preservation easement. The preservation area shall be generally cleared by hand. However, hand-held weed eaters and chain saws could be used when necessary. The use of larger equipment is not recommended, and would need to be approved by the Maui/Lana'i Islands Burial Council, the SHPD Burials Program, and the SHPD Maui staff archaeologist. Subsurface disturbance should be avoided. Public access to this c. 1.5-acre preservation area will be from Olowalu Elua Associates, LLC property. Suggested access times are during daylight hours. Signage is recommended at the access location. (Note: the church may also wish to allow access from their property.)

The Site 4699 burial cave (Feature D) is part of a complex and will be contained within the overall site preservation area. This preservation area shall also generally be cleared by hand. Small hand-held power equipment may also be utilized, however. Subsurface disturbance should be avoided. Access to this site will be from the proposed Green Way. However, the site will not be contained within this system. Maintenance and access issues will be the responsibility of the landowner or its assignee. Signage is recommended along the southern portion of the Site 4699 preservation area.

Signage

Signage is recommended for all nine of the site preservation areas discussed in this plan. The use of signage will help to ensure the long-term integrity of these nine site areas. It is important to stress that signs will deteriorate over time and, consequently, should be periodically replaced. Sign proposals for the individual sites are discussed below.

Site 04 Kawaialoa/Kaiwaloa *heiau*

Interpretive signage should be placed on the *mauka* or northwestern portion of the preservation area. The sign should be clearly visible to people as they approach the site from the parking area and/or trail. The text and graphics will relay basic information about this *heiau*.

Site 04 is in generally fair condition. However, restoration is not proposed at this time. Rather, it is recommended that the site be preserved, "as is," with some interpretive signage. As noted earlier, access to the interior should be allowed for traditional Native Hawaiian cultural purposes. The proposed heading and text of this sign are as follows:

a. **Heading of sign:**

Site 04
Kawaialoa/Kaiwaloa *heiau*
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This large *heiau* (temple) has a commanding view of the Olowalu coastline. Sugar plantation era plowing activities have previously impacted the outer walls of this *heiau*. This structure, known as Kawaialoa/Kaiwaloa *heiau*, is part of this late pre-European contact to early post contact cultural landscape of Olowalu (1600s to 1800s). A small *heiau* lies to the southwest, a number of petroglyphs are located on Pu'u Kilea to the northwest, while other petroglyphs and remnants of agricultural and habitation areas and a possible *heiau* are contained within Olowalu Valley itself to the northwest. Kawaialoa/Kaiwaloa *heiau* is a significant cultural site. Please respect it. Damage to this site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

"It is requested that the general public not go beyond the viewing platform area. In order to prevent damage to the interior of this culturally significant site, please do not enter the *heiau* except for traditional Native Hawaiian cultural practices."

c. **Size of sign:**

The recommended size for the main Site 04 sign is 2-ft. (0.61 m.) by 1-ft. (0.3 m.). The suggested size for the second sign regarding access is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 1603

Signage is proposed for the preservation area in order to help ensure its long-term integrity. The text and graphics should relay basic information about the church and the associated cemetery. Proposed heading and text for the sign:

a. **Heading of sign:**

Site 1603 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This preservation area includes former Olowalu Lanakila Hawaiian Church property that contains associated church cemetery burials. Please respect the preservation area. Damage to this site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c **Size of sign:**

The recommended size for the Site 1603 signage is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4699 Feature D burial cave

Site 4699 is one of the more isolated cultural resources on the Olowalu project. While this site complex is recommended for "as is" preservation, signage is nevertheless proposed, in order to help safeguard the site preservation area. As previously noted, signage should be placed on the southeastern portion of the site that will be accessed by the proposed Green Way trail system.

a. **Heading of sign:**

Site 4699 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This temporary habitation complex is a Native Hawaiian archaeological site. Please respect it. Damage to this site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c **Size of sign:**

The recommended size for the Site 4699 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4707—Feature E possible burial mound

Given this site's location in the Cultural Reserve, access will likely be from a trail system that has not been developed. However, this site lies on the northern boundary of the project area. Consequently, access will likely occur from the southwestern side of Site 4707.

a. **Heading of sign:**

Site 4707 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This wall and rock mound may be possible boundary markers. Please respect this site. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c **Size of sign:**

The recommended size for the Site 4707 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4710 – habitation complex with probable burial—Feature E

This habitation complex lies within the Cultural Reserve and is c. 135 meters (450 feet) northwest of the Site 04 *heiau*. Site 4710 will likely be accessed by a trail from the proposed Cultural Reserve for the Olowalu project. A viewing platform is recommended for this site.

a. **Heading of sign:**

Site 4710 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This habitation complex was once more extensive. Sugar plantation-era plowing activities likely destroyed the site to the south. Site 4710 is part of a late pre-European contact to early post contact cultural landscape in

Olowalu. A large *heiau* lies to the southwest, numbers of petroglyphs are located on Pu'u Kilea to the west, and remnants of other agricultural and habitation areas, and a possible *heiau* are contained in Olowalu Valley below. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

"Please do not go beyond the viewing platform except for traditional Native Hawaiian cultural practices."

c **Size of sign:**

The recommended size for the Site 4710 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4712—Feature B possible burial mound

Site 4712 is located along the upper slopes of Pu'u Kilea. This site complex consists of a terrace and rock mound; it lies within the Cultural Reserve. While access to Pu'u Kilea will not be actively encouraged, signage is nevertheless recommended for Site 4712, to help ensure its long-term integrity.

a. **Heading of sign:**

Site 4712 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This terrace and rock mound lie in a culturally sensitive location. Please respect this site. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c. **Size of sign:**

The recommended size for the Site 4712 sign is 1.5-ft. (0.45 m.) by 1-ft. 0.3 m.).

Site 4715---Pu`u Kilea burial ground

This burial ground represents the largest concentration of traditional Hawaiian graves located during the archaeological inventory survey. While access will not be encouraged to the site preservation area, the spectacular views afforded from this Pu`u ensures that foot traffic will continue to the summit. Consequently, signage is considered essential to the site's long-term integrity. Signage should be placed in the vicinity of the existing USGS monument.

a. **Heading of sign:**

Pu`u Kilea Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"Site 4715 is a significant Native Hawaiian cultural site. Please respect this site and do not enter it except for traditional Native Hawaiian cultural practices. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c. **Size of sign:**

The recommended size for the Site 4715 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4718 -- small unnamed *heiau*

Site 4718 lies within the proposed Green Way system for the Olowalu development. Access to this site will likely be via a foot/bike path. It appears probable that human remains and/or burials are contained within this structure. Lineal and cultural descendents of Olowalu have expressed concern over access to the interior of this *heiau*. Signage is proposed for the southeastern side of the site where a viewing trail will pass the site.

a. **Heading of sign:**

Site 4718 Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"Site 4718 is a significant Native Hawaiian cultural site. Sugar plantation era plowing activities have previously impacted the outer walls of this structure. Site 4718 is part of a late pre-European contact to early post contact cultural landscape in Olowalu. A large *heiau* lies to the northeast, a number of petroglyphs are located on Pu'u Kilea to the northwest, and remnants of other agricultural and habitation areas and a possible *heiau* are contained within Olowalu Valley itself. Please respect this Native Hawaiian site. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

"Please do not go beyond the viewing area into the interior except for traditional Native Hawaiian cultural practices."

c. **Size of sign:**

The recommended size for the Site 4718 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.). The suggested size for the second sign regarding access is also 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

Site 4758—Awalua Cemetery

A former sugarcane field surrounds the Awalua Cemetery. Site 4758 lies within the proposed Green Way for the Olowalu development. Signage is recommended along the southwestern side of the cemetery.

a. **Heading of sign:**

Awalua Cemetery Preservation Area
Olowalu *ahupua'a*
Island of Maui

b. **Text of sign** (A brown background with black lettering is recommended):

"This cemetery was originally a traditional Hawaiian burial area that was subsequently expanded during the sugar plantation era. Please respect this culturally significant site. Damage to the site is punishable under Chapter 6E-11, Hawaii Revised Statutes"

c. **Size of sign:**

The recommended size for the Site 4758 sign is 1.5-ft. (0.45 m.) by 1-ft. (0.3 m.).

SUMMARY

Nine sites are covered by this preservation plan for sites that contain or are thought to contain human skeletal remains and/or burials. Sites 04, 4710, and 4718 are recommended for interpretive preservation, while Sites 1603, 4699, 4704, 4712, 4715, and 4758 are recommended for "as is " preservation. This plan has been prepared for review and comment by the Maui/Lana'i Islands Burial Council. A forthcoming preservation plan for Olowalu that encompasses the above sites as well as additional (non-burial) sites will be prepared and submitted to the State Historic Preservation Division for review and comment in the near future.

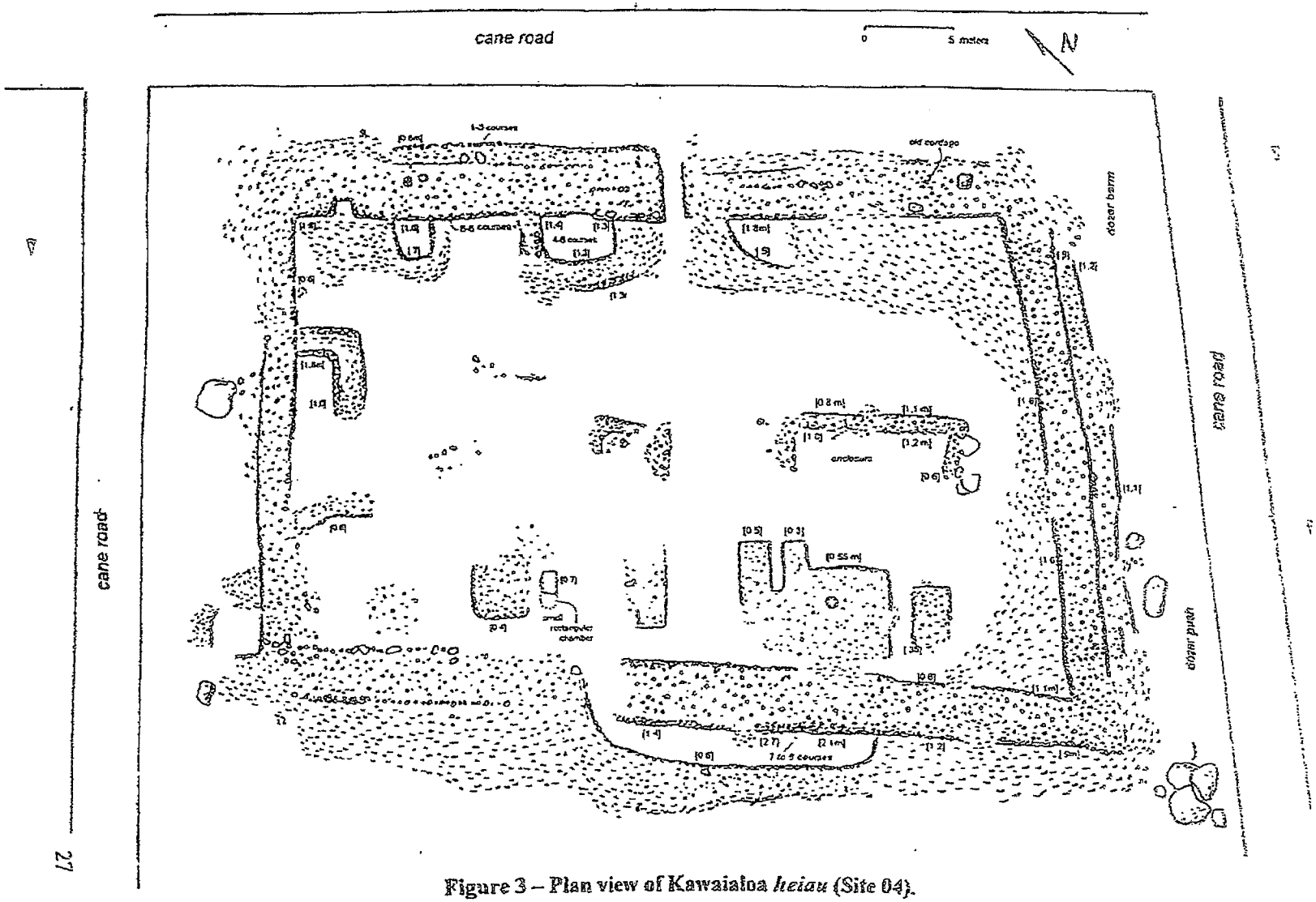


Figure 3 – Plan view of Kawaiaiba *heiau* (Site 04).

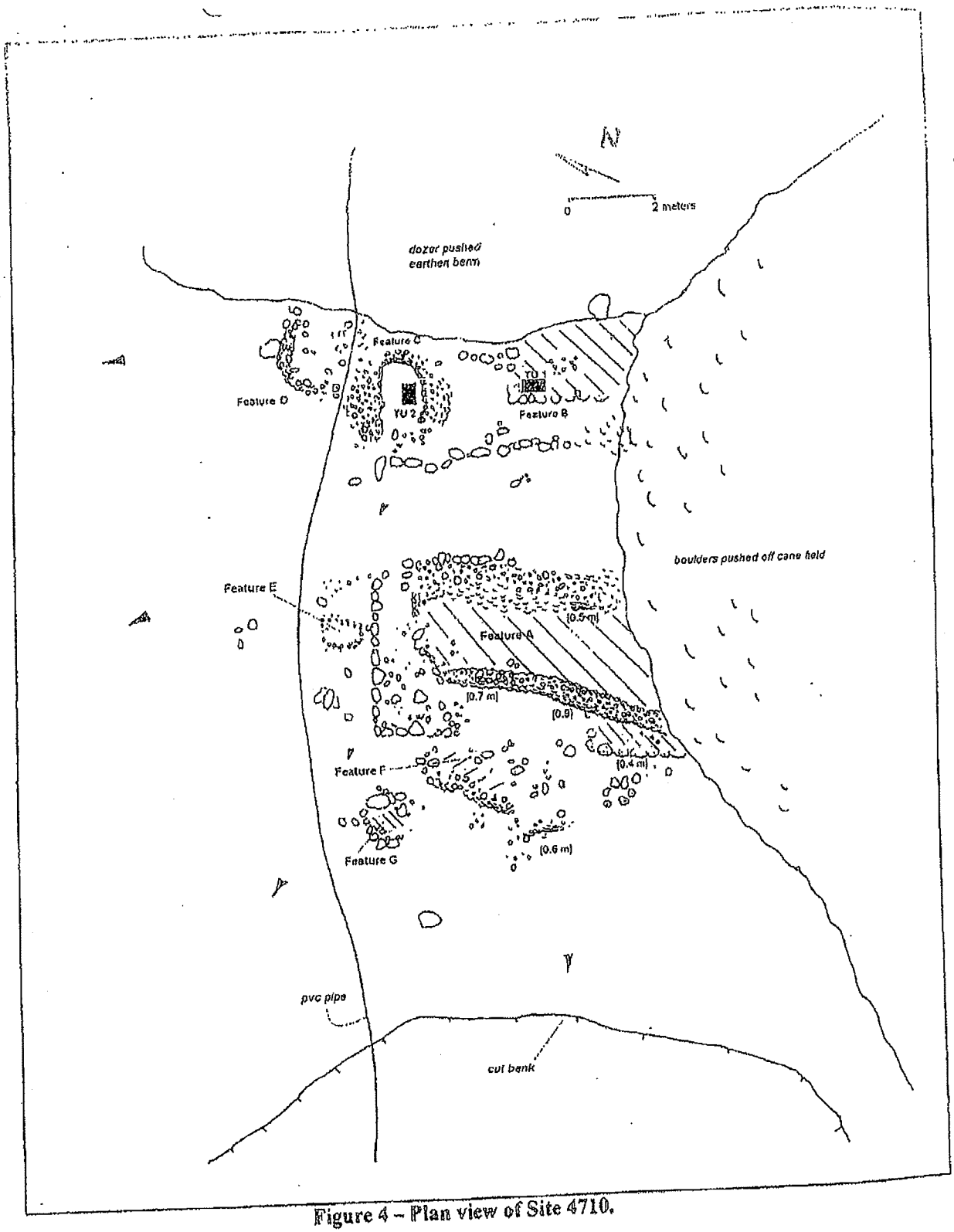


Figure 4 – Plan view of Site 4710.

245

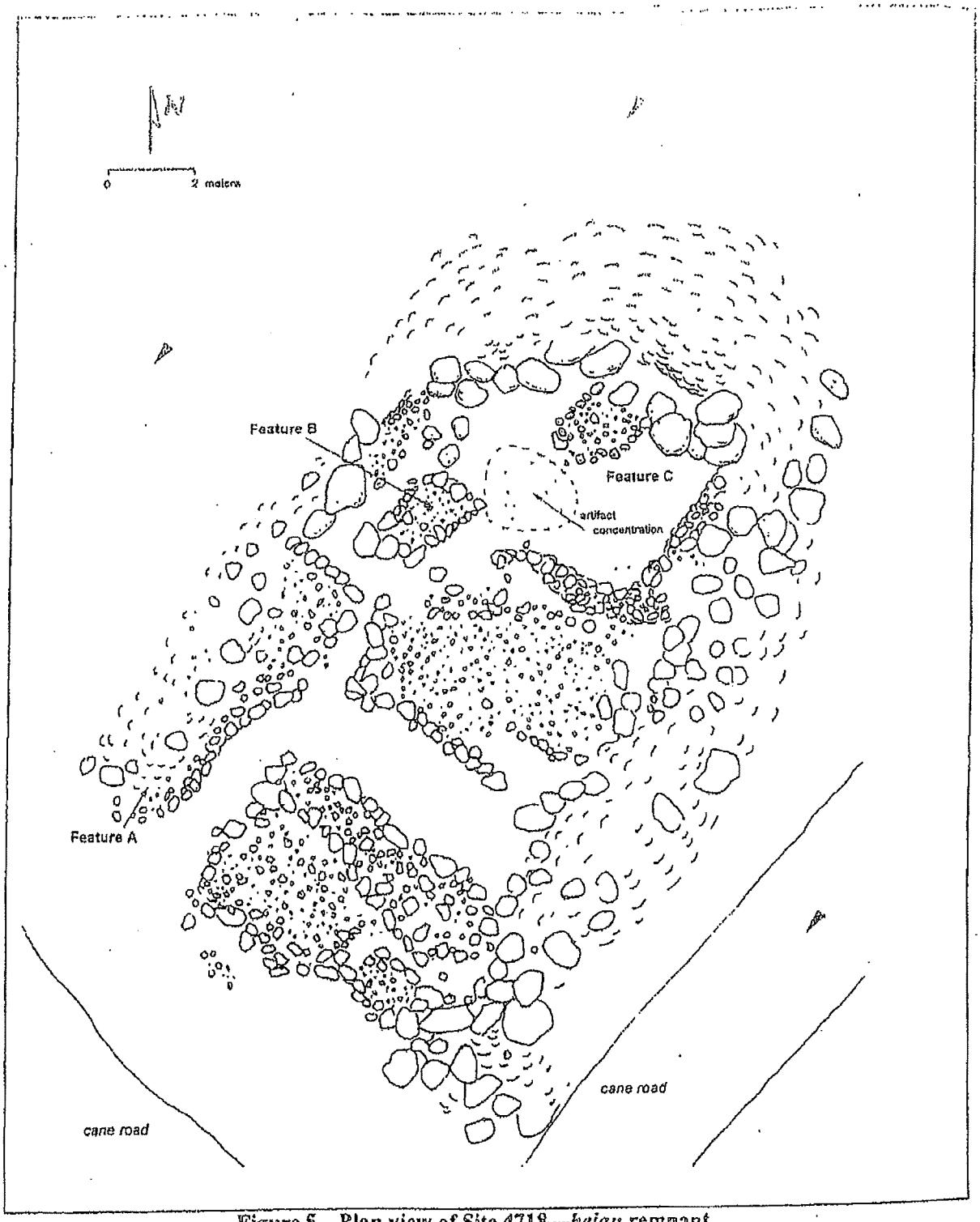


Figure 5 – Plan view of Site 4718—*heiau* remnant.

246

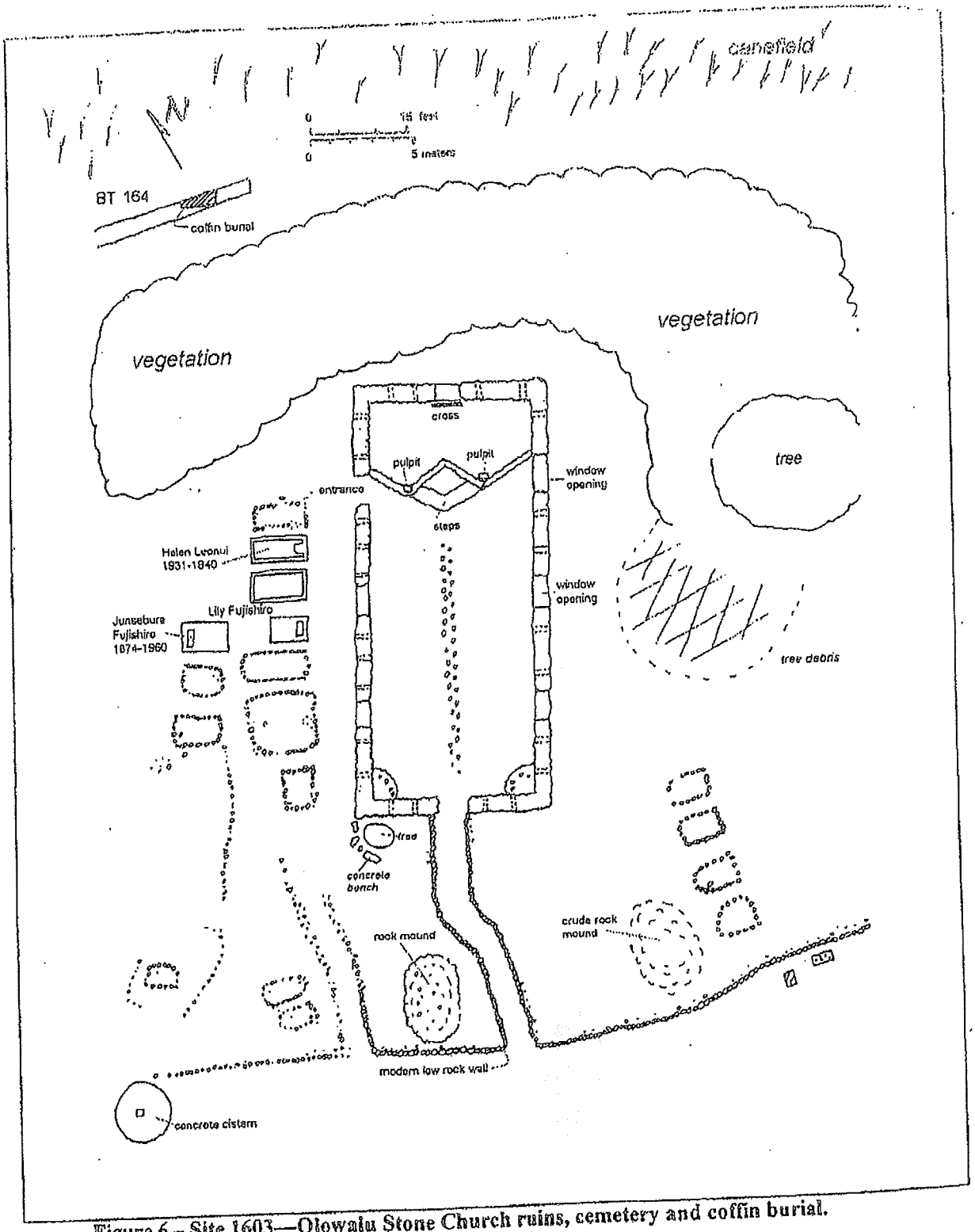


Figure 6 – Site 1603—Olowalu Stone Church ruins, cemetery and coffin burial.

247

13B

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES
ERIC T. HIRANO
LAXEL HIDICHIAN

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

March 7, 2002

RECEIVED
LAND USE & CODES ADM.
COUNTY OF MAUI

Mr. Bob Horcajo
Olowalu Elua Associates
173 Ho'ohana Street, Suite 201
Kahului, Hawai'i 96732

LOG NO: 29336
DOC NO: 0202MK03

Dear Mr. Horcajo,

SUBJECT: **Historic Preservation Review - Site Preservation Plan, Draft 2**
Mauka Portion, Olowalu Elua Associates
Olowalu Ahupua'a, Lahaina District, Maui
TMK (2) 4-8-3:10, 50-82, 4-8-4:11-16

Thank you for the opportunity to review this revised plan which was sent to our office on January 22, 2002.

In this letter we specifically address your revisions to our initial recommendations. The buffer zones have been established and field checked by our office. The boundaries of the cultural preserve will not serve as the buffer, and you have provided a rationale for this decision. Instead, each site within the cultural preserve will have a set buffer zone boundary. You have clarified the following points.

1. Public access. You have clearly stated that access will be provided from either new or existing roads or trails. For sites within the preserve, access will be facilitated by pedestrian trails. Maintenance roads within the preserve may provide vehicular and ADA compliant access.

2. Maintenance. Clarification has been made regarding the removal of alien trees which will occur by flush cutting and rotting, not mechanical removal, and some trees may be left as barriers or to provide shade.

3 and 4. Fencing/Hedges and Landscaping. No landscaping is proposed at this time. The rationale for this is that sites within the cultural preserve will be under the jurisdiction of the OCR (Olowalu cultural preserve), a non-profit corporation. No plans are formalized for these sites, as input from the Board of the OCR is necessary. It is clear in the preservation plan that when specific landscaping plans are developed, they will be submitted to our Division for review, as amendments to the plan.

EXHIBIT 13B

5. Viewing platforms. Viewing platforms will be constructed only for Sites 4718 and 4710. These will utilize existing natural materials, including soil and field boulders. You have indicated that the platforms serve only to afford a view of the site, but other forms of access will be discouraged by signage.

6. Boundary Markers. The markers will consist of concrete blocks, 12" at the base, 7" at the top, with an overall height of 12". We question the height, it might be more appropriate to have the boundary markers higher so that they would be more visible. The hard plastic tags are satisfactory, providing they cannot be easily defaced.

7. Sign Text. The sign texts have incorporated some of our suggested language and seem acceptable, with one minor exception, and with the understanding that it will be addressed, we can approve the text.

1. Site 4 text. We recommend that the last paragraph be deleted. The reference to paganistic could be misinterpreted by some individuals. The first paragraph is sufficient to clearly indicate the importance of the heiau.

8. Preservation Commitment. Appropriate clarification has been made to this section.

The preservation plan is acceptable. If you have any questions, please contact Dr. Melissa Kirkendall at 243-5169.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

MK:jen

c: John Min, Director, Department of Planning, County of Maui, FAX 270-7634
Bert Ratte, County of Maui, Land Use and Codes, FAX 270-7972
Glen Ueno, County of Maui, Land Use and Codes, FAX 270-7972

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. MOTEILNO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

May 29, 2003

Ms. Heidi Bigelow
Olowalu Elua Associates, LLC
173 Ho'ohana Street, Suite 201
Kahului, Hawaii 96732

Dear Ms. Bigelow:

SUBJECT: AMENDED APPROVAL OF LANDSCAPE PLANTING/IRRIGATION PLANS

APPROVAL I.D. NO.: LPA 2003/0023
TMK: 4-8-003:010 (portion)
PROJECT NAME: Olowalu Mauka Subdivision
CONTACT PERSON: Heidi Bigelow
PHONE: 877-4202

PLAN REQUIREMENTS:

1. NUMBER OF LOTS IN SUBDIVISION: 14 and Greenway Lot 24
2. IRRIGATION DETAILS: (Specify Type) Spray ground cover and drip irrigation to trees
3. TREE SCIENTIFIC NAME(s): Pritchardia arecine, Aleurites moluccane, Cordia Subcordata, Pritchardia hillebrandii,Metrosideros polymorpha, Diospyros sandwicense, Acacia koala, Psydrax odoratum, Rauvolfi sandwincensis, Nesoluma polynesticum
4. TREE COMMON NAME(s): Loulu, Kukui, Kou, Loulu Palm, Ohia a lehua, Lama, Koal'a, Alahe'e, Hao, Keahi
5. TREE SIZE(s): 15 gallon, 2 inch calipher, minimum planted height 6 ft. above planted grade
6. TREE COUNT: 14 lot subdivision - 23 large trees (Loulu, Kukui) 45 medium trees (Ohia, Loulu Palm, Kou) and 60 small trees (Lama, Koai'a, Alahe'e, Hao, Keahi) Lot 24 Greenway - 20 large trees (Loulu, Kukui), 30 medium trees (Ohia, Loulu Palm, Kou) and 25 small trees (Lama, Koai'a, Alahe'e, Hao, Keahi)
7. TREE ROOT BARRIERS: Biobarrier
8. TREE STAKING DETAILS: Double Stake
9. GROUND COVER DETAILS: Ilima and Bermuda Grass

EXHIBIT 14

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

10. DATE OF PLANTING & IRRIGATION PLANS: Revised plans dated May 14, 2003

CONDITIONS OF APPROVAL:

1. That the owner/developer shall maintain the planting for a minimum of one year or until the lot is sold, whichever is greater.

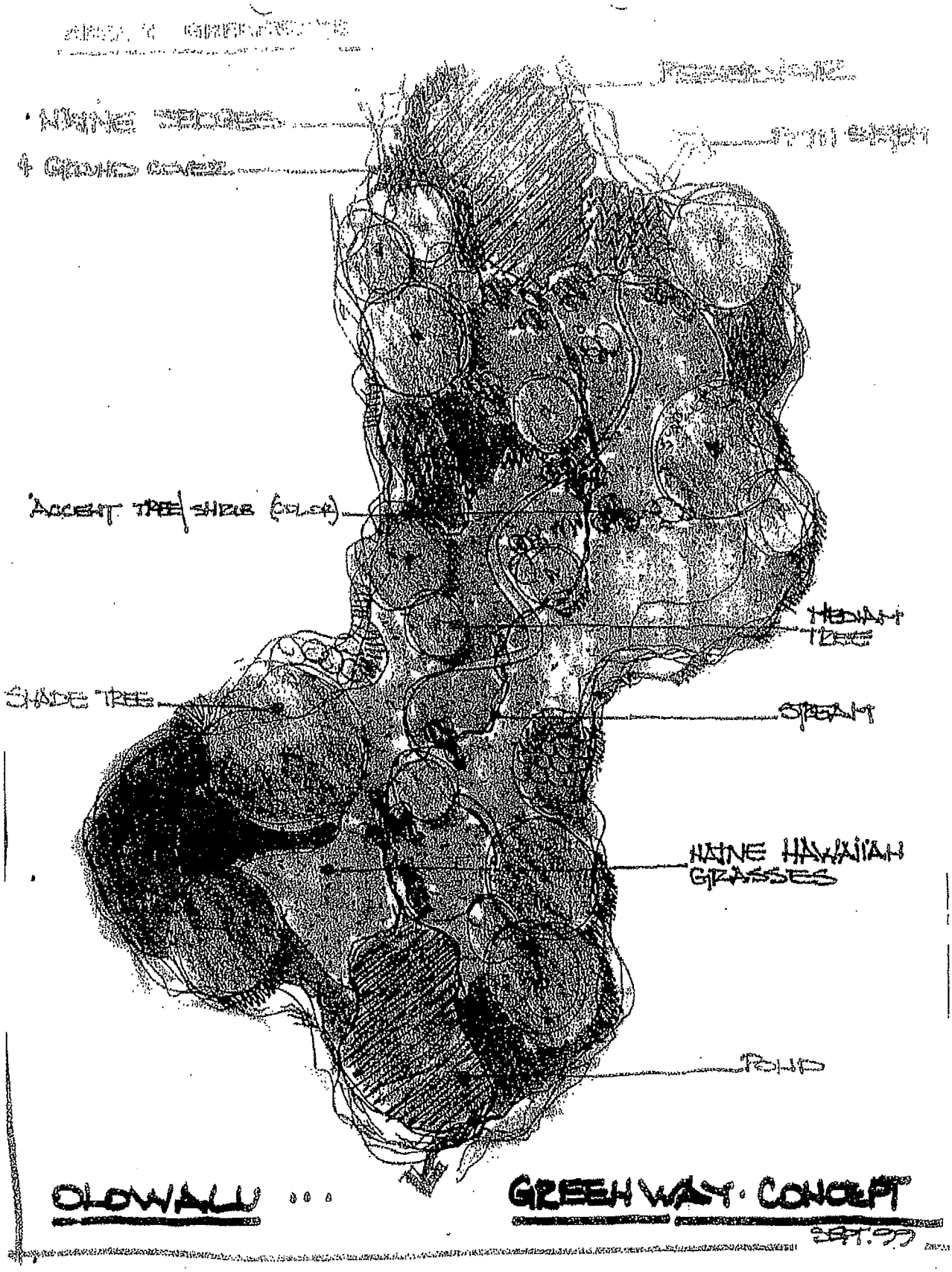
2. That a temporary barrier of an approximate 4 ft. x 4 ft. area consisting of stakes and construction tape shall be installed at each street to protect the tree during construction of the lot.

3. That this approval shall be in accordance with the plan requirements specified above.

4. That approval shall be obtained from Maui Electric Company prior to installation of the landscape planting and irrigation. A copy of the approval shall be submitted to the Planning Department for our records. Any major alterations to the plans approved by the Planning Department will require additional review and approval by the Department.

APPROVED: Mike Foley
MICHAEL W. FOLEY, Planning Director

MWF:CMS:lar
c: Wayne Boteilho, Deputy Planning Director
Clayton Yoshida, AICP, Planning Program Administrator
Aaron Shinmoto, Planning Program Administrator
Colleen Suyama, Staff Planner
Sue Kiang, Arborist Committee (w/ Plans)
Howard Hanzawa, DSA (w/ Plans)
Mike Silva, Maui Electric Company (w/ Plans)
David Sakoda, Maui County Arborist (w/ Plans)
Project File (w/ Plans)
General File
K:\WP_DOCS\PLANNING\LPA\2003\0023_OlowaluMaukaSubd\RevisedApproval.wpd


ACCENT TREE/SHRUB (COLOR)
MEDIAN TREE
SHADE TREE
STREAM
NAINE HAWAIIAN GRASSES
POND
OLOWALU ...
GREENWAY · CONCEPT
SEPT. 97

MAR 1 7 2000

owalu Elua Associates, LLC
1 Ho Chana Street • Suite 201
ui, HI • 96732
Phone 808- 877-2434
Fax 808-877-9409

rch 16, 2000

vid Craddick, Director
partment of Water Supply
unty of Maui
) South High Street
iluku, Hawaii 96793

: Olowalu Subdivision
(CDUA MA-2963) (SM1 990021)

ar Mr. Craddick,

e have received a copy of your December 20, 1999 letter to Dan Uchida and your uary 7, 2000 letter to John Min relating to subject project. We would like to take this portunity to provide a response.

you know, Pioneer Mill Company, Ltd. has historically provided drinking water for village of Olowalu. Currently, Olowalu Elua Associates, LLC continues providing table water through a private water entity. However, we are certainly willing to discuss ues relating to a possible establishment of a public water system managed and operated the County which includes the Olowalu region.

e would like to note our emphasis on the use of native and Polynesian introduced plants r greenways, the cultural reserve, roadway landscaping and the beach reserve.

e appreciate the transmittal of information on specific measures to conserve water sources and will consider the suggestions during project implementation.

EXHIBIT 15

Thank you for your comments regarding the proposed action. A copy of your letters will be incorporated in the final Environmental Assessment.

Very truly yours,

Robert L. Horcajo
Project Manager

Cc: Ed Henry-Land Division-DLNR
John Min-Director, Maui County Planning Department
Michael Munekiyo, Munekiyo, Arakawa & Hiraga, Inc.

FRAMPTON & WARD, LLC
Real Estate Consulting • Development • Project Management
173 Ho'ohana St., Suite 202A Kahului, HI 96732 Office (808) 893-2300

April 16, 2003

RECEIVED
APR 17 2003
RT TANAKA ENGINEERS, INC.

Mr. Francis Cerizo
Department of Planning
County of Maui
250 South High Street
Wailuku, HI 96793

Via Hand Delivery

Re: Olowalu Mauka Construction Plan – Response to Comments

Dear Francis,

On behalf of Olowalu Elua Associates, LLC, the following address your comments on the Construction Plans for the Olowalu Mauka Subdivision:

1. *Protection of Archaeological Sites* - In compliance with the January 15, 2001 (Final Revisions – March 8, 2001) approved Preservation Plan for the Olowalu Mauka Area, the sites scheduled for preservation have been marked with orange-plastic construction fencing delineating the site preservation perimeters.
2. *100 Year Flood Limits* - The 100 yr. inundation limits have been added onto the construction plans; please note that the driveway access road has been relocated out of Lot 18.
3. *Flood Zones and Flood Permits* - The flood zones have been added to the construction plans. No work will be performed within the flood limits.
4. *SMA Compliance* - The Maui Planning Commission granted approval of an SMA Use Permit on September 12, 2000 subject to thirty-six conditions. Pursuant to Condition #10 of the SMA Permit, a Final Compliance Report for the Subdivision of Olowalu Mauka Lands was reviewed and approved by the Department of Planning on April 9, 2002. The following is a follow up review of the pertinent issues related to the Olowalu Mauka Construction Plans:
   a. Condition #1 – The "proposed project" listed in Condition # 1 relates to the construction of the improvements within the SMA application. These improvements are limited to the Makai Subdivision. Construction of the Makai Subdivision was initiated prior to September 30, 2002.
   b. Condition #2-3 – There is no update or change to the approved responses to these conditions.
   c. Condition #4 – The preliminary subdivision plans included in the November 9, 1999 submittal are for the Makai Subdivision plans. The final construction of the Makai Subdivision was in accordance with the preliminary subdivision plans.

EXHIBIT 16

d. Conditions #5-8 – There is no update or change to the approved responses to these conditions

e. Condition #9 - The construction related structures for this subdivision will include a small construction trailer and a 20 ft container to store materials. The temporary construction area will be established within the boundaries of the approved Construction Related Structures Plan on Lot 9 of the Olowalu Mauka Subdivision (see attached map highlighting this area). The temporary construction base yard will be limited to one base yard in operation at any given time.

f. Condition #10-11 - There is no update or change to the approved responses to these conditions.

g. Condition #12 – This condition relates to the construction of the improvements within the SMA application. These improvements are limited to the Makai Subdivision. The Makai Subdivision improvements were bonded in accordance with Title 18 relating to the subdivision ordinance.

h. Condition #13 – There is no update or change to the approved responses to these conditions.

i. Condition #14 – The approved responses to this condition have not changed. The requested Construction Plans will not greatly intensify the from agricultural or agricultural conservation practices of the parcels adjoining the Greenway Improvement Plan. As noted in the Revised Greenway System Plan within the Final Compliance Report, the perimeter portions adjacent to Lots #9-14 within Easement "13" (portion of Lot #24) will be defined by plantings of large and medium size trees in conjunction with the landscape improvements for the Olowalu Mauka Construction Plans.

j. Condition #15 – The Irrigation System Plan approved within the Compliance Report has not changed. The submitted construction plans include the installation of a potable and a non-potable water system with meters from each supplied to Lots #1-14. These construction plans have been reviewed and approved by the State Department of Health Clean Water Branch including the non-potable and potable water system.

k. Condition #16 – The Revised Dust and Erosion Control Plan within the Compliance Report has not changed. Olowalu Elua Associates, LLC has applied for and received a NPDES permit and will comply with restrictions related to such permit.

l. Condition #17-31 - There is no update or change to the approved responses to these conditions.

m. Condition #32 – The roadway improvements required in conjunction with the development of the subdivision (Makai Subdivision) have been completed. Please note that Olowalu Elua Associates, LLC is currently processing approval from the State Department of Transportation related to the relocation of mauka access including storage lanes.

n. Condition #33 – There is only one Roadway Lighting Light within the construction plans for Olowalu Mauka. Such light will meet the maximum wattage of 100W HPS as an internal road intersection.
o. Conditions #34-36 - There is no update or change to the approved responses to these conditions.

Please let me know if you have additional concerns or comments on these construction plans.

Sincerely,

David Ward

Cc: Jim Riley
Leslie Otani – Land Use and Codes (encl. Final Compliance Information)
Rogelio Hidalgo – Tanaka Engineers

Article VI. GENERAL TERMS AND CONDITIONS TO OLOWALU MAUKA DEPOSIT RECEIPT AND SALES CONTRACT.

A. DESCRIPTION OF PROJECT AND SUBDIVISION PROCESS.

1. Overview. The lot being purchased by Buyer is the Lot as described on the sketch attached as Exhibit A. Exhibit A also shows the location and configuration of the subdivision. On the date of this agreement the Tract is zoned "agricultural."

Seller will use its best-efforts to seek all required governmental approvals for the subdivision. If successful, the Seller will construct the necessary roads, utilities, and other infrastructure requirements. Upon completion of all governmental approvals for the subdivision and upon the County of Maui's approval of construction plans for the infrastructure, Seller will convey legal title to the Lot to Buyer.

Under the agricultural zoning and the terms of the subdivision the Lot being purchased by Buyer cannot be further subdivided. A copy of the agricultural zoning ordinance has been provided to Buyer.

B. CLOSINGS AND TITLE.

Until closing, Buyer's funds will be held in escrow by Title Guaranty Escrow Services, Inc., 80 Puunene Avenue, Kahului, Hawaii 96732, (Attention: Lynn Sueda), phone 808-871-2200 ("Escrow").

At the time Seller will convey the Lot to Buyer (called the "Closing"), Seller will convey title to Buyer or Buyer's designee by general warranty deed, through Escrow, which shall arrange for the issuance of title insurance to Buyer. Title will be conveyed subject to all of the encumbrances listed on Exhibits B and C attached hereto, and any other utility easements and other matters which shall have been established by Seller as part of the subdivision, none of which shall have any material adverse effect on the value of the Lot or its use for a "farm dwelling" under the Maui County Agricultural Zoning Ordinance. One-half the cost of escrow, all recording fees, conveyance tax and brokerage commissions will be paid by Seller. Real Property taxes will be prorated between Buyer and Seller at closing. Buyer will be required to pay one half the cost of escrow, the cost of Buyer's title insurance and a start-up fee to the Association (see Section D.2 below).

C. SELLER'S DEVELOPMENT OBLIGATIONS.

1. Construction of Subdivision Improvements. Seller agrees to complete all subdivision infrastructure improvements and utility services in accordance with the plans and specifications for the subdivision approved by the County of Maui, including but not limited to the following improvements:

(a) Roads and Access. Seller shall construct the paved, private roadway for access to all lots at no expense to Buyer and in accordance with plans approved by the County of Maui. Seller shall complete the paving of the roadways within 15 months after the County of Maui shall have approved the plans for the infrastructure improvements, subject to any delays or causes beyond Seller's control. Buyer may experience some inconveniences in accessing the Lot during construction. Seller may temporarily limit access or provide alternate access to the Lot until the road (and utilities) is completed since such access during construction of the subdivision may entail a risk of injury or property damage and may affect the orderly progress of Seller's construction.

[illegible] electrical and telephone service [illegible] subdivision at no [illegible] shall [illegible] plans approved by the provider and available for inspection by Buyer when completed. This service may not be complete at closing but shall be completed within 15 months after the County of Maui shall have approved the plans for the infrastructure improvements, subject to any delays by Maui Electric, Verizon, Hawaiian Cablevision, or for other causes beyond Seller's control. Buyer shall be responsible for connecting his or her service to the underground conduit to be located in the roadway near the property boundary of the Lot.

(c) Water. The wells and the domestic water distribution system will be held and operated by a public utility company for the purpose of holding, operating, maintaining, repairing and replacing the system for the benefit of all properties which are served by it.

Domestic water service may not be complete at closing but shall be completed within 15 months after the County of Maui shall have approved the plans for infrastructure improvements, subject to delays for causes beyond Seller's control.

Domestic water use shall be subject to PUC approved charges and assessments, and reasonable rules and regulations governing water use consistent with the sound water management, conservation standards, and other possible sources of water for irrigation.

Seller intends to offer separate, non-potable water service for irrigation for such charge and on such terms as Seller may in its discretion determine but without legal liability to do so.

(d) Sewage. Buyer shall be responsible to construct Buyer's own on-site sewage disposal system on the Lot at Buyer's own expense.

Buyer agrees to close this sale pursuant to the terms of this Contract and to accept the Lot at Closing notwithstanding the fact that roadways, water service, electrical service, or phone service may not yet have been completed. Seller's obligations to complete these improvements under this section shall survive the closing and shall inure to Buyer and its successors and interest in the Lot.

2. Entry and Staking. Buyer agrees that Seller shall have the right to enter upon the Lot after the Closing for all purposes in connection with the construction of roadways and utility services, as well as slopes, grades, improvements, utility services, and drainage. Seller shall, at Seller's expense, stake the corners of the Lot at the completion of the construction of subdivision roads and utilities.

D. RESTRICTIVE COVENANTS, DESIGN APPROVALS AND COSTS.

1. The Olowalu Mauka CC&Rs. Before Buyer's 14-day rescission right shall have expired, (see pages 2 and 3 of this agreement), Buyer shall receive and review drafts of the following documents pertaining to the subdivision:

(a) The Olowalu Mauka Declaration of Covenants, Conditions, Restrictions and Easements (the "Declaration"), with Design Review Standards attached; and

(b) The Bylaws of the Olowalu Mauka Community Association, Inc. (the "Association").

(c) The Escrow Agreement.

EXHIBIT 17

RECEIVED
BY DATE 4/26/00

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref:PB:EAH

APR 25 2000

File No:ENFMA0033
DOCAREMA00-366

Olowalu Elua Associates, LLC
173 Ho Ohana St., Suite 201
Kahului, HI 96732

Dear Sirs:

Subject: Unauthorized Land Uses on State Unencumbered Lands and Within the State Land Use Conservation District

This is to inform you that at its meeting of April 14, 2000, the Board of Land and Natural Resources (Board) found you in violation of Conservation District law and State Land law relating to the unauthorized tree removal, grubbing and construction at Olowalu, Lahaina, County of Maui.

The Board derives its authority from Article X, Section 2 of the Hawaii State Constitution, and in this specific case, Chapters 171 and 183C, Hawaii Revised Statutes and Chapters 13-5 and 13-221, Hawaii Administrative Rules.

The Board assessed fines totaling $6,500.00 and administrative fees totaling $805.00. The total: $7305.00, is due by May 15, 2000. If the Department of Land and Natural Resources (department) does not receive the total amount by the above date, the matter shall be turned over to the Attorney General for disposition, including all administrative costs.

Specifically, the Board found that you violated Chapter 183C, Hawaii Revised Statutes, by failing to obtain the proper conservation zoning approvals to remove Hau trees, engage in construction on Olowalu Wharf and to engage in construction on the side of Olowalu Wharf. In addition, the Board found that you violated Chapter 171, Hawaii Revised Statutes, by failing to obtain the proper approvals to disrupt geological features on state unencumbered land.

Furthermore, the Board ordered you to: (1) nurture the growth of the still living remnants of one Hau tree; (2) through consultation and concurrence of community groups and the department's Land Division, plant and nurture the retention of two adult Hau trees within 90 days; (3) through consultation and concurrence of community groups and the department's Land Division and Historic Preservation Division, remove cement applied during recent construction at Olowalu Wharf and any extant encroaching cement on state land to the side of Olowalu Wharf within 90 days; and (4)

EXHIBIT 18A

through consultation with community groups and the department, file a Conservation District Use Application (CDUA) containing a restoration plan.

If you do not accomplish 2-3 above within 90 days you are hereby notified that a fine not to exceed $2,000.00 per day will be applied to each action not completed starting on July 14, 2000 and that the Board may seek compensation for damages to state land. We advise you to seek the assistance of the department's Historic Preservation Division before removing cement from the wharf and in developing any wharf restoration measures in your CDUA. Furthermore, in your CDUA, you may wish to answer the following questions: how will Olowalu Wharf be restored; what native plants will you plant in what locations; how and where is public access to be provided or not provided; how will landscaping be maintained and by whom? The restoration plan and CDUA may serve as a vehicle to specify what you will do to restore areas of the beach reserve that are not in the Conservation District, however, a CDUA including a restoration plan and a restoration plan for areas of the beach reserve not in the Conservation District must be submitted before July 14, 2000 or the Board may take further action in this matter.

Should you have any questions on this matter, please call Eric Hill of our planning staff at 587-0383.

Aloha,

Dean Y. Uchida, Administrator

c: Chairperson
Maui Board Member
HPD/LD(MDLO, EB)/DOCARE
County of Maui Planning Department
Na Kupuna O Maui
DAGS(Survey)

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AGRICULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCE ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

JUL - 5 2000

Ref.:PB:EAH

File No.:ENFMA00-33
DOCAREMA00-366

Olowalu Elua Associates, LLC
173 Ho Ohana St., Suite 201
Kahului, HI 96732

Dear Sirs:

Subject: Board Action of April 14, 2000 Regarding Unauthorized Land Uses on State Unencumbered Lands and Within the State Land Use Conservation District at Olowalu, Maui

This is to confirm and re-inform you that at its meeting of April 14, 2000, the Board of Land and Natural Resources (Board) found you in violation of Conservation District law and State Land law relating to the unauthorized tree removal, grubbing and construction at Olowalu, Lahaina, County of Maui. The Board deferred action regarding dredging to the side of Olowalu Wharf and will take up this matter again at its meeting of July 14, 2000.

The Board derives its authority from Article X, Section 2 of the Hawaii State Constitution, and in this specific case, Chapters 171 and 183C, Hawaii Revised Statutes and Chapters 13-5 and 13-221, Hawaii Administrative Rules.

The Board assessed fines totaling $6,500.00 and administrative fees totaling $805.00. We have received payment of fines and fees for this matter. Below are specific conditions related to this Board action:

1. The Board of Land and Natural Resources found that you violated the provisions of Title 13-5, Hawaii Administrative Rules (HAR), by failing to obtain the appropriate approvals for the removal of Hau trees from the shoreline state beach reserve within the Conservation District at TMK (2)4-8-3:6;

2. The Board of Land and Natural Resources found that you violated the provisions of Title 13-221, HAR, by failing to obtain the appropriate approvals for the disruption of geological features at the shoreline state beach reserve at TMK (2)4-8-3:6 and the Board imposed a fine of $500 pursuant to Title 13-221, HAR;

EXHIBIT 18B

3. That you nurture the growth of the still living remnants of the one Hau tree. That you plant and nurture the retention of two adult Hau trees to replace those removed in accordance with a plan approved by the department by July 13, 2000. That you plant and nurture the retention of native grasses, native trees and other native plants in the state beach reserve, both within and outside of the Conservation District, in accordance with a plan approved by the department;

4. Deferred

5. The Board of Land and Natural Resources found that you violated the provisions of Title 13-5, HAR, by failing to obtain the appropriate approvals for construction on Olowalu Wharf and for placing cement on state land within the Conservation District at the side of Olowalu Wharf. The Board imposed fines of $2000 for construction on Olowalu Wharf and $2000 for the placing of cement on state owned lands. The Board required that you restore Olowalu Wharf by removeing concrete placed on Olowalu Wharf by July 13, 2000 or you will be subject to an additional fine of $2000 per day;

6. That you remove any extant shoreline encroachments located on Olowalu Wharf, including any cement spill, in accordance with a plan approved by the department;

7. The Board fined you a total of $6500 for four violations;

8. The Board fined you an additional $805 for administrative costs associated with the subject violations ($325 DOCARE, $150 Maui District Land Office Staff and $330 Planning Staff);

9. That you pay all imposed fines within 30 days;

10. That in the event of failure of yourself to comply with any of these conditions, the matter shall be turned over to the Attorney General for disposition, including all administrative costs; and

11. The Board required you to develop a plan for complete restoration through consultation with the community group Na Kupuna O Maui as the basis for a new CDUA and submit the new CDUA by April 13, 2000.

Should you have any questions on this matter, please contact Eric Hill of our planning staff at 587-0380.

Aloha,

Dean Y. Uchida, Administrator

c: Chairperson
Board Members
HPD/LD(MDLO, EB)/DOCARE
County of Maui Planning Department
Na Kupuna O Maui

RECEIVED
DATE 7/25/00

ADMINISTRATIVE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

JUL 21 2000

Ref.:PB:EAH

File No.:ENF MA 00-33
DOCARE:MA 00-366

Olowalu Elua Associates, LLC
173 Ho Ohana St., Suite 201
Kahului, HI 96732

Dear Sirs:

Subject: Board Action of July 14, 2000 Regarding Unauthorized Dredging on State Land Seaward of the Shoreline and Within the Conservation District Adjacent to Olowalu Wharf, Island of Maui and Amendments to Board Action D-24 April 14, 2000; Conservation District and State Unencumberd Land Violations At Olowalu, Maui

This is to inform you that at its meeting of July 14, 2000, the Board of Land and Natural Resources (Board) found you in violation of Conservation District law and State Land law relating to unauthorized dredging at Olowalu, Lahaina, County of Maui. The Board also amended its action, D-24, of April 14, 2000 regarding Conservation District and State Unencumberd Land Violations At Olowalu, Maui.

The Board derives its authority from Article X, Section 2 of the Hawaii State Constitution, and in this specific case, Chapters 171 and 183C, Hawaii Revised Statutes and Chapters 13-5 and 13-221, Hawaii Administrative Rules.

The Board assessed fines totaling $49,500.00, administrative fees totaling $550.00 and damages to state land totaling $1315.00. $3365.00 of the total of these amounts is due by August 12, 2000. The balance, $48,000, is due by September 11, 2000.

Previously, we informed you that the Board's action, D-24, of April 14, 2000 required you to submit a Conservation District Use Application (CDUA) containing a restoration plan for work done on Olowalu Wharf by July 13, 2000. At the Board meeting on July 14, 2000 you made a representation that such a CDUA had been submitted. The department did not, however, receive your CDUA submission by July 13, 2000. On July 19, 2000 we did receive one copy of your CDUA submission. Please immediately submit the CDUA application fee and extra copies of your CDUA submission, pursuant to Chapter 13-5, Hawaii Administrative Rules and the Board's action, D-24, of April 14, 2000.

EXHIBIT 18C

In regards to unauthorized dredging to the side of Olowalu Wharf and the Board's action D-34 of July 14, 2000:

1. The Board of Land and Natural Resources found that you violated the provisions of Chapter 183C, Hawaii Revised Statutes (HRS), and Chapter 13-5, Hawaii Administrative Rules (HAR), by failing to obtain the appropriate approvals for the dredging of coral rubble and other material to the side of Olowalu Wharf and the placing of that material on Olowalu wharf and fined you $48,000, pursuant to Chapter 183C, HRS. This portion of the total fine under this action is to be paid within sixty (60) days of this action (September 11, 2000) to allow you to submit legal objections and analysis of the fine to the Department of Attorney General for review;

2. The Board of Land and Natural Resources found that you violated the provisions of Chapter 171, HRS, and Chapter 13-221, HAR, for the unauthorized mining or taking of dead coral and other material from a location seaward of the shoreline on state unencumbered land for a period of three days. The Board of Land and Natural Resources imposed a fine of $1500 and the collection of $1315 for damages to unencumbered state land pursuant to Chapter 171, Hawaii Revised Statutes;

3. The Board of Land and Natural Resources imposed a fine of $550 to pay for additional administrative costs ($225 DOCARE and $225 Planning Staff) and required you to pay all fines imposed by this action, $51,365, excluding the $48,000 fine for the dredging which will be paid within sixty (60) days (September 11, 2000), within 30 days (August 12, 2000);

In regards to the item D-24 of the agenda of the Board of Land and Natural Resources at its regularly scheduled meeting of April 14, 2000:

4. The Board amended condition number 3 of Board action D-24 of April 14, 2000 to require that Olowalu Elua Associates plant and nurture the retention of two local Hau trees limbs to replace those removed and that Olowalu Elua Associates, its successors and assigns will nurture the growth of the transplanted trees after they are planted and when necessary for the life of the trees. If the transplanted trees do not survive or subsequently die or are removed for any reason, you, your successors and assigns shall transplant more trees according to this condition;

5. That condition number 5 of Board action D-24 of April 14, 2000 be amended regarding cement removal to allow for a stay; and;

6. That in the event of failure of Olowalu Elua Associates, its successors or assigns to comply with any of these conditions, the matters shall be turned over to the Attorney General for disposition, including all administrative costs.

Should you have any questions on this matter, please contact Eric Hill of our planning staff at (808) 587-0380.

Aloha,

Dean Y. Uchida, Administrator

c: Chairperson
Board Members
HPD/LD(MDLO)/DOCARE
County of Maui Planning Department

Final Environmental Assessment

AFTER-THE-FACT APPROVALS FOR WORK PERFORMED AT OLOWALU, MAUI, HAWAII

Prepared for:

Olowalu Elua Associates, LLC

June 2001

HUNEKIYO & HIRAGA, INC.

EXHIBIT 18D

523

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Chapter I

Overview

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I. OVERVIEW

A. BACKGROUND

Olowalu Elua Associates, LLC (OEA) is seeking after-the-fact approvals for activities conducted at TMK 4-8-03:43 and 4-8-03:06, Olowalu, Maui, Hawaii. See Figure 1. In particular, an after-the-fact Conservation District Use Application addressing the following actions within the Conservation District has been filed with the Department of Land and Natural Resources (DLNR):

1. Removal of coral rubble from an area adjacent to the Olowalu Wharf for use as fill material to level the wharf platform;
2. Filling of the wharf platform with coral fill and placing poured cement to provide a smooth walking surface; and
3. Removal of vegetation (remnant sugar cane) and damage to *hau* trees within the Government Beach Reserve (TMK 4-8-03:06).

At its meeting of April 14, 2000, the Board of Land and Natural Resources (BLNR) found OEA to be in violation of the Conservation District Rules with the foregoing unauthorized activities. The Board's action, as confirmed by letters dated April 25, 2000 and July 5, 2000 (see Exhibit A), resulted in the following compliance requirements:

1. Through consultation and concurrence of community groups and the department's Land Division and Historic Preservation Division, remove cement applied during recent construction at Olowalu Wharf and any extant encroaching cement on State land to the side of Olowalu Wharf within 90 days;
2. Nurture the growth of the still living remnants of one hau tree;
3. Through consultation and concurrence of community groups and the department's Land Division, plant and nurture the retention of two adult hau trees within 90 days; and

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4. Through consultation with community groups and the department, file a Conservation District Use Application (CDUA) containing a restoration plan. This plan would include what the applicant would do to restore areas of the beach reserve that are not in the conservation district.

Towards addressing the foregoing requirements, OEA, on July 6, 2000, filed a Conservation District Use Application and accompanying restoration plans with the Department of Land and Natural Resources. At its meeting of July 14, 2000, the Board amended the conditions of their April 14th action by:

1. Requiring OEA to plant and nurture the retention of two local hau trees; and
2. Allowing for a stay on the restoration of the wharf.

By facsimile transmittal of August 29, 2000, the Department informed OEA that the application was incomplete. See Exhibit B.

This document addresses the Board's initial requirements of April 14, 2000, as well as the Department's request for additional information and clarification of August 29, 2000. Inasmuch as the subject actions involved Conservation District lands, this Environmental Assessment (EA) has been prepared pursuant to Chapter 343, Hawaii Revised Statutes.

B. *CONSERVATION DISTRICT REQUESTS*

The applicant is seeking the following approvals from the BLNR:

1. *Coral Removal*

   a. After-the-fact Conservation District Use approval for the removal of coral from the side of the Olowalu Wharf.

2. *Wharf Filling and Cementing*

   a. After-the-fact Conservation District Use approval for the filling and cementing of the Wharf.

   b. Approval to retain the cemented area, as is.

3. *Vegetative Clearing*

   a. After-the-fact Conservation District Use approval for damaging the *hau* trees and removal of vegetation within the State beach reserve (TMK 4-8-03:06).

In seeking the foregoing approvals, the applicant has incorporated herein, documentation regarding its effort to comply with the orders of the BLNR.

Chapter II

Work Performed Within the Conservation District

II. WORK PERFORMED WITHIN THE CONSERVATION DISTRICT

This assessment addresses three (3) specific actions for which the BLNR found OEA to be in violation of Chapter 13-5, Hawaii Administrative Rules entitled "Conservation District".

1. *Removal of vegetation within the Government Beach Reserve (TMK 4-8-03:06)*

   Vegetation within the State's beach reserve was removed without authorization. This work resulted in damage to *hau* trees which lined a section of the shoreline area. This work was undertaken in February 2000.

2. *Removal of coral rubble from an area adjacent to the Olowalu Wharf for use as fill material to level the wharf "platform".*

   Coral rubble deposited at the southeast end of the wharf, makai of the certified shoreline, was removed and placed on the wharf platform. Prior to the filling of the wharf, the platform surface was uneven, presenting difficult conditions for pedestrian access to the makai end of the wharf. This action was undertaken to address safety and liability issues relating to the public's use of the wharf. Approximately 12 cubic yards of rubble was removed and placed on the wharf. This work was conducted in December of 1999.

3. *Filling of wharf platform with coral fill and placing poured cement to provide a smooth walking surface and to stabilize the wharf structure.*

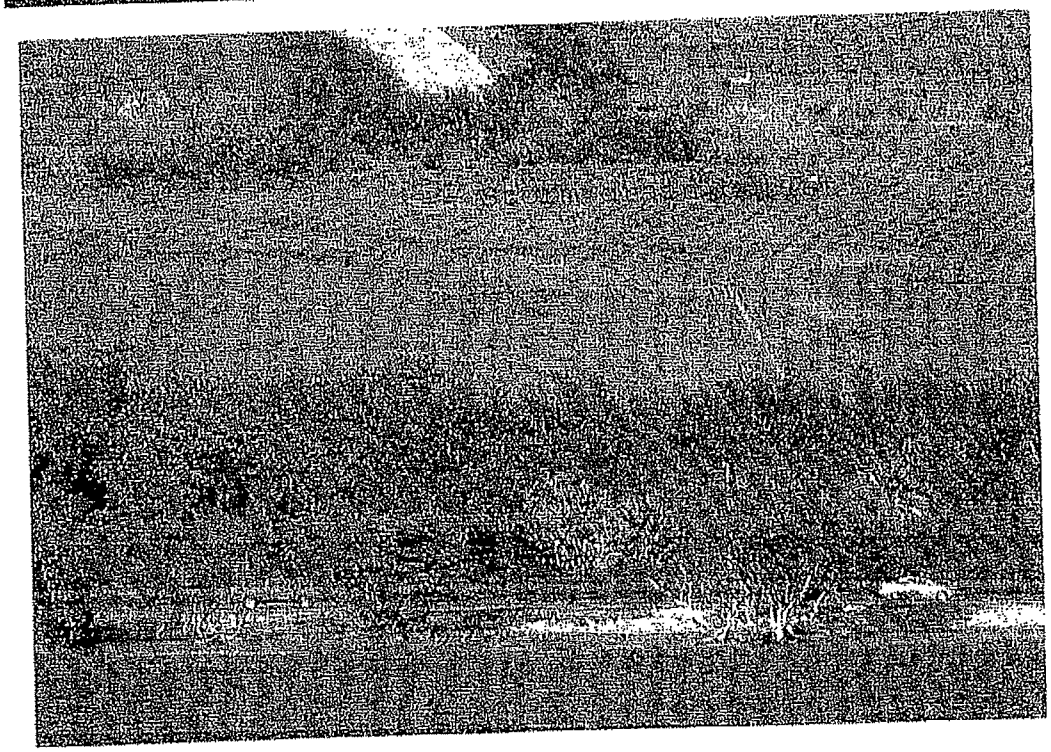
   As previously noted, approximately 12 cubic yards of coral fill was placed onto the wharf platform for use as fill material to provide a smooth walking surface on the wharf itself. The makai extent of the wharf, portions of which were previously cemented, was capped with additional poured

cement to provide a finished surface, while at the same time providing greater structural stability to the wharf. This work was conducted in December of 1999.

The BLNR, by order, required the applicant to consult with community groups and the DLNR's Land Division and Historic Preservation Division, and remove the cement applied to the wharf. Based on consultation with community groups and the DLNR's Land and Historic Preservation Divisions, the applicant seeks the BLNR's approval to retain the wharf in its "as is" cemented condition.

Olowalu Mauka Subdivision
Developer Violations of Drainage Requirements
January 22, 2010

Storm drain system does not run to the ocean as required. It simply dumps below the bottom of the street.



NOTICE OF WARNING

Department of Planning
Zoning Administration and Enforcement Division

[✓] 1st Warning 10/17/05 [ ] 2nd Warning
(Date)

Issued to: PETER MARTIN OWNER
[ ] Hand Delivered [✓] Certified Mail

Address: DBA: OLOWALU ELUA ASSTS. LLC WEST MAUI LAND. CO.
~~810 OLOWALU VIL RD.~~
C/O 53 LONO AVE, ST#450, KAH. HI

TMK: 2480030430000

We have determined that the following violation exists on this property.

[ ] Sign Violation
[✓] Zoning Violation
[✓] Special Management Area Violation
[✓] Other STATE CDUA VIOLATION

Description of Violation: *HRS: 205A .436
OBTAIN A SHORELINE SETBACK VARIANCE.
*MCC: 12.202.25 SMA RULES *MCC:
19.14.020 I.2 ACCESSORY USE, OUT-SOURCE

We are asking for your cooperation in correcting the above violation by: 10-21-05

Failure to correct violation shall result in penalties pursuant to the Maui County Code and the Hawaii Revised Statutes. If you need any assistance, please call: C. VILLALON at 270-7253.

[signature] 10/17/05 1008 hrs.
SIGNATURE OF INSPECTOR DATE / TIME

WITNESS SIGNATURE DATE / TIME

Comments: FINES IN EXCESS OF $1,00,000.00 WILL BE ISSUED IF COMMERCIAL EVENTS CONTINUE, W/O ABOVE COMPLIANCE TO LAWS. COUNTY & STATE MANDATES, WILL BE VIOLATED

RFS No. 05-4436

C 0390

Department (original) Inspector (pink) Issued To (Yellow)
7004 2510 0004 6384 2897 10/19/05 GAN

EXHIBIT 19

AA

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DECLARATION LETTER OF GABIJA MCLAUCHLAN

I, Gabija McLauchlan hereby state and declare under penalty of law, as follows

1. While living in Evergreen, Colorado I visited Maui in the fall of 2005 with the intention to purchase real estate. My broker Martin Limkilde with Jim Sanders Realty showed me several properties including lot #12 in Olowalu Mauka. The co-owner of lot #12 Todd Boyd personally wanted to show and walk the property with us. Todd Boyd showed us the property lines, views, explained the good qualities of the property and mentioned being good friends of the developer Peter Martin. Never during this lengthy conversation and visit did Todd Boyd mention any problems with the subdivision nor that the subdivision was never completed per SMA permits granted in 2000. Also there was no mention of lack of completion nor lack of compliance of the SMA in the sellers disclosure statement dated 9/20/2005 by the sellers Todd Boyd and Gary Dixon.
2. For the purchase of lot #12 in Olowalu Mauka I hired Paul Mancini of Mancini Welch and Geiger LLP per recommendation of my real estate attorney Ted Sells in Evegreen, Colorado. During the purchase and due diligence period of lot #12, Paul Mancini never disclosed that his firm and partner Tom Welch represented the developer Peter Martin as legal council. According to Paul Mancini all was good to go for the closing and I cash closed on lot #12 on October 31st, 2005. Within a year, without knowing there were any SMA permit violations, I put the property on the market. After a lengthy time and with no offers I decided to take the property off the market and put it back on the market a few years later – again without any offers received.
3. During the past fews years, thanks to the efforts of Lorie Kruse – a licensed Hawaii attorney representing Olowalu Mauka HOA and also her husband at the time Randy Ragon who is the current President of the HOA and a property owner of lot #6 in Olowalu Mauka – it was uncovered that the developer never completed the subdivision Olowalu Mauka per SMA permits granted in 2000. This was the first time, while currently living in Jacksonville, Florida that I realized that I had purchased a property in an unfinished subdivision that was not in compliance with the law. Through continued hard work, Lorie Kruse was able to influence the County's to enforce against the developer as well as the DOT agreeing that occupancy should not have been allowed in the subdivision until the conditions of the SMA permit granted in 2000 were complete. Olowalu Mauka HOA planned to continue to have Lorie Kruse as legal council however she and Randy Ragon are going through a divorce and Lorie Kruse has requested the courts to leave with her daughter to California. Lorie Kruse has chosen Mancini Welch

and Geiger LLP to represent her in the divorce – the same firm representing the developer who she was working against. Ten years later the developer still has not finished Olowalu Mauka per SMA permits issued in 2000

4. Currently I have lot #12 in Olowalu Mauka that is unmarketable – lot #12 has been on the market for two periods without any offers. The property is not in compliance of the law and SMA permits granted in 2000 – this was never disclosed by the sellers nor my attorney and not enforced by the County of Maui. Unsafe with no fire road nor highway access road – there have been a number of accidents and residents evacuating near the fire flames. Given the of lack of disclosure, conflict of interest and lack of enforcement, I have hired Randall Schmitt of McCorriston Miller Mukai MacKinnon LLP as legal council to represent me to rescind my purchase agreement contract for lot #12 in Olowalu Mauka.

I declare under penalty of law that the foregoing is true and correct.

Executed in Jacksonville, Florida on May 6th, 2010.

Gabija McLauchlan

Memo from: Bruce Curtis - P.O. Box 10541 – Lahaina – HI 96761

Tel & Fax 808/669-7547 e-mail Wena49@cs.com

Date: May 5, 2010

Subject: Declaration – Olowalu Mauka of Bruce Curtis

Randy, the fire at Olowalu Mauka this week is freighting. This is the second one in the last four years. It is freighting to have experienced this and not to have a second exit that is safe to use. The exit that was developed after the previous fire is very inadequate.

We are owners of two lots, #1 and #3. We purchased the lots in 1902 and 1903. We were personally escorted to the area in a four wheel vehicle by an Executive of West Maui Land outlining their development plans. Bottom line, they have not met the goals they shared with us verbally and in print.

I have been on the Home Owners board for two years. It has been good to see the commitment of the Board members to work with West Maui Land to take corrective action on their shortfalls. I am not listing the shortfalls as that information has been exchanged with West Maui Land and the County of Maui, by Lorie Kruse. I hear rumor that Lorie is moving and we will not have her carrying the ball forward in addressing the issues that need corrective taken by West Maui Land and the County of Maui. I am disappointed to hear that Lorie Kruse became a client of Mancini Law firm who created these problems. Could this be a conflict and hurt our case? We need to get new legal consul to run with the ball and get the shortfalls corrected, NOW. No more waiting. I would hope that West Maui Land will honor their obligations and we will not have to go to Court.

The value of our lots has deteriorate and will continue to do so until we can hand a prospective buyer a list of the shortfalls and dates that the shortfalls were completed or scheduled to be completed backed up with Bonding. We can no longer live on "Promises". The County of Maui has exposure on this as well. Both the developer and County of Maui should be held accountable – NOW.

I declare under penalty of perjury under the laws in the State of Hawaii that the foregoing is true and correct, except to those things stated on information and belief and to those I believe them to be true and correct.

5 May, 2010. Where I am writing this declaration: Lahaina, Hawaii 96761

Signature _____ 5/5/10

Name Printed Bruce Curtis

Msw/Olowalu/RandyDeclaration 5-5-10

To: 808-661-0688 via FAX

May 6, 2010

RE: Olowalu Mauka Subdivision SMA non compliance

To Whom It May Concern:

My name is Henry Vandervelde and I am the co-owner of Lot #2 in the Olowalu Mauka Subdivision at 282 Luawai St. Lahaina, Hawaii.

I am a Board member of the Olowalu Mauka Home Owners Association.

I purchased my lot in 2003.

I am very concerned that the developer was allowed to market and sell lots in the subdivision before it received approval.

I am very concerned about safety and liability issues and these dangers have hurt the value of my property. My property value will continue to drop as developer violations come to light. I have already incurred damages as a result of purchasing this property due to the County of Maui not enforcing SMA permit conditions.

Had I known these facts, I would never have invested in Olowalu Mauka. I have invested my life savings based on the County zoning, County ordinances and recorded land entitlement documents.

I declare under penalty of perjury under the laws in the State of Hawaii that the foregoing is true and correct, except to those things stated on information and belief and to those I believe them to be true and correct.

Dated this 6th day of May, 2010, in Goleta, California.

Henry Vandervelde

John F. Crinion
The Crinion Family Trust
P.O. Box 187
Lahaina, HI 96767

Declaration Letter

My name is John F. Crinion, The Crinion Family Trust (of which I am a Trustee) owns Lot 8 at Olowalu Mauka, Lahaina, Hawaii. I am Vice President of Olowalu Mauka HOA. We bought our property in October 2004 in good faith from the previous owners, not directly from the developers West Maui Land.

My wife and I built our home the following year and have been improving our property ever since. When we bought our property we were told that all the amenities would be brought in by the developer and that has not happened. We have no mail delivery, no cable TV, no internet, no trash pick up. They also provide our water in the form of potable and non-potable for agricultural purposes. We had to install a filter for the potable water to insure that we had clean drinking water and we had to install a filter for the non-potable water because our automatic watering system was clogging with all the debris left in the water by Olowalu Water Company.

I am concerned that our subdivision has not been completely finished and as such can put us in a precarious position concerning the County of Maui and possibly with our Property Insurance Company should we ever have to file a claim. There also might be an issue if we were to try to get financing using our property as collateral.

I feel the developer did not complete our subdivision and the County of Maui has not enforced it's own rules, that West Maui Land is being given special treatment because of its connections to the County and some of the Counties employees. I also feel that the SMA permit conditions were not met and that the County has chosen not to properly enforce the permit conditions.

Had we known all the facts we might have bought elsewhere and not had our investment brought down by unscrupulous developers and a County that can't seem to enforce it's own rules.

Further the developer hasn't followed through with the road improvements that were supposed to have been completed before any housing permits were issued or any occupancy was allowed in our subdivision. This puts all of us at Olowalu Mauka in a very scary position regarding the County of Maui as it is well known that the County could come in and take everything away from us with no

recourse on our part. Not to mention putting our lives at risk when attempting to turn into our subdivision from the Honoapiilani Highway, we also risk whiplash by falling into a deep rut. Another concern is the lack of a proper fire road as we have had multiple fires in our subdivision and access to a fire road is imperative. How this has been allowed to happen we will probably never know, what is more important now is when will we see action on all these issues that have not been resolved.

I consider the fact that Lorie Kruse, a licensed Hawaii Attorney, who at one time was working for our homeowners at Olowalu Mauka and was strongly opposed to the developers and the Mancini law firm and the County is now being represented by the very same law firm of Mancini in her divorce case against Randy Ragon. Maybe an investigation should be held to be sure there is no conflict of interest.

Knowing what we now know we would have been better off not buying at Olowalu at all, at this time it is highly unlikely we could sell if we tried because of the mess we have been left in by the developer, the County of Maui and the Dept. of Transportation. We have invested everything we have in Olowalu Mauka and it was our dream to live here in peace and prosperity. I don't see that happening if the present conditions continue.

I declare under penalty of perjury under the laws in the State of Hawaii that the foregoing is true and correct, except the things stated on information and belief and to those I believe them to be true and correct.

Dated 6th day of May, 2010 in OLOWALU, LAHAINA, HAWAII

Signature _____

Name JOHN F CRINION

----- Forwarded Message -----
From: Lawrence P. Carnicelli <info@LahainaMaui.com>
To: Charmaine.Tavares@mauicounty.us; Elaine M Waldow <ElaineWaldow@cs.com>; GAD@ramaui.com
Cc: danny.mateo@mauicounty.us
Sent: Thu, July 1, 2010 8:36:07 PM
Subject: RAM Meeting and follow up SMA question

Aloha Mayor Tavares,

Thank you for meeting with all of us today at the Maui Board of Realtors. I really appreciate you taking the time to give us your opinions and allowing us to ask some pointed questions. I appreciate it greatly. I just wanted to follow up with you in regards to my questions surrounding the SMA laws, approvals, compliance and enforcement as I was cut short by the other gentleman at the end.

As I stated the SMA "situation" has become passionate issue for me not only as a Real Estate Broker with disclosure issues but as a citizen with health, safety and environmental concerns. The numbers of incomplete, expired and non-compliant SMA permits here on Maui is astounding to me. The lack of enforcement by the Administrative Branch of Maui County is, in my opinion, potentially negligent and certainly embarrassing (I will note that it is not only your administration but previous ones have also exercised the "culture of leniency" as Jeff Hunt put it in a committee meeting recently).

As I said in the meeting, rather than speaking in generalities or from a macro-perspective I will choose to use Olowalu Mauka as my example. For the record I have several clients in the subdivision that I sold property to. However, please remember this is only one of MANY situations just like this here on Maui .

In short: The Olowalu Mauka subdivision SMA permit expired in 2005 with many incomplete and undone obligations left on that permit. Your administration has alerted the developer of such after being pushed to do so. However, the mandatory obligations still have failed to be enforced on the developer. One of which are fire break roads which luckily did not end up being disastrous just a few weeks back! Corporation Counsel has the authority to impose maximum fines and penalties if in fact the health, safety and welfare are as risk. The developer has neither applied for an extension nor a 'new' SMA permit. This leaves my clients (and friends) with property that should not have certificates of occupancy and is rendered essentially worthless. This leaves me as a Real Estate Broker with potential serious disclosure issues and may leave me exposed for recourse. All the while the developer has made his millions and run off without fulfilling his required responsibilities. He can even use those millions to tie up the courts and the county so as to evade his responsibilities.

Will this end up being your Maui Lani/Palama Drive issue? Are you going to make citizens sue the county in order for laws to be followed, adhered to and enforced? Is the county going to align itself with developers against these citizens al la Palama Drive ? In the Palama Drive case the courts ruled against the County; disagreeing with Corporation Counsel and your Directors interpretation of their powers within the laws. If a ruling like this happens again my clients will potentially end up with uninhabitable dwellings and/or a condemned property. I trust your resounding answer of NO to the above questions! For that I thank you. You said that you were unaware of this situation and that you would follow up to ensure it does not become such. However, that is where we got interrupted in the meeting... I would like to know what your findings are and how you intend to follow up. In finale... What are your conclusions for action in enforcing the SMA laws in light of the County losing the Palama Drive rulings? I look forward to hearing what you have to say.

Again, thank you for your time and consideration,

Lawrence

Lawrence P. Carnicelli, Broker

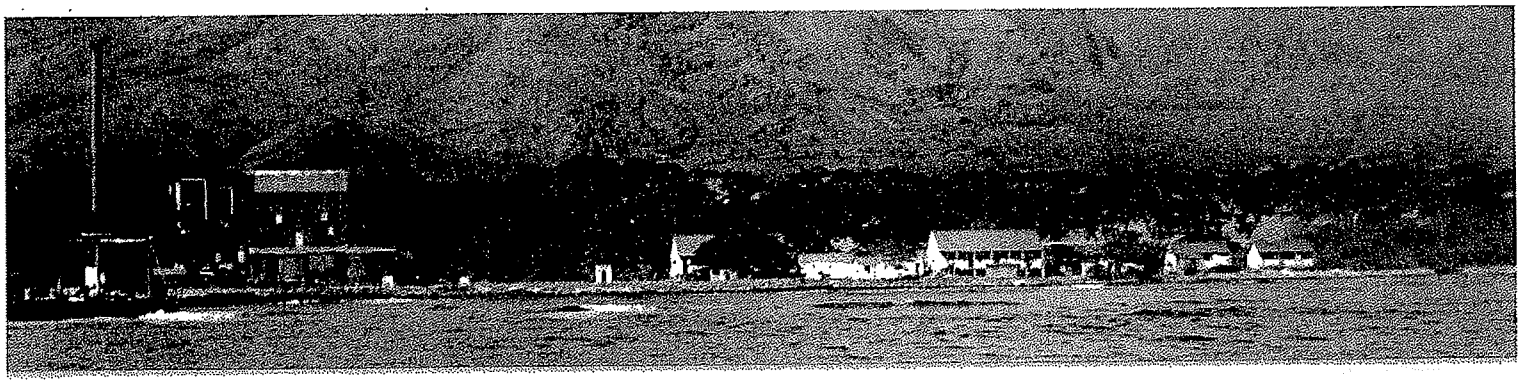
Prudential Maui Realtors

http://www.LahainaMaui.com

LPC@LahainaMaui.com

(808) 283-6090 cell

(808) 661-5210 fax



Olowalu Talk Story
A Community-Based Planning Process

December 28, 2011

Mr. Randy Ragon
713-A Front Street
Lahaina, Hawaii 96761

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Ragon:

We are in receipt of your letter dated July 20, 2010 to Mr. Orlando "Dan" Davidson, Executive Director, Land Use Commission. The Special Management Area (SMA) Use Permit granted by the Maui Planning Commission referenced in your comment letter refers to the Olowalu Subdivision project proposed by Olowalu Elua Associates, LLC in 2000. We understand that your concerns were originally filed with the Maui Planning Department and have since been resolved through that agency. See **Exhibit "A"**.

Further, on March 22, 2011, the Maui Planning Commission granted SMA Permit No. 2010/0008 for the relocation of Driveway "D" for the Olowalu Mauka Subdivision and related intersection improvements. A copy of the approval letter dated April 7, 2011 is attached as **Exhibit "B"**.

We note that the Olowalu Town Master Plan is proposed by Olowalu Town, LLC and Olowalu Ekolu, LLC, which are separate entities from Olowalu Elua Associates, LLC. We welcome any comments regarding the Olowalu Town Master Plan which is under review in the Environmental Impact Statement Preparation Notice (EISPN).

Thank you again for your participation in the Chapter 343, Hawaii Revised Statutes (HRS), review process. A copy of your letter will be included in the Draft Environmental Impact Statement (EIS).

Olowalu Town LLC
2035 Main Street
Suite 1
Wailuku, HI 96793

Tel: 808 249.2930
Fax: 808 249.2333
talkstory@olowalu.net
www.olowalu.net

Photo: Olowalu Sugar Mill and Oceanside Camp, Hawaii State Archives.

Olowalu Talk Story

Please contact me if you have any questions at 244-2015.

Very truly yours,

William Frampton
Olowalu Town, LLC

BF:tn
Attachments
Cc: Orlando "Dan" Davidson, Executive Director, Land Use Commission
Heidi Bigelow, Olowalu Ekolu, LLC
Michael Munekiyo, Munekiyo & Hiraga, Inc.
B. Martin Luna, Esq.
William Spence, Maui Planning Director
K:\DATA\OlowaluTown\MasterPl\EISPN\Ragonresponse.ltr.doc

CHARMAINE TAVARES
Mayor

KATHLEEN ROSS AOKI
Director

ANN T. CUA
Deputy Director

COUNTY OF MAUI

DEPARTMENT OF PLANNING

December 16, 2010

CERTIFIED MAIL – #7008 0500 0002 0444 6310

Mr. Peter Martin, President
Olowalu Elua Associates, LLC
33 Lono Avenue, Suite 450
Kahului, Hawaii 96732

Dear Mr. Martin:

SUBJECT: SECOND NOTICE OF WARNING - REQUEST FOR SERVICE NO. 10-0000452: FAILURE TO COMPLY WITH SPECIAL MANAGEMENT AREA (SMA) USE PERMIT FOR THE OLOWALU SUBDIVISION, LOCATED AT OLOWALU, ISLAND OF MAUI, HAWAII; TMK(S): (2) 4-8-003:005, 10 (POR.), 41, 42, 43, 50 (POR.), 63 (POR.), AND 78 (POR.); AND (2) 4-8-004:011, 12, 13, 14, 15, AND 16 (SM1 99/0021)

The County of Maui (County) issued a Second Notice of Warning on June 29, 2010, to clarify action steps that needed to be implemented in order to bring the Olowalu Mauka Subdivision project (Project) into SMA compliance. From that June 29, 2010 date, the Department of Planning (Department) has worked with the developer to further review each of the outstanding issues.

Condition No. 32, requiring the completion of roadway improvements to the Honoapiilani Highway, is stated as follows: *"That roadway improvements to Honoapiilani Highway, including left-turn storage lanes, acceleration and deceleration lanes, driveway connections, etc., as identified in the applicant's Traffic Impact Assessment Report (TIAR), and as required by the Department of Transportation shall be provided in conjunction with the development of the subdivision. The roadway improvements shall be reviewed and approved by the Department of Transportation. Construction of the improvements shall be completed prior to occupancy of the agricultural lots unless a phasing plan for the improvements is reviewed and approved by the Department of Transportation."*

At the time of the June 29, 2010 letter, the Department did not have any documentation that a phasing plan had been approved and therefore, was of the opinion that the project was not in compliance with Condition No. 32. In light of the June 29, 2010 opinion that Condition No. 32 had not been adequately met, the Department determined that the project was not in compliance with Conditions 2, 4, 8, 11, and 12.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

EXHIBIT A

Subsequently, the developer in a letter dated October 25, 2010 as attached, provided documentation from the State Department of Transportation (DOT), Maui District Office, that a verbal agreement between Olowalu Elua Associates and the DOT established a phasing plan per Condition No. 32 which stated the following: *"DOT will permit issuance of building permits for dwellings on up to 50% of lots 1-14 in the Olowalu Mauka subdivision prior to construction of the Driveway "D" intersection in its new location."* Additionally, the developer has submitted an application for a new SMA permit for the relocation of Driveway "D".

With such a phasing plan confirmed by the DOT, the Department believes that the developer has adequately addressed the issues raised regarding Condition Nos. 2, 4, 8, 11, 12, and 32 in the Department's June 29, 2010 letter at this time. It is only until very recently that fifty percent (50%) of the lots 1-14 in the Olowalu Mauka subdivision have commenced construction. As the project has now reached this 50% threshold referenced in the phasing plan, completion of Driveway "D" and associated roadway improvements must commence.

Three (3) other conditions of concern were brought to the Department's attention. These conditions were of concern as a matter of continuing project monitoring. Condition No. 14 concerns the development of a phased greenway system. A site visit by the Department required that the developer give an accounting of the live trees and plants by species that have been planted to date. Additional mitigation and planting was required in order to bring the project into compliance. Some plantings had died over time and certain species were replaced.

Condition No. 19 concerns archaeological and site preservation with both long and short-term milestones. No specific timetable was developed for preservation. A recent site-visit confirms that the Olowalu Cultural Reserve is working on preservation throughout the site and has prioritized each of the projects. Therefore, the Department is satisfied that the developer is working on both short-term and long-range preservation projects, and this issue has been adequately addressed by the developer at this time.

Finally, Condition No. 33 was adhered to when a light bulb of a lower wattage was replaced, as required by the conditions of approval.

The developer has given evidence of a phasing plan for subdivision development and improvements to the Honoapiilani Highway. Additionally, a new SMA application for the relocated Driveway "D" has been received by the Department, and mitigation measures for other conditions have been completed or shall be according to a priority phasing plan. Based on the information available to the Department, the issues referenced in the Department's June 29, 2010, Second Notice of Warning has been adequately addressed at this time.

Thank you for your cooperation in addressing this matter. The Department looks forward to processing the new SMA application for the proposed Driveway "D" and related project improvements. Should you require further clarification, please contact Staff Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

Kathleen Ross Aoki

KATHLEEN ROSS AOKI
Planning Director

Attachment
xc: Ann T. Cua, Deputy Planning Director
Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Kurt F. Wollenhaupt, Staff Planner
Michael Hopper, Attorney, Corporation Counsel
Jay Arakawa, Supervisory Zoning Inspector
Michael T. Munekiyo, AICP, Principal, Munekiyo & Hiraga, Inc.
Colleen Suyama, Project Manager, Munekiyo & Hiraga, Inc.
David Ward, Frampton & Ward LLC
Dean Frampton, Frampton & Ward LLC
Project File
General File
KRA:KFW:vb
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ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director

APR 14 2011

COUNTY OF MAUI
DEPARTMENT OF PLANNING

April 7, 2011

CERTIFIED MAIL - #7008 1140 0002 4319 5575

Mr. Peter K. Martin
Olowalu Elua Associates, LLC
33 Lono Avenue, Suite 450
Kahului, Hawaii 96732

Dear Mr. Martin:

SUBJECT: SPECIAL MANAGEMENT AREA (SMA) USE PERMIT APPROVAL FOR THE RELOCATION OF DRIVEWAY "D" FOR THE OLOWALU MAUKA SUBDIVISION AND RELATED IMPROVEMENTS AT THE INTERSECTION OF HONOAPI'ILANI HIGHWAY AND LUAWAI STREET, OLOWALU, MAUI, HAWAII; TMK: (2) 4-8-003:084 (POR.), 101 (POR.), 102 (POR.), AND 118 (POR.) (SM1 2010/0008)

At its regular meeting on February 8, 2011, the Maui Planning Commission (Commission) conducted a public hearing on the above request, and further deliberated on the application at the Commission's meetings of February 22, 2011, and March 22, 2011. The Applicant for the SMA application is Olowalu Elua Associates, Peter K. Martin.

After due deliberation, the Commission voted to grant approval of the SMA Use Permit, subject to the following twelve (12) Standard Conditions and six (6) Project Specific Conditions:

STANDARD CONDITIONS:

1. That construction of the proposed project shall be initiated by **March 31, 2014**. Initiation of construction shall be determined as construction of on-site and/or off-site improvements, issuance of a foundation permit and initiation of construction of the foundation, or issuance of a grading permit and initiation of grading, whichever occurs first. Failure to comply within this three (3) year period will automatically terminate this SMA Use Permit unless a time extension is requested no later than ninety (90) days prior to the expiration of said three (3) year period. The Planning Director (Director) shall review and may approve a time-extension request, but may forward said request to the Commission for review and approval.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

EXHIBIT B

2. That the construction of the project shall be completed within two (2) years after the date of its initiation. Failure to complete construction of this project will require unfinished portions of the project to obtain a new SMA Use Permit unless a time extension is requested no later than ninety (90) days prior to the expiration of said two (2) year period. A time extension shall be requested no later than ninety (90) days prior to the completion deadline. The Director shall review and may approve a time-extension request, but may forward said request to the Commission for review and approval.

3. That the permit holder or any aggrieved person may appeal to the Commission any action taken by the Director on the subject permit no later than ten (10) days from the date the Director's action is reported to the Commission.

4. That appropriate measures shall be taken during construction to mitigate the short-term impacts of the project relative to dust and soil erosion from wind and water, ambient noise levels, and traffic disruptions.

5. That the subject SMA Use Permit shall not be transferred without prior written approval in accordance with Section 12-202-17(d) of the *Special Management Area Rules of the Maui Planning Commission*. However, in the event that a contested case hearing preceded issuance of said SMA Use Permit, a public hearing shall be held upon due published notice, including actual written notice to the last known addresses of parties to said contested case and their counsel.

6. That the Applicant, its successors, and permitted assigns shall exercise reasonable due care as to third parties with respect to all areas affected by subject SMA Use Permit and shall procure at its own cost and expense, and shall maintain during the entire period of this Special Management Area Use Permit, a policy or policies of comprehensive liability insurance in the minimum amount of ONE MILLION AND NO/100 DOLLARS ($1,000,000.00) naming the County of Maui as an additional named insured, insuring and defending the Applicant and County of Maui against any and all claims or demands for property damage, personal injury, and/or death arising out of this permit, including but not limited to: (1) claims from any accident in connection with the permitted use, or occasioned by any act or nuisance made or suffered in connection with the permitted use in the exercise by the Applicant of said rights; and (2) all actions, suits, damages, and claims by whomsoever brought or made by reason of the non-observance or non-performance of any of the terms and conditions of this permit. A copy of a policy naming County of Maui as an additional named insured shall be submitted to the Department of Planning (Department) within ninety (90) calendar days from the date of transmittal of the Decision and Order.

7. That full compliance with all applicable governmental requirements shall be rendered.

8. That the Applicant shall submit plans regarding the location of any construction related structures such as, but not limited to trailers, sheds, equipment and storage areas and fencing to be used during the construction phase to the Department for review and approval.

9. That the Applicant shall submit to the Department five (5) copies of a detailed report addressing its compliance with the conditions established with the subject SMA Use Permit. A Preliminary Report shall be reviewed and approved by the Department prior to issuance of a grading permit. A Final Compliance Report shall be submitted to the Department, within thirty (30) days of acceptance of the highway improvements by the State Department of Transportation (DOT).

10. That the Applicant shall develop the property in substantial compliance with the representations made to the Commission in obtaining the SMA Use Permit, and with preliminary plans outlined by the Department in the Staff Report presented to the Commission on February 8, 2011, and supplemental documents presented at the Commission's February 22, 2011, and March 22, 2011, meetings. Failure to so develop the property may result in the revocation of the permit.

11. That appropriate energy conservation measures shall be incorporated into the project, as applicable, which may include but are not limited to, energy conserving building materials, solar water heaters, state of the art air conditioning systems, photo voltaic systems, etc.

12. That all exterior illumination, if applicable, shall consist of fully shielded downward lighting throughout the project.

PROJECT SPECIFIC CONDITIONS:

13. That the project shall be reviewed for compliance with all applicable State and County requirements, during the grading permit application process, including receiving final approval from the State DOT prior to construction initiation.

14. That construction and demolition waste shall be disposed of in the Maui Construction & Demolition Landfill or at a certified site other than the County Landfill.

15. That the Applicant will submit domestic and irrigation calculations prepared, signed, and stamped by a certified engineer or architect during the grading permit process and provide domestic, irrigation and fire protection in accordance with system standards, as applicable for any irrigated landscaping.

16. That the Applicant utilize Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction and vehicle operations, and implement the following mitigation measures:

a. Prevent cement products, oil, fuel, and other toxic substances from falling or leaching into the water;

b. Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work; and

c. Keep runoff on-site.

17. That the Applicant shall meet all requirements of the Department of Fire and Public Safety with regards to required fire code standards for this project.

18. That the Applicant shall post a bond with the County of Maui by procedures and policies approved by the Director, Finance Director, and Corporation Counsel in the amount of $675,000.00, to be held as a guarantee of project completion. The bond shall be posted within thirty (30) days of project approval by the Commission and the State DOT (whichever is later). Completion of the project per the preliminary plans approved by the Commission and in accordance with the timetable set out under these conditions, unless an extension is approved by the Commission, and upon receipt of acceptance of the highway improvements by the State DOT for the project shall deem the project complete and the bond shall be released to the Applicant or designated representative.

Further, the Commission adopted the Report and Addendum Reports, and Addendum Recommendation, prepared by the Department for the February 8, 2011, February 22, 2011, and March 22, 2011, meetings as the Findings of Fact, Conclusions of Law, and Decision and Order, attached hereto and made a part hereof. Parties to proceed before the Commission may obtain Judicial Review of Decision and Orders issued by the Commission in the manner set forth in Chapter 91-14, Hawaii Revised Statutes.

Thank you for your cooperation. If additional clarification is required, please contact Staff Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

WILLIAM SPENCE
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Kurt F. Wollenhaupt, Staff Planner
Ferdinand Cajigal, PE, State Department of Transportation
Glenn Okimoto, Director, State Department of Transportation
Department of Public Works
Department of Water Supply
Department of Fire and Public Safety
Police Department
Department of Environmental Management
Maui Electric Company
Dean Frampton, Frampton & Ward, LLC
Dave Ward, Frampton & Ward, LLC
Michael Munekiyo, AICP, Munekiyo & Hiraga, Inc.
CZM File (SM1)
Project File
General File

WRS:KFW:sa
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END OF CORRESPONDENCES FROM/TO RANDY D. RAGON

MAUI TOMORROW

Protecting Maui's Future

August 1, 2010

To: State Land Use Commission
PO Box 2359
Honolulu, HI 96804
Contact: Dan Davidson

Re: Comments on EISPN for Proposed Olowalu Town Master Plan
TMK (2) 4-8-003: 84, 98-118 and 124

Aloha Kakou

Maui Tomorrow Foundation, Inc. (MTF) appreciates the opportunity to offer comments on the EISPN for the Proposed Olowalu Town Master Plan, TMK (2) 4-8-003: 84, 98-118 and 124.

The Ahupua'a Model
The EISPN notes that the project is guided by the values and principles of the "ahupua'a," but that term is not defined. The EISPN does not refer to it, but the DEIS should discuss whether the ahupua'a of Olowalu verifiably supported 1500 households, who consumed 500 gallons of water a day per household? Would the ahupua'a system plan dwelling units in a known flood zone, or leave it open for crops and aquaculture? It would be important to know more about the "ahupua'a plan" for the Olowalu village and what natural carrying capacities it is based upon? The DEIS should provide this information.

The EISPN informs the Land Use Commissioners that Olowalu was once a thriving plantation community, and therefore would be a sensible place for a new town. A population of over 800 was noted in the 1832 census, but the geographical boundaries of this thriving Olowalu Community were not made clear. Are they the same as the proposed project area?

Olowalu Village Population
Was the 800 population in 1832 counted by how many habitations stretched from Launiupoko to Ukumehame, and based upon families who lived in the region and attended Olowalu Church? Or was it based upon dwellings in the Olowalu

Landing and stream area? It should be noted in the DEIS what the verified population for the project site was during the early Olowalu Plantation days, and later Pioneer Mill days. Records of these times do exist.

Records in our files indicate that Olowalu Plantation, in its report to the Territory in the early 1900's, had about 90 workers living on site. The manager noted that the crops and people ran short of water in the dry season. Will a future town of up to 1500 units, plus commercial areas be viable?

MTF feels the LUC should require a DEIS which analyzes a variety of unit counts for any proposed Olowalu village project.

Smart Planning Principles
The stated goal of this project is to be sustainable, green, use cutting edge technology, etc. This is all laudable, but the EISPN offers very little specific information to affirm the project goals, except in chosen areas such as expected population growth, roadways, or economic benefits.

Coverage of topics in the EA/EISPN is very uneven. The document strings together many undefined terms, designed to give an impression of environmentally sound planning, with no supporting data and, in general, does not meet the minimum standards put forth in HAR **§11-200-10 and §11-200-16.** The EISPN is the first opportunity for the public and regulatory agencies to review specific plans for the project and offer input yet the document offers more questions than answers.

Incomplete Information
Although the project's EISPN contains elaborate site maps and public relations brochures (p. 155- 176 of the pdf version of the EISPN), it puts forth little information about the project's specific impacts.

A number of maps provided in the electronic version of the EISPN do not accurately portray the 100 ft wide Government Beach Reserve as spanning the majority of the project's oceanfront land, regardless of ownership. Maps do not indicate what plans are for "lands owned by others."

What will happen to Kapaiki Village, where land is privately owned? The maps give no indication how many units are proposed for each colored polygon in the Olowalu Master Plan, only an overall project count by acreage.

A separate high-density development (Olowalu Elua) was proposed during the Maui Island Plan discussions on lands between Honoapiilani Hwy and the ocean at the north end of the project area. Would this former proposal be incorporated into the proposed Project District? It would be beneficial to decision makers to have specific information regarding what is proposed on prime agricultural lands adjacent to sensitive reef environments.

Impact issues which should have been discussed in the EISPN, and must be discussed in the Draft EIS:

Community Support Facilities
Will community support facilities such as a library, parks, school, fire and police stations, or community center be built by the developer? If they are "provided space," will it be at a cost to the public? Who will be responsible for building these facilities, and at what phase of the development are they expected to be built? Please elaborate on how and when these support facilities will be sustainably built.

Potable Water Supplies
The Sustainable Yield (SY) of Olowalu aquifer is noted as being 2 million gallons per day (mgd) in the beginning of the EISPN and 3 mgd on p. 54, then 2 mgd again on p. 55. The correct figure is 2 mgd according to the state's Water Resources Protection Plan (WRPP) of 2008.

The WRPP assigns Olowalu's SY value a 'confidence rating" of "2' meaning "Moderately Confident." The 2 rating means a moderate amount of hydrologic data is available about the aquifer, however, "more detailed studies are required to better refine the potential range of Sustainable Yields. " **The DEIS should provide those studies through installation and monitoring of an observation well in the Olowalu aquifer.**

The EISPN lists the development's projected demand for potable water at .75 mgd (750, 000 gallons a day). It indicates that the system currently has one well with a capacity of .36 mgd, that could possibly be boosted to .6 mgd.

The EISPN does not indicate what peak system demand will be, during hotter months, only that use of .75 mgd would be 37% of the aquifer's sustainable yield. Figures for fireflow will be provided later, even though the area has had 5 major fires in the last decade, and fireflow demands are very likely known.

It is doubtful that any independent hydrological expert would recommend exceeding more than 75% of a sustainable yield figure that is not fully confirmed.

The EISPN does not discuss how many wells are proposed for the system's future needs, or how they will be funded, or how many units would trigger the need for an additional well, only that a future analyses will be provided.

The EISPN does not discuss plans for backup wells for system redundancy; what water rates currently are in the private Olowalu system, or whether water costs will be the higher, lower, or the same, as current Olowalu system rates.

Will affordable housing water rates in the Olowalu project be the same as rates

for market priced housing?

What are existing nitrate levels in the project's wells supplying the potable water for the proposed development? Will groundwater quality be affected by use of reclaimed water? Will this be determined in the DEIS?

The Olowalu water system is currently in operation. While we are given detailed information about the proposed roadways the EISPN contains very little information on a water system that would be key to the project's viability. Current residents of the area have lodged complaints about the quality of water delivered to their homes. The LUC should ask for complete and thorough information about the proposed water source.

Stream Water
The EISPN states that 4 mgd was historically diverted from Olowalu stream, and state Water Commission records show that to be the case from 1988 to the closing of Pioneer Mill in 1999. Olowalu stream is characterized in the EISPN as "intermittent" although no source is given for this information and no data is presented to note months of low, high or no flows.

The EISPN refers to plans to enhance habitat for native stream life, but does not discuss that Olowalu Cultural Reserve volunteers are primarily concerned with taro restoration. Plans for preserving the stream's function should include funding needs and sources of such funding.

How much stream water is currently utilized by local residents with kuleana rights? Do they desire to use more, or are there unmet claims or needs?

The EISPN states a goal to reduce use of Olowalu stream water, but no figures are given on how much acreage is currently cultivated and by what number of owners or lessees. What are current potable and total non-potable water uses per household, and overall. Is there currently a charge for stream water use?

Do all present users want to use the reclaimed water and, if so, will there be a charge for such use? Will phosphate and nitrogen levels in the reclaimed water be lower or the same as that in county effluent?

These questions should be answered in the DEIS, in order to provide decision makers with sufficient information about the project's water resources and water use.

Wastewater
The EISPN indicates that the expected output of the private wastewater system will be .5 mgd but no figures are given for the project's water use for landscaping, parks, greenways and common area maintenance, agriculture, traditional taro growing. Will that demand exceed .5 mgd?

Information is needed as to the cost structure of the non-potable water supplies. Will reclaimed water costs be subsidized, as is County reclaimed water, or will it be full market value? Will residents or cultural restoration projects be charged for delivery of stream water? Will present residents with kuleana water rights be offered a choice of stream water or reclaimed water for agricultural needs?

Drainage

The EISPN has no specific information regarding drainage other than the comment that some retention basins will be utilized and a drainage report will be provided in the DEIS. The specific strategies that are being considered to minimize drainage impacts to the adjoining coral reefs should be presented for public and agency review and discussion at the earliest practicable opportunity to be in compliance with CH 343. That opportunity would be the EA/EISPN.

It is stated that drainage improvements will meet or exceed County standards, but there is no indication of how that will be achieved, or whether County drainage standards are actually effective at preventing degradation of reefs. Agencies will have limited opportunity to comment on effectiveness of the Olowalu drainage plan and proposed Best Management Practices (BMP) because so little information has been provided in this EA/EISPN document. We ask for this information in the DEIS.

The EISPN states that Olowalu's marine life, reefs and nearshore waters have had "limited" impact from human activities, therefore a water quality report will be prepared to address impacts. This report should consider the possibility that low-lying areas of the project site have functioned in the past as run-off filtration areas during storm events. These areas are now being proposed for high density residential development. Will detention and retention basins placed elsewhere on the property provide the same capacity to protect the reefs? Who will maintain the basins? Will homeowners be able to afford the upkeep? Could the project be designed to avoid development in natural retention areas?

Flood and Tsunami Hazards and Sea Level Rise

Fig 12 Flood Insurance Map in the EISPN seems to indicate, if one reads the accompanying text, that the majority of the proposed project district lies in an area at some risk to flooding during large storm events. Lands makai of Honoapiilani Highway and along Olowalu stream are subject to greater flooding, storm wash, tsunami impacts and sea level rise. The EISPN appears to downplay the risks they may be offering future homebuyers and residents of Olowalu. The DEIS should state whether a Flood Hazard Development permit will mitigate these risks and, if so, how? What alternative project designs are possible to minimize risk?

A map should be provided in the DEIS of the Special Flood Hazard Areas as well as the County Planning Department's Sea Level Rise Maps overlaid with proposed housing unit locations, parks, open space etc.

Shoreline Access
This development has an entire master plan with colored maps and plans; surely, specific plans for shoreline access could be discussed in the EISPN.
There is reference to a 150 ft set back along the shore, but no mention that this likely includes a 100 ft-wide state beach reserve along much of the oceanfront portion of the Olowalu of property.

Coastal Zone Impacts
The EISPN shows the SMA zone in a map, as affecting very little of the proposed project. The DEIS should note that while the SMA/Coastal Management Zone only extends to the Honoapiilani Hwy, impacts to the coastal zone can begin on the slopes of the Olowalu hills.
While the EISPN promises the project will have "minimal grading" no specific amount is given to qualify that statement as accurate.

Project Need
The EISPN cites 2003 housing demand numbers for Lahaina and then refers to numbers from 2005. It is not clear how much of that alleged "demand" is still expected given current and projected economic conditions. It is also not clear what proportion of the demand is already anticipated to be met by projects that are entitled, but not built out, or undergoing the approval process.

It is not discussed that the County Planning Department projected a surplus of almost 2500 units in West Maui after the General Plan Advisory Committee (GPAC) approved a West Maui map that included 1500 units at Olowalu. The Planning Commission's version of the West Maui Plan, including Olowalu, states a surplus of almost 3000 units.

Figures were cited in the EISPN for the median price of single and multifamily housing units in West Maui, but no figures were given for home prices in the Olowalu project. This information should be provided.

Police and Fire Protection
The Olowalu area has had 5 fires in the last 10 years. Currently fire safety personnel are responsible for the safety of fewer than 40 homes (approximately 100 residents). Pre-consultation comments from the Maui fire and police departments should have been included in the EA/EISPN to insure full compliance with Chapter 343 policies.

Educational Facilities
The chart on page 49 clearly indicates that every Lahaina area public school is at, or over, capacity at present time. The EISPN does not give an estimate of the

number of students the project will generate. There is no firm discussion of what "educational facilities" the project intends to provide. More information is needed for the Department of Education to evaluate impacts and mitigations.

Recreational Facilities
This section lists 220 acres of the project as open space, parks, greenways, etc. It does not indicate what portion of that amount is in the unbuildable lands of State Conservation Zone that overlays the steep slopes at the inland portion of the project area. What portion is the 100 ft State Beach Reserve or lands with burials or other protected archeological sites which must be set aside? This information is needed in order for LUC members to evaluate the project design and the adequacy of the EIS in addressing impacts.

Agricultural Lands
Large portions of Olowalu are classified as "prime" agricultural lands yet the current plan appears to leave no more than 50 acres open for agricultural activity. Exposed rocks described in the EISPN likely mark a former riverbed indicating natural forces that may again flow in the area.

A map should be included in the DEIS comparing Important Agricultural Land (IAL) areas in Olowalu shown on state and county maps with future farming areas set aside in the Olowalu Master Plan.

Flora and Fauna
The EISPN does not have enough current information to comment on the native flora and fauna in the proposed project area. The survey discussed (Hobdy, 2005) was not done for the entire 660 acres but only a 14-acre oceanfront parcel (TMK 4-8-03:124) The EISPN does not describe what acreage was covered in the 1999 study by Char and whether the majority of land proposed in the two development area was at Olowalu .

The DEIS summary, based upon limited and possibly outdated information, concluded that 16 native species documented during Char's survey were dismissed as being common in "other dryland forest areas." It fails to state that native nehe is rare. The EISPN does not disclose that 95% of Maui's dryland forests have been destroyed, making protection of every native dryland forest worthwhile.

The West Maui Community Plan contains language to protect habitat for rare, threatened or endangered species, including dryland forest remnants at Olowalu. The DEIS should include an updated Biological Survey with a draft preservation plan and a map of native species found, relative to proposed development and preserve areas.

Planting taro should not be considered appropriate as mitigation for loss of native plant habitat.

Nearshore Waters
A 2003 Baseline Study of Olowalu's marine environment (Appendix C) contains charts illustrating the results of the sediment testing. These charts were not readable in the pdf version of the EISPN and should be corrected for public and agency review.

It would appear that Puamana, a developed site with potential runoff and severely altered stream terminus, had more impacts to its reefs than Olowalu.

Maui Tomorrow is concerned that Olowalu's marine water quality report will be prepared by a consultant who has consistently found no impacts from development or human activities in other nearshore areas of Maui, despite evidence of decline in those waters. Marine studies consistently show Olowalu as West Maui's last healthy reef. This should not be downplayed in the environmental review process.

Cultural Resources
Some of the historical references in the EISPN's Cultural Resources section appear to be transposed. For instance, the report refers to the Chiefess Kalola as living in Olowalu at the beginning of 18th century and speaks of her marriage to Hawaii Island chief Kalaniopu'u and their daughter, Kekuiapoiwa Liliha , mother of Maui's Queen Keopuolani. Most historians have Kalola living on Hawaii Island with Kalaniopu'u during most of the 1700's until Kalaniopu'u's death in the 1780's. Then she married Kaopuiki and lived in Olowalu.

Historians such as Christian Klieger in his book: *Moku Ula Maui's Sacred Island* (p. 16) acknowledge Kalola and Kalaniopuu to have had a son, Kiwalalo. Kalola had a daughter, Kekuiapoiwa Liliha , mother of Keopuolani, with the Hawaiian island chief, Keoua (father of Kamehameha I.)

The EISPN refers to Olowalu stream being realigned during plantation times, possibly to avoid flooding. Soil testing, such as the Kolb, et. al. study of the Waipuilani area, should determine the original boundaries of the stream and be included on a map in the DEIS.

The cultural section of the EISPN is considerably more detailed than other sections since a study was prepared in1999/2000. **Other topics in the EA/EISPN would have been well served with an equal level of detail.**

The EISPN announces that the Olowalu Cultural Reserve has been expanded from 75 to 110 acres, but no explanation or map is provided. How are these reserve lands protected? Do they have a defensible conservation easement in perpetuity, held by a land trust; if not, what guarantees their future protection?

The EISPN refers to a 2007 archaeological field inspection of 500 of the 660 acres after a severe fire left Olowalu lands exposed. 16 of 30 previously documented sites were not relocated during this field inspection. The DEIS should clarify whether these sites have been impacted, or were located in an area of the parcel not surveyed in the 2007 field work. Olowalu residents are concerned that Kawaialoa heiau has been neglected and is becoming destabilized by plant growth. The 2007 field work indicated bulldozer pushpiles nearby the site.

The Kilea petroglyph cluster is still subject to defacement and the steps to Puu Kilea appear neglected. Does the Cultural Preserve receive adequate funding to care for the sites? The DEIS should discuss sources of funding and amounts needed.

Noise
The duration and impacts of noise from construction of the relocated highway may be significant; a study of those impacts should be provided.

Viewsheds
No discussion of viewsheds affected by the proposed development is included in the EISPN. Mauka-makai views are excellent over much of Olowalu in its undeveloped state. The DEIS should discuss which viewsheds will remain and whether there are alternative designs being considered to minimize viewshed impacts. Views of the night sky, exceptional at Olowalu, should also be considered.

Economics
The economic assumptions of the viability of Olowalu Town are not presented in the EISPN. The DEIS, under secondary impacts, should discuss the possibility of Olowalu never growing beyond the economic phase described in the EISPN as "Initially economic input will be from highway traffic and tourists."

Alternatives
Alternative project layouts to avoid sensitive areas are not discussed in the EISPN. There is only reference to future alternatives that may be discussed, but not what criteria will be used. In contrast, twenty-one pages of the EISPN are devoted to an advertising brochure describing the community planning process that preceded the proposed project.

The EISPN refers to greater analyses given to suggested alternatives which arose in the above-mentioned planning process. Sensitive environmental features are not listed as criteria in the "Formulation of Proposed Alternatives" section of the EISPN.

Suggestions were made to limit the size of the Olowalu project during both GPAC and Planning Commission Review of the Maui Island Plan.

The Urban Growth Boundary for the Olowalu region, adopted by the Maui Planning Commission, does not include any land makai of Honoapiilani Hwy. All the proposed Olowalu Master Plan site maps show urban and rural growth areas makai of Honoapiilani Hwy.

County Planning staff proposed no urban or rural growth boundaries for Olowalu. These planning maps should be included in the DEIS. It would be useful for agencies to see such maps as part of their review in order to consider what community input has been gathered concerning the project.

Thank you for the opportunity to comment; we look forward to being included as a consulted party.

Sincerely,

Irene Bowie

Irene Bowie
Executive Director

55 N. Church St., Ste. A5, Wailuku, HI 96793 808.244.7570 www.maui-tomorrow.org

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 28, 2011

Irene Bowie, Executive Director
Maui Tomorrow Foundation
55 North Church Street, Suite A5
Wailuku, Hawaii 96793

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Ms. Bowie:

Thank you for your letter of August 1, 2010 providing comments on the proposed Olowalu Town Master Plan. On behalf of the applicants, Olowalu Town, LLC and Olowalu Ekolu, LLC (applicants), we offer the following information in response to your remarks:

The Ahupua'a Model

The Draft Environmental Impact Statement (EIS) will provide more specificity in relation to the "ahupua'a plan" for Olowalu Town. As requested, information on the ahupua'a of Olowalu and its relationship with the proposed Olowalu Town Master Plan will be included in the Draft EIS.

Olowalu Village Population

Thank you for providing the 1832 census information for Olowalu. We will investigate the historic record cited in your letter and try to obtain the geographic limits of the 1832 community and, if available, the methodology used in taking the census. Further, we will request access to the records of the Pioneer Mill Company to establish if more detailed information on the historic Olowalu Village is available.

Smart Planning Principles

The Draft EIS will provide more specificity on the sustainability goals and objectives for the Olowalu Town Master Plan. We note your comment regarding the information provided in the EISPN. The purpose of the EISPN process seeks to identify information, issues and concerns that should be addressed in the Draft EIS, in

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

consultation with Federal, State, and County agencies and members of the public. Your comments will assist us in the formulation of the appropriate level of information to be provided in the Draft EIS.

Incomplete Information

As noted above, the purpose of the EISPN process is to identify information, issues and concerns that should be addressed in the Draft EIS, in consultation with the applicable reviewing agencies and members of the public. Your comments will assist us in the formulation of the Draft EIS with detailed analysis of the project's impacts and supporting data, including technical studies for the project area.

The Draft EIS will include refined maps of Olowalu Town, including the government beach reserve and identification of the lands that are privately owned and not part of the Olowalu Town Master Plan. As requested by the residents of Kapa`iki, park and open space land uses are proposed to provide a buffer from the proposed country town centers. A breakdown of the various proposed land uses of the Olowalu Town Master Plan will be included in the Draft EIS.

The Olowalu Ekolu Associates, LLC project mentioned in your letter that was previously presented before the General Plan Advisory Committee (GPAC) has been included in the Olowalu Town Master Plan and will be further discussed in the Draft EIS.

An assessment of the proposed project's potential impacts on agricultural lands in the area and the adjacent shoreline environment will be provided and discussed in the Draft EIS.

Community Support Facilities

The Draft EIS will identify community support facilities to be included in the Olowalu Town Master Plan. Information regarding the financing of said facilities will also be included, as available.

Potable Water Supplies

We acknowledge the sustainable yield of the Olowalu aquifer since 2008 is two (2) million gallons per day (MGD) per the State Commission on Water Resource Management (CWRM). We note that the project's water consultant in consultation with the U.S. Geological Services has indicated that the sustainable yields of the Olowalu Aquifer System may be higher than what is presented in the CRWM's Water Resources Protection Plan of 2008 based on another established calculation methodology.

Nevertheless, the projected future groundwater use of existing users and the Olowalu Town project would still fall below the 2.0 MGD sustainable yield.

The project's consultant team will be preparing an assessment of ground and surface water resources and related considerations in the Olowalu area, including phosphate and nitrogen levels. Concerns of increased levels of phosphate and nitrogen levels in reclaimed water will also be addressed by the project's consultants. These reports will be incorporated and discussed in the Draft EIS.

The engineering consultants for the project will also address the projected potable and nonpotable water demand for the project, water system improvements, including the number of wells required, and any requirements for system redundancy. This information will be included in the Draft EIS.

Installation of an observation monitoring well will not be conducted for the project at this time. The studies will rely on available information from the Olowalu Water Company that operates the private water system in Olowalu including an existing potable well. Also, necessary well construction permits will be required from the CWRM who will evaluate required monitoring information to ensure withdrawals from the new wells do not adversely impact the sustainable yield of the aquifer. As a related note, water quality must meet State Department of Health (DOH) requirements for potable water prior to granting approval of the use of the well.

The applicants proposes to upgrade the existing water system to meet County standards for potable water and fire flow requirements as determined by the Department of Water Supply and Department of Fire and Public Safety. A description of the existing and proposed potable and nonpotable water systems will be included in the Draft EIS.

Utility service charges have not been determined, however, utility charges will be determined by the Public Utilities Commission (PUC) through a public and transparent process. The upfront development costs of the Wastewater Treatment Plant, R-1 Recycled Water system and upgrades to the existing potable and nonpotable water systems will be paid for as part of the overall construction costs by Olowalu Town, LLC and Olowalu Ekolu, LLC. Following project implementation, each of these systems are planned to be owned, operated and maintained by a private entity. The Olowalu Water Company, Inc. currently operates and maintains the private water systems. A similar entity will be created to operate the wastewater treatment plant and will be identified during the process of obtaining appropriate approvals from the State Department of Health (DOH) and Public Utilities Commission (PUC), as required. It is expected that homeowners living in the residential units will be billed individually for the services provided by these companies, which will include amounts needed for sinking fund

contributions for ongoing operations and long-term maintenance of the systems. As part of its goal to provide truly affordable homes to Maui's working families, the applicants anticipate sewer and drinking water rates for the residents that are comparable with County charges for the same service.

Stream Water

The Draft EIS will discuss Olowalu Stream in terms of existing flows and its present and future use by utilizing available information and consultant studies. As stewards of the land, the Olowalu Cultural Reserve's (OCR) goal is to restore traditional and customary agricultural practices which include more than taro cultivation. The OCR also proposes to work with the State Department of Land and Natural Resources (DLNR) to restore native habitat in Olowalu Valley and to re-establish the past precipitation in Olowalu which was much wetter than present.

Wastewater

The Draft EIS will include a Preliminary Wastewater Engineering Report that will provide an assessment of the projected wastewater demand and the expected output of treated R-1 water that will be made available for irrigation purposes. The cost structure for the reclaimed water system will be developed at a later phase of project development, once engineering, construction, and operational factors have been analyzed.

Drainage

A Preliminary Engineering Report (PER) will be included in the Draft EIS, which will assess existing and future runoff from the project site, drainage improvements to be developed, possible phasing of infrastructural improvements and mitigation measures. In conjunction with the Drainage Plan, a water quality report is being prepared to assess the potential impacts on the nearshore environment and a stormwater management plan is being prepared to identify measures to mitigate potential impacts. The PER, water quality report, and stormwater management plan will all be incorporated and discussed in the Draft EIS.

Flood and Tsunami Hazards and Sea Level Rise

An assessment of natural hazards including flooding risks will be provided in the Draft EIS. Mitigation measures to address defined impacts will also be set forth in the document, as appropriate. This Draft EIS will also discuss Flood Hazard Development permit requirements as well as compliance with Section 19.62.060, Maui County Code (MCC) regarding standards for development in flood hazard areas.

It is our understanding that the Planning Department is in the process of developing preliminary Sea Level Rise Maps which have not yet been made available to the public. If available at the time of writing, the Department's Sea Level Rise Maps for the Olowalu coastline will be included in the Draft EIS.

Shoreline Access

A discussion on shoreline access and the 150-foot shoreline setback will be provided in the Draft EIS. As requested, conceptual plans for shoreline access will be included in the Draft EIS.

Coastal Zone Impacts

Although the Special Management Area (SMA) boundary is generally the makai boundary of Honoapiilani Highway in areas where the roadway is close to the shoreline, the SMA includes a portion of lands landward (mauka) of the highway. Notwithstanding, the Draft EIS will present an evaluation of the Olowalu Town Master Plan in the context of the provisions of Chapter 205A Coastal Zone Management, Hawaii Revised Statutes.

The Master Plan area is relatively flat with slopes of three (3) to five (5) percent which is anticipated to require minimum cut and fill to prepare the land for development. As the individual development sites are developed, detailed grading plans will be developed to quantify the amounts of cut and fill that will be required.

Project Need

Market and Economic and Fiscal Impact studies are being prepared for the project that will evaluate the need for the project and projected absorption rates over the currently proposed 10-year build-out period. Lacking specific data for Olowalu, the Draft EIS will include comparable median housing prices available for Lahaina Town. The Market and Economic and Fiscal Impact studies will be included and discussed in the Draft EIS. The Master Plan proposes fifty (50) percent of the housing units to be sold or rented at affordable rates as determined by the Department of Housing and Human Concerns (DHHC). The rates for the market units have not been determined.

The Draft Maui Island Plan (MIP) is currently under review by the Maui County Council (Council). Although the lands included in the proposed urban and rural growth boundaries exceed the projected demand of the Maui Planning Department, it should be noted that this is a common occurrence in such studies. Depending on market conditions not all of the lands included in the boundaries will be developed within the timeframe of the proposed MIP. Re-evaluation of the MIP is scheduled to occur ten (10) years after its adoption.

However, it is noted that both the General Plan Advisory Committee (GPAC) and the Maui Planning Commission (MPC) during their comprehensive review of the Draft MIP, recommended inclusion of Olowalu Town in the urban and rural growth boundaries.

Police and Fire Protection

We acknowledge that the Olowalu area, since the end of sugar cane cultivation in 1999, is prone to periodic wildfires. However, this is largely due to the lands being vacant and undeveloped. Once developed, the potential for wildfires will be significantly reduced. An assessment of natural hazards, including potential for wildfires, will be provided in the Draft EIS. The EISPN has been provided to the Police Department and Department of Fire and Public safety. Comments received from these agencies during review of the EISPN, will be included in the Draft EIS.

Educational Facilities

The Draft EIS will include an estimate of the number of students the project will generate and a discussion on educational facilities needed to accommodate the projected increase in students associated with the Olowalu Town Master Plan. The Department of Education (DOE) has implemented a school impact fee for West Maui which will be applicable to the proposed project.

From the onset of the planning and design of Olowalu Town, the applicants have acknowledged and recognized the importance of including space within the Master Plan for educational facilities and learning centers. Preliminary discussions regarding possible type, size, and style of education facilities have been ongoing since project inception. These discussions have occurred at the Olowalu Talk Story sessions, during numerous community presentations, as well as at meetings with the DOE and elected officials. The applicants will continue to work with the DOE, the community, and elective officials in regards to defining the appropriate level of educational facilities mitigation measures for this project. A copy of the Draft EIS will be provided to the DOE for review and comment.

Recreational Facilities

The Draft EIS will discuss the approximate 140 acres of land to be utilized as open space, parks, greenways, etc., including the portion of lands in the State Conservation District owned by the applicants and the area containing steep slopes which may be inaccessible to hikers. The State Beach Reserve is not owned by the applicants and is not included in the 140 acres proposed for use as park and open space.

Agricultural Lands

A map identifying the extent of "prime" agricultural lands in relation to the Master Plan will be provided in the Draft EIS. The Olowalu Town Master Plan proposes to keep approximately 160 acres in agriculture which includes the Olowalu Cultural Reserve (OCR) which is currently re-establishing lo`i's for taro cultivation as well as cultivating other native crops. An agriculture assessment is currently being prepared evaluating the impact of the project on overall agricultural land availability. This assessment will be included and discussed in the Draft EIS.

Flora and Fauna

An updated Flora and Fauna Study for the entire project area and an Aquatic Resources Survey have been prepared by Robert Hobdy. These reports will be included in the Draft EIS. The reports determined that there are no dryland forests in the project area nor are there any threatened or endangered species. One (1) nehe plant was found on the slope of Pu`u Kilea and was the most common type of nehe and not rare. Native plants found on the site were within the limits of the OCR, which is already ensuring the preservation of native plants through the removal of non-native plants. As appropriate, the reports provide recommended mitigation measures, which will also be identified and discussed in the Draft EIS.

Nearshore Waters

An updated water quality report will be prepared by Dr. Steven Dollar, Marine Research Consultants, Inc., for the project. This report will be included and discussed in the Draft EIS.

Cultural Resources

A Preliminary Cultural Impact Assessment will be prepared for the project and included in the Draft EIS.

The existing OCR is a significant feature which will help to establish the sense of place of Olowalu Town. In addition, the Master Plan will designate ample amounts of land immediately abutting the OCR to be used for parks, open space and civic-related activities. These lands will serve to supplement the OCR's cultural and educational efforts to establish a pu`u honua or sanctuary. Details of the OCR will be provided in the Draft EIS.

An Archaeological Literature Review of the various archaeological inventory surveys conducted in the area has been completed by Cultural Surveys Hawaii, Inc. (CSH). If

recommended by the State Historic Preservation Division (SHPD), additional archaeological work will be conducted. The findings and recommendations of the CSH study will be included in the Draft EIS.

The Draft EIS will also provide a discussion on the measures to preserve archaeological sites such as the Ka`iwaloa heiau and the preservation efforts that have been undertaken by the applicants with the SHPD, OCR and Olowalu residents.

We note that the Draft EIS will address cultural resources considerations in detail to ensure an appropriate basis for public review and comment.

Noise

An acoustic study is being prepared for the project by Yoichi Ebisu which will evaluate potential noise impacts from the proposed realignment of Honoapiilani Highway further inland. This study will be included in the Draft EIS.

Viewsheds

We note your concerns regarding mauka-makai views and views of the night sky. View planes through the project area as well as measures to preserve the night sky will be discussed in the Draft EIS.

Economics

Market and Economic and Fiscal Impact Studies are being prepared for the project that will address the economic assumptions of the viability of Olowalu Town over the anticipated development time frame for the project. The studies will be included in the Draft EIS.

Alternatives

In response to your comments, greater details will be included in the Draft EIS detailing the community planning process and the criteria used in developing the Olowalu Town Master Plan, including the environmental constraints observed and alternatives considered by the design team in formulating the master plan.

The Draft EIS will provide a discussion on the status of the MIP process and the actions taken to date by the GPAC and MPC.

Thank you again for providing comments on the EISPN. A copy of your letter will be included in the Draft EIS. A copy of the Draft EIS will be provided to your organization for review and comment.

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,

Colleen Suyama
Senior Associate

CS:yp
cc: Dan Davidson, Land Use Commission
Bill Frampton, Olowalu Town, LLC
George Rixey, Architect
Tom Nance, Water Resource Engineer
Glenn Kunihisa, ACM Consultants, Inc.
Hallett H. Hammatt, PhD, Cultural Surveys Hawaii, Inc.
Craig Lekuen, Brown & Caldwell, Inc.
Stacy Otomo, Otomo Engineering, Inc.
Bruce Plasch, Decision Analysts Hawaii
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AUG 05 2010

P.O Box 511
Kahului, Hi 96733
August 4, 2010

Ms. Colleen Suyama, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hi 96793

Dear Ms. Suyama:

I would like to take this opportunity to respond to the Olowalu Town EIS.

My name is Wallace H. Fujii, one of the partners of the Fujii Family Ltd Partnership. Our family owns the property identified as the Olowalu Store in the EIS. The store is currently thriving and although currently not open for business, a new operator of an adjacent restaurant space will shortly reopen.

Our family's concern is primarily on the mauka alignment of Honoapiilani Highway from its current alignment which passes in front of Olowalu Store. A statement on Page 12 of the the EIS states, "A significant infrastructure component of the Master Plan is the proposed relocation of Honoapiilani Highway along a mauka alignment to provide a route which is consistent with the County of Maui's proposed Pali to Puamana Plan."

The store relies heavily on sales from commuters, tourists, and beachgoers. As stated in paragraph 4 of an attached copy of our submittal to the Office of Environmental Quality Control and the Hawaii State Department of Transportation in 2007, "Should that part of the highway be moved far away from the current proximity of the store's location, we can predict a drastic drop in customers patronizing at Olowalu Store." Further, the store will probably go out of business, creating an economic loss both to the lessees and our family.

Please review the attached copy as mentioned above for additional details and our proposals. (eg. "elbowing" the proposed realignment) May I ask that you give serious consideration to our input in order for longest operating business in Olowalu to continue serving our community.

Yours sincerely,

Wallace H. Fujii
Fujii Family Ltd Partnership

Attachment

P. O. Box 511
Kahului, HI 96733
June 15, 2007

Mr. Wayne Kawahara
Hawaii Department of Transportation
Highways Division, Planning Branch
869 Punchbowl Street, Room 301
Honolulu, HI 96813

SUBJECT: HWY-PA 2.4546

Dear Mr. Kawahara:

Thank you for allowing my brother, Donald, and me to meet with you last April where you informed us about the "Honoapiilani Highway Realignment/Widening , Maalaea to Launiupoko" plans. At that time you also informed us about the opportunity to submit our input regarding the plans. We are taking this opportunity by submitting our comments through this letter.

As you already know, our family grew up in Olowalu. We own the property comprising of the Olowalu Store, Chez Paul and our family residence which is located just mauka of the current Honoapiilani Highway. Our family owned the store from the early 1930s. Although the current store complex was built about 1965, the original store on the same location was already in existence from the very early 1900s when the Olowalu Sugar Plantation was a thriving industry. Back then the store drew its primary customers from the large sugar village.

Today, the store thrives heavily on commuters, beach goers and tourists who stop for quick snacks, bentos and cold refreshments. With Honoapiilani Highway adjacent to the store, customers readily see the "oasis" and can readily get off the highway to drop in.

Should that part of the highway be moved far away from the current proximity to the store's location, we can predict a drastic drop in customers patronizing at Olowalu Store. It is conceivable that the store will go out of business as it depends very heavily on the commuting traffic. With the demise of the store, there will be an economic loss both to the lessees and our family.

Additionally, losing the store will bring about a loss of the Olowalu history, culture and the last remaining retail business in that community. The loss of the business will mean that any new retail business will not have the history nor being in existence of over a 100 years in Olowalu.

Relocating the business is not a viable option as it will incur a heavy financial burden on the family. Besides there would be the need to purchase the land, construct the building, and go through a long planning and permitting process all over again. We do not consider that a feasible option.

In caring for future higher traffic volume for the Olowalu Store section of the highway, we would propose using the existing highway as the Lahaina-Wailuku two-lane highway. Then to create the additional two-lanes for the Wailuku-Lahaina bound traffic, we propose using the existing cane haul road, especially that part which borders the mauka side of the Olowalu Store. If this were to happen, with some modifications to the store and parking lot, we can anticipate having a reasonable number of customers stopping by to patronize.

Should that be the new alignment for that part of the Honoapiilani Highway, we would be satisfied that we can continue to operate the store for many more years in the future. The store's lessees who have about another 20 years in their current lease and who have invested heavily with renovations, including partnering with our family in expending over $200,000 in meeting the EPA's septic system. It will take quite a number of years to amortize the expense of converting to the septic system.

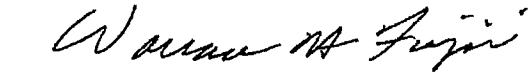
As you drive along the current highway in Olowalu, there is about a mile of monkey pod trees bordering it. These trees, I am sure, are over 100 years old. If the cane haul road is used for the Lahaina bound traffic in the future four-lane highway, both the Lahaina and Wailuku bound traffic will continue to be shaded by these giant trees.

I believe you will be receiving other testimonies regarding the shoreline erosion, etc. with remedies such as "elbowing" or elevating parts of the highway

where the highway already is or will be in harm's way. We will agree that a completely new highway is not necessary. We should use much of the existing alignment so that both our local people and tourists will have an up-front opportunity of enjoying and appreciating the natural beauty of the ocean, shoreline and views as they drive to and from Lahaina. Such a scenic panorama is rare to find today.

We thank you for this opportunity to input our concerns and proposals. Should you have any questions or needs for clarification, please feel free to write to me or email me at whfujii@hotmail.com.

Yours sincerely,



Wallace H. Fujii, Partner
Fujii Family Limited Partnership

cc:
Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, HI 96813

Olowalu Talk Story

December 28, 2011

Mr. Wallace H. Fujii
Fujii Family Ltd. Partnership
P.O. Box 511
Kahului, Hawaii 96733

SUBJECT: Comments on the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Olowalu Town Master Plan at Olowalu, Maui, Hawaii

Dear Mr. Fujii:

Thank you for your comments dated August 4, 2010. We understand your concerns regarding Olowalu General Store's dependency on traffic along Honoapiilani Highway for its economic survival. The Olowalu Town Master Plan proposes to establish a residential community similar to the once thriving plantation community that supported the Olowalu General Store. As such, we envision that as the Olowalu Town Master Plan develops, the residential element of the project will create new clientele for the Olowalu General Store, as well as for the additional commercial uses proposed for the master planned community.

We also note that the makai area of the Olowalu Town Master Plan will include substantial shoreline park lands. The attractiveness of the shoreline park lands as a recreational amenity as well as enhanced access to the shoreline is anticipated to bring in new customers to support the proposed commercial uses, including Olowalu General Store.

The relocation of Honoapiilani Highway further mauka of the shoreline is anticipated to take place after a portion of the Olowalu Town Master Plan has been implemented and a new customer base established. The area along Honoapiilani Highway is anticipated to be the initial phase of the development. Once the relocated highway has been completed, the existing Honoapiilani Highway would then become a local roadway serving the residents of Olowalu Town and as access to the shoreline park lands.

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Olowalu Talk Story

To validate the economic feasibility of the Olowalu Town Master Plan, a market study and economic and fiscal impact study are being prepared for the Draft Environmental Impact Statement (EIS). A copy of your letter will be included in the Draft EIS. Further, a copy of the Draft EIS will be forwarded to you for review and comment.

With regard to alternative mitigation measures, we would be happy to meet with you to discuss actions such as, "elbowing" or elevating parts of the highway. However, we note that the mauka realignment proposal for Honoapiilani Highway is consistent with the County of Maui's proposed Pali to Puamana Master Plan. Notwithstanding, we believe that exchanging ideas and effectively communicating concerns are an important element of our current planning efforts.

Our office will contact you to arrange a meeting date to discuss relevant highway issues. In the meantime, if additional information or clarification is required, please do not hesitate to contact us at 249-2224 or Ms. Colleen Suyama of Munekiyo & Hiraga, Inc. at 244-2015.

Very truly yours,

David Ward
Olowalu Town, LLC

William Frampton
Olowalu Town, LLC

DW/WF
cc: Dan Davidson, Land Use Commission
Peter Martin, Olowalu Ekolu, LLC
Colleen Suyama, Munekiyo & Hiraga, Inc.
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XI. PARTIES CONSULTED DURING THE REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENT LETTERS

The following agencies, organizations and individuals were consulted during review of the Draft Environmental Impact Statement (EIS); agencies, organizations and individuals comments and responses to substantive comments are included hereto:

Consulted Party	Date of Comment Letter	Date of Response Letter
Federal Agencies		
US Army Engineer Division	---	---
US Geological Survey	---	---
US Fish and Wildlife Service	---	---
National Oceanic and Atmospheric Administration, National Marine Fisheries Service	3/27/12	10/26/15
State Agencies		
Department of Agriculture	---	---
Department of Accounting and General Services	3/21/12	10/26/15
Department of Business Economic Development and Tourism (DBEDT)	---	---
DBEDT – Energy Division	---	---
DBEDT - Land Use Commission	4/16/12	10/26/15
DBEDT – Office of Planning	4/20/12	10/26/15
Department of Defense	4/10/12	10/26/15
Department of Education	4/27/12	10/26/15
Department of Hawaiian Home Lands	---	---
Department of Health (DOH), Clean Water Branch	5/31/12	10/26/15
DOH, Environmental Planning Office	3/8/12	10/26/15

Consulted Party	Date of Comment Letter	Date of Response Letter
DOH, Indoor and Radiological Health Branch	3/13/12	10/26/15
DOH, Wastewater Branch	3/14/12	10/26/15
Department of Human Services	3/27/12	10/26/15
Department of Labor and Industrial Relations	3/15/12	10/26/15
Department of Land and Natural Resources (DLNR) - Land Division	4/20/12	10/26/15
DLNR – Historic Preservation Division	---	---
DLNR - Office of Conservation and Coastal Lands	4/23/12	10/26/15
Department of Transportation	4/26/12	10/26/15
Hawaii Housing Finance and Development Corp.	---	---
Office of Hawaiian Affairs	---	---
UH Environmental Center	---	---
County Agencies		
Department of Environmental Management	4/25/12	10/26/15
Department of Fire and Public Safety	4/25/12	10/26/15
Department of Housing and Human Concerns	4/16/12	10/26/15
Department of Parks and Recreation	---	---
Department of Planning	4/17/12	10/26/15
Police Department	4/5/12	10/26/15
Department of Public Works	---	---
Department of Transportation	---	---
Department of Water Supply	4/9/12	10/26/15
Mayor	---	---
Elected Officials		
Council Chair Danny Mateo	---	---
Council Vice-Chair Joe Pontanilla	---	---
Councilmember Gladys Baisa	---	---
Councilmember Robert Carroll	---	---
Councilmember Elle Cochran	---	---

Consulted Party	Date of Comment Letter	Date of Response Letter
Councilmember Don Couch	---	---
Councilmember G. Riki Hokama	---	---
Councilmember Michael Victorino	---	---
Councilmember Michael White	---	---
Libraries		
Kahului Library	---	---
Lāhainā Library	---	---
Legislative Reference Bureau	---	---
Maui Community College Library	---	---
State Main Library	---	---
UH Hamilton	---	---
News Media		
Honolulu Star Advertiser	---	---
Maui News	---	---
Utility Companies		
Maui Electric Company	4/25/12	10/26/15
Hawaiian Telcom	---	---
Citizen Groups, Individuals, and Consulted Parties		
Margaret Schlachter	---	---
Anna C. Potts and Jason A. Potts 4606 Fowler Avenue, Apt. 9 Everett, WA 98203	4/10/12	10/26/15
Jan Ehrenkrook 49935 Gallatin Road Gallatin Gateway, MT 59730	4/13/12	10/26/15
Victoria and Walton Huffman 9909 Lemon Avenue La Mesa, CA 91941	4/15/12	10/26/15
Wallace H. Fujii Fujii Family Limited Partnership P.O. Box 511 Kahului, Hawai`i 96733	4/18/12	10/26/15

Consulted Party	Date of Comment Letter	Date of Response Letter
Michael W. Foley 3625 Pi`ikea Place Makawao, Hawai'i 96768	4/19/12	10/26/15
Randy Ragon 713 Front Street A Lāhainā, Hawai`i 96761	1/24/12 and 4/19/12	10/26/15
Dick Mayer 1111 Lower Kimo Drive Kula, Hawai`i 96790	4/21/12	10/26/15
Pauline Feine P.O. Box 627 Kīhei, Hawai`i 96753	4/21/12	10/26/15
Robin Newbold, Chair Maui Nui Marine Resource Council P.O. Box 532533 Kīhei, Hawai`i 96753	4/22/12	10/26/15
Maui Tomorrow 55 N. Church Street, Suite A5 Wailuku, Hawai`i 96793	4/23/12	10/26/15
West Maui Taxpayers Association P.O. Box 10338 Lāhainā, Hawai`i 96761	4/24/12	10/26/15
Surfrider Foundation Maui Chapter P.O. Box 790549 Pāi'a, Hawai`i 96779	5/7/12	10/26/15
Citizens for Truth and Justice Maui County P.O. Box 791071 Pāi'a, Hawai`i 96779	10/15/12	10/26/15

For Comment and Response Letters
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