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ORLANDO "DAN" DAVIDSON  
Executive Officer

LAND USE COMMISSION

Department of Business, Economic Development & Tourism  
State of Hawaii

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OFF. OF ENVIRONMENTAL  
QUALITY CONTROL

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February 23, 2012

Mr. Gary Hooser, Director  
Office of Environmental Quality Control  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813-2437

Dear Mr. Hooser:

Subject: Docket No. A10-786/Olowalu Town LLC and Olowalu Ekolu LLC  
Draft Environmental Impact Statement (DEIS) – Proposed Olowalu Town Master  
Plan  
Olowalu, Maui, Hawaii  
Tax Map Key: 4-8-03: 84, 98 through 118, and 124

We respectfully request the publication of the DEIS for the subject project in the next available issue of *The Environmental Notice*.

Enclosed please find the following:

- 1) One copy of the DEIS (Volumes I and II);
- 2) OEQC Publication Form w/Project Summary Description; and
- 3) Distribution List for the DEIS.

In addition, a CD-ROM with the DEIS is enclosed for your convenience. The Publication Form w/Project Summary Description in MS Word will be forwarded to your office under separate cover directly by the applicant.

Please feel free to contact Bert Saruwatari of my office at 587-3822, should you require clarification or any further assistance.

Sincerely,

  
for ORLANDO DAVIDSON  
Executive Officer

Enclosures

# **Draft Environmental Impact Statement**

**Volume I of II**

## **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**

**February 2012**

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**Author**

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

Wastewater Management Plan

Brown and Caldwell

## List of Acronyms

ADF – Average Daily Flow  
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  
CFS - Cubic Feet Per Second  
CI - Consultation Plan for Assessing Potential Cultural Impacts  
CIZ - Change in Zoning  
CML - Central Maui Landfill  
CNU - Congress for the New Urbanism  
CPA - Community Plan Amendment  
CPCN - Certificate of Public Convenience and Necessity  
CSH - Cultural Surveys Hawai‘i, Inc.  
CWRM - Commission on Water Resources Management  
CZM - Coastal Zone Management  
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  
ET - Evapotranspiration  
FEMA - Federal Emergency Management Agency  
FIRE - County Department of Fire and Public Safety  
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 Department of Transportation  
HDPE - High Density Polyethylene  
HEER - Hazard Evaluation and Emergency Response  
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  
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  
NPDES - National Pollutant Discharge Elimination System  
NRCS - Natural Resources Conservation Service  
OCR - Olowalu Cultural Reserve  
OEQC - State Office of Environmental Quality  
OHA - Office of Hawaiian Affairs  
OP - Office of Planning  
OWC - Olowalu Water Company  
PCB - Polychlorinated Biphenyls  
PD - Project District  
PDR - Preliminary Drainage Report  
PER - Preliminary Engineering Report  
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

RGB - Rural Growth Boundary  
rRD - Rock Outcrop  
rRK - Rock Land  
rRS - Rough Broken and Stony Land  
rSM - Stony Alluvial Land  
SCS - Soil Conservation Service  
SFHAD - Special Flood Hazard Area Development  
SHPD - State Historic Preservation Division  
SIHP - State Inventory of Historic Property  
SLUC - State Land Use Commission  
SMA - Special Management Area  
SVOC - Semi-Volatile Organic Compounds  
TIAR - Traffic Impact Analysis Report  
TMK - Tax Map Key  
TN - Total Nitrogen  
TSS - Total Suspended Solids  
UIC - Underground Injection Control  
UGB - Urban Growth Boundary  
USDA - U.S. Department of Agriculture  
VOC - Volatile Organic Compounds  
W - Water  
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 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  
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  
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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:** The Olowalu Town Master Plan (Master Plan) is proposing to establish a new community in the once thriving Olowalu plantation town, located on the west side of the island of Maui. The Master Plan 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 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 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 proposed infrastructure improvements will incorporate innovative, efficient, and sustainable technology to minimize adverse impacts upon the natural environment. The Master Plan'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 and non-potable 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.

# **I. PROJECT OVERVIEW**

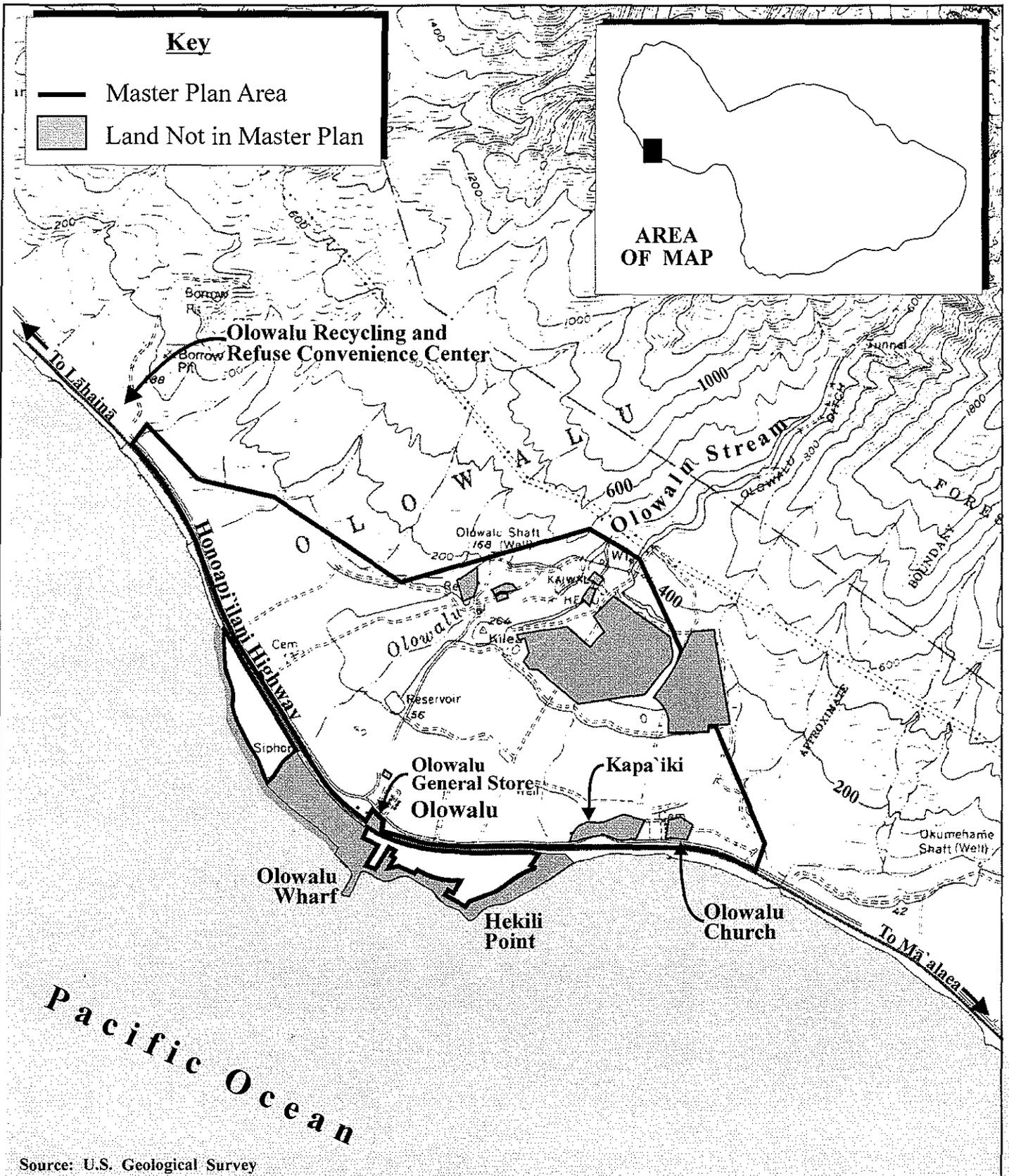
# I. PROJECT OVERVIEW

## 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, the former plantation manager's house, associated residences, and Camp Olowalu (formerly Camp Pecusa) located makai of Honoapi`ilani Highway. See **Figure 2**.

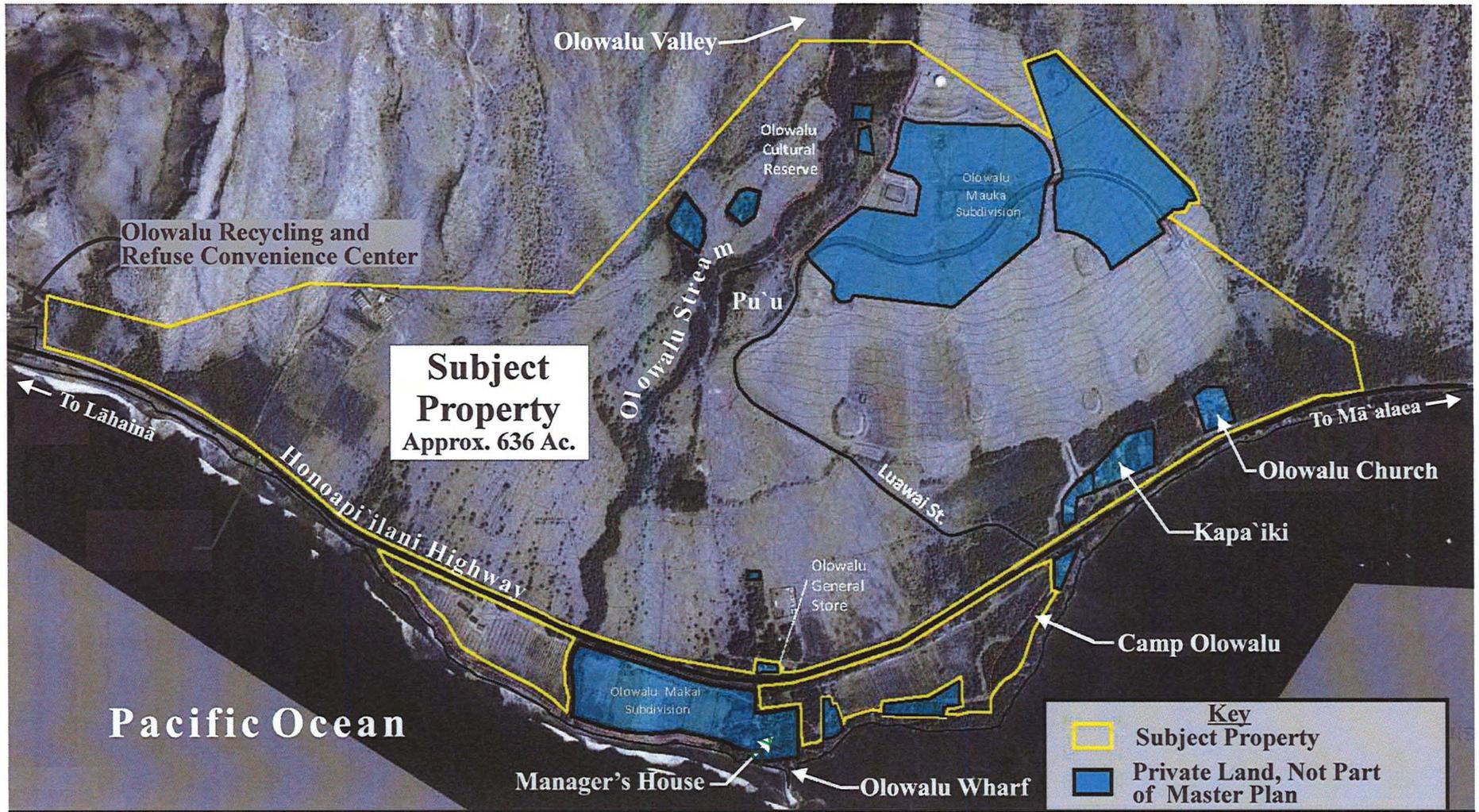
Since the termination of sugar cultivation activities by Pioneer Mill in 1999, the lands surrounding Olowalu have been utilized for small farming operations or have remained fallow. Lands have been subdivided, with a limited number of lots sold to individual purchasers. The ownership of the lands surrounding 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 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**.



**Figure 1** Proposed Olowalu Town Master Plan  
Regional Location Map





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

Figure 2

## Proposed Olowalu Town Master Plan

### Aerial Photograph of Project Site

NOT TO SCALE

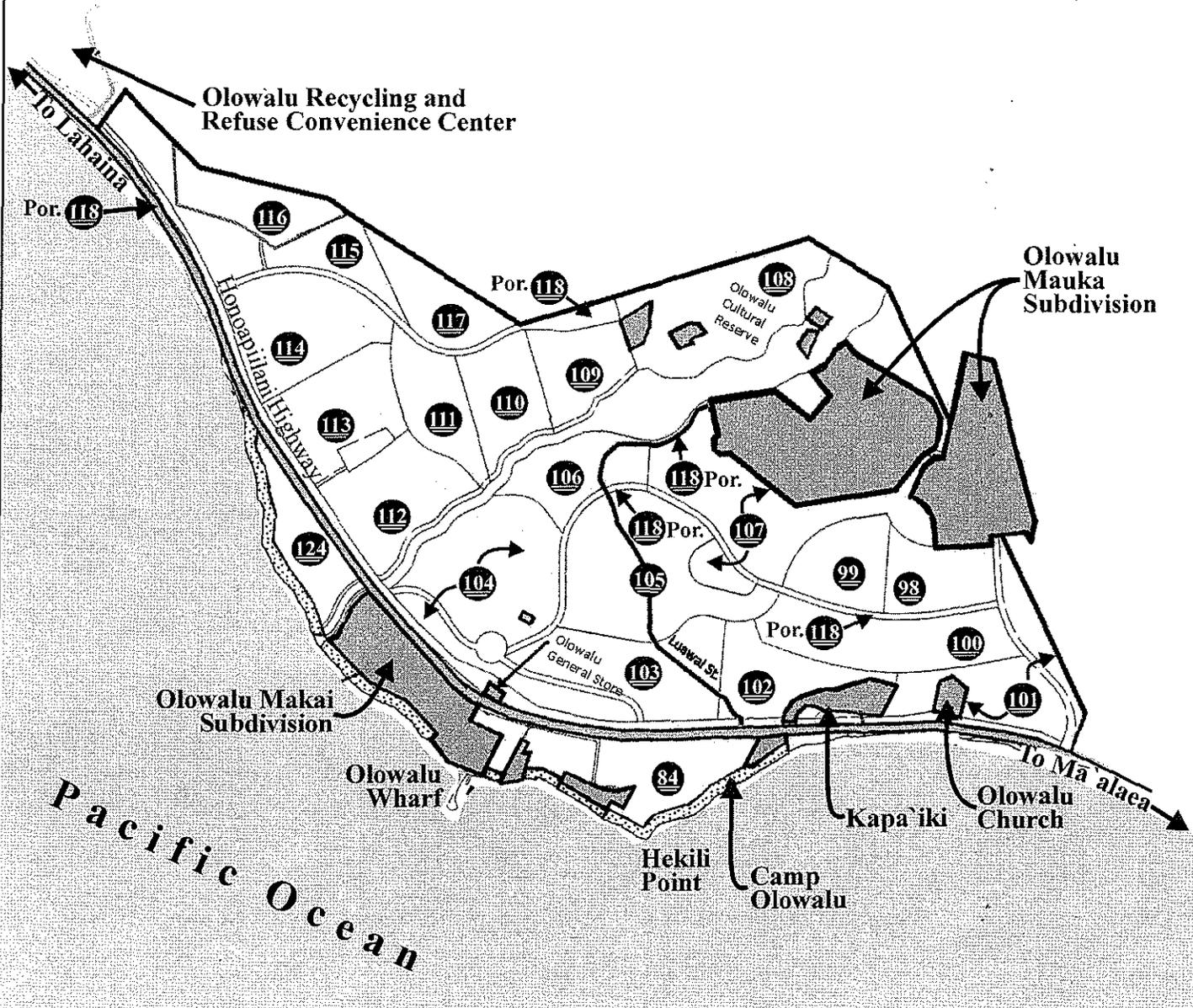


MUNEKIYO & HIRAGA, INC.

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

**Legend**

-  State of Hawaii Beach Reserve
-  Private Land, Not Part of Master Plan



Source: County of Maui, Real Property Tax Division

Figure 3

Proposed Olowalu Town  
Master Plan  
Tax Map Key Parcel Designations

NOT TO SCALE



**Table 1. Olowalu Town Master Plan Parcel Identification Summary**

<b>Tax Map Key</b>	<b>Acres</b>	<b>Tax Map Key</b>	<b>Acres</b>
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		
<b>Total</b>			<b>635.803</b>
<b>Note:</b> *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 `Iao Valley in Wailuku. From this narrow point, its boundaries trace downhill through Olowalu upper valley with Lihau Mountain on the north, and Lihau `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 the Olowalu Cultural Reserve (OCR) 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 Lihau 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 Olowalu Town Master Plan (Master Plan) 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.

### **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. 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. 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 planners exchanged valuable knowledge and experiences. Town planners 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. The site plans were continuously evaluated, assessed, and updated to insure 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. The applicants also hosted a weekly radio show “Small Town Maui” 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.

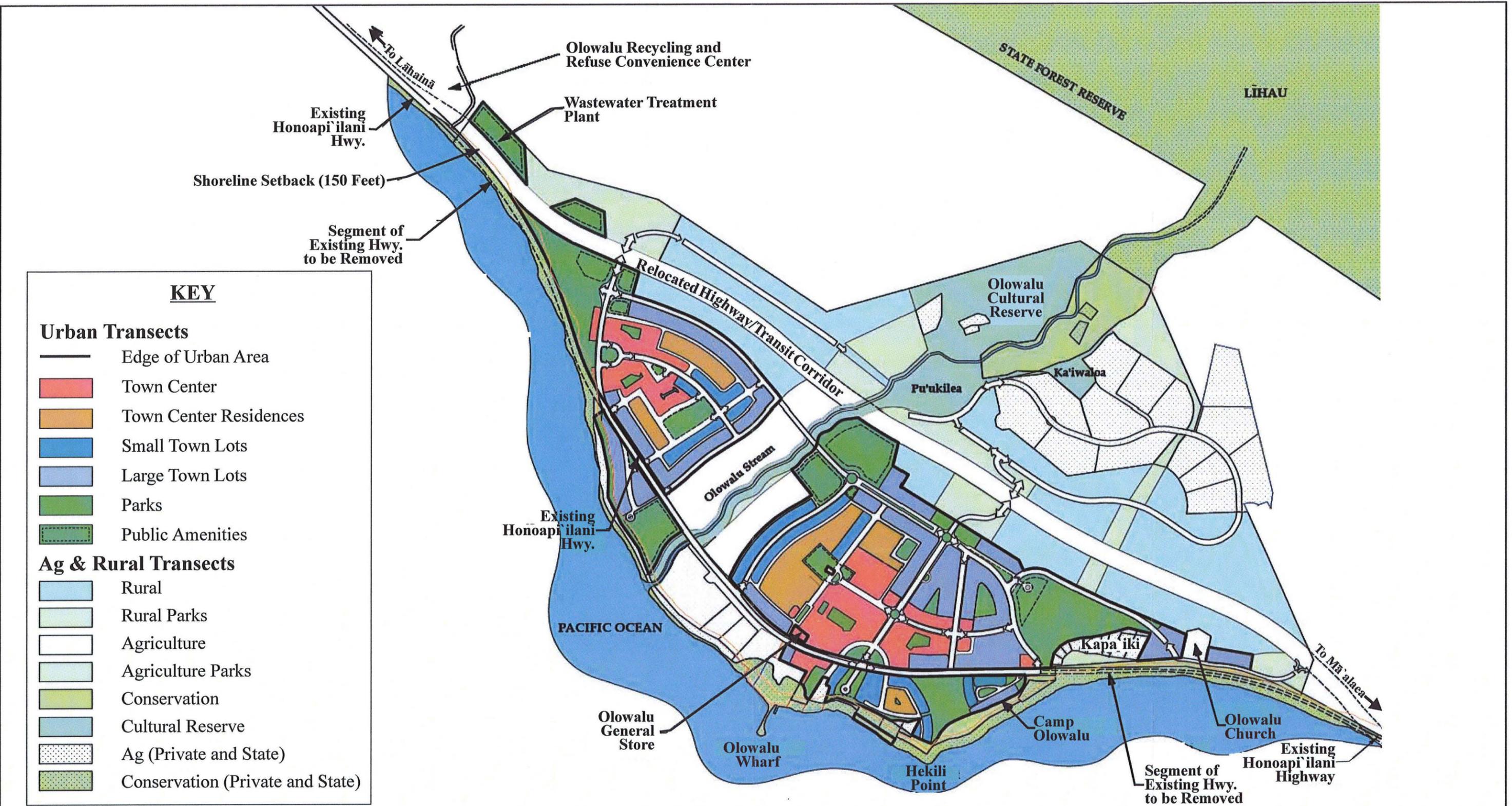
#### **D. PROPOSED ACTION**

The Master Plan 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 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 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”**.

#### **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



Source: Artel, Inc.

Figure 4

Proposed Olowalu Town Master Plan  
Conceptual Plan

NOT TO SCALE



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



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.

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 inspire the human spirit

## **LEED**

Andres Duany of Duany, Plater-Zyberk, one of the co-founders of CNU, helped to develop the Master Plan which incorporates smart growth and sustainable land use principles of New Urbanism. The Master 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"**. As such, the Master Plan will be built using strategies aimed at improving performance in regards to energy savings, water efficiency, reducing carbon dioxide (CO<sup>2</sup>) emissions, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

## **Smart Code**

The Master Plan 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-2"**.

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 transit between the ocean and mountains and the preservation of the natural environment including the re-establishment of native habitat.

## **Ahupua'a**

The Master Plan's goal of becoming a sustainable development is not a new idea at Olowalu. For hundreds of years at Olowalu, a population of several thousand lived and thrived in harmony through the land and resource management system of ahupua'a.

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. The Master Plan's concept 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. **KAIMOANA: Preserve all life in the ocean, from the shoreline to the horizon.**

To preserve the resources of the ocean, the Master Plan proposes the use of a state of the art sewer treatment plant that is not dependent on injection wells. One-hundred percent of the treated recycled R-1 water will be used for irrigation within the project area. A constructed wetland is proposed to dispose of wet weather excess R-1 water. The drainage master plan is designed to utilize retention and detention systems 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.

2. **MAKAI: 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 observes a minimum 150-foot 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 includes shoreline parks and maintains the conservation lands along the shoreline as open space. Development is limited to the area landward (mauka) of the 150-foot shoreline setback and contains residential use and a small portion of the commercial area of the Country Town Center. Refer to **Figure 4**.

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

The Master Plan 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 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. **KALEWALANI: 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 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.

5. **KAMOLEWAI: 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 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. **KANAKAHONUA: Preserve and respect the laws of the land and each other to insure the community's health, safety, and welfare.**

As much as possible, the Master Plan 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. **KAPAELOLONA: Preserve the knowledge of practitioners.**

The Master Plan 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.

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 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 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 HDOT's 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. The alignment will be designed to accommodate mass transit or light rail, if needed in the future. The existing highway corridor with monkey pod trees will be preserved and incorporated into the Master Plan 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 and non-potable 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 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, which could include photovoltaic, hydro, and solar systems.

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 **Table 2**.

**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	46%
				Apart/Town-House	*600-900	N/A		
				Mixed-use/Live-Work	*150-200	N/A		
	Town Center	Commercial/Retail/Business	Commercial, retail, business, office, restaurant, lodging, markets, shops, home occupation, medical clinics, high tech, theater, and accessory uses for parks (snack bar, restaurants, stores, etc.)	N/A	N/A	300,000 - 375,000		
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 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	27%
	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 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 farmsteads, and dwellings (minimum 2-acre lots)	2 acres min. lot size	*15 - 20	N/A	161	25%
		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 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	2%
	Cultural Reserve	Cultural Uses	Olowalu Cultural Reserve	N/A	N/A	N/A		
				<b>TOTAL</b>	<b>*1,500 units</b>	<b>375,000</b>	<b>636</b>	<b>100%</b>
Note: * A range of housing units given in each category not to exceed a total of 1,500 units								

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 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 buildings of maximum footprint of 2,000 sq.ft., one (1) of which may be an ohana of a maximum 1,000 sq. ft. (additional ancillary 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 in height not to exceed 30 ft. from original grade. Ancillary building 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 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. Only one (1) ancillary building is allowed if used for both garage and ohana. Ancillary 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 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 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. Ancillary 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 garage only shall be one story. Large Town Lots maintain a consistent front and rear yard building set back for the main dwelling.



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 buildings with a maximum 500 sq. ft. footprint located in the rear yard. The ancillary building may contain an ohana 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 building may contain an ohana 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 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 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 for four (4) story. Three (3) story height not to exceed 40 ft. and four (4) story 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 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 for four (4) story. Three (3) story height not to exceed 40 ft. and four (4) story 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 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 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.

## **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. It is anticipated the average price of the market units will be \$600,000.00 or below.

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
<b>WORKFORCE HOUSING</b>		
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%

**F. PROJECT NEED**

The proposed Master Plan 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 affected Maui, however, there are signs 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 Master Plan 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 Master Plan may be timely with the anticipated economic turnaround. The Master Plan 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 housing prices have not been determined.

In this connection, the Master Plan's workforce housing program will comply with the requirements of Chapter 2.96 Residential Workforce Housing Policy (RWHP), MCC. The

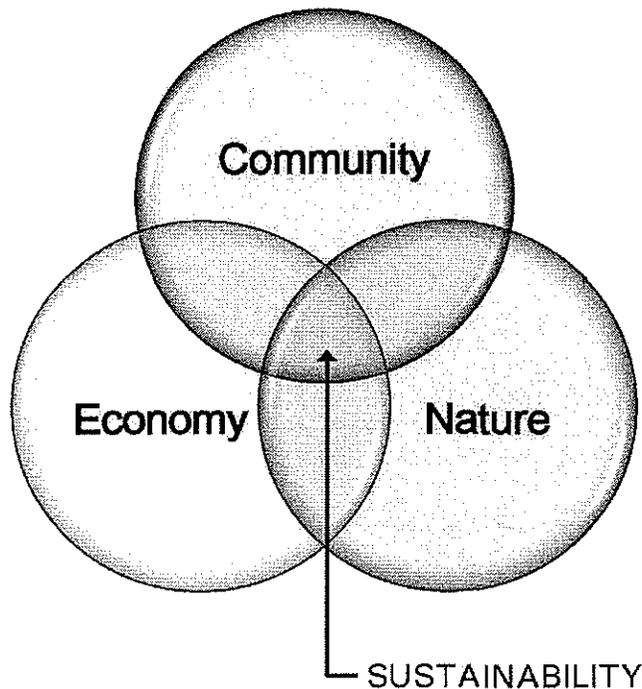
Workforce Housing units and lots will be for sale or rent at affordable prices as determined by the Department of Housing and Human Concerns (DHHC). Refer to **Table 4**.

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 additional units by year 2030. The Master Plan is anticipated to be completed within eight (8) to ten (10) years 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 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 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 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 state of the art technology, communications, and high-speed connectivity.

### **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 LEED ND project, the Master Plan considered the following sustainable prerequisites as the project plans were developed: Refer to **Appendix “A-1”**.

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 sugar cane operation. The plantation town was a self-sustaining mixed-use community and the Master Plan proposes to establish a new self-sustaining mixed-use community. The Master Plan 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 area. 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 does not endanger any wetland. To reduce water quality impacts from episodic stormwater runoff, the Master Plan will implement a stormwater management plan.

d. **Agricultural Land Conservation**

Approximately 161 acres will be retained in agriculture and developed into 15 to 20 farmsteads for diversified agriculture. 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 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 will be designed to accommodate stormwater runoff to reduce existing flooding in the Master Plan area.

2. **Neighborhood Patterns and Design**

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.

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 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 and existing community. 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 will design and construct buildings that utilize green building practices.

#### b. Building Energy Efficiency

The Master Plan 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 will design and construct 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) to reduce the use of potable water for nonpotable uses, such as fire protection, toilets, and irrigation.

#### d. Construction Activity Pollution Prevention

The Master Plan 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 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

Implementation of the Master Plan as a sustainable mixed-use community will provide a wide range of affordable housing units targeted to Maui residents in accordance with Chapter 2.96, Maui County Code (MCC). The Master Plan also includes commercial and industrial 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. 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 as well as extending these improvements to existing residents such as an upgraded water system that will provide improved potable 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. 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.

A major benefit to the community will be the relocation and widening of Honoapi`ilani Highway mauka of the shoreline where portions of the highway is experiencing erosion problems in accordance with the goals of the HDOT and the County of Maui. The Master Plan includes an approximate 200 feet wide alignment of the relocated and widened highway which can accommodate a future transit system, if necessary.

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 highway and eliminating the current unsafe traffic condition experienced by the public trying to cross the highway to the shoreline and lack of parking. The Master Plan proposes to enhance public recreational opportunities in Olowalu with approximately 223 acres of open space and park lands. Implementation of the Master Plan 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 highway adjacent to Camp Olowalu and north of Olowalu Stream.

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 is also expected to create approximately 1,000 jobs creating economic growth in Olowalu.

The Master Plan 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 will require several land use entitlement approvals to proceed. A summary of the current land use designations, are provided in **Table 5**.

**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.

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 area is “Agricultural”. Portions of the Master Plan area at the mauka extent of the property, as well as makai of Honoapiʻilani Highway along the shoreline, fall within the “Conservation” District. See **Figure 5**.

A State Land Use District Boundary Amendment (DBA) from the “Agricultural” to the “Urban” district and “Rural” district will be required for a portion of the property in order to implement the rural residential and urban town center. The Conservation district lands will remain as conservation on the State Land Use District (LUD) maps. See **Figure 6**. The DBA petition to the State Land Use Commission (SLUC) has been prepared pursuant to Chapter 205, Hawaiʻi Revised Statutes (HRS), and the Land Use Commission Rules of the State of Hawaiʻi found in Title 15, Subtitle 3, Chapter 15 of the Hawaiʻi Administrative Rules (HAR).

2. **West Maui Community Plan Amendment**

The majority of the Master Plan area is currently designated as “Agriculture” by the West Maui Community Plan with portions designated “Conservation”, “Park”, and “Open Space”. See **Figure 7**. A West Maui Community Plan Amendment (CPA) will be required to establish the land use categories delineated by the Master 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 “LEEDND”. 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 and larger agricultural farm lots interspersed with open space and park lands. The proposed Master Plan includes an economic base to support the residential community, including opportunities for agriculture, support services, and entrepreneurial enterprises. Although in the Project District, the existing

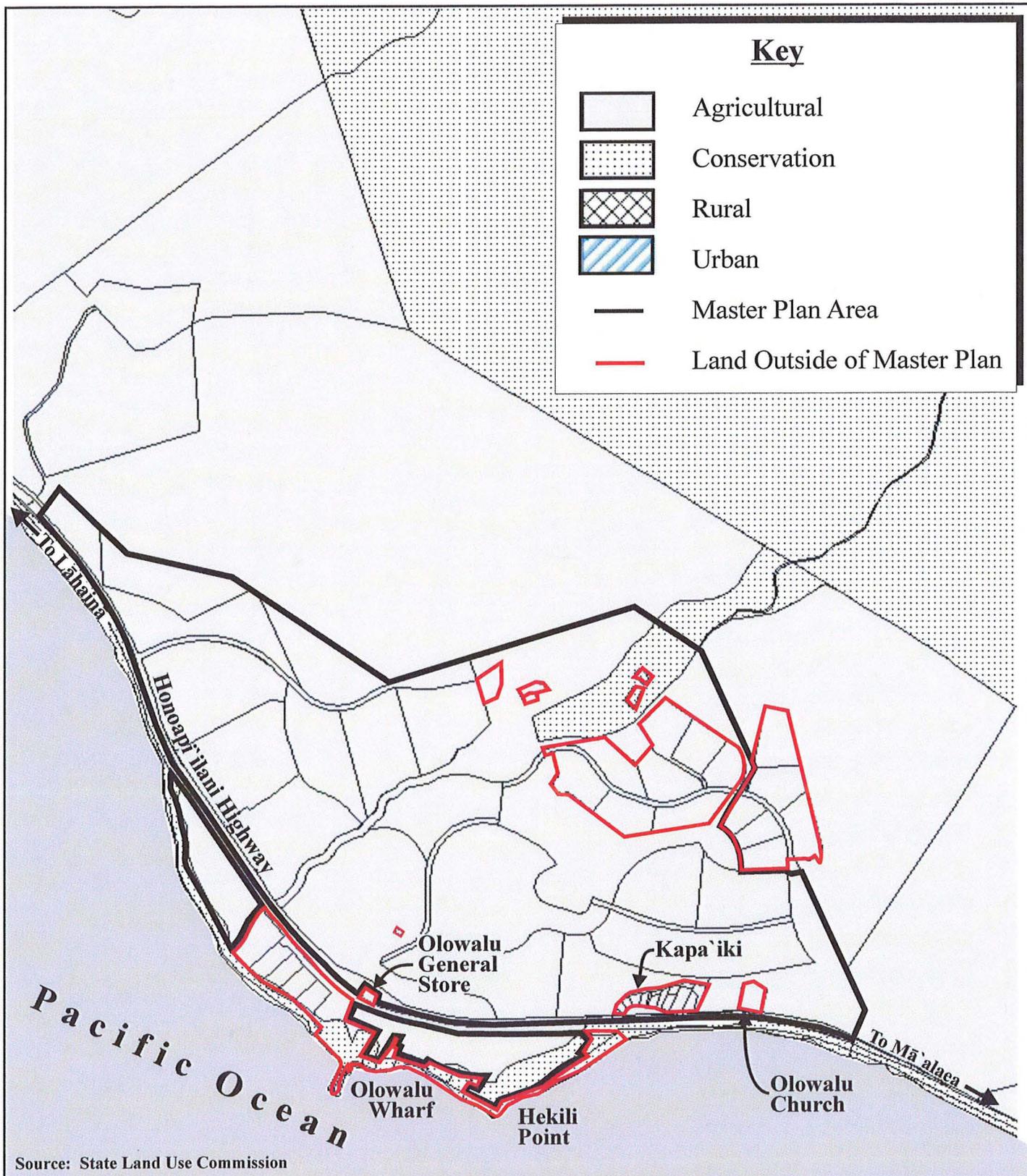


Figure 5

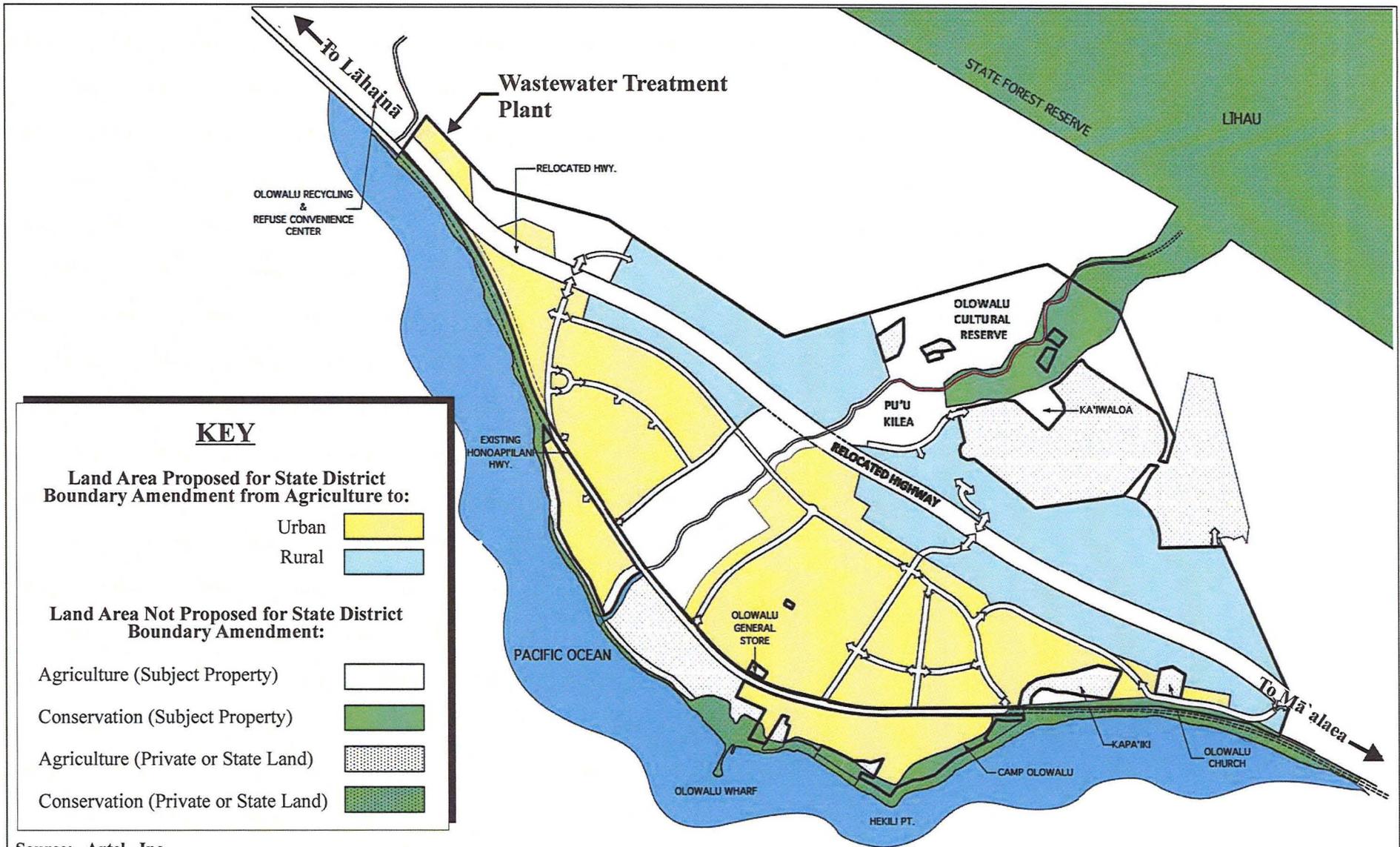
Proposed Olowalu Town

NOT TO SCALE

Master Plan

Existing State Land Use  
District Designations Map





Source: Artel, Inc.

Figure 6

Proposed Olowalu Town Master Plan  
Proposed State Land Use District Designations Map

NOT TO SCALE



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

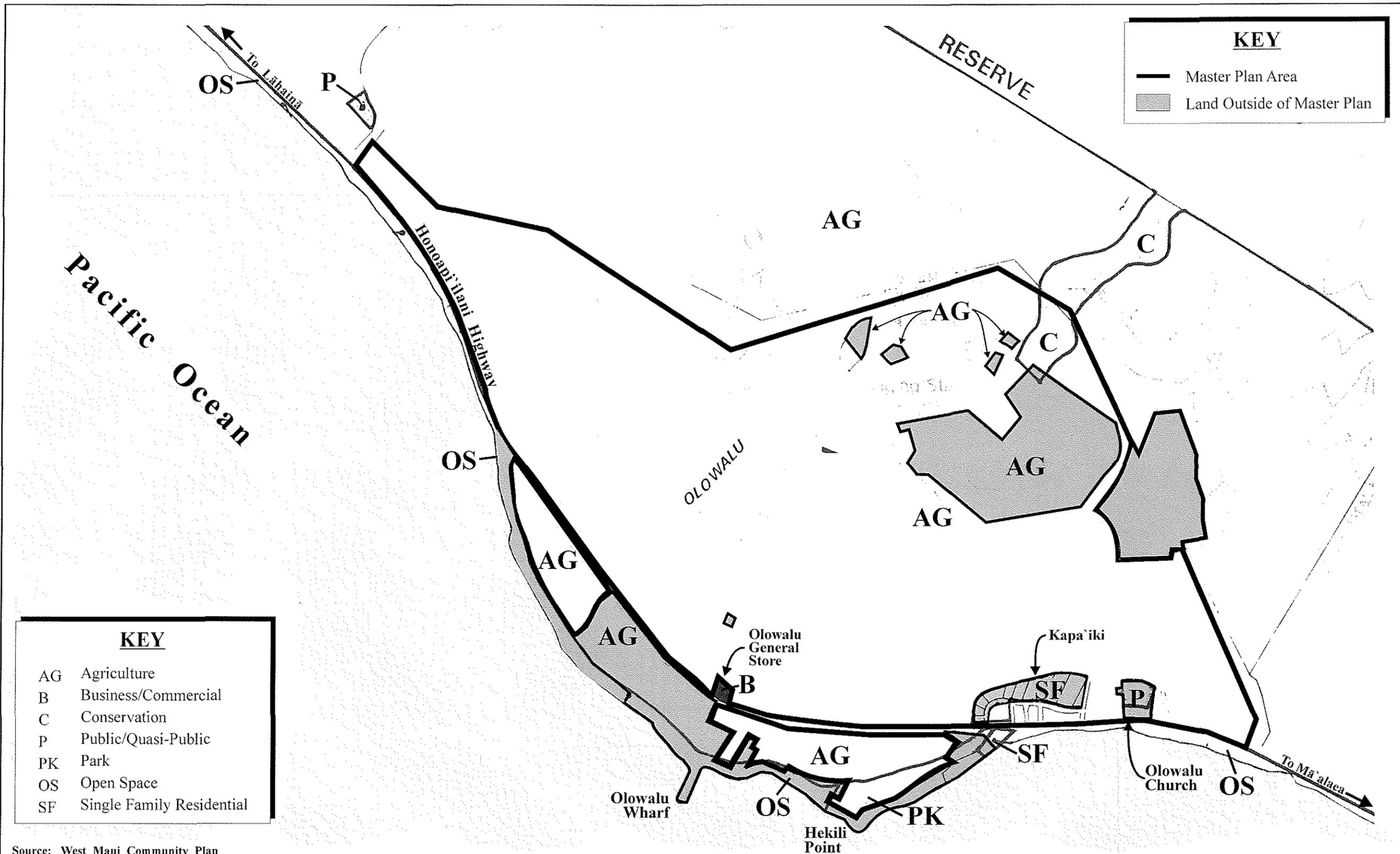


Figure 7

Proposed Olowalu Town Master Plan  
West Maui Community Plan Land Use Designations Map



MUNEKIYO & HIRAGA, INC.

Conservation district lands will remain as Conservation and as Open Space or may be used for recreational purposes.

**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 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 area.

**4. Project District Processing**

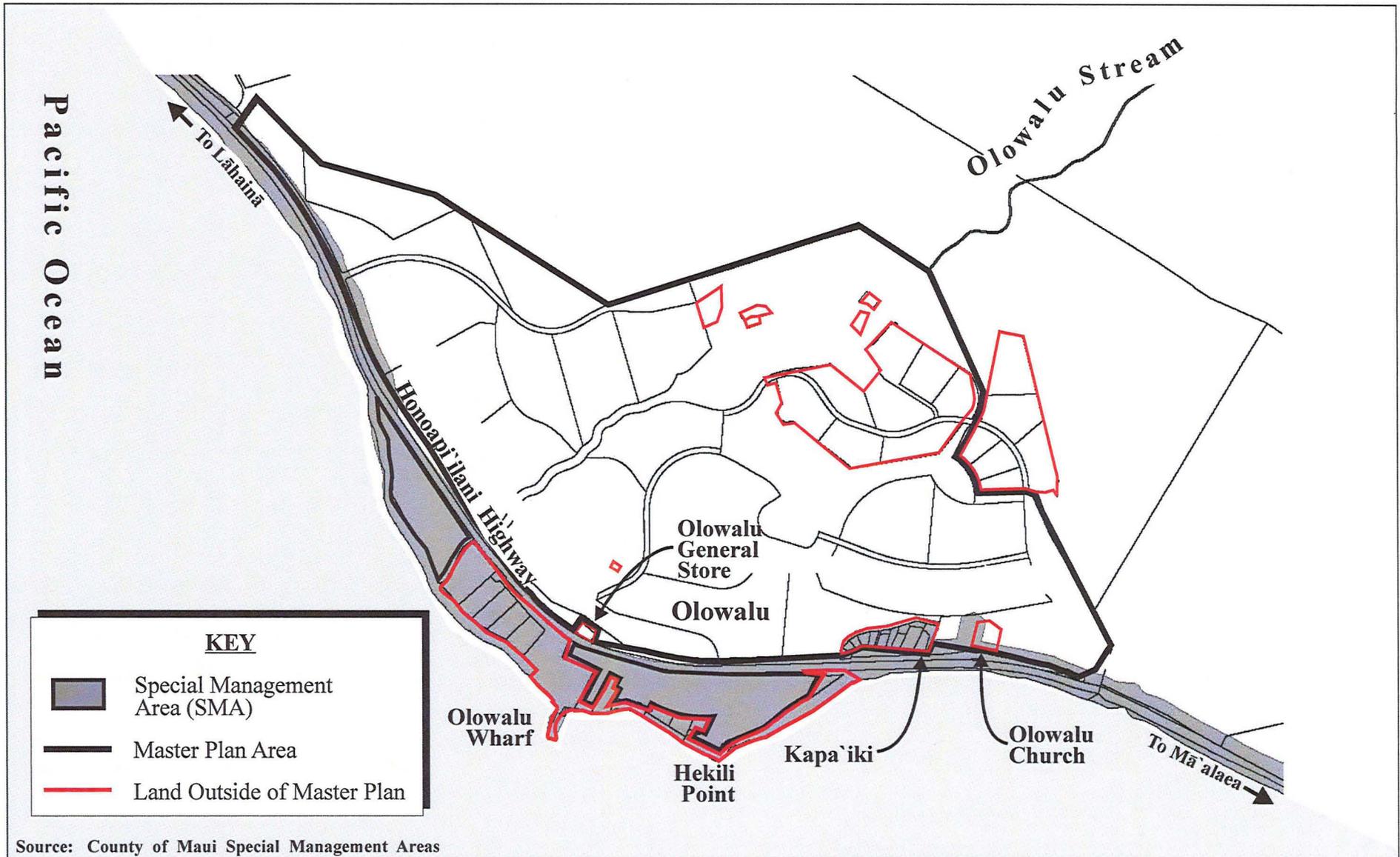
Project District Phase I approval will be required to set forth zoning performance standards for the Master Plan area. Project District Phase II and Phase III approvals will also be needed as part of the implementation phase of regulatory review.

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 will identify the different transects of the Master Plan as 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 8**. As such, the development will require SMA Use Permits from the Maui Planning Commission. The SMA approval process will be triggered with a specific development proposal as Master Plan implementation proceeds over time.



Source: County of Maui Special Management Areas

Figure 8

Proposed Olowalu Town Master Plan  
Special Management Area Boundary Map

NOT TO SCALE



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

Olowalu Town/MasterPI/Draft EIS/SMA Boundary(KIVA)(revised)

**J. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENTS**

As noted above, the Master Plan 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. 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, 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 Environmental Notice on August 8, 2010. The SLUC will be 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 6**.

**Table 6.** Master Plan Preliminary Implementation Time Schedule

<b>TASKS</b>	<b>TIME HORIZON</b>
Permitting and Entitlements	2011 to 2013
Infrastructure Design and Construction	2013 to 2020
Implementation and Occupancy of Neighborhoods	2015 to 2023

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

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

### A. PHYSICAL ENVIRONMENT

#### 1. 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 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 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). 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 Lāhainā Town marked the decline of the once thriving Olowalu community (Ainsworth).

Prior to the closure of Pioneer Mill in 1999, lands within the Olowalu area were cultivated in sugar cane. Today, land uses found in Olowalu include Olowalu Church, Olowalu General Store, Camp Olowalu (formerly known as Camp Pecusa), 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 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 of the Olowalu Mill ruins.

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 sugar cane cultivation now lie fallow, agricultural endeavors exist on portions of the Olowalu lands.

**b. Potential Impacts and Mitigation Measures**

The proposed action calls for 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 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 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 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 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 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. 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 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 average in the mid to high 70's (Maui County Data Book, 2010). 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-70's to the high 70's.

Average rainfall distribution in the region averages approximately fifteen (15) inches per year (Maui County Data Book, 2010). Rainfall in the Olowalu region is highly seasonal, with most of the precipitation occurring in the winter months (December through February). 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. 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 area. The Master Plan 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 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 sugar cane 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 area encompasses a range of topographic conditions from the generally flat coastal area makai of Honoapiʻilani 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 “B”**.

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. Potential Impacts and Mitigation Measures**

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 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 acres are designated as “Agricultural”, while 15 acres are classified as “Conservation”. Island wide, “Agricultural” land totals approximately 235,770 acres, representing just over 50 percent of the island. The “Agricultural” lands within the Master Plan comprise less than 0.2 percent of the total “Agricultural” lands on the island.

## 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 acres, or 26 percent, of Maui's 235,770 acres of State Land Use Commission designated "Agricultural" lands is characterized as "Prime" lands by the ALISH system. Within the proposed Master Plan, approximately 19 percent of the project's 636 acres are classified as "Prime" agricultural lands, while 39 percent is considered "Other Important" agricultural lands. The remaining 42 percent of the Master Plan area is not designated by the ALISH system. See **Figure 9** and **Table 7**.

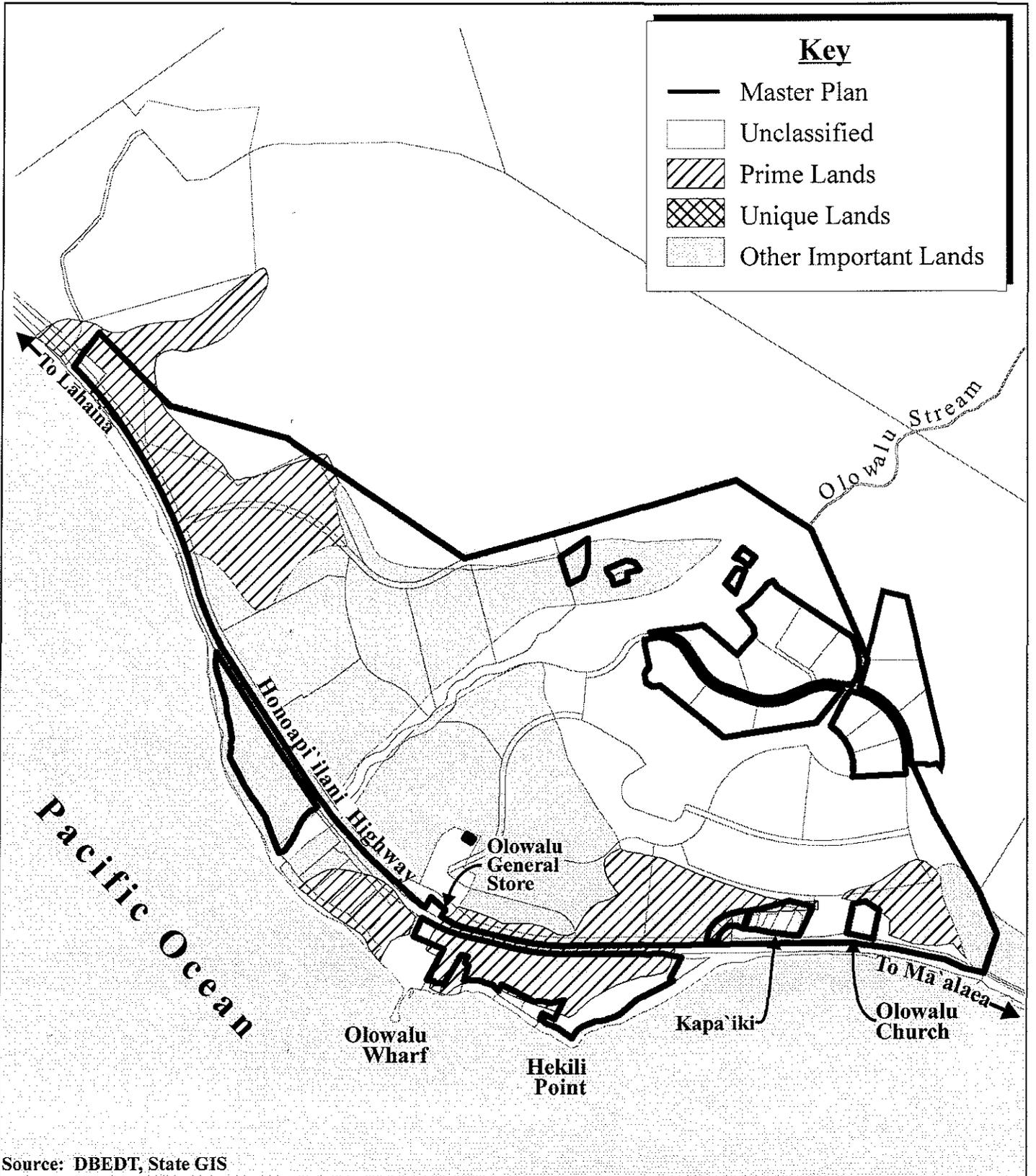
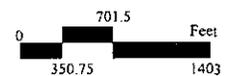


Figure 9

Proposed Olowalu Town Master Plan

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



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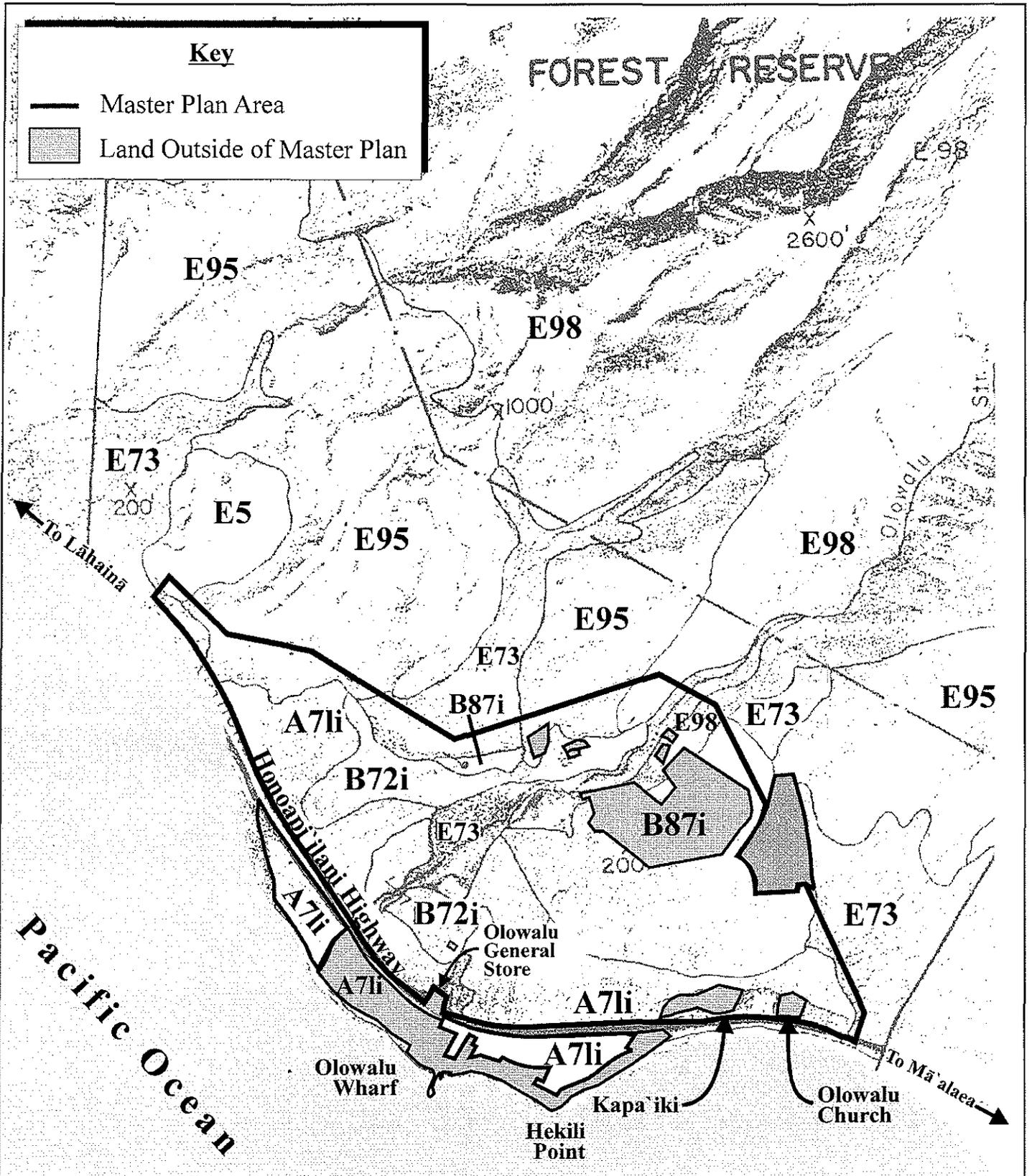
**Table 7.** Agricultural Lands of Importance to the State of Hawai'i

	<b>Acres Within Master Plan</b>	<b>Percent of Total</b>
Prime	121	19
Other	247.6	38.9
Not Classified	267.2	42
<b>Total</b>	<b>635.8</b>	<b>100</b>

### **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 the island of Maui, "A" and "B" designated lands comprise approximately 21 percent of the island's State Land Use "Agricultural" lands.

The Master Plan area is located on lands primarily designated as "A71i", "B72i", "B87i", "E73" and "E95" by the LSB. See **Figure 10**. 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 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 percent of the 636-acre Mater Plan, while "B" lands account for 39 percent. Approximately 19 percent of the Master Plan area is designated as "E", the lowest productivity rating. See **Table 8**.



Source: Land Study Bureau

Figure 10 Proposed Olowalu Town Master Plan NOT TO SCALE

Land Study Bureau Land Classifications Map



**Table 8.** Land Study Bureau Overall Productivity Rating

	<b>Acres</b>	<b>Percent of Total</b>
A	264.6	41.6
B	250.1	39.3
E	121.1	19
<b>Total</b>	<b>635.8</b>	<b>100</b>

(2) **Soil Characteristics**

According to the U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), underlying the Master Plan area is the Pulehu-Ewa-Jaucas association. See **Figure 11**. 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**. General characteristics of the soil types within the Master Plan area are presented in **Table 9**.

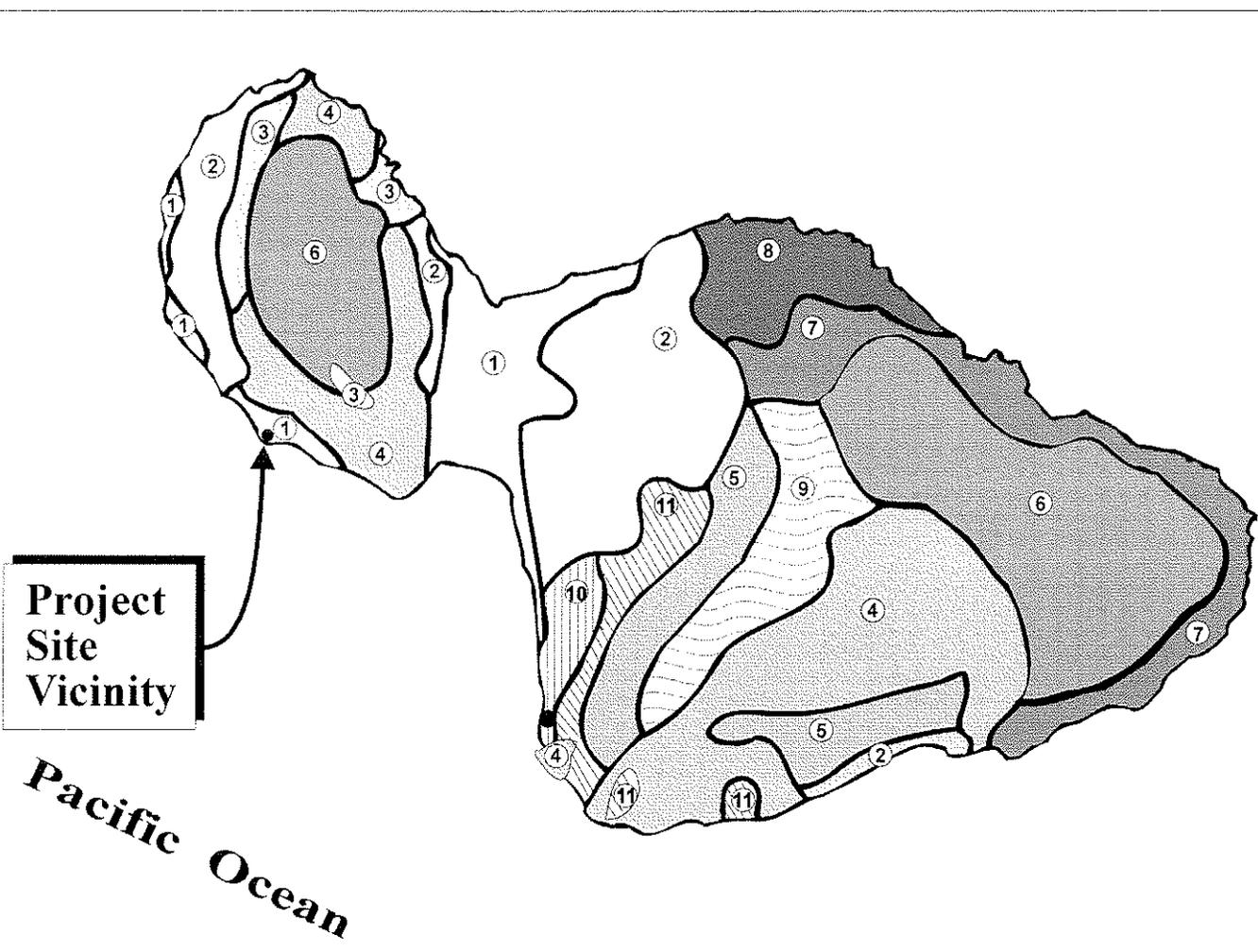
The Pulehu Cobbly Clay Loam, 0-3 percent slopes (PtA) soil and Wainee Extremely Stony Silty Clay, 7-15 percent slopes (WyC) comprise the majority of the Master Plan area. PtA soil is a cobbly soil characterized by moderate permeability, slow runoff, and slight erosion hazard. WyC soil is an extremely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

# LEGEND

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



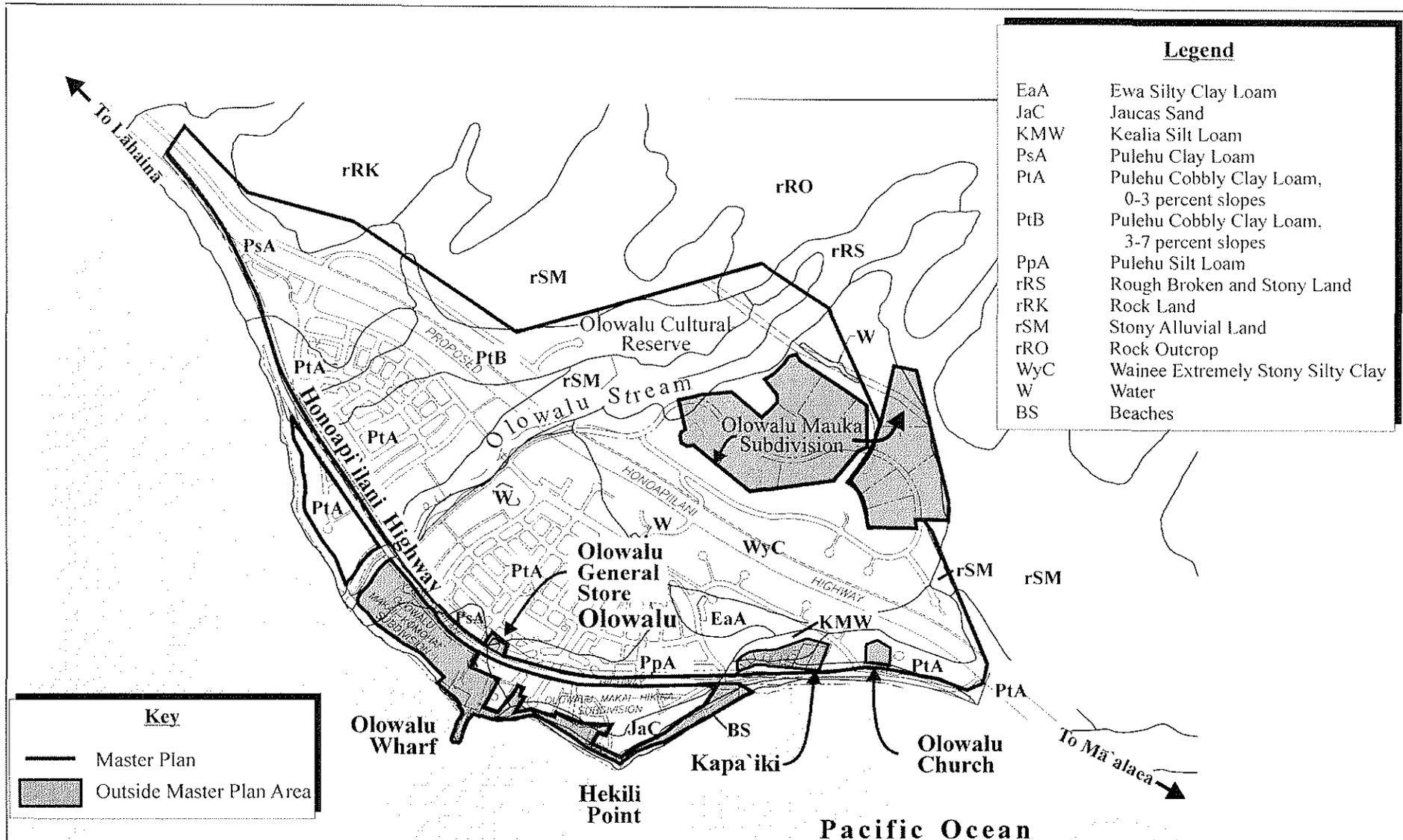
Base Map Source: U.S.D.A., Soil Conservation Service

Figure 11

Proposed Olowalu Town  
Master Plan  
Soil Association Map

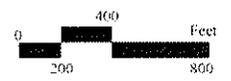
NOT TO SCALE





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

**Figure 12** Proposed Olowalu Town Master Plan  
Soil Classification Map



MUNEKIYO & HIRAGA, INC.

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

**Table 9. Olowalu Town Master Plan Soil Characteristics**

Soil Series	General Soil Characteristics	Master Plan Area		Land Capability Classification <sup>(a)</sup>	
		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	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	VIIIs	--
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	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.	62	9.8	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.	204	32.2	IVs	IIIs
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	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.	43	6.7	IVc	I
Rough Broken and Stony Land (rRS)	Consists of very steep and stony gulches. Runoff is rapid and geologic erosion is active.	19	3	--	--
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.	7	1.1	VIIIs	--
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	VIIIs	--
Rock Outcrop (rRO)	Consists of areas where exposed bedrock covers more than 90 percent of the surface.	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.	136	21.4	VIIs	VIIs
Water (W)	Water	2	0.4	--	--
Beaches (BS)	Beach sand	2	0.3	--	--
<b>Grand Total</b>		<b>634<sup>(b)</sup></b>	<b>100.1<sup>(b)</sup></b>		

Notes:  
<sup>(a)</sup> Land Capability Classification ranges from I (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.  
<sup>(b)</sup> Totals are not exact due to rounding to the nearest number  
 Source: U.S. Department of Agriculture, Soil Conservation Service

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.

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 9** 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. Potential Impacts and Mitigation Measures**

The Master Plan area, for the most part, lies within the State Agricultural district and is largely designated for agricultural uses by the West Maui Community Plan and Maui County zoning. These designations represented the former larger-scale cultivation of sugar cane by Pioneer Mill. However, the majority of lands formerly used for agricultural cultivation are currently vacant and not in active agricultural production. Of the 636 acres of the Master Plan, approximately 161 acres will remain in agriculture primarily along Olowalu Stream.

Additionally, the OCR will provide an opportunity to cultivate traditional native crops, such as taro. 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.

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 area. 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 sugar cane cultivation. Prior to the applicant 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 sugar cane 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 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 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 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”**.

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”**.

**b. Potential Impacts and Mitigation Measures**

The project site has not been in active sugar cane 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 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 Master Plan area is located in Flood Zone “X” (unshaded), Zone “X” (shaded), Zone “A”, Zone “AE”, Zone “AO”, and Zone “VE”.

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

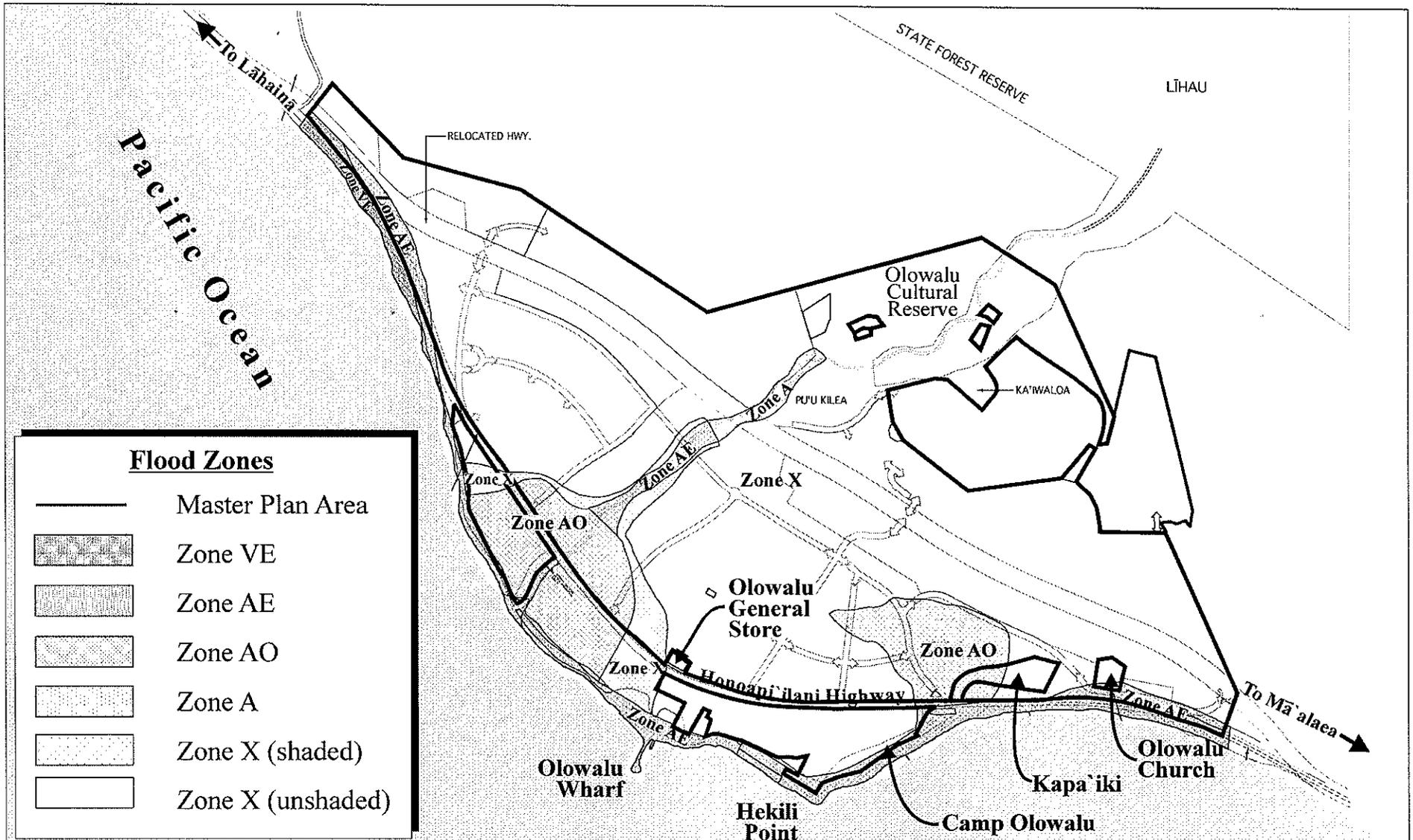
located along the shoreline and along Olowalu Stream and Gulch. Zone “VE” is located along the shoreline and are coastal areas with a 1 percent or greater chance of flooding and an additional hazard from storm waves. The flood elevation in this area is 7 feet above mean sea level (amsl). See **Figure 13**.

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.

The tsunami evacuation zone for Olowalu is the area seaward (makai) of Honoapi`ilani Highway near Olowalu General Store. 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.

Located in Hawai`i, the project site is also susceptible to hurricanes. The Central Pacific hurricane season starts on June 1<sup>st</sup> and ends on November 11<sup>th</sup>. 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).

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 sugar cane 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



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

Figure 13

# Proposed Olowalu Town Master Plan Flood Insurance Rate Map

NOT TO SCALE



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

Olowalu Town/MasterPl/Draft EIS/FIRM

Launiupoko swept up into the nearby West Maui Natural Area Reserve and in May 2010, another fire broke out in the region.

**b. Potential Impacts and Mitigation Measures**

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. Construction within other flood hazard areas will be in compliance with Section 16.62.060, MCC, relating to standards for development within 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 proposed Master Plan provides for a 150-foot setback from the coastline within which no development will occur.

To mitigate potential impacts associated with natural disasters, all buildings within the proposed Master Plan 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 applicant will coordinate with the Hawaii State Civil Defense agency to determine whether public facilities within the Master Plan meet public shelter specifications and can serve as a shelter during emergencies.

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 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 fire hazard in the region. The Master Plan will

upgrade the existing water system, including fire protection improvements to the existing and future community. The Master Plan 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. See **Appendix "E"**. 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 sugar cane 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 sugar cane 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 sugar cane fields. Only the hardy `ulahoia was found everywhere on the property. While all of the native plants except the `ulahoia 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. They are 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 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 water management crew as been seen in reservoirs within the project site.

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"**. 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. Potential Impacts and Mitigation Measures**

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 will incorporate these native plants in the landscaping scheme for the project, to the extent practicable.

Nēnē 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 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 is a type of temporary habitat that is useful to the nēnē in the broad scheme of things in West Maui. 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 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 (ōpe`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 proposes approximately 223 acres of 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 itself is not a suitable habitat 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 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.

With the implementation of the aforementioned mitigation measures, the proposed project is not expected to have a significant negative impact on botanical or fauna 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.

## 8. Streams and Reservoirs

### a. Existing Conditions

The Master Plan area 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"**. 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 sugar cane 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 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"**. 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. Potential Impacts and Mitigation Measures**

The natural drainage characteristics of the Olowalu Stream will not be altered as part of implementation of the Master Plan. The land plan for the project 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 water to the OCR for their cultural activities and practices.

The Master Plan 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 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 reduces leaks within the irrigation system. This will help to enhance native habitat within the Olowalu Stream ecosystem.

## 9. 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 in July 2011. Refer to **Appendix "D"**. 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. Potential Impacts and Mitigation Measures**

The proposed Master Plan 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"**.

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 are not anticipated to have negative impacts to the ocean.

The project's 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 which 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. See **Appendix "B-1"**. The goals of the Best Management Practices (BMPs) for the Master Plan 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** are being considered for the project.

**Table 10.** Proposed Stormwater BMPs for Olowalu Town Master Plan

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					◆

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

**10. Archaeological Resources**

**a. Historical Context**

The Master Plan area is 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 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 "F"**. 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 `Iao 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,

missionaries estimated 831 Hawaiians lived at Olowalu. Based on the 1831 population, 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).

## **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.

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. 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.

A two-foot wide narrow gauge railroad track from the fields in Olowalu and Ukumehame was built to the Olowalu mill and started carrying sugar cane by its steam powered locomotive in 1882. The railroad ran alongside what was termed the “government” or public road and onto Olowalu Landing.

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.

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. 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.

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

## 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)

**b. Archaeological Investigation**

An archaeological literature review and field inspection was conducted by Cultural Surveys Hawai'i, Inc. (CSH) on the Master Plan area. 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"**.

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**. 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
- 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"**, 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. Refer to **Figure 14**.



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 14**. 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, 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”**, 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** summarizes the interpretative preservation measures for these 17 properties:

**Table 11. Summary of Historic Properties and Associated Preservation Measures**

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment
4	Heiau (Ka'iwaloa/ Kawaialoa Heiau)	Ceremonial	100	Yes	Yes	Interpretive	Viewing platform overlooking the <i>heiau</i> for the general public, pedestrian access to the <i>heiau</i> interior restricted to Native Hawaiian traditional cultural practices; Buffer markers to consist of a native hedge and boulders
1200	Olowalu Petroglyph Complex	Habitation	30	No	Yes	Undetermined	Site extent makes permanent buffer markers difficult
1201	Rock Shelter	Temporary Habitation				Undetermined	To be preserved within SIHP - 01200 buffer area
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
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
3172	Concrete Irrigation Ditch	Agriculture	0	No	No	Conservation	Preservation as an operating water system; appears to be located outside the boundaries
4693	Burial Complex	Burial	*See comment	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.
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)
<p>* Fredericksen, Erik M. and Demaris L. Fredericksen  1999 <i>Archaeological Preservation Plan for Burial Ground on the Makai Project Area, Site 50-50-08-4693, Olowalu Ahupua`a, Lahaina District, Island of Maui (TMK: 4-8-3:Por. 5)</i>. Prepared for Olowalu Elua Associates, LLC. Kahului, Maui. Xamanek Researches. Pukalani HI</p>							

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment
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)
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
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
4700	Habitation Complex	Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4701	Possible Ko'a	Ceremonial	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4704	Habitation Complex w/Petroglyphs	Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4705	Rock Shelters	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4706	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4707	Wall and Mound	Marker/Burial	15	Yes	Yes	Conservation	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
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
4709	Historic Hydro-Electric Plant	Historic Agriculture	0	No	No	Conservation	Preservation as an operating water system
4710	Habitation Complex	Agriculture/ Burial	30	Yes	Yes	Interpretive	Trail leading to a viewing platform overlooking the site complex for the general public

SIHP No.	Formal Type	Probable Function	Buffer (ft.)	Buffer Markers	Signage	Preservation Type	Comment
4712	Terrace and Mound	Agriculture/ Burial	30	Yes	Yes	Conservation	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4713	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4714	Rock Shelter	Temporary Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4715	Cemetery	Burial	30	Yes	Yes	Conservation	Landscape buffer; improved gate at the base of the old access road
4716	Terrace and Wall	Boundary/ Habitation	15	Yes	Yes	Interpretive	Boundary to be marked with pre-cased concrete blocks and hard plastic identification tags
4718	Heiau Complex	Ceremonial	100	Yes	Yes	Interpretive	Cinder path leading to a viewing platform overlooking the <i>heiau</i> 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
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
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
4823	Marsh/ Lagoon, Olowalu	Lagoon	15	No	No	Conservation	Originally intended for data recovery (D.L. Frederickson and Frederickson 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

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**, Summary of Historic Property 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 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"**, 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** summarizes the findings of the field inspections.

**Table 12. Summary of Field Inspection Findings**

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

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.

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 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. 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 “Kānaka 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. See **Appendix “G”**. According to the CI 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** identifies some of the significant places within the Olowalu Ahupua‘a.

**Table 13. Place Names**

Place Name	Translation
Lāhainā	<i>Haina</i> literally translated as “cruelty” and <i>la</i> as “day” or, alternatively <i>haina</i> as “merciless” and <i>la</i> as “sun”
Awalua	Literally is translated as “double harbor”
Halepohaku	Literally, “stone house”
Hawaiiikekee ( <i>`ili</i> )	<i>keke`e</i> : a redup of <i>ke`e</i> (Pukui and Elbert 1986:143) which means crookedness (Pukui and Elbert 1986:141), possibly a reference to the distinctive bend in the <i>`ili</i> boundary (see also x), an <i>`ili</i> name associated with LCA 5829E: Apana 1 and 2 to Kawehena located within Olowalu Valley;
Hekili Point	<i>Hekili</i> is literally translated as “thunder”
Kaluaaha ( <i>`ili</i> )	Literally, “the gathering pit”; an <i>`ili</i> 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.
Kamani ( <i>`ili</i> )	A large tree ( <i>Calohpyllum inophyllum</i> ) which produced a hard wood that was formerly made into calabashes (Pukui and Elbert 1986:125); An <i>`ili</i> 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 <i>mo`o</i> of <i>ali`i</i> lands at Olowalu Ahupua`a (Mr. Hinano Rodrigues in Lee-Greig and Hammatt 2006)
Kaunukukahi ( <i>`ili</i> )	An <i>`ili</i> 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 ( <i>`ili</i> )	An <i>`ili</i> 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 ( <i>`ili</i> )	Literally a type of fish, a variation of <i>mamao</i> or far, calm, clear (Pukui and Elbert 1986:241); An <i>`ili</i> 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 ( <i>`ili</i> )	Two kinds of trees, <i>`ōhi`a`ai</i> ( <i>Eugenia malaccensis</i> mountain apple) (Pukui and Elbert 1986:277) and <i>`ōhi`a lehua</i> ( <i>Metrosideros macropus</i> , <i>M. collina polymorpha</i> ) (Pukui and Elbert 1986: 199). Found in the forested regions, the fruit of the <i>`ōhi`a`ai</i> was prepared by splitting and drying it in the sun (Pukui, and Elbert 1986:277). The wood of the <i>`ōhi`a lehua</i> is hard and once used for images, spears, and mallets (Pukui and Elbert 1986:199). An <i>`ili</i> name associated with LCA 6058: Apana 1 to Peekauai and claim 10127 by Makanialoa.
Olowalu ( <i>ahupua`a</i> )	Literally, “many hills”
Pākalā	Literally translates as the “sun shines”, a place located just after Mōpua and before Kapa`iki
Paumaumau ( <i>`ili</i> )	An <i>`ili</i> 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 ( <i>`ili</i> )	Literally, “long water”; An <i>`ili</i> 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 Kauaula 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 Kauaula.

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 Lihau 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." Lihau 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**

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 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* species such as *limu līpoa*, *limu kohu*, *līpe`ep`e*, *māne`one`o*, and *manauea*. *Limu* gathering for subsistence purposes is still a common occurrence at Olowalu.

### **Traditional Burial Practices and Ceremony**

Kaiwaloa 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 Awalua Cemetery, including the burials extending beyond the church and cemetery boundaries which are documented in the AIS.

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

According to the CI, 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 sugar cane cultivation by the sugar plantations. The demise of Pioneer Mill ended large-scale sugar cane 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.

It is envisioned that the OCR will ensure that access between the mountains and ocean is maintained and preserved in perpetuity along Olowalu Stream and work within the OCR will safeguard the natural resources in the Olowalu Ahupua`a for future generations. Development of the Master Plan 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 will incorporate lessons learned within the OCR as core components of its curriculum.

As the Master Plan 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. 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 sugar cane 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"**.

### b. Potential Impacts and Mitigation Measures

Air quality impacts attributed to the Master Plan 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 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**.

**Table 14.** 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 such as those recommended by LEED ND will reduce any indirect impacts due to increased power usage and solid waste disposal.

**13. 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. 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 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"**.

**b. Potential Impacts and Mitigation Measures**

At full build-out, the primary noise generator from the proposed Master Plan 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"**. 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 applicant 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 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, 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”.

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

#### 14. 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”**.

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 Kihei-Mākena coastline and the islet of Molokini are also visible from Olowalu as well as portions of the west-facing slopes of Haleakala. The West Maui Mountains and Olowalu Valley can be seen looking mauka over the residences at Kapa`iki.

##### b. Potential Impacts and Mitigation Measures

The Master Plan 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 preserves 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”**.

The proposed Green Space Plan integrates parks and open space areas within the Master Plan 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 150 feet shoreline setback area. Refer to **Figure 3** and **Figure 4** and see **Figure 15**. 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. As the Master Plan is developed a system of greenways incorporating pedestrian paths and bicycle paths will be implemented.

## **15. 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 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. 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. 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. 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

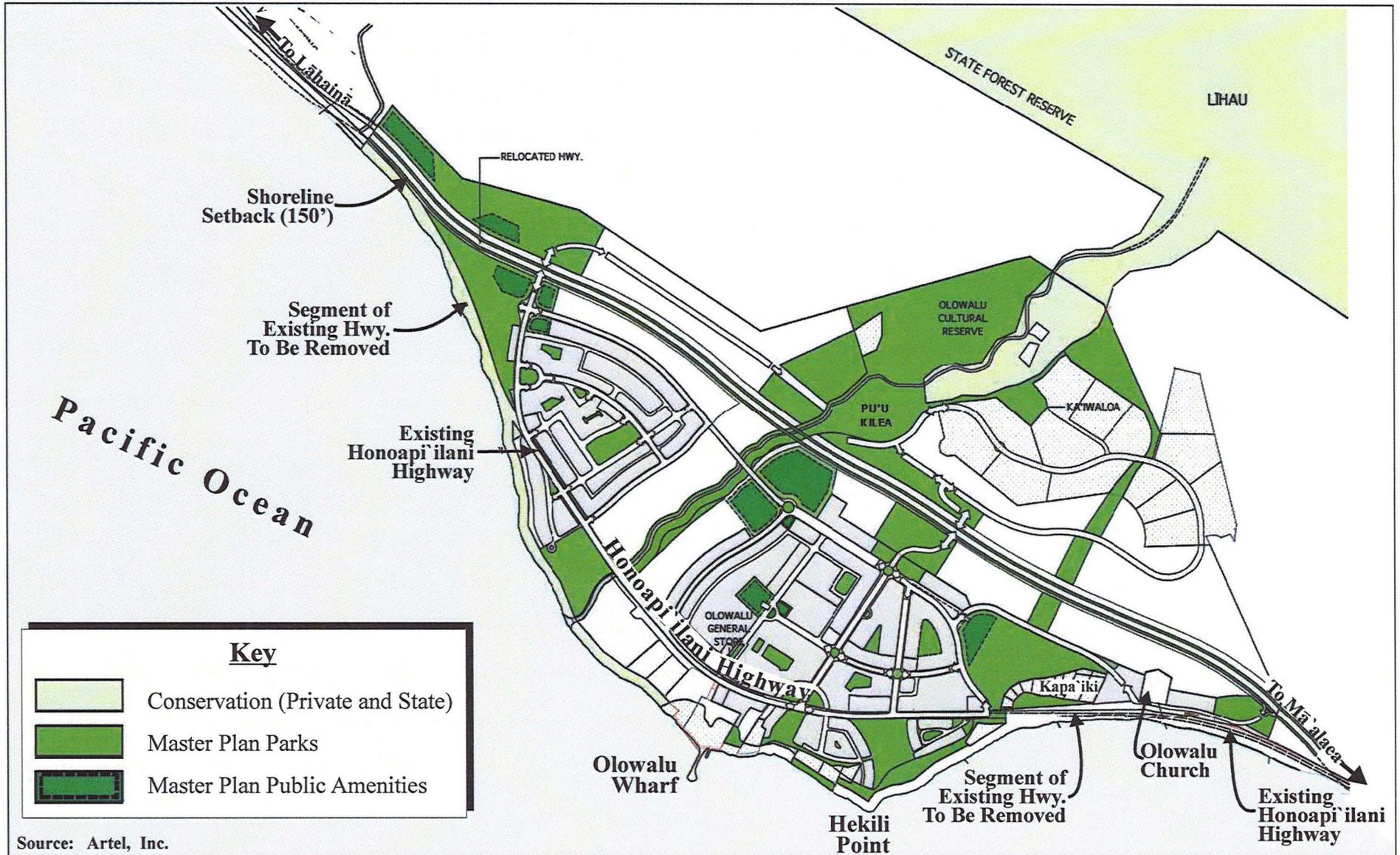


Figure 15

Proposed Olowalu Town Master Plan  
Conceptual Green Space Plan

NOT TO SCALE



a hazardous condition from vehicles pulling off and parking randomly along the highway. Refer to **Figure 15**.

**b. Potential Impacts and Mitigation Measures**

The preservation and enhancement of public access to shoreline resources is an important planning element of the proposed Master Plan. Notably, the relocation and widening of Honoapiʻilani 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 will maintain a 150 foot shoreline setback area where development will be limited to public access to the shoreline, recreational parks and open space. Refer to **Figure 4**. The Master Plan once developed will provide continuous public access to the shoreline from the Lāhainā end to the Māʻalaea 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 Hawaiʻi 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 according to the U.S. Census. 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 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 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, 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 Ka'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 sugar cane 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, the seasonally unadjusted unemployment rate in Hawai'i stood at 6.5 percent. The unemployment rate in the County of Maui was higher at 7.6 percent. However, this represents an improvement from one year ago, when the County's seasonally unadjusted unemployment rate was 7.8 percent in October 2010 (DLIR, December 2011).

**b. Potential Impacts and Mitigation Measures**

According to the Market Study prepared for the project by ACM Consultants, Inc., the Master Plan shows there are signs 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 release of the first housing units in the Master Plan may be timely with the anticipated economic turnaround. The Master Plan 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"**.

A key component of the proposed Master Plan 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, approximately 300,000 to 375,000 sq. ft. of commercial space, could support a variety of eating and drinking food 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"**. The Master Plan 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 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. The Economic and Fiscal Study estimates that the Master Plan 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.

With a proposed 1,500 residential units, the Master Plan will create a greater number of housing units than jobs. However, the Master Plan is located in close proximity to major employment centers in West Maui, including Lāhainā, Ka'anapali, and Kapalua. As previously mentioned, the Master Plan 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 million. County of Maui expenditures for general services, infrastructure maintenance, and public safety were estimated as \$628,000.00. The net revenue attributed to the project, at full-build out, was estimated to be \$968,000.00 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.

### **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 kaʻlo (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 sugar cane 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 sugar cane 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 in Maui County in 2008, the most recent year for which complete data is available. See **Table 15**. 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 declined, the number of farms has actually increased. This is consistent with the decline of large-scale plantation agriculture and increase in diversified agriculture (all crops other than sugar cane and pineapple), which is largely comprised of individual or family sole proprietorships. In 2008, there were 1,150 farms in Maui County.<sup>1</sup>

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<sup>1</sup> Farms are defined as establishments with \$1,000.00 or more of agricultural sales.

**Table 15. Agriculture Summary, Maui County, 2004 and 2008**

	2004	2008
Acreage in Farms	260000	230000
Hired Workers	1850	1700
Number of Farms <sup>(a)</sup>	850	1150
Value of Crop Sales	\$145,983,000	\$144,231,000
Value of Livestock Sales	\$ 6,510,000	\$ 7,013,000

Note: <sup>(a)</sup> 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, sugar cane is the last remaining plantation-scale crop cultivated on the island. As shown in **Table 16**, sugar cane accounted for 34,500 acres, or 15 percent, of the County’s 230,000 acres of farmland 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.** Farm Acreage for Select Crops, Maui County, 2004 and 2008

	2004	2008
Total	260000	230000
Sugar cane	34800	4500
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, sugar cane also represents a large proportion of crop sales in Maui County. In 2008, sugar sales totaled \$34.5 million. See **Table 17**. 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. 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 sugar cane 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** 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.** Number of Crop Farms by Type, Maui County, 2004 and 2008

	2004	2008
Sugar cane	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 <sup>(a)</sup>	615	651
Note: <sup>(a)</sup> 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. OWC received a Certificate of Public Convenience and Necessity (CPCN) from the State Public

Utilities Commission (PUC) to provide potable water service in Olowalu in 2000 and non-potable water service in 2003. In December 2007, OWC, LLC became OWC, Inc. The existing non-potable 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 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 **Appendix “C”**.

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 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 19<sup>th</sup> and early 20<sup>th</sup> 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 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 and non-potable 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 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 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 and non-potable water service in Olowalu. Current non-potable water service rates, effective September 12, 2011, are \$0.95 per thousand gallons, approximately 25 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 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).

**(2) Locational Advantages and Disadvantages**

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 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 disadvantage associated with agriculture 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 sugar cane 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 water in place, and to install this would be very costly.

### (3) **Olowalu Agricultural History**

#### **Sugar Cane**

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. 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 sugar cane.

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 sugar cane; 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 20<sup>th</sup> 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.

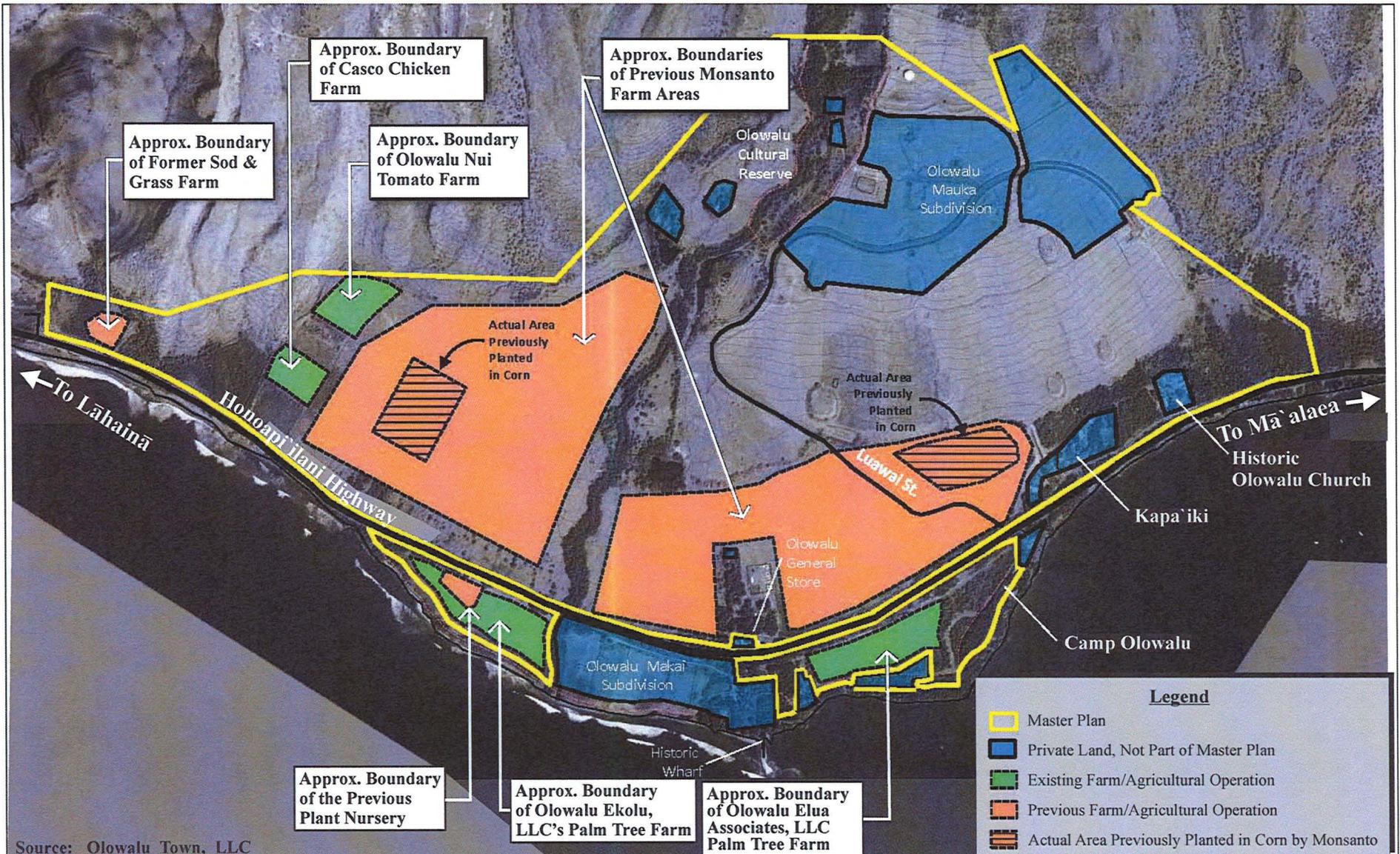
Approximately 500 acres of sugar cane was being cultivated in Olowalu when Olowalu Associates, LLC purchased the land from Pioneer Mill in 1998. Pioneer Mill retained the right to complete the last crop cycle on the land at the time of the sale. The last harvest of sugar cane in Olowalu occurred in 1999, 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 sugar cane land in Olowalu. These included a seed corn operation, grass and sod farm, and a plant nursery. **Figure 16** illustrates the location of these unsuccessful agricultural ventures.

- **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, Molokai, and Oahu. 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).



Source: Olowalu Town, LLC

Figure 16

Proposed Olowalu Town Master Plan  
Existing and Previous Agricultural Operations

NOT TO SCALE



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

Olowalu Town/MasterPl/AgOperations

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**. 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**. 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).

### **Existing Agriculture**

The majority of former sugar cane lands now remain vacant and fallow. Existing agricultural activities within the Master Plan area are

limited to a few small commercial farms and several informal agricultural uses. These uses are described below and their locations are also illustrated in **Figure 16** presented earlier.

- **Olowalu Nui Hydroponic Tomato Farm**

The Olowalu Nui Hydroponic Tomato Farm (Olowalu Nui) leases approximately four (4) acres of land from Olowalu Elua Associates on a portion of TMK No. (2) 4-8-003:115. 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. 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 rents to Olowalu Elua. Rent payments totaled approximately \$300 per year and Olowalu Elua Associates paid for water used by the farm.

In January 2011, Olowalu Nui entered into a new one-year lease for the land in Olowalu. Under the current lease, the farm paid \$500.00 per month over the first six (6) months of the lease and \$900.00 per month during the last (6) months of the lease. Olowalu Nui is also now responsible for paying for all of its water use provided by the OWC, Inc. Between January and August 2011, Olowalu Nui used an average of 433,000 gallons of non-potable water per month, with an average monthly water bill of \$330 (Olowalu Water Company, Inc., 2011). The average monthly water bill, however, represents costs prior to OWC, Inc.'s rate increase in September 2011.

Olowalu Nui grows tomatoes using hydroponics, a method of growing plants that uses mineral nutrient solutions in water, without soil. In addition to tomatoes, the farm grows a small amount of lettuce, 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, 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.

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 the fire, the farm has been operating at a loss 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 to profitability in the next few months (Applegate, 2011). See **Appendix “L-1”**.

- **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**. 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 Honoapiʻilani Highway, north of Camp Olowalu. Refer to **Figure 16**. 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.

- **Informal Uses**

In addition to the formal agricultural leases, there are several informal agricultural uses within the Master Plan Area. 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 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. 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.

**b. Potential Impacts and Mitigation Measures**

**1. Impact on the Supply of Agricultural Land**

The proposed Master Plan involves the reclassification of approximately 460 acres of “Agricultural” lands to the “Urban” and “Rural” State Land Use designations. Approximately 290 acres would be reclassified to “Urban” while 170 acres would be reclassified to “Rural”. In total, the reclassification of 460 acres of “Agricultural” lands represents approximately less than 0.2 percent of the roughly 235,770 acres of “Agricultural” lands on the island of Maui.

**2. Impact on Diversified Agriculture Opportunities in the Region**

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 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 acres of “Agricultural” lands in Olowalu is not expected to impact diversified agriculture on Maui or in the State as a whole.

The Olowalu Nui farm and rooster farm were heavily subsidized by the landowners during its start years where rents were not charged and only until recently water has been charged. Land, climatic, and economic conditions remain challenging, as evidenced by the limited number of establishments that have succeeded in cultivating on former sugar cane lands in Olowalu. The soils within the Master Plan area 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 Ka’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.

### **Impact on Existing Agriculture**

While Olowalu lands were once used for sugar cane cultivation, the majority of "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 today are the Olowalu Nui farm, rooster farm, and the palm tree farm. The palm tree farm, which is operated by the project's landowners, Olowalu Ekolu, LLC, is viewed as a temporary agricultural endeavor that will cease when development of Olowalu Town commences. Olowalu Ekolu, LLC does not plan for the long term operation of the palm tree farm and does 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 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 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 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 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 agricultural lots are planned in the Master Plan. The development of the infrastructure, such as the potable 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 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 acres of "Agricultural" land.

## **4. Housing**

### **a. Existing Conditions**

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 January 1, 2011 and September 30, 2011, the median sales price for single-family residences and condominiums in Maui County

was \$432,000.00 and \$314,000.00, respectively. Housing prices in Lāhainā are higher than prices in the County as a whole. During the same time period, the median price for a single-family home in Lāhainā was \$606,050.00 while condominiums sold for a median price of \$345,000.00 (Realtors Association of Maui, November 2011).

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).

**b. Potential Impacts and Mitigation Measures**

The Master Plan will provide approximately 1,500 residential units in a variety of product types. A 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"**.

The Master Plan 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 anticipated to give entry level market participants an opportunity for home ownership.

The proposed project is subject to the workforce housing requirement as set out in the Residential Workforce Housing Ordinance enacted in December 2006 (MCC, Section 2.96.040). 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 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. The allocation of units across income categories will comply with the requirements set forth in the Workforce Housing Ordinance.

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.

Infrastructure improvements will be phased concurrently with residential development within the Master Plan to ensure that new residences are adequately served by basic services.

## **C. PUBLIC SERVICES**

### **1. Solid Waste Disposal**

#### **a. Existing Conditions**

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**.

**b. Potential Impacts and Mitigation Measures**

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. 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 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 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. 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).

As a LEED ND project, a solid waste management program will be incorporated into the Master Plan to reduce solid waste generated by the

project. The following recommended measures by LEED ND will be considered for the Master Plan:

- 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 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-bed facility provides general, acute, and emergency care services. 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 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 would include medical, social service office space, senior care, urgent care, and "age in place" housing units. As the Master Plan proceeds through the development process, ongoing dialogue with key medical service providers will continue.

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 is not anticipated to adversely impact medical services.

3. **Police and Fire Protection**

a. **Existing Conditions**

The Master Plan area 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.

b. **Potential Impacts and Mitigation Measures**

The Master Plan 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, 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 Honoapiʻilani Highway tunnel. The Master Plan includes areas along the relocated and widened Honoapiʻilani Highway for future emergency facilities.

The West Maui area is susceptible to wildfires and the location of a new fire station in Olowalu will improve the Fire Department's response time to such fires in the Pali to Lāhainā Town area.

The applicant will continue to dialogue with the police and fire departments to ensure the location and adequate area for future facilities within the Master Plan are accommodated.

**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**.

**Table 19.** Actual 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.					

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. Potential Impacts and Mitigation Measures**

Ongoing dialogue with the DOE to assess the impact of the proposed Master Plan upon regional educational facilities will continue throughout the land entitlement process and implementation of the project. Based on the DOE’s student generation rates 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**.

**Table 20.** Estimated New Students at Olowalu Town Master Plan

	Single-Family Student Generation Rate	Single-Family Students <sup>(a)</sup>	Multi-Family Student Generation Rate	Multi-Family Students <sup>(b)</sup>	Total Students
<b>Elementary</b>	0.22	132	0.09	81	213
<b>Middle</b>	0.12	72	0.04	36	108
<b>High</b>	0.16	96	0.05	45	141
<b>TOTAL</b>	<b>0.5</b>	<b>300</b>	<b>0.18</b>	<b>162</b>	<b>462</b>
Notes: <sup>(a)</sup> Based on 600 single-family residences. <sup>(b)</sup> Based on 900 multi-family residences. Source: Department of Education, 2010.					

The addition of 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 applicant will coordinate with the DOE to ensure that assessment policy provisions are appropriately addressed.

The proposed project also calls for the 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 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 could potentially incorporate lessons learned within the OCR as core components of its curriculum. As the Master Plan progresses through the entitlement process, refinement of the educational or learning facility will be developed 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, Ka'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 recreational-related improvements throughout the Master Plan. The Master Plan 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
- 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 camping facilities like Camp Olowalu
- Shoreline parks
- Neighborhood parks

As previously noted, **Figure 15** provides a conceptual site plan that indicates the location of recreational facilities and open space areas.

It should be noted that the proposed park space included in the Master Plan 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, the project's 750 market-rate units and 750 workforce housing units would require approximately 13 acres of park land dedication. The Master Plan provides for approximately 223 acres of park and open space.

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, Ka`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 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 Olowalu Mauka subdivision. Luawai Street connects to Honoapi`ilani Highway directly across Camp Olowalu. Intersection improvements are proposed in conjunction with the Olowalu Mauka subdivision to include, but not limited to, storage lanes, deceleration lanes, and bike lanes. Construction of these improvements is anticipated to be initiated by December 2011.

Traffic in Olowalu Town is primarily traffic passing through between Lāhainā and Central Maui. 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"**.

b. **Potential Impacts and Mitigation Measures**

The Master Plan 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 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 feet wide corridor to accommodate mass transit or light rail, if needed in the future.

Portions of the existing highway corridor with its rows of monkey pod trees will be preserved and incorporated into the Master Plan as a low speed/low volume coastal roadway providing access to the shoreline and the Master Plan area. 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 (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. 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 without having to cross the relocated highway.

In accordance with New Urbanism principles, a significant design criteria of the Master Plan 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.

A Preliminary Traffic Impact Analysis Report (TIAR) for the build out of the Master Plan has been prepared by Roger D. Dyar, Consulting Transportation Engineer. According to the TIAR, it is estimated that without the Master

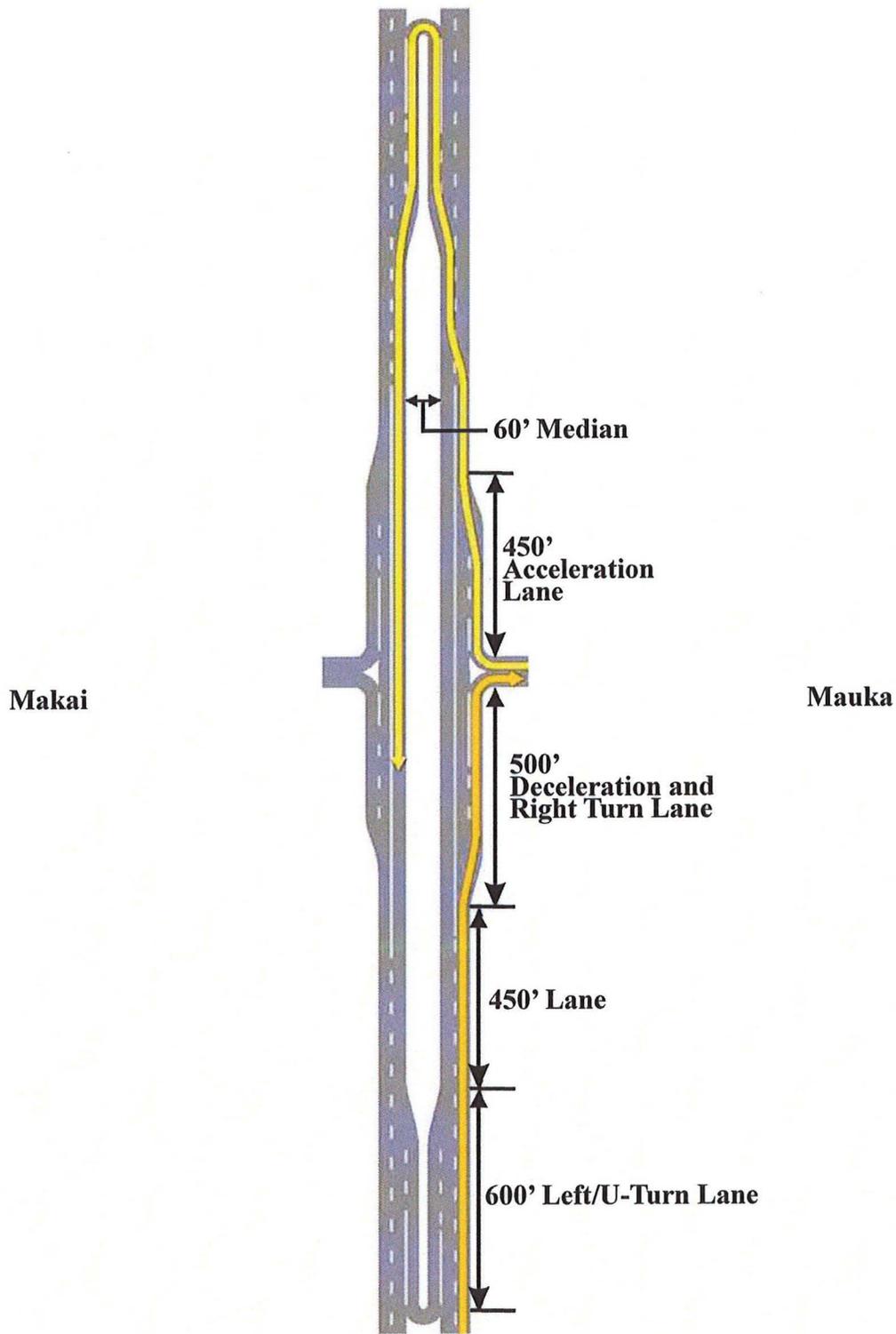
Plan the average daily traffic volume of approximately 24,700 vehicles will occur by future year 2020. Olowalu Town is estimated to generate approximately 32,800 total trips per day with about 26,700 of these trips being within the Master Plan area. Olowalu Town will generate about 6,100 new trips per 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 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 “M”**.

To maintain continuous through traffic on the relocated Honoapi`ilani Highway, the Master Plan 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 terminus of the relocated highway. See **Figure 17**. 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 Ekolū, 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 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.

As the Master Plan 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:



Source: Roger D. Dyar Consulting Transportation Engineer

Figure 17 Proposed Olowalu Town Master Plan O-Turn Concept

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

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”**), 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. 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.

### **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) 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 water and non-potable 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 water service in August of 2000. In November 2003, OWC amended the CPCN to add the sale of irrigation water from its potable and non-potable 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.

Water sources are from groundwater and surface water sources. The potable 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**.

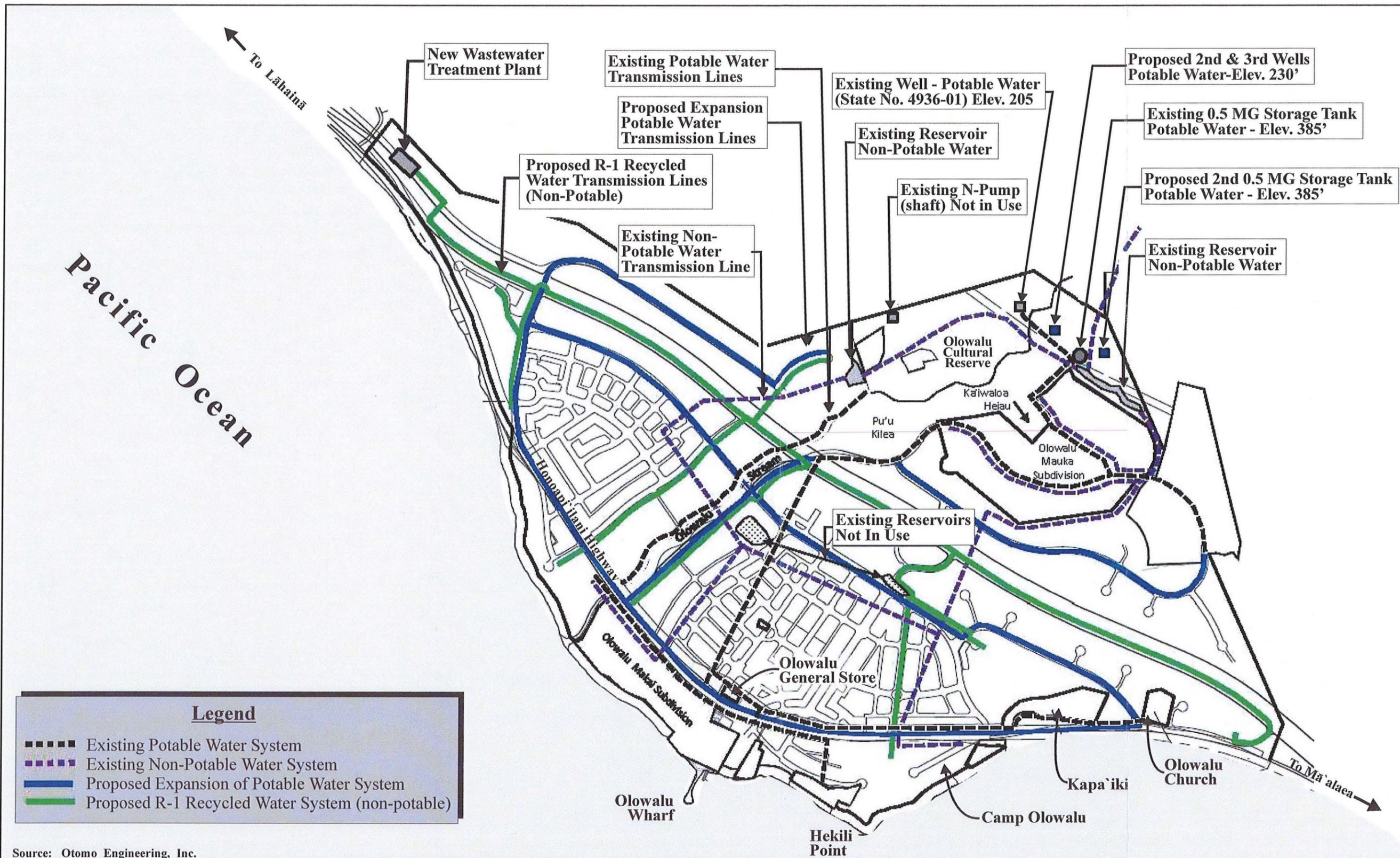
The non-potable surface water used for irrigation is provided by an existing diversion in Olowalu Stream at the 502 foot elevation, a 1.1-mile long conveyance ditch and tunnel system, and a main lined open storage reservoir at about the 360 foot elevation. The low head diversion dam on Olowalu Stream 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.

### **Potential Impacts and Mitigation Measures**

According to the Preliminary Engineering Report (PER) prepared by Otomo Engineers (Refer to **Appendix "B"**), preliminary estimates indicate the average daily potable water demand for the Master Plan will be approximately 672,300 gpd, which includes the users of the existing water system. 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**.

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



**Legend**

- Existing Potable Water System
- Existing Non-Potable Water System
- Proposed Expansion of Potable Water System
- Proposed R-1 Recycled Water System (non-potable)

Source: Otomo Engineering, Inc.

Figure 18

Proposed Olowalu Town Master Plan  
Existing and Conceptual Water System

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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**.

For irrigation purposes it is estimated that the Master Plan will need approximately 0.65 MGD of water. A key component of the Master Plan's Integrated Resource Management Plan is to significantly reduce or eliminate the use of potable groundwater 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 water system will be expanded to service the Master Plan to include additional storage and distribution lines, as necessary.

These improvements will provide sufficient and reliable water supply to meet the potable, non-potable and fire protection needs of the Master Plan and existing users.

### **Water Resources**

It is estimated that groundwater discharged at the shoreline will be reduced by six (6) percent, an increase in nitrogen by 10 percent and a decrease in phosphorus by about one (1) percent and is not anticipated to have an impact on water quality. Refer to **Appendix "C"**.

As projected, the Master Plan will require approximately 0.60 MGD of groundwater for potable 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 MGD, including the existing users of potable water. The projected future groundwater use of 0.70 MGD is substantially below 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"**. Based on County of Maui standards it is estimated that the Master Plan 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 in accordance with the following goals:

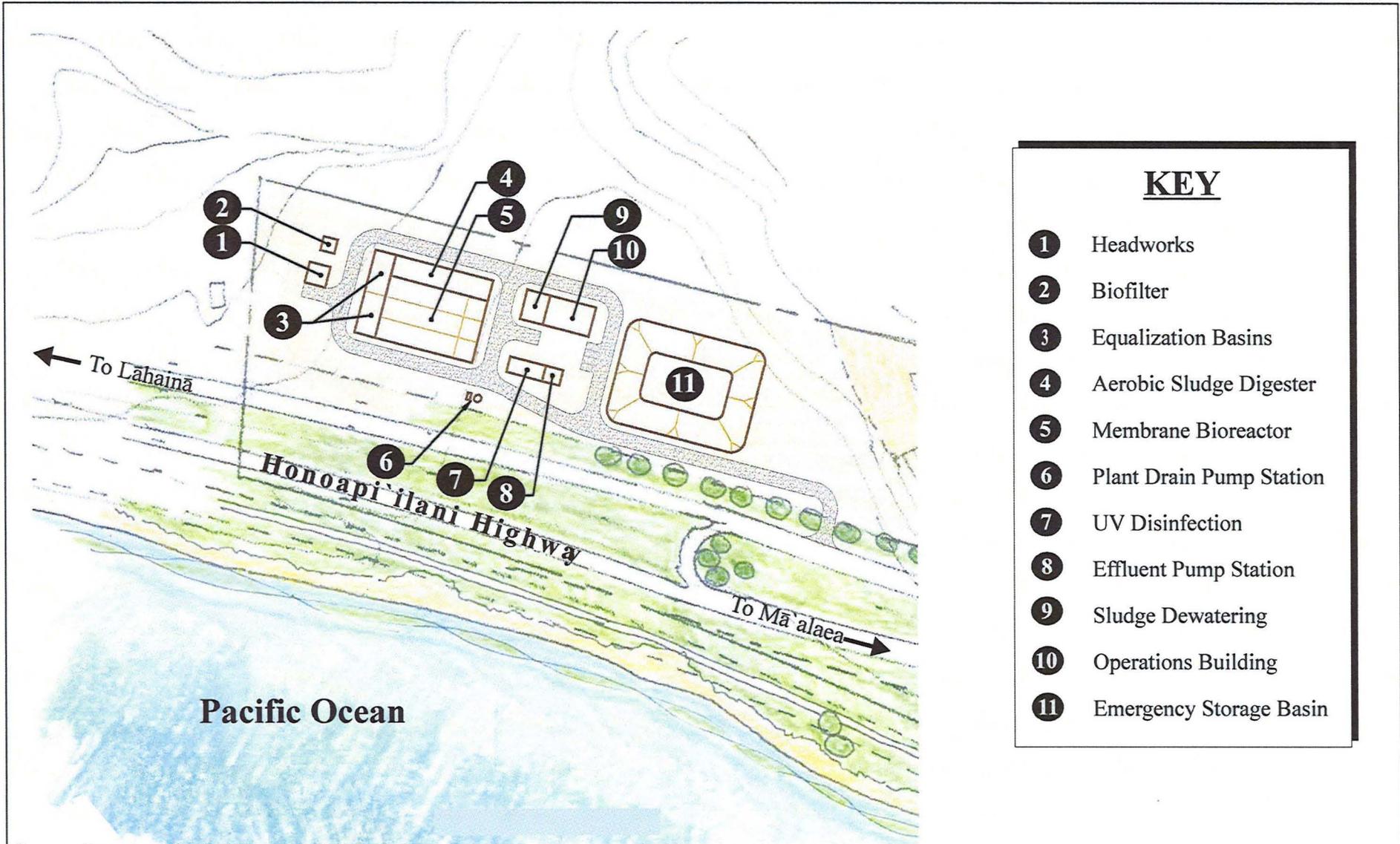
- No injection wells for effluent disposal purposes.
- Provide for a high degree of water recycling to make the best use of water resources.
- Incorporate nutrient removal technology to protect the environment.
- Incorporate natural treatment systems where feasible and appropriate.
- Use conservative planning assumptions to ensure a high factor of safety.
- Meet or exceed all regulatory requirements.

Wastewater generated by the Master Plan 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**. 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 the R-1 recycled water supply is insufficient to meet the irrigation demands of the Master Plan. During wet weather periods there may be excess recycled water that will require disposal by innovative natural treatment systems. 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"**.

The constructed wetland will 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 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.



**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

Proposed Olowalu Town Master Plan  
 Conceptual Wastewater Treatment Plant Site Plan

NOT TO SCALE



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

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 nutrient removal technology to protect the environment.
- Incorporation of natural treatment systems.

Through addressing the foregoing system goals, the Master Plan 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 Honoapiʻilani 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”**.

**b. Potential Impacts and Mitigation Measures**

The PER estimates the post development runoff from the built out Master Plan 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.

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. The retention basins will generally be located within the parks and open space areas throughout the Master Plan area. The Master Plan proposes approximately 223 acres for parks and open space throughout the project, of which 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.

The existing drainageways and Olowalu Stream traversing the Master Plan area 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 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 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 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**. 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. Refer to **Appendix “B-1”**.

## 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.

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. Moreover, renewable energy systems will be further studied and explored by the project's Natural 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:

- 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** have been used to address cumulative effects.

**Table 21. Criteria for Evaluating Cumulative Impacts**

<b>Assessment Criteria</b>	<b>Basis for Impact Evaluation</b>
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. 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
3. Impacts of the proposed action on neighboring land uses, (e.g., Kapa`iki, Olowalu Makai Subdivision and Olowalu Mauka Subdivision)
4. Implementation relationship between Master Plan 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**.

**Table 22. 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 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, threatened or endangered species or their habitat found within the Master Plan area. The OCR has succeeded in cultivating native dry land species which the Master Plan will incorporate in its landscaping, to the extent practicable. Refer to **Appendices "D", "E" and "E-1"**.

With respect to marine waters, appropriate stormwater runoff mitigation will be required in accordance with County drainage regulations. Proposed surface and subsurface retention basins 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 "B" and "B-1"**.

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"**.

### **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 CWRM set the sustainable yield at two (2) MGD, the USGS study suggests that the Olowalu Aquifer System may have a developable supply of approximately seven (7) MGD. Preliminary calculations indicate that at full build-out daily potable water demand for the Master Plan and existing users is approximately 672,300 GPD, which is well below the sustainable yield established by the CWRM. Refer to **Appendix "C"**.

It is also estimated that approximately 0.65 MGD of total non-potable 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"**. 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 Cultural Impact Study prepared by CSH indicated there are traditional cultural practices that need to be preserved and safeguarded. 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.

The OCR will ensure that access between the mountains and ocean is maintained and preserved in perpetuity and work in the OCR will safeguard the natural resources in the Olowalu Ahupua'a. Development of the Master Plan 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. The beach reserve is not included in the Master Plan. The "Conservation" designated lands in the Master Plan will remain as "Open Space" or "Park" land.

The Master Plan observes a minimum 150 feet shoreline setback from the current shoreline where no development is proposed except for public access to and along the shoreline and recreational parks. 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 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**.

Makai of the existing Honoapi'ilani Highway, the Master Plan 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. 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. Time Lag Effects on County Land Use Plans, County Water Resources and State and County Transportation Systems**

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 consistent with the themes and principles of the Maui County General Plan Countywide Policy Plan. Refer to Chapter III, Section D. 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.

In addition to the State Land Use Commission district boundary amendment, the Master Plan 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 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 area and identifies a mauka alignment of the highway and parks makai of the existing Honoapi'ilani Highway at both ends of the Master Plan at Camp Olowalu and on lands north of Olowalu Stream. The Master Plan is consistent with the proposed Pali to Puamana 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 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 Master Plan. Refer to **Figure 4.**

### **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 (sugar cane 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 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 proposes to expand and upgrade the existing public water system servicing Olowalu Town, including those to existing users, and installing two (2) new potable wells in the Olowalu Aquifer. Besides improving the potable water source, the upgrade of transmission lines will provide improved fire protection to Olowalu. The approximate total potable water demand, including current water users, is estimated as 672,300 GPD,

well below the two (2) MGD sustainable yield for the Olowalu Aquifer. The lower demand for potable 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 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 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 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 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 includes 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 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 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 proposes the addition of another 1,500 dwelling units, plus commercial and public/quasi-public uses. The estimated population of the Master Plan at full build out is approximately 4,239 persons. The Master Plan 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 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 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 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 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 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. 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.

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 the MIP which proposes to establish Urban Growth Boundaries and Rural Growth Boundaries for the island of Maui. The MIP is a comprehensive review of 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.

### **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.

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.

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 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 a refinement of this Plan in Olowalu and is consistent with the County's proposed Pali to Puamana Master Plan. The Master Plan includes a mauka relocation of Honoapi'ilani Highway, open space/park north of Olowalu Stream and south at Camp Olowalu. The Pali to Puamana 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.

Inasmuch as the Master Plan 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, 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. 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 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 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 itself, but also the reasonable foreseeable future developments which may develop as a result of the Master Plan.

**County Land Use Plans**

With regard to the Master Plan, compounding effects were assessed in connection with anticipated growth within Olowalu and the West Maui region.

Implementation of the Master Plan 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. Also, the land uses north and south of the Master Plan area 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. As such, benefits of new infrastructure, except for the regional highway improvement, to be constructed in conjunction with the Master Plan in the foreseeable future will accrue primarily to existing residents and future residents of the Master Plan.

If public facilities, such as a school, police and fire station, are constructed within the Master Plan, these services will become available to existing residents creating new operational relationships among the Master Plan residents, 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, will be open to residents and visitors outside of Olowalu, thereby relieving demand on other existing recreational facilities.

**g. Indirect Effects on County Land Use Plans and Infrastructure Systems and Public Services**

Indirect effects are also referred to as secondary 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 pertains to its implications for future growth in Olowalu and the West Maui region. Implementation of the Master Plan 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. The Master Plan as a sustainable community proposes to include potential employment centers and public services to reduce the need to commute outside of the Master Plan. Importantly, the Master Plan 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 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 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. The Master Plan will also require an increase in energy. To reduce dependency on fossil fuels, the Master Plan proposes to utilize renewable energy systems, such as hydro-electric power, photo voltaic, solar, etc.

In this context, the Master Plan 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, 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 will require two (2) additional wells, however, at full build-out the project is estimated to require 672,300 GPD, well below 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 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. RELATIONSHIP TO  
GOVERNMENTAL PLANS,  
POLICIES AND  
CONTROLS**

### **III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS**

#### **A. STATE LAND USE DISTRICT**

Chapter 205, HRS, relating to the State Land Use Commission (SLUC), establishes four (4) major land use districts in which all lands in the state are placed. These districts are designated as “Urban”, “Rural”, “Agricultural”, and “Conservation”. The Master Plan area is located within the “Agricultural” district with limited areas falling in the “Conservation” District. Refer to **Figure 5**.

A State Land Use District Boundary Amendment (DBA) for those portions of the Master Plan area located within the "Agricultural" district for reclassification to the "Urban" district and “Rural” district is being requested as part of the land use entitlements process to enable implementation of the proposed project. The proposed project does not involve development within the Conservation district, nor does it propose reclassification of these lands. SLUC Rules (Section 15-15-50, Hawaii Administrative Rules (HAR)) require projects seeking reclassification be substantially completed within ten (10) years or seek incremental approval. 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. STATE LAND USE DISTRICT CRITERIA**

##### **URBAN DISTRICT**

Pursuant to Section 15-15-18 of HAR, the proposed Master Plan 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 sugar cane in West Maui marked the decline in the community. The Master Plan 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 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 includes a range of land uses. 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 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 located in proximity to major employment centers in West Maui, including Lāhainā, Ka'anapali, and Kapalua. As previously mentioned, the Master Plan 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 and Agricultural 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 includes basic services, such as opportunities for public facilities, including, but not limited to, parks, schools, police, and fire.

Approximately 223 acres of active and passive parks and open space will be provided in the Master Plan. Additional detail regarding public facilities within the Master Plan 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 inland relocation of Honoapi`ilani Highway, are addressed by the Master Plan.

**(C) Sufficient reserve areas for foreseeable urban growth;**

The Master Plan is 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 examine other areas appropriate for urban growth. The General Plan's Maui Island Plan (MIP) component is specifically designed to establish urban and rural growth areas 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"**.

**(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 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 observes a minimum 150-foot shoreline setback, as well as maintenance of the Olowalu Cultural Reserve (OCR) to preserve archaeological, historic, and cultural resources. The proposed Master Plan 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. It is

noted that the proposed drainage improvements are expected to prevent the existing low level flooding (less than one (1) foot) that occur in portions of the Master Plan).

- (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;**

While the Master Plan area is not contiguous to other urban lands or currently designated on the County General Plan for future urban growth, the Master Plan is 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, the GPAC recommended inclusion of the Master Plan in the Urban and Rural Growth Boundaries 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;**

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.

**(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 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 proposes to reclassify 460 acres of Agricultural land to the Urban and Rural designation. This represents less than 0.02 percent 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 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 applicant. The Master Plan 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 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 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 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 rural lots will also provide residential flexibility which is not found within the agricultural 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 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 areas proposed for “Rural” reclassification are not surrounded by or contiguous to rural lands. 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. HAWAII 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:

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.
- 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.

3. **§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. **§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. **§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. Section 226-18 Objectives and policies for facility systems--energy.**

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.

**11. Section 226-19 Objectives and policies for socio-cultural advancement--housing.**

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. Section 226-23 Objective and policies for socio-cultural advancement--leisure.**

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. Section 226-25 Objective and policies for socio-cultural advancement--culture.**

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. 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) State Functional Plans were adopted in the 1980s and updated in 1989 and 1991. The proposed Master Plan is consistent with the following State Functional Plans' objectives:

**1. Education Functional Plan**

**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.

**Comment:** The Master Plan includes the provision of educational facilities. It is envisioned that the future educational facilities within the Master Plan will incorporate lessons learned within the OCR as core components of its curriculum.

**2. Employment Functional Plan**

**Objective D:** Improve Quality of Life for workers and families.

**Comment:** 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 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.

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 includes the 74-acre OCR. It is envisioned that the future education facilities within the Master Plan 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 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.

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, have been designated for park and open-space. The Master Plan also provides for the preservation and enhancement of shoreline access to the existing beach reserve area and shoreline in the vicinity of the project.

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 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 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.

#### **D. 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, 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 stewardship of the natural environment.

**Policy:** Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.

**Comment:** The proposed project will preserve and enhance public access to shoreline resources. The 150-foot shoreline setback, parks 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. The Master Plan also includes the 74-acre OCR which protects archaeological and cultural resources in Olowalu.

### **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.

**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.

**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 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 respecting the natural environment and cultural heritage. The Master Plan 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. It is envisioned that the future educational facilities within the Master Plan will incorporate lessons learned within the OCR as core components of its curriculum.

The Master Plan seeks 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.

### **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 includes the OCR and is envisioned that the future educational facilities within the Master Plan 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.

Develop neighborhoods with a mixture of accessible and integrated community facilities and services.

**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:** 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.

**Comment:** The proposed Master Plan 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. 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 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.

### **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 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 \$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 could result in approximately 1,000 jobs 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.

### **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 have been designated for 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.

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.

**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.

Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.

**Comment:** The Master Plan 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. 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.

## **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.

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 water.

**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.

Ensure that basic infrastructure needs can be met during a disaster.

**Comment:** Although one of the objectives of the Countywide Policy Plan is to direct growth to areas with available infrastructure capacity, with this regard in the West Maui region, there are limited available infill areas to accommodate growth. Accommodation of growth in West Maui will likely occur by extending into areas surrounding the existing urban areas such as the Pulelehua project or the creation of new towns such as the proposed Master Plan, both of which will require the expansion of infrastructure. The Master Plan proposes 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 calls for the use of state-of-the-art engineering and design principles for water, wastewater, drainage, and energy systems. Potable water will be provided through an expansion of an existing private water system to meet the Master Plan's estimated 672,300 gpd average daily demand. 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.

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, \$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 \$465.6 million. Refer to **Appendix "L"**.

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 facilities within the Master Plan 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.

**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.

**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.

**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 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 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 incorporates the principles of sustainability, cultural preservation and economic diversity to create neighborhoods sensitive to its environment and cultural heritage.

The Master Plan proposes 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 envisioned to disperse population growth into a distinct community from Lāhainā Town separated by agricultural open space and topographic boundaries. The Master Plan includes retaining agricultural lands in Olowalu as agricultural homesteads and as part of the OCR in order to perpetuate native Hawaiian agricultural practices.

In summary, the Master Plan is consistent with the themes and principles of the Countywide Policy Plan.

### **Maui Island Plan**

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"**.

## **E. 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 7** and **Table 6**.

At the appropriate time, the applicant 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.

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:**

- 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.
- 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.

## **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:**

- 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.

## **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.
- Recognize the importance of buffer areas to enhance and protect historical or archaeological sites.
- Encourage community stewardship of historic sites.
- Encourage the development of “cultural parks” for visitation and education.
- Important site types and areas in the West Maui region include but are not limited to the following:
  - Olowalu Church ruins
  - Olowalu heiau
  - Camp Pecusa
  - Olowalu petroglyphs

## **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.

## **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.

## **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.

- 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):**

- Coordinate expansion of and improvements to water system to coincide with the development of residential expansion areas.
- Encourage the installation of underground electrical, telephone and cable television lines.
- Encourage reasonable rates for water and public utility services.

**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.

**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):**

- 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.

## F. 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 **Table 6**.

To implement the Master Plan, a Project District zoning designation will be required. In addition, a Project District Phase I approval, setting forth the zoning performance standards, will be required. In this regard, Olowalu Town, LLC and Olowalu Ekolu, LLC proposes 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 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”**.

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 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.

## **G. 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.

## **H. 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 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. Refer to **Figure 8**. 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 includes provisions for approximately 223 acres of active and passive parks, as well as 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 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 not 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 located along the coastal plain and foothills of Olowalu. The Master Plan offers an architecturally integrated plan which sets standards for height, landscaping and open space corridors. Approximately 223 acres of parks and open space will be provided in the Master Plan. As discussed in Chapter II, 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 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 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, an economic study was prepared as a key component for the establishment of an Olowalu Town community. The Master Plan is envisioned to stimulate the economy both short term and long term. According to the 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 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 II, 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 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 II. In addition, the Master Plan observes a 150-foot shoreline setback 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 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 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 will contain a comprehensive drainage system that will retain project-related incremental increases in runoff. As previously stated, the Master Plan observes a minimum 150 feet shoreline setback 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 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 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.

## **I. SHORELINE SETBACK RULES**

The coastal areas of the Master Plan are located within the shoreline setback area. SMA Permit No. 990021 established a minimum 150 ft. shoreline setback for the makai properties along the shoreline. Refer to **Figure 4**. 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 “P”**. As such, work within the shoreline setback area will be limited to landscaping and public access 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 parcel 124 from the Lāhainā side.

## **J. OTHER STUDIES**

### **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 of large scale agriculture (sugar cane 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 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 water and is consistent with the WUDP.

2. **Statewide Transportation Plan**

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 Plan recommended improving Honoapi'ilani Highway to a four-lane roadway. The HDOT's Honoapi'ilani Highway Realignment/Widening Mā'alaea to Launiupoko project proposes to implement the Plan by realigning and widening Honoapi'ilani Highway further mauka to facilitate the State's vision to move the highway inland, away from its existing, more environmentally sensitive coastal alignment and to eventually connect to the future four-lane Lāhainā Bypass under construction in Lāhainā Town.

The Olowalu Master Plan includes a future realignment of Honoapi'ilani Highway as a future four-lane roadway with the opportunity to expand to accommodate a transit system consistent with the Hawai'i Statewide Transportation Plan.

3. **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 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 Master Plan.

## **K. 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 VII summarizes the regulatory permits and approvals which may be required for the proposed project.

## **IV. ALTERNATIVES ANALYSIS**

## IV. 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 Ekolū, 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 sugar cane 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.

**V. SUMMARY OF  
UNAVOIDABLE IMPACTS  
AND COMMITMENTS OF  
RESOURCES**

## **V. SUMMARY OF UNAVOIDABLE IMPACTS AND COMMITMENTS OF RESOURCES**

### **A. UNAVOIDABLE IMPACTS**

The proposed development of the Master Plan will result in certain unavoidable construction-related environmental impacts as outlined in Chapter II.

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 will commit approximately 460 acres of agricultural land formerly used for sugar cane cultivation to rural and urban uses to implement the mixed use community including affordable housing for local residents. The production of sugar cane ceased at this location over ten (10) years ago and a small portion is now being utilized for diversified

agriculture. Refer to **Figure 16**. 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 percent of agricultural lands on the island. 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 farmers decide to continue their agriculture operations. Adequate relocation time and coordination efforts will be undertaken to ensure a smooth transition for these farms.

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 and proposed development standards are envisioned to minimize these changes so that the new town centers maintain a country town character that integrates into the existing Olowalu community. The Master Plan utilizes lower density transition zones consisting of rural and agricultural lots to minimize landscape changes created by the town centers. As well, the Master Plan maintains a significant area of the makai shoreline area as park and open space and the Olowalu Stream corridor 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 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 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 requirements will be fulfilled 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 Master Plan. 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 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.

Enhanced parks and open space areas are proposed throughout the Master Plan to provide both local and regional recreational opportunities. The strategic location of habitable structures mauka of the 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 Master Plan includes potential areas for 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 sugar cane 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 acres of land in the Master Plan, but 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, 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 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

space within the Master Plan. It is estimated that approximately 1,000 jobs would be established 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.

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 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 following section summarizes the issues that remained unresolved at the time of writing the Draft EIS for the proposed Master Plan:

### 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 applicant will formulate and execute the affordable housing agreement with the DHHC prior to project implementation.

### B. COMPLETION OF 2030 GENERAL PLAN UPDATE (MIP)

As part of its involvement in the Maui Island Plan (MIP) process, the applicants submitted a formal request to the Department of Planning asking that the Master Plan be included in the Urban and Rural Growth Boundaries for West Maui. Development plans have been discussed with both the General Plan Advisory Committee (GPAC) and Maui Planning Commission (MPC) during landowner presentations held as part of the General Plan process and the Master Plan has been recommended by the GPAC and MPC for inclusion in the Urban and Rural Growth Boundaries. The applicants will continue to work with the Maui County Council as work on the MIP continues. If the MIP is adopted prior to the Final EIS, further discussion on the MIP will be included in the Final EIS.

**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 within the Master Plan 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. 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 applicant's fair share contribution prior to project implementation.

**D. REALIGNMENT OF HONOAPIILANI HIGHWAY**

The Olowalu Town Master Plan includes the realignment of Honoapi'ilani Highway inland from the shoreline. The specific realignment and design parameters through Olowalu have not been determined by the State of Hawai'i Department of Transportation (HDOT) who are in the process of preparing the Environmental Impact Statement (EIS) for the Realignment/Widening of Honoapiilani 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.

# **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"**.

# **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  
Honolulu, Hawai'i 96813
13. Sandra Lee Kunimoto  
**Department of Agriculture**  
1428 South King Street  
Honolulu, Hawai'i 96814-2512
14. Theodore Liu, Director  
**Department of Business, Economic Development and Tourism**  
220 South King Street  
Honolulu, Hawai'i 96813
15. Karen Seddon  
Executive Director  
**Hawai'i Housing Finance and Development Corporation**  
677 Queen Street  
Honolulu, Hawai'i 96813
16. **DBEDT Energy Resources & Technology Division**  
235 S. Beretania Street  
5<sup>th</sup> Floor  
Honolulu, Hawai'i 96813
17. Kathryn Matayoshi, Acting Superintendent  
**Department of Education**  
P. O. Box 2360  
Honolulu, Hawai'i 96804
18. Clyde Namuo  
**Office of Hawai'ian Affairs**  
711 Kapiolani Blvd, Suite 500  
Honolulu, Hawai'i 96813
19. Kaulana Park, Chairman  
**Department of Hawaiian Home Lands**  
P. O. Box 1879  
Honolulu, Hawai'i 96805
20. Lillian B. Koller, Director  
**Department of Human Services**  
1390 Miller Street, Room 209  
Honolulu, Hawai'i 96813
21. Laura H. Thielen, Chairperson  
**Department of Land and Natural Resources**  
P.O. Box 621  
Honolulu, Hawai'i 96809
22. Abbey Seth Mayer, Director  
**Office of Planning**  
P. O. Box 2359  
Honolulu, Hawai'i 96804
23. Heidi Meeker  
Planning Section  
Office of Business Services  
**Department of Education**  
809 Eighth Avenue  
Honolulu, Hawai'i 96816
24. Lindsay Ball  
Complex Area Superintendent  
(Lanai/Molokai/Hana/Lāhainā)  
**Department of Education**  
54 High Street, 4th Floor  
Wailuku, Hawai'i 96793
25. Patti Kitkowski  
Acting District Environmental Health Program Chief  
State of Hawai'i  
**Department of Health**  
54 High Street  
Wailuku, Hawai'i 96793
26. Chiyome Fukino, M.D., Director  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
27. **Department of Health**  
Environmental Planning Office  
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
38. Gen Inuma, 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 Nakoia 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

**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

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



REPLY TO  
ATTENTION OF:

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

JUL 12 2010  
JUL 12 2010

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.

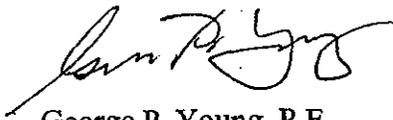
Based on the information provided, the project site abuts the Pacific Ocean, a navigable water subject to Corps jurisdiction. Therefore, Section 10 authorization may be required should activities extend seaward of the Mean High Water Mark. Additionally, it appears the Olowalu Stream is a tributary to 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](mailto: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



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.

George P. Young, P.E.  
December 21, 2011  
Page 2

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.

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# 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



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



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**

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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.

Ronald L. Rickman  
December 21, 2011  
Page 2

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

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JUL 27 2010

LINDA LINGLE  
GOVERNOR



RUSS K. SAITO  
COMPTROLLER

SANDRA L. YAHIRO  
DEPUTY COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1212.0

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,

A handwritten signature in cursive script that reads "Russ K. Saito".

RUSS K. SAITO  
State Comptroller

c: Mr. Orlando "Dan" Davidson, Land Use Commission



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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LINDA LINGLE  
GOVERNOR



JUL 22 2010

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,

A handwritten signature in cursive script, appearing to read "Karen Seddon".

Karen Seddon  
Executive Director



MICHAEL T. MUNEKIYO  
GWEN HASHI 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.

Karen Seddon, Executive Director  
December 21, 2011  
Page 2

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

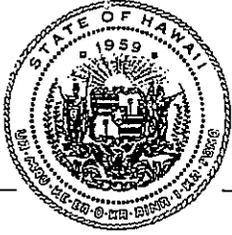


Colleen Suyama  
Senior Associate

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

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 ahupuaʻa 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 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

Mr. Dan Davidson  
Ms. Coleen Suyama  
September 21, 2010  
Page 8

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



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**

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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-foot 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-foot 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 Honoapiʻilani 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 irremediable 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



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**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



MICHAEL T. MUNEKIYO  
GWEN DHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 21, 2011

Edward T. Teixeira, 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. Teixeira:

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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STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 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



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 may be 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.

Ms. Colleen Suyama  
August 5, 2010  
Page 2

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  
Acting District Environmental Health Program Chief

c EPO  
Orlando Davidson



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 stormwater 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.

Patti Kitkowski, District Environmental  
Health Program Chief  
December 21, 2011  
Page 3

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

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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>

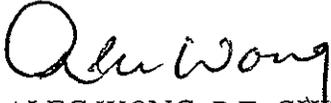
3. For other types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 2 or Class AA waters, an NPDES individual permit will need to be obtained. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. 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.

Mr. Orlando "Dan" Davidson  
August 11, 2010  
Page 3

08019PSW.10

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.



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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LINDA LINGLE  
GOVERNOR



AUG 11 2010

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  
Division Administrator

Lillian B. Koller, Director, Department of Human Services  
Orlando "Dan" Davidson, Land Use Commission



MICHAEL T. MUNEKIYO  
GWEN HASHI 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

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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](http://www.hawaii.gov/labor)

Phone: (808) 586-8844 / Fax: (808) 586-9099

Email: [dlir.director@hawaii.gov](mailto: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



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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LINDA LINGLE  
GOVERNOR OF HAWAII



AUG 06 2010  
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,

  
Morris M. Atta  
Acting Administrator

Cc: State Land Use Commission



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

July 12, 2010

MEMORANDUM

*From:*

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Maui District
- Historic Preservation

RECEIVED  
LAND DIVISION  
2010 JUL 22 A 10:09  
DEPT. OF LAND & NATURAL RESOURCES  
STATE OF HAWAII

*To:*

FROM:

Charlene Unoki, Assistant Administrator *Charlene*

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.
- We have no comments.
- Comments are attached.

Signed:

Date:

*[Signature]*  
7/20/10

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
LAND DIVISION

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. MIKE, 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

2010 JUL 22 A 10:08  
DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

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:

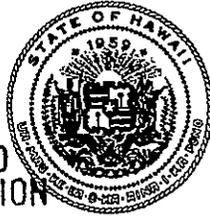
Additional information and forms are available at [http://hawaii.gov/dlnr/cwrm/resources\\_permits.htm](http://hawaii.gov/dlnr/cwrm/resources_permits.htm).

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



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



RECEIVED  
LAND DIVISION

STATE OF HAWAII  
2010 AUG 27 3 06  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF CONSERVATION AND COASTAL LANDS  
POST OFFICE BOX 621  
DEPT. OF LAND AND NATURAL RESOURCES  
HONOLULU, HAWAII 96809  
NATURAL RESOURCES  
STATE OF HAWAII

REF:OCCL:AB

Correspondence: MA-11-6

**MEMORANDUM**

TO: Charlene Unoki, Assistant Administrator  
Land Division

FROM: Samuel J. Lemmo, Administrator  
Office of Conservation and Coastal Lands

AUG - 2 2010

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<sup>1</sup> 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](mailto:audrey.t.barker@hawaii.gov).

<sup>1</sup> 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.



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.

excellence in  
process  
management

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.

Russell Y. Tsuji, Administrator  
December 21, 2011  
Page 3

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.

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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,

A handwritten signature in cursive script that reads "Charlene Unoki".

Charlene Unoki  
Assistant Administrator

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

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

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

SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Environmental Impact Statement Preparation Notice for Proposed  
Olowalu Town Project  
Olowalu Ahupua‘a, Lāhainā District, Island of Maui  
TMK: (2) 4-8-003:084, 098-118 & 124

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

2010 SEP 29 A 11: 24

RECEIVED  
LAND DIVISION

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](mailto:Morgan.E.Davis@hawaii.gov).



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.

Russell Y. Tsuji, Administrator  
December 21, 2011  
Page 2

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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LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

**SEP 21 2010**

BRENNON T. MORIOKA  
DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
JIRO A. SUMADA

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,

A handwritten signature in black ink, appearing to be "BN", written over a horizontal line.

BRENNON T. MORIOKA, Ph.D., P.E.  
Director of Transportation



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.

Glenn T. Okimoto, Director  
December 21, 2011  
Page 2

If additional information or clarification is required, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



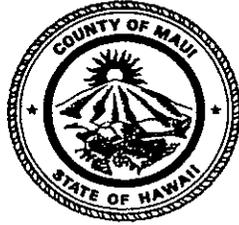
Colleen Suyama  
Senior Associate

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,

A handwritten signature in black ink, appearing to read "Cheryl K. Okuma".

CHERYL K. OKUMA  
Director of Environmental Management

xc: Mr. Orlando "Dan" Davidson, Executive Director  
Land Use Commission  
P.O. Box 2359  
Honolulu, Hawaii 96804



MICHAEL T. MUNEKIYO  
GWEN DHASHI 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,

A handwritten signature in black ink, appearing to read "Colleen Suyama", is written over a dotted line.

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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CHARMAINE TAVARES  
MAYOR



SEP 14 2010  
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.

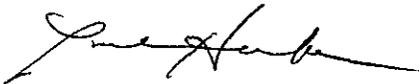
**Re : EISPN for proposed Olowalu Town Project**

**Page 2**

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



MICHAEL T. MUNEKIYO  
GWEN DHASHI 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.

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  
Munekiyō & 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  
Housing Administrator

cc: Director of Housing and Human Concerns  
Orlando "Dan" Davidson



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

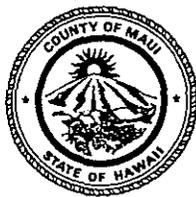
CS:tn

cc: Dan Davidson, Land Use Commission  
Bill Frampton, Olowalu Town, LLC

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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,

A handwritten signature in black ink, appearing to read "Tamara Horcajo", is written over the typed name.

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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MICHAEL T. MUNEKIYO  
GWEN DHASHI 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.

Glenn Correa, Director  
December 21, 2011  
Page 2

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,



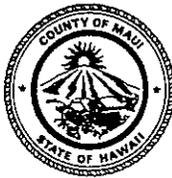
Colleen Suyama  
Senior Associate

CS:tn

cc: Dan Davidson, Land Use Commission  
Bill Frampton, Olowalu Town, LLC

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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 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;

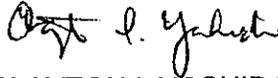
4. Many maps should have the term "Existing" added to their specific title to clarify existing from proposed. For example, Figure 5 could be misinterpreted to be identifying proposed State land use designations.
5. On page 15, West Maui Community Plan Amendment: It appears that some of the land has a 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 entire 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 contiguous 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.

Ms. Colleen Suyama  
June 7, 2010  
Page 4

If you require further clarification, please contact Senior Planner Jeff Hunt at [jeff.hunt@mauicounty.gov](mailto: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  
EAC File  
General File

KRA:CIY:JSH

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CHARMAINE TAVARES  
Mayor  
KATHLEEN ROSS AOKI  
Director  
ANN T. CUA  
Deputy Director



AUG 06 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 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.

- 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](mailto:jeff.hunt@mauicounty.gov) or by phone at 270-7821.

Sincerely,



 KATHLEEN ROSS AOKI  
Planning Director

Ms. Colleen Suyama  
August 6, 2010  
Page 6

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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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.

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.

William Spence, Director  
December 21, 2011  
Page 8

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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JUL 28 2010

RALPH NAGAMINE, L.S., P.E.  
Development Services Administration

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division



GHARMAINE TAVARES  
Mayor

MILTON M. ARAKAWA, A.I.C.P.  
Director

MICHAEL M. MIYAMOTO  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955

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,

A handwritten signature in black ink, appearing to read "Milton M. Arakawa".

MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:ls

xs: Highways Division  
Engineering Division

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MICHAEL T. MUNEKIYO  
GWEN DHASHI 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.

David Goode, Director  
December 21, 2011  
Page 2

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,



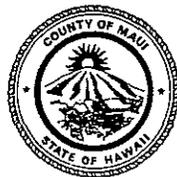
Colleen Suyama  
Senior Associate

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,

A handwritten signature in black ink, appearing to read "Don Medeiros", is written over a horizontal line.

Don Medeiros  
Director



MICHAEL T. MUNEKIYO  
GWEN HASHI 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.

JoAnne Johnson-Winer, Director  
December 21, 2011  
Page 2

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"*

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 than 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:

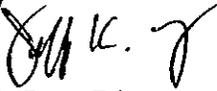
- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the ground.
- Staging and storage of construction machinery and storage of debris should not take place on any sandy beach areas.
- Properly install and maintain erosion control barriers such as silt fencing 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.

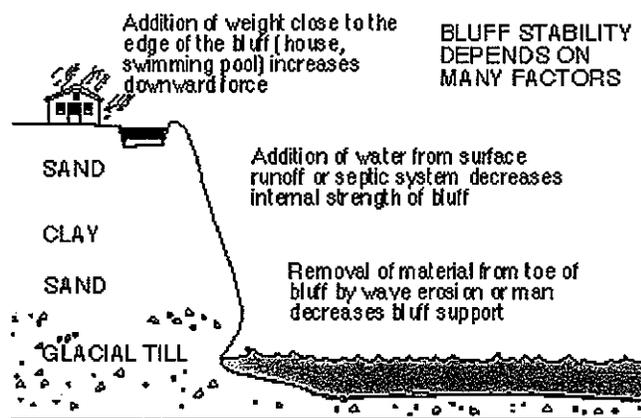


Figure 1 - Factors that can make bluffs unstable

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).

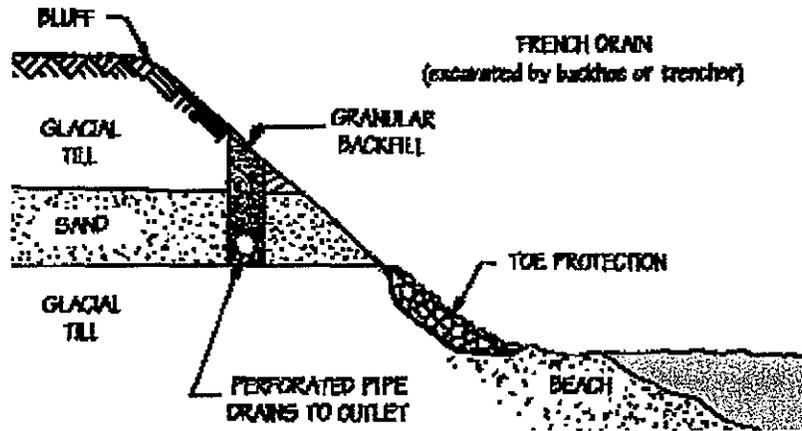


Figure 2 - French drains intercept surface water and increase soil stability. Deeper drains will intercept more ground water, but shallower drains are effective also and may cause less disturbance on the bluff. The maximum depth for French drains is 15 to 20 feet.

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.

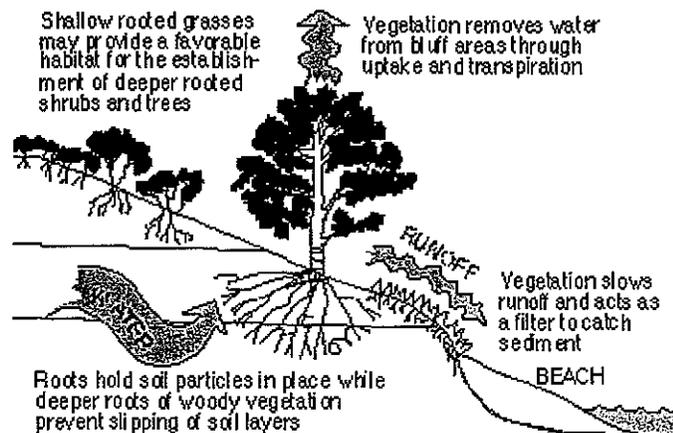


Figure 3 - Well-established vegetation on the shore stabilizes the soil and helps remove water

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).

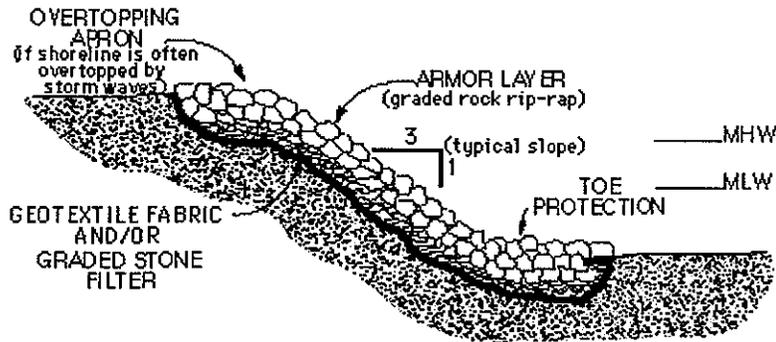


Figure 4 - Proper rip-rap placement ( MHW = mean high water, MLW = mean low water)

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 placed 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 fine 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

County of Maui  
Department of Water Supply



*By Water All Things Find Life*





## 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 1/2 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).



**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.

### **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.



**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.



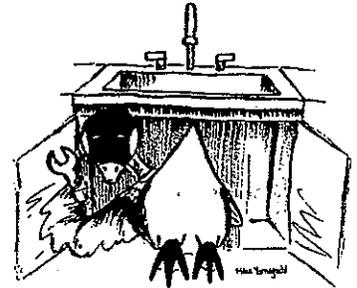
**House Plants & Fish Tanks:** If you have a fish tank, you probably clean it regularly. Use the dirty water to water your house plants. It saves using the same water twice, and the plants love the water, which is rich in nitrogen and phosphorous!

**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.



**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 loses 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.



**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!

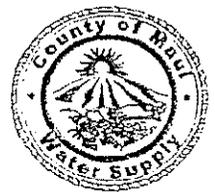
**For a Cold Glass of Water:** Keep a pitcher of cool water in the refrigerator. Running the water until it turns cool can waste a gallon for each glass. Letting the water sit in the fridge can also allow any chlorine to dissipate, and improve the taste.

**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.

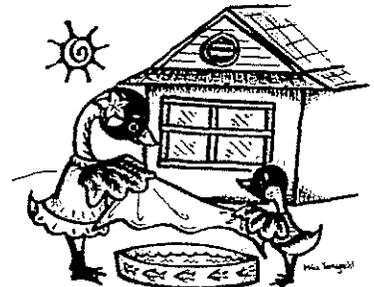


**Watering:** If you do have a lawn, water only when it needs it. A good deep soaking is better than a light sprinkling. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, it could use a bit. The best time 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.

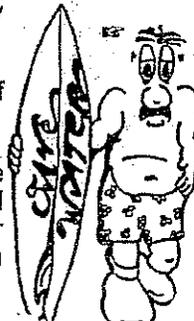
All evaporative coolers require either a small amount of bleed-off or regular cleaning to maintain and prevent damage to the coolers pads. The principle opportunity for conservation in evaporative cooling is to reduce the amount of water bled-off, and to reuse that water wherever possible.

- ☞ 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 than 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.



## 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!

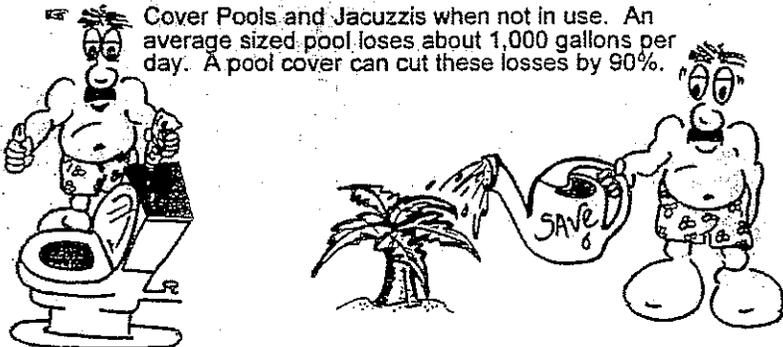
### COMMON LAUNDRY AREAS

- ☞ 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 only 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. Evenings 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



# 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	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	lo'ulu	15'			
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Cordyline fruticosa</i>	ti, ki	6'			
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Hibiscus furcellatus</i>	'aki'hala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
V	<i>Alyxia oliviformis</i>	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	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilii'e	1'			
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia mauiensis</i> var. <i>diffusa</i>	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	<i>Chenopodium oahuense</i>	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllidifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Nototrichium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'alii	6'	8'	sea to higher	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Erythrina sandwicensis</i>	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	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	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
V	<i>Alyxia oliviformis</i>	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	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u'aki'aki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Boerhavia repens</i>	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Cressa truxillensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilie'e	1'			
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
Gr - Sh	<i>Lycium sandwicense</i>	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	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	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Bidens mauiensis</i>	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Chenopodium oahuense</i>	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Gossypium tomentosum</i>	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllidifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi kauaiensis kauaiensis</i>	'akia, Molokai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Nototrichium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Erythrina sandwicensis</i>	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	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	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Nesoluma polynesianum</i>	keahi	15'	15'	sea to 3,00'	Dry
Tr	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Reynoldsia sandwicensis</i>	'ohe makai	20'	20'	1,000' to 3,000'	Dry
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Thespesia populnea</i>	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 S Sedge P Palm Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	mboi, mbo kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyathoides</i>	'ama'u, ama'uma'u				
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-foa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u'aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,000'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'i'ie'e	1'			
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr-Sh	<i>Hibiscus calyphyllus</i>	ma'o hau'hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr-Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr-Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	lo'lulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	lo'lulu	15'			
P	<i>Pritchardia hillebrandii</i>	lo'lulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	puai kalia	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium

# Zone 4

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Artemisia mauiensis</i> var. <i>diffusa</i>	Maui wormwood, ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Cordylone fruticosa</i>	ti, ki	6'			
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi</i> <i>kauaiensis</i> <i>kauaiensis</i>	'akia, Molokai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Notofrichium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh - Tr	<i>Dodonaea viscosa</i>	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alahe'e, 'one'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Hibiscus furcatus</i>	'akiohala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	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.
Tf	<i>Nestegis sandwicensis</i>	tiopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tf	<i>Pandanus tectorius</i>	hala, puhala (HALELEIST)	35'	25'	sea to 1,000'	Dry to Wet
Tf	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tf	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tf	<i>Santalum ellipticum</i>	coastal sandalwood, 'i'i-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tf	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
Tf	<i>Thespesia populnea</i>	milo	30'	30'	sea to 3,000'	Dry to Wet
V	<i>Alyxia oliviformis</i>	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	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet		
G	<i>Eragrostis variabilis</i>	'emo-ia	1'	2'	sea to 3,000'	Dry to Medium		
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'aki'aki fimbri-stylis	0.5'	1'	sea to 1,000'	Dry to Medium		
Gr	<i>Boerhavia repens</i>	alena	0.5'	4'	sea to 1,000'	Dry to Medium		
Gr	<i>Chamaesyce celastroides</i> var. <i>laevis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium		
Gr	<i>Cressa truxillensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium		
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium		
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'laka	0.5'	6'	sea to 1,000'	Dry to Medium		
Gr	<i>Lipochoaia integrifolia</i>	nehe	1'	5'	sea to 1,000'	Dry to Medium		
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet		
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium		
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium		
Gr-Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium		
Gr-Sh	<i>Lycium sandwicense</i>	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium		
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet		
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet		
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium		
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium		
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium		
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet		
Sh	<i>Bidens mauiensis</i>	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium		
Sh	<i>Chenopodium oahuense</i>	'ane'ane, 'awe'owe'o	6'		sea to higher	Dry to Medium		
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium		
Sh	<i>Gossypium tomentosum</i>	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium		

# Zone 5

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Hedyotis spp.	lau, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	inehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllifolia	ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sencea	naupaka, naupaka-kahaka	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolo mana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	akia, beach solanum	3'	3'	sea to 1,000'	Dry to Medium
Sh	Vlex rotundifolia	pohinahua	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	akia, Moikai osmanthus				
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Dodonaea viscosa	'gall'	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	Gordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcatus	'akiohala, hau-hele	8'			
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (FALELEIST)	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, pohuahu	1'			

## DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	<i>Acacia mearnsii</i>	Mimosaceae
blackberry	<i>Rubus argutus</i>	Rosaceae
blue gum	<i>Eucalyptus globulus</i>	Myrtaceae
bocconia	<i>Bocconia frutescens</i>	Papaveraceae
broad-leaved cordia	<i>Cordia glabra</i>	Boraginaceae
broomsedge, yellow bluestem	<i>Andropogon virginicus</i>	Poaceae
buffelgrass	<i>Cenchrus ciliaris</i>	Poaceae
butterfly bush, smoke bush	<i>Buddleja madagascariensis</i>	Buddlejaceae
cats claw, Mysore thorn, wait-a-bit	<i>Caesalpinia decapetala</i>	Caesalpinaceae
common ironwood	<i>Casuarina equisetifolia</i>	Casuarinaceae
common velvet grass, Yorkshire fog	<i>Holcus lanatus</i>	Poaceae
fiddlewood	<i>Citharexylum spinosum</i>	Verbenaceae
fire tree, faya tree	<i>Myrica faya</i>	Myricaceae
glorybower	<i>Clerodendrum laponicum</i>	Verbenaceae
hairy cat's ear, gosmore	<i>Hypochoeris radicata</i>	Asteraceae
haole koa	<i>Leucaena leucocephala</i>	Fabaceae
ivy gourd, scarlet-fruited gourd	<i>Coccinia grandis</i>	Cucurbitaceae
juniper berry	<i>Citharexylum caudatum</i>	Verbenaceae
kahili flower	<i>Grevillea banksii</i>	Proteaceae
klu, popinac	<i>Acacia farnesiana</i>	Mimosaceae
logwood, bloodwood tree	<i>Haematoxylon campechianum</i>	Caesalpinaceae
loquat	<i>Eriobotrya japonica</i>	Rosaceae
meadow ricegrass	<i>Ehrharta stipoides</i>	Poaceae
melaleuca	<i>Melaleuca quinquenervia</i>	Myrtaceae
miconia, velvet leaf	<i>Miconia calvenscens</i>	Melastomataceae
narrow-leaved carpetgrass	<i>Axonopus fissifolius</i>	Poaceae
oleaster	<i>Elaeagnus umbellata</i>	Elaeagnaceae
oriental mangrove	<i>Bruguiera gymnorrhiza</i>	Rhizophoraceae
padang cassia	<i>Cinnamomum burmanii</i>	Lauraceae
palmgrass	<i>Setaria palmifolia</i>	Poaceae
pearl flower	<i>Heterocentron subtripplinervium</i>	Melastomataceae
quinine tree	<i>Cinchona pubesens</i>	Rubiaceae
satin leaf, caimitillo	<i>Chrysophyllum oliviforme</i>	Sapotaceae
silkwood, Queensland maple	<i>Flindersia brayleyana</i>	Rutaceae
silky oak, silver oak	<i>Grevillea robusta</i>	Proteaceae
strawberry guava	<i>Psidium cattleianum</i>	Myrtaceae
swamp oak, saltmarsh, longleaf ironwood	<i>Casuarina glauca</i>	Casuarinaceae
sweet vernalgrass	<i>Anthoxanthum odoratum</i>	Poaceae
tree of heaven	<i>Ailanthus altissima</i>	Simaroubaceae
trumpet tree, guarumo	<i>Cecropia obtusifolia</i>	Cecropiaceae
white ginger	<i>Hedychium coronarium</i>	Zingiberaceae
white moho	<i>Heliocarpus popayanensis</i>	Tiliaceae
yellow ginger	<i>Hedychium flavescens</i>	Zingiberaceae

## DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
	<i>Jasminum fluminense</i>	Oleaceae
	<i>Arthrostema ciliatum</i>	Melastomataceae
	<i>Dissotis rotundifolia</i>	Melastomataceae
	<i>Erigeron karvinskianus</i>	Asteraceae
	<i>Eucalyptus robusta</i>	Myrtaceae
	<i>Hedychium gardnerianum</i>	Zingiberaceae
	<i>Juncus planifolius</i>	Juncaceae
	<i>Lophostemon confertus</i>	Myrtaceae
	<i>Medinilla cumingii</i>	Melastomataceae
	<i>Medinilla magnifica</i>	Melastomataceae
	<i>Medinilla venosa</i>	Melastomataceae
	<i>Melastoma candidum</i>	Melastomataceae
	<i>Melinis minutiflora</i>	Poaceae
	<i>Olea europaea</i>	
	<i>Oxyspora paniculata</i>	Melastomataceae
	<i>Panicum maximum</i>	Poaceae
	<i>Paspalum urvillei</i>	Poaceae
	<i>Passiflora edulis</i>	Passifloraceae
	<i>Phormium tenax</i>	Agavaceae
	<i>Pinus taeda</i>	Pinaceae
	<i>Prosopis pallida</i>	Fabaceae
	<i>Pterolepis glomerata</i>	Melastomataceae
	<i>Rhodomyrtus tomentosa</i>	Myrtaceae
	<i>Schefflera actinophylla</i>	Araliaceae
	<i>Syzygium jambos</i>	Myrtaceae
Australian blackwood	<i>Acacia melanoxylon</i>	Mimosaceae
Australian tree fern	<i>Cyathea cooperi</i>	Cyatheaceae
Australian tree fern	<i>Sphaeropteris cooperi</i>	Cyatheaceae
Beggar's tick, Spanish needle	<i>Bidens pilosa</i>	Asteraceae
California grass	<i>Brachiaria mutica</i>	Poaceae
Chinese banyon, Maylayan banyon	<i>Ficus microcarpa</i>	Moraceae
Chinese violet	<i>Asystasia gangetica</i>	Acanthaceae
Christmasberry, Brazilian pepper	<i>Schinus terebinthifolius</i>	Anacardiaceae
Formosan koa	<i>Acacia confusa</i>	Mimosaceae
German ivy	<i>Senecio mikanoides</i>	Asteraceae
Japanese honeysuckle	<i>Lonicera japonica</i>	Caprifoliaceae
Koster's curse	<i>Clidemia hirta</i>	Melastomataceae
Lantana	<i>Lantana camara</i>	Verbenaceae
Mauritius hemp	<i>Furcraea foetida</i>	Agavaceae
Mexican ash, tropical ash	<i>Fraxinus uhdei</i>	Oleaceae
Mexican tulip poppy	<i>Hunnemannia fumariifolia</i>	Papaveraceae
Mules foot, Madagascar tree fern	<i>Angiopteris evecta</i>	Marattiaceae
New Zealand laurel, karakaranut	<i>Corynocarpus laevigatus</i>	Corynocarpaceae
New Zealand tea	<i>Leptospermum scoparium</i>	Myrtaceae
Pampas grass	<i>Cortaderia jubata</i>	Poaceae
Panama rubber tree, Mexican rubber tree	<i>Castilleja elastica</i>	Moraceae
Shoebuttton ardisia	<i>Ardisia elliptica</i>	Myrsinaceae
banana poka	<i>Passiflora mollissima</i>	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.<sup>1</sup> 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 porous 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.<sup>2</sup> 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.<sup>3</sup> 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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<sup>1</sup> K. Nagata, P.6

<sup>2</sup> K. Nagata, P.9

<sup>3</sup> 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 perform 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.<sup>4</sup> 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.<sup>5</sup>

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.<sup>6</sup> 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

Heavy  
Moderate  
Light

### WATERING FREQUENCY

3x / week  
2x / week  
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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<sup>4</sup> Nagata, p. 6.

<sup>5</sup> Nagata, p. 8

<sup>6</sup> 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.<sup>7</sup>

## 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.<sup>8</sup>

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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<sup>7</sup> Bornhorst, p. 19-20

<sup>8</sup> Nagata, p. 6

## Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough 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, trim off some of the leaves to compensate for the loss.<sup>9</sup>

### 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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<sup>9</sup> 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.<sup>10</sup> Macadamia nut hulls are also easy to find and can make a nice mulch.<sup>11</sup>

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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<sup>10</sup> Bornhorst, p. 24

<sup>11</sup> 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 984-8100  
access road at the end of Waipoli Rd  
Call the Maui District Office
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 Piihola 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



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.

David Taylor, Director  
December 21, 2011  
Page 2

If additional information or clarification is required, please do not hesitate to contact me at 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

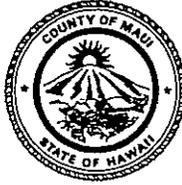
CS:tn

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 02 2010

CHARMAINE TAVARES  
MAYOR



OFFICE OF THE MAYOR  
County of Maui

200 South High Street  
Wailuku, Hawaii 96793-2155  
Telephone (808) 270-7855  
Fax (808) 270-7870  
e-mail: mayors.office@mauicounty.gov

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.

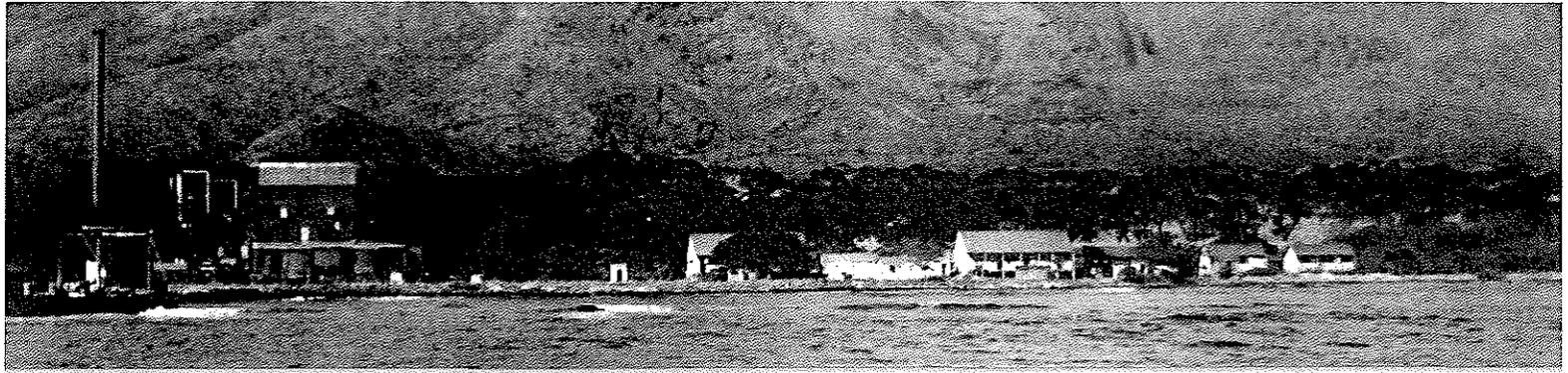
Sincerely,

A handwritten signature in cursive script that reads "Charmaine Tavares".

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)

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AUG 02 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,

A handwritten signature in cursive script that reads "Charmaine Tavares".

CHARMAINE TAVARES  
Mayor, County of Maui

CT:RS/ec

c: Orlando Davidson, Executive Director, Land Use Commission

EXHIBIT A

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,

A handwritten signature in black ink, appearing to read 'Kyle Tamori'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Kyle Tamori  
Staff Engineer

c: Munekiyo & Hiraga, Inc. – Ms. Colleen Suyama



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.

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Margaret Schlachter  
Owner of:  
4435 L. Honoapillani Dr. # 240  
Lahaina, HI

July 19, 2010

Mr. Dan Davidson  
POBox 2359  
Honolulu, HI 96804

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 2<sup>nd</sup> homes in Maui has dropped significantly. 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,



LAND USE COMMISSION  
STATE OF HAWAII  
2010 JUL 22 A 7:56



MICHAEL T. MUNEKIYO  
EWEN 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.

Ms. Margaret Schlachter  
December 21, 2011  
Page 2

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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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 .

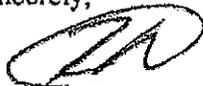
I am submitting a package of documents that clearly show the applicant has not complied with conditions of the SMA permits issued in 2000 and that the permit expired in 2005 and was never renewed by the developer. This blatant noncompliance by the developer has damaged our entire community as well as 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](mailto: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 19

OTAKAWAHE D. DWANES

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 (1<sup>ST</sup>) 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 INNVOLES 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.

Olowalu Elua Associates LLC.

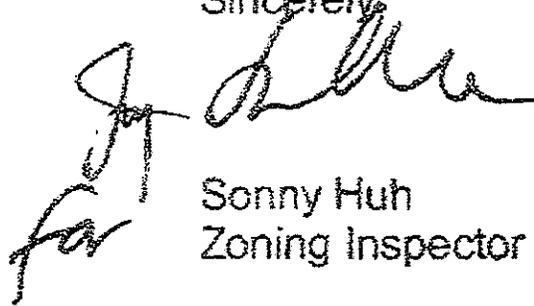
February 25, 2010

RFS No. 10-0000452

Page 2

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](mailto:Sonny.Huh@mauicounty.gov) or (808)270-7810.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sonny Huh', is written over the typed name. To the left of the signature, the word 'for' is written vertically in a cursive script.

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

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071

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) 270-7736; FACSIMILE (808) 270-7634  
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7258

Mr. Peter Martin  
April 26, 2010  
Page 2

**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, Kawaihoa/Kaiwaloa helau. 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

Mr. Peter Martin  
April 26, 2010  
Page 3

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](mailto:kurt.wollenhaupt@mauicounty.gov) or at (808) 270-1789.

Sincerely,



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.

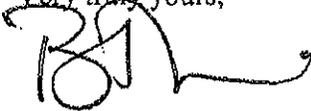
We understand that you were provided access to the files in the Highways Division, Maui District Office and were given copies of various documents that you needed. It is our understanding from the attachments in your request that you already have the SMA approval, Environmental Assessment (EA), and Traffic 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,

A handwritten signature in black ink, appearing to read 'BM', with a long horizontal flourish extending to the right.

BRENNON T. MORIOKA, Ph.D., P.E.  
Director of Transportation

Attachment

LINDA LINGLE  
GOVERNOR OF HAWAII



JMK 0015

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

JAN 25 A 8:39

DEPT OF TRANSPORTATION

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

2010 FEB -1 P 12:41  
HIGHWAYS DIVISION

MEMORANDUM:

TO: Brennan T. Morioka, Director  
Department of Transportation

JAN 21 2010

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

# 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.

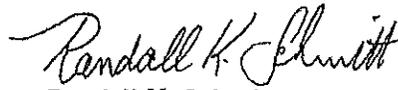
To Whom It May Concern  
December 30, 2009  
Page 2

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

RKS:jmc

cc: Randy Ragon (via email)

# MCCORRISTON MILLER MUKAI MACKINNON LLP

ATTORNEYS AT LAW

RANDALL K. SCHMITT  
ATTORNEY

DIRECT #S:  
PHONE - (808) 529-7422  
FAX - (808) 333-8018

April 27, 2010

VIA ELECTRONIC MAIL [rr077@hotmail.com](mailto: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 Department 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.

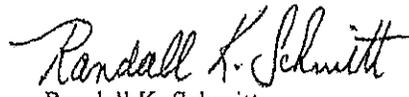
This process of investigation was initially undertaken by Lorie Kruse and it was her diligence in investigating the situation, including the involvement of and representations made by various members of the Mancini & Welch firm, including but not limited to Tom Welch, which brought to light the string 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 Record Contracts*

Randy Ragon  
April 27, 2010  
Page 2

Sincerely,

McCORRISTON MILLER MUKAI MacKINNON LLP

  
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 Associates, 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, U.S., P.E.  
Land Use and Codes Administration

RONALD H. 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. <sup>Rev. 10/22/99</sup> Comply with requirements/comments from the Department of Planning. For further information, please contact Mr. Aaron Shinmoto at 270-7253.
3. <sup>4/14/99 Rev. 10/19/99</sup> 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** IA

Mr. Bob Horcajo, Project Manager  
SUBJECT: OLOWALU MAUKA SUBDIVISION  
LUCA FILE NO. 4.766

September 20, 1999  
Page 2 of 4

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.  
*1/22/02*
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.  
*exp. 4/20/02*
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.

Mr. Bob Horcajo, Project Manager  
SUBJECT: **OLOWALU MAUKA SUBDIVISION**  
**LUCA FILE NO. 4.766**

• September 20, 1999

Page 3 of 4

*Advise Bob that access not required for existing land locked parcels. If existing parcels do have access, he should show access on map. 2/15/02 WSR*

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 thirty-four (34) lots:

- 14 - two acre minimum lots
- 11 - fifteen acre minimum lots
- 6 - twenty-five acre minimum lots
- 3 - forty acre minimum lots

*4/3/00*  
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, no additional lots 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.

*10/1/00*  
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.

Mr. Bob Horcajo, Project Manager  
SUBJECT: **LOWALU MAUKA SUBDIVISION**  
**LUCA FILE NO. 4.766**

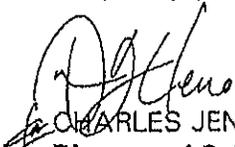
September 20, 1999

Page 4 of 4

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\ALLSUBDIV\UCASUBD\REG4\4766-1.dwg

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

CHARLES JENCKS  
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, I.S., P.E.  
Land Use and Codes Administration

RONALD R. RISKI, 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

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 Floodway 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.

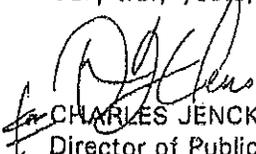
If you have any questions regarding this letter, please call Mr. Aaron Shinmoto at 270-7253.

**EXHIBIT 1B**

Mr. Bob Horcajo, Project Manager  
SUBJECT: OLOWALU MAUKA SUBDIVISION  
LUCA FILE NO. 4.766

October 22, 1999  
Page 2 of 2

Very truly yours,

  
CHARLES JENCKS  
Director of Public Works  
and Waste Management

Enclosure

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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**

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AUSTIN, TRUJILLO & ASSOCIATES, INC. CIVIL ENGINEERS & ARCHITECTS  
 CONSULTING ENGINEERING FIRM FOUNDED BY H. A. R. AUSTIN IN 1924

1001 Westwood Dr., Suite 100  
 Austin, Texas 78703  
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 Fax: (512) 336-1101

**OLOWALU MAUKAI AND MAUKA SUBDIVISIONS**

**TRAFFIC IMPACT ANALYSIS REPORT**

**1. INTRODUCTION**

This report documents the findings of the traffic impact analysis study conducted by Austin, Trujillo & Associates, Inc. to evaluate the potential traffic impact on Homestead Highway by the proposed subdivision of lands at Olowalu, Maui, Hawaii.

**A. Project Description**

Olowalu Ema Associates, LLC proposes to subdivide lands at Olowalu, Maui, Hawaii into agricultural lots. Pursuant to Section 10-2003 of the Maui County Code relating to the Agricultural District, a total of nine (9) lots will be created on land situated north of Homestead Highway. In addition to the subdivision of lands north of the Highway, Olowalu Ema Associates, LLC proposes to subdivide the lands south 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 north side of Homestead Highway. The seven lots, along with two existing medical lots not affected by the SMA permit application, yield a total of nine lots north of the Highway. Although the medical 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 medical and medical lands. However, for the overall identification of potential traffic impacts, a total of 43 agricultural lots are evaluated in this study.

Construction of the lots is expected to be completed in the Year 2006; 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



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 CONSULTING ENGINEERING FIRM FOUNDED BY H. A. R. AUSTIN IN 1924

cost of the buyers would be covered and carry over existing debts with 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).

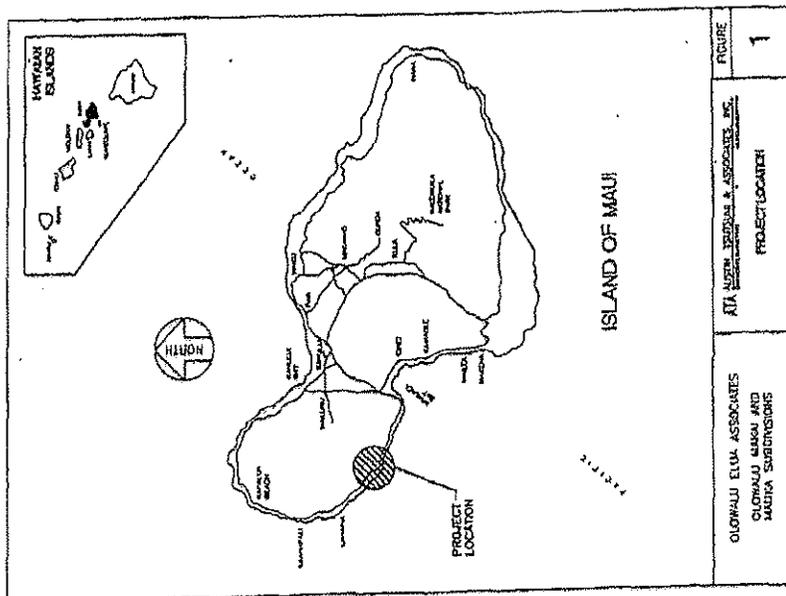
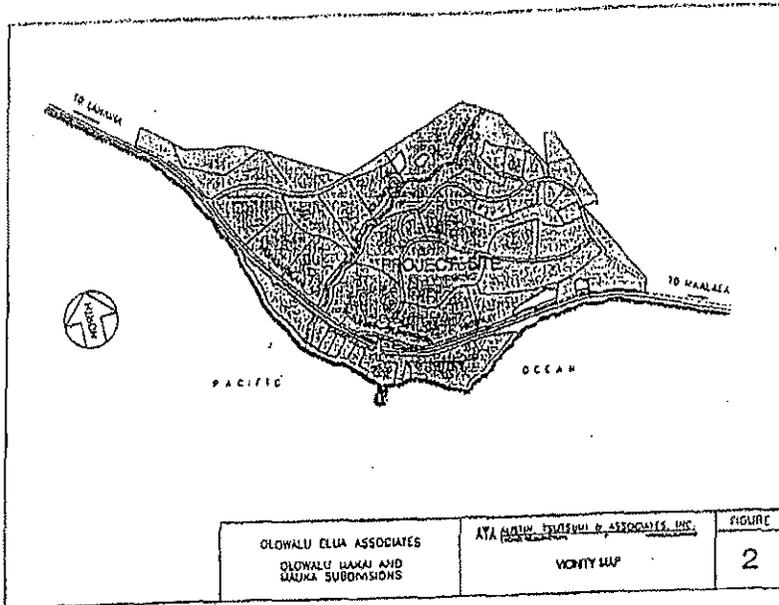
The proposed project is located at Olowalu, Maui as shown in Figure 1 and in the vicinity map provided in Figure 2. The project consists of two agricultural subdivisions, which are referred to as the Mauka and Mauia Subdivisions and shown in Figure 2. There will be 9 lots in the Mauka Subdivision and 34 lots in the Mauia Subdivision.

The Mauka Subdivision (consisting of 7 SMA lots in T10K 4-8-0205, 41-45 and 2 existing non-SMA lots in T10K 4-8-0204 and 84) is located on the north side of Homestead Highway in the vicinity of the Olowalu General Store and Chest Paul restaurant. The agricultural lots in the Mauka Subdivision will be served by two driveways, one on each side of the Olowalu Stream. A right-of-way 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 Mauka Subdivision will be at an existing driveway situated opposite of the north driveway of the Olowalu General Store/Chest Paul restaurant parking lot, labeled as Driveway C. The Mauka Subdivision also contains an existing camping facility, known as Camp Pezasa, which is accessed by a separate, wooded driveway. The camping facilities are entirely defined by local groups during the weekends. Presently, there are no plans to change the Camp Pezasa facilities or other driveways.

The Mauia Subdivision (T10K 4-8-0210, 20-70, 73-82, and 4-8-41-18) is proposed to access Homestead Highway via two new driveways, labeled as Driveway A and Driveway D. It is anticipated that access on Homestead Highway for Driveway A will be required when the mauka lots are subdivided for development. An existing photo road, which serves as access for Pioneer Hill properties, is located on the mauka side of Homestead Highway and runs parallel to the Highway. The 34 lots in the Mauia Subdivision will be able to utilize this private road to conduct their business within the mauka area without traveling onto Homestead 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 Homestead Highway by the vehicles that 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



Traffic counts were taken on Monoplane 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.

III. EXISTING CONDITIONS

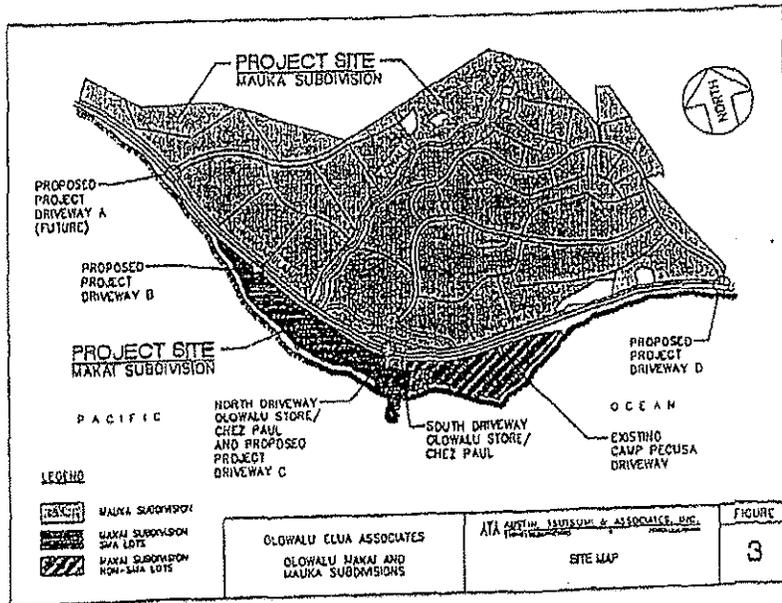
A field investigation was undertaken to develop a description of existing traffic conditions and roadway infrastructure at the study intersection. Information relevant to the study includes the number of travel lanes, traffic control devices, traffic volumes and the current traffic conditions on the existing roadway system.

Twenty-four hour traffic counts were taken on Monoplane Highway during Tuesday, Wednesday, February 22, 1989. 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 periods of the morning and afternoon peak periods on February 2, 1989. Weather conditions were generally sunny and windy with intermittent rain.

A. Existing Roadway System

Monoplane Highway is a two-lane major State Highway linking Wabaiu with West Manki. In the vicinity of the project, Monoplane Highway has two 12-foot travel lanes with painted shoulders of varying widths. Channelization, including left turn bays and acceleration and deceleration lanes, exist at various 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 served and accessed by two driveways on Monoplane Highway. The north driveway forms a four-legged (T-junction) intersection with Monoplane Highway and a driveway for Pioneer Hill residences on the north side of the highway. Separate left turn lanes are provided for the northbound and southbound directions of Monoplane Highway at this intersection. Guardrails front large trees on both sides of the highway at the



interaction. Several of the large trees were noted to restrict sight distance for motorists entering the parking lot on the mainline 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 Honesdale Highway; the gravelly area is contiguous to the Chevrolet parked parking lot and is situated to the north of the parking lot north driveway.

The south driveway at the Chevrolet General Store/Cher's Paul restaurant parking lot is an unimproved access utilized by many large, neighborhood trucks. The south driveway forms an unimproved T-intersection with Honesdale Highway. The Honesdale Highway northbound left turn storage lane/stop for the intersection with the Pioneer Hill restaurant parking lot driveway enters just 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 Chevrolet General Store serves as a convenient stop where motorists stop for morning coffee break and/or to pickup a home for lunch. During the westbound, the Chevrolet General Store is open from 8:00 AM to 8:00 PM. A structure is situated on the south side of the restaurant; this 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 situated on the mainline side of the highway. This private road parallels the highway and serves as an access road for Pioneer Hill property/care land. Private homes are located north of the store and these residents also utilize the Chevrolet General Store/Cher's Paul restaurant driveway to access Honesdale Highway.

B. Existing Traffic Operations

The speed limit on the highway is 45 miles per hour on either side of the Chevrolet 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 better than the morning peak period of traffic. Motorists entering the highway experienced varying lengths of delay; 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, 1988 on Honesdale Highway between the two driveways to the Chevrolet General Store/Cher's 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 1984 Highway Capacity Manual for two-lane highways and for unimproved intersections. Level of service (LOS) is a qualitative measure used to describe the conditions 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 unimproved intersections are contained in Appendix B.

The results of the two-lane highway analysis show that the existing v/c ratio for Honesdale Highway is probably at LOS during the morning peak hour of traffic, and at LOS E 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 Honesdale Highway and the north driveway of the Chevrolet General Store/Cher's Paul restaurant parking lot are currently at LOS A. The left turn movements from Honesdale 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 north driveway (Pioneer Hill restaurant) operate at LOS A and LOS B during the morning and afternoon peak hours of traffic, respectively. The traffic entering at the north parking lot driveway and the north driveway from the Pioneer Hill restaurant both experience LOS C conditions during the morning peak period of traffic. The operating conditions for north driveway drops to LOS E during the afternoon peak hour of traffic, but the north parking lot driveway remains at LOS C.

Field observations add a wide range in the volume of the delay experienced by traffic entering to utilize the Olwehi General Store parking lot or the driveway to private homes on the outside of the highway. A few vehicles could enter or exit the parking lot with ease or no delay (LOS A), while other motorists waited over a minute (LOS F) for a sizable gap in highway traffic to ensure 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 completion 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

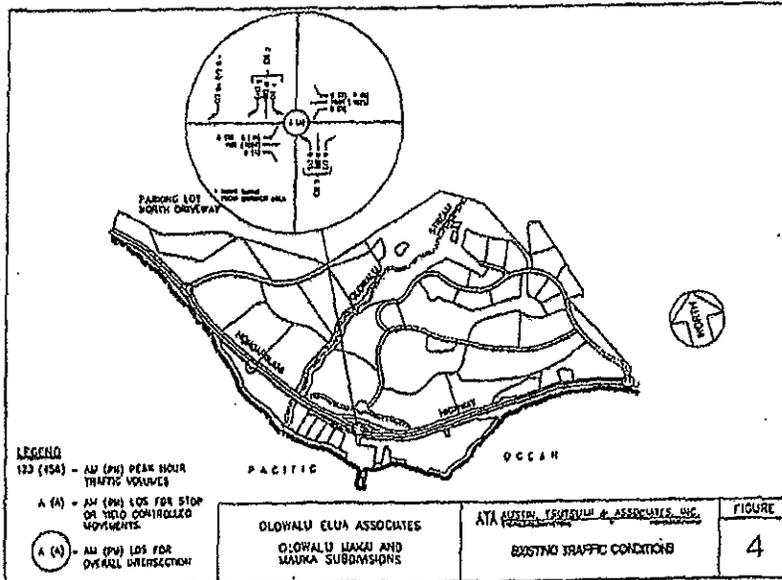
Future traffic volumes in the vicinity of the project are expected to increase due to changes in density growth in Maui. A growth factor of 2.1 percent per year was derived through review of historical State DOT traffic counts on Honoapiʻiani Highway in the Olwehi area, and forecasts of traffic volumes in the 1997 Maui Transportation and Intermodal Plan (MTIP) 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 analysis for unsignalized intersections and two-lane highways was applied to the proposed volumes and are summarized below.

With the proposed increases in traffic volumes, the western highway analysis shows Honoapiʻiani Highway would have a v/c ratio of 0.71 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 Honoapiʻiani Highway intersection with the Olwehi General Store north-south driveway, the overall intersection operating conditions are expected to be at LOS A. The Honoapiʻiani Highway left turn movements into the north parking lot driveway would be at LOS B during the morning and afternoon peak hours of



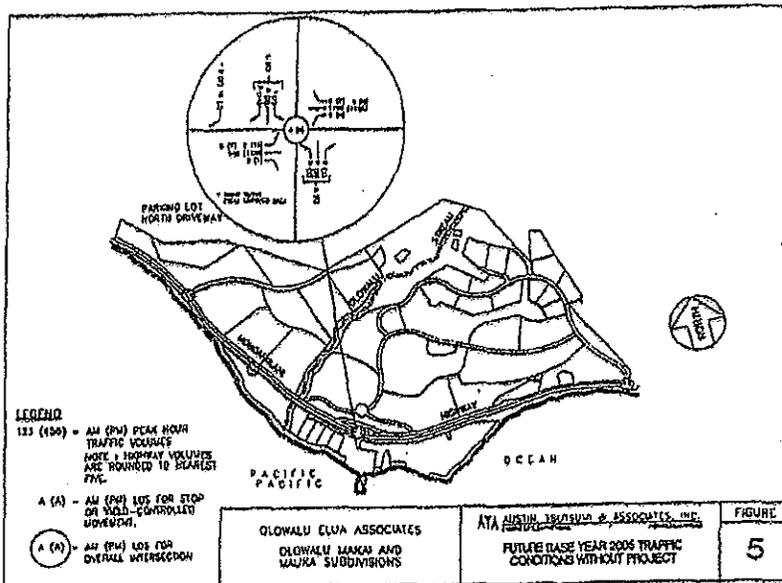
traffic. The left turn movements into the Pioneer MGA subdivide and driveway would operate at LOS A during the morning peak hour of traffic and at LOS B during the afternoon peak hour of traffic. The traffic exiting from the main driveway (Pioneer MGA subdivide) would be expected to experience larger delays at LOS D during the morning peak hour of traffic and at LOS F during the afternoon peak hour of traffic. Trucks 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 volume at the north driveway of the Olovalu 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 volume and trip distribution determines the direction of travel (or origin and destination) for the project traffic. Traffic assignment designates the roadway 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 occur and exit the project site. The vehicles that are directly related to project land uses. The Institute of Transportation Engineers has completed trip generation data tabulated 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, *Land Use Classification, 6th Edition*, and are shown in Table 1. The project traffic volumes are quantified in Table 2.



B. TRAFFIC DISTRIBUTION

The distribution clarifies the direction of travel for entry and exit (entrance) to the project-generated trips. The trip distribution was derived from review of existing and projected population and employment data in the MURTP, national traffic counts collected by the State DOT, and consideration of the travel time or proximity to nearby land uses. Although the MURTP indicates that 75-80 percent of the population and employment would be expected to be located south of the Oweka area, most residents would probably prefer to travel to the Lubbock area for employment or shopping since it is closer than Wichita/Kahala or Minot.

The traffic entering or exiting the project subdivisions would travel in two primary directions: north or south. For the project trip distribution, the project tasks were distributed equally between the two directions, or 50% eastbound and 50% westbound.

C. Traffic Assignment

The traffic assignment clarifies the routes traveled and the driveway utilized by the project users. The project tasks to exit onto Municipal Highway 3 is to the only route which connects Oweka to the rest of the land. The Mutual Subdivision traffic will utilize Driveways B and C. Although the traffic generated by the Mutual Subdivision could utilize the Oweka State Court parking lot driveway, the Mutual 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 options planned for Camp Plaza, 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 defined by adding the project-generated traffic volumes to the Year 2005 baseline traffic volumes.

A. Future Traffic Volumes with Project-Generated Traffic

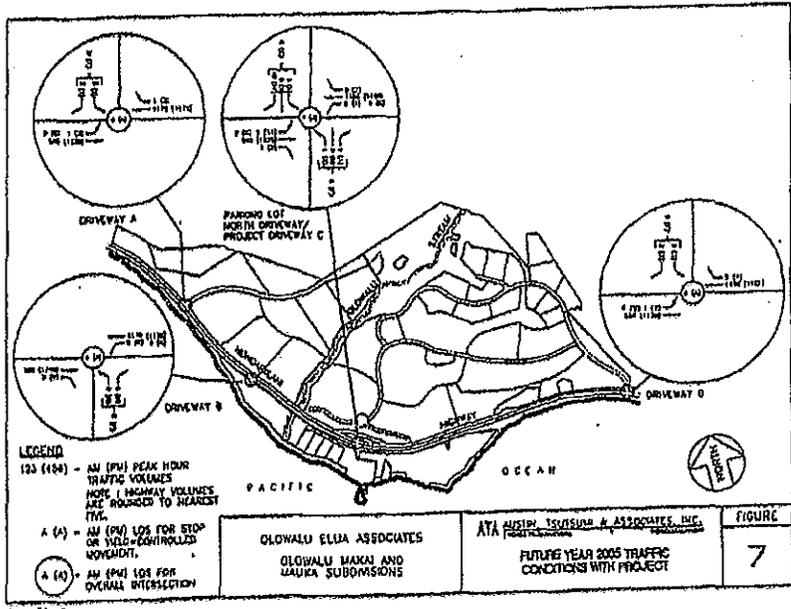
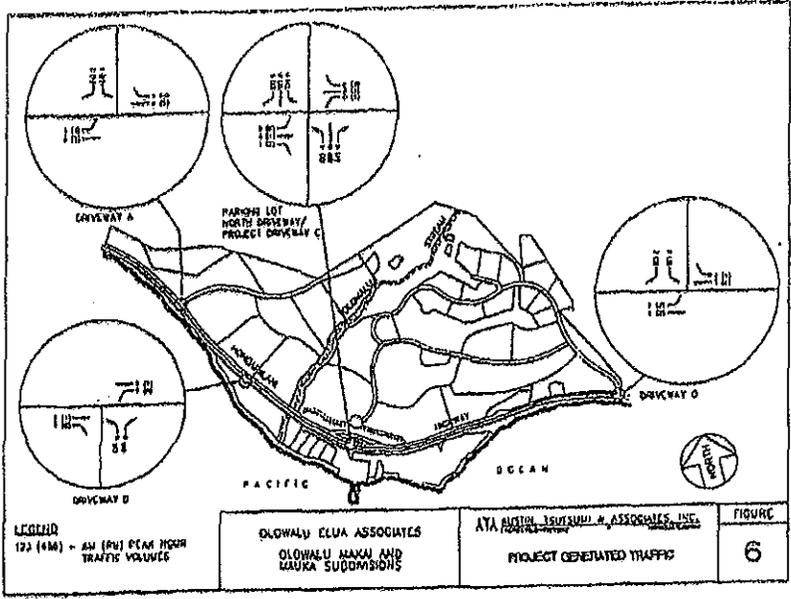
The future traffic assignment with the project-generated traffic is shown in Figure 6. The analysis results are described in the following project.

Table 1  
TRIP GENERATION RATES

Land Use Parameter	Single Family Dwelling Unit	Recreational Boxes Dwelling Unit
Land Use Parameter	8.55	3.16
AM Peak Hour	0.19	0.11
PM Peak Hour	0.55	0.05
Enter	0.85	0.11
Exit	0.35	0.15

Table 2  
PROJECT-GENERATED TRIPS

Project-Generated Trips	AM Peak Hour		PM Peak Hour	
	Enter	Exit	Enter	Exit
Mutual Subdivision	26	1	3	2
5 Single Family Dwelling Units	52	0	0	0
4 Recreational Dwelling Units	80	1	3	3
Subtotal	158	2	6	5
Mutual Subdivision	54	2	1	1
17 Single Family Dwelling Units	216	5	10	13
Subtotal	270	7	11	14
TOTAL	428	9	17	19



B. Analytical Results

The future traffic volumes with the project traffic were analyzed by the 1984 HCM two-lane highway methodology and also by the ungradeized intersection methodology for the four Monocentral Highway Intersections in this study.

During the morning peak hour of traffic, Monocentral 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, Monocentral Highway in the vicinity of the project, would operate at a v/c ratio of 0.89 and LOS E.

The intersection analysis results show that the four intersections in this study would be expected to operate with overall traffic conditions at LOS A. The left turn lane parking lot and project driveway 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 Pleasant Hill residences) which would be at LOS A during the morning peak hour of traffic.

The analysis results show that 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. This not change in the Monocentral Highway vicinities due to the project traffic volumes in an increase of only 10% for the morning and afternoon peak hours of traffic.

C. Warrants for Left-Turn Storage Bay

Traffic volume warrants were developed by M.D. Hamrick to assess the need for separate left-turn lanes at ungradeized 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-turn movements do not interfere through traffic on Monocentral 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 a storage length for at least one vehicle.

D. MURRTP Core Interactions

The MURRTP, which excluded long-term regional traffic growth on the Island of Hawaii, recommends the widening of Monocentral Highway from two to four lanes from Lāhale to the Ohewāli area between the Years 2030-2031. Since the proposed Ohewāli Substation will be developed on both sides of Monocentral Highway, the placing of these substations should incorporate the provision for the future widening of Monocentral Highway.

V. SUMMARY OF FINDINGS AND RECOMMENDATIONS

This section summarizes the findings and recommendations of the traffic impact analysis report for the Ohewāli Island and Hāwāli Substations. The analysis results are presented in Tables 3 and 4 for two-lane highway and ungradeized intersections, respectively.

Table 3

TWO-LANE HIGHWAY ANALYSIS RESULTS

Future Base Conditions without Project	Future Traffic Conditions with Project	Existing Conditions	Future Base Conditions without Project	Future Traffic Conditions with Project
v/c	0.72	0.71	v/c	0.89
Level of Service	E	E	Level of Service	E
Delay (sec)	1.71	1.71	Delay (sec)	2.89
Queue Length (ft)	0.22	0.22	Queue Length (ft)	0.89

AK

**A. Findings**  
**1. Existing Conditions**

Traffic on Homestead Highway operates at LOS E with v/c ratios of 0.83 and 0.82 during the morning and afternoon peak hours of traffic, respectively.

Overall, the intersection of the General Motors north driveway and Homestead 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 C during the morning and afternoon peak hours of traffic. The traffic exiting from the intersection during the morning and afternoon peak hours of traffic. This traffic exiting from the intersection (Pioneer NEA 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 2024 Traffic Conditions Without Project Traffic**

Traffic on Homestead 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 0.65 during the afternoon peak hour of traffic.

The overall traffic conditions at the General Motors north driveway would be at LOS A. The southbound left turn movement into this driveway would operate at LOS B during both peak hours of traffic. The northbound left turn movement into the north driveway (Pioneer NEA 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-south driveway would be at LOS C during the morning and afternoon peak hours of traffic. Traffic exiting at the signal driveway for the Pioneer NEA 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-south driveway do not meet the warrants for traffic signals.

AK

**A. Findings**

**Table 4**  
**UNSATURATED INTERSECTION**  
**MOVEMENT DATA**

Intersection	MOVEMENT DATA				MOVEMENT DATA				MOVEMENT DATA			
	Flow	Level of Delay	Level of Delay	Level of Delay	Flow	Level of Delay	Level of Delay	Level of Delay	Flow	Level of Delay	Level of Delay	Level of Delay
General Motors North Driveway / Homestead Highway	Northbound Left Turn	A	B	B	A	B	B	B	21	A	6.1	B
	Southbound Left Turn	C	C	C	C	C	C	C	7.2	B	7.2	B
	General Intersection	C	C	C	C	C	C	C	11.0	C	8.3	C
	General Intersection	C	C	C	C	C	C	C	12.2	C	12.2	C
Project Driveway A	Southbound Left Turn	A	A	A	A	A	A	A	7.0	B	7.0	B
	Northbound Left Turn	A	A	A	A	A	A	A	22.4	B	42.4	F
	General Intersection	A	A	A	A	A	A	A	5.1	A	5.1	A
	General Intersection	A	A	A	A	A	A	A	6.0	A	6.0	A
Project Driveway B	Southbound Left Turn	A	A	A	A	A	A	A	5.2	A	5.2	B
	Northbound Left Turn	A	A	A	A	A	A	A	11.7	C	41.8	F
	General Intersection	A	A	A	A	A	A	A	6.0	A	6.0	A
	General Intersection	A	A	A	A	A	A	A	6.0	A	6.0	A
Project Driveway C	Southbound Left Turn	A	A	A	A	A	A	A	7.8	B	7.8	B
	Northbound Left Turn	A	A	A	A	A	A	A	22.8	D	41.8	F
	General Intersection	A	A	A	A	A	A	A	6.1	A	6.1	A
	General Intersection	A	A	A	A	A	A	A	6.1	A	6.1	A

3. Future Year 2003 Traffic Conditions with Project-Generated Traffic

The Major Subdivision would generate 4 vehicles trip during the morning peak hour of traffic and 6 vehicles trip during the afternoon peak hour of traffic. The Major Subdivision would generate 15 vehicles trip and 23 vehicles trip 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 Horrocks Highway traffic would operate with a volume of 0.22 at LOS E during the morning peak hour of traffic and a volume of 0.28 at LOS E during the afternoon peak hour of traffic.

The results for the four-lane highway analysis would be similar to the future base conditions without the project at the Obowah General Store north driveway intersection. The overall intersection operations would be expected to remain at LOS A. The Horrocks 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 9 and Project Driveway C (former Pioneer Hill 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 Horrocks Highway intersections with parking lot and project driveways do not meet the warrants for traffic signals. In the MFLTP, the widening of Horrocks 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 General Retail and Mobile Subdivisions:

- For Driveways A, C and D, left turn bays and acceleration and deceleration lanes for right turn movements should be provided for the project driveway project access points to the project driveway. The driveway does not only improve the through lanes. The through lanes of

The left turn bays should be adequate to accommodate at least two vehicles, including a pickup. For the Horrocks Highway intersections with Driveways A and D, a vehicle bay in the median should be provided. Left turn movements from the project driveway onto Horrocks Highway would use the edge lane as a shoulder or be accessible to merge with through traffic. The refuge lane would allow the left turn bays to be located in two stages 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 the single-lane driveway.

The recommendations, described below, would allow Horrocks Highway to be improved to serve the future growth in regional highway traffic expected beyond Year 2020.

- Advance right-of-way should be reserved along the Horrocks Highway corridor to allow for the future widening of Horrocks Highway from Lehigh to Driveway, as identified in the MFLTP. The widening of Horrocks Highway would be needed for the future conditions with or without the proposed Obowah Retail and Mobile Subdivisions. The MFLTP estimates that the widening would be required between Year 2004 and Year 2020.

AIA

REFERENCES

Hannak, M.D. "Vehicle Weights for Left-Turn Storage Lane at Unsignalized Grade Intersections", Highway Research Board, Highway Research Board, Number 211, Washington, D.C., 1987.

Institute of Transportation Engineers, 10th Edition, Sixth Edition, Washington, D.C., 1987.

Koku Association, *Maui Lane-Extension Study Transportation Exam*, prepared for the State of Hawaii Department of Transportation, Final Report, February 1987.

Transportation Research Board, National Research Council, *Estimating Capacity Through Spreads*, Report 208, Third Edition, Washington, D.C., 1984.

U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices for Streets and Highways*, Washington, D.C., 1984, as amended.

AB

APPENDICES

LEWIS "KIMO" APANA  
Mayor

JOHN E. MIN  
Director

CLAYTON J. YOSHIDA  
Deputy Director



RECEIVED  
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.
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.

NO

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

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.

NO \* 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. \*

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 X 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 X 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 X 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.

*They are doing this cultural reserve*

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).

*Not done \**

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 properly maintained inferior construction & engineering*

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.

*?*

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 # 25  
"D" in lieu of 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. Violated this sec. Future improve*

\*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).

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 Honoapilani Highway (as amended).

*not this did happen*

32. That roadway improvements to Honoapilani 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*

\*

*NO*

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).

?

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.

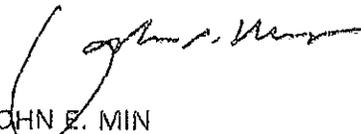
The conditions of this Special Management Area Use Permit shall be enforced pursuant to Sections 12-202-23 and 12-202-25 of the Special Management Area Rules for the Maui Planning Commission.

Mr. Robert Horoajo  
September 19, 2000  
Page 8

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\99SM12\199SM121v)



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 LAND DIVISION  
 P.O. BOX 621  
 HONOLULU, HAWAII 96808

AGRICULTURE DEVELOPMENT  
 RESOURCES  
 LAND RESOURCES  
 PLANNING AND SOCIAL DEVELOPMENT  
 CONSERVATION AND  
 GEOGRAPHIC INFORMATION  
 CONSERVATION  
 FORESTRY AND WILDLIFE  
 HISTORIC PRESERVATION  
 LAND DIVISION  
 STATE PARKS  
 WATER RESOURCE MANAGEMENT

DATE: 10/18/01

FILE: CDUA HA-3050

OCT 18 2001

Mr. Robert Horcajo  
 Olowalu Elua Associates, LLC  
 173 Ho Ohaana Street, Suite 201  
 Kahului, HI 96732

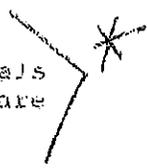
Dear Mr. Horcajo:

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



FINAL COMPLIANCE REPORT  
SPECIAL MANAGEMENT USE PERMIT

(SM1 990021)

DEPT OF LAND & NATURAL RESOURCES  
CORRECTIONAL SERVICES DIVISION  
RECEIVED  
MAR 15 93 24

---

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)**

**LOWALU MAUKA LANDS**  
**LAHAINA, MAUI**

**TABLE OF CONTENTS**

- I. Introduction
- II. Special Management Area Use Permit Approval Letter and Review Letter of Preliminary Compliance Report
- III. Response to SMA Use Permit Conditions
- IV. Individual Reports
  - A. Insurance Binder for \$1M (SMA condition #7)
  - B. Revised Construction Related Structures Plan (SMA condition #9)
  - B. Revised Greenway System Plan (SMA condition #14)
  - D. Irrigation System Plan (SMA condition #15)
  - E. Revised Dust and Erosion Control Plan (SMA condition #16)
  - F. Burial Preservation Plan-Mauka Lands (SMA condition #18)
  - G. Archaeological Mitigation and Preservation Plan-Mauka Lands (SMA conditions 19-21)
  - H. Revised Cultural Reserve Buffer Plan (SMA condition #24)
  - I. Revised Lighting Standards (SMA condition #33)
  - J. Unilateral Agreement (SMA conditions 16,17,21,24,25,26,27,28,30,31,33,34,35)

V. Exhibits

- 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

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## 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

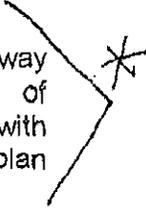
Conditions:

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 16, 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.J.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.L.P.E.  
Land Use and Codes Administration

TRACY TAKAMINE, PE  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, PE  
Engineering Division

JOHN D. HARDER  
Solid Waste Division

BRIAN HASHIRO, P.E.  
Highways Division

April 30, 2002

Mr. Robert Horcajo, Project Manager  
**LOWALU ELUA ASSOCIATES, LLC**  
173 Hoohana Street; Suite 201  
Kahului, Hawaii 96732

SUBJECT: **LOWALU 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.

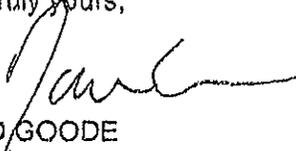
**EXHIBIT 7**

Mr. Robert Horcajo, Project Manager  
SUBJECT: OLOWALU MAUKA SUBDIVISION  
LUCA FILE NO. 4766

April 30, 2002  
Page 2 of 2

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:ey 8:3:LUCAALLSUBDLUCASUBOREG4140766-1.0n

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.  
LAHURUPOKO OLOWALU MAUKA KAHULUI MAUI

33 Lono Ave., Suite 450  
Kahului, Maui, Hawaii 96732

Phone: (808) 877-4202  
Fax: (808) 877-9409

20030626 09:53

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.

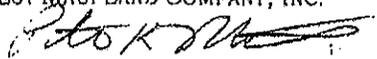
Of the items discussed, my highest priority is getting the building permits processed for the three Olowalu Mauka lot owners who are unable to obtain building permits until an 'Approval letter from the State Department of Transportation for access onto a State Highway' is received. (Copies of the Department of Public Works 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 1/2 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

**M. Itanaka Engineers, Inc.**

871 Kolu Street, Suite 201 Wailuku, Maui, Hawaii 96793-1436

Phone: (800) 242-6861 Fax: (808) 244-7287 E-Mail: [itanaka@gte.net](mailto:itanaka@gte.net)

civil engineering land surveying construction management inspectional services

State of Hawaii  
Department of Transportation  
Highways Division  
650 Palapala Drive  
Kahului, HI 96732

Date February 19, 2003  
Project: Olowalu Mauka Subdivision  
ME 02-01  
Proposed Access Relocation

Attn: Mr. Paul Chung, P.E.

Gentlemen:

We are sending you:

Herewith  Separately

Sent by:

Mail  Deliver  Pick-Up  Fax

<input type="checkbox"/> Revised Drawings	<input checked="" type="checkbox"/> Prints	<input checked="" type="checkbox"/> For Approval	<input type="checkbox"/> For Your Use
<input type="checkbox"/> Specifications	<input type="checkbox"/> Tracings	<input type="checkbox"/> As Requested	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Letter	<input type="checkbox"/> Invoice	<input type="checkbox"/> For Submission	<input type="checkbox"/> 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.

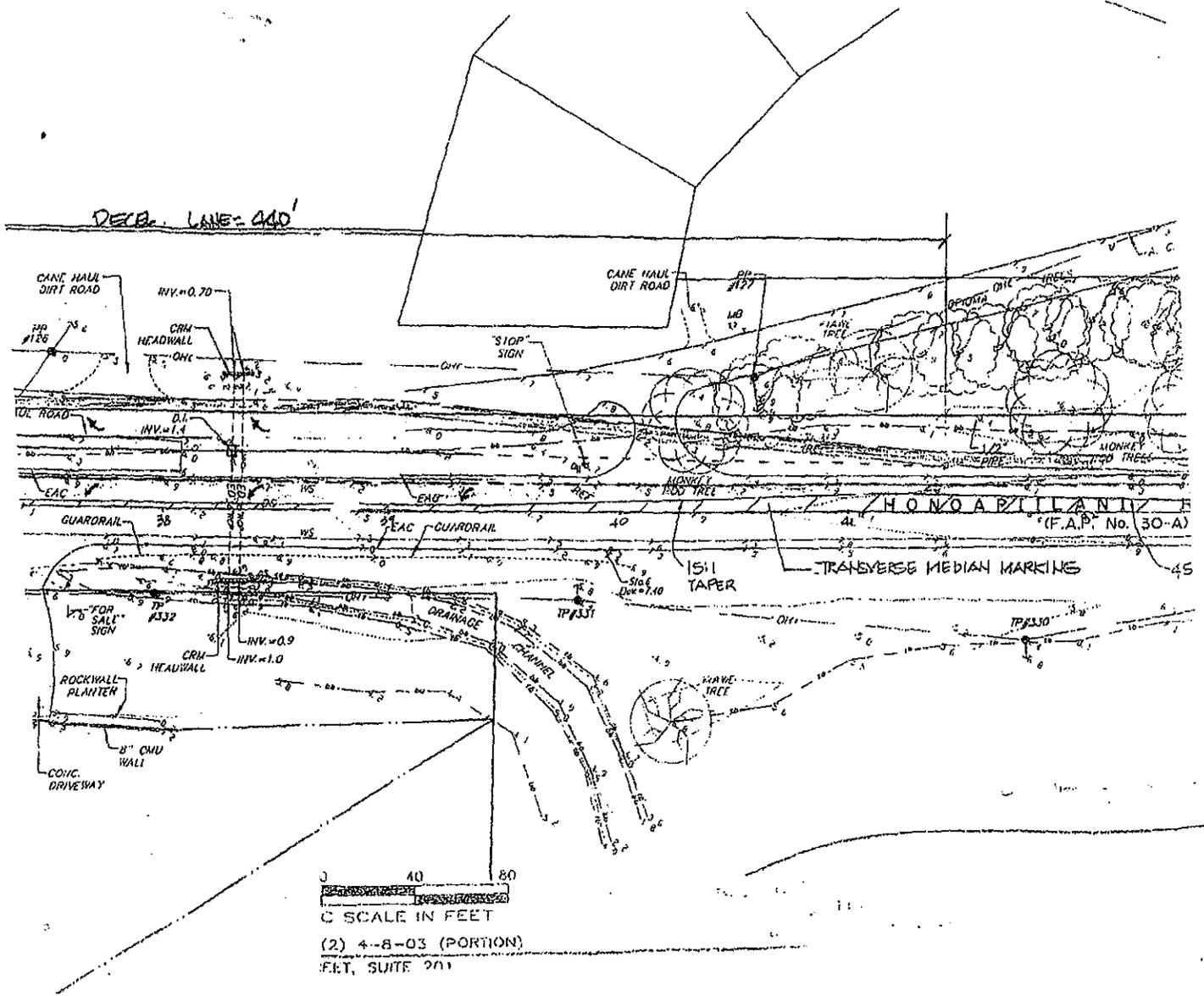
Very truly yours,

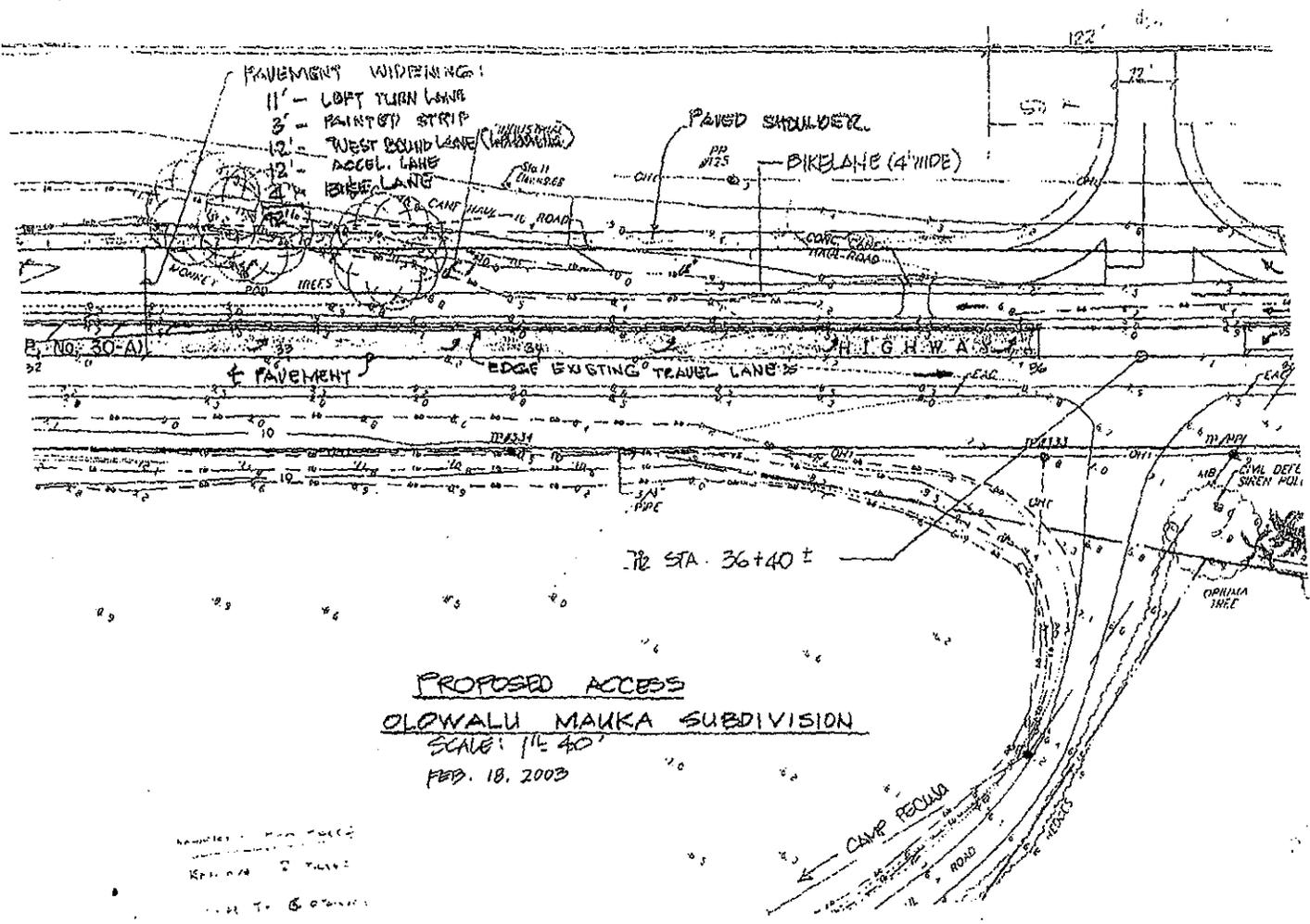
*R. Hidalgo*  
Rogelio Hidalgo, P.E., L.S.  
Project Engineer

0323

c: Mr. David Ward (via Fax)

**EXHIBIT 9**





- PAVEMENT WIDENING:
- 11' - LEFT TURN LANE
  - 3' - PAINTED STRIP
  - 12' - WEST BOUND LANE (HAWAIIAN)
  - 12' - ACCEL. LANE
  - 4' - EDGE LANE

PAVED SHOULDER  
 BIKE LANE (4' WIDE)

P. NO. 30-A)

PAVEMENT

EDGE EXISTING TRAVEL LANE

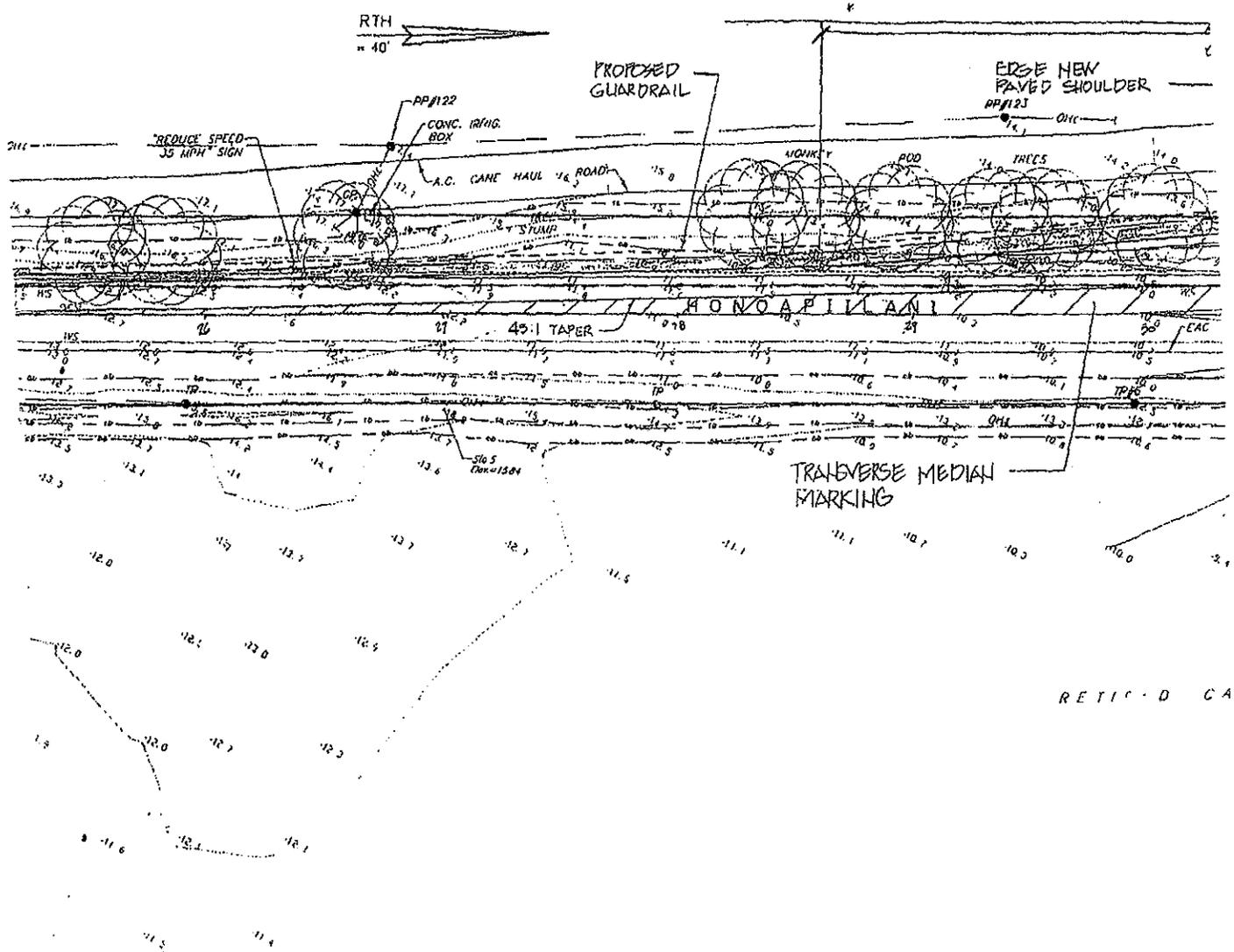
H.I.G.H.W.A.S.

712 STA. 36+40 ±

PROPOSED ACCESS  
OLOVALU MAUKA SUBDIVISION  
 SCALE: 1" = 40'  
 FEB. 18, 2003

REVISIONS:  
 1. ADD TIE TO CAMP PEQUANA ROAD  
 2. ADD TIE TO CAMP HAWAII ROAD  
 3. ADD TIE TO CAMP ROAD







STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

IN REPLY REFER TO:  
HWY-M2.323-03

MAUI DISTRICT  
660 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.

LAUNIPOKO • OLOWALU • KAAHALA • 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

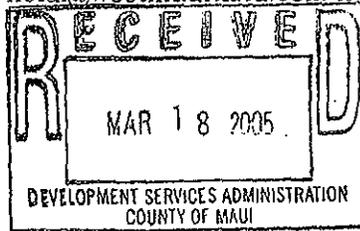
I am enclosing Mahanalua Nui Subdivision Phase IV so it is available for execution upon completion and approval of improvements.

Please contact me at 877-4202 or via email [heidi@westmauland.com](mailto:heidi@westmauland.com) if you have any questions or need additional information.

Sincerely,  
WEST MAUI LAND COMPANY, INC.



Heidi Bigelow



Enclosures

*4/9/05 - Version 1 of Warranty of Improvements was not received  
initially sent*

EXHIBIT II



**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

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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 1/2 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**

10/27/2011

Olowalu Blauwe Highway Access & Conceptual Master Plan

Page 2 of 2

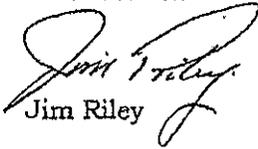
The application process for the Olowalu Master Plan is complex and lengthy. We believe it will take about five years to complete the Change in Zoning, and then between ten and fifteen years to complete build out of the project. Before we submit a formal application, there is much work to be done. You 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 Blauwe Associates, LLC**



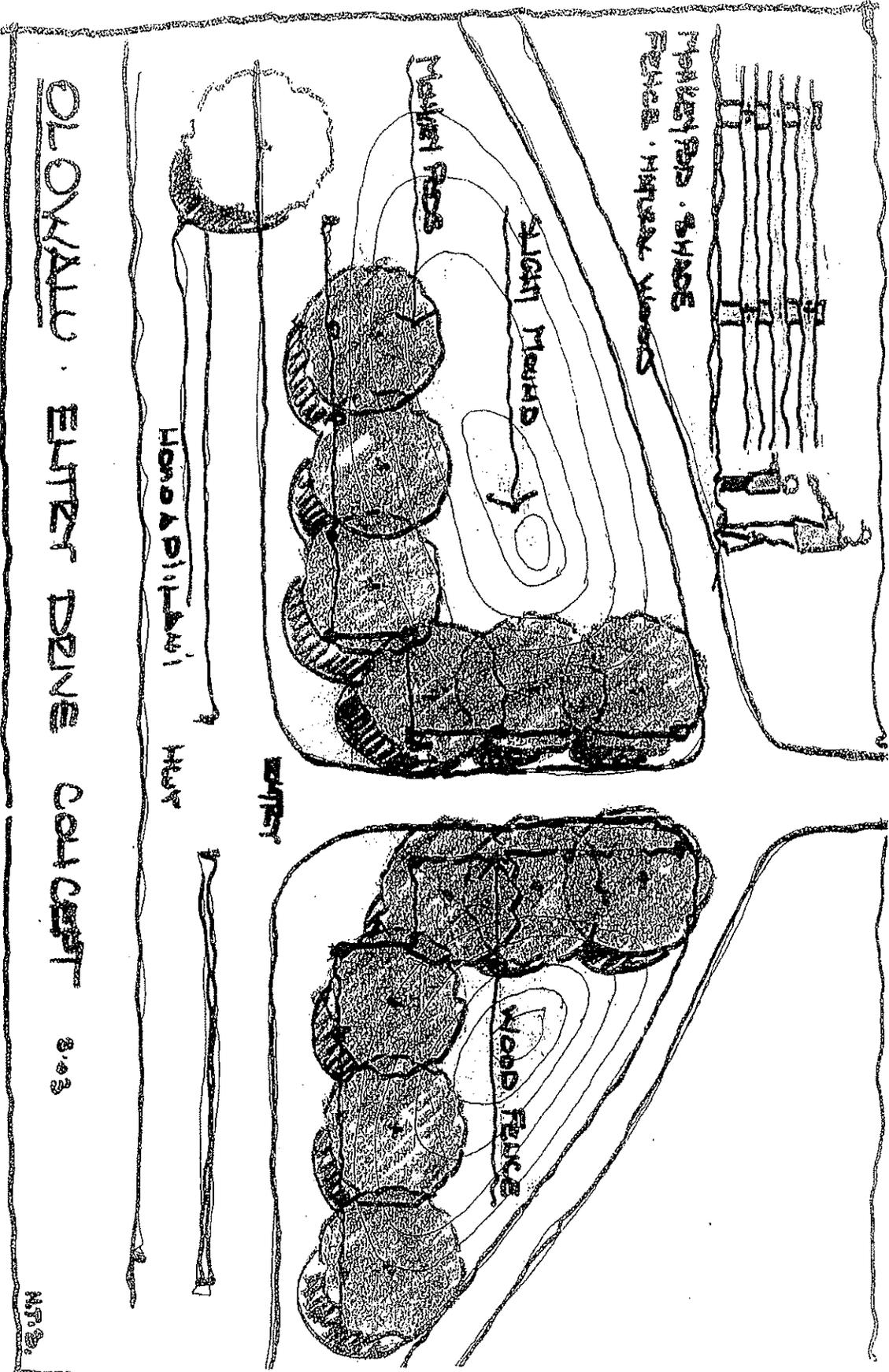
Peter Martin

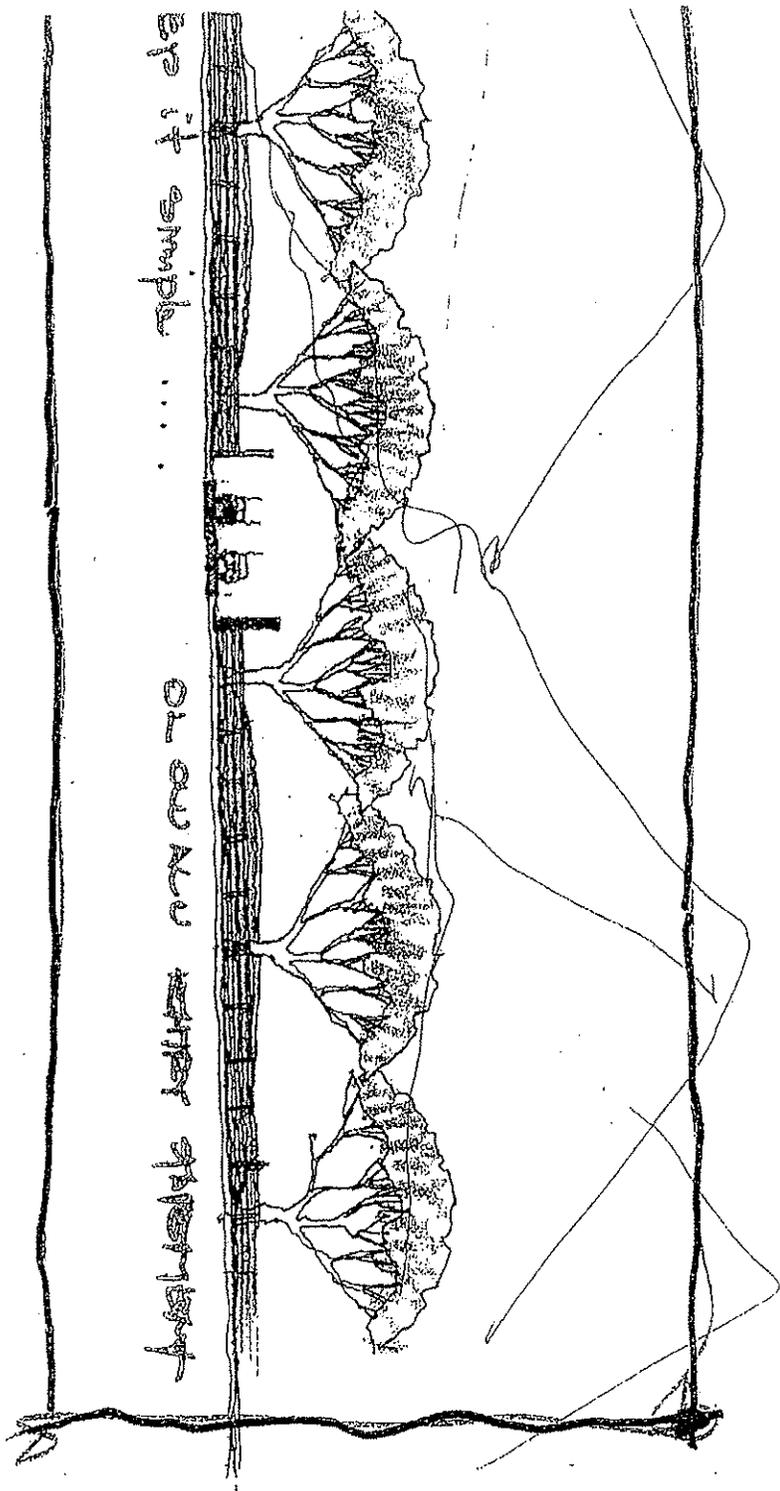


Jim Riley

Enclosures







## INTRODUCTION

Xamanek Researches was contacted during late August 1998 by Mr. Robert Horeajo, 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/Lana'i 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.

## BACKGROUND RESEARCH

In precontact times, Olowalu—the largest and deepest valley in Lahaina district—had extensive taro *loʻi* in both the stream valley and the alluvial fan below. Production of taro was continued into the 20<sup>th</sup> 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<sup>3</sup> (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.

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<sup>3</sup> 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 descendants present at the meeting (Ms. Katie Nahina, Ms. Adeline Rodrigues, and Mr. William Waijohu).

TABLE 1  
Significance Evaluations—Proposed Mitigation

STEP # 50-50-08	Significance criterion	Components/ Features	Status	Condition <sup>4</sup>	Age <sup>5</sup>	Proposed mitigation
04	C, D, E	heiau	U	Very good	I	Interpretive preservation <sup>7</sup>
3180	D	1	A	G	H	NLS <sup>8</sup>
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 <sup>9</sup>
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

<sup>4</sup> A=altered; U=unaltered

<sup>5</sup> G=good; F=fair; P=poor

<sup>6</sup> I=indigenous; H=historic

<sup>7</sup> Consultation with Native Hawaiian community recommended prior to implementation.

<sup>8</sup> No longer significant—sufficient information has been collected.

<sup>9</sup> 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.<sup>10</sup> 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).

<sup>10</sup> 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 Kawaiāloa/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.<sup>11</sup> Sites proposed for interpretive preservation include Site 04 (Kawaiāloa/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 recommended that all nonnative trees be flush cut within the

<sup>11</sup> 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 – Kawaiāloa/Kaiwāloa 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.<sup>12</sup> The *heiau* has been placed in the proposed Cultural Reserve for Olowalu.<sup>13</sup> Site 04 is bounded by three parcels that are slated for development (Lots 6, 7 and 8).<sup>14</sup>
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.<sup>15</sup> 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

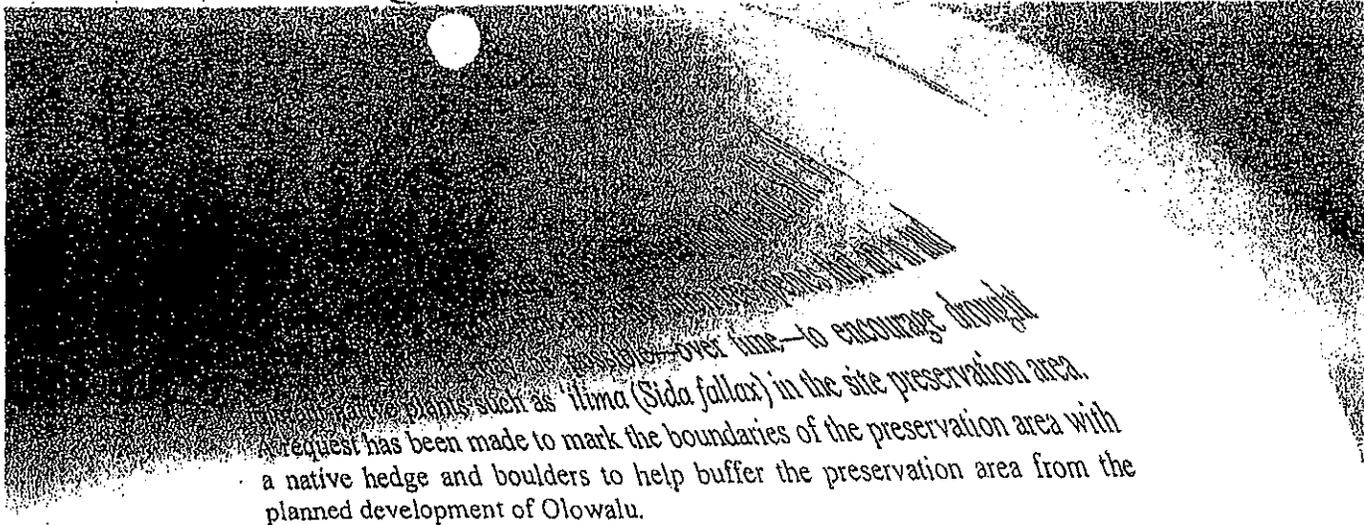
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<sup>12</sup> Walker noted that burials were contained in Site 04 in his island inventory in 1931. At the writing of this preservation plan, contemporary informants Ms Katie Nahina, Mr. William Waiohu, and Ms. Adeline Rodrigues, all lineal and cultural descendants of Olowalu, have indicated that traditional burials are indeed contained within Kawaiāloa/Kaiwāloa *heiau*.

<sup>13</sup> A nonprofit corporation—Olowalu Cultural Reserve—has been formed under 503 C3 rules to administer the c. 75-acre Cultural Reserve in Olowalu.

<sup>14</sup> 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.

<sup>15</sup> This request has been put forth by lineal descendents of Olowalu, including Ms. Katie Nahina, Ms. Adeline Rodrigues, and Mr. William Waiohu.



...possible over time—to encourage drought  
...native 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

<sup>16</sup> 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'eumoku Kapu, a family member, shall serve as caretakers of this *heiau*.

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.<sup>17</sup>

**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.<sup>18</sup>

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<sup>17</sup> Lot 6 will also have a Cultural Reserve set back of c. 10 meters (30 feet) as a condition of the SMA permit.

<sup>18</sup> 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.<sup>19</sup>

#### 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.<sup>20</sup> No formal, interpretive access is proposed for this site because of cultural considerations.<sup>21</sup> Passive, “as is” preservation is recommended.

<sup>19</sup> 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.

<sup>20</sup> 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.

<sup>21</sup> 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.<sup>22</sup>

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.

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<sup>22</sup> 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.<sup>23</sup>
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.

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<sup>23</sup> 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”.<sup>24</sup> 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.<sup>25</sup> It appears probable that additional burials are contained in Site 4758. A former sugarcane field road passes just to the south of the cemetery.

<sup>24</sup> At the 25 January 2001 MLIBC meeting, lineal and cultural descendants 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.

<sup>25</sup> 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.<sup>26</sup> 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.

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<sup>26</sup> 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*.<sup>27</sup> 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

<sup>27</sup> 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  
Kawaiialoa/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 Kawaiialoa/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. Kawaiialoa/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.



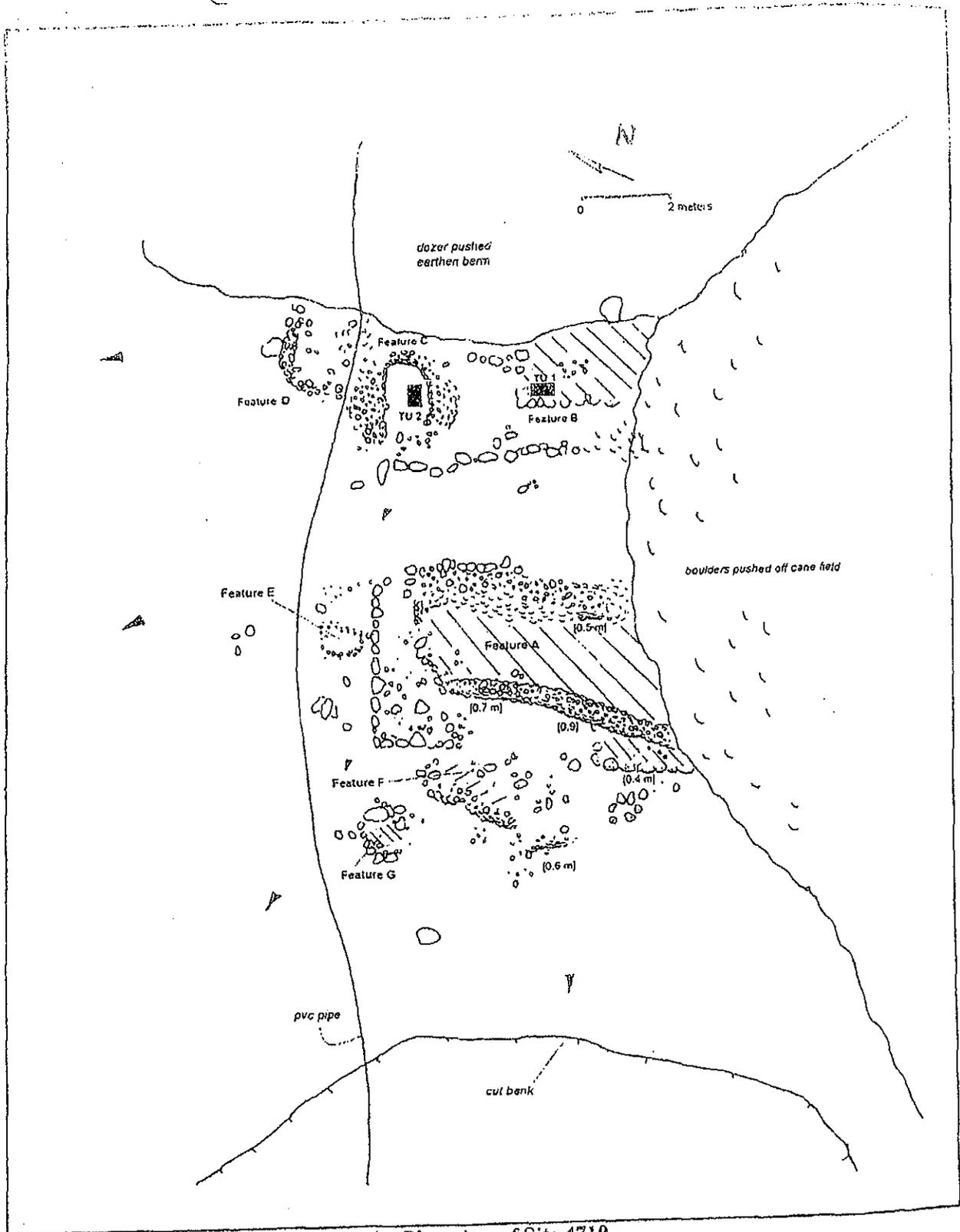


Figure 4 - Plan view of Site 4710.

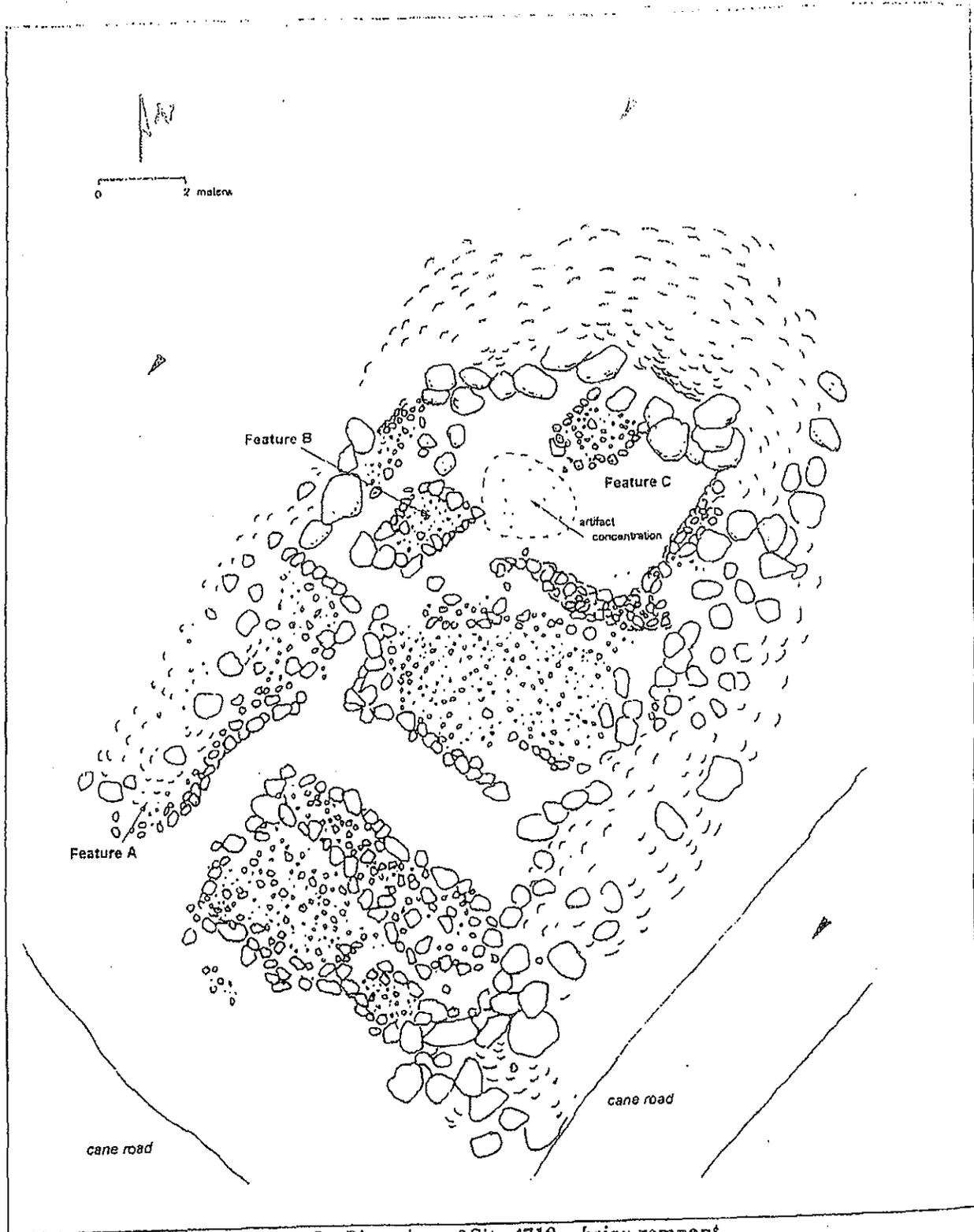


Figure 5 - Plan view of Site 4718—*heiau* remnant.

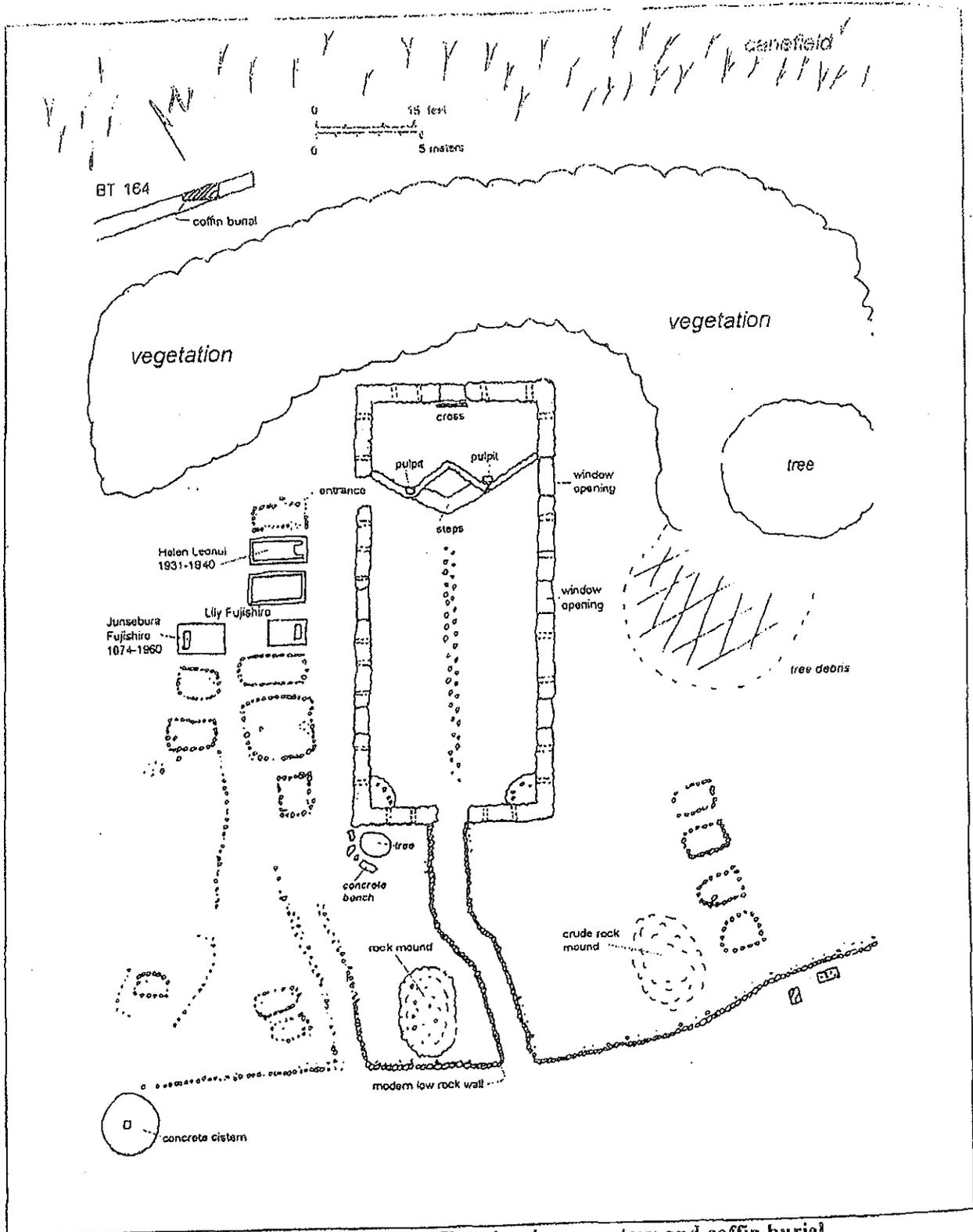
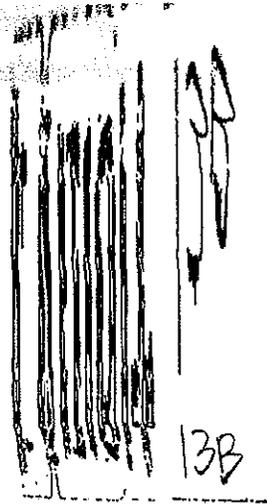


Figure 6 - Site 1603—Olowalu Stone Church ruins, cemetery and coffin burial.



DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKAHIHEWA BUILDING, ROOM 456  
601 KANOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

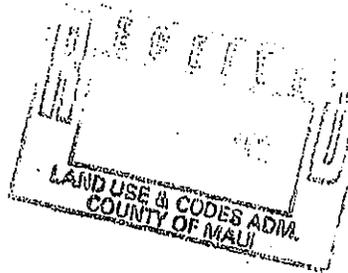
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF WATER RESOURCES

DIRECTOR  
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LOCAL RESOURCES

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
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CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

March 7, 2002

Mr. Bob Horcajo  
Olowalu Elua Associates  
173 Ho'ohana Street, Suite 201  
Kahului, Hawaii 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

Mr. Bob Horszjo  
Page 2

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. ROYAL  
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 arecina, Aleurites moluccana, Cordia Subcordata, Pritchardia hillebrandii, Metrosideros polymorpha, Diospyros sandwicense, Acacia koala, Psydrax odoratum, Rauvolfia sandwicensis, Nesoluma polynesticum
4. TREE COMMON NAME(s): Loulu, Kukui, Kou, Loulu Palm, Ohia a lehua, Lama, Koai'a, Alahe'e, Hao, Keahi
5. TREE SIZE(s): 15 gallon, 2 inch caliper, 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

Ms. Heidi Giegelow  
May 29, 2003  
Page 2

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:   
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\LP\2003\0023\_OlowaluMaukaSubd\RevisedApproval.wpd

AREA 1 GREENWAY

ROADWAY

• NINE TREES  
+ Ground cover

from 1997

ACCENT TREE (SHRUB) (OLCA)

HEDGEBANK

SHADE TREE

STREAM

NINE HAWAIIAN GRASSES

ROAD

OLOWALI ...

GREENWAY CONCEPT

SEP. 97

MAR 17 2000

Olowalu Ehua Associates, LLC

1 Ho Onohe Street - Suite 201  
Lualaba, HI - 96732

Phone 808-877-2434  
Fax 808-877-8409

March 16, 2000

David Craddock, Director  
Department of Water Supply  
University of Maui  
100 South High Street  
Haleakala, Hawaii 96793

Olowalu Subdivision  
(CDUA MA-2963) (SM1 990021)

Dear Mr. Craddock,

We have received a copy of your December 20, 1999 letter to Dan Uchida and your January 7, 2000 letter to John Min relating to subject project. We would like to take this opportunity to provide a response.

As you know, Pioneer Mill Company, Ltd. has historically provided drinking water for the village of Olowalu. Currently, Olowalu Ehua Associates, LLC continues providing drinking water through a private water entity. However, we are certainly willing to discuss alternatives relating to a possible establishment of a public water system managed and operated by the County which includes the Olowalu region.

We would like to note our emphasis on the use of native and Polynesian introduced plants in greenways, the cultural reserve, roadway landscaping and the beach reserve.

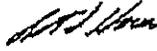
We appreciate the transmission of information on specific measures to conserve water resources and will consider the suggestions during project implementation.

→ \*

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.

2009 03 17 11:11:11

# FRAUGHTON & WARD, LLC

Real Estate Consulting • Development • Project Management

173 Ho'ohana St., Suite 202A

Kahului, HI 96732

Office (808) 893-2300

April 16, 2003

Mr. Francis Cerizo  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, HI 96793

RECEIVED

APR 17 2003

RT TANAKA ENGINEERS, INC.

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

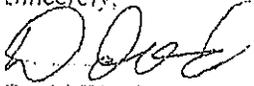
- d. Conditions #5-8 - There is no update or change to the approved responses to these conditions
- e. Condition #9 - The construction related structures for this subdivision will include a small construction trailer and a 20 ft container to store materials. The temporary construction area will be established 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.

Mr. Francis Cerizo  
April 16, 2005  
p. 3 of 3

- 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 GLOWALLI MAUIKA 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.

... shall be responsible for the design, construction and installation of the underground conduits for telephone and television service. The construction of no underground utility shall be required until 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.

RECEIVED

BY DATE 4/22/00



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 821  
HONOLULU, HAWAII 96809

ADMINISTRATIVE DEVELOPMENT PROGRAM  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
COMPLIANCE  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCES MANAGEMENT

Ref: FBEAH

APR 25 2000

File No. JENFMA 00-33  
DOCAREMA 00-366

Olowalu Elua Associates, LLC  
173 Ho Ohana St., Suite 201  
Kahului, HI 96732

Dear Sir:

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)

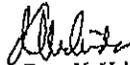
EXHIBIT 18A

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(MOLO, 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 821  
 HONOLULU, HAWAII 96809

AGRICULTURE DIVISION/IN  
 PROGRAM  
 AQUATIC RESOURCES  
 SOIL AND OCEANOGRAPHY  
 CONSERVATION AND  
 RESOURCES ENFORCEMENT  
 CONVEYANCE  
 FORESTRY AND WILDLIFE  
 HISTORIC PRESERVATION/  
 LAND DIVISION  
 STATE PARKS  
 WATER RESOURCE MANAGEMENT

JUL - 5 2000

Ref:PB:EAIH

File No: EN7MA0033  
 DOCAREMA00366

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;

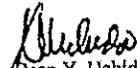
**FYUQIT** 188

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 removing 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.

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Should you have any questions on this matter, please contact Eric Hill of our planning staff at 587-0380.

Aloha,

  
Dean Y. Uchida, Administrator

o: Chairperson  
Board Members  
HPD/LD(MDLO, EB)/DOCARE  
County of Maui Planning Department  
Na Kupuna O Maui

597



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 LAND DIVISION  
 P.O. BOX 521  
 HONOLULU, HAWAII 96809

RECEIVED  
 DATE 7/25/00

ADMINISTRATIVE DEVELOPMENT  
 PROGRAM  
 AQUATIC RESOURCES  
 BOARD AND OCEAN RECREATION  
 CONSERVATION AND  
 RESOURCES ENFORCEMENT  
 CONSERVATION  
 FORESTRY AND WILDLIFE  
 HISTORIC PRESERVATION  
 LAND USE  
 STATE PARKS  
 WATER RESOURCE MANAGEMENT

Ref:PB:EAH

JUL 21 2000

File No.: ENF MA 00-13  
 DOCAR: 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 Unencumbered 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 Unencumbered 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

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*

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**AFTER-THE-FACT APPROVALS  
FOR WORK PERFORMED AT  
OLOWALU, MAUI, HAWAII**

Prepared for:

June 2001

Olowalu Elua Associates, LLC



**EXHIBIT 18D**

523

# Chapter 1

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*Overview*

527

**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**

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***Work Performed Within  
the Conservation District***

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**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

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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.

1-23

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

[X] 1st Warning 10/19/05 [ ] 2nd Warning  
(Date)

Issued to: PETER MARTIN OWNER  
( ) Hand Delivered [X] Certified Mail  
DBA: OLYMPIA ELEM ASSETS, LLC LAND, Co. WEST MAUI  
Address: 210 Chawala Hill Rd.  
26 53 LONG AVE ST#450, KAHALI  
TMK: 2480030430000

We have determined that the following violation exists on this property.

- [ ] Sign Violation
- [X] Zoning Violation
- [X] Special Management Area Violation
- [X] Other STATE CDUA VIOLATION

Description of Violation: \* HRS. 205A. 42.6  
OBTAIN A SHORELINE SETBACK VARIANCE.  
\* M.C.C. 12.202.25 SMA RULES \* M.C.C.  
19.4.020 I.2 ACCESSORY USE OUTSIDE

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. Villalobos at 270-7253.

Charles Hill 10/19/05 10:00 AM  
SIGNATURE OF INSPECTOR DATE / TIME

WITNESS SIGNATURE DATE / TIME

Comments: FINE IN EXCESS OF \$1,000.00  
WILL BE ISSUED IF COMMERCIAL EVENTS  
CONTINUE, W/O ABOVE COMPLIANCE TO LOCAL  
COUNTY & STATE MANDATES, WILL BE VIOLATED

RFS No. 05-4436

C 0390

Department (original) Inspector (pink) Issued To (Yellow)  
7004 2910 004 6384 2897 10/19/05 GAN

EXHIBIT 19

WA

## 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 Evergreen, 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 31<sup>st</sup>, 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 few 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 McCarriston 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 6<sup>th</sup>, 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 *Bruce Curtis 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.

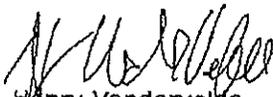
I am very concerned that the developer was allowed to market and sell lots in the subdivision before it received approval.

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 6<sup>th</sup> 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

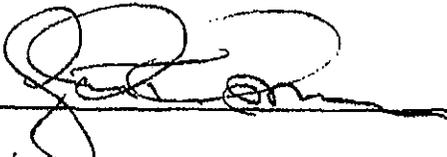
recourse on our part. Not to mention putting our lives at risk when attempting to turn into our subdivision from the Honoapiilani Highway, we also risk whiplash by falling into a deep rut. Another concern is the lack of a proper fire road as we have had multiple fires in our subdivision and access to 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@ramauui.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 at 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 at 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

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Lawrence P. Carnicelli, Broker

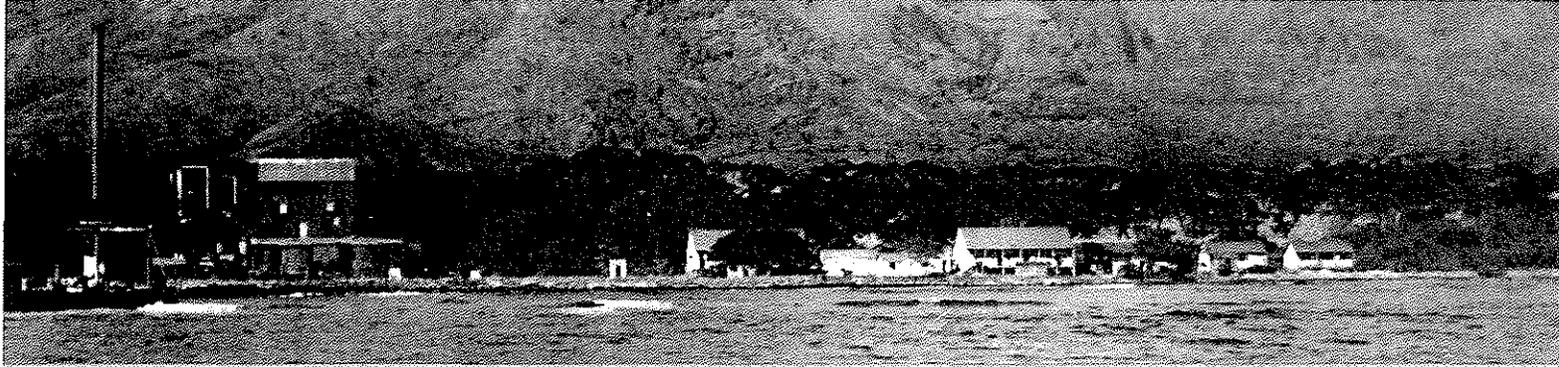
Prudential Maui Realtors

<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\OlowaluTownMasterP\NEISP\NRagonresponse.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**

Mr. Peter Martin, President  
December 16, 2010  
Page 2

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.

Mr. Peter Martin, President  
December 16, 2010  
Page 3

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](mailto:kurt.wollenhaupt@mauicounty.gov) or at (808) 270-1789.

Sincerely,



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

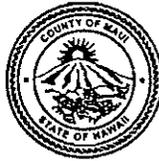
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ALAN M. ARAKAWA  
Mayor

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.

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:

Mr. Peter K. Martin, Olowalu Elua Associates, LLC  
April 7, 2011  
Page 4

- 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](mailto:kurt.wollenhaupt@mauicounty.gov) or at (808) 270-1789.

Sincerely,



WILLIAM SPENCE  
Planning Director

Mr. Peter K. Martin, Olowalu Elua Associates, LLC

April 7, 2011

Page 5

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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## 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 18<sup>th</sup> 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 in 1999/2000. **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 Kawaihoa 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.

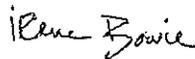
Suggestions were made to limit the size of the Olowalu project during both GPAC and Planning Commission Review of the Maui Island Plan.

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,

A handwritten signature in cursive script that reads "Irene Bowie".

Irene Bowie  
Executive Director



MICHAEL T. MUNEKIYO  
GWEN HASHI 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**

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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

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 Ekoru 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.

Irene Bowie, Executive Director  
December 28, 2011  
Page 9

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 Kuniyama, 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.

Ms. Colleen Suyama  
August 4, 2010  
Page 2

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.

Mr. Wayne Kawahara

June 15, 2007

Page two

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

Mr. Wayne Kawahara  
June 15, 2007  
Page three

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](mailto: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.

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



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. REFERENCES**

## XI. REFERENCES

Ainsworth, Gail, Olowalu Town, History and Culture; Retrieved from <http://www.olowalu.net/index.cfm?fuseaction=ig.page&CategoryID=28>; September 2011.

Applegate, Connie, Owner at Olowalu Nui Hydroponic Tomato Farm, Telephone communication with Munekiyo & Hiraga, Inc., October 19, 2011.

Bittenbender, H.C. and Virginia Easton Smith, "Growing Coffee in Hawaii," Revised Edition, 2008.

Brown and Caldwell, Olowalu Water and Wastewater Options Report, October 31, 2005.

Cai, Junning and PingSun Leung, "Economic Impacts of Shutting Down Hawaii's Sugar Industry", Economic Issues, April 2004.

Char & Associates, Botanical Survey, March 1999.

County of Maui, Office of Economic Development, Maui County Databook 2010, February 2011.

County of Maui, Planning Department, Final Environmental Assessment, Land Use Redesignation, Community Plan Amendment and Change in Zoning, Papalaua to Puamana, August 8, 2008.

County of Maui, Planning Department, Maui County Community Plan Update Program: Socio-Economic Forecast, June 2006.

County of Maui, Public Facilities Assessment Update, March 9, 2007.

County of Maui, The General Plan of the County of Maui, September 1990 Update.

County of Maui, Water Use and Development Plan, 1990.

County of Maui, West Maui Community Plan, February 1996.

County of Maui, Office of Economic Development, Maui County Data Book, 2008.

County of Maui, "Special Management Areas." [GISpolygon shapefile]. Digitized by Office of Planning using ArcInfo 7.1.1 from County blue line maps (2009). Retrieved from <http://hawaii.gov/dbedt/gis/download.htm>.

Department of Education, <http://www.doc.k12.hi.us/reports/enrollment.htm>, August 2011.

Department of Education, Draft Analysis of the Proposed West Maui School Impact District, September 17, 2010.

Fischer, John, "Sugar Industry in West Maui," [http://gohawaii.about.com/od/mauiactivities/ss/sugar\\_cane\\_train.htm](http://gohawaii.about.com/od/mauiactivities/ss/sugar_cane_train.htm), Accessed October 18, 2011.

Gershman, Brickner & Bratton, Inc., Integrated Solid Waste Management Plan, February 2009.

Kaimikaua, John, [http://hawaii.gov/dbedt/czm/todays\\_challenges/principles.html](http://hawaii.gov/dbedt/czm/todays_challenges/principles.html), retrieved August 2011.

Katherine Kama'ema'e Smith, Pu'u Honua: The Legacy of Olowalu.

Leone, Diana, "Monsanto shifting jobs from Kauai to Maui, Oahu", The Honolulu Advertiser, March 13, 2009.

Norcross-Nuu, Zoe, et al., Bringing Sea-Level Rise into Long Range Planning Considerations on Maui, Hawai'i, 2008.

Olowalu Water Company, Inc., "Rules and Regulations Governing Rate Schedules and the Provision of Non Potable Water Service to Customers", September 12, 2011.

Olowalu Water Company, Inc. "Water Usage Data", September 2011.

Realtors Association of Maui, Inc., Maui Overview Website, <http://www.ramaui.com>, July 2011.

SMS, Hawai'i Housing Policy Study Update, 2003.

State of Hawai'i, Commission on Water Resource Management, Hawai'i Stream Assessment. A Preliminary Appraisal of Hawai'i's Stream Resources, Report R84, December 1990.

State of Hawai'i, Department of Business, Economic Development and Tourism, State of Hawai'i Data Book, 2008.

State of Hawai'i, Department of Labor and Industrial Relations (DLIR), Local Area Unemployment Statistics, <http://www.hiwi.org>, July 2011.

State of Hawai'i, Department of Transportation, Hawai'i Statewide Transportation Plan, September 2002.

State of Hawai'i, Department of Transportation, Maui Long-Range Land Transportation Plan, February 1997.

State of Hawai'i, Land Use Commission, <http://luc.state.hi.us/>, November 2009.

Tom Nance Water Resource Engineering, "Impact on Water Resources of the Olowalu Town Project", September 2011.

Tremble, Glenn, Manager at Olowalu Water Company. Telephone communication with Munekiyo & Hiraga, Inc., October 12, 2011.

University of Hawai'i, Land Study Bureau, Detailed Land Classification, Island of Maui, May 1967.

U.S. Census Bureau, 2010 Census Summary File 1, Accessed August 2011.

U.S. Census Bureau, 2000 Census Summary File 1, Accessed August 2011.

U. S. Department of Agriculture, Soil Conservation Service, The Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawai'i, August 1972.

U.S. Fish and Wildlife Service, 1999.

U.S. Green Building Council, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>, October 2011.

Yerton, Stewart, "Ethanol producers not ready to fill mandate", Honolulu Star Bulletin, March 15, 2006.

Xamanek Researches, Archaeological Inventory Surveys, 1999 and 2000.