

June 30, 2017

MEMO TO: PC-2 File

F R O M: Kelly T. King, Chair
Planning Committee

Kelly T. King

SUBJECT: **TRANSMITTAL OF LEGISLATIVE PROPOSAL RELATING TO THE
MOLOKAI COMMUNITY PLAN** (PC-2)

The attached legislative proposal pertains to Item 2 on the Committee's agenda.

pc:ltr:002afile06:kcw

Attachment

ORDINANCE NO. _____

BILL NO. _____ (2017)

A BILL FOR AN ORDINANCE AMENDING SECTION 2.80B.070, MAUI COUNTY CODE, TO ADOPT THE UPDATED MOLOKAI COMMUNITY PLAN

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. The Molokai Community Plan, having an effective date of December 19, 2001, as amended, is hereby repealed, and the updated Molokai Community Plan (2017), attached hereto and incorporated herein by reference as Exhibit "1," is adopted.

SECTION 2. Section 2.80B.070, Maui County Code, is amended by amending subsection C to read as follows:

"C. The following community plans are incorporated by reference and adopted pursuant to this chapter:

1. Hana Community Plan - Ordinance No. 2347 (1994), as amended;
2. Paia-Haiku Community Plan - Ordinance No. 2415 (1995), as amended;
3. Kahoolawe Community Plan - Ordinance No. 2413 (1995), as amended;
4. West Maui Community Plan - Ordinance No. 2476 (1996), as amended;
5. Makawao-Pukalani-Kula Community Plan - Ordinance No. 2510 (1996), as amended;
6. Kihei-Makena Community Plan - Ordinance No. 2641 (1998), as amended;
7. Lanai Community Plan - Ordinance No. 4343 (2016), as amended;
8. Molokai Community Plan [- Ordinance No. 3022 (2001), as amended] 2017; and
9. Wailuku-Kahului Community Plan - Ordinance No. 3061 (2002), as amended."

SECTION 3. Material to be repealed is bracketed. New material is underscored. In printing this bill, the County Clerk need not include the brackets, the bracketed material, or the underscoring.

SECTION 4. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM AND LEGALITY:

Department of the Corporation Counsel
County of Maui

pc:misc:002abill01:kcw

**MOLOKA`I
COMMUNITY PLAN UPDATE
(2017)**

EXHIBIT “1”

County of Maui
June 2017

Moloka`i Community Plan Update

With proposed revisions by:
Maui County Council Planning Committee Chair King

County of Maui - Department of Planning
May 2016



ACKNOWLEDGMENTS

MOLOKA`I PLANNING COMMISSION

Michael Jennings (Chair)
Billy Buchanan
Zhantell Dudoit
Marshall Racine
Wiliama Akutagawa

Douglas Rogers (Vice-Chair)
Ron Davis
Lawrence Lasua
Diane Swenson

MOLOKA`I COMMUNITY PLAN ADVISORY COMMITTEE

Steve Chaikin (Chair)
Pi`ilani Augustiro
Lori Buchanan
Debra Kelly
Edwin Mendija
Robert Stephenson
Carl Adolpho

Lance "Kip" Dunbar (Vice-Chair)
Dathan Bicoy
Gregory Jenkins
Deldrine Kauinohea Manera
John Sprinzel
Glenn Teves
The late Moses Luczon

MAUI COUNTY COUNCIL

Mike White, Chair
Robert Carroll, Vice-Chair
Stacy Crivello, Presiding Officer Pro Tempore
Alika Atay
Elle Cochran
Don S. Guzman
Riki Hokama
Kelly T. King
Yuki Lei K. Sugimura

COUNTY OF MAUI OFFICE OF THE MAYOR

Alan M. Arakawa, Mayor
Keith Regan, Managing Director

DEPARTMENT OF PLANNING

William Spence, Planning Director
Michele McLean, Deputy Planning Director

LONG RANGE DIVISION, DEPARTMENT OF PLANNING

Pam Eaton, Planning Program Administrator
Joy Paredes, Division Secretary
Richele Lesa, Office Operations Assistant

David Yamashita, Planner Supervisor
Jennifer Maydan, Project Lead, Senior Planner
Mary Jorgensen, Senior Planner
Doug Miller, Senior Planner
Annalise Kehler, Cultural Resource Planner

Daniel McNulty-Huffman, GIS Supervisor
Mark King, GIS Analyst
Michael Napier, GIS Analyst
Kristana Erikson, GIS Analyst

ACKNOWLEDGMENTS (CONTINUED)

CONSULTANT TEAM AND SPECIAL STUDIES

Chris Hart & Partners, Inc.

John M. Knox & Associates, Inc.: *Moloka`i Economic Development Paper and Moloka`i Housing Issue Paper*

Belt Collins Hawai`i LLC, John Kirkpatrick: *Land Use Forecast*

SMS Research & Marketing Services, Inc. and Belt Collins Hawai`i Ltd: *Socio-Economic Forecast*

Wilson Okamoto Corporation: *County of Maui Infrastructure Assessment Update 2003*

R. M. Towill Corporation: *Public Facilities Assessment Update County of Maui 2007*

PlanPacific, Inc.: Existing land use database for *Socio-Economic Forecast*

Photo Credits

Cover: David Yamashita

TABLE OF CONTENTS

Chapters:

1.	Introduction	1-1
2.	Moloka`i's Future	2-1
3.	Natural, Heritage, and Scenic Resources	3-1
4.	Hazards	4-1
5.	Economic Development	5-1
6.	Land Use and Housing	6-1
7.	Community Design	7-1
8.	Infrastructure	8-1
9.	Public Facilities and Services	9-1
10.	East End Policy Statement	10-1
11.	Maunaloa Policy Statement	11-1
12.	Implementation and Monitoring	12-1

Figures:

1.1	Moloka`i Community Plan Region	1-2
1.2	County of Maui General Plan Organization	1-4
1.3	Generalized Community Planning Process and Schedule	1-6
2.1	Historical and Forecasted Moloka`i Resident Population 1896-2040	2-4
2.2	Historical and Forecasted Moloka`i Average Daily Resident and Visitor Population 1990-2035	2-4
2.3	Historical and Forecasted Moloka`i Age Distribution 2010 and 2035	2-5
6.1	Acreage by State Land Use District	6-2
6.2	Ownership Percentage by Major Landowner	6-3
6.3	Moloka`i Planning Regions	6-4
6.4	Gross Rent as a Percentage of Household Income	6-12
6.5	Monthly Owner Costs as a Percentage of Household Income	6-13
9.1	Moloka`i Public Parks	9-2

Tables:

3.1 Natural Resources Actions3-9

3.2 Heritage Resources Actions3-16

3.3 Scenic Resources Actions3-19

4.1 Hazards Actions4-8

5.1 Economic Development Actions5-7

6.1 Population of Moloka`i’s Small Towns6-1

6.2 Land Use Actions6-10

6.3 Housing Actions6-15

7.1 Community Design Actions7-4

8.1 Infrastructure – Water Actions8-4

8.2 Infrastructure – Wastewater Actions8-7

8.3 Infrastructure – Stormwater Management Actions8-10

8.4 Infrastructure – Solid Waste Actions8-13

8.5 Infrastructure – Transportation Actions8-20

8.6 Infrastructure – Energy Actions8-23

8.7 Infrastructure – Telecommunications Actions8-24

9.1 Public Facilities and Services – Parks and Recreation Actions9-4

9.2 Public Facilities and Services – Police Actions9-8

9.3 Public Facilities and Services – Fire and Public Safety Actions9-11

9.4 Public Facilities and Services – Education Actions9-15

9.5 Public Facilities and Services – Health and Social Services Actions9-19

9.6 Public Facilities and Services – Cemeteries Actions9-21

9.7 Public Facilities and Services – Governance Actions9-23

10.1 Example Core Indicators10-4

10.2 Core Indicators, Objectives, and Data Sources10-5

Maps:

3.1 Natural Resources Map Book

3.2 Resource Management Areas Map Book

3.3 Cultural, Historic, and Archaeological Resources Map Book

4.1 Hazards – West Map Book

4.2 Hazards – Central Map Book

4.3 Hazards – East Map Book

6.1 Agricultural Resources Map Book

6.2 Community Plan Land Use – West Map Book

6.3 Community Plan Land Use – Central Map Book

6.4 Community Plan Land Use – East Map Book

8.1 Infrastructure Map Book

8.2 Transportation Map Book

9.1 Public Facilities Map Book

Appendices:

1.1 Moloka`i History SummaryA-1

1.2 Background Studies for Community PlansA-4

1.3 Community EngagementA-5

1.4 Legal Framework – Native Hawaiian Traditional and Customary PracticesA-6

2.1 Definition of Sustainability in Hawai`iA-10

2.2 Sustainability (Section 226-108, HRS)A-10

2.3 Climate change adaptation priority guidelines (Section 226-109 HRS).....A-11

3.1 Ecosystem ServicesA-12

3.2 Moloka`i Archaeological Surveys Reference ListTO BE DETERMINED

3.3 Cultural SitesTO BE DETERMINED

6.1 Comparison of State Land Use, County Community Plan, and Zoning DistrictsA-14

6.2 County Community Plan DesignationsA-16

LIST OF ACRONYMS

BCT	Business Country Town
BMP	Best Management Practices
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CIP	Capital Improvement Programming
CPAC	Community Plan Advisory Committee
CRS	Community Rating System
CTAHR	College of Tropical Agriculture and Human Resources
CWPP	Community Wildfire Protection Plan
CWRM	State Commission on Water Resource Management
DAR	State DLNR, Division of Aquatic Resources
DBEDT	Department of Business Economic Development and Tourism
DEM	County Department of Environmental Management
DHHC	County Department of Housing and Human Concerns
DHHL	Department of Hawaiian Homelands
DLNR	State Department of Land and Natural Resources
DOA	State Department of Agriculture
DOE	State Department of Education
DOH	State Department of Health
DOFA	State Division of Forestry and Wildlife`
DPW	County Department of Public Works
DWS	Department of Water Supply
EAP	Emergency Action Plan
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FIS	Flood Insurance Study
GIS	Geographic Information System
HDOA	Hawai`i Department of Agriculture
HDOT	Hawai`i Department of Transportation
HFRA	Healthy Forest Restoration Act
HMP	Hazard Mitigation Plan
HRS	Hawai`i Revised Statutes
IAL	Important Agricultural Lands
ISWMP	Integrated Solid Waste Management Plan
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
MCC	Maui County Code
MCHC	Moloka`i Community Health Center
MECO	Maui Electric Company
MEDB	Maui Economic Development Board
MEO	Maui Economic Opportunity
MFD	Maui Department of Fire and Public Safety
MFI	Median Family Income

MGD	Million Gallons per Day
MIS	Moloka`i Irrigation System
MLSWCD	Moloka`i Soil and Water Conservation District
MoPC	Moloka`i Planning Commission
MPD	Maui Police Department
MW	Megawatt
NFIP	National Flood Insurance Program
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
OED	Office of Economic Development
OHA	Office of Hawaiian Affairs
ORMP	Ocean Resource Management Plan
PD	Planning Department
SHPD	State Historic Preservation Division
SLR	Sea Level Rise
SMA	Special Management Area
STRHs	Short Term Rental Homes
TER	Traditional Ecological Knowledge
TMK	Tax Map Key
TNC	The Nature Conservancy
TVR	Transient Vacation Rental
UH	University of Hawai`i
UHERO	University of Hawai`i Economic Research Organization
UHMC	University of Hawai`i Maui College
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WWRF	Waste Water Reclamation Facility
WWTF	Wastewater Treatment Facility

1
2
3 **1 | INTRODUCTION**
4

5 Moloka`i is an island tremendously rich in natural and cultural resources. Its physical geography makes it one of
6 the most striking places in the world to live and visit, and its bountiful agricultural lands are among the most
7 fertile in the state. Moloka`i is famous for having the highest sea cliffs in the world, the most intact pre-contact
8 system of man-made fishponds that exist anywhere in Polynesia, and the longest contiguous fringing coral reef
9 system in the United States.

10
11 Moloka`i is often referred to as the “Last Hawaiian Island.” It is the most rural of the Hawaiian Islands and,
12 excluding Ni`ihau, has the highest percentage of native Hawaiians in the State. Many Moloka`i residents still
13 practice a subsistence-based lifestyle, relying on fishing, hunting, farming, and gathering for food, spiritual
14 wellbeing, and cultural practices. Subsistence and bartering also play an important role in the island’s economy.
15 There is a strong sense of `ohana on Moloka`i. Large extended families are common and sharing resources is
16 customary. For many Moloka`i residents, maintaining close ties to the ocean, land, and ancestral places fosters a
17 sense of connectedness to past, present and future generations.

18
19 Many Moloka`i families have lived on the island for generations, while some are more recent arrivals. Key events
20 have shaped the structure and vitality of Moloka`i’s economy and land use, and in turn have influenced the population
21 makeup and employment of the island. Today, the people, brought together from many different cultures, share
22 common values – a love for `ohana, the land and sea, and the rural lifestyle. The tightly-knit community has an
23 array of expertise and background, and a desire to be part of the global economy and sustainable.

24
25 But in spite of these great strengths, Moloka`i has historically had a limited economy partially due to the island’s
26 remote location, small population base, and strong control by a few major landowners. Moloka`i residents are
27 very protective of their rural and traditional-based lifestyles, and have resisted economic development centered
28 on tourism and real estate. Establishing a more vibrant job-producing economy, in harmony with Moloka`i’s
29 rural lifestyle and cultural and environmental resources, will necessitate more creativity, harder work, and a
30 greater spirit of entrepreneurialism than required for other economies with greater economies of scale. Moloka`i’s
31 natural environment, cultural resources, and agricultural lands are key assets that, if properly managed and
32 protected, will help to strengthen and diversify the island’s economy and ensure opportunities for future
33 generations.

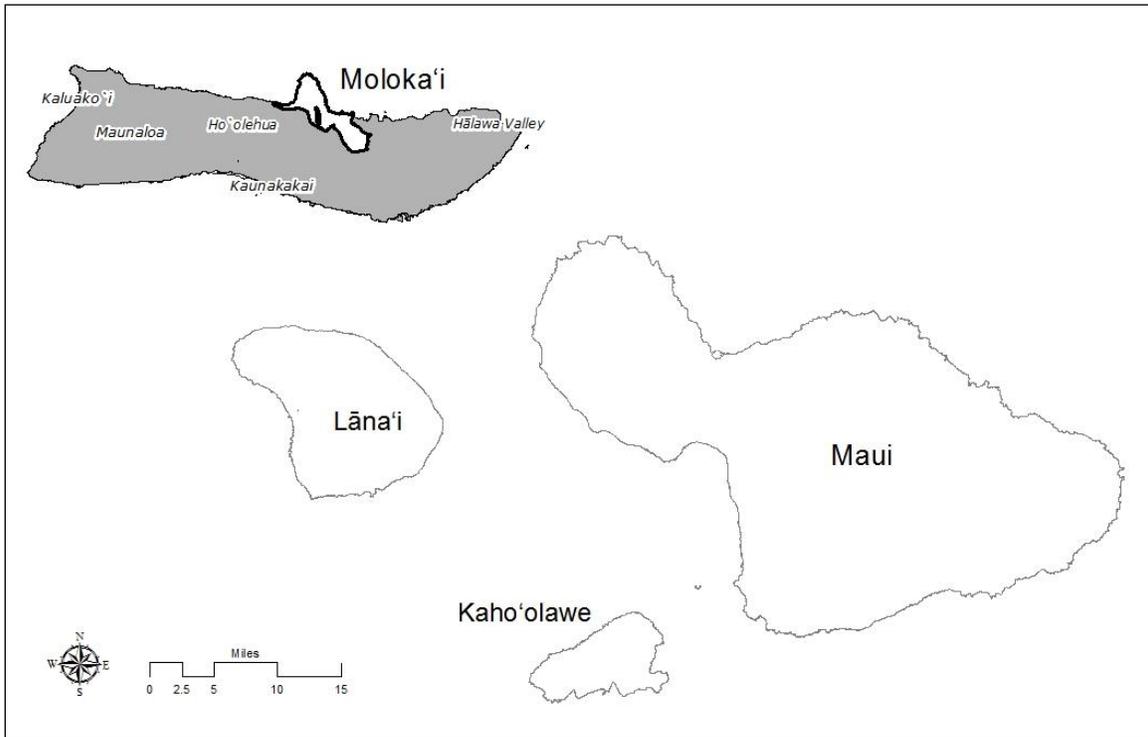
34
35 The Moloka`i Community Plan identifies current and anticipated future conditions and needs on Moloka`i. These
36 conditions and needs are addressed throughout the Plan by identifying strategic planning goals, policies, and
37 actions that will guide decision-making and implementation through 2035. Chapter 1 provides a general
38 description of the planning area, the planning framework provided by the Maui County General Plan and the
39 Hawaii State Planning Act, an overview of the community plan process, Plan organization, fast facts about
40 Moloka`i, and a summary of the major problems and opportunities facing the island.

1 **OVERVIEW OF MOLOKA'I COMMUNITY PLAN AREA**

2
3 Moloka'i is one of four islands that make up the County of Maui (see Figure 1.1). Its elongated shape embraces
4 widely varying topographic and climatic regimes. The island of Moloka'i is comprised of approximately 172,000
5 acres, (including the northern peninsula of Kalaupāpā) formed by a series of three volcanoes. The peninsula of
6 Kalaupapa, and some of the surrounding area on the northern coast make up Kalawao County, which is
7 administered by the Hawai'i State Department of Health. The Kalaupapa National Historical Park is managed by
8 the National Park Service.

9
10 Kaunakakai, the island's major population and commercial center, is located about midway along the south coast.
11 The island's only resort destination area is located at Kaluako'i, on the western end of the island. Hotel Moloka'i
12 and Moloka'i Shores, just outside of Kaunakakai, also offer limited visitor accommodations. There are small
13 plantation communities in Maunaloa and Kualapu'u, along with Hawaiian homestead settlements in Ho'olehua,
14 Kapa'akea, Kamiloloa, One Ali'i and Kalama'ula. The settlement pattern along the southeast coast becomes
15 more rural and scattered as it extends from Kaunakakai to Hālawā Valley. (See Appendix 1.1 for a summary of
16 Moloka'i history).

17
18 **Figure 1. 1 Moloka'i Community Plan Region**



20
21

1
2

FAST FACTS ABOUT MOLOKA`I

PHYSICAL FEATURES

- Moloka`i is 261 square miles or 172,000 acres (includes Kalaupapa).
- The island is about 38 miles long and 10 miles wide with 88 miles of coastline.
- It is the fifth largest island of the eight main Hawaiian Islands.
- Kamakou is the highest peak at 4,970 feet (1,514 meters).

POPULATION and DEMOGRAPHICS according to the (2010 Census)

- The first Hawaiian homestead settlement, in Kalama`ula, initially named Kalaniana`ole Settlement, was created on Moloka`i as an agricultural homesteading demonstration project shortly after passage of the Hawaiian Homes Commission Act in 1921. Its success, dubbed “The Moloka`i Miracle,” led to permanent authorization of an Act of Congress in 1926.
- Figures from the 2010 Census show the population was 7,255 (excluding Kalawao County); a decrease of approximately 150 people from 2000.
- Native Hawaiians made up 24 percent of the 2010 population (excluding Kalawao County).
- Population by age: 15 percent was 0 to 9 years, 14 percent was 10 to 19 years, 47 percent was 20 to 59 years, and 24 percent was 60 years and over.
- The average daily visitor count in 2012 was 707, and there were 429 visitor units.

FLORA AND FAUNA

- Moloka`i has 79 endangered and three threatened terrestrial species, 11 endangered, and two threatened marine species listed under the Endangered Species Act.
- The East Moloka`i Forest Conservation Area covers 40,000 acres.
- Moloka`i’s south shore has the longest continuous fringing coral reef in the U.S.
- Pāpōhaku Beach is one of the state’s longest white sand beaches and contains one of the last relatively intact dune systems in Hawaii.
- Moloka`i’s coastal areas contain sand dunes, lithified sand formations, rare endemic Hawaiian coastal plant species, nesting seabirds and green sea turtles, the Hawaiian monk seal, and Hawaiian cultural sites.

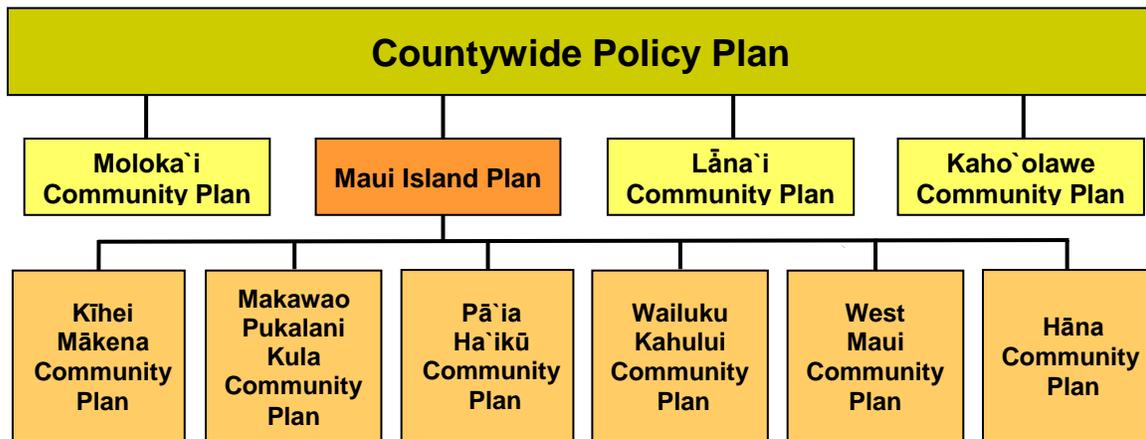
1 **1.1 COUNTY OF MAUI GENERAL PLAN STRUCTURE**

2
3 **A. GUIDANCE FROM THE COUNTYWIDE POLICY PLAN AND HAWAII STATE PLANS**

4
5 The County of Maui General Plan consists of the Countywide Policy Plan, the Maui Island Plan, and nine
6 community plans (see Figure 1.2). The General Plan, adopted in 1980 and updated in 1990, sets forth long-term
7 social, economic, environmental, and land use needs of the County. The Countywide Policy Plan was adopted in
8 2010, the Maui Island Plan was adopted in 2012, and initiation of the community plan updates began in 2010.
9 The General Plan conforms to the Hawai`i State Planning Act and follows guidance set forth in the State
10 Functional Plans.

11
12 In 2011, the Hawai`i State Legislature established sustainability as a state priority by adopting Section 226-108,
13 HRS, Sustainability, into the Hawai`i State Planning Act. In 2012, the Hawai`i State Legislature adopted Section
14 226-109, HRS, Climate change adaptation priority guidelines. The adaptation policy specifies that county or state
15 plans must consider potential climate change impacts to agriculture, conservation lands, coastal and nearshore
16 marine areas, natural and cultural resources, energy, the economy, and many other factors. Chapter 2 further
17 discusses how these guidelines influence or shape the community plans.

18
19
20 **Figure 1.2 County of Maui General Plan Organization**



22
23
24 From 2004 to 2012, the Maui County Code (MCC) was modified to create new requirements to Chapter 2.80B,
25 relating to the General Plan and community plans. Section 2.80B.070, MCC, provides the specific requirements
26 for the community planning process, including requiring that the community plans implement the General
27 Plan's vision, principles, goals, and policies, and actions related to the following core themes as listed in the
28 Countywide Policy Plan:

- 29
- 30 • Protect the Natural Environment
 - 31 • Preserve Local Cultures and Traditions
 - 32 • Improve Education
 - 33 • Strengthen Social and Healthcare Services
 - 34 • Expand Housing Opportunities for Residents

- 1 • Strengthen the Local Economy
- 2 • Improve Parks and Public Facilities
- 3 • Diversify Transportation Options
- 4 • Improve Physical Infrastructure
- 5 • Promote Sustainable Land Use and Growth Management
- 6 • Strive for Good Governance

7
8 **B. THE 2016 MOLOKA`I COMMUNITY PLAN UPDATE**
9

10 The Moloka`i Community Plan was initially adopted in 1984 and updated in 2001. The 2016 Moloka`i Community
11 Plan Update incorporates the new requirements of Section 2.80B, MCC, including:

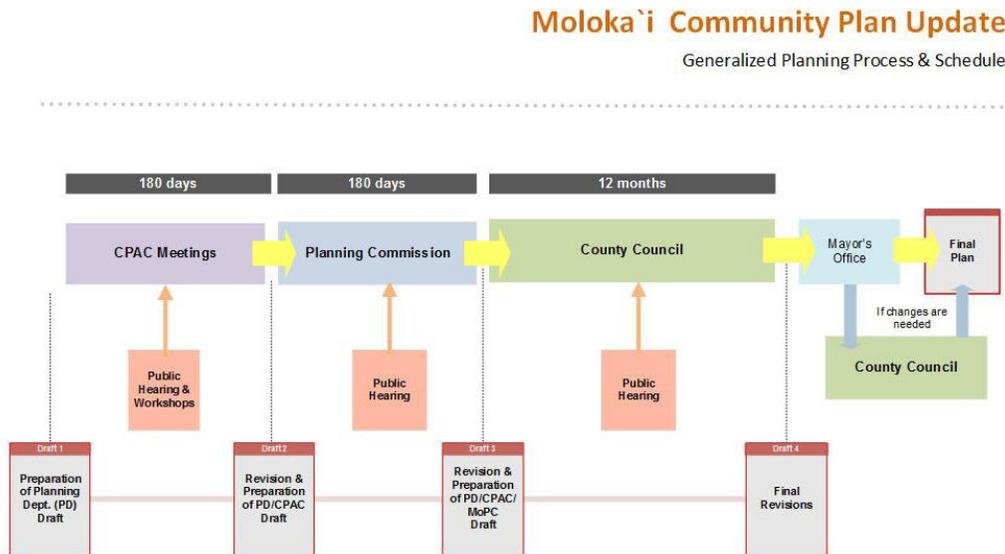
- 12 • A list of scenic sites and resources.
- 13 • A description of a projected multi-modal transportation system.
- 14 • A list of streetscape and landscaping principles and desired improvements.
- 15 • Implementation requirements that identify priorities, timelines, estimated costs, and the County
16 department accountable for the completion.

17
18 The Planning Department’s Long Range Planning Division worked with the Moloka`i community, stakeholders,
19 agencies, the Moloka`i Community Plan Advisory Committee (CPAC), the Moloka`i Planning Commission, and
20 the Maui County Council (County Council) between 2010 and 2017. Technical studies and issue papers
21 referenced during the update process are identified in Appendix 1.2.

22
23 Section 2.80B, MCC, specifies the CPAC be composed of thirteen members appointed by the County Council
24 and the Mayor. It also specifies the PD staff and the CPAC conduct meetings and workshops that include public
25 participation. The CPAC's recommendations are then forwarded to the Moloka`i Planning Commission (MoPC)
26 for public hearings and review. The draft plan is then sent along with any comments or revisions to the County
27 Council for review and enactment by ordinance. This process and the timeframe are summarized graphically in
28 Figure 1.3.

1

Figure 1. 3 Generalized Community Planning Process & Schedule



2 Prior to embarking on the Plan update, the Department of Planning’s Long Range Planning Division conducted
 3 four community engagement events and numerous interviews to hear directly from residents about their ideas and
 4 concerns (see Appendix 1.3). The events included:

5

6

- June 2010 - Open house on issues, needs, and ideas.

7

- October 2010 - Two workshops on vision, issues, goals, and strategies.

8

- November 2014 - Open house to present the feedback from previous events.

9

10 **C. PLAN ORGANIZATION**

11

12 The 2016 Moloka`i Community Plan Update is organized into eleven chapters with maps and appendices.
 13 Chapters provide the related background, existing conditions, issues, goals, policies, and actions. Goals are
 14 intended to describe a desirable condition of the island by the year 2035. They are intentionally general, but are
 15 attainable. Policies are not intended as regulations, but instead provide general guidelines for County decision
 16 makers, departments, and collaborating organizations working toward attainment of the goals. Implementing
 17 actions are specific tasks, procedures, programs, or techniques that carry out policies. Actions may be
 18 implemented by a lead County agency or by another entity, such as the State or non-profit groups assisted by the
 19 County.

20

21 As defined in Section 2.80B.020, Maui County Code. the Plan is not intended to be used in the review of
 22 applications for ministerial permits, which are permits that do not involve judgment or discretion and are issued
 23 based on established criteria or a set of adopted standards as established by law.

24

25 Chapter 1 provides an introduction.

Introduction

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Chapter 2 explores Moloka`i’s future vision, and discusses sustainability and climate change adaptation.

Chapters 3 and 4 discuss Moloka`i’s environment, and natural, cultural, historic, and scenic resources, as well as hazard mitigation and climate change adaptation.

Chapter 5 addresses economic development strategies to diversify the economy based on the Moloka`i Economic Development Issue Paper, and feedback from community engagement events and interviews.

Chapters 6 and 7 address land use, housing, and community design policies and actions that will shape future locations and forms of development.

Chapters 8 and 9 address the existing and future needs for infrastructure and public facilities and services. The governance section looks at what changes in the system and function of governance are needed to guide the community toward a sustainable future.

Chapter 10 is the East End Policy Statement.

Chapter 11 is the Maunaloa Policy Statement.

Chapter 12 addresses implementation and monitoring, and also prioritizes the list of actions from previous chapters including cost estimates, timelines, and the implementing agencies. The implementation table will facilitate funding decisions during the County budget process.

Appendix 1.4 provides a legal framework for agency actions that may impact Native Hawaiian traditional and customary practices. This appendix was also reviewed by the PD, CPAC, or vetted by the community.

1 **1.2 PROBLEMS AND OPPORTUNITIES**

2
3 **INTRODUCTION**

4 The following outline of the problems and opportunities that Moloka`i faces represents not only issues that the
5 county government must address, but also top concerns expressed by the community through public outreach
6 events and deliberations of the CPAC and MoPC.

7
8 It is important to clearly define a problem in order to figure out how to solve it, likewise, it is also important to
9 have a critical understanding of opportunities that exist within the community and how to best take advantage of
10 them in order to create a more sustainable, resilient, and livable future for Moloka`i.

11
12 **PROBLEMS**

13
14 **A. Economic Activity and Socio-Economic Characteristics:** The high cost of living and limited
15 economic activity are the most significant problems facing the Moloka`i community. There is a lack of
16 economies of scale and economic diversity, and therefore a lack of job opportunities. Moloka`i has
17 lower incomes, higher unemployment rates, and a higher number of people receiving public assistance,
18 when compared statewide.¹ These socio-economic challenges have contributed to substance abuse,
19 domestic violence, crowding, and generational welfare.

20
21 **B. Education:** The educational level on Moloka`i is uniquely diverse in relation to formal versus
22 place-based education when compared to the rest of the state. While some youth pursue higher
23 education, and are able to live and work on Moloka`i, many do not obtain post-high school education,
24 or choose not to return to the island after college. This creates community impacts that affect the
25 economic vitality of Moloka`i.

26 **C. Water:** The Moloka`i community has long recognized the need for careful management of groundwater
27 resources and watershed areas that contribute to recharge of the island’s sole source aquifer, *Uwe kalani,*
28 *ola ka honua*². When the heavens weep, the land lives. These water resources are required to support
29 natural ecosystems as well as the many economic, cultural, and subsistence activities of our human
30 population. The numerous studies by USGS and legal case conclusions document that current and future
31 demand exceeds sustainable supply at this time³. Future water use and development will likely call for
32 increasing the efficiency of storage and distribution infrastructure, cooperative monitoring strategies,
33 and community wide conservation efforts to ensure aquifer sustainability and water quality. Excess
34 withdrawal from wells may have significant effects to freshwater discharge into streams, which may
35 have a detrimental effect on natural, cultural, and subsistence resources.

36

¹ John M. Knox & Associates, Inc. (December 2010). *Moloka`i Economic Development Issue Paper.*

² Mele no ka Wai a Kane. Traditional.

³ Stearns, Harold T. and MacDonald, Gordon A. (1947). *Geology and Groundwater Resources of the Island of Molokai, Hawaii.* USGS Bulletin 11.

Lindgren, Waldemar (1903). *The Water Resource of Molokai Hawaiian Islands.* USGS Water Supply Paper No. 77.
Kuku`i CCH-M097-1 (2000). *In the Matter of the Contested Case Hearing on the Water Use Permit Application filed by Kuku`i(Moloka`i), Inc. Findings of Fact.* DLNR/CWRM.

- 1 **D. Transportation:** As one of the least populated islands in the most isolated island chain in the world,
2 Moloka`i suffers from expensive transportation costs for freight, goods, and people. Limited freight
3 transportation to and from the island contributes to higher costs for groceries, fuel, and other goods, and
4 complicates the export of Moloka`i produce. Limited airline and discontinued ferry transportation
5 options impact both the ability of tourists to visit the island and opportunities for residents to travel off
6 island.
7
- 8 **E. Energy Costs:** Moloka`i faces some of the highest electricity costs in the nation, which presents
9 challenges for businesses and residents
10
- 11 **F. Erosion and Sedimentation:** Erosion is an issue on Moloka`i that is negatively impacting soils,
12 streams, fishponds, wetlands, coastal waters, and reefs, as well as the cultural and subsistence practices
13 that rely on these resources. While erosion is being actively addressed by a number of organizations and
14 partnerships, continued work is needed to address this problem. Erosion is caused by runoff and a
15 number of land use activities including ranching, farming, and development, as well as forest damage
16 caused by feral ungulates. Siltation of Moloka`i's reefs and coastal waters is having detrimental effects
17 on fish, limu, and other ocean resources which the Moloka`i community depends on for subsistence
18 fishing and gathering, and for cultural practices.
19
- 20 **G. Housing:** The availability of workforce housing, ownership and rental, and the variety of housing types
21 on the island are limited. There is a lack of fully entitled land to build new housing in locations conducive
22 to workforce housing. There is a limited variety of housing types available to meet the needs of Moloka`i
23 residents. However, the recent lifting of a moratorium on subdivision of agricultural homestead lots will
24 allow some families to move from other areas of Moloka`i to Ho`olehua, thus freeing up some housing.
25
- 26 **H. Climate Change:** Climate change will become increasingly serious before the middle of the 21st century
27 and will impact Moloka`i's economy, built environment, historic and cultural resources, infrastructure
28 systems, ecosystems, and natural resources.
29
- 30 **I. Communications Infrastructure:** Limited access to high-speed internet and cellular/mobile telephone
31 service presents challenges for education, health care, residents, and businesses.
32
- 33 **J. Governance:** Due to political, demographic, and district designations, Moloka`i is not able to have a
34 real voice in its own future.
35
36

1 **OPPORTUNITIES**
 2

- 3 **A. Strong Caring Community:** Moloka`i is a special place with a distinctly rural Hawaiian lifestyle.
 4 Unlike many other places, residents still help each other with no strings attached. The island’s
 5 interdependence has allowed residents to survive stressful times and events. There is an abundance of
 6 community luau and a significant number of extended families living together or in close proximity to
 7 each other. There is a feeling of sharing, belonging, and community which that should be preserved.
- 8 **B. Cultural Resources and Traditions:** *Moloka`i nui a hina. `Āina momona. Pule o`o. Moloka`i no ka*
 9 *heke.* Moloka`i has an abundance of cultural and archaeological resources and a community with a
 10 strong connection to cultural traditions and practices that must be protected and that provide a solid
 11 foundation for the future. The island is purported in oral tradition to be the birthplace of hula. Moloka`i
 12 has numerous sites on the Hawai`i and/or National Register of Historic Places distributed throughout the
 13 island. As a result, development of a new model of sustainable tourism may be a possibility for economic
 14 growth. This alternative approach, described in *Moloka`i Responsible Tourism Initiative: A Community-*
 15 *based Visitor Plan for Moloka`i, for Ke `Aupuni Lokahi-Moloka`i* ⁴, is based on the distinctive
 16 characteristics and attributes of the island.
 17
- 18 **C. Distinctive Rural Character:** Moloka`i’s natural beauty and rural character are key assets of the island.
 19 Unlike other islands in the state, Moloka`i’s beaches are still generally accessible and uncrowded. In
 20 addition, the rural character and genuine sense of aloha is a draw for many visitors, affording an
 21 experience that is different from other islands. Based on several community workshops and interviews,
 22 it’s clear that a slow and cautious approach to future development on the island is preferred by many to
 23 retain Moloka`i’s distinctive rural character.
 24
- 25 **D. Entrepreneurial Spirit:** Many of Moloka`i’s residents live here because they value the sense of
 26 community and lifestyle of the island. Since employment opportunities on Moloka`i are limited, many
 27 residents have turned to starting and running their own businesses. This is evident in Kaunakakai, where
 28 almost all of the businesses are owned by local residents, some of whom have successfully maintained
 29 their operations for several decades.
 30
- 31 **E. Community Environmental Restoration:** There are various ongoing programs and partnerships to
 32 restore Moloka`i’s watersheds and ecosystems. Environmental restoration is an opportunity for the
 33 community, youth, large landowners, and government agencies to share common goals of restoring and
 34 protecting Moloka`i’s environment. Working together will not only accelerate environmental restoration
 35 but will also help build trust between different groups, foster a sense of stewardship responsibility, and
 36 expose youth to careers in environmental restoration.
 37
- 38 **F. Natural Environment:** Moloka`i’s natural environment offers many opportunities to move toward a
 39 more sustainable future. With abundant agricultural lands, a year-round growing season, and an
 40 adequate supply of water, Moloka`i has the capacity to grow produce for on-island consumption and

⁴ McGregor, Davianna Pomaikai, PhD (2006). *Moloka`i Responsible Tourism Initiative – A Community Based Visitor Plan for Moloka`i.*
 Introduction

1 exportation. Subsistence resources are relatively abundant and support an integral component of the
2 Moloka`i lifestyle. Additionally, numerous opportunities exist to produce renewable energy on the
3 island.

4

5 **G. Subsistence Economy:** Subsistence is Moloka`i's second economy. According to the Governor's
6 *Moloka`i Subsistence Task Force Final Report* (June 1994), one quarter of the food acquired by
7 Moloka`i residents comes from subsistence.

8

9

1 **2 | MOLOKA`I’S FUTURE**

2 This chapter provides the Plan’s vision and strategic framework that guide the key policies and actions needed to
3 address the major issues that face the island in the next 20 years. The components of this strategic framework
4 include:

- 5
- 6 2.1 Moloka`i Vision Statement.
- 7 2.2 Population Growth Forecast.
- 8 2.3 Sustainability and Climate Change Adaptation.
- 9

10 The Moloka`i vision statement, retained from the 2001 Community Plan, articulates the community’s belief in
11 who and what it is, what it wants to become, and how to achieve that vision.

12

13 The population discussion in Section 2.2 presents a brief analysis of past and future population trends. The
14 *Socio-Economic Forecast Report*¹, produced by the County of Maui PD, is the primary source of data for this
15 discussion.

16

17 Finally, in response to the State of Hawai`i’s adoption of the 2011 priority guidelines and principles to promote
18 sustainability and the 2012 climate change adaptation priority guidelines, Section 2.3 discusses how climate
19 change adaptation strategies and measures to develop a more sustainable island community are woven into the
20 Plan.
21

Vision Statement

Moloka`i is the last Hawaiian Island. We who live here choose not to be strangers in our own land. The values of aloha `āina and malama `āina (love and care for the land) guide our stewardship of Molokai`s natural resources, which nourish our families both physically and spiritually. We live by our kūpuna`s (elders) historic legacy of pule o`o (powerful prayer).

We honor our island's Hawaiian cultural heritage, no matter what our ethnicity, and that culture is practiced in our everyday lives. Our true wealth is measured by the extent of our generosity. We envision strong `ohana (families) who steadfastly preserve, protect, and perpetuate these core Hawaiian values. We are a wise and caring community that takes pride in its resourcefulness, self-sufficiency and resiliency, and is firmly in charge of Moloka`i's resources and destiny.

We envision a Moloka`i that leaves for its children a visible legacy: an island momona (abundant) with natural and cultural resources, people who kokua (help) and look after one another, and a community that strives to build an even better future on the pa`a (firm) foundation left to us by those whose iwi (bones) guard our land.

- 1 2.1 Moloka`i's Vision Statement
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

1 **2.2 Population Growth Forecast**

2 Population growth can have both positive and negative impacts on a community. It can exacerbate infrastructure
 3 capacity deficiencies, place additional demands on natural resources, shift the cultural and social makeup of the
 4 population, and change the physical landscape. Population growth can also contribute to the quality of life of a
 5 community by stimulating the economy, growing the tax base, providing employment opportunities, and
 6 providing economies of scale. The Plan aims to address community needs and provide economic opportunities
 7 to retain Moloka`i’s families, and manage future resident and visitor population growth so that it does not
 8 compromise the island’s natural resources, infrastructure, and services.

9
 10 Population change on Moloka`i in the coming decades will occur through natural population growth (live births
 11 minus deaths), in-migration, and out-migration. While the island experienced a moderate population decline from
 12 2000 to 2010, the population is forecasted to moderately increase during the Plan’s 20-year planning horizon
 13 (2015 – 2035), according to the State of Hawai`i Department of Business, Economic Development and Tourism
 14 (DBEDT).

15
 16 **A. HISTORIC TRENDS AND POPULATION FORECAST**

17
 18 The 2014 County of Maui *Socio-Economic Forecast Report*⁵ is a planning tool based on projections developed
 19 by DBEDT. The population projections are based on trends and model assumptions, absent of policy changes or
 20 directives. The population growth forecast provides a starting point for discussions about the island’s future.

21
 22 The 2010 Census counted 7,255 residents living on Moloka`i. The *Socio-Economic Forecast Report* estimated
 23 that a one percent annual increase in resident population would add about 2,500 residents to the island by the year
 24 2040, for a total population of around 9,800. Figure 2.1 depicts Moloka`i’s historic population growth and
 25 identifies significant economic events between 1896 and 2010. It also shows population projections to 2040
 26 based on three scenarios: (1) no growth; (2) a mid-range annual growth of one half percent; and (3) a higher
 27 annual growth of one percent.

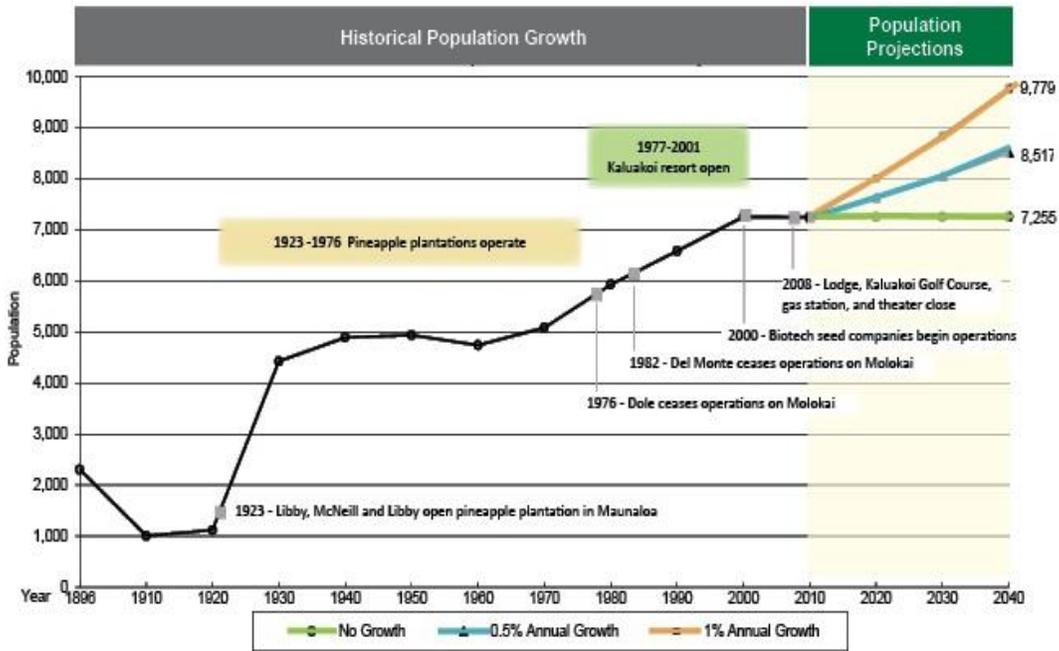
28
 29 Figure 2.2 depicts the historical and forecasted average daily resident and visitor population from 1990 to 2035.
 30 In 1990, the ratio of tourists to residents was approximately 1 to 7. By 2010, the ratio dropped to approximately
 31 one visitor for every 12 residents; this ratio is forecasted to remain relatively unchanged through 2035.

32
 33

 5 County of Maui, Department of Planning. *Socio-Economic Forecast Report*. September 2014
 Molokai’s Future

1

Figure 2. Historical and Forecasted Moloka'i Resident Population 1896-2040⁶



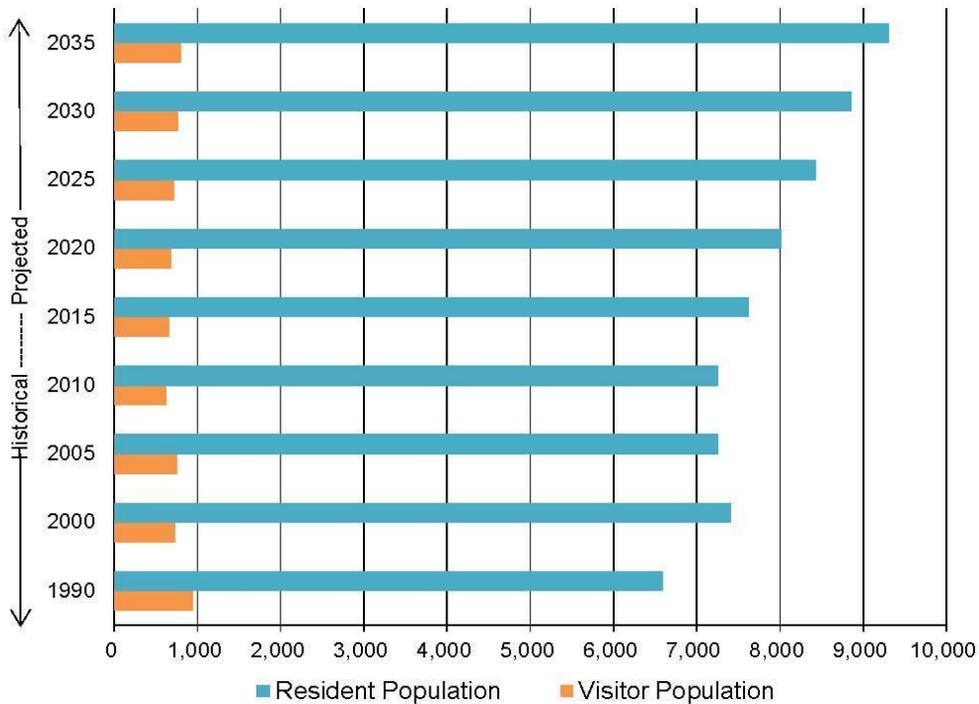
2

3

4

5

Figure 2.2 Historical and Forecasted Moloka'i Average Daily Resident & Visitor Population - 1990-2035⁷



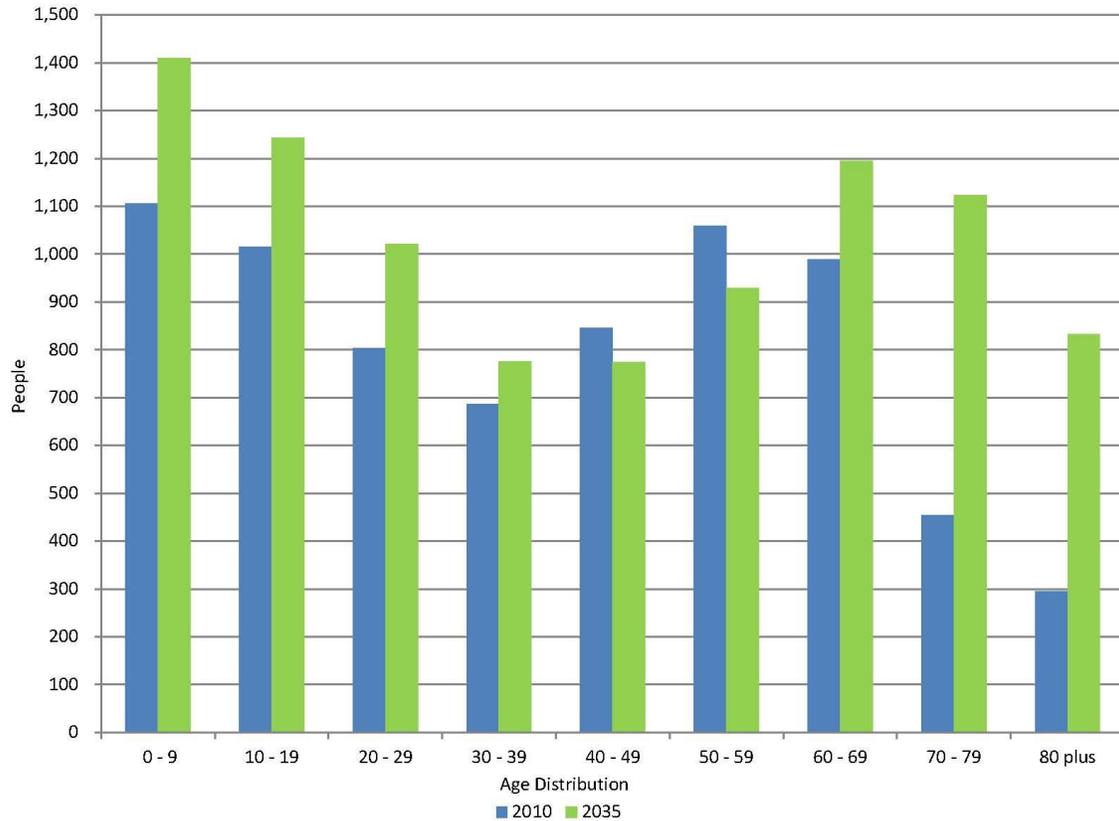
⁶ Hawai'i State Department of Business, Economic Development and Tourism (2012). *Population and Economic Projections for the State of Hawai'i to 2040*. Honolulu, HI.

⁷ Ibid

1 Figure 2.3 portrays Moloka`i’s historical and forecasted age distribution from 2010 to 2035. It is clearly evident
 2 that the island’s population is aging. The 70 plus age group is forecasted to grow from about 750 to nearly 2,000;
 3 an increase of over 160 percent between 2010 and 2035. This demographic change has significant impacts to
 4 public services as they relate to the elderly, including housing, transportation, health care, and eldercare services.
 5 In addition to the challenge of providing more senior services, the wage-earning population that typically supports
 6 children and seniors will be proportionally smaller.

7
 8

Figure 2.3 Historical and Forecasted Moloka`i Age Distribution - 2010 and 2035⁸



9 The potential issues and opportunities presented by population growth will be addressed throughout the various
 10 chapters of the Plan.

11
 12

⁸ Ibid
 Molokai’s Future

2.3 Sustainability and Climate Change Adaptation

One intent of this community plan update is to help establish a sustainable and resilient future for Moloka`i. This section provides an introduction and brief guide on how sustainability and climate change adaptation are woven into the Plan through a variety of policies and actions.

A. SUSTAINABILITY

Sustainability has become a fundamental concept within comprehensive and community planning over the past decade. It refers to the ability to meet present needs without compromising the ability of future generations to meet their needs. It requires a consideration of long term environmental, social, cultural, subsistence, and economic costs of present day actions. Sustainability is a process rather than an end state. Communities function within a system where environmental, economic, and social systems are linked and balanced.

Sustainability is particularly important in a region as fragile and remote as the Hawaiian Islands. In 2011, the Hawai`i State Legislature established sustainability as a state priority by adopting priority guidelines and principles to promote Section 226-108, HRS, *Sustainability*, into the Hawai`i State Planning Act. Updates to the County of Maui's General Plan will integrate the concept of sustainability and these guiding principles (see Appendix 2.1 Definition of Sustainability in Hawai`i and Appendix 2.2 Sustainability).

B. CLIMATE CHANGE ADAPTATION

In 2012, the Hawai`i State Legislature adopted Section 226-109, HRS, relating to climate change adaptation priority guidelines (see Appendix 2.3 Climate Change Adaptation Priority Guidelines). The guidelines are intended to prepare the state for climate change impacts on the natural and built environment and on society. Near-term implementation options and long-term strategies should be considered. Additionally, under the *Hawai`i State Planning Act*, priority guidelines shall take precedence when addressing areas of concern, such as county decision making, allocation of resources, county general plans, development plans capital improvement project appropriations and land use decision making.

Climate change will become increasingly serious before the middle of the 21st century, and will have profound impacts on Hawai`i's natural environment, communities and economy. Major climate change effects forecasted for Hawai`i include:

- Warmer temperatures.
- Sea level rise (SLR) with resultant flooding, beach erosion, and damage to coastal property.
- Sea surface temperature increase and ocean acidification with negative impacts to coastal and marine ecosystems.
- Increased frequency and severity of storms, and increased vulnerability to storm damage.
- Increased drought with variable effects on aquifer recharge, stream flows, and freshwater resources.

1 These outcomes will adversely affect areas of the economy, including agriculture, tourism, fisheries, and trade;
2 the built environment, including infrastructure systems, housing, and recreation; historic and cultural resources;
3 as well as ecosystems and natural resources⁹.

4
5 Limitations in downscaling of climate models make long-term predictions for local impacts very complex.
6 However, current observations of trends, such as declining rainfall, increased temperatures, and sea level rise can
7 serve as indicators to help inform communities as they begin to plan for climate change.

8 Climate change mitigation measures, such as lessening our dependence on fossil fuels to reduce emissions and
9 changing the way the County designs and builds communities, will need to be implemented to lessen the human
10 impact on climate. Climate change adaptation requires strategies and actions to reduce the vulnerability of
11 biological systems. By taking action now, it is possible to reduce potential damage in the future. Science-based
12 coastal and climate hazard information must be compiled, understood, and appropriately applied to specific
13 planning areas on Moloka`i. Inventories must be developed, and gaps in data identified, to better understand how
14 climate change will affect Moloka`i and how to minimize those impacts.

15 16 **C. WORKING TOGETHER TOWARD A SUSTAINABLE AND RESILIENT MOLOKA`I**

17
18 This is a pivotal moment in time for Moloka`i to face the intertwined challenges of sustainability and climate
19 change. In recognizing the links between society, the environment, and the economy, sustainability acknowledges
20 the ecological limits of natural systems and affirms that humanity’s wellbeing is fundamentally dependent on the
21 health of our environment. Moloka`i can become resilient and ready for change by strengthening its society its
22 natural and built environment, and by diversifying its economy. How these elements work together is described
23 below:

24
25 **Society – Moloka`i’s People and Culture:** Caring for the people is a key component of ensuring an abundant
26 and resilient Moloka`i. This will involve providing educational opportunities for all ages and a full spectrum of
27 social services. It will also be important to foster community participation in stewardship of the natural
28 environment and historical and cultural resources to build collaboration between different levels of government,
29 large landowners, nonprofit organizations, private businesses, and the community. Moloka`i’s culture and sense
30 of place will be honored by protecting historic and archaeological sites, cultural landscapes, and the natural and
31 cultural resources upon which subsistence and traditional Hawaiian lifestyles depend.

32
33 Ensuring a resilient and abundant society will also require providing a variety of affordable housing types for all
34 stages and ages of life. Also critical will be increasing food security through expanding production of locally
35 grown food, supporting subsistence farming, hunting, fishing, and gathering, as well as introducing Moloka`i’s
36 youth to agriculture through programs such as Future Farmers of America and 4H.

37
38 **The Natural and Built Environment:** How the built environment is designed greatly influences the protection
39 and sustainability of the natural environment and the sustainability of a society and culture. A well- designed and
40 engineered community is economically efficient when characterized by a compact and pedestrian oriented mix of

⁹ *Climate Change Adaptation Priority Guidelines, Act 286*
Molokai’s Future

1 land uses, multi-modal transportation networks, and diversity of housing types. It should provide a strong sense
2 of place and culture, and preserve open space, agricultural land, and natural resources.

3
4 Moloka`i will build upon its historic small town development patterns, integrate land use and transportation
5 planning, and make development decisions predictable, fair and cost-effective to create sustainable communities
6 into the future.

7
8 Climate change adaptation strategies, such as building on existing hazard mitigation principles and developing
9 new ways of designing communities and infrastructure, will also be necessary for the health and safety of the
10 people and the environment. This will be achieved by actions such as relocating critical structures out of hazard-
11 prone areas, incremental adaptation of harbors, increasing water conservation and reuse, and managing aquifer
12 recharge areas.

13
14 Natural resources and landscape features, such as native forests, valleys, wetlands, springs, dunes, and coral reefs
15 will be protected and restoration should be encouraged; they should be valued for the environmental services they
16 provide and for their cultural importance. Negative and adverse impacts of feral ungulates and invasive species
17 shall be managed, while simultaneously recognizing Native Hawaiian access and gathering rights, and the
18 importance of subsistence activities.

19
20 Principles of Native Hawaiian land management, including ahupua`a, will be integrated to help guide resource
21 management. Green technology, sustainable building practices, and green infrastructure solutions will also be
22 implemented.

23
24 **The Economy:** Fostering a robust and diversified economy is the third component to working toward an
25 abundant and resilient Moloka`i. This will require growing a culturally-appropriate tourism industry, supporting
26 agriculture, encouraging new industries and entrepreneurs, expanding education and support services for small
27 businesses, and providing necessary infrastructure, land, and affordable sea and air transportation options. An
28 important aspect of improving Moloka`i's economy is lowering the costs of water distribution by efficiently
29 managing energy through the establishment of a strategic integrated management approach to supply water and
30 energy more efficiently. This can be achieved by increasing the use of renewable energy sources and vehicles
31 powered by renewable energy. Water resources can be used in a sustainable manner by recycling wastewater for
32 irrigation and the reuse of household graywater.

3 | NATURAL, HERITAGE, AND SCENIC RESOURCES

This chapter discusses ecosystems and natural resources in section 3.1; heritage resources, including the interface of the natural environment with human built structures and activities in section 3.2; and scenic resources that shape our experience of place every day in Section 3.3. The elements discussed in this chapter are fundamental to sustaining the quality of life enjoyed by Moloka`i residents and are essential for supporting the living cultural traditions of Native Hawaiians. Subsequent chapters discuss impacts from multiple natural and human-created hazards, including climate change, land use, and community design that need to be considered in combination with the elements of this chapter.

Mana`e is the heart and life source of Moloka`i. The larger Moloka`i community identifies Mana`e as a pu`uhonua (safe refuge). Mana`e traditionally sustained the highest population on the island and contained the oldest settlement sites, dating back to 450 A.D., showing that Mana`e is where our ancestors first settled. It has the most critical natural resources, including the water. It is made up of four major valleys with between 3-5 million gallons of pristine rivers/waters flowing through these valleys every day, feeding the rich estuaries and near shore fisheries, in addition to the multitude of intact terraces. In addition, Mana`e's abundance of water on the north shore finds its way to the south shore through underground tunnel systems and springs, providing for the ideal ecological conditions that supported numerous fishponds along Mana`e's south shore. This is the value of Mana`e, the land of `āina momona (abundance). Thus, it is critical to protect Mana`e as a special place for all of Moloka`i as a pu`uhonua, (safe refuge) cultural kipuka, (a rural area that serves as a living repository of Hawaiian traditional knowledge, understandings, and practices), and a place essential to `āina momona (continued food and water security) for its abundant fishponds, lo`i kalo (taro patches), rich forests, streams, and springs.

3.1 NATURAL RESOURCES

Moloka`i's pre-human diverse ecosystems were extensively altered by human settlement beginning with the arrival of the Polynesians, continuing through the plantation era and into present day. The most significant changes were the result of clearing of forest lands for agriculture and building sites and the introduction of non-native flora and fauna. Many hoofed animals initially introduced as free-range, eventually became wild. These feral ungulates destroyed the forest understory and tree roots, setting off a chain of environmental damage that extended from upslope area to the nearshore ecosystem. Erosion created barren land where invasive plants became established, which resulted in native species loss, reduced water recharge of the aquifer, decreased biodiversity, and a less resilient forest ecosystem. Excessive erosion also results in sedimentation of surface waters and coral reefs, and leads to progressive propagation of invasive plants, such as mangroves and gorilla ogo, which threatens coral reefs and coastal ecosystems along Moloka`i's south shore.

The forest ecosystem greatly influences many elements of the Moloka`i community's natural and heritage resources, recreation, agriculture, tourism, infrastructure, and economic viability. Recent studies have calculated financial values for services provided by forest ecosystems¹⁰ (See Appendix 3.1).

According to the Conservation Alliance-ING Direct:

¹⁰ State of Hawaii (2011). *The Rain Follows the Forest*. Department of Land and Natural Resources. Natural, Heritage, and Scenic Resources

1 A University of Hawai`i study examined the various services provided by Ko`olau O`ahu`s
 2 forests - including water recharge, water quality, climate control, biodiversity, and cultural,
 3 aesthetic, recreational, and commercial values. These services were calculated to have a net
 4 present value of between \$7.4 and \$14 billion. Approximately half of that amount is attributed
 5 to the forest`s contribution to ground and surface water quality and quantity. Other watersheds
 6 across the state were estimated to be comparable in value.¹¹

7
 8 Protection and restoration of Moloka`i`s forest ecosystems will help to ensure an abundant water supply; it will
 9 reduce erosion, surface water runoff, flooding, sedimentation that fills ancient coastal fishponds, and siltation of
 10 reefs and ocean waters.

11
 12 Development may disrupt the natural processes of ecosystems and may increase non-point pollutants in surface
 13 water runoff. Most development occurs in coastal areas; nonpoint source pollutants from homes, businesses,
 14 farming and industry in coastal areas can decrease water quality and reef health. Modern building techniques that
 15 integrate development into the landscape can reduce the impact on water quality, animal and plant habitats, and
 16 ecosystem connectivity. *Green infrastructure* uses natural systems, constructed soil, rock, or plant-based systems
 17 for surface and storm water management. In 2013, Maui County strengthened stormwater regulations by
 18 requiring on-site retention of site runoff for new development.

19
 20 **A. EXISTING CONDITIONS**

21
 22 Moloka`i`s largest native forest ecosystem is located in the East Moloka`i Mountains that contain deep, mostly
 23 inaccessible valleys with high quality habitat for stream fauna, forest birds, native snails, and insects. Moloka`i`s
 24 other significant habitats are lava tube caves, montane bogs, wet forests and shrublands, cliff and coastal systems,
 25 and nine offshore islets. These natural ecosystems provide recovery, or critical habitat identified by the U.S. Fish
 26 and Wildlife Service for 79 endangered and three threatened terrestrial species, and 11 endangered and two
 27 threatened marine species, including the Maui parrotbill, `ākohekohe (crested honeycreeper), and Blackburn`s
 28 sphinx moth.¹²

29
 30 Approximately 30 percent of Moloka`i is in the State Conservation District, which is under the jurisdiction of the
 31 Department of Land and Natural Resources (DLNR). Most areas dominated by native species are in mountains
 32 or along the coasts (see Map 3.1). Numerous federal, state, and county plans and regulations support actions to
 33 protect, conserve, or restore the natural resources of these areas. Partnerships between agencies, nonprofit
 34 organizations, community groups, and stakeholders have been formed, but there is a need to expand both
 35 partnerships and collaboration in order to more effectively address the complexity and scope of environmental
 36 issues.

37
 38 *Hawai`i`s Comprehensive Wildlife Conservation Strategy* identified key management areas and the parties
 39 responsible for managing them¹³. Although there has been extensive conservation work accomplished to date,

¹¹ State of Hawaii (2011). *The Rain Follows the Forest*. Department of Land and Natural Resources, Pg.4.

¹² U.S. Fish and Wildlife Service Endangered Species Database, May 2015; <http://www.fws.gov/endangered/>

¹³ *Hawaii`s Comprehensive Wildlife Conservation Strategy*. (2005) Department of Land and Natural Resources. Honolulu, Hawai`i

1 the State has identified additional threatened areas that need to be protected, such as cave ecosystems, coastal
 2 wetlands and shorelines, and stream corridors. Key threats to these areas include feral ungulates, predators,
 3 invasive species and human intrusion. Often when addressing one threat, another threat can be reduced. For
 4 example, forest restoration is being addressed by multiple management actions by many partners, including
 5 abatement of feral ungulates. Once feral ungulates cease to disturb the soil, the native forest can regenerate in
 6 small areas, which reduces the area for invasive plant species to establish and reduces subsequent soil erosion,
 7 deposition in nearshore waters, and siltation of coral reefs.

8
 9 Hawai`i state plans, such as the *Coastal Non-point Pollution Control Program*¹⁴, the *Hawai`i Implementation*
 10 *Plan for Polluted Runoff Control*¹⁵; and the *Ocean Resource Management Plan*¹⁶, are addressing comprehensive
 11 ecosystem management by connecting upland land-based activities to ocean resource conditions. Excessive
 12 sediment, and other non-point pollutants such as nutrients, herbicides and heavy metals, are being addressed by
 13 multiple efforts (see Map 3.2). Hawai`i’s “Local Action Strategy” has partner agencies addressing land-based
 14 pollution threats to reefs in the Kawela watershed. Best Management Practices (BMPs) for control of feral
 15 ungulates and wildfire are being extended to other areas and sediment retention basins will be constructed and
 16 maintained along the south shore. The USDA Natural Resources Conservation Service (NRCS) implements many
 17 soil conservation projects on Moloka`i using the Farm Bill’s Environmental Quality Incentives Program and other
 18 landowner assistance programs. More programs need to be implemented to manage erosion and runoff, such as
 19 implementation of green infrastructure strategies that use grass swales, grass waterways, vegetated terraces,
 20 berms, and retention systems.

21
 22 Restoration of wetlands and riparian areas can play a vital role in reducing polluted runoff by intercepting surface
 23 runoff, subsurface flow, and certain groundwater flows. Moloka`i community groups, nonprofit organizations,
 24 and schools are actively restoring lo`i kalo (taro patches) and `auwai (irrigation ditches) that reduce and filter
 25 sediment loads. At Kawaikapu Preserve, the Moloka`i Land Trust plans to use the ahupua`a management system
 26 to restore lands, including ancient taro fields. In Hālawa Valley, restoration of taro fields, which once measured
 27 in the hundreds of acres, is ongoing.

28
 29 The ORMP emphasizes links between human activities and the environment and the need for increased
 30 stewardship¹⁷, which usually begins with awareness of a connection between one’s activities and an
 31 environmental issue. A survey of Hawai`i residents about coral reef management priorities found a high level of
 32 public awareness of the decline of reef health, but little knowledge of how their personal land-based behaviors
 33 contribute to that decline, or how to do damaging activities differently to help the reefs¹⁸. Public environmental
 34 education and involvement activities available on the island of Moloka`i contribute to building a volunteer base
 35 for on-going stewardship. Some nonprofit organizations use volunteer monitoring, based on BMPs, to build
 36 stewardship. Involvement in volunteer monitoring and citizen science raises awareness and creates stakeholders,
 37 and also increases science literacy within the community.

¹⁴ State of Hawaii (1996). *Coastal Nonpoint Pollution Control Program*, 2010 Update

¹⁵ State of Hawaii (2000). *Hawai`i Implementation Plan for Polluted Runoff Control*.

¹⁶ State of Hawaii (2013). *Ocean Resources Management Plan*.

¹⁷ Ibid

¹⁸ NOAA (2010). *Hawaii Coastal Zone Management Program, Final Evaluation of Findings*. Office of Ocean and Coastal Resource Management.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

The Hawaiian Islands Humpback Whale National Marine Sanctuary includes ocean waters adjacent to Moloka`i’s southern, western, and eastern shorelines. The Sanctuary also encompasses the ocean channels between Moloka`i, and Lāna`i, and Maui, as well as an extensive ocean area off Moloka`i’s west shore (see Map 3.1). Created by the U.S. Congress in 1992, the Sanctuary protects humpback whales and their habit. It constitutes one of the world’s most important humpback whale habitats. The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries and DLNR jointly manage the Sanctuary.

Water runoff with excessive sediment and pollutants, recreational over-use, and commercial over-fishing are primary threats to the health of reefs and fisheries. The DLNR’s Division of Aquatic Resources (DAR) manages four areas to protect ocean fishery resources near Moloka`i. The Kaunakakai Harbor Fishery Management Area restricts the fishing season, harvest methods, and fishing areas. Bottomfish Restricted Fishing Areas (BRFA) are located in two open ocean areas between the southeast end of Moloka`i and Maui, and far offshore from the southwest point. A third BRFA is located along the shoreline off the northeast side of Kalaupapa National Historic Park, extending eastward in the nearshore waters along Moloka`i’s north shore. The BRFAs are co-managed by the DLNR and National Marine Fishery Service (NMFS), a division of NOAA.

The Mokio Preserve, is a 1,718-acre parcel located in northwest Moloka`i owned and managed by the Moloka`i Land Trust, with five miles of coastline, dune, and wetland ecosystems. East of Mokio is the Mo`omomi Preserve, 921 acres of the most intact coastal beach strand and sand dune area in the main Hawaiian Islands. It is owned and managed by the Nature Conservancy with MLT and other partners assisting with stewardship activities.

About 85-90 percent of Hawai`i’s food is imported, which makes the community particularly vulnerable to natural disasters and global events. It is estimated that there is less than a one week supply of food stored on each island. The State of Hawai`i’s *Increased Food Security and Food Self-Sufficiency Strategy*¹⁹ seeks to increase the amount of locally grown food consumed by Hawai`i residents. This will increase food self-sufficiency, which is a component of food security. Since the 1970s Hawai`i’s has become less self-sufficient in eggs, milk, livestock, hogs, and pigs.

Moloka`i imports most of its food, including important proteins like dairy, chickens, and eggs. Moloka`i does well in production of key foods such as starches, `uala (sweet potato), kalo (taro), and `ulu (breadfruit), but has lower production in fruits and vegetables. Many Moloka`i residents rely on hunting and fishing for a significant portion of protein foods. With an increase of fishing and hunting by off-island residents there has been a decline in numbers and sizes of many desirable fish and crustaceans. This is a concern from both a cultural and food security perspective.

¹⁹ Hawaii Office of Planning, Department of Business, Economic Development, and Tourism; and Hawaii Department of Agriculture. 2012. *Increased Food Security and Food Self-Sufficiency Strategy*. http://files.hawaii.gov/dbedt/op/spb/INCREASED_FOOD_SECURITY_AND_FOOD_SELF_SUFFICIENCY_STRATEGY.pdf
Natural, Heritage, and Scenic Resources

Climate Change and Natural Resources

The observed effects of climate change on natural resources will continue to challenge the health of ecosystems with increased frequency and severity of climate-related disturbances, such as storms, flooding, drought, wildfire, invasive species, and ocean acidification, combined with increased effects of human, land, and natural resource use.

Marine ecosystems, coral reefs, and nearshore habitats are experiencing increasing sea surface temperatures, leading to thermal stress and coral bleaching. SLR and coastal inundation will change the nearshore environment, including habitat loss and shifts. This will be amplified by accelerated SLR and changes in storm and cyclone patterns, which will increase wave energy and erosion patterns.

Terrestrial ecosystems are experiencing warming air temperatures, which may cause ecosystems to shift upslope or decline in size. Higher elevations may experience an even greater degree of change. Variations in precipitation patterns could affect terrestrial ecosystems through increases in flooding, erosion, drought, and fire. As the extent of native habitats diminishes, the range for pests, diseases, and invasive species may expand.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

B. ISSUES

- Issue 1: Ecosystems are declining due to an increase in invasive animal and plant species, soil erosion, coastal deposition and human effects.
- Issue 2: Excessive sediment from erosion and coastal deposition severely impact coastal water quality and the health of all marine life.
- Issue 3: Cumulative impacts to surface and coastal waters from pollutants including sediment, home and business chemicals, herbicides, and fertilizers are not well understood by many in the community.
- Issue 4: Climate change will stress and change ecosystems with some ecosystems declining, while some may adapt successfully.
- Issue 5: The coral reefs and loko i`a (fishponds) ecosystems along Moloka`i's south shore are being threatened by the progressive propagation of invasive plant species such as mangroves and gorilla ogo that retain sediment, causing poor water quality, and over grazing, mono cropping, and excessive pesticide and fertilizer use.
- Issue 6: Food security.
- Issue 7: The ecological impacts to the Kaunakakai Wharf have not been fully mitigated and are an ongoing concern.

C. GOAL, POLICIES, ACTIONS

Goal Preserve, protect, and manage Moloka`i's exceptional natural land and water resources to ensure that future generations may continue to enjoy and protect the island environment.

- Policies**
1. Ensure collaboration and partnerships for natural resource management, watershed planning, funding, and action implementation.
 2. Encourage the implementation of State plans and programs for comprehensive ecosystem management.
 3. Encourage protection and restoration of the biodiversity of native plant and animal terrestrial, freshwater, and marine species and habitats through land conservation, resource management, education, invasive species prevention and control, wild fire prevention, and stewardship.

- 1 4. Require all grading and grubbing permits on Moloka`i to comply with Title 20, Section
2 20.08.080, MCC.
- 3
- 4 5. Ensure that the design and construction of new development protects surface water,
5 groundwater, and coastal water quality from nonpoint and point source pollution.
- 6
- 7 6. Encourage low impact development education programs, including green infrastructure,
8 for designers, developers, and builders.
- 9
- 10 7. Support a significant increase in public outreach, education, and involvement events to
11 build community-based stewardship and implementation capacity.
- 12
- 13 8. Recognize and support sustainable agricultural, forestry, and game best management
14 practices and sustainable subsistence fishery management, as key elements to maintain,
15 preserve, and protect Molokai`s land, water and marine resources.
- 16
- 17 9. Encourage and support the establishment and expansion of native plant communities by
18 utilizing appropriate practices and techniques for propagation and planting.
- 19
- 20 10. Encourage the implementation and adequate funding for the Hawaii Department of
21 Agriculture`s Plant Quarantine Program on Moloka`i.
- 22
- 23 11. Encourage food security through programs and activities to increase the amount of locally
24 grown food in agriculture, permaculture, agroforestry, aquaponics, and traditional
25 Hawaiian farming systems.
- 26
- 27 12. Encourage adequate funding for ecosystem protection and restoration.
- 28
- 29 13. Support the development of game, fishery, and coastal management areas and management
30 plans.
- 31
- 32 14. Ensure that watershed protection and other conservation measures, including fencing,
33 facilitate Native Hawaiian access rights related to subsistence activities and traditional and
34 customary practices.
- 35
- 36 15. Protect and maintain Moloka`i`s oceans, beaches, and other recreational areas to ensure a
37 safe environment for recreational and cultural activities.
- 38
- 39 16. Support traditional ecological knowledge (TEK) as a tool or resource strategy.
- 40
- 41 17. Encourage and support research that studies the water quality, invasive species and
42 circulation issues around the Kaunakakai Wharf Road and Small Boat Harbor.
- 43

1
2
3
4
5
6

- 18. Support watershed or ahupua`a-based resource management partnerships.
- 19. Support state and federal agencies to collect baseline data on south shore water quality and coral reef conditions.

Actions

Table 3.1 Natural Resources			
No.	Action	Lead Agency	County Partners
3.1.01	Assist with conferences or workshops of key federal, state, and local agencies, and community and nonprofit leaders to discuss, plan, and prioritize actions to address environmental and natural resource issues.	OED	PD Department of Water Supply MLSWCD `Aha Kiole o Moloka`i
3.1.02	Compile GIS data and traditional ecological knowledge to map the highest value ecological areas and natural resources.	PD	DLNR Major landowners NGOs MLSWCD `Aha Kiole o Moloka`i
3.1.03	Compile GIS data to map primary and secondary groundwater recharge areas to help prioritize protection and restoration efforts.	[Water Department] DWS	State CWRM PD USGS `Aha Kiole o Moloka`i
3.1.04	Assist in conducting workshops with stakeholder groups to develop an integrated natural and heritage resources management system, including traditional Hawaiian ecological knowledge.	OED	DLNR – Nā Ala Hele Trail and Access Program NGOs `Aha Kiole o Moloka`i
3.1.05	Assist in conducting or coordinating public education and involvement events to build community-based stewardship and implementation capacity.	OED	DLNR Major landowners NGOs MLSWCD `Aha Kiole o Moloka`i
3.1.06	Assist in the development of a West Moloka`i dry native forest and lowland shrub restoration program.	OED	DLNR Major landowners NGOs MLSWCD `Aha Kiole o Moloka`i
3.1.07	Consult with Moloka`i Education Center to develop and manage a native plant nursery for community restoration projects.	OED	Molokai Education Center DLNR MLSWCD NRCS Ho`olehua Plant Materials Center/USDA NGOs Private landowners `Aha Kiole o Moloka`i
3.1.08	Conduct outreach to agricultural, ranching, and development interests to implement BMPs to reduce excess sediment loss, herbicide and pesticide use.	OED	DOH Clean Water Branch CTAHR NRCS MLSWCD `Aha Kiole o Moloka`i

Table 3.1 Natural Resources			
No.	Action	Lead County Agency	Partners
3.1.09	Reduce sediment and nutrient loads from entering surface and coastal waters by assisting landowners, upon request, to design or construct small-scale water retention, bioretention, or other conservation projects to increase infiltration to the aquifer and control surface water run-off. Review regulations and revise, if needed, to support projects.	DPW	DLNR NGOs NRCS USGS MLSWCD `Aha Kiole o Moloka'i
3.1.10	Work with federal, state, and County agencies to initiate a program to provide education and support for community stewardship of the coastal areas, including conducting baseline studies on coastal water quality and coral reef conditions.	OED	DLNR DOH, Clean Water Branch NGOs NRCS USGS NOAA MLSWCD Large Landowners Agricultural Operations `Aha Kiole o Moloka'i
3.1.11	Develop a toolbox of green infrastructure BMPs and conduct workshops for consultants, designers, developers, and builders.	DPW	State Office of Planning - Greenway Program `Aha Kiole o Moloka'i
3.1.12	Develop a toolbox of BMPs for use by residents and businesses to improve ecosystem health and water quality in urban and coastal areas. Provide assistance or workshops on BMPs and education to change business and household practices. Maintain a website for public education on water quality pollution prevention and BMPs.	DWS	DOH-Clean Water Branch DPW PD DLNR MLSWCD `Aha Kiole o Moloka'i
3.1.13	Assist with development of a community-based game management plan, including BMPs.	OED	DLNR NRCS Major landowners NGOs MLSWCD `Aha Kiole o Moloka'i
3.1.14	Continue to support organizations that eradicate invasive species.	DWS	OED `Aha Kiole o Moloka'i
3.1.15	Encourage the State to establish a quarantine treatment facility on Moloka'i.	OED	Molokai Maui Invasive Species Committee `Aha Kiole o Moloka'i
3.1.16	Assist in developing educational materials to educate visitors, including visitors engaged in hunting and fishing, about the importance of natural and cultural resources to the cultural and subsistence practices of Molokai's residents, and how they may prevent damage to these resources.	OED	DLNR OHA Cultural Practitioners NGOs `Aha Kiole o Moloka'i

Table 3.1 Natural Resources			
No.	Action	Lead County Agency	Partners
3.1.17	Work with the State, private landowners, and cultural practitioners to ensure that watershed protection, as well as other conservation measures, provide appropriate access, through fencing and other means, for cultural and subsistence activities.	Environmental Coordinator	DLNR OHA Cultural Practitioners NGOs `Aha Kiole o Moloka`i

1

1 **3.2 HERITAGE RESOURCES**

2 Throughout Molokai`s landscape there is an abundance of archaeological and historic sites and traditional cultural
 3 properties that document habitation by ancient Hawaiians and the more recent immigrants and their settlements.
 4 Archaeological, historic, and cultural resources combine to express the heritage of the people and place. Today,
 5 numerous Native Hawaiian traditional and customary practices, including fishing, gathering, cultivating lo`i,
 6 hunting, caring for burials, and accessing sacred and religious sites, continue to be practiced on Moloka`i. The
 7 health of Moloka`i`s natural and cultural resources, and access to these resources by Native Hawaiian
 8 practitioners, mauka to makai, is critical to the perpetuation of Native Hawaiian culture. Many residents practice
 9 a subsistence lifestyle, relying upon the island`s resources for fishing, hunting, and gathering. The people of Moloka`i
 10 are proud of their history, cultural identify, and unique Moloka`i lifestyle, and are determined to uphold and strengthen
 11 these qualities for future generations.

12
 13 Moloka`i is historically significant as a center of Hawaiian culture and learning. It is purported in oral tradition to be
 14 the birthplace of the hula and a training ground for powerful priests. Hawaiians have traditionally believed the `āina
 15 (land) is their ancestor and that it is their kuleana (responsibility) to search for balance and harmony with nature:
 16 the people will take care of the land, and in turn the land will take care of the people. The island`s natural resources
 17 are intimately connected to the cultural resources and together they provide the foundation for the traditional Hawaiian
 18 lifestyle. Until the 1800s, a communal system of land tenure and subsistence enabled ahupua`a tenants to access
 19 the land and its resources for subsistence, medicinal, cultural, religious, and other purposes. Even as western
 20 concepts of private property were incorporated into Hawaii`s land tenure, native tenants retained certain rights
 21 and interests in land. By the mid-1800s, Europeans and Americans were established on Moloka`i. At the same
 22 time, land tenure in Hawaii was undergoing a significant transformation. During the Māhele (and division),
 23 private interests in land were established, but these interests were subject to the rights of native tenants. As the
 24 European and American populations increased, the plantation and ranching industries took hold on the island,
 25 producing commercial ventures operating throughout the 1800s and 1900s. Several small-scale attempts at
 26 sugarcane cultivation were made between 1870 and 1900, however sugar plantations on Moloka`i did not reach
 27 the same level of success as those on neighboring islands.

28
 29 Beginning in the 1920s, growth in cattle ranching and pineapple plantations influenced growth and development
 30 on Moloka`i. Kaunakakai became the shipping and political center of the island and the home of the Moloka`i
 31 Ranch headquarters. In 1923, Libby, McNeill & Libby established a pineapple plantation in Maunaloa.
 32 Kualapu`u, originally the location of a small out-station for Moloka`i Ranch, became home to the California
 33 Packing Corporation pineapple plantation in 1927.

34
 35 **A. EXISTING CONDITIONS**

36
 37 Moloka`i has hundreds of documented archaeological and historic sites, as well as numerous undocumented sites.
 38 West and central Moloka`i lands have been extensively surveyed, while the East End has not yet been adequately
 39 surveyed. Appendix 3.2 provides a reference list of archaeological surveys conducted on Moloka`i, including
 40 *Molokai: A Site Survey*, April 1971 by Catherine C. Summers. Moloka`i sites are listed in the State Historic
 41 Preservation Division`s (SHPD) statewide Inventory of Historic Properties, and numerous Moloka`i sites have

1 been entered in the Hawaii and/or National Registers of Historic Places. See Map 3.3 which depicts Molokai`s
 2 State Historic Districts, places of interest, and other cultural resources.

3
 4 Archaeological sites and traditional cultural properties are distributed across the landscape and include both
 5 Hawaiian cultural sites as well as areas of more recent use. A traditional cultural property is defined as an area
 6 or place “that is eligible for inclusion in the National Register because of its association with cultural practice or
 7 beliefs of a living community”.²⁰ Some of Moloka`i`s most noted traditional cultural resources include the ancient
 8 Hawaiian complexes of Hālawā Valley, the `Ili`ili`ōpai heiau of Mapulehu, the East End fishponds, Kuku`i
 9 Lanikaula, the Makahiki Grounds of Nā`iwa, the Hula Piko of Kā`ana Kapuāiwa Coconut Grove, St. Joseph Church,
 10 and the R.W. Meyer Sugar Mill of Kala`e. Appendix 3.3 provides a list of cultural sites that the community desires
 11 to protect.

12
 13 Some Moloka`i residents feel there is a lack of awareness and respect for the importance of Moloka`i`s cultural
 14 and archeological sites by locals and visitors alike, which often leads to intentional or unintentional damage.²¹
 15 There is also concern that some sites not formally identified are being damaged or destroyed by unregulated
 16 ground altering activities, land development, and all-terrain vehicle use. In addition, neglected archeological sites
 17 such as heiau, fishponds, rock walls, and house platforms, are often damaged by negative human activity, animals,
 18 or tree roots.

19
 20 Many of the historic buildings in Kaunakakai remain along the town`s main commercial corridor, Ala Malama.
 21 However, a number of the wood, plantation vernacular style storefronts have been altered and character-defining
 22 features removed. Maunaloa has suffered from wholesale demolition of laborer housing. About twenty years
 23 after pineapple operations ceased in the 1970s, approximately 57 of the 200 plantation homes were demolished,
 24 and few wood plantation vernacular commercial buildings remain intact. Conversely, the original camp homes
 25 at Kualapu`u remain largely intact. A number have been altered, but the majority of the homes retain the character
 26 defining features of early twentieth century Hawaiian plantation laborer housing.

27
 28 Moloka`i`s cultural sites are actively used by many in the community for cultural, spiritual, and subsistence
 29 purposes and are important to the perpetuation of Hawaiian traditions and cultural practices. According to the
 30 *Governor`s Moloka`i Subsistence Task Force Final Report*²², among the random sample group surveyed, 28
 31 percent of their food is acquired through subsistence activities and 76 percent of respondents ranked subsistence
 32 as important to their own families. Erosion and reef siltation, over-fishing and improper harvesting, and non-
 33 native invasive marine species threaten traditional subsistence practices. Molokai has a wealth of traditional
 34 cultural practitioners with extensive experiential knowledge of local customs, resources, and ecosystems. Many
 35 of these practitioners believe it is their responsibility to teach younger generations traditional conservation
 36 practices and adherence to a code of conduct. This community place-based traditional resource management can
 37 function collaboratively with the more contemporary, resource management approach. One example is the `Aha

²⁰ U.S. Department of the Interior, National Park Service. (1998). *National Register Bulletin 38*.

²¹ Chris Hart & Partners, Inc. January 2011. *Cultural Resources Issue Paper*. Prepared for the County of Maui Long-Range Planning Division, Wailuku, HI.

²² Matsuoaka, Jon K., Davianna P. McGregor, and Luciano Minerbi. June 1994. *Governor`s Subsistence Task Force Final Report*. Prepared for the State of Hawaii, Department of Business, Economic Development and Tourism, Honolulu, HI. *Natural, Heritage, and Scenic Resources*

1 Moku initiative, a joint venture established between the native Hawaiian community and the State to integrate the
2 traditional cultural natural resource management system into existing government regulatory policy.

3
4 In the past several decades, the rights of Native Hawaiians, particularly relating to access and gathering, have
5 been extended and clarified. State and county governments and agencies have obligations to protect the
6 reasonable exercise of traditional and customary practices of Native Hawaiians, to the extent feasible. Relying
7 on the rights recognized in key constitutional and statutory provisions, as well as court decisions²³, the Hawaii
8 Supreme Court established an analytical framework for state and county agencies to follow when considering
9 land use and development projects²⁴.

10
11 **B. ISSUES**

14 Issue 1: Cultural, historic, and archaeological sites are vulnerable to destruction, theft, neglect, and
15 environmental degradation. Due to the Hawaiian language not being a written language, these
16 sites represent Moloka`i’s libraries and history.

17
18 Issue 2: Cultural and environmental degradation affects the ability of Hawaiian cultural practitioners to
19 practice their traditional lifestyles, including subsistence practices.

20
21 **C: GOAL, POLICIES, ACTIONS**

22
23
24
25 **Goal** Molokai`s cultural, historic, and archaeological sites, and cultural practices will be
26 **protected and perpetuated for their cultural and historical value, and for enjoyment of**
27 **and sustainable use by future generations.**

28
29 **Policies**

- 30 1. Encourage proper management of and appropriate interpretation of significant cultural
31 resources and sites.
- 32
33 2. Promote the rehabilitation, reuse, and historic registration of significant cultural resources,
34 historic structures, and cultural landscapes.
- 35
36 3. Where appropriate, require identification and mitigation of potential impacts to subsistence
37 activities and resources when reviewing development permits and discretionary land use
38 proposals.
- 39

²³ Hawaii Constitution, Article XII, Sec. 7, HRS §§ 1-1, 7-1; Ka Pa`akai o Ka `Aina v. Land Use Comm’n, 94 Hawai`i 31 (2000); Pele Defense Fund v. Paty, 73 Haw. 578 (1992).

²⁴ Ibid; see also Public Access Shoreline Hawai`i v. Hawai`i County Planning Comm’n, 79 Hawai`i 425 (1995).
Natural, Heritage, and Scenic Resources

- 1 4. Support access for subsistence hunting, fishing, and gathering. Support appropriate public
2 access to the shoreline, public trails and hunting areas in a manner that protects natural and
3 cultural resources and respects cultural practices.
4
- 5 5. Protect and support Native Hawaiian rights customarily and traditionally exercised for
6 subsistence, cultural, and religious purposes in accordance with Article XII, Section 7,
7 Hawaii State Constitution, Sections 1-1 and 7-1, and Hawaii court decisions.
8
- 9 6. Support the establishment of the island as a community-based subsistence fishing area,
10 pursuant to Sections 188-22.6, HRS, in order to conserve marine and nearshore resources
11 for generations to come.
12
- 13 7. Increase community awareness and stewardship of Molokai's historic and cultural
14 resources.
15
- 16 8. Protect traditional cultural landscapes, such as Hālawā Valley, Hoku Kano-`Ualapu`e
17 Complex, Ka`amola, and Kamalo through the designation of all of Mana`e within a
18 Traditional Land Use Overlay.
19
- 20 9. Encourage the restoration, management, and use of Moloka`i's fishponds.
21
- 22 10. Support the inclusion of educational programs that emphasize culturally significant arts
23 and practices, the Hawaiian language, and Moloka`i history into the curriculum of
24 Moloka`i schools.
25
- 26 11. Support community-based cultural tourism that does not have an adverse effect on natural
27 resources and culture.
28
- 29 12. Encourage increased funding for the State Historic Preservation Division.
30
- 31 13. Support Moloka`i cultural events that do not have an adverse effect on natural resources
32 and culture.
33
- 34 14. Ensure that permits for any project that may affect historic property are provided to SHPD
35 for review, and that SHPD's recommendations are issued as permit conditions.
36
- 37 15. Promote the education of visitors on the significance of historic and cultural sites, how to
38 be respectful of these sites, and how to support the maintenance and preservation of these
39 sites.
40
- 41 16. Encourage efforts in Waikolu Valley to partner with the Kalaupapa National Historical
42 Park - National Park Service, Department of Land and Natural Resources, the community,

1 and other stakeholders to: (a) conduct archaeological studies; (b) conduct invasive species
2 removal; and (c) implement traditional uses of the valley.
3

Actions

Table 3.2 Heritage Resources			
No.	Action	Lead County Agency	Partners
3.2.01	Complete and regularly maintain a GIS inventory of cultural, archaeological and historic resources and trails assembled from existing inventories and databases to be used for project review.	PD	SHPD
3.2.02	Identify other significant cultural property types, including rural historic landscapes and traditional cultural properties, and take action to include appropriate sites on the National Register of Historic Places.	PD	SHPD
3.2.03	Establish archaeological and historic districts where high concentrations of historic sites exist.	PD	SHPD
3.2.04	Provide education and incentives to encourage property owners to nominate structures and sites to the State and National Register of Historic Places.	PD	Real Property Tax
3.2.05	Coordinate with cultural practitioners and state agencies to develop public education programs on the proper gathering and use of subsistence resources.	Environmental Coordinator	Cultural Practitioners DLNR OHA
3.2.06	Develop educational materials addressing heritage and natural resources impacts from unpermitted ground altering activities; disseminate educational materials widely, including to private landowners and visitors; provide instructions for reporting unpermitted activities. Train Moloka`i Development Services Administration (DSA) personnel to immediately respond to complaints.	DPW	PD
3.2.07	Pursue State and County cooperation to update and implement the Mālama Cultural Park master plan.	Parks Department	PD
3.2.08	Explore options to protect cultural sites listed in Appendix 3.3.	PD	SHPD Landowners
3.2.09	Establish a comprehensive historical interpretive program, including historical markers, maps and brochures, identifying ahupua`a and significant historical sites that are appropriate for public interpretation.	OED	PD

Table 3.2 Heritage Resources

Actions

No.	Action	Lead County Agency	Partners
3.2.10	Coordinate with kūpuna knowledgeable in north shore protocol to hold community meetings to educate people about the history and cultural significance of Wailau and Pelekunu and to encourage pono cultural practices.	Environmental Coordinator	OED Cultural Practitioners DLNR OHA NGOs, Community Groups
3.2.11	Encourage the Governor to appoint members to the Moloka`i Island Burial Council so that regular hearings by this body may resume.	PD	SHPD OHA
3.2.12	Promote Moloka`i cultural events that do not have an adverse effect on natural resources. Develop Moloka`i cultural event and tourism guidelines that protect island culture and natural resources.	OED	USCG DLNR DoCARE NGOs, Community Groups Cultural Practitioners OHA
3.2.13	Provide educational training to applicable County agencies on the role that the county permit process plays in historic preservation.	PD	SHPD
3.2.14	Educate property owners regarding the need to prevent damage to, or destruction of, historic and cultural sites.	PD	SHPD

1

3.3 Scenic Resources

Scenic views and corridors are abundant and diverse on Moloka`i. They include land, sky, sea, and historic structures at a variety of scales and locations: urban, rural, agricultural, and open spaces. Views of nature, including ocean, hill slopes, valleys, ridgelines, springs, waterfalls, and coastlines can be seen nearly continuously from roadways that cross the island or follow the coast.

A. EXISTING CONDITIONS

Scenic resources on Moloka`i benefit from the limited amount of development that preserves vast areas of open space, agricultural lands, forested mountains, historic landscapes and ocean coastline. Many ridgelines and higher elevation hillsides remain undeveloped, while vegetation along the coastline obstruct views in many locations.

A photo inventory of Moloka`i's scenic resources was conducted and mapped but has not been rated for resource value. The *Maui County General Plan 2030 Scenic & Historic Resources, Inventory & Mapping Methodology Reports* provide guidance on visual quality ratings based on eleven factors used to evaluate and prioritize scenic resources.²⁵ In addition, the inventory and mapping work has not yet occurred to develop the Scenic Roadway Corridors Management Plan and Design Guidelines.

B. ISSUES

- Issue 1: Scenic resources are vulnerable to loss or degradation when not identified.
- Issue 2: Most scenic resources can be difficult to restore once changed.
- Issue 3: Molokai`s Moloka`i's scenic views are underutilized due to a lack of signage and turnouts.
- Issue 4: The increasing spread of invasive and poorly maintained vegetation is blocking views to the ocean and mountains.

²⁵ Chris Hart & Partners, Inc. (June 2006). *Maui County General Plan 2030 Scenic & Historic Resources, Inventory & Mapping Methodology Reports* (County of Maui Long-Range Planning Division).

C. GOAL, POLICIES, AND ACTIONS

Goal **Preserve and protect diverse scenic resources for future generations.**

Policies

1. Restrict or mitigate the impact of development on scenic resources.
2. Ensure development is designed to protect scenic roadway views and significant views of ridgelines and hill-slopes to maintain open space scenic character.
3. Increase community awareness and appreciation of Molokai’s scenic resources.
4. Support land purchase, or provide tax incentives, to design and construct scenic overlooks, roadside pull-outs, and signage. Maintain scenic view corridors to the ocean and mountains.
5. Retain significant vistas associated with archaeological features and culturally significant areas.

Actions

Table 3.3 Scenic Resources			
No.	Action	Lead County Agency	Partners
3.3.01	Develop BMPs for land and development uses to protect identified priority view corridors or viewsheds.	PD	NGOs
3.3.02	Complete the visual inventory, analysis, and mapping of key scenic view corridors, ridgelines, and viewsheds.	PD	NGOs
3.3.03	Develop and implement the Scenic Roadway Corridors Management Plan and Design Guidelines.	PD	NGOs DPW HDOT
3.3.04	Provide educational workshops for design consultants and developers on scenic resource BMPs.	PD	NGOs
3.3.05	Integrate scenic resource planning into natural and heritage resources strategies and plans.	PD	NGOs

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

4 | HAZARDS

Hazards from natural forces have been measured in Hawaii since the early 1800s. Since 1955 there have been 24 major disaster declarations in the State of Hawaii due to tropical cyclones, earthquakes, landslides, lava flows and tsunamis. Natural disasters have inflicted significant property losses and resulted in death and injury to residents and visitors in the County of Maui. Direct and indirect costs should be considered in when calculating the total loss from natural disasters, since recovery efforts divert available public and private resources, adversely impacting economic productivity.

The main focus of disaster recovery is how to build resiliency, the bounce-back capability, into communities. People must first recognize the inherent risks involved in their choices of where and how to live. Then the communities can adopt “approaches that eliminate, reduce, mitigate or transfer those risks in ways that make them more manageable over the long haul”²⁶.

Communities with strong disaster resilience capabilities were often those that were already doing well at the things citizens and businesses most value – having leaders that people trust and institutions that work, having a healthy environment, having a regularly maintained infrastructure designed to anticipate stresses, and having a flexible economy that provides opportunities for broad cross-sections of workers and investors.²⁷

The islands that constitute Maui County are exposed to hazards that are sometimes unique to each island. Moloka`i has greater exposure to high surf from the large Northwestern Pacific swells than other islands. Wildfires and drought have significantly impacted Moloka`i. Floods and coastal erosion with economic, social, and environmental significance are more common on Moloka`i because its population center is near shorelines and mountains with steep grading. All islands in the County have similar exposure to tropical cyclones because of their geographic location. Similarly, all islands in the County have comparable exposures to earthquakes.

The hazard mitigation planning process analyzes a community’s risk from natural hazards, coordinates available resources, and implements actions to reduce risks. Natural hazards must be considered when planning for future growth and development of a community. The Maui County Hazard Mitigation Plan (HMP) provides a strategy to reduce or eliminate loss of property or life caused by natural hazard events. The HMP addresses the relationship among various types of hazards, identifies actions that benefit multiple hazards, and prioritizes resources to areas susceptible to the most severe or most frequent hazards. The HMP was completed in 2015 and received final approval from FEMA the same year. The 2010 HMP is being updated and will include information on hazard events that have impacted the County since the 2010 Plan was published, as well as more information on the potential impacts of climate change and sea level rise (SLR). Specific references to the 2015 Maui County Multi-Hazard Mitigation Plan pertaining to descriptions in this chapter can be found in the footnotes. The updated HMP will also focus on mitigating the impacts of flooding in order to improve the

²⁶ <http://www.soest.hawaii.edu/coasts/sealevel/>
²⁷ Brown, Ben. (December 2010) *What is Resilience? A Roadmap to Resilience: Towards a Healthier Environment, Society and Economy for South Alabama. A Report by the Coastal Commission of Alabama.*

1 County's Community Rating System (CRS) class ranking, which is currently 8. This ranking provides a
 2 10 percent annual discount off flood policy premiums. A ranking of 1 out of the 10 classes is the highest and
 3 would provide a 45 percent discount. The National Flood Insurance Program (NFIP) is a federal program created
 4 by Congress to mitigate future flood losses through sound, community-enforced building and zoning ordinances
 5 and to provide access to affordable, federally backed flood insurance protection for property owners. The NFIP
 6 is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing
 7 damage to buildings and their contents caused by floods. The County is in the process of updating the Flood
 8 Insurance Rate Maps (FIRMs) that are used to determine which property owners with mortgages will be
 9 mandated by FEMA to purchase flood insurance and the cost of the insurance.

10
 11 **A. EXISTING CONDITIONS**

12 Extensive areas of Kaunakakai and the east-end communities are located at low coastal elevations placing them
 13 at relatively high-risk from tsunami, coastal flooding, stream flooding, storm surge and inundation. Areas around
 14 the tourist resort at Kaluako`i and the entire campground at Papohaku Park are also in tsunami inundation zones
 15 (see Hazards maps 4.1, 4.2 and 4.3).

16
 17 Moloka`i has nine potential shelters for hazard evacuations with a total capacity of 5,391 people. Moloka`i High
 18 and Kualapu`u Elementary Schools are rated as hurricane shelters with a combined capacity of 3,197 people.
 19 While this capacity could accommodate over 40 percent of the population, studies indicate that only 35 percent
 20 of residents are likely to seek public shelter during a hurricane.²⁸ Three shelters are rated for tsunamis and three
 21 shelters are rated for tropical cyclones. Only one shelter has been Red Cross approved. A State of Hawai`i
 22 Emergency Management Agency facility survey found recurring deficiencies with existing shelters (Martin &
 23 Chook, 2010)²⁹.

24
 25 There are 11 warning sirens on island: eight on the south shore, one on the Kalaupapa Peninsula, one in Maunaloa
 26 and one on the West End. An additional six sirens are planned for Moloka`i as part of the Statewide
 27 Modernization and Upgrade Plan. Sirens have an effective average range of one-half mile. The Civil Air Patrol
 28 provides coastal warnings and the County of Maui Emergency Management Agency transmits warnings to the
 29 public through the Emergency Alert System (EAS), which includes simultaneous broadcasts over all radio and
 30 television systems. Text and emails are sent to the Emergency Management Agency Notifications and
 31 Emergency Alert subscribers. Disaster response is coordinated through the County's Emergency Operation
 32 Center on Maui and the Moloka`i Incident Command Post. Communications are augmented through satellite
 33 transmission.

34
 35 **Flooding and Erosion** – Annual storms can bring multiple hazards that impact coastal and inland areas. These
 36 impacts include flash floods, high waves, storm surge, high winds, and hurricanes. SLR increases high waves
 37 and storm surge that contribute to beach and shoreline erosion and coastal inundation. Major flood problems are
 38 associated with the heavy flow of four water courses in east Moloka`i. Wailua Stream, Wāwā`ia Gulch, Kamalo
 39 Gulch and Kawela Gulch become blocked because of inadequate bridge openings or deposits of eroded sediment.
 40 Many streams run freely onto the roads as a result of inadequate drainage and stormwater infrastructure. This

²⁸ Source: County of Maui, Department of Civil Defense
²⁹ Martin & Chock. (2010) *Maui County Multi-Hazard Mitigation Plan*.

1 typically occurs around the east side of Kawela and at One Ali'i Beach Park. Roadway flooding can hamper
 2 travel and access and adversely affect emergency response times and capacity. When streams and rivers flood
 3 on the mauka side of the road, heavy debris often settles on the roadways. Additionally, mud runs off onto
 4 roadways, making roads impassable and creating hazardous driving conditions. There are several unnamed
 5 waterways that flood areas by the Kaunakakai Fire Station and Education Center, impacting the cemetery and
 6 Kapa'akea Homestead. Rising sea levels will also block the drainage of streams causing overflow at the stream
 7 mouth.³⁰

8
 9 **Tsunami** - As of May 2010, 27 tsunamis with run-up heights greater than 3.3 feet (1 meter) have made landfall
 10 in the Hawaiian Islands during recorded history and eight have had significant damaging effects on Maui,
 11 Moloka`i Lāna`i. Tsunamis reaching Moloka`i have exhibited tremendous variability in run-up heights,
 12 inundation distances, and the damage they have inflicted. The April, 1946 tsunami on Moloka`i produced run-
 13 up heights of 7 and 44 feet on the east and west sides of Kalaupapa Peninsula, respectively.

14
 15 New GIS maps for all islands in the County have been developed for tsunami inundation areas. These maps
 16 include delineations of historical and modeled run-up data used for determining building standards and tsunami
 17 evacuation areas. Historically in Hawai`i, the National Flood Insurance Program (NFIP) Flood Insurance Rate
 18 Maps (FIRMs) included the historical tsunami inundation limits. The new Digital Flood Insurance Rate Maps
 19 (DFIRMs) should be amended to include for these limits.³¹

20
 21 **Dams and Reservoirs** - Dam and reservoir failures can cause damaging flash floods. The sudden release of
 22 impounded water can occur during a flood that overtops or damages a dam or reservoir; this can occur on a clear
 23 day if the dam has not been properly constructed or maintained. The Kualapu`u Reservoir is an earthen dam
 24 located in central Molokai, that stores 1.2 billion gallons of water for irrigation purposes. The dam is 57 feet
 25 high and is 7,100 feet long with a drainage area of 134 acres. This state regulated reservoir was built in 1969
 26 has a high flash flood hazard rating.³² The nearest town in the flood path, is Ho`olehua Pala`au Homestead
 27 located one mile away. Kualapu`u Reservoir has a state approved Emergency Action Plan (EAP) and an
 28 engineering assessment was completed in January, 2015 (see Hazards map 4.2).³³

29
 30 **High Surf** - The most predictable and frequent coastal hazards in the Hawaiian Islands are sudden high waves
 31 combined with strong near shore currents. High surf is defined as waves ranging in height from 10 to 20 feet or
 32 more. High wave events threaten lives, coastal property, and infrastructure. High waves from hurricanes present
 33 a more complex hazard since they may coincide with high tide, storm surge, and high winds to produce a
 34 combined threat. They generally occur from June through December and most often hit the eastern shores of the
 35 Hawaiian Islands as hurricanes approach. High waves produced by north Pacific swells affect the entire northern
 36 and western coast of Moloka`i.³⁴ There is a greater threat to the more accessible and frequented areas along the

³⁰ 2015 Maui County Multi-Hazard Mitigation Plan, Chapter 10 and Chapter 13.

³¹ IBID, Chapter 9

³² "High hazard" means a dam's or reservoir's failure will result in probable loss of human life.

Source: HAR-190-1-Dam-Safety-Rules1.pdf

³³ 2015 Maui County Multi-Hazard Mitigation Plan, Chapter 11.

³⁴ IBID, Chapter 16

1 north facing shores of the west La`au Point between `Ilio Point and Mo`omomi Beach.³⁵ Natural hazards must
2 be considered when planning for future growth and development of a community.

3
4 **Wildfire** -Wildfire is the term applied to any unwanted and unplanned fire burning in forest, shrub, or grass
5 areas, regardless of whether naturally or human induced. Historically, Moloka`i has been very susceptible to
6 wildfire; there are nine years on record where more than one thousand acres burned. Between 1975 and 2009,
7 wildfires on Moloka`i burned over 65,000 acres, which is approximately twice as much acreage as wildfires
8 consumed on the island of Maui during the same time period.

9
10 Wildfires can cause widespread damage to watersheds, human communities, and downslope coral reef
11 ecosystems. The danger of wildfire is related to arid conditions, frequent high winds and the high fuel potential
12 of vegetation. Nine out of ten wildfires are human caused. Moloka`i`s central area and West End are dry regions
13 with agricultural lands that are particularly susceptible to drought conditions, and are therefore at high risk of
14 wildfire.

15
16 In the early 2000`s the Moloka`i Fire Task Force was created to improve interagency coordination and
17 communication regarding wildfires on Molokai. The original core group consisted of Maui County Fire and
18 Rescue Operations, TNC and the State Department of Fish and Wildlife (DOFAW). The Task Force has since
19 evolved and many other private sector, state, county and local community agencies have become involved. The
20 Task Force maintains a positive working relationship between the myriad of agencies involved in wildfire
21 protection and the Moloka`i community.

22
23 The Task Force collects wildfire risk data and oversees development of the Community Wildfire Protection Plan
24 (CWPP). The CWPP addresses elements of wildfire protection, hazard assessment, wildfire mitigation priorities,
25 and community outreach and education. The goals and objectives of the Plan follow the requirements of the
26 *Healthy Forests Restoration Act* (HFRA), which describes a CWPP as a fire mitigation and planning tool for at-
27 risk communities that meet criteria contained in the HFRA.³⁶

28
29 **Hazardous Substances & Waste** - The Hawai`i Environmental Response Law (HERL) requires the DOH to
30 report annually to the State Legislature about sites with potential or known hazardous substances, pollutants, or
31 contaminants.³⁷ The 2014 Site Rehabilitation Prioritization (SRP) List of Priority Sites reported ten sites on
32 Molokai with potential or known contamination. There was also a list of sites eligible for possible remedial
33 action under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) that
34 identified one Molokai site for possible listing. Additionally, in 2014, there were four Molokai sites located on
35 federal property managed and funded under the Department of Defense/State Memorandum of Agreement
36 (DSMOA) Program.³⁸

³⁵ *Atlas of Natural Hazards in the Hawaiian Coastal Zone*, 2002

³⁶ *Detailed information and data on tsunamis is contained in the 2015 Maui County Hazard Mitigation Plan, Chapter 14 (drought) and Chapter 15 (wildfire). Additionally, the impact of drought on Molokai was addressed in the October 2004 County of Maui Drought Mitigation Strategies and the 2005 State Drought Plan.*

³⁷ *Martin & Chock. (2010) Maui County Multi-Hazard Mitigation Plan.*

³⁸ *Environmental Response and Planning Community Knowledge Report to the Twenty-Seventh Legislature, State of Hawaii 2014.*

1
2
3

B. ISSUES

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

-
- Issue 1: There is low public awareness about hazard preparedness, mitigation, response, and recovery.
 - Issue 2: In coastal areas, including Kaunakakai, SLR will increase risk of inundation, flooding, storm surge, beach erosion, and shoreline retreat and structural damage.
 - Issue 3: Moloka`i has a high risk of wildfire.³⁹
 - Issue 4: Moloka`i cannot solely depend upon other islands for resources for hazard and emergency response.
 - Issue 5: The majority of Moloka`i’s government, business, and health care facilities, with the exception of the hospital and fire station, are located entirely within flood and tsunami inundation zones.
 - Issue 6: Puko`o Fire Station is the only emergency facility located on the East End and is located within flood and tsunami inundation zones.
 - Issue 7: There are no emergency facilities in the West End.

C. GOAL, POLICIES, ACTIONS

23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

Goal Moloka`i will be prepared for natural and human-created hazards.

Policies

1. Promote public education about natural and human-induced hazards in order to improve preparedness and response and to reduce hazard risk and impacts.
2. Support a more coordinated emergency response system that includes clearly defined and mapped evacuation routes and Red Cross approved shelters located away from areas susceptible to natural hazards.
3. Support and advocate for better preparedness capacity by improving inter-agency planning, coordination, and implementation.
4. Support the integration of science-based coastal hazards information into land use planning and permitting, including revision of the Special Management Area (SMA) boundary in accordance with Section 226, HRS, *Climate Change Adaptation Priority Guidelines*.
5. Maximize protection of coastal natural resources and ecosystems and avoid the perpetuation of shoreline armoring.

³⁹ Draft Maui County Hazard Mitigation Plan Update, 2015

- 1 6. Encourage the location or relocation of all critical infrastructure, facilities, and
2 development out of the evacuation and inundation zones vulnerable to coastal hazards in
3 accordance with the 2012 Hawai`i State *Climate Change Adaption Adaptation Priority*
4 *Guidelines* and the *HMP*.
- 5
- 6 7. Prioritize mitigation efforts that will provide potential funding opportunities to flood
7 proof, or retrofit vulnerable critical facilities and infrastructure.
- 8
- 9 8. Support the goals, objectives and actions of the 2016 *Moloka`i Community Wildfire*
10 *Protection Plan*.
- 11
- 12 9. Support the protection and restoration of natural systems, such as wetlands and dunes, for
13 flood mitigation and climate change adaptation.
- 14
- 15 10. Promote the distribution of public education and outreach materials that explain FEMA's
16 NFIP.
- 17
- 18 11. Per the Maui County Hazard Mitigation Plan, encourage the State to utilize the funding
19 provided to retrofit, rehabilitate and/or replace highway bridges vulnerable to earthquake
20 hazard.
- 21
- 22 12. Encourage a greater urgency to act on hazard policies, actions, implementation priorities,
23 and funding.
- 24
- 25 13. Support the addition of Red Cross approved shelters.
- 26
- 27 14. Support the integration of traditional ecological knowledge-based coastal hazards
28 information into planning for resilience.
- 29
- 30
- 31
- 32
- 33
- 34
- 35

1 **Actions**
2

Table 4.1 Hazards			
No.	Action	Lead County Agency	Partners
4.01	Continue the development of Moloka`i Incident Command Post in coordination with County Civil Defense.	Civil Defense	Red Cross Civil Air Patrol Police Department Fire and Public Safety DPW EMS Volunteer Organization Active in Disaster Privately held Public Water Systems
4.02	Identify and submit flood and pre-disaster mitigation projects that qualify for funding under the FEMA Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, NFIP Severe Repetitive Loss Program, and other FEMA funded mitigation and NFIP grants consistent with the Maui County HMP.	Civil Defense	FEMA Region IX NFIP
4.03	Develop programs and distribute materials for public outreach and education to better educate the community and visitors on disaster preparedness, response, hazard mitigation, multi-hazard risks and vulnerabilities, and post-disaster recovery. Target materials and programs that will provide information on steps to take to protect lives and strengthen property against natural and human-related disasters.	Civil Defense	Dept. of Fire and Public Safety Mayor's Office Environmental Coordinator Red Cross Moloka`i Wildfire Task Force
4.04	Seek community information on possible hazardous waste sites buried decades ago; investigate and remediate if needed.	Department of Environmental Management	State DOH Mayor's Office (Environmental Coordinator)
4.05	Identify critical infrastructure, lifelines, roads, and structures that are vulnerable to coastal hazards, including SLR, and develop a more coordinated emergency response system of well-defined and mapped evacuation routes.	Civil Defense	DPW DWS DEM
4.06	Identify critical infrastructure, lifelines, roads, and structures that are vulnerable to wildfires and develop a more coordinated emergency response system of well-defined and mapped evacuation routes. Formalize existing practices on the use of heavy equipment during fires.	Fire and Public Safety	DLNR- DOFA Volunteer Fire Crew Moloka`i Fire Task Force
4.07	Develop a wildfire information campaign and signage to build public awareness of wildfire hazard. Improve community awareness of the human, economic, and environmental costs associated with wildfires caused by negligence or accident. Engage the community in creating and maintaining fire breaks.	Fire and Public Safety	Moloka`i Fire Task Force Private Property Owners

Table 4.1 Hazards			
No.	Action	Lead County Agency	Partners
4.08	Support wildfire mitigation activities such as green belts around subdivisions and vegetation control around power poles that will minimize risk of wildfire susceptibility to properties and subdivisions.	DPW	Fire and Public Safety PD Moloka`i Fire Task Force MECO
4.09	Complete an inventory of vulnerable critical facilities and infrastructure. Include this information in the Maui County HMP for future mitigation project funding.	PD	Emergency Management
4.10	Map SLR projections for specific geographic areas on Molokai, utilizing data from the National Oceanic and Atmospheric Administration (NOAA) Digital Coast SLR and Coastal Flooding Impacts Viewer. Map other climate-related coastal hazard areas.	PD	NOAA Pacific Services Center UH Sea Grant
4.11	Continue work with FEMA to update FIRMs that incorporate best available information on climate change and SLR.	PD	FEMA
4.12	Implement additional CRS activities to improve class ratings and discounts on flood insurance premiums.	PD	FEMA
4.13	Conduct erosion analysis of Molokai's shoreline to determine rate of erosion and use the results to determine setback calculations that also factor in incremental effects of SLR.	PD	NOAA Pacific Services Center UH Sea Grant
4.14	Coordinate with Federal, State and County agencies to obtain current SLR information and maps. Plan phased relocation of critical structures and roadways. Plan long-term strategic retreat of buildings. Identify priority planning areas where resources and planning efforts should be focused. Identify how and where to use adaptation strategies such as retreat, accommodation, and protection.	PD	NOAA Pacific Services Center, UH Sea Grant Emergency Management DPW
4.15	Per the HMP, update the HAZUS MH model to incorporate detailed data on state and county bridges located in Moloka`i.	Emergency Management	FEMA
4.16	Support development of a cultural archive of the kūpuna's knowledge of traditional hazard mitigation practices.	PD	DHHL
4.17	Evaluate, update and prioritize shelters on Moloka`i.	Emergency Management	Red Cross
4.18	Immediately seek funding and develop an implementation plan to move critical infrastructure and emergency services out of flood and tsunami inundation zones.	Emergency Management	FEMA
4.19	Support the relocation of the Puko`o Fire Station on the East End of Moloka`i.	Emergency Management	FEMA

5 | ECONOMIC DEVELOPMENT

Several key economic events have shaped the structure and vitality of Moloka`i's economy. These also have influenced the population makeup and employment opportunities on the island. Moloka`i has a long history of agriculture, beginning with the cultivation of taro and development of fishponds by the native Hawaiians. In 1859, Kamehameha IV established a sheep ranch at Kaluako`i, which was the origin of Moloka`i Ranch. In the 1920s, the first pineapple plantations were established and the island experienced an influx of immigrant workers. Other agricultural crops have been commercially produced on Moloka`i including sugar, honey, sweet potatoes, and watermelon. In the late 1970s, the Kaluako`i Hotel along with its golf course and condominiums opened, officially introducing resort tourism to Moloka`i. By the early 1980s, pineapple operations closed ending plantation agriculture on Moloka`i, triggering a substantial out-migration.

In 1967, the first corn test plots were started by Moloka`i Ranch, with the support of the University of Hawai`i (Dr. Jim Brewbaker and Dr. Elizabeth Johnson (Granger)). In 1966, Molokai Seed Service and Hawaiian Research, founded by Roland Holden, began business on Moloka`i. In 1972, Molokai Seed Services sold to Hawaiian Research all of its assets including land leases on Moloka`i. In December, 2000 Monsanto purchased Hawaiian Research. In 2000, two biotech seed corn companies, Monsanto and Mycogen Seeds, began operations that became Molokai's first and second largest private employers. In 2001, the Kaluako`i Hotel closed; then, in 2008, the island's largest employer at the time, Moloka`i Ranch, closed its operations and laid off 120 employees. This meant the loss of some important community amenities such as the Kaluako`i golf course, a gas station, and a movie theatre complex.

In an effort to find solutions to the island's economic challenges, the Maui Economic Development Board (MEDB) and the Moloka`i Chamber of Commerce surveyed 90 Moloka`i business representatives. MEDB's 2009 report, *Entrepreneurship and the Future of Moloka`i*, concluded that, "... the quality of the labor force and job applicants was a limiting factor for the Moloka`i economy."⁴⁰ Education levels, job skills, and a shortage of local managerial talent were cited as contributing factors. In spite of these discouraging findings, MEDB also found that "...entrepreneurship is thriving on Moloka`i and that resourcefulness is inherent in the community."⁴¹

Additionally, according to the 1994 *Governor's Moloka`i Subsistence Task Force Final Report*, subsistence is a viable sector of Moloka`i economy. Subsistence practices on Moloka`i have continued into today primarily due to the availability of renewable natural resources. With Moloka`i's history of years of macroeconomic strategies that have had negative implications on Moloka`i's natural resources and native ecosystems, in addition to recognizing Moloka`i's subsistence economy, it is equally important to carefully move forward with future endeavors to develop and diversify Moloka`i's economy.

In the Wāiahole I contested case hearing, the Hawai`i Supreme Court held that the public trust doctrine affords protection for natural resources that are important for Native Hawaiian traditional and customary practices,⁴² including subsistence. The Supreme Court further held that private commercial use is not a protected public trust use.⁴³ Additionally, as public and private interests often conflict, the State has a constitutional obligation to weigh

⁴⁰ Maui Economic Development Board, *Entrepreneurship and the Future of Molokai* (2009)

⁴¹ Maui Economic Development Board, *MEDB Annual Report on Operations, July 1, 2008 – June 30, 2009*

⁴² *In re Waiāhole Combined Contested Case Hearing (Waiāhole I)*, 94 Hawai`i 97, 136 P.3d 409, 448, 137.

⁴³ *Id.* at 138.

1 competing interests in public trust resources with a presumption in favor of public use, access, and enjoyment.⁴⁴
2 In order to ensure Moloka`i's subsistence economy remains viable and the rural character of Mana`e remains
3 intact, it is critical to ensure that the continuous development of Moloka`i's economy is done so in a way that is
4 in accordance with the state's affirmative obligations.

5
6 **A. EXISTING CONDITIONS**

7
8 Moloka`i's economic development efforts face a unique set of challenges including:

- 9 • Limited local market capacity and competition due to the small, isolated population.
10 • Higher cost and limited product transportation options.
11 • Over-reliance on fossil fuel based imports for energy production and transportation of people, food, and
12 materials.

13
14 These economic challenges are magnified on Moloka`i; finding workable solutions will require thoughtful
15 collaboration between business owners, major landowners, government entities, and the community.

16
17 The USDA awards grants to communities throughout the United States that have high rates of poverty and
18 Molokai was designated as a Rural Enterprise Communities from 1998 to 2008. Moloka`i is economically
19 disadvantaged due, in part, to the lasting combined impacts of the Great Recession and the shutdown of the
20 pineapple companies and Moloka`i Ranch. The following 2009-2013 American Community Survey statistics
21 provide a snapshot of economic conditions on Moloka`i⁴⁵:

- 22
23 • Moloka`i has consistently had the state's highest unemployment rate; in November 2014, the unemployment
24 rate was 14.2 percent versus the statewide average of 4.7 percent.⁴⁶
25 • The 2009-2013 estimated median family income (MFI) for East Moloka`i was \$51,807, which was 65 percent
26 of the \$79,963 statewide MFI; West Moloka`i MFI was \$44,656, which was 56 percent of the statewide MFI.
27 • An estimated 21 percent of people living on Moloka`i had incomes below the poverty level, which was nearly
28 double the statewide rate of 11 percent.
29 • On Moloka`i, 28 percent of workers were employed in the government sector compared to 15 percent on
30 Maui, and 21 percent statewide. Alternatively, Moloka`i had the lowest percentage of private-sector
31 employees at 63 percent compared to 75 percent on Maui, and 72 percent statewide.
32 • Moloka`i had the highest percentage of workers employed in the agricultural, forestry, and fishing industries
33 at 7 percent compared to Maui at 2.4 percent and the state average at 1.5 percent.
34 • Moloka`i has only one small hotel and 340 total visitor accommodation units that are mostly condos, and in
35 2014 the island had the lowest percentage of workers employed in the tourism sector with 15 percent versus
36 24 percent for Maui and 16 percent statewide.

37
38 Standard economic indicators such as unemployment rate, workforce composition, and personal income levels
39 may signify a community in distress; however, Moloka`i has a significant subsistence economy that provides a

⁴⁴ *Id.* at 141-42.

⁴⁵ American Community Survey, 2009-13 5-year Estimate (unless otherwise noted).

⁴⁶ Hawaii State Department of Labor & Industrial Relations (DLIR), December, 2014

1 vital and viable substitution for many imported goods. This key sector in Moloka`i's hidden economy is important
2 to food sustainability and self-sufficiency.

3
4 Subsistence is the customary and traditional use by Moloka`i residents of wild and cultivated renewable resources
5 for direct personal or family consumption as food, shelter, fuel, clothing, tools, transportation, culture, religion
6 and medicine, for bartering or sharing, and for customary trade. Many families on Moloka`i continue to rely upon
7 subsistence fishing, hunting, gathering, or cultivation for a significant portion of their food. Subsistence has also
8 been critical to the perpetuation of traditional Hawaiian cultural values, customs and practices.

9
10 A number of residents on Moloka`i are very protective of their rural and traditional-based lifestyles and have
11 resisted economic development centered on commercial tourism, real estate development, and in-migration of
12 new residents -- all important elements in most of the state's economic development strategies. Although many
13 Moloka`i residents are willing to accept economic tradeoffs to maintain their traditional lifestyles, others desire a
14 more diversified, resilient, production and service-based economy. There is considerable community support for
15 agriculture, aquaculture, and an active community-based tourism sector. Many residents would like to see small
16 local businesses and entrepreneurs become the primary drivers of Moloka`i economic renaissance. There is also
17 a strong community desire to revitalize and reopen the Kaluako`i Hotel and Golf Course, the Maunaloa Lodge,
18 and other amenities.

19
20 There is no longer direct freight service between Moloka`i and Maui, which creates logistical problems for
21 producers of perishable goods. The Young Brothers freight schedule makes it difficult to ship perishable goods
22 from Honolulu. Products originating or arriving outside of Hawai`i first arrive on Oahu then move on to Moloka`i.
23 The additional leg of travel increases Moloka`i's shipping costs and shipping times, which can affect spoilage
24 rates for agricultural products.

25
26 **B. ISSUES**

27
28
29 Issue 1: Moloka`i's limited economic base has been unable to provide a sufficient level of employment
30 to meet the needs of residents.

31
32 Issue 2: Transportation between Moloka`i and the neighbor islands is costly and a challenge for
33 economic development.

34
35 Issue 3: The limited pool of qualified, well-trained and reliable workers reduces local employment
36 potential and makes business more challenging.

37
38 Issue 4: Moloka`i has a high cost of electricity.

39
40 Issue 5: There is increasing concern that if something is not done now to reverse the trend of
41 overharvesting and diminishing natural resources, there will be nothing left for future
42 generations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

C. GOAL, POLICIES, ACTIONS

Goal **A stable, balanced, diversified, and sustainable economy, respecting cultural and natural resources, that is compatible with Moloka`i’s rural island lifestyle.**

Policies

1. Support diversification of Moloka`i’s economy.
2. Support improvements in education training programs and internships at all levels to ensure a well-educated and well-trained workforce.
3. Support the development of agriculture and value-added agricultural products and support traditional farming systems.
4. Support small business assistance and training programs.
5. Support expansion of complementary tourism markets including kama`āina, cultural, religious pilgrimage, eco, agricultural, sports in a manner that supports the conservation of Moloka`i’s natural and cultural resources, the protection of Moloka`i’s rural lifestyle and cultural traditions, and the sustainability of the island.
6. Support redevelopment projects, such as the Kaluako`i Hotel and Golf Course, and the reopening of the Moloka`i Ranch Lodge with community input to incorporate community culture and lifestyle.
7. Support the limited growth of permitted alternative lodging units that do not create an adverse impact on the neighborhood.
8. Support increased enforcement of Chapter 19.65, MCC, the County’s Short-Term Rental Home ordinance, to address the adverse impacts unpermitted rentals have on neighborhoods.
9. Advocate for Moloka`i’s transportation interests.
10. Encourage the State Department of Transportation’s implementation of harbor improvements.
11. Encourage the State Department of Transportation to improve the airport.
12. Create regulations and procedures that will enhance and promote (not hinder) economic development appropriate to Moloka`i’s rural character.
13. Support art as a business.

- 1 14. Support and encourage cottage and mini-industries, such as garment and craft production, as
2 residential-based economic activities, provided such activities are compatible with the surrounding
3 neighborhood.
- 4
- 5 15. Support increased education and employment in conservation and restoration to create a sustainable
6 economy.
- 7
- 8 16. Continue support of the The Kuha`o Business Center.
- 9
- 10 17. Support the restoration and utilization of Moloka`i's fishponds and the development of a fish hatchery
11 on the East End of Moloka`i.
- 12
- 13 18. Support community initiatives to develop a management plan for mangroves in fishponds and near
14 shore areas and convert this invasive species into farm inputs and hardwood consumer products.
- 15 19. Encourage the update and implementation of the Moloka`i's *Responsible Tourism Initiative:*
16 *A Community-based Visitor Plan for Moloka`i.*
- 17
- 18 20. Support subsistence as a sector of Moloka`i's economy.
- 19
- 20 21. Encourage State and County efforts to secure federal funds to subsidize interisland transportation.
- 21
- 22 22. Support community-based management of the natural resources on Moloka`i.
- 23
- 24 23. Encourage the protection of the north shore coastline, valleys, and fisheries from all commercial
25 activities.
- 26
- 27 24. **Protect the north shore coastline, valleys, and fisheries from all commercial activities.**
- 28
- 29

Actions

Table 5. 1 Economic Development			
No.	Action	Lead County Agency	Partners
5.01	Identify, target, and recruit new industries and businesses such as agricultural operations, aquaculture, cultural arts and trades, and information technology.	OED	MEO MEDB DOH DLNR `Aha Kiole o Moloka`i
5.02	Continue to assess potential shipping options.	OED	Ferry Operators Public Utilities Commission `Aha Kiole o Moloka`i
5.03	Continue to work with inter-island airlines to keep airfares affordable and service frequency adequate to accommodate the needs of Moloka`i's visitors, residents, and businesses.	OED	Airlines Shippers Public Utilities Commission Aha Kiole o Molokai
5.04	Develop a Moloka`i Agriculture Strategic Plan for all farms.	OED	University of Hawai`i College of Tropical Agriculture and Human Resources `Aha Kiole o Moloka`i
5.05	Continue to provide business courses to farm owners and agricultural entrepreneurs that include education about state and federal and grant opportunities.	OED	Department of Agriculture Farm Service Agency Hawai`i `Aha Kiole o Moloka`i
5.06	Encourage the development of cooperative agricultural development programs between the County and the DHHL to support diversified agricultural pursuits.	OED	DHHL `Aha Kiole o Moloka`i
5.07	Create a survey of Moloka`i's population to determine the reasons for the high rate of "discouraged workers."	OED	MEDB MEO `Aha Kiole o Moloka`i
5.08	Continue and enhance educational opportunities for Moloka`i's students in areas such as STEM education, business management, leadership, agriculture, and vocational training.	OED	MEDB MEO DOE UH `Aha Kiole o Moloka`i
5.09	Assess how environmental impact, invasive species, feral ungulates, natural resources, and other factors will negatively or positively impact Moloka`i present and future.	OED Mayor's Office (Environmental Coordinator)	DLNR EPA MEDB `Aha Kiole o Moloka`i
5.10	Develop a permanent appropriate site for the farmer's market in Kaunakakai to promote locally grown fresh produce and products.	OED	MEDB Moloka`i farmers `Aha Kiole o Moloka`i
5.11	Identify economic opportunities for the use of targeted plant and animal species animals for value added products.	OED	`Aha Kiole o Moloka`i
Table 5. 1 Economic Development			

No.	Action	Lead County Agency	Partners
5.12	Assess which development regulations are going to discourage investors from making improvements on Moloka`i.	OED	PD `Aha Kiole o Moloka`i
5.13	Explore the possibility to provide incentives to landowners to help bring MCC issues into compliance for the purpose of maintaining affordable housing.	DHHC	PD `Aha Kiole o Moloka`i
5.14	Support workforce development efforts to help improve Moloka`i`s economy.	OED	Hawai`i Workforce Development Dept. `Aha Kiole o Moloka`i
5.15	Develop opportunities to get more local agricultural products into local markets.	OED	HDOA Market Development Branch `Aha Kiole o Moloka`i
5.16	Support the traditional use of Hawaiian farming systems and the growth of traditional Hawaiian crops.	OED	`Aha Kiole o Moloka`i
5.17	Support workforce development efforts targeted at sectors poised to revive Moloka`i`s economy.	OED	`Aha Kiole o Moloka`i

6 | LAND USE AND HOUSING

Land use refers to the way in which we use and manage land, whether for agriculture, subsistence, environmental preservation, recreation, business, or housing. Land use policies and practices help to ensure an adequate and affordable supply of housing by designating where housing can be built in relation to other uses. Progressive land use and housing policies strive to ensure sustainable communities with a variety of housing opportunities proximate to jobs, services, parks, infrastructure, and transportation. The Plan sets the framework to create livable communities for Moloka`i’s people while protecting agricultural lands, environmental resources, and the rural character of the island.

6.1 Land Use

Moloka`i is a rural island based on an agricultural economy. The island has three distinct geographic regions with small towns and dispersed rural settlement. The island has very limited commercial and tourism development. Moloka`i settlement patterns have been greatly influenced by the establishment of plantation agriculture and ranching, the development of irrigation systems, and the *Hawaiian Homes Commission Act of 1920, as amended*, enacted in 1921. The visitor industry began on Moloka`i in the late 1960s with the opening of Hotel Moloka`i and Pau Hana Inn in Kaunakakai, and on the West End with the Kaluako`i Hotel opening in 1977. The Pāpōhaku Ranchlands Subdivision, established in 1981 on the West End, signified the beginning of resort real estate development on Moloka`i.

A. EXISTING CONDITIONS

Moloka`i’s current land use patterns are characterized by small towns surrounded by vast agricultural lands, rural homestead settlements, resort development at Kaluako`i, and scattered rural development along the island’s southeast coast. Kaunakakai is the island’s population and commercial center and the smaller towns of Kualapu`u, Maunaloa, and `Ualapu`e are important service centers for those communities.

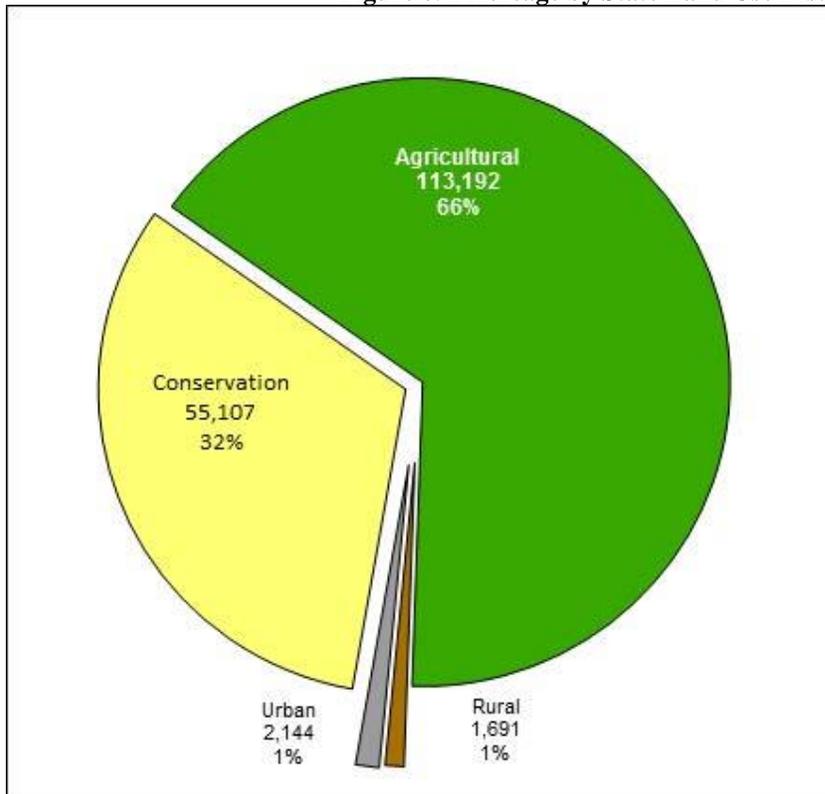
Table 6.1: Population of Moloka`i’s Small Towns

Town	2010 Population
Kaunakakai	3,425
Kualapu`u	2,207
Maunaloa	376
`Ualapu`e	425

Source: U.S. Census Bureau, *2010 Census*

The vast majority of Moloka`i’s lands are within the State’s Agricultural and Conservation Districts, with only a small percentage designated as Rural and Urban (see Figure 6.1).

Figure 6. 1 Acreage by State Land Use District



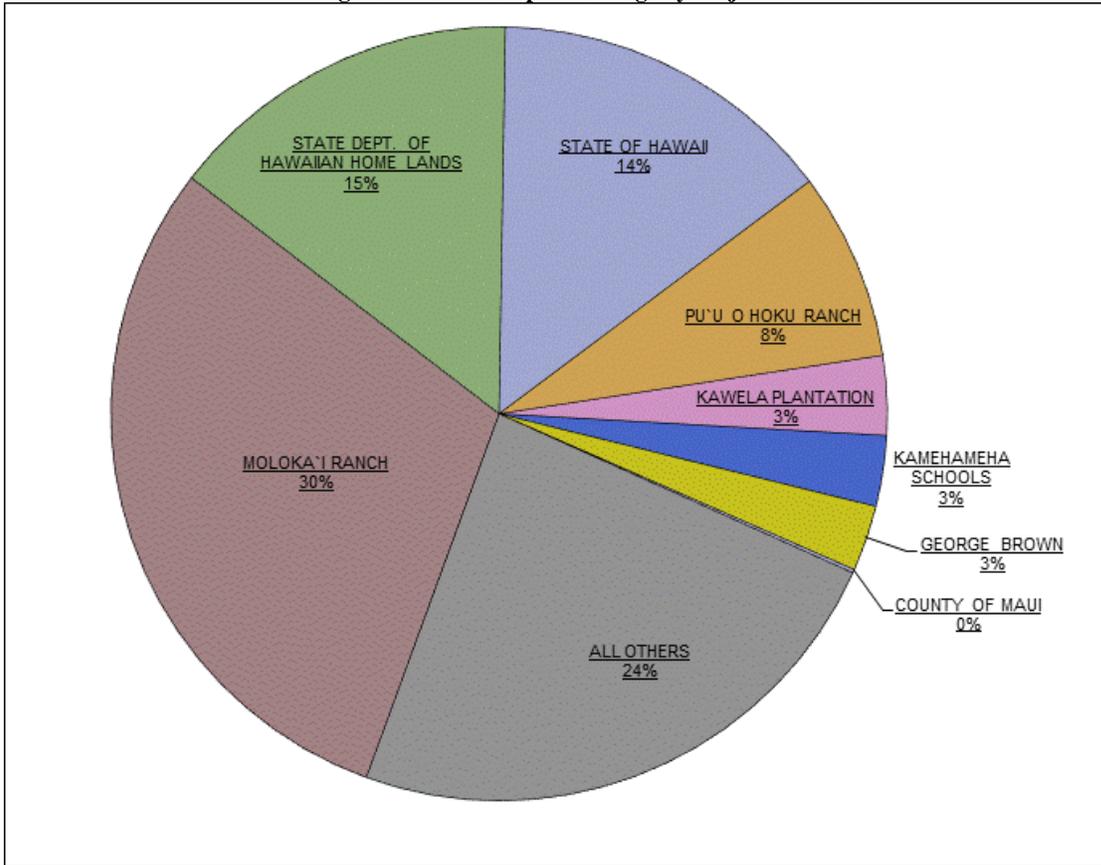
Almost all of the land on Moloka`i designated Urban by the State Land Use Commission (SLUC) is County-zoned Interim. The exceptions are those properties for which a zoning change has been granted. Interim zoning has significant consequences for landowners and businesses, including:

- Interim zoning adds considerable time and expense to the land use permitting process.
- Interim zoned property cannot be subdivided nor can conditional permits be granted.
- Commercial use of Interim zoned property is considered non-conforming since commercial zoning is not permitted in the Interim District.
- Interim zoning allows densities and uses that are potentially undesirable in some areas.

A majority of Moloka`i land is held by a few landowners and ownership patterns vary among the island's three regions (see Figure 6.2). West Moloka`i is almost entirely owned by Moloka`i Ranch. Central Moloka`i has large areas owned by the Department of Hawaiian Homelands (DHHL), Moloka`i Ranch, and smaller landowners. East Moloka`i is largely held by small landowners, some of which are *kuleana* grants. In the Hālawā area, Pu`uohoku Ranch has extensive property.

DHHL is not required to comply with the Maui County General Plan, zoning and subdivision regulations, and County building and other ministerial permits. However, DHHL currently does require lessees to obtain building permit approval from the County Department of Public Works because DHHL does not have its own building code. This jurisdictional arrangement has caused confusion for some DHHL lessees and other community members.

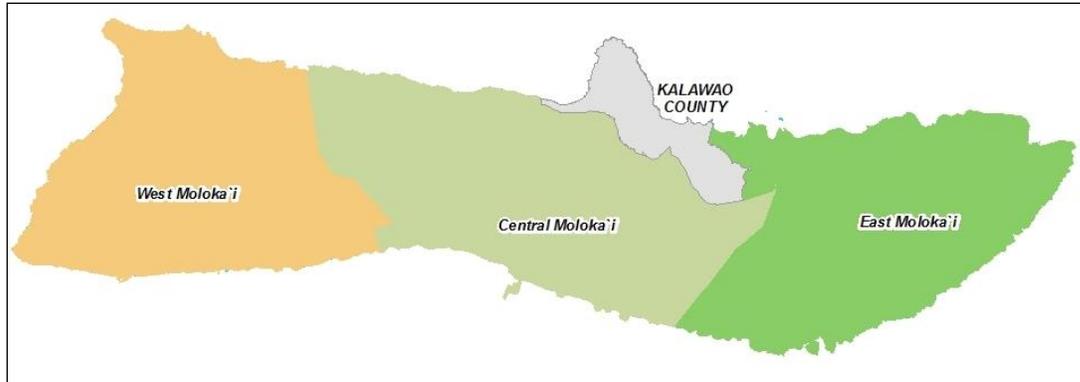
Figure 6.2 Ownership Percentage by Major Landowner



Moloka'i's elongated shape embraces widely varying topographic and climatic regimes. For planning purposes, the island is divided into three regions along Tax Map Key (TMK) parcel lines – East Moloka'i's, West Moloka'i's, and Central Moloka'i's (see Figure 6.3).

Amongst other issues, the increase in land tax has and continues to create financial hardships for ahupua`a and kuleana land owners. The ahupua`a owner is usually able to manage any increase in land taxes, whereas the kuleana owner often is not. Quiet title actions and the inability for kuleana landowners to bring together multiple, undivided interests has caused a shift in the demographics where there are more non-residents purchasing real estate on Moloka'i and establishing and driving up land and home values. This also drives up property taxes and forces out remaining families living on their lands and kuleana lands. It has also been creating a lucrative, illegal transient vacation rental scheme where people don't know who their neighbors are and public beach accesses are blocked. Because there are numerous amounts of kuleana lands in Mana`e, these issues are magnified. This unique Mana`e issue combined with the conventional statewide problems of land tax and development, produces hurdles over which responsible land use and land tax assessment becomes a problem. Tax burdens on kuleana land owners must be alleviated.

Figure 6.3 Molokai Planning Regions



East Moloka`i

The boundaries of East Moloka`i by ahupua`a are from Mōkolelau to Hōlawa on the south shore, and from Pelekunu to Halawa on the north shore. This area boundary was chosen because the lands contained within that area match the East Moloka`i Planning Region, are similar in actual use/ownership today, and match the community lifestyle. East Moloka`i is the island’s most remote and sparsely populated region. This region is also known as the East End, or Mana`e, defined as “to the east – a direction.”⁴⁷ East Moloka`i rises to the summit of Kamakou at 4,970 feet. This mountainous region has been sculpted by heavy windward rainfall creating the deep verdant valleys of Pelekunu, Wailau, and Hālawa. The primary land uses are conservation and cattle ranching, with small rural settlements along the southeast coast at `Ualapu`e, Pūko`o, Pauwalu, Waialua, and Hālawa. The southeast shore is also known for its historic fishponds, some of which are currently being restored.

Central Moloka`i

The boundaries of Central Moloka`i by ahupua`a are from Kawela to Pālā`au on the south shore, and from Kahanui to Pālā`au on the north shore. Central Moloka`i is a varied landscape of high verdant forested plateaus, rugged and gentle coastlines, and a dry central plain that when irrigated provides some of the most fertile agricultural lands in Hawai`i. Kaunakakai is the principal commercial, civic, and population center of the island with 47 percent of total island population. Other Central Moloka`i population centers include the former plantation town of Kualapu`u and the Hawaiian homesteads at Ho`olehua and Kalama`ula. The island’s primary industrial site is in the Molokai Industrial Park at Pala`au and near the shore in Kaunakakai.

Central Moloka`i is also the island’s bread basket. Agricultural resources include approximately 11,500 acres of Prime Agricultural Land⁴⁸, the Molokai Irrigation System, and the island’s only State owned agricultural park, comprising 753 acres (see Map 6.1). Moloka`i’s agricultural lands support the island’s existing agricultural economy, provide the opportunity for subsistence agriculture, provide future opportunities for agricultural enterprises, and significantly contribute to the island’s vast open space and rural character. While Moloka`i’s agricultural lands are not under the level of pressure from encroaching urbanization like other areas in the state,

⁴⁷ Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press

⁴⁸ State Department of Agriculture, November, 1977. Agricultural Lands of Importance to the State of Hawaii Revised

implementation of tools to protect these lands is a proactive step to ensure these resources are available for future generations.

West Moloka`i

West Moloka`i includes primarily the ahupua`a of Kaluako`i, and the coastal portions of Ho`olehua and `Ilioli ahupua`a on the south shore. West Moloka`i is on the hot and dry leeward side of the island. Its highest elevation, 1,381 feet, is at Pu`unana. Cattle ranching is the dominant land use in the region.

Kaluakoi Hotel closed in 2001, followed by the opening of the Lodge at Moloka`i Ranch and the Molokai Beach Village Tent Cabins at Kaupoa Beach in 2002. However, despite efforts to make Moloka`i Ranch profitable, all of its West Moloka`i operations were shut down in 2008. As a result, economic activity and the visitor population in West Moloka`i have declined. Some condominiums and single-family homes remain in the Kaluako`i-Pāpōhaku area, and limited services remain in Maunaloa for the town's small population. As of 2015 Moloka`i Ranch is pursuing enterprises in animal husbandry, farming, renewable energy, and hospitality.

B. FUTURE CONDITIONS

The *Land Use Forecast Island of Moloka`i Maui County General Plan Technical Resource Study*⁴⁹ concludes that sufficient developable lands currently exist on Moloka`i to meet future demand for housing units, visitor units, and commercial and industrial space through the year 2035. This supply of land is in areas identified on the 2001 Molokai Community Plan Map for urban type uses. See Appendices 6.1 and 6.2 for descriptions of Community Plan Designations and relationship to State Land Use Districts and County Zoning. The majority of the identified vacant residential land supply is in Kaluako`i and is Plan designated single family and multi-family residential. Kaunakakai contains a lesser amount of vacant residential land located primarily *mauka* of the existing town. Infill opportunities exist within Kaunakakai town and also exist in `Ualapu`e, Kawela, Kualapu`u, Ho`olehua, Kalae, and Maunaloa.

The potential future impacts from sea level rise to existing coastal development are important factors to consider for Moloka`i. Some of the island's existing development and vacant land supply along the south shore, East End, and in Kaluako`i may be impacted by future sea level rise, increased coastal flooding, and expensive flood hazard insurance rates. The Moloka`i community acknowledges that sea level rise will likely necessitate over time transitioning the island's commercial and population center from Kaunakakai to an area away from the threat of sea level rise and other coastal hazards. The plan identifies approximately 98 acres mauka of Kaunakakai as a Project District for this purpose. The plan also puts forth land use planning principles and standards and supporting policies and actions to direct growth to areas not vulnerable to sea level rise and coastal hazards and conducive to providing housing for residents proximate to employment and services. The purpose is to ensure that Moloka`i will grow in a balanced and sustainable manner that respects cultural and natural resources and that is compatible with Moloka`i's rural lifestyle.

⁴⁹ County of Maui Department of Planning. (October 2013). *Land Use Forecast Island of Moloka`i Maui County General Plan Technical Resource Study*.

Maunaloa Project District

The objective of the project district at Maunaloa is to provide a mixture of single family and multi-family and park uses for low and moderate income residents. Variations in housing unit types, lot sizes and other development standards should be considered to provide planning flexibility and encourage affordable housing.

Kaunakakai Project District

The objective of the project district at Kaunakakai is to provide an area for the town to move mauka overtime as sea level rise begins to impact existing development and land use. Uses will include single family, park, public/quasi-public, and commercial.

Land Use Planning Principles and Standards

- 1. Protect ecological diversity, natural resources, culturally sensitive lands, and agricultural lands, and avoid hazard-prone lands when identifying future growth areas.** Moloka`i's ecology, natural, and cultural resources, and agricultural lands are important for both current and future generations.
- 2. Protect open space and scenic landscapes.** Open space should be preserved to retain Moloka`i's rural character and to separate and define distinct edges of communities. Scenic landscapes, viewsheds, and view corridors are integral to place identity and should be retained.
- 3. Strengthen existing communities through infill and redevelopment.** Support revitalization of existing communities and infill development on underutilized infill lots, where appropriate, outside of hazard-prone areas.
- 4. Promote equitable and livable communities with compatible land use designations.** Moloka`i's small towns should provide a mix of housing types and affordability, compact and pedestrian-oriented development, access to parks and open space, and a mix of compatible and complementary land uses. Future growth areas will be contiguous or proximate to existing employment and/or housing, and located where infrastructure and public facilities can be provided in a cost-effective manner.

1 **C. ISSUES**

-
- 2
- 3
- 4 Issue 1: There is no comprehensive zoning map for Moloka`i and the existing zoning code and
- 5 Interim zoned lands present significant obstacles due to inconsistencies with the
- 6 community plan.
- 7
- 8 Issue 2: The Special Management Area boundary does not protect some areas of the near-shore
- 9 environment and coastal resources and extends inland in areas that are not likely to have
- 10 coastal impacts.
- 11
- 12 Issue 3: There are potential future impacts from SLR to existing coastal development that are not
- 13 adequately addressed.
- 14

15 **D: GOAL, POLICIES, AND ACTIONS**

16

17

18

19 **Goal Moloka`i’s land use pattern will protect agricultural lands, open space, and natural and**

20 **cultural resources, and support livable small towns and rural communities.**

21

22 **Policies**

- 23
- 24 1. Ensure all lands are zoned for specific land uses and zoning standards consistent with Plan
 - 25 policies.
 - 26
 - 27 2. Support the revitalization of Maunaloa Town and Kaluako`i resort area.
 - 28
 - 29 3. Direct growth to vacant and underutilized infill lots outside of hazard prone areas and
 - 30 proposed expansion areas as shown on the Moloka`i Community Plan Land Use maps (see
 - 31 Maps 6.2 – 6.4) and as described in Section B, Future Conditions.
 - 32
 - 33 4. Limit urban zoning to areas designated for urban use on the Moloka`i Community Plan
 - 34 Land Use maps (see Maps 6.2 – 6.4).
 - 35
 - 36 5. Where possible, site community facilities such as schools, parks, libraries, and community
 - 37 centers within walking and biking distance of residential areas.
 - 38
 - 39 6. Facilitate the provision of infrastructure and public facilities and services prior to, or
 - 40 concurrent with development, including provision for on-going maintenance through
 - 41 district funding or other funding mechanisms.
 - 42
 - 43 7. Work with DHHL and other large landowners to coordinate land use, infrastructure, and
 - 44 public facility planning when feasible.
 - 45
 - 46 8. Establish a predictable and timely review process to facilitate the approval of projects that
 - 47 meet planning and regulatory requirements.
 - 48
 - 49 9. Discourage developing or subdividing agricultural lands for residential uses where the
 - 50 residence will be the primary use and agricultural activities will be secondary uses.

- 1 10. Encourage green belts, open space buffers, and riparian zones to minimize conflicts
2 between agriculture, residential, and industrial uses.
3
- 4 11. Support expansion of the Molokai Agricultural Park as demand warrants.
5
- 6 12. Regulate land use in a manner that reaffirms and respects customary and traditional rights
7 of Native Hawaiians as mandated by Article 12, Section 7, Constitution of the State of
8 Hawai`i.
9
- 10 13. Support the expansion of the State Conservation District boundary where warranted for
11 environmental preservation and habitat enhancement.
12
- 13 14. Discourage hotel and multifamily development on the East End.
14
- 15 15. Support and recognize community created subarea descriptions.
16
- 17 16. Evaluate the impact public utility facilities development and land use changes will have on
18 natural and cultural resources, cultural practices, and Native Hawaiian burials.
19
- 20 17. Consult with and solicit input from community members, including community members
21 with generational knowledge, early and often about how to minimize the impact of
22 proposed changes to the use of land on cultural practices, cultural sites, and culturally
23 significant areas, including burials.
24
- 25 18. Support the development of a climate change policy and adaptation plan to address rising
26 sea levels and beachfront housing and development on Molokai.
27
- 28 19. Identify and protect Mana`e`s numerous cultural and natural resources through adoption of
29 a “Traditional Land Use” Overlay Designation. The boundaries of the Overlay should be
30 from Makolelau to Halawa on the south shore. Adoption of this TLU Overlay means that
31 any proposed development in Mana`e should be aligned with the data and community
32 recommendations from the Mana`e GIS Mapping Project (COM, 2008) and the Traditional
33 and Cultural Practices Report for Mana`e (OHA, 2016). In addition, this area should allow
34 for traditional Hawaiian structures to allow people to live in these sensitive areas to take
35 care of them.
36
- 37 20. Alleviate tax burdens on kuleana land owners potentially by basing assessments on actual
38 use, rather than potential use value.
39
40
41

Actions

Table 6.2 Land Use			
No.	Action	Lead County Agency	Partners
6.1.01	Adopt a comprehensive zoning map for Moloka`i. Conduct a comprehensive review of interim zoned lands to identify and adopt zoning that is consistent with the Plan.	PD	`Aha Kiole o Molokai
6.1.02	Amend the zoning code to facilitate the development of mixed-use, pedestrian oriented communities.	PD	`Aha Kiole o Molokai
6.1.03	Implement County responsibilities under Part III, Chapter 205, HRS to designate and establish IAL and the incentives therein.	PD	`Aha Kiole o Molokai
6.1.04	Review the SMA boundary and make changes as necessary to comply with the objectives and policies defined Section 205A-2, HRS, and incorporate best available information on Climate Change and SLR.	PD	`Aha Kiole o Molokai
6.1.05	Research and review poor or highly sloped agricultural lands for conversion to different designations.	PD	`Aha Kiole o Molokai
6.1.06	Study viable options for transitioning Moloka`i's commercial and population center away from the threat of SLR and coastal inundation.	PD	`Aha Kiole o Molokai
6.1.07	Identify important subsistence use, lands, and resources.	Office of Economic Development	`Aha Kiole o Molokai
6.1.08	Research and develop a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development.	PD	`Aha Kiole o Molokai Moloka`i Community
<u>6.1.09</u>	<u>Adopt a "Traditional Land Use" (TLU) Overlay into the Community Plan Designations. The County PD should look at existing Community Plan Designations and County Zoning in Mana'e and recommend zoning adjustments based on current land use suitability analysis methods, as well as on the community recommendations included in the Mana'e GIS Mapping Project (COM, 2008) and the Traditional and Cultural Practices Report for Mana'e (OHA, 2016)</u>	<u>PD</u>	<u>`Aha Kiole o Moloka`i Moloka`i Community</u>
<u>6.1.10</u>	<u>Research and conduct viable options to alleviate tax burdens on kuleana land owners, potentially by basing assessments on actual use rather than potential use value.</u>	<u>PD</u>	<u>`Aha Kiole o Moloka`i Moloka`i Community</u>
<u>6.1.11</u>	<u>Research and develop a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development.</u>	<u>PD</u>	<u>`Aha Kiole o Moloka`i Moloka`i Community</u>

6.2 Housing

Housing affordability is a significant issue throughout the County of Maui, and Moloka`i is no exception. Shortages of reasonably priced housing can contribute to high rates of crowding, lower ownership rates, and impact the overall quality of life within a community. Additionally, investment or second home purchases may increase housing prices if the properties are used as tourism rentals rather than owner-occupied or long-term rental homes.

Housing affordability can improve when residences are built near employment, services, and existing infrastructure, and outside of flood hazard areas. Mixed-use communities allow residents to live near their workplace and services, reducing transportation costs. The ability of residents to purchase or rent can also improve when there is an accessory `ohana unit to provide rental income or to house family members. Housing development plans must address factors affecting affordability, community character, and special needs populations such as disabled residents and the frail elderly.

It is also important for new development to provide a variety of lot sizes, housing types, tenures and price points that accommodate a range of household types, life stages (e.g. single, married, with children, multigenerational, etc.) and income levels. Ensuring housing variety on Moloka`i will increase residents' ability to remain on island when family or economic circumstances change.

A. EXISTING CONDITIONS

The majority of the housing units on Moloka`i were built before 2010. Of these, more than half were built in the 1970s or earlier. Only 10% of units were built on Molokai between 2000 and 2010. Central Moloka`i home construction peaked in the 1970s, while West Moloka`i construction peaked in the 1980s.⁵⁰

Moloka`i's housing stock is predominantly single family units, which limits housing options and can present challenges when residents experience family or economic changes. The existing housing stock includes 2,623 single family units and 879 multifamily units, for a total of 3,502 units.⁵¹ The 2010 vacancy rate was 28 percent, slightly higher than on Maui Island (23 percent) and Lāna`i (25 percent). Moloka`i's household size is 2.92 persons per dwelling unit.⁵²

Affordable housing is defined by the U.S. Department of Housing and Urban Development (HUD) as housing for which the occupants are paying no more than 30 percent of their income for gross housing costs, including utilities. By this standard, more than half of Moloka`i renters and homeowners pay affordable rents or monthly ownership costs, indicating that housing is more affordable on Moloka`i compared to the rest of Maui County.

Figure 6.4 shows that from 2007 to 2011, 49 percent of Moloka`i renters paid more than 30 percent of their household income for housing costs versus 53 percent of Maui County renters and 56 percent of renters statewide.⁵³

⁵⁰ County of Maui, Department of Planning. (October 2013). *Land Use Forecast Island of Molokai*.

⁵¹ Ibid.

⁵² U.S. Census Bureau, 2010.

⁵³ U.S. Census Bureau, *2009-2013 American Community Survey 5-Year Estimates*.

Figure 6.4 Gross Rent as a Percentage of Household Income

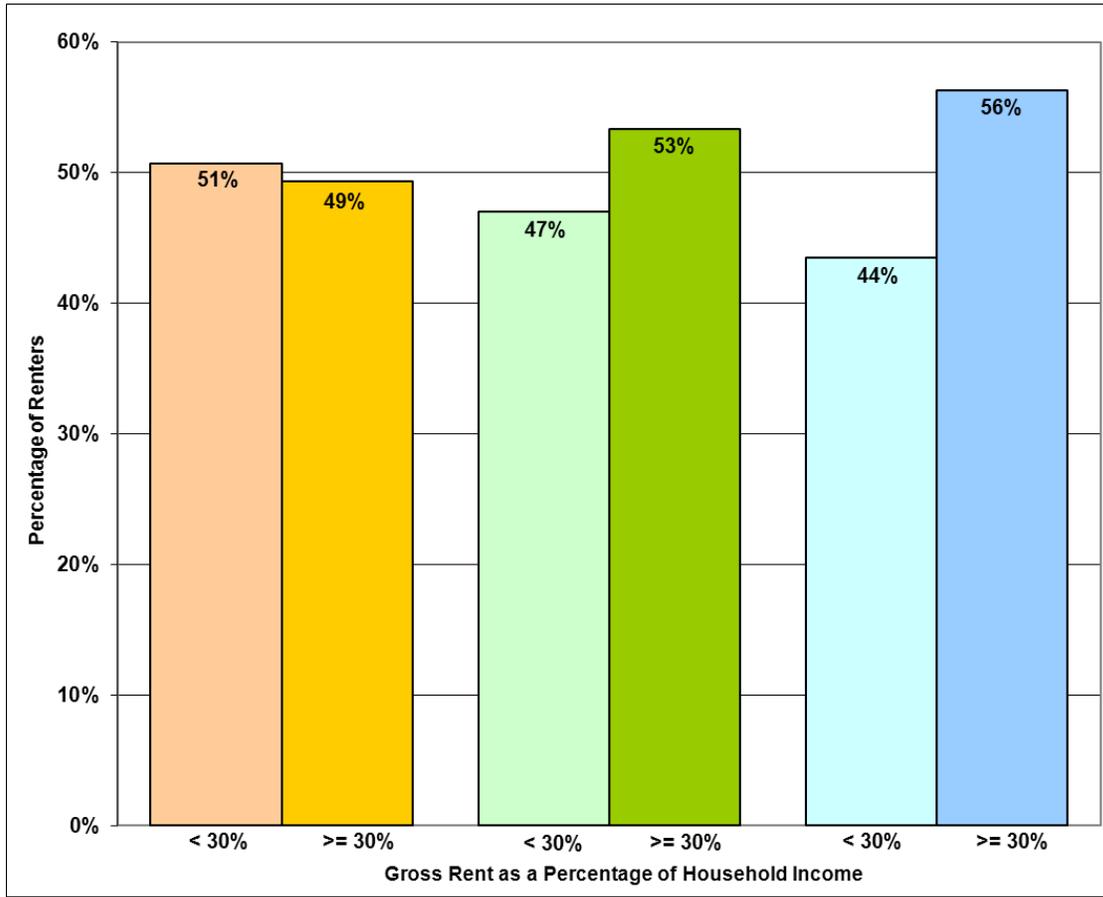
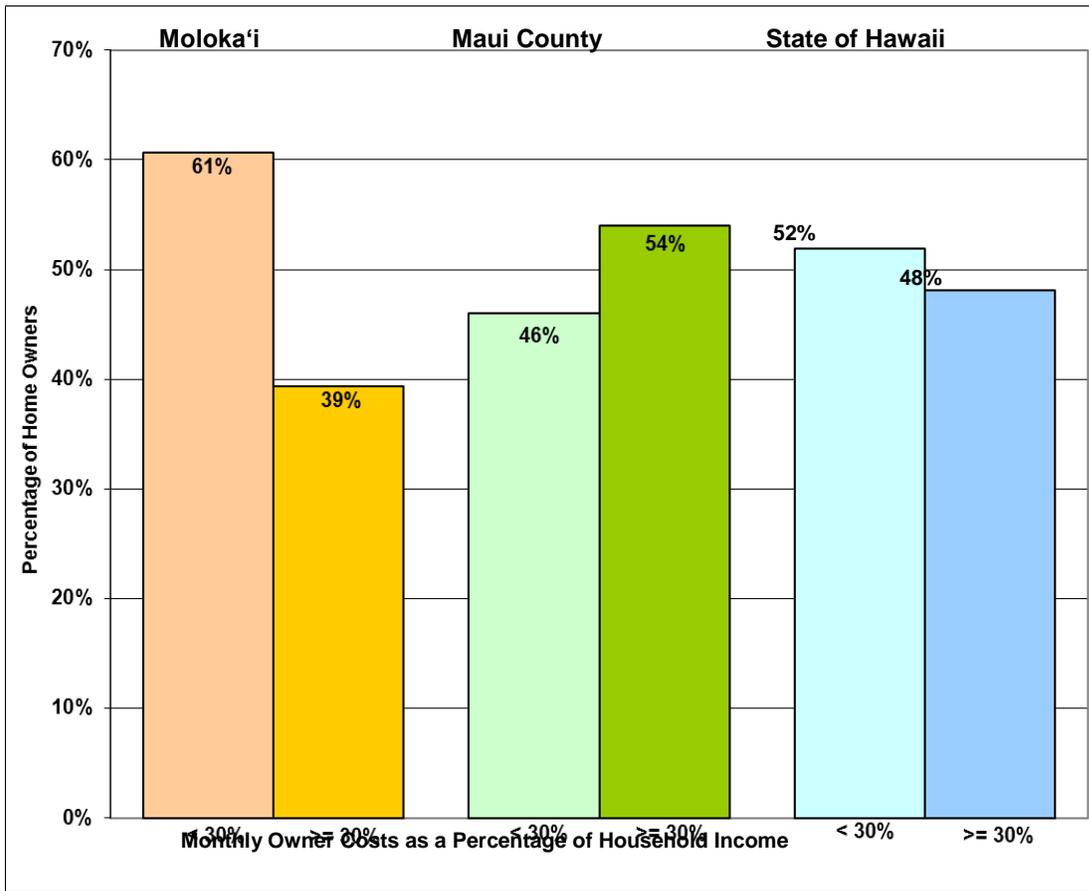


Figure 6.5 shows that from 2007 to 2011, 39 percent of Moloka'i home owners with mortgages paid more than 30 percent of their household income for housing ownership costs versus 54 percent of Maui County homeowners and 48 percent of owners statewide.⁵⁴

There are several factors inhibiting the development of a long-term supply of affordable housing on the island including the weak economic base, high construction costs, few vacant lots with infrastructure in place, lack of available financing, and the presence of numerous undocumented or poorly documented wetlands and archaeological sites on residential lots of record.

⁵⁴ Id.

Figure 6. 5 Monthly Owner Costs as a Percentage of Household Income



Currently two agencies are working to make more affordable housing available on Moloka'i:(a) the DHHL, and (b) Moloka'i Habitat for Humanity. DHHL's planned total housing unit build out to 2025 for new lots is as follows: 422 new residential homestead lots and 350 new agricultural lots, located in Na'iwa, `Ualapu'e, Kamiloloa, Kapa`akea, Makakupa`ia, Kalamaula, and Ho`olehua.⁵⁵ Additionally, the County of Maui's workforce housing ordinance, Section 2.96, MCC, requires developers proposing new development to provide a certain percentage of affordable housing.

Moloka'i has an aging population that requires supportive services and senior housing options, and this need is projected to increase in the future. Moloka'i has one senior housing facility with approximately 85 units for low and moderate-income seniors; however, there is no long-term residential care facility on the island. Moloka'i General Hospital can provide skilled nursing care and intermediate care, but it is neither equipped nor staffed to be a long-term residential care facility.

⁵⁵ Group 70 International. (June 2005). *Department of Hawaiian Homelands Molokai Island Plan*.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

B. ISSUES

- Issue 1: There is a need for more affordable housing and affordable residential building sites.
- Issue 2: There is a lack of housing choices, including ownership and rental, at different price levels and housing sizes.
- Issue 3: There is an increasing need for housing and services for special needs populations.

C: GOAL, POLICIES, AND ACTIONS

Goal A diverse supply of housing for Moloka`i residents that is affordable, safe, and environmentally and culturally compatible.

Policies

1. Support regulations to maintain an adequate supply of affordable housing.
2. Require that County mandated affordable housing include a buy-back provision so these units will remain in the affordable housing stock.
3. Maintain a supply of government subsidized affordable rental housing.
4. Encourage development of a range of lot sizes and housing types (e.g. single family, `ohana units, duplexes, multifamily, and live-work units) to expand housing choices and price points.
5. Encourage new housing to be developed in locations conducive to affordability, for example, proximate to jobs, services, infrastructure, and public facilities, and outside of flood hazard areas.
6. Support the establishment of long-term residential care facilities and a diversity of appropriate housing opportunities for residents with special needs.
7. Explore the establishment of a community land trust to improve access to affordable land and housing.
8. Develop strategies to manage transient homeless issue on Moloka`i.
9. Encourage DHHL to establish a building code that protects public health and safety and benefits DHHL beneficiaries.
10. Prohibit the future building of homes and structures from mid to high elevations in Mana`e, with exception to proposed cabins and/or structures for natural resource management and hunting.
11. Determine an acceptable policy regarding current and future Mana`e subdivisions such as Kilohana Kai and Kalua`aha.

1 **Actions**

Table 6.3 Housing Actions			
No.	Action	Lead County Agency	Partners
6.2.01	Establish partnerships to continue to implement a comprehensive affordable housing plan for Moloka`i that addresses both ownership and rental affordability.	Housing and Human Concerns (DHHC)	NGOs Community Groups
6.2.02	Establish partnerships and support a housing rehabilitation program, including loans, grants, technical assistance, and community outreach.	DHHC	DHHL
6.2.03	Amend the zoning code to allow a greater variety of housing types to address affordability, including mixed-use, mixed housing types, co-housing, prefabricated homes, and small lots.	PD	DHHC DHHL NGOs
6.2.04	Work with developers to support their efforts to secure/leverage grants, new home buyer tax credits, low income housing tax credits and other resources that support affordable housing, such as housing models that can be built affordably.	DHHC	
6.2.05	Investigate whether a community land trust would consider operating on Moloka`i.	DHHC	PD
6.2.06	Establish a cap on Transient Vacation Rentals and Short Term Rental Homes.	PD	County Council
6.2.07	<u>For the East End, establish the cap on TVRs for as one, establish the cap on STRHs as five, and establish that there should be no further issuances of conditional permits for TVRs or STRHs.</u>	PD	

2

1 **7 | COMMUNITY DESIGN**
2

3 Some of the most distinctive aspects of Moloka`i are its wide-open spaces, small towns, varied landscapes, and
4 architecture, which reflects both Hawaiian tradition and the island’s plantation history. They collectively create an identity
5 unique to Hawai`i, perhaps best expressed in a sign commonly seen on the island – “Keep Moloka`i, Moloka`i.”
6

7 During several community plan workshops, many residents on Moloka`i voiced a desire to maintain and enhance
8 Moloka`i’s rural character and natural beauty. New growth will require special attention to ensure that the rural, historic
9 character of Moloka`i’s small towns is retained. Creating county historic districts in selected locations could help to
10 address the loss of historic structures.
11

12
13 **A. Existing Conditions**
14

15 Moloka`i’s rural character is reflected in its settlement patterns, housing, streetscapes, roadways, public spaces, and the
16 design of public institutions. Remnants of this era are found in Maunaloa, Kualapu`u, Ho`olehua, Kaunakakai, and parts
17 of the East End. While Kaunakakai is compact and still retains its country town character, it could benefit from some
18 careful design to enhance the natural beauty and improve walkability. Unfortunately, the historic character of the
19 streetscapes and buildings has been compromised by some demolitions and unpermitted construction.
20

21 One of the most important tools the County has to address this incremental loss of architectural history is the Country
22 Town Business District Design Guidelines. These guidelines, which are outdated and need to be updated, cover the small
23 towns of Kaunakakai, Maunaloa, and Kualapu`u along with the East End. Although the current version is over 20 years
24 old, it is the only planning document that defines appropriate site design, street design, and architectural design standards.
25

26 Despite slow growth over the past 30 years, many of Moloka`i’s historic buildings have been significantly modified. As
27 an example, the plantation-town character of Maunaloa was substantially altered when many of its plantation era homes
28 were demolished. In addition, there is little commercial activity in the town, resulting in several vacant commercial
29 buildings.

Design Principles

Preserve and maintain the traditional features of the built and natural landscape that reflect Moloka`i’s history and give the island its distinctive character. Some of the character-defining features include the wide-open spaces between communities, unobstructed views of the ocean, access to the shoreline, and simple, understated buildings.

Encourage a mix of land uses in Moloka`i’s small towns. Encourage a mix of commercial, residential, and service uses to strengthen the island’s small towns, to reduce the need for travel, and to make efficient use of infrastructure.

Preserve and enhance the historic character of Moloka`i. Renovate historic structures as a way of maintaining Moloka`i’s history. Design new buildings and other improvements to complement and enhance the town’s historic character.

Develop a circulation system and facilities to accommodate a variety of travel modes - bicycles, pedestrians, buses, and vehicles. Create a comprehensive network of travel options, with an emphasis on the pedestrian experience. Even as more areas are developed, they should be part of an island-wide transportation system that encourages and accommodates a variety of travel modes to serve both residents and visitors.

Maintain a pedestrian orientation in Moloka`i’s small towns. Preserve and enhance sidewalks, parks, and other open spaces in small towns and other community areas to provide connectivity between land uses and offer a safe, inviting, and comfortable pedestrian experience.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

B. ISSUES

Issue 1: The character of Moloka`i and its small towns is an essential part of the island’s identity that could be compromised by new development that is out of scale and is visually incompatible.

C. GOAL, POLICIES, AND ACTIONS

Goal The rural character of Moloka`i’s small towns and the island’s open spaces will be maintained and enhanced.

1 **Policies**

- 2
- 3 1. Support the use of updated Business Country Town Design (BCT) Guidelines to ensure that the
- 4 island’s historic and rural character is maintained.
- 5
- 6 2. Use the cultural significance of Malama Park for a design concept that connects Kaunakakai with
- 7 the ocean.
- 8
- 9 3. Encourage the preservation of buildings, structures, and sites of historic and cultural significance.
- 10
- 11 4. Maintain Kaunakakai’s business development and historical character.
- 12
- 13 5. Promote and support projects that create a pedestrian-friendly environment with street trees,
- 14 benches, and other features in Moloka`i’s country towns.
- 15
- 16 6. Maintain and enhance the rural character of the Kaluako`i area through low-impact site design and
- 17 development practices.
- 18
- 19 7. Encourage creative innovative approaches to site design, subdivision layout, and architecture to
- 20 maintain the island’s rural character and to protect coastal areas, natural resources, and cultural/
- 21 historic resources.
- 22
- 23 8. Concentrate future growth in and around existing development that maintains county rural
- 24 standards, and is located outside of the flood inundation zone.
- 25
- 26 9. Promote the use of sustainable building and development practices such as those presented in the
- 27 Leadership in Energy and Environmental Design (LEED) standards.
- 28
- 29 10. Encourage the use of the *Maui County Planting Plan Third Edition*. Encourage the use of Hawaiian
- 30 plants (Indigenous and Polynesian-introduced plants) by state, county, and private landowners in
- 31 order to support a Hawaiian sense of place, to ensure that our cultural heritage is reflected in
- 32 landscaping, and to help reverse the displacement and decline of Hawaiian plants.
- 33
- 34

Table 7.1 Community Design			
No.	Action	Lead County Agency	Partners
7.01	Amend the 1993 <i>Design Guidelines For Country Town Business Districts Molokai - Hawai`i</i>	Department of Planning	Moloka`i business and design professionals and community
7.02	Develop sub-area development plans for Kaunakakai, Maunaloa, Kaluako`i Kualapu`u / Ho`olehua, and the East End of Moloka`i.	Department of Planning	Community Groups
7.03	Develop a pedestrian linkage between Malama Park and Kaunakakai through streetscape improvements.	Department of Planning	Department of Parks and Recreation DLNR
7.04	Develop and adopt small town street design standards that are appropriate for Moloka`i.	DPW	Department of Planning
7.05	Create a funding source or mechanism for small business owners to renovate businesses in the island's small towns.	OED	Department of Planning
7.06	Develop incentives to promote the use of sustainable green building and development practices.	DPW	OED or Energy Coordinator
7.07	Develop practicable incentives for Moloka`i businesses and property owners to implement sub-area development plan projects purposed to preserve, maintain, and enhance buildings, structures, sites, viewpoints, pedestrian ways, and streets.	Department of Planning	Department of Parks and Recreation DPW
7.08	Conduct a study to improve walkability in Kaunakakai.	Department of Planning	Department of Parks and Recreation DPW NGOs
7.09	Review and update Chapter 16.26B, MCC, relating to indigenous architecture, as appropriate.	Department of Planning	
7.10	Investigate options to share the cost of BCT guideline requirements for infrastructure upgrades among all Kaunakakai businesses, such as an Assessment District, so that renovations are economically feasible.	Department of Planning	

1 **8 | INFRASTRUCTURE**

2
3 Safe, reliable and efficient hard infrastructure and utility systems are critical to the economic vitality and quality of life on
4 Moloka`i. Roads, bridges, harbors, airports, water, wastewater, solid waste, energy, telecommunications and public transit
5 systems provide necessary support for modern life on the island. Responsibility for the installation, operation and
6 maintenance of these systems is shared between a number of public and private entities. Map 3.3 depicts Moloka`i's State
7 Historic Districts, places of interest and other cultural resources. Planning for the installation of new systems and the
8 replacement of deteriorating systems may require coordination among these entities as well as the identification of
9 additional funding sources since County Capital Improvement Program budgets are already strained. Consideration should
10 be given to locating future development near existing infrastructure to leverage prior capital investments and to minimize
11 the high cost of installing new systems. (See Map 8.1)

12
13

Climate Change and Infrastructure Systems

SLR and the associated coastal impacts have the potential to harm an array of infrastructure and environments in Moloka`i including: low lying coastal roads, docking facilities in harbors, water supply, and wastewater systems. These impacts can stress an already ailing infrastructure. Wastewater systems, stormwater infrastructure, water supply, and energy facilities are located in low-lying areas in close proximity to the coast. Potable water supply faces threats from rising groundwater and saltwater intrusion in wells and declining quality and quantity due to drought and downward trends in groundwater base flows.

Improving water system resiliency by developing strategies to adapt to environmental challenges, such as drought and climate change, will be important going forward. This will require identification of critical infrastructure systems vulnerable to coastal hazards such as SLR to ensure they are adequately protected or relocated. For Moloka`i to have a more sustainable future, it will be necessary to incorporate green infrastructure to restore natural systems.

1 **8.1 WATER**

2
3 **A. EXISTING CONDITIONS**

4
5 There are three public water systems on Moloka`i and three private water systems. Most of Moloka`i’s water sources are
6 concentrated in the northeast part of the island, whereas most of the demand is located in the more developed areas in Central,
7 West, and the southeast coast. Water sources include both surface water and groundwater.
8

9 Due to increasing withdrawals, several wells have been experiencing rising salinity and, as a result, the CWRM designated the
10 island as a Ground Water Management Area in 1992. With this designation, the State was authorized to protect the groundwater
11 resources by managing withdrawals from the aquifer through use of a permitting process. In 1994, the EPA designated
12 Moloka`i as a Sole Source Aquifer, meaning the aquifer supplies more than 50 percent of Molokai’s drinking water.
13

14 Moloka`i Irrigation System (MIS) water usage has remained constant over the years; however, the system has experienced
15 water shortages due to persistent drought conditions. Predicted population increases would place greater demands on water
16 supply. Efforts to develop new water resources have been considered, such as utilizing brackish water wells and recycled
17 sewage effluent. The County Capital Improvement Program budget includes design of a new well that is intended as
18 backup source for the Kualapu`u well serving the Kaunakakai area.
19

20 **B. ISSUES**

21
22
23 Issue 1: Much of Moloka`i’s water delivery system infrastructure is outdated, inefficient, and in need of
24 replacement.

25
26 Issue 2: Potentially Contaminating Activities (PCAs) have been identified that may pose a threat to Moloka`i’s
27 water quality.⁵⁶

28
29 Issue 3: Water uses need to be resolved collectively.

30
31 Issue 4: Cyclical and seasonal water shortages have contributed to water supply shortages in recent years.
32

⁵⁶ Molokai Draft Wellhead Protection Ordinance, 2013

1
2 **C. GOAL, POLICIES, AND ACTIONS**
3
4
5

6 **Goal** **Moloka`i will have a sufficient supply of potable and non-potable water provided in an environmentally**
7 **sustainable and cost-effective manner.**

8
9 **Policies**

- 10 1. Adhere to priority water rights of Native Hawaiians under the Hawaiian Homes Commission Act and
11 the State Water Code. Protect, restore, and enhance surface and subsurface water sources, stream
12 habitats, and forested watershed areas to support water recharge, aquatic and environmental processes,
13 and riparian, scenic, recreational, and Native Hawaiian cultural resources, as well as constitutionally
14 protected traditional, customary, and DHHL water rights.
- 15 2. Supply water in sufficient quantities to meet the communities’ needs while protecting freshwater
16 ecosystems and species.
- 17 3. Support the provision of adequately priced irrigation water to agricultural lands.
- 18
19 4. Ensure safe, efficient, and reliable island-wide water systems through protection, improvement, regular
20 testing, replacement, and enhancement of the existing water supply and development of new water
21 sources.
- 22
23 5. Encourage CWRM to update Moloka`i’s sustainable yield figures and establish maximum withdrawal
24 values.
- 25
26 6. Encourage water resource conservation.
- 27
28 7. Encourage use of alternative water sources such as dual-line water supply and recycled water
29 distribution systems.
- 30
31 8. Support public and quasi-public partnerships to protect and restore the island’s watersheds and
32 maximize aquifer recharge.
- 33
34 9. Support better management and oversight of water withdrawal to ensure sustainable yields for both
35 human consumption and protection of freshwater ecosystems and native species.
- 36
37 10. Incorporate credible local knowledge and advice on water resource issues as appropriate per the
38 CWRM and DOH authority.
- 39
40 11. Support the completion of an agricultural master plan.
- 41
42 12. Encourage CWRM to establish and adhere to interim instream flow standards.
- 43
44 13. Recognize that water is held in trust by the State, for the benefit of the people. Public trust purposes,
45 which receive priority over private commercial uses, include domestic uses, Native Hawaiian and
46 traditional and customary rights, appurtenant rights, environmental protection, and reservations for
47 DHHL.⁵⁷

⁵⁷ See Waiahole I, 94 Hawaii 137-39 and Wai`ola o Molokai, 103 Hawaii 401, 431, (2004). See also, Haw. Const. Art. XI Secs. 1 & 7, Art. XII Sec. 7; HRS §§ 1-1, 7-1, 174C-101; HRS Chapter 174C; In re Water Use Permit Applications, 94 Hawaii 97, 9 P. 3d 409 (2000) (Waiahole I); Ko`olau Agricultural Co., Ltd. V. Comm’n on water Res. Mgmt., 83 Hawaii 484, 927 P.2d 1367 (1996); Reppun v. Bd. Of Water Supply, 65 Hawaii 531, 656 P.2d 57 (1982). For additional information, see also D. Kapua`ala Sproat, Ola I Ka Wai: A Legal Primer for Water Use and Management in Hawaii (2009).

1
2
3
4
5
6
7
8

- 14. Support the protection, restoration, and enhancement of surface and subsurface water resources, stream habitats, and priority watershed areas to support groundwater aquifer recharge, aquatic and environmental processes, and riparian, scenic, recreational, and Native Hawaiian cultural resources, as well as constitutionally-protected Native Hawaiian traditional and customary practices.⁵⁸
- 15. Support mauka to makai stream flow as essential to the survival of native stream life.

⁵⁸ These priority uses of water are constitutionally and statutorily established bases for protecting, and in some cases, restoring stream flow to support traditional and customary uses. See, e.g. Waiahole I; see also Section 174C-2(c), HRS (“[A]dequate provision shall be made for the protection of traditional and customary Hawaiian rights...”).

Actions

Table 8.1 Infrastructure - Water			
No.	Action	Lead County Agency	Partners
8.1.01	Support the development of a Moloka`i Water Use and Development Plan (WUDP) that is consistent with the goals, policies, and implementation strategy of the Plan.	DWS	DHHL, DOA Private Water companies Community groups, NGOs, Cultural Practitioners
8.1.02	Implement recommendations from the 2013 <i>Update of the Hawai`i Water Reuse Survey and Report</i> .	DEM	DLNR, DOH CWRM Community groups Cultural Practitioners
8.1.03	Promote water conservation programs.	DWS	Molokai Community
8.1.04	Develop, adopt and implement a wellhead protection strategy and ordinance for County water distribution systems.	DWS	DOH
8.1.05	Reestablish the Moloka`i Water Working Group and encourage all water purveyors to work together to address future water demand, sustainability, quality, and supply issues.	DWS	DHHL, CWRM Other water purveyors
8.1.06	Explore the possibility of requiring new developments with privately owned public water systems to meet DWS engineering standards.	DWS	
8.1.07	Explore the possibility of DWS taking over Moloka`i Ranch's water systems.	DWS	Moloka`i Ranch
8.1.08	Encourage the acquisition of USGS stream gauges to be placed in Moloka`i's important streams.	DWS	USGS, Moloka`i Watershed Partnerships
8.1.09	Develop improved water transmission and/or storage systems to provide better fire protection.	DWS	DHHL, Kawela Plantation, Dept. of Agriculture, Moloka`i Ranch
8.1.10	Continue to fund the watershed partnerships on Moloka`i.	DWS	DLNR, OED

1 **8.2 WASTEWATER**
2

3 The Maui County Code defines wastewater as “water-carried wastes from dwellings, commercial establishments,
4 institutions and industrial plants, and may include groundwater, surface water and storm water not intentionally admitted.”
5 Management of wastewater is important because it helps guard the water supply from becoming contaminated, protects
6 the public health and environment, and aids in water conservation by allowing reclaimed water to be used for non-potable
7 water purposes. Wastewater on Moloka`i is now managed using public and private wastewater systems, individual septic
8 systems, and cesspools. The main issues with the island’s wastewater systems are vulnerability of the current facility to
9 hazards and the use of the individual septic tanks and cesspools.

10
11 **A. EXISTING CONDITIONS**
12

13 The County of Maui Department of Environmental Management, Wastewater Division, provides wastewater service in the
14 town of Kaunakakai and the Kualapu`u subdivision. Wastewater collected by the Kaunakakai system is treated at the
15 County’s Kaunakakai Wastewater Reclamation Facility (WWRF). Wastewater collected by the Kualapu`u system goes to
16 the private facility that is owned and operated by Molokai Properties Limited (MPL), which also serves Maunaloa and
17 Kaluako`i and the Paniolo Hale and Ke Nani Kai condominium developments. There are also private wastewater treatment
18 facilities at Wavecrest Resort, Molokai Shores, and Hotel Moloka`i. The remainder of the island is served by individual
19 septic tanks and cesspools, including all schools, all major visitor accommodations, the Ho`olehua Airport, and all
20 development on DHHL homesteads.

21
22 Cesspools are considered substandard systems because they don’t treat wastewater, they merely dispose of it. Cesspools
23 concentrate wastewater in one location, often in direct contact with groundwater, causing groundwater contamination.
24 This groundwater flows into drinking water wells, streams and the ocean, harming public health and the environment. In
25 2014, the DOH proposed revisions to its Wastewater Systems Rules that will update the regulation of cesspools in Hawai`i.
26 Proposed changes include prohibiting the installation of new cesspools and requiring connections or upgrades of existing
27 cesspools that most affect human health and water quality within one year after the sale of property. Only cesspools that
28 are near a public drinking water well, and those within 50 feet of a shoreline, stream, or wetland will be affected. There
29 are 1,442 cesspools on Moloka`i, with 505 (35 percent) affected by the proposed regulations.

30
31 The Kaunakakai WWRF is located on a 23-acre shoreline property makai of Maunaloa Highway. The facility treats
32 wastewater to R-2 standards (disinfected secondary treated recycled water with restrictions on uses and applications). The
33 Wastewater Division has indicated that the 0.3 mgd capacity of the WWRF is currently adequate. This conclusion is
34 supported by the State Department of Health’s decision to waive the requirement for development of a facilities plan,
35 which is normally mandated when a facility reaches 75 percent of capacity. There are two County force mains on the
36 island. The Kaunakakai force main was replaced in 2007 and the effluent force main is tentatively scheduled for
37 replacement in fiscal year 2019 at an approximate cost of \$2 million⁵⁹. The Kaunakakai Wastewater Pump Station was
38 upgraded in 2012; extending its useful life by 20 years. In 2009, a closed-circuit television inspection of all major sewer
39 lines was conducted which concluded that the existing system is in very good to excellent condition.

40
41 Reclaimed water from the WWRF is utilized to a limited extent. Approximately 10,000 gallons per day (gpd) (4 percent
42 of total flow) are used to irrigate landscaping in the facility and roadway grassed areas. The remaining flow of roughly

⁵⁹ County of Maui, 2016 Capital Improvement Program

240,000 gallons per day is disposed of by injection well. Expansion of water reuse to serve R-1 water to the community center, the park, and the elementary school in Kaunakakai would require a \$5 million mile-long distribution system and a new ultraviolet water purification system and retrofits costing around \$6 million.

B. ISSUES

Issue 1: Kaunakakai WWRF is located in the coastal floodplain leaving it exposed to damage from tsunamis or other dangerous high water events.

Issue 2: There are a number of Individual Wastewater Systems (IWS's) such as cesspools and septic systems in use on the island in close proximity to ground water drinking sources and shorelines.

Issue 3: Potable water resources are used for purposes such as flushing toilets and home garden irrigation.

Issue 4: Cesspools and septic systems located within the coastal zone are at risk of failure due to groundwater table rise because of SLR and flooding.

Issue 5: The Kaunakakai WWRF is currently operating at a flow rate above the DOH's acceptable rate of 75 percent of capacity.

C. GOAL, POLICIES, AND ACTIONS

Goal Moloka`i will have reliable, efficient, and environmentally sensitive wastewater services that meet future needs and maximize wastewater reuse where feasible.

Policies

1. Meet or exceed state and federal standards for wastewater disposal or reuse where feasible.
2. Promote development of neighborhood-scale wastewater disposal systems in new subdivisions outside of existing service areas.
3. Promote the beneficial use of recycled wastewater where economically viable.
4. Promote economical, environmentally sensitive, and innovative methods for disposal of excess treated wastewater effluent.
5. Promote location of new critical infrastructure or relocation of existing systems outside of inundation zones vulnerable to coastal hazards.
6. Promote development of new septic system upgrade standards and cesspool elimination standards for those systems at risk within the coastal zone.

1
2
3
4
5
6

7. Encourage updating the Kaunakakai WWTF facilities plan.

Actions

Table 8.2 Infrastructure - Wastewater			
No.	Action	Lead County Agency	Partners
8.2.01	Assess the feasibility of providing measures to protect the Kaunakakai WWTF against inundation threats or to relocate it out of the coastal floodplain.	DEM	DWS, DHHL, DOA, DOH, EPA
8.2.02	Conduct a wastewater reuse feasibility study that includes the identification of potential recycled water users, necessary wastewater plant upgrades, required infrastructure improvements, estimated costs, and funding sources.	DEM	DWS, DHHL, DOA, DOH
8.2.03	Explore options and necessary MCC and regulation changes to allow graywater reuse systems for irrigation and toilet flushing.	DEM	DPW DOH
8.2.04	Replace the Kaunakakai effluent force main prior to the end of its useful life.	DEM	
8.2.05	Update the Kaunakakai WWTF facilities plan.	DEM	DOH

7

1 **8.3 Stormwater Management**

2
3 Moloka`i is formed by three volcanoes: West Moloka`i, East Moloka`i, and the Kalaupapa Peninsula. West Moloka`i
4 rises to 1,400 feet in elevation and East Moloka`i to about 5,000 feet. In the Kaunakakai watershed, the average elevation
5 is about five feet near the coast rising to 4,200 feet in the mountains. Median annual rainfall ranges from about 10 inches
6 on the coast to about 75 inches at the upper elevations.⁶⁰

7
8 Stormwater can be viewed as a resource to manage, rather than a problem of excess water to be drained into the ocean.
9 Low Impact Development (LID) features design techniques that attempt to maintain the natural pre-development
10 hydrology of a site and the surrounding watershed, resulting in a more sustainable land development pattern. LID
11 integrates road design with storm and wastewater management systems to minimize environmental impacts and to
12 recharge groundwater when possible.

13
14
15 **A. EXISTING CONDITIONS**

16
17 Drainage problems on Moloka`i from runoff during periodic rain and storm events have caused damage to homes and
18 businesses for years. The resulting flooding threatens public health and safety for residents and visitors. A combination of
19 natural and manmade factors contribute to the problem, including poorly drained soils in low-lying areas and flat terrain
20 as well as inadequate, incomplete or poorly maintained drainage systems in Kaunakakai town.

21
22 Existing drainage systems were designed to convey, divert, or retain runoff generated within the vicinity. However, many
23 of these systems are regionally inadequate, and many of the downstream systems, including ditches and roadway culverts,
24 are incapable of accommodating the runoff generated from developed conditions upstream. During heavy flows, water
25 will overtop the Kaunakakai Stream crossing over Maunaloa Highway and other low-lying roadways across the island
26 resulting in severely hampered access and flooding mauka of roadways.⁶¹

27
28 The Kaunakakai Stream levee has adequately prevented flooding from occurring within the Kaunakakai area. However,
29 analysis completed in March 2014 by the U.S. Department of Homeland Security's Federal Emergency Management
30 Agency (FEMA) showed that the Kaunakakai levee system does not provide a high level of protection against a 100-year
31 flood event. FEMA has proposed revising the Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) reports.
32 These changes could affect a number of properties in Kaunakakai. Property owners within the newly mapped high-risk
33 areas with certain mortgages would be required to obtain flood insurance.
34

⁶⁰ County of Maui Infrastructure Assessment Update, 2003

⁶¹ Id.

1 **B. ISSUES**
2

- 3
4 Issue 1: Storm water flows with heavy sediment loads and other pollutants downhill into gulches and the ocean.
5
6 Issue 2: Localized minor flooding causes repeated areas of water ponding or mud accumulation.
7
8 Issue 3: There are many areas of poor drainage throughout the entire island.
9
10 Issue 4: Sheet flow travels down slope along the south shore of Moloka`i which has little to no stormwater
11 drainage mitigation.
12
13 Issue 5: Stormwater flows not managed adequately may impact wastewater systems and the fringing coral reef.
14

15 **C. GOAL, POLICIES, ACTIONS**
16

17
18 **Goal** **Manage surface water runoff to prevent flooding and to improve water quality for both fresh and**
19 **coastal waters.**
20

21 **Policies**

- 22 1. Support improvement of the island’s drainage system.
23
24 2. Provide surface water management for roadways and other impacted areas.
25
26 3. Manage surface water using green infrastructure⁶² and natural system drainage, retention, and
27 filtration to reduce flooding and siltation of ocean waters.
28
29 4. Encourage DHHL compliance with County regulations on drainage.
30
31 5. Encourage development of an integrated, effective and environmentally sensitive stormwater
32 management system from Kalamaula to Kamalo through a partnership of landowners mauka of
33 Kamehameha V Highway.
34
35 6. Support completion of the Kaunakakai drainage system.
36
37 7. Encourage the Hawai`i Department of Transportation (HDOT) to reconstruct culverts to 100-year
38 flood design standards on all State roads.
39
40 8. Support policies that encourage private landowners to decrease impervious surfaces on private
41 property to reduce surface water runoff.
42
43
44

⁶² Green infrastructure uses natural systems, constructed soil, rock, or plant-based systems for surface and stormwater management.

1 **Actions**

2

Table 8.3 Infrastructure – Stormwater Management

No.	Action	Lead County Agency	Partners
8.3.01	Develop a comprehensive stormwater management plan that emphasizes use of natural systems drainage where possible.	DPW	PD DHHL HDOT
8.3.02	Build dispersion and retention facilities to address dirt road runoff.	DPW	DHHL HDOT
8.3.03	Implement the Kaunakakai Master Drainage Plan.	DPW	HDOT
8.3.04	Inspect, maintain, and if necessary, repair or install new stormwater drainage swales and culverts and remove blockages from drains and channels.	DPW	DHHL HDOT
8.3.05	Prepare a GIS database to inventory existing stormwater infrastructure.	DPW	DHHL HDOT
8.3.06	Evaluate older swales and drains for current functioning and restore, if needed. Add natural drainage storage and filtration to supplement existing system.	DPW	DHHL HDOT
8.3.07	Improve or restore historic wetlands that help to mitigate impacts from stormwater drainage systems.	DPW	DHHL HDOT
8.3.08	Complete the Kaunakakai drainage system.	DPW	HDOT
8.3.09	Reconstruct culverts to 100-year flood specifications on all County roads.	DPW	HDOT

1 **8.4 Solid Waste**

2
3 **A. EXISTING CONDITIONS**
4

5 Molokai’s Integrated Solid Waste Management Facility (MISWF) is located on 25 acres off Maunaloa Highway at Nā`iwa.
6 The facility offers recycling for scrap metals and related materials, including vehicles, drop box commodities, electronics,
7 used motor oil, redemption containers, and green waste, as well as a landfill that accepts solid waste for the entire island.
8 The landfill receives approximately 13 tons of waste each day. Metals and green waste receive 3 tons per day each with
9 drop box commodities at one half ton per day and redemption containers at 0.5 tons per day. Approximately \$3 million
10 was expended in 2014 to construct Cell No. 4, providing additional waste disposal capacity until 2021. *The Molokai*
11 *Integrated Solid Waste Management Facility Master Plan* projects construction of Cell 5 in 2019 and Cell 6 in 2025.

12
13 In 2009, the Department of Environmental Management’s Solid Waste Division updated the countywide *Integrated Solid*
14 *Waste Management Plan* (ISWMP). The ISWMP provides a comprehensive blueprint for the planning and expansion of
15 the County’s solid waste management system. The ISWMP has a goal of achieving a 60 percent recycling of the waste
16 stream, Moloka`i currently recycles 35 percent of its waste stream (the same as Maui). Although there is no curbside
17 recycling on Moloka`i, the recycling center offers drop-off site containers for recyclables from both residential and
18 commercial customers for: cardboard, newspaper, glass, plastic, bi-metal containers, used motor oil, and electronics. The
19 Moloka`i metals facility accepts scrap metals, appliances, vehicles, tires, propane tanks, and batteries during landfill hours.
20 Also located at the landfill is the green waste facility which accepts green waste for grinding and composting into piles.
21 The processed green waste is available to the public at no charge.

22
23
24 **B. ISSUES**
25

26
27 Issue 1: More solid waste needs to be diverted to the recycling center.

28
29 Issue 2: There is a problem with illegal dumping throughout the island.

30
31 Issue 3: There is no legally operating junkyard on Moloka`i.
32
33

34 **C. GOAL, POLICIES, AND ACTIONS**
35

36
37
38 **Goal** Moloka`i will minimize the volume of solid waste that enters the island’s landfill through a
39 **comprehensive and environmentally sound approach to solid waste management.**

40
41 **Policies**

- 42 1. Make County government operations a model for zero waste.
43
44 2. Continue to expand upon existing public education programs and measures related to waste
45 reduction.
46

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

3. Continue to support increased recycling by commercial and residential customers, including bulky, hazardous, and metal waste materials.
4. Continue to support the development of efficient and cost effective ways to deal with obsolete and abandoned vehicles, machinery, and appliances.
5. Ensure that all solid waste and recycling facilities are landscaped and well maintained.
6. Ensure that leachate from landfill sites, either expanded or new, does not degrade soil or pollute ground, surface, or coastal waters and dispose of leachate in an environmentally sound manner.
7. Support efforts to instill better education about hazardous waste disposal.
8. Explore the possibility of developing a "cradle to cradle" recycling program.
9. Encourage the Department of Education to expand recycling efforts at Moloka`i's schools.
10. Encourage the sale and use of highly compostable flatware and food containers.
11. Establish "user friendly" hours for the landfill.

1 **Actions**
2

Table 8.4 Infrastructure – Solid Waste			
No.	Action	Lead County Agency	Partners
8.4.01	Expand waste diversion and recycling programs that include appliances, metals, plastic, glass, cardboards, green-waste for compost and other recyclable materials.	DEM	Private Waste Collectors
8.4.02	Increase public outreach, education, and incentive programs that improve waste reduction, reuse, and recycling.	DEM	DOH
8.4.03	Develop and place educational signage along the entry corridor heading to the County recycling site.	DEM	
8.4.04	Implement the ISWMP through programs, improvements, and upgrades to the solid waste management system; execute the CIP budget as funds allow.	DEM	DOH, Private Waste Collectors
8.4.05	Conduct a survey to determine community preference for the County dump operating hours.	DEM	Molokai community
8.4.06	Expand the solid waste recycling center’s operating hours as funding and budgets allow.	DEM	
8.4.07	Explore the feasibility of placing more trash cans throughout the island.	DEM	
8.4.08	Conduct a feasibility study to explore waste-to-energy solutions.	DEM	
8.4.09	Explore the feasibility of having more transfer stations located throughout Moloka`i.	DEM	
8.4.10	Form a partnership with Moloka`i NGOs, State Agencies, and DHHL to remove and recycle junk cars from Moloka`i.	DEM	NGOs DHHL
8.4.11	Conduct annual reviews of Solid Waste Division contracts to provide oversight and enforcement.	DEM	
8.4.12	Establish a "take it or leave it" station at the recycling center like those that exist on the other islands.	DEM	

3

1 **8.5 TRANSPORTATION**

2
3 An integrated, affordable multi-modal transportation system is critical to the quality of life for Moloka`i residents, and to
4 support a diversified economy. Moloka`i relies heavily on air and sea transportation systems to transfer people, goods and
5 services to and from the island. Map 8.2 depicts Molokai's land, air, and sea transportation systems. Most consumable
6 goods are transported to the island via barge, making the cost of most items more expensive than on Maui or O`ahu.
7 Reliance on an effective, efficient and affordable inter-island passenger transportation system is also evidenced by survey
8 results that show 60 percent of residents travel off-island for health care services⁶³ (See Map 8.2).

9
10 **A. EXISTING CONDITIONS**

11
12 *Air*

13 Moloka`i has two airports – Moloka`i Airport and Kalaupapa Airport - although only Molokai Airport is located in Maui
14 County. Moloka`i Airport originally opened in 1929 as Ho`olehua Field and has two runways located on 288 acres on the
15 island’s central plateau. It is owned and operated by the State of Hawai`i, Department of Transportation Airports Division.
16 The facility is designated as a small commercial airport with a transport runway classification. Moloka`i is served by
17 various passenger air carriers and air cargo carriers. In 2013, Moloka`i Airport had a total of 34,518 aircraft arrivals and
18 departures, which is 4 percent of the statewide total number of airport operations.⁶⁴

19
20 The *Moloka`i Airport Master Plan* was prepared in 1999 by the HDOT Airports Division. To accommodate the projected
21 demands through the year 2020, recommended upgrades include extending and improving the airfield runway and taxiway,
22 building a new terminal building, and improving parking and terminal roadways.

23
24 *Sea*

25 Moloka`i has a mix of harbor facilities. Kaunakakai Harbor on the south side of the island is the primary harbor for the
26 island. It includes two berths, 29 moorings, one ramp, and one pier. Hale o lono, located 7 miles west of Kaunakakai, is a
27 wharf in disrepair with 1.5 acres of protected anchorage for day and overnight recreation. Kamalo Wharf on the south
28 shore is considered a temporary-use facility rather than a permanent mooring area.

29
30 There is no longer a direct freight ferry service connection between Moloka`i and Maui, which creates logistical problems
31 for producers of perishable goods. Also, the current Young Brother freight barge schedule makes it difficult to ship
32 perishable goods from Honolulu, since goods departing there on the Sunday night ferry are only accepted on Friday until
33 11:00 am. Products originating or arriving outside of Hawai`i first arrive in Oahu then move on to Moloka`i. The additional
34 leg of travel increases Moloka`i shipping costs and shipping times, which can affect spoilage rates for agricultural products.

35
36 *Land*

37 Most roads on Moloka`i are publicly owned and managed; the County is responsible for local roads and the State is
38 responsible for Kamehameha V Highway (Hwy 450), Maunaloa Highway (Hwy 460) and Kalae Highway (Hwy 470).
39 Traffic volumes on Molokai are generally low and growth projections do not anticipate much of a change in the future.
40 The *District of Maui Transportation Plan* was completed in 2014. The goal of the plan is to provide a safe and efficient
41 land transportation system through the year 2020.

42

⁶³ *Hawaii Statewide Transportation Plan – Report on Public Opinion Poll*, November 2010

⁶⁴ Source: Hawaii State Department of Transportation, Airports Division

1 The 1997 HDOT plan recommended upgrades to address several issues such as improving drainages, constructing bridges,
2 and widening roadways at a number of locations around the island. There is significant shoreline erosion along
3 Kamehameha V Highway on the southeast side of the island. Reinforcing, protecting, or relocating these segments may
4 be necessary in order to maintain safe and reliable operations.

5
6 Moloka`i is largely rural and has few pedestrian facilities. The *Statewide Pedestrian Master Plan* (HDOT, 2013) considers
7 persons living below the poverty level, the elderly, and students to be Pedestrian-Oriented Populations. Moloka`i has a
8 higher than average concentration of persons living below the poverty level. The Pedestrian Plan recommended
9 improvements to Farrington Avenue near Molokai High School due to concerns over student safety.

10
11 The island does not currently have a bikeway system; however, bicycle improvements have been planned along nearly 60
12 miles of roadway on Moloka`i.⁶⁵ While there is no formal public transit system on the island, the nonprofit social services
13 agency Maui Economic Opportunity operates a rural shuttle service for youth, elderly, disabled and the general public.
14 The MEO shuttle service is funded by an annual grant from the Maui County DOT. The MEO shuttle serves three service
15 areas: Moloka`i East, Moloka`i West, and Moloka`i Central. Private commercial taxi and shuttle services are also
16 available.

17
18 In 2009, the Hawai`i legislature amended the HRS to require the (HDOT) and Hawai`i's four county transportation (or
19 public works) departments to adopt "Complete Streets" policies that accommodate all users of roadways, including
20 pedestrians, bicyclists, transit users, motorists and persons of all ages and abilities. "Complete Streets" is a relatively new
21 approach to street and transportation design which aims to accommodate all users of roadways and rights of way. Maui
22 County has a "Complete Streets" policy and consideration of this policy should be made for the design of Moloka`i's
23 roadways.

24 25 **Future Multi-Modal Transportation System**

26
27 The island's multi-modal transportation system allows people to use a variety of transportation modes, including walking,
28 biking, and other mobility devices (e.g., wheelchairs), as well as transit where possible.

65 *Bike Plan Hawaii*, Hawaii Department of Transportation 2003

1 The system will:

- 2 ▪ Include where applicable, a variety of facilities such as “Complete Streets”,⁶⁶ public parking, roads and
- 3 highways that accommodate multiple users, including freight, trucks, cars, transit vehicles, bicycles, and
- 4 pedestrians.
- 5 ▪ Be designed and built to address the needs of people of all abilities.
- 6 ▪ Provide safe and functional linkages to connect the island’s population centers and destinations.
- 7 ▪ Enhance and be compatible with the rural character of Molokai.
- 8 ▪ Provide cost-effective connections to air and sea transportation facilities at the interisland transportation hubs
- 9 at Kaunakakai Harbor and Moloka`i Airport.

10
11 **Roads, Highways, and Major Thoroughfares**

- 12
- 13 • The existing road and highway network will continue to be the foundation for transportation on the island.
- 14 The current transportation plan for the island’s major roads does not propose new highways so the focus in
- 15 the future will be on improving existing highways.
- 16 • Where possible, streets and highways should be designed as “Complete Streets.” In this approach, streets
- 17 are designed to consider the needs of all users such as motorists, pedestrians, bicyclists, and transit riders.
- 18 Priorities for these modes and functions will vary depending on the specific segment and/or conditions.
- 19 ▪ Streets and roads within Moloka`i’s small towns will be improved to meet the recommendations in the
- 20 *Business Country Town Design Guidelines*.⁶⁷ An update of this document is recommended as Action 7.01.
- 21 ▪ Specific improvements to State of Hawai`i highways are listed in the *2014 Statewide Federal-Aid Highways*
- 22 *2035 Transportation Plan*.⁶⁸

23
24 **Transit Corridors**

- 25
- 26 ▪ Until demand warrants a public transportation system, MEO will continue to provide bus service for residents
- 27 and visitors between the island’s population centers and transportation hubs.
- 28 ▪ Supporting facilities such as bus stops and park-and-rides for the existing MEO service and future transit will
- 29 be in locations that are conveniently accessed, are safe, and offer protection from the weather.

30
31 **Bicycle Facilities**

- 32
- 33 ▪ Bicycle paths will be provided along all major highways, per the recommendations of the State’s Bike Plan
- 34 Hawai`i (2003).⁶⁹
- 35 ▪ Bicycle facilities within Moloka`i’s small towns are provided to accommodate local bicycle use and to
- 36 support the island-wide bicycle system. Bike paths and bike lanes in these areas connect residential areas to
- 37 shopping, schools, and other local attractions.

⁶⁶ Complete Streets are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets in a community, regardless of how they are traveling.

⁶⁷ County of Maui Department of Planning. (July 1993). *Design Guidelines for Country Town Business Districts: Molokai*.

⁶⁸ State of Hawaii Department of Transportation/Highways Division. (July 2014) *Federal Aid Highways 2035 Transportation Plan*.

⁶⁹ State of Hawaii Department of Transportation/Highways Division. (2003) *Bike Plan Hawaii: A State of Hawaii Master Plan*

- Bikeway improvements within the small towns will be coordinated with pedestrian facilities as part of the multi-modal system for alternative transportation.

Pedestrian Facilities

- Pedestrian facilities to improve safety and to promote and accommodate walking within Moloka`i’s small towns will be provided.
- Sidewalks, public parking, and other pedestrian facilities will connect residential areas with shopping, schools, and other local attractions.
- Pedestrian improvements within the small towns will be coordinated with bicycle facilities as part of a comprehensive plan for alternative transportation.

B. ISSUES

- Issue 1: High shipping costs and limited options place Moloka`i businesses at a competitive disadvantage and result in a lack of options to bring in goods and services.
- Issue 2: The current barge schedule makes it difficult to ship perishable goods between islands or to the mainland. There is a lack of options to bring in goods and services.
- Issue 3: There is significant shoreline erosion along Kamehameha V Highway on the southeast side of the island.
- Issue 4: The lack of bikeways and sidewalks is a concern.
- Issue 5: Moloka`i has only one recreational boat ramp facility located in Kaunakakai.
- Issue 6: There is no inter-island public ferry system.
- Issue 7: Some of Moloka`i’s existing private roadways are not compliant with County standards.

C. GOAL, POLICIES, ACTIONS

TRANSPORTATION

Goal Moloka`i will have an integrated multi-modal transportation system that supports a diversified economy and meets the needs of residents and visitors while respecting the island’s rural character.

Policies

1. Support the expansion of air services to Moloka`i as needed.
2. Encourage rapid and cost effective transport of Moloka`i’s agricultural products to Maui and Oahu markets.

- 1 3. Explore options for a direct barge service or a passenger ferry that can carry goods from Moloka`i
2 to Maui.
- 3
- 4 4. Support improvements to Kaunakakai Harbor.
- 5
- 6 5. Support the improvement and, if warranted, expansion of a public or government run ferry service
7 from Moloka`i to Maui.
- 8
- 9 6. Maintain the rural character of Moloka`i's road system while accommodating multiple modes of
10 transportation, including transit, freight vehicles, automobiles, pedestrians, bicycles, and other
11 modes.
- 12
- 13 7. Support improving access to East Moloka`i during wet weather events by providing bridges at
14 sites of flooding on Kamehameha V Highway.
- 15
- 16 8. Support safe pedestrian routes and bikeways along highways and arterials in accordance with the
17 County's *Complete Streets Policy*.
- 18
- 19 9. Support continued coordination between the County DOT and MEO to provide rural shuttle
20 services that meet the needs of youth, elderly, disabled, and the general public.
- 21
- 22 10. Support Moloka`i's existing and future private roadways achieving compliance to Maui County
23 standards.
- 24
- 25 11. Bikeways and sidewalks should be installed, connected and/or improved in the urban core and
26 immediate outlying areas.
- 27
- 28 12. Encourage the State to provide pertinent signage along highways for all Moloka`i ports-of-entry.
- 29
- 30 13. Encourage the State to maintain Hale O Lono Harbor and ensure public access.
- 31
- 32 14. Encourage the review and provide relevant applicability of state transportation plans such as:
33 *1999 Airport Master Plan*, *2003 Bike Plan for Hawai`i*, and *Molokai's Long Range Land*
34 *Transportation Plan*.
- 35
- 36 15. Encourage the State to identify an upland route for a new highway from Kualapu`u to Kamalo to
37 provide a safe alternative to the existing shoreline highway. The alignment of the highway should
38 be above areas known to contain cultural features, and below the forestry zone.
- 39
- 40 16. Evaluate the impact transportation system development and maintenance will have on natural and
41 cultural resources, cultural practices, and Native Hawaiian burials.
- 42
- 43 17. Support State DOT Highways Division efforts to address the hazard of deer on highways.

Actions

Table 8.5 Infrastructure - Transportation			
No.	Action	Lead County Agency	Partners
8.5.01	Work with State DOT to ensure airport and air services meet the needs of Moloka`i’s residents, visitors and businesses.	OED	PD HDOT
8.5.02	Support the continued air services between topside Molokai and Kalaupapa.	OED	PD HDOT
8.5.03	Identify challenges and propose solutions to transporting Moloka`i agricultural products to Maui and Oahu markets.	OED	PD HDOT
8.5.04	Advocate for increased barge and ferry service to and from Molokai.	OED	HDOT
8.5.05	Identify harbor and airport improvements designed to further support the agricultural industry.	OED	PD HDOT
8.5.06	Plan for an integrated multi-modal transportation system with “Complete Streets” that serve automotive, public transit, bicycle, pedestrian, and other land transportation modes.	DPW	PD HDOT
8.5.07	Develop and implement a trail, greenway and open space access plan that utilizes old agriculture roads and trails where appropriate.	PD HDOT	Parks & Recreation
8.5.08	Integrate a parking study with parking mitigation measures appropriate for Moloka`i into a Kaunakakai Revitalization and Beautification Plan. Explore the concept of centralized parking in Kaunakakai and utilize areas such as the Old Electric Park.	PD HDOT	DPW
8.5.09	Evaluate existing MEO transportation services to identify possible improvements to routes and pick-up and drop-off locations, and other supporting facilities.	OED	MEO
8.5.10	Support additional access routes located around Kaunakakai to facilitate access to and from town.	DPW	DOT
8.5.11	Explore the possibility of the County acquiring privately owned roads on Moloka`i.	DPW	
8.5.12	Encourage a bikeshare program for Moloka`i	DPW	
8.5.13	Encourage the continued practice of no-fee parking at the Moloka`i Airport.	OED	HDOT
8.5.14	Fund and construct a public parking area in Kaunakakai to relieve existing parking requirements on businesses wishing to expand or improve.	DPW	

1 8.6 Energy

2 The cost to produce power in Hawai`i is higher than on the U.S. mainland for a number of reasons including no economies
 3 of scale in Hawai`i's market due to the relatively small population base, and the use of imported crude oil to fuel the power
 4 generators that makes Hawai`i vulnerable to global crude oil price fluctuations.

5 **A. EXISTING CONDITIONS**

6
 7 In 2013, MECO had 12 megawatts of diesel-generating capacity that provided electricity to 2,649 residential customers
 8 and 562 commercial customers on Moloka`i.⁷⁰ The average residential electricity rate on Moloka`i was 46 cents per
 9 kilowatt hour (kWh); the rate was 37 cents per kWh on Maui; and it was 12 cents per kWh nationally. In 2012, MECO
 10 lost about \$200,000 subsidizing Moloka`i's electricity rates⁷¹. There is potential for the island to generate much of its own
 11 electricity if its energy infrastructure is improved. Per PUC rules, the electrical grid threshold is set to no more than
 12 15 percent input from small-scale individual wind/solar power systems to avoid compromising service to other customers
 13 on the same circuit. In order to accommodate more new small scale wind and solar power sources, existing electrical
 14 distribution controls will need to be upgraded with smart grid technology to better manage these intermittent sources of
 15 electricity.

16 The State of Hawai`i and the US Department of Energy launched the Hawai`i Clean Energy Initiative in 2008. In 2015,
 17 approximately 21 percent of Hawai`i's electricity was generated from renewable resources, primarily from bioenergy,
 18 wind, geothermal, and rapidly expanding solar energy. The electric utility renewable energy portfolio goals were updated
 19 in 2015 to 30 percent by December 31, 2020, 70 percent by December 31, 2040, and 100 percent by December 31, 2045.

20 Moloka`i has more than enough renewable energy resource potential to meet electrical demand.⁷² It's estimated that four
 21 1.5-megawatt wind turbines could meet half of the island's electrical use and Moloka`i also has sites that are suitable for
 22 utility-scale solar and biomass projects. In 2013, Princeton Energy Group announced plans to build a 20-megawatt solar
 23 photovoltaic project on an 80-acre parcel owned by Moloka`i Ranch. The project would be built out in three phases: the
 24 goal of phase 1 is to meet 30 percent of the demand. The project could eventually meet 80 to 90 percent of Moloka`i's
 25 electrical energy needs.
 26

⁷⁰ *Hawaii Energy Facts & Figures*, May 2015; Hawaii State Energy Office · energy.hawaii.gov

⁷¹ Princeton Energy Group, 2013 Ikehu Moloka`i Presentation

⁷² *Hawaii Energy Facts & Figures*, May 2015; Hawaii State Energy Office · energy.hawaii.gov

1 **B. ISSUES**
2
3
4

5 Issue 1: Dependency on fossil fuels for electricity generation results in a lack of control over costs and supply
6 chain security. Accordingly, Moloka`i has some of the highest electricity rates in the state and in the
7 country.
8

9 Issues 2: Inability of the island’s existing power grid to effectively handle intermittent energy sources such as solar
10 and wind power.
11
12

13 **C. GOAL, POLICIES, AND ACTIONS**
14

15
16 Goal Moloka`i will meet its energy needs through development of local clean renewable energy sources and
17 implementation of energy efficiency and conservation measures.
18

19 Policies

- 20 1. Support accelerated development of alternative energy sources to help reduce dependency on oil
21 and other fossil fuels.
22
- 23 2. Support increased use of environmentally friendly alternative fuels on Moloka`i without degrading
24 the environment.
25
- 26 3. Support programs that provide incentives to use more efficient vehicles, appliances, lighting, and
27 other energy consuming devices.
28
- 29 4. Encourage County services and facilities to be energy efficient and to utilize renewable energy where
30 possible.
31
- 32 5. Ensure that main utility transmission lines are robust and resilient enough to withstand severe storm
33 effects.
34
- 35 6. Promote the undergrounding of utilities in new areas of development and in existing areas where
36 feasible.
37
- 38 7. Support development of microgrids for critical infrastructure and key resources.
39
- 40 8. Support alternative ownership options for Maui County’s electric utilities to provide more affordable
41 and clean energy.
42

1
2
3

9. Encourage amending the Maui County Building Code to recommend the use of energy conservation devices in both new construction and renovations.

Actions

Table 8.6 Infrastructure – Energy			
No.	Action	Lead County Agency	Partners
8.6.01	Develop a diversified energy strategy for Moloka`i that examines locations for large and small scale renewable energy systems.	Energy Office	State Energy Office, MECO
8.6.02	Create a smart grid that would allow for integration of additional renewable energy sources.	Energy Office	MECO
8.6.03	Provide loan programs and tax incentives to encourage individuals and businesses to install renewable energy systems and to use energy saving devices.	Energy Office	State Energy Office, MECO
8.6.04	Develop an ordinance that would require all new County buildings and facilities to achieve specific energy efficiency standards such as LEED certification.	Energy Office	State Energy Office
8.6.05	Encourage the use of vehicles powered by renewable energy. Support the installation of photovoltaic charging stations as necessary.	Energy Office	State Energy Office

4

1 **8.7 Telecommunications**

2
3 **A. EXISTING CONDITIONS**

4 The *Maui County General Plan 2030 Telecommunications Assessment* (January 2007) found that wireless telephone and
5 internet service deficiencies exist on Moloka`i due to the dispersed nature of development. The study found that urbanized
6 areas had moderate service coverage, while non-urbanized areas had limited coverage. Another assessment conducted in
7 2012 by the State of Hawai`i Department of Commerce and Consumer Affairs indicated Moloka`i residents were
8 dissatisfied with cable and internet service and pricing.⁷³ At that time, system performance was limited since it was
9 provided by microwave feed from Lahaina rather than by undersea fiber optic cable, even though much of the on-island
10 distribution was by fiber cable. However, in 2013 Oceanic Time Warner Cable successfully negotiated a lease of existing
11 undersea fiber optic cable and, since then, download speeds reportedly have improved.⁷⁴

12
13 **B. ISSUES**
14

15
16 Issue 1: Limited access to high-speed internet and telecommunications services presents challenges for
17 education, health care, residents, and businesses.

18
19 Issue 2: Moloka`i has extremely poor cellular/mobile telephone service and numerous dead zones.
20
21

22 **C. GOAL, POLICIES, AND ACTIONS**
23

24
25
26 **Goal** Moloka`i will have a robust, resilient, and reliable telecommunications network that will meet the
27 growing demands of education, healthcare, residents, and businesses.

28
29 **Policies:**

- 30 1. Encourage and support the expansion of the mobile cellular network.
31
32 2. Encourage and support the expansion of high-speed internet services.
33
34 3. Support the provision of high-speed internet services to all schools.
35
36 4. Encourage increased telecommuting (working from home) activities for residents.
37
38 5. Encourage cell tower installation and backup generators to be located out of special flood hazard
39 areas and tsunami inundation zones.
40
41 6. Encourage telecommunications providers to expand the coverage and provide more reliable
42 service throughout the island.

⁷³ *Community Ascertainment and Related Activities, Results as of 5/30/13*, State of Hawaii Department of Commerce and Consumer Affairs

⁷⁴ "Oceanic Internet Upgrade", The Molokai Dispatch, July 22nd 2013, <http://themolokaidispatch.com/oceanic-internet-upgrade/>

Actions

Table 8.7 Infrastructure - Telecommunications			
No.	Action	Lead County Agency	Partners
8.7.01	Work with telecommunications providers to expand the coverage and provide more reliable service throughout the island.	OED	All service providers
8.7.02	Work with internet providers to expand high-speed internet service throughout the island.	OED	All service providers Oceanic, Verizon
8.7.03	Provide high-speed internet at all county meeting facilities.	Parks Dept.	All service providers Oceanic Time Warner Cable, Verizon
8.7.04	Encourage more provision of wireless "hotspots" in Moloka`i's country towns.	OED	All service providers

9 | PUBLIC FACILITIES AND SERVICES

9.1 PARKS AND RECREATION

This chapter covers Molokai's public facilities and services including parks and recreation, police, fire and public safety, education, health and social services, and cemeteries. Map 9.1 depicts Molokai's public facilities and services. The County of Maui Department of Parks and Recreation is responsible for the development, operation, and maintenance of county park facilities. The DLNR has jurisdiction over state beach parks, natural area reserves, small boat harbors and other managed lands. The National Park Service manages Kalaupapa (See Map 9.1).

Moloka`i's developed parks and open spaces include tot lots, sports courts, a gymnasium, pool, and athletic fields. The facilities range in scale from just under an acre to over two hundred acres.

One of the most significant issues facing the county's park system on Moloka`i is the lack of an overall plan for parks and recreation facilities. It will be difficult to meet the needs of current and future residents without a master plan that documents the island's needs and provides a direction for planning, maintenance, and development. Another notable issue that was raised by the community is public access to shoreline areas.

A. EXISTING CONDITIONS

Moloka`i currently has 14 County parks and facilities, including the Cooke Memorial Pool, three community centers, six community parks, and five neighborhood parks. Despite an abundance of park space, most parks do not provide park amenities that are typically found in developed parks. This may be because many existing parks are designed to serve beach park requirements rather than community needs for recreation. Maui County also manages the use of Community Centers which are available to the public for meetings, social gatherings, or other events. The community centers are public and ADA accessible.

Park and recreation facilities on the East End 's south shore include two public access rights-of-way to the beach, three day parks, an athletic field with a community center, and two access trails to public hunting areas. There are a number of privately owned beach accesses that are in general public use that do not qualify as publicly managed facilities.

Despite miles of shoreline on the East End, public access with adequate facilities is very limited. Even though there is a relatively low population in the East End, island residents, as well as a growing numbers of tourists, use this area for coastal recreation. The only public boat ramp is over ten miles away at the Kaunakakai Wharf.

Figure 9.1 Moloka`i Public Parks				
NAME OF PARK	LOCATION	OWNERSHIP	PARK TYPE	SIZE (acres)
Pala`au	Central	State	State Park	233.70
Cooke Memorial Pool	Kaunakakai	County	Community Park	.50
Duke Maliu Regional Park	Central	County	Community Park	10.00
Halawa Park	East End	County	Neighborhood Park	1.00
Kakahaia Park	Central	County	Neighborhood Park	0.80
Kaunakakai Ball Park	Kaunakakai	County	Community Park	6.47
Kaunakakai Lighthouse/Malama Park	Kaunakakai	County	Special Area	3.35
Kilohana Community Center	East End	County	Community Park/Community Center	7.60
Kualapu`u Park & Community Center	Central	County	Community Park/Community Center	6.77
Maunaloa Subdivision Park	West end	County	Neighborhood Park	2.00
Maunaloa Community Center	West end	County	Neighborhood Park/Community Center	3.00
Mitchel Pauole Community Center	Kaunakakai	County	Community Center	8.78
One Ali`i Park	Kaunakakai	County	County Park	11.00
Papohaku Beach Park	West end	County	Beach Park	10.40
Pu`u Hauoli Park	Kaunakakai	County	Neighborhood Park	1.30
TOTAL ACRES				306.67

Source: "Public Facilities Assessment Update County of Maui." March 9, 2007. R.M. Towill Corporation, Honolulu, Hawai`i.

One of the most critical issues is that the Department of Parks and Recreation does not have a comprehensive park and recreational facilities plan. Without such a plan, it is difficult to prioritize projects or initiate improvements in a systematic way. The Parks Department typically initiates development projects on the basis of its annual six-year capital program budget. Development of a parks and recreation master plan would identify community needs and priorities, provide a vision for the future, and produce a capital improvement program that is based on a rational assessment of long-term community needs.

The DLNR manages approximately one million acres of land, which can be divided into roughly three categories: (a) land that the public is actively invited to recreate in such as state parks; (b) land that the public is not actively invited to recreate in, but openly utilizes such as forestry area reserves and unencumbered state land; and (c) land that the public does not enter, such as inaccessible watershed areas. Through the Na Ala Hele Trail and Access Program, the State makes many of its conservation lands available to residents and visitors. These trails invite

the public to enjoy some of the most intimate and pristine places of the County. There is one trail on Moloka`i, four on Lāna`i, and 16 trails on Maui.

B. ISSUES

- Issue 1: It is difficult to plan for future park and recreation improvements because there is no current assessment of community needs.
- Issue 2: There is a need for more community involvement, such as coaches and volunteers, to support recreational youth programs.
- Issue 3: Some of Moloka`i's parks and recreational facilities are in disrepair and in need of regular maintenance and improvements to meet the community's needs. Currently there are only two staff positions responsible for maintenance and repair of all of Moloka`i's facilities and parks.
- Issue 4: Moloka`i has a wealth of open spaces, trails, parks, and cultural sites, but access to some sites is difficult or blocked.
- Issue 5: Malama Park has the potential to be a key cultural and community place but is now in disrepair.
- Issue 6: There is no boat ramp access in East Moloka`i.
- Issue 7: The Kaunakakai Gym is old and in need of repair.

C. GOAL, POLICIES, ACTIONS

Goal Moloka`i will have a full range of public facilities, recreational opportunities, and programs that meet the current and future needs of the island's residents and visitors.

Policies

1. Support a systematic approach to planning and improving the island's parks, facilities, and recreation programs.
2. Support expanding access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.
3. Support improving the quality and adequacy of community facilities to ensure [that] they are clean and well maintained, and that there is an adequate supply of public restrooms in convenient locations.
4. Require the dedication of land and development of usable park sites as part of the approval of development of new residential and mixed-use areas.

5. Ensure access to the island's parks, trail systems, open spaces, shoreline, and cultural sites where appropriate and with government agencies working with private landowners to address issues of liability.
6. Support the improvement for recreational vessel boat ramp launch infrastructure as needed by the community.
7. Support improvements to Malama Park.
8. Support public-private partnerships to provide park access and facilities.
9. Support and expand the State Na Ala Hele Trail and Access Program by considering such designation for all traditional trails, including a coastal trail system.
10. Evaluate the impact that public and recreational facility improvement and expansion will have on natural and cultural resources, cultural practices, and Native Hawaiian burials.
11. Encourage the State to install cabins mauka on state lands on Moloka`i along each ahupua`a or ahupua`a cluster (e.g., Pua`ahala – Ka`amola; `Ohia - `Ualapu`e; Kalua`aha; Mapulehu – Puko`o; etc.). These cabins would be multi-purpose: Hunters could use them to access areas with a high concentration of ungulates they cannot reach within a day's hike, who need to stay overnight to continue the hunt and bring the animals down the mountain. The second purpose is to conduct conservation work, such as monitoring and removal of invasive species, establishing new strands of native plants, and maintenance of trails and cultural sites.

Actions

Table 9.1 Public Facilities and Services - Parks and Recreation			
No.	Action	Lead County Agency	Partners
9.1.01	Develop, adopt and regularly update a parks and recreation master plan that incorporates public facilities, parks, other recreational opportunities and a financial component.	Department of Parks & Recreation	
9.1.02	Amend development regulations to ensure the construction of adequate parking with pathways near public shoreline access points.	PD	
9.1.03	Adopt a beach/mountain access dedication ordinance pursuant to using Transfer Development Rights addressed in Chapter 46, HRS, to improve access along the shoreline and mountains.	PD	
9.1.04	Develop a master plan that identifies improvements to Duke Maliu Regional Park.	PD	
9.1.05	Provide shade for One Ali`i Park's playground area.	Department of Parks & Recreation	
9.1.06	Consider repurposing the Kilohana Park for a potential site to relocate and build a new Pukoo Fire Station.	Department of Parks & Recreation	Fire and Public Safety
9.1.07	Coordinate planning, design, and construction of a new Kaunakakai Gymnasium and Athletic building that meets Molokai's unique sports needs and serves as a hardened civil defense community shelter for disasters and is located outside of the flood zone.	Department of Parks & Recreation	Emergency Management
9.1.08	Explore land acquisition and development of park facilities at Kumimi Beach.	Department of Parks & Recreation	landowners
9.1.09	Explore state or county land acquisition and development of park facilities at Dixie's.	Department of Parks & Recreation	landowners
9.1.10	Work with county, state, and federal agencies, and the community to resolve Malama Park issues.	Department of Parks & Recreation	federal, state, Community, DHHL

9.2 POLICE

A. EXISTING CONDITIONS

The County of Maui Department of Police has only one main police station located in Kaunakaka`i. The entire island of Moloka`i comprises MPD District V. This police district is served by the Moloka`i Station, with 29 budgeted uniformed patrol officers and an estimated share of nine investigative officers. The district is divided into two motorized beats and each beat is patrolled by a single officer.

Based on population alone, the Moloka`i Community Plan region's current need is estimated at approximately nine officers. However, given the remoteness of this island and large area requiring police coverage, it is necessary to field more officers to ensure adequate police service. The current number of officers slightly exceeds the estimate of need in the *Public Facilities Assessment* published in 2007. The district has a projected need for 13 additional patrol officers by the year 2035. Currently, the greatest challenge for the Police Department is recruiting new officers.

The Moloka`i Station received 6,751 calls in 2013 as compared to 6,854 in 2012. There were 720 criminal arrests during the year. The district issued a total of 1,123 citations in 2013 as compared to 1,223 in 2012.⁷⁵ Animal control is aided by the Molokai Humane Society, a non-profit community services organization that provides spay/neuter services, transport of animals, and humane education.

B. ISSUES

-
- | | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issue 1: | There is a lack of police response capabilities and facilities in the outer reaches of Moloka`i's East and West Ends. |
| Issue 2: | More police presence in the form of bicycle or foot patrol is needed in Kaunakaka`i. |
| Issue 3: | Substance abuse and domestic violence is a continuing problem on the island. |
| Issue 4: | The existing police station is presently located in a special flood hazard area and tsunami evacuation zone. The current police station location also necessitates emergency response through and in close proximity to congested areas such as elementary schools, areas of heavily used parks and recreation facilities, and Kaunakakai. |
| Issue 5: | There is no animal holding facility on Moloka`i. |

⁷⁵ Maui Police Department Annual Report 2013, p 25

C. GOAL, POLICIES, ACTIONS

Goal **An effective and efficient police force to help maintain a safe, peaceful and friendly community.**

Policies

1. Support an expanded police presence in the East and West Ends of Moloka`i.
2. Encourage the development, adoption and implementation of programs that address substance abuse.
3. Encourage maximizing the island's police resources to properly enforce substance abuse laws.
4. Support the placement of bicycle and/or foot patrol officers in Kaunakaka`i as needed.
5. **[Encourage involvement on the Police Commission by a Moloka`i representative.]
*This is already required by Section 2.41.080, MCC. Eugene Santiago is the current Moloka`i representative.***
6. Support the maintenance and development of police facilities on Moloka`i that meet the MPDs and community's needs.
7. Encourage police involvement in the community.
8. Encourage and support recruitment of police officers through the junior police officer program.
9. Support the provision of Moloka`i community and cultural sensitivity training for new police recruits and transferred personnel.
10. Encourage state hunter safety courses and the development of a shooting range.
11. Encourage the establishment of an animal holding facility for Moloka`i.

Actions

Table 9.2 Public Facilities and Services - Police			
No.	Action	Lead County Agency	Partners
9.2.01	Coordinate with community organizations in their prevention and treatment efforts to reduce substance use and abuse.	MPD	Community Organizations
9.2.02	Continue working cooperatively with the Prosecuting Attorney and the Drug Enforcement Agency (DEA) to enforce substance abuse laws.	MPD	Prosecuting Attorney DEA
9.2.03	Coordinate land acquisition, planning, design and construction of a new Moloka`i Police Station at a location that meets the unique needs of the Police Department for Moloka`i, out of the special flood hazard area and tsunami evacuation zone, and promotes practical and safe emergency response for the entire Moloka`i community.	MPD	
9.2.04	Collaborate with community organizations and other appropriate groups to provide Moloka`i community and cultural sensitivity training for new recruits and transferred personnel.	MPD	Community Organizations
9.2.05	Expand police presence in the East and West Ends of Moloka`i.	MPD	
9.2.06	Explore the possibility of collaborating with an animal rescue organization to establish an animal holding facility on Moloka`i.	MPD	Animal rescue organizations

9.3 FIRE AND PUBLIC SAFETY

An adequate fire protection service within close proximity to all populated areas is necessary to protect life and property. The mission of the County of Maui Department of Fire and Public Safety is "to protect and preserve life, environment, and property." Its officers and equipment are used to fight and control fires, perform emergency rescue services, and provide community education on fire safety. The Department is Maui County's first responder to public safety incidents and is often involved with land and water rescue.

A. EXISTING CONDITIONS

Three fire stations serve Moloka`i. The Kaunakaka`i Station replaced the existing facility in 2010, is located on Alanui Ka Imi Ike Street in Kaunakakai, and is responsible for the Kaunakakai area. The Ho`olehua Station covers Ho`olehua, Kualapu`u, Kalae, Kaluako`i, and Maunaloa. The Puko'o Station is located on Kamehameha V Highway, at the East End of the island and covers Kamalo to Hālawā Valley. The Puko`o Fire Station is currently a sub-station of Kaunakakai with only two personnel assigned per shift, which is below national and Maui County standards for minimum fire company staffing standards.

Figure 9.3 Fire Protection Facilities		
Name	Type	2005 Population Served*
Kaunakakai Fire Station #4	Tanker, Engine	3,564
Ho`olehua Fire Station #9	Engine	1,782
Puko'o Fire Station #12	Engine	1,782

Source: *Public Facilities Assessment Update County of Maui 2007*

*Note: population split is 50 percent to Kaunakakai, 25 percent to Ho`olehua, and 25 percent to Puko`o

The Department is presently completing a "Standards of Cover" report to assess the adequacy of the current level of fire service coverage. This is the first time that such a report has been compiled. This research will address the expectations of the citizens, the Department, and County Government in the level of fire service needed. Other factors critical to providing adequate fire service is the level of funding available.

With regard to fire service for the East End, the Department has a memorandum of understanding with the State of Hawai`i to lease the parcel where the Puko'o Fire Station is located. The facility is over 80 years old, in disrepair, and sits in a tsunami and hurricane inundation zone.

B. ISSUES

- Issue 1: A large number of residential areas of Moloka`i are not covered by existing fire stations.
- Issue 2: The southern and southwestern facing slopes of the entire island are at high risk for fire, especially in developed areas.
- Issue 3: There will be a lack of fire coverage on the West End if future growth occurs.
- Issue 4: Staffing at the Puko`o Fire Station is below national and Maui County minimum standards.
- Issue 5: The existing Puko`o Fire Station is presently located in a flood and tsunami inundation zone.
- Issue 6: Premises identification addressing is not complete for all applicable areas and properties on Moloka`i, which impacts emergency response and other public and private services.

C. GOAL, POLICIES, ACTIONS

Goal **Protect life, property and the environment by providing effective and efficient fire protection and rescue services for the island of Moloka`i.**

Policies

1. Encourage programs and projects that will address fire risk in affected communities.
2. Support locating fire, safety, emergency and ocean rescue services on the West End as population increases warrant.
3. Support the maintenance and development of fire facilities on Moloka`i that meet the Department's and community's needs.
4. Ensure Department minimum staffing levels for Moloka`i meet the same national and county minimum staffing levels as provided at other fire stations in Maui County.
5. Support premises identification addressing efforts to improve enhanced 911 services, emergency response, and provision of other public and private services.

Actions

Table 9.3 Public Facilities and Services – Fire and Public			
No.	Action	Lead County Agency	Partners
9.3.01	Develop an islandwide fire risk and vulnerability assessment.	Fire and Public Safety	All major landowners
9.3.02	Explore options for relocating Pukoo Fire Station to a location that is not vulnerable to flooding and tsunamis, and best meets the needs of East End residents.	Fire and Public Safety	
9.3.03	Support the staffing upgrade for the Pukoo Fire Station to meet the same national and Maui County minimum staffing levels as provided at the other fire stations in Maui County. Evaluate the results of the "Standards of Coverage" report and address recommended fire service needs.	Fire and Public Safety	
9.3.04	Implement and maintain the "Centers for Public Safety Excellence" accreditation program.	Fire and Public Safety	
9.3.05	Support the implementation of the accreditation program by creating one full time position. Minimum level of effort for Moloka`i would be 15 percent.	Fire and Public Safety	
9.3.06	Complete premises identification addressing for all occupied properties and properties with structures on Moloka`i.	Fire and Public Safety	MPD, DHHL, Large landowners, Homeowner Associations, NHOs
9.3.07	Encourage enforcement and incentives for the effective posting of addresses on applicable Moloka`i premises per County Code and public safety recommendations.	Fire and Public Safety	MPD, DHHL, Moloka`i Ranch, Homeowners' Associations, NGOs

9.4 EDUCATION

The Hawai`i Department of Education is a statewide school district that manages all public schools in the state. The County of Maui does not have any jurisdiction over the public school system; however, coordination between the State and County is necessary for planning future school locations and acquiring adequate land.

A. EXISTING CONDITIONS

There are three public elementary schools on Moloka`i: (a) Kaunakakai, (b) Maunaloa, and c) Kilohana, located in `Ualapu`e. There is also a public-private charter school Kualapuu Public Conversion Charter School in Kualapu`u. In Kualapu`u, Molokai High/Middle School is for students in grades 7-12. All of the public schools, except Molokai Middle School, have adequate capacity to accommodate projected 2015 and 2035 enrollment. Molokai Middle School's 2035 enrollment is projected to exceed capacity; however, the overage could be accommodated by an increase in classrooms, staff, and facilities.

Molokai High School has career pathway programs of study: Arts and Communication, Business, Industrial and Engineering Technology, Health Services, and Agriculture; however, there are no automotive programs, industrial arts, or fine art and musical arts programs. The agriculture program and the Future Farmers of America, allows students to enjoy hands-on experiences in commercial, terrace, permaculture, hydroponic and aquaponic farming. The agricultural program's infrastructure is underutilized.

Moloka`i schools are proud of their Hawaiian language and culture. Hawaiian Language Immersion programs are available to support students from preschool through high school. Moloka`i High School also offers Hawaiian language immersion, English as a second language, advanced placement, gifted and talented, honors, an alternative learning center, and special education programs.⁷⁶ 21st Century Community Center Learning Center Grants currently support a variety of enrichment programs at schools across the island.

Aka`ula School is a private school with students in grades 5-12 located in Kualapu`u. Aka`ula School offers an alternative to public school that provides a multi-age, transitional environment for Molokai students in grades five to twelve. They focus on a learning, leading, and decision making as fundamental collaborative processes.⁷⁷

The University of Hawai`i Maui College – Molokai Education Center (UHMC-Molokai) is located in Kaunakakai. UHMC-Molokai offers access to a wide array of classes (face-to-face and distance education), certificate and degree programs. There is a library and facilities for distance learning through Hawai`i Interactive Television System and Skybridge. The Skybridge allows two-way interactive learning for students located on Moloka`i, Kahului, Hana, Lāna`i, and Lahaina. There is also access to education through cable TV and the internet.

The UH College of Tropical Agriculture and Human Resources Cooperative Extension Services (CES) is located in Ho`olehua. It has a demonstration research farm in the Moloka`i Agricultural Park that shares facilities with UH Maui College Moloka`i Farm. CES programs focus on outreach and continuing education in agriculture, cooperative and leadership development, and DHHL farm development. The Kuha`o Business Development Center provides technical assistance and entrepreneurship.

⁷⁶ Hawaii State Department of Education, <http://www.hawaiipublicschools.org>

⁷⁷ The Aka`ula School, <http://www.akaula.org>

B. ISSUES

- Issue 1: Some people on Moloka`i have limited relevant technical knowledge or skills to enter the 21st century workforce, acquire skilled jobs, or start their own business.
- Issue 2: Many college applicants need remedial courses as they are unable to place in college level English and math based on college entrance test scores.
- Issue 3: Many students are unaware of the Career Pathway programs and funding opportunities that are available to them.
- Issue 4: Hawaiian is the official state language, yet it is not taught in public schools and not recognized by most colleges for entrance requirements.

C. GOAL, POLICIES, AND ACTIONS

Goal **Moloka`i will have high-quality educational facilities and programs that accommodate the community’s diverse learning needs.**

Policies

1. Support the expansion of facilities and programs at the Moloka`i Education Center based on the current Long Range Development Plan (LRDP) to include approximately 15 total acres in Kaunakakai for expansion.
2. Support an expanded array of adult education, post-secondary, vocational, English as a second language, business, technical, professional, early college high school programs, and career counseling programs that prepare Moloka`i residents for future occupations and business opportunities.
3. Support adequate and affordable preschool facilities and programs.
4. Support expansion of high school vocational programs and development of a fine arts and cultural program.
5. Support teaching the Hawaiian language in public schools as part of the core curriculum and its recognition by colleges as a foreign language to satisfy college entrance requirements⁷⁸.
6. Support college and vocational career training beginning at the elementary school level.
7. Support STEAM (Science Technology, Engineering, Arts and Math) programs for K-12.
8. Support standards-based education and grading for grades K-12 to enable academic success and ethical treatment of all students.
9. Support the development of a performing arts center on Moloka`i.
10. Encourage all educational institutions to participate in energy and resource audits to help the schools be more green and environmentally responsible and lead the community in using resources wisely.
11. Support adult and post-secondary education programs.
12. Support English as a second language classes.
12. Support a program to explore career path options, including vocational programs.
13. Support opportunities to increase enrollment in post-secondary education.

⁷⁸ Note: Hawaiian is not a foreign language; this is for college entrance requirements only.

Actions

Table 9.4 Public Facilities and Services – Education			
No.	Action	Lead County Agency	Partners
9.4.01	Assist with accreditation of pre-school and child care center providers via professional services.	DHHC	DOE
9.4.02	Continue workforce development programs and internships.	OED	Employers
9.4.03	Provide training for job preparedness, such as proper work ethic, responsibility, resume writing and interviewing.	OED	DOE UH Maui College
9.4.04	Continue to assess and provide recommendations and funding to eliminate achievement gaps in education for Native Hawaiian students.	OED	DOE UHMC MEDB

9.5 HEALTH AND SOCIAL SERVICES

Moloka`i's health and social service needs are increased due to conditions on the island that include: (1) geographic isolation and the high cost of off-island travel; (2) low measurements of economic health, socio-economic stability and food security; (3) high unemployment rates; and (4) language barriers.⁷⁹ Moloka`i has been designated a Medically Underserved Area and a Health Professional Shortage Area for Primary Care, Dental Care and Mental Health by the U.S. Public Health Service. This designation brings some financial support to help provide a broader array of services.

A. EXISTING CONDITIONS

Healthcare Services

Moloka`i's community is served by one hospital, two health centers, a Native Hawaiian health clinic, and a full-service pharmacy. The hospital and clinics work in partnership to provide inpatient and outpatient medical and dental care, health education and screenings, mental and behavioral health services, remote rural service, translation, and social services.

Molokai General Hospital (MGH) is a critical care hospital located in Kaunakakai with 15 beds, an emergency room, and an out-patient clinic. The hospital provides diagnostic and therapeutic imaging services through a CT scanner and ultrasound. In addition, the MGH provides community outreach through health fairs, health screenings and a Meals on Wheels program. A 2004 demand analysis indicated no need for additional hospital beds through 2030 beyond the 2004 licensed levels. MGH no longer accepts long-term care patients. The MGH coordinates with Hawai`i Life Flight critical transport to take the critically ill to Honolulu.

Many of the hospital's preventive services to the Hawaiian community are offered in partnership with Na Pu`uwai, Inc., a community-based nonprofit Native Hawaiian organization. Na Pu`uwai, Inc. was founded in 1985 and is dedicated to betterment of the health conditions of Native Hawaiians.⁸⁰

In 2002, the Molokai Community Health Center (MCHC) applied for and received funding to develop a freestanding, centrally-located community health center providing core primary health care services.⁸¹ MCHC provides services that focus on the health care needs of a target population that is 200 percent below federal poverty guidelines.

The Molokai Family Health Center provides family and general practice, and internal medicine services. There are also private medical offices offering service in medicine, dental care, optometry, and chiropractic care. The hospital, clinics, pharmacy, and offices are all located within Kaunakakai, with some services to remote rural areas.

Social Services

The Maui County Department of Housing and Human Concerns (DHHC) provides four main areas of social services. These are Early Childhood, Immigrant Services, Aging, and Senior Services. Early childhood resource and referral information, as well as technical assistance, is provided to any person or organization. The County also provides grants that support childhood services, including MEO's Head Start program, Maui Family Support Services, and Imua Family Services on Moloka`i. These programs provide early childhood learning and development that support the child, and those involved in the child's life, to ensure a better transition into kindergarten.

⁷⁹ Molokai Ohana Health Care Inc., referencing 2002 & 2003 Hawaii Health Surveys; <http://www.Molokaichc.org/content/population-served>

⁸⁰ Na Pu`uwai, Inc., <http://www.napuuwai.com/>

⁸¹ Ibid, Molokai Ohana Health Care Inc.

DHHC’s immigrant social services are located in Kaunakakai and help immigrants achieve and preserve lawful permanent residence, apply for citizenship, and secure and maintain employment. Immigrant families are reunited and strengthened through assistance with petitions, acculturation, and integration.

The Maui County Office of Aging employs a full-time Aging and Disability Services Specialist on Moloka`i to help with needed services to remain as healthy and independent as possible. Services are provided in home or through referral and access programs to frail seniors, family caregivers, and individuals with disabilities of all ages. The Kaunoa Senior Services provides programs and services for well, active seniors and frail homebound residents. These include assisted transportation services, Meals on Wheels Program, and the Congregate Nutrition Program for nutritionally balanced meals in a social atmosphere. For more active seniors there are informational, volunteer opportunities, and a wellness program.

B. ISSUES

- Issue 1: An increasing older and elderly population will increase health and social service needs, including long-term care.
- Issue 2: The island has immigrant communities with limited English language skills that need health and social services in multiple languages.
- Issue 3: Behavioral and mental health, alcohol and substance abuse, obesity, domestic violence, child abuse and neglect, and sexual abuse are concerns.

C. GOALS, POLICIES, ACTIONS

Goal Have a comprehensive, integrated healthcare and social services system that provides for the community’s health and well-being.

Policies

1. Encourage the provision of enhanced medical, dental, behavioral, and mental healthcare and social services for the community through qualified professionals located on Molokai.
2. Encourage partnerships in healthcare provision to expand healthcare professional access, and diversity in service, resources and locations.
3. Support studies to determine community needs and underserved locations and ensure equitable distribution of services.
4. Support public health education and assessment programs throughout the island.
5. Encourage expansion of full-time mental and behavioral health case management positions, psychologists and psychiatrists on the island.
6. Support a disabled person’s infrastructure system that includes health and social programs, services for the frail elderly, assistance for home-modifications to support aging in place, and long-term care facilities.

7. Support enhanced monitoring of care homes and transient facilities which provide services to mentally and physically disabled residents.
8. Encourage multi-modal transportation and recreation planning that increases opportunities for exercise through bike paths and pedestrian improvements.
9. Support wellness and nutrition training for residents.
10. Support traditional cultural practices for community health.
11. Support immigration services to assist new residents to integrate and become productive community members.
12. Support early childhood services for children and their families to provide quality learning and development.

Actions

Table 9.5 Public Facilities and Services – Health and Social Services			
No.	Action	Lead County Agency	Partners
9.5.01	Conduct community needs surveys and allocate funding to expand the number and variety of social services.	DHHC	
9.5.02	Coordinate with transportation and recreation planners to increase bikeways and pedestrian opportunities for exercise.	Parks & Recreation	Public Works
9.5.03	Continue to provide social services for immigrants, early childhood, aging and seniors.	DHHC	DOH, Local Cultural Services
9.5.04	Continue to encourage support and funding for the network of services for alcohol and substance abuse.	DHHC	
9.5.05	Continue to encourage support and funding for the network of services for domestic violence, sex assault, and families in crisis.	DHHC	DHS DOH
9.5.06	Form partnerships and provide assistance to develop a plan for establishing long-term and short-term supportive housing, palliative care and hospice facilities.	DHHC	DOH nonprofit organizations

9.6 CEMETERIES

A. EXISTING CONDITIONS

Moloka`i has numerous cemeteries maintained by various entities. The County of Maui Department of Public Works maintains three cemeteries including the Veteran’s Cemetery in Ho`olehua, `Ualapu`e Cemetery, and Kapa`akea Cemetery. The `Ualapu`e Cemetery is closed and no longer accepting burials. The Kapa`akea Cemetery is nearing capacity, with less than 50 burial sites remaining. Other cemeteries on Moloka`i include Kanakaloloa Cemetery at Ho`olehua and Homelani Cemetery at Manawainui maintained by DHHL, Maunaloa Cemetery owned by Moloka`i Ranch and maintained by the community, and several private cemeteries maintained by families or churches.

B. ISSUES

-
- Issue 1: The County DPW is not budgeted sufficient funds to maintain cemeteries on Moloka`i.
- Issue 2: The Kapa`akea Cemetery is nearing capacity.

C. GOAL, POLICIES, ACTIONS

Goal Molokai`s cemeteries will be well maintained and meet the needs of the community.

Policies

1. Provide sufficient cemetery space in location(s) accessible to the community and away from the threat of SLR and flooding.

Actions

Table 9.6 Public Facilities and Service - Cemeteries			
No.	Action	Lead County Agency	Partners
9.6.01	Complete a site selection study to identify a location for a new cemetery.	DPW	Community
9.6.02	Work with the community to develop a map of gravesites at the `Ualapu`e Cemetery.	OED	Community

9.7 GOVERNANCE

The County of Maui is the sole local government for the residents of the three inhabited islands of Maui Nui: Maui, Moloka`i, and Lāna`i; there are no townships, or villages with separate municipal governments. The county seat and civic center is in Wailuku, Maui. Maui County has an elected mayor with a four-year term and a nine-member and council with two-year terms. Molokai is served by the entire County Council and has one resident Councilmember. All voters in Maui County can vote for all nine Council seats.

A. EXISTING CONDITIONS

Direct participation in Council meetings is difficult for Molokai residents. County Council meetings are held on Maui and are scheduled during normal working hours; transportation to and from these meetings for Moloka`i residents is limited by expensive flights. Recent improvements in telecommunications have enabled Molokai residents to participate remotely by phoneconference.

Section 2.41.080, MCC, states a minimum requirement of one member of the public from Moloka`i on a number of County Boards and Commissions. However, it appears that this is not widely known throughout Moloka`i. Physical access to County Council and committee meetings and meetings with members of the County Council is also limited since Moloka`i residents have more limited travel options. The peninsula of Makanalua, aka Kalaupapa, is its own county and lands are owned by the federal government, the State DLNR and DHHL.

B. ISSUES

- Issue 1: Molokai residents are not aware of the opportunities available to them to serve on County boards and commissions.
- Issue 2: Access to County government meetings is limited to teleconferencing if it is available.
- Issue 3: The governmental structure of Makanalua is unknown once the State DOH relinquishes administrative oversight.

C. GOAL, POLICIES, ACTIONS

Goal **Government services will be transparent, accessible, cost-effective and responsive to meet the needs of Moloka`i's residents.**

Policies

1. Support the implementation of Section 2.41.080, MCC, and expanded opportunities for Molokai residents to be involved in and affect County government decision-making.
2. Encourage public participation in government among all Molokai citizens in order to promote civic engagement.
3. Support a variety of information sources and technological connections such as video conferencing for citizens to participate, communicate, and stay informed about their community and government.
4. Develop improved government communication tools to help overcome existing language barriers.
5. Encourage elected officials at all levels of government to conduct regular public information meetings on Moloka`i to discuss issues of importance.
6. Support, encourage, and prioritize the convening of a task force to discuss governmental issues of Makanalua.

Actions

Table 9.7 Public Facilities and Service - Governance			
No.	Action	Lead County Agency	Partners
9.7.01	Continue to improve, promote, and publicize the availability of telecommunications and video conferencing for county services and for participation in County Council, and all board and commission meetings held on Maui.	Mayor's Office	Office of the County Clerk
9.7.02	Provide the MoPC with the Planning Director's annual status reports as described in Chapter 2.80B, MCC.	PD	
9.7.03	Conduct regularly-scheduled public information meetings on-island.	Mayor's Office	Maui County Council Moloka`i Councilmember
9.7.04	Ensure that a minimum of one Moloka`i resident is a member of each board and commission pursuant to the provisions of Section 2.41.080, MCC.	Mayor's Office	
9.7.05	Continue to support Maui County Community television on Molokai.	Mayor's Office	
9.7.06	Initiate the convening of a task force to discuss governmental issues of Makanalua.	Mayor's Office	DOH, DHHL, DLNR, National Parks Service, Community
9.7.07	Provide training to the MoPC on all applicable laws providing the legal framework agencies must follow when engaging in decision making that may impact Native Hawaiian traditional and customary practices. Fulfill new requirement for a Native Hawaiian Cultural Expert on Moloka`i Planning Commission.	PD	

10 | EAST END POLICY STATEMENT

- I. INTRODUCTION AND DESCRIPTION 1**
- II. PUBLIC FACILITIES4**
 - A. An East End Community Service Center4
 - B. Hunting/Conservation Cabins4
 - C. Ocean Access/Boat Ramp Issue5
- III. ENVIRONMENT AND NATURAL RESOURCES..... 11**
- IV. CULTURAL RESOURCES AND TRADITIONAL LAND USES 13**
 - A. Hālawā Valley17
 - B. Kukui O Lanikaula17
 - C. Pu‘u O Hoku17
 - D. Ke‘ana O Hina (Hina’s Cave)18
 - E. Nā Pu‘uhonua or Wahi Pana (Cultural Refuges and Sacred Places) of Mana‘e 18
- V. SOCIAL AND ECONOMIC RESOURCES 18**
- VI. LAND USE 19**
 - A. Ownership, Titles and Boundaries20
 - B. Taxes20
 - C. Geography21
- VII. LEGAL FRAMEWORK FOR LAND USE POLICY, PERMITTING, AND DECISION-MAKING 21**
 - A. The ‘Aha Kiole: The People’s Councils and The Eight Realms of Decision Making21
 - B. Sources of Native Hawaiian Rights Law23
 - C. ‘Ohana Values: The Foundations of Hawaiian Traditional and Customary Practices24
- VIII. SUMMARY 25**

INTRODUCTION AND DESCRIPTION

This East End Policy Statement was prepared by the Mana`e (East End) community in the belief that the area's planning is best accomplished by the comprehensive and meaningful input of the majority of the people. It is in this light that this document was presented to the 1981 and 2001 East End Policy Statement updates to the Moloka`i Community Plan Advisory Committee for the County of Maui, and intended as a general guide in formulating future planning for growth within this area.

The document was compiled from published survey data, tax and land use maps, various county and state agency information, and extensive East End community input. Technical accuracy is as correct as possible given the circumstances under which this policy was prepared. The community welcomes correction and/or updating to the guidelines in this respect only, through the various steps this plan takes to adoption. However, it wishes that the main direction and goals of this statement remain intact to preserve the spirit under which it was prepared and the consensus it reflects as being truly an East End community plan.

This East End Policy Statement maintains the spirit and essence of the original East End Policy Statements of 1981 and 2001. The revisions provided herein respond to the subtle changes that have occurred over the years on the East End. More significantly, it is the community's reaffirmation of the importance of protecting Mana`e as a special place for all of Moloka`i as a pu`uhonua (safe refuge), cultural kīpuka (rural area that serves as a living repository of Hawaiian traditional knowledge, understandings, and practices), and a place essential to `āina momona (continued food and water security) for its abundant fishponds, lo`i kalo (taro patches), rich forests, streams, and springs.

Mana`e is defined as: to the east - a direction,⁸² (na `e - easterly or windward). East End kūpuna descriptions go back further to a definition predating the western compass; (from which the wind blows.) Thus, not having a "magnetic" or "sunrise" orientation, but referring to a definition by locality. The description of the "East End" as applied to this statement includes the areas by ahupua`a place name.⁸³ The boundaries are from Makolelau to Hālawa along Moloka`i's South Shore and rfrom Pelekunu to Hālawa on the North Shore. This area boundary was chosen since the lands contained are similar in actual use/ownership today and match the community lifestyle which this policy statement is meant to reflect. The three main differences distinguishing Mana`e from the rest of the island are her geography, her environment, and her people.

East Moloka`i includes the island's highest mountain range with Kamakou peak reaching 4,970 feet above sea level. The ridges and valleys sloping off this range provide rugged and natural barriers between the various ahupua`a, and end at the sea with numerous, well-protected, sandy beaches along her winding coastline. The frequency of rainfall encourages an environment rich in water, lush tropical vegetation, and fertile soils. Perennial streams and important spring lines are found here.

Mana`e traditionally sustained the highest population on the island and contains the oldest human settlement sites in the Hawaiian archipelago dating back to 450 A.D. Mana`e contains the most important natural resources. Ola i ka wai – the life-giving waters are evident especially in Mana`e's pristine north shore valleys that produce 3-10 million gallons of water per day and house important native aquatic and diadromous species such as `o`opu and hihiwai. Consistent with the principles of ancient land tenure, Mana`e's native population maintains strong ties between the northeast and southeast valleys and coastline. The abundant resources present in the northeast valleys provide surplus for populations that historically and modernly reside in the southeast valleys. Māhele maps from the Kingdom of Hawai`i period and the memories of hoa`āina (native tenants) knowledgeable of their palena (land boundaries) indicate the presence of `ili lele, (disconnected strips of land) present in the north that are tied to south ahupua`a to functionally meet the subsistence and other cultural requirements of hoa`āina who need access to multiple resources. These relationships endure today with many Mana`e families accessing the north shore to fish, farm, and gather.

⁸² Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press.

⁸³ United States Department of the Interior Geological Survey Map, Island of Molokai, 1952.

The natural features of the land and major streams and springs contribute to a long heritage of ‘āina momona (abundance). Mana`e’s major taro producing valleys of Hālawa, Wailau, and Pelekunu are lined with intact lo‘i kalo (taro) terraces, wall to wall. These agricultural features and other traditional infrastructure produced much food and surplus. Ideal water conditions also support natural harbors and productive estuaries, as well as produce the muliwai (brackish water) essential for mariculture for fish and limu (seaweed) cultivation in numerous loko i`a (fishponds) that dot the southern coastline. These impressive monuments and critical sources of food production were engineered and constructed by ancient Hawaiian kūpuna (ancestors) who hand-carried basalt stones in extensive ten-mile long human chains that started from the north coast, up steep pali (cliffs), and down the southern slopes of Mana`e to the shoreline below. The south facing ahupua`a of Mana`e also boast an extensive fringing reef that residents depend on for traditional subsistence fishing.

All of these natural assets comprise true wealth and are vital to the people’s sustenance and subsistence economy. Centuries-long, multi-generational relationships to ‘āina and the regular use and access to natural and cultural resources of Mana`e’s north and south shore for traditional and customary Hawaiian subsistence, religious, and ceremonial practices solidify kamā`āina relationships to the land.

Within this geography and environment resides a population living a lifestyle compatible with its surroundings, a uniquely Hawaiian island lifestyle often difficult to express in words, but one that produces a point of view quickly disappearing in many parts of Hawai`i. Whether Mana`e produces the lifestyle or her residents make Mana`e what it is, the continuation of this uniqueness and the assurance it will remain for future generations are the goals of this policy statement.

Moloka`i is home to some of Hawai`i’s few remaining rural communities, where despite dramatic political and social change, Native Hawaiian culture and way of life have thrived. Moloka`i, and Mana`e in particular, have been characterized as a cultural kīpuka, where kua`āina serve as repositories of Native Hawaiian values, knowledge and practices for present and future generations. Ensuring continued access to, and health of Mana`e’s natural and cultural resources, is critical for the perpetuation of traditional and customary practices (e.g., fishing, gathering, cultivating lo`i, hunting, mālama iwi kūpuna, spiritual practices) in Mana`e and beyond.

Increased land speculation over the years; the loss of ancestral and kuleana lands to adverse possession and quiet title claims; and increased building of luxury homes that serve as illegal transient vacation rentals (TVRs) and short-term rental homes (STRHs) on the East End are impacting beach access, blocking traditional fishing trails along Mana`e’s southern coast, encroaching on, filling in, or being built over sensitive wetlands, springs, fishponds, old ‘auwai (traditional irrigation ditches) and lo`i kalo (taro patches), and burdening local residents with elevated property tax assessments. These factors threaten food and water security, native traditional practices and rights, and the continued vitality and community cohesiveness enjoyed by Mana`e’s long-time residents. These factors underscore the importance of responsible planning to preserve the essence of what makes Mana`e special.

Mana`e is the heart and lifesource of Moloka`i. The larger Moloka`i community identifies Mana`e as a pu`uhonua (safe refuge). Mana`e is a gathering place for island residents to enjoy family picnics, swimming, fishing, hunting, and hiking. Public and vehicular access to Mana`e’s south-facing coastline is much easier than other parts of the island which are blocked by fencing and locked gates over large private landholdings.

Collectively, we are a community existing as a result of our history. We work to protect that which makes Mana`e unique for ourselves, our children, and generations yet to come, by responsibly planned growth. The provisions in this statement are attempts to avoid problems that have occurred many times elsewhere in Hawai`i.

I. PUBLIC FACILITIES

The majority of Mana`e’s population is concentrated in the south sector, a place more easily accessible by vehicle. Public facilities include one state highway, two public rights-of-way to the shoreline, three day parks, an athletic field with a community center, two accesses to public hunting areas, and a small fire-station for fire and immediate emergency services. A number of privately owned beach accesses are in general public use, but do not qualify as such under this group. This inventory appears adequate to serve a community of this size, but additional amenities as identified below would add to the quality of life in Mana`e, while still preserving its rural character.

The following suggested improvements below is in keeping with creating the least amount of privacy infringement on adjacent residents, maximizing the responsible use of existing areas and resources, and placing the least amount of burden on county services:

A. An East End Community Service Center. Residents wish to express the need for such a facility and present the following reasons:

1. Due to the central location at Kaunakakai of medical and ambulance emergency services, the distance and subsequent response time to Mana`e is a great concern.
2. The distance from Kaunakakai limits access to the public library for Mana`e, students, and other residents.
3. No provision for storage and display of the many archeological and cultural resources from Mana`e has been provided for. Subsequent loss of these treasures to other island display centers should be prevented.

Recommendations

Establish a medical/dental/health service installation on the East End. Additionally, provide for a library/cultural center in Mana`e at an appropriate location.

B. Dual Purpose Hunting and Conservation Cabins. As described in Section III, “ENVIRONMENT & NATURAL RESOURCES,” watershed protection is a priority and feral ungulates have degraded the native forest ecosystem. The DLNR Watershed Partnership Program, several large landowners in Mana`e holding upland and forested properties, and TNC implemented the Kamalo/Kapualei East Molokai Watershed Partnership (EMoWP) in 1999, which consisted of erecting a 5.5-mile long conservation fence to protect 30,000 acres of high montane, native pristine forest from ungulates.

Community hunters engaged in the conservation work by participating in aerial hunts, accessing lands along foot trails and dirt roads to thin out herds below the fenceline, and freely sharing surplus meat with the community. The EMoWP is currently proposing the expansion of its fencing efforts further east. Subsistence hunters continue to be important in the management strategy. Feedback gathered over the course of 2-3 years in the preparation of EMoWP’s Environmental Assessment (EA) and Management Proposal and the concurrent Mana`e Traditional and Customary Practices Report (Mana`e TCP Report) funded by the Office of Hawaiian Affairs (OHA) on behalf of the ‘Aha Kiole o Moloka‘i – Mana`e Moku provide comprehensive plans that involve ahupua`a-based, mauka-a-makai (mountain to sea) management with native community involved, including local hunters.

One of the recommendations in the Mana`e TCP Report is to install dual purpose hunting and conservation cabins on the mountain along each ahupua`a or cluster of several ahupua`a to aid hunters who need to access higher elevations to control ungulate populations but cannot accomplish that on foot within a day and require rest before moving further up the mountain and returning home after hunting expeditions. These cabins can

also serve conservation workers monitoring and repairing fenceline, doing forestry work, and removing invasive species.

Recommendation

Install public dual purpose hunting and conservation cabins up mauka along each ahupua`a or cluster of several ahupua`a at strategic points for hunting and conservation work associated with watershed and ahupua`a management. Utilize County funds to cover and/or match dollars among government, private, and nonprofit entities to establish and maintain these mauka cabins located on private and state lands. Acquire easements and/or right-of-entry agreements to erect cabins over private lands.

C. Ocean Access/Boat Ramp Issue

The Mana`e community wishes to make clear its internal discussions regarding whether there is a need for improvements for ocean access from Mana`e (e.g., boat ramp construction). This is necessary to guide the MoPC, the Planning Department, the County Council, the State Legislature, federal agencies, and the U.S. Congress of the community's intent to table this matter for further discussion utilizing our local governance process with the 'Aha Kiolo o Moloka'i as facilitator. The Mana`e community advises decision and policy-makers at all levels of government (county/municipal, state, and federal) that this matter will be handled internally at the local-level until the community is ready to make a definitive statement about the issue of improvements for ocean access.

Initial community dialogue reveals strong opinions for and against creating a public boat ramp and associated improvements for more ocean access. Sentiments expressed in preliminary discussions hosted by the 'Aha Kiolo o Moloka'i are summarized here, as well as provided in direct quotes from written post-it-notes from those in attendance:

Oppose Boat Ramp	Neutral	Support Boat Ramp
<ul style="list-style-type: none"> Increased threat of overfishing along Mana`e's reefs and waters. It would especially attract commercial fishermen from Maui since the trip between islands would be much shorter with a Mana`e boat ramp. Increased traffic and exploitation of Mana`e's reefs and waters from off-island charter tour boats (especially from Maui). Increased boat traffic from off-island and use of Mana`e reefs and beaches will destroy Mana`e rural character and status as a pu`uhonua (safe refuge) A boat ramp will create a tourist trap on Molokai, similar to Maui and other islands. 	<ul style="list-style-type: none"> "Entire moku to be included in boat ramp decision." "Share the ramp already existing in the gated area – like it was before." "Kamalo is not a deep channel to the shore – flat bottoms launch there." "We need to malama our fishing and boating community who take care of each other/community." 	<ul style="list-style-type: none"> "Tired drive my truck in da salt water for launch my boat." "Let the locals launch at Puko'o. Membership fee? Rules?" "Needed but, where, how, why? Need to set limits to accommodate Moloka'i residents." With a boat ramp, the large Moloka'i boats can police and patrol the waters to discourage off-island boats from exploiting Mana`e fishery. Everyone else is selfish to block Moloka'i commercial fishermen who benefit the community by feeding them with fish they sell.
Oppose Boat Ramp	Neutral	Support Boat Ramp
<ul style="list-style-type: none"> Associated improvements for a boat ramp and deep draft harbor may negatively alter the natural bathymetry through marine excavation; entail the dredging of 	<ul style="list-style-type: none"> Need to think outside the box. Consider private boat ramp, rather than public so that there can be better control of 	<ul style="list-style-type: none"> Boat ramp and deep draft capacity needed to address safety concerns for entry and exit of big boats.

<p>precious reefs; fill and/or destroy historic fishponds, limu, crab, and fishing grounds; and desecrate underwater heiau (temples).</p> <ul style="list-style-type: none"> • “No boat ramp. Not enough resources. Can’t have other people killing da grounds.” • “No boat ramp east Moloka’i. Protect resources. No commercial.” • “No problem launching boats now. Kamalo best option for us.” • “NO BOAT RAMP EAST END.” • “Concerned about increased pressure and possible exploitation of ocean resources.and increase in commercial activity.” • “NO RAMP EAST END” • “No Boat Ramp.” • “No. Unnecessary.” • “Boat ramp will cause over congestion of land and ocean traffic. NO parking to accommodate increased traffic resulting from boat ramp install.” 	<p>what types of boaters may access private boat ramp.</p>	<ul style="list-style-type: none"> • Boat ramp needed for emergency services, rescue, and retrieval operations. • Just need a simple boat ramp to launch and safely return.
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Oppose Boat Ramp	Neutral	Support Boat Ramp
<ul style="list-style-type: none"> • “Boat ramp is unnecessary. Invitation for unwanted amount of ocean recreation over fishing.” • “NO RAMP, NEVER!” • A fireman stated that no boat ramp is necessary for emergency rescue and retrieval operations. Their current boat and jet ski equipment is able to handle launching and returning to natural entry points that are already commonly used in Mana`e. • What is the definition of small-scale to those who want a boat ramp? Look at what happened to Hana, Maui. They wanted a small boat ramp, but after having to comply with multiple regulations ended up getting a big boat ramp that threatens to bring a lot of boat traffic in that sensitive, rural area with important fishing grounds for subsistence. We in Mana`e should be careful about the precedent we might set by asking for a boat ramp, even if we intend to have small-scale, it may be out of our hands in the end after having to meet required government specifications. • We need to be concerned about letting a “foot in the door” which threatens to bring not just one big boat, but more and more over time, and suddenly our rural lifestyle is changed forever. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

Site-Specific Concerns
<p>1) Manawai</p> <ul style="list-style-type: none"> • Boat ramp at Manawai (in front or near Wavecrest Condos) should not be an option. The impacts are too great. • Multiple fishponds in area: Puhaloa, Welelau`ulu, Kaunahiko`oko or Onahikoko, Unnamed fishpond • Underwater heiau in Manawai, part of kino (body) - a complex of multiple heiau on mountain, lowlands, and in ocean. • Fishponds are not navigable waters subject to the U.S. Commerce Clause • Fishponds are private property and also considered historical sites. • A fishpond in Manawai area is utilized for limu cultivation. A boat ramp would disturb this rich limu grounds.
<p>2) Puko`o</p> <ul style="list-style-type: none"> • Delete this option because a boat ramp here is inappropriate. • In 1984, 32 acres of the formerly known as Puko'o or Ilae's fishpond and fast lands, TMK 5-7-007-021 and TMK 5-7-007-087, were reclassified from the State Land Use Commission from Urban-Hotel (six stories) to Agricultural-Rural land use boundaries. This land use reclassification was purposefully done to be compatible with the rural cultural lifestyle of east Molokai. • This area is a high flood hazard and tsunami inundation zone. As evidenced on the U. S. Army Corps of Engineers flood boundary maps. • In the proximity of the ocean and along the shoreline is a historic property landmark. which is owned by the State of Hawai`i , TMK 5-7- 07-64 • Panahaha fishpond at Puko`o is identified as Site 202, the Pacific Anthropological Record #14 Bishop Museum, Molokai: A Site Survey by Catherine C. Summers. Panahaha is 13.8 acres and a loko umeiki (fishtrap). This type of pond is unique to Moloka`i and is one of only 2 located on the East End.
<p>3) North Shore Access</p> <ul style="list-style-type: none"> • Need to more carefully consider impacts and whether any improvements for boat access to North Shore should occur. • What boat access points will be considered? Honouliwai? Halawa? Kalaupapa? • Do we want North Shore to be more easily accessible? • Potential threat to pristine resources of North Shore. Impact to hihiwai, `o`opu and sensitive habitats. • Increased access to North Shore will increase fishing pressure. • Delete this option as it will degrade North Shore resources.
<p>4) Kamalo</p> <ul style="list-style-type: none"> • No boat ramp in Kamalo. • There are kama`aina from Kamalo who enjoy this area for picnics, camping, and family gatherings. This place is special to them. We should not change the character of this special place by building a boat ramp and altering the marine benthic environment with heavy machinery. • Increased boat traffic into and out of Kamalo would also destroy the character of this place that is an important area to Kamalo families who teach their children to swim, crab, gather limu, and fish. • Ultimately, the Kamalo people should decide because they will be most impacted by changes to their shoreline and reefs. • There should be no major repair, restoration, or expansion of the old Kamalo Wharf and docking area. Boats should not be encouraged to park at the dock for prolonged periods, except for small boats owned by Kamalo families.
<p>5) Community Sentiment on Boat Ramps in General in Mana`e</p> <ul style="list-style-type: none"> • Absolutely no altering of marine benthic environment. • Absolutely no dredging of reef. • Absolutely no destruction of fishponds. • No use by commercial tour operations from off-island. • No use by commercial fishermen from off-island.

Recommendations

No action and no preemptive action should be taken by the Maui County Council, Planning Department, MoPC or any other appropriate county entity, state and federal government agencies to authorize and/or permit a boat ramp in Mana`e without the free, prior, and informed consent of the Mana`e community. The Mana`e community represented by parties and individuals who both support and oppose a boat ramp have mutually agreed to have the `Aha Kiole o Moloka`i facilitate further discussions on this issue. The community reserves the right to undergo their local and customary process of internal decision-making before coming before county, state and federal agencies to determine appropriate and feasible action for Mana`e. For further information about the role of the `Aha Kiole o Moloka`i within the overall formal government framework within the State of Hawai`i, please review Appendix B. It should also be noted that while the `Aha Kiole O Moloka`i provides expertise on integrating indigenous resource management practices with western management practices and utilizes indigenous governance protocols, it engages as a modern-day best practice the input and participation of all people from all races and ethnic groups who reside on Moloka`i.

For reference of consultative and active participation processes described as *Free, Prior, and Informed Consent (FPIC)* as a protocol recognized in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the text of this document is provided as Appendix C to our 2016 East End Policy Statement. Also incorporated here as Appendix D, and as a reference, legal authority, and guide is the federal Advisory Council on Historic Preservation's (ACHP) advisory issued on "Section 106 and the U.N. Declaration on the Rights of Indigenous Peoples: Intersections and Common Issues: Article 18 and Section 106" for matters that may impact Native Hawaiian historic and cultural sites that are listed or are eligible for inclusion on the State and National Registers for Historic Preservation (e.g., fishponds, underwater heiau, traditional fishing ko`a and shrines), and traditional/cultural landscapes, that may be impacted by the placement of a boat ramp and associated improvements (e.g., shoreline alteration, fishpond destruction, reef dredging, marine benthic excavation, etc.).

II. ENVIRONMENT AND NATURAL RESOURCES

Mana`e's environment, rich in natural resources, is a sensitive ecosystem that requires the utmost in careful planning for its survival.

Water – The East End is blessed with abundant rain and numerous perennial streams. The North Shore Valleys exemplify this condition. Management of feral animal populations is required for watershed health; a healthy watershed is necessary to maintain storage capacity.

Soil - The quality of rainfalls and limited human interference has retained much of the fertile soil once found over many places on Moloka`i. Careful land management, including preservation of coastal wetlands, is important to control loss of valuable soils to erosion.

Ocean – The rich environmental characteristics of the land give rise to a pristine ocean ecosystem correspondingly as rich. Both nearshore and ocean gathering opportunities are important to maintain the traditional lifestyle of Mana`e's people.

Flora and Fauna - Many areas on the East End contain habitats where indigenous plant life still exists, as on the ridges between Pelekunu and Wailau Valleys. These habitats, whether mountain or coastal, provide unique ecosystems necessary for endangered life to survive, and must be adequately protected and preserved.

Wetlands are numerous along the coastal regions of Mana`e and provide the recycling basins that control normal pollutants and minimize the impact of sedimentation on ocean systems. These areas further provide habitats for endangered birds as well as nesting grounds for several migratory species.

In short, the natural resources found on the East End are extensive and require careful treatment in light of the following natural and man-made hazards they face:

Erosion - Being the most erosion-prone island in the Hawaiian chain, overgrazing of natural and introduced vegetation can have detrimental effects. The indigenous varieties of grasses (i.e. pili) cannot stand being eaten to the roots and trampled upon, necessitating careful management of pasture and kula lands. Monitoring of domestic and wild grazing animal populations by the community is of the utmost necessity. Hunting opportunities should be allowed for Moloka`i residents. The indiscriminate slaughtering of wildlife game should be subject to stiff penalties.

Flooding is common through the many streambeds and low lands found in Mana`e as evidenced on the U.S. Army Corps of Engineers flood boundary maps. The intensive use of coastal low lands for resort or multifamily is not recommended since the required modifications to the environment to overcome these problems, (i.e. stream diversions, excessive land fill, sewage treatment), would have destructive ecological effects.

Tsunami inundation areas are common along the eastern coastal areas. The many natural harbors and fishponds at the base of the steep-walled valleys serve to "funnel" these tsunamic ocean surges, and greatly accentuate the damage they can produce. Intensive coastal land use, particularly multi-family or resort use, is discouraged in view of this hazard. Intensive coastal land use in multi-family – resort is discouraged in view of this hazard.

High Water Table The low-lying coastal areas of Mana`e are subject to tidal surges. Development, particularly commercial development for multi-family or resort use, with the corresponding sewage disposal problems that can irreparably damage groundwater and marine resources, is discouraged in these areas and should be located in regions where such impacts can be minimized or avoided.

Mana`e is unique because of her environment and the natural resources it contains. To allow planning that would jeopardize the health of its environment would cause irreparable damage and loss. Losing this intricate part of Mana`e will make the East End just another destination area, like many other places in Hawai`i.

Recommendations

The recommendations made in *The Mana'e GIS Mapping Project (2008)* are hereby adopted by the Mana`e community in this updated East End Policy Statement and encouraged for integration as policy and action items within the body of the Molokai Community Plan where appropriate. The Mana`e GIS Mapping Project was initiated by Mālama Pono o Ka `Āina, Mana`e kūpuna and community members due to a concern that too much development in wetlands and "wet lands" (including ancient fishponds and lands that were traditionally cultivated in taro and other food crops) were being cleared and filled in for housing development. The project was also commissioned by the Planning Department with the intent of incorporating it into the updated Plan. It provides GPS maps of important natural and cultural resources that warrant greater protection by the Planning Department and other land use agencies, as well as the MoPC.

As stated above, the Mana`e TCP Report is incorporated into this East End Policy Statement. It contains detailed ahupua`a-based resource management strategies for watershed protection, ungulate control, agriculture, aquaculture, and food production, stream and spring restoration, native plant propagation and supporting native ecosystems in Mana`e. These objectives and action items can be found more conveniently in Tables 5.1 and 5.3 of the Mana`e TCP Report. The Mana`e community formally adopts the measures included there into this East End Policy Statement and encourages their inclusion as policies and action items within the Plan Update where appropriate.

III. CULTURAL RESOURCES AND TRADITIONAL LAND USES

For the Native Hawaiian, Mana`e was figuratively any place “more east” of where they lived; and with their tradition, this meant “closer to the sun.” The Hawaiians looked towards the east as symbolic of their beginnings as a race of people and of their culture. Their *hale* faced the east, reflecting this orientation. Mana`e was considered more traditional, so to speak.

It is within this context that an East End or Mana`e plan should be designed. This section serves to describe the traditional resources of the East End, historically and presently, and at the same time, direct this policy statement towards a more beneficial and realistic land use with respect to traditional values.

The Mana`e community wishes to include here the provision of Article XII, Section 7, Hawai`i State Constitution, which recognizes Native Hawaiian traditional and customary rights:

The State reaffirms and shall protect all rights customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua`a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778 subject to right of the State to regulate such rights.

The Mana`e community further wishes to include the provisions of Article XI, Sections 1 and 7, Hawai`i State Constitution, which recognize that water is a public trust resource:

Section 1: For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai`i’s natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.

Section 7: “The State has an obligation to protect, control and regulate the use of Hawai`i’s water resources for the benefit of the people.”

[The full text of these constitutional and statutory laws are provided in Appendix H.]

Traditional lands are considered to be land formerly or presently employed in traditional Hawaiian uses. More specifically, this would be land remaining ideally suited to embody the concept of Aloha `Āina, Land Care rather than Land Use, where the aloha dedication and concern given to the `āina was returned, providing all the needs and wants required to sustain this traditional love. Fertile soil and the proximity of adequate water would be conditions of traditional agricultural land.

Presently, Mana`e contains a large inventory of traditional lands. Historically, Hawaiians knew no land ownership. They shared the land. There were political divisions of land called ahupua`a, or districts with natural geophysical boundaries. There were areas where Hawaiians built their homes, raised their families and grew their `ulu (sweet potato), now called kuleana. There were also areas where they cultivated their kalo (taro), together, as a community. Access to the mountains for gathering of materials for building or for medical needs were guaranteed, as was access to and along the shoreline for fishing. In addition, the Hawaiians collectively built, stocked, managed, and shared the resources of their ahupua`a fishponds. Fresh water was essential for personal needs, and Hawaiians knew that the streams had to empty into the ocean in order to continue the delicate brackish water environment for spawning of fish and the harvesting of limu (seaweed). These very streams also fed the `auwai (aqueduct) to sustain the lo`i kalo, which in turn supplied the fishponds with all the nutrients necessary for maximum productivity. Above all, there was a strong sense of community kuleana for survival of generations to come, dependent upon the care of the resources of the mountains, flatlands, marshlands, fishponds, reefs and ocean.

Even given the social, economic, political, and environmental conditions of Hawai`i today, and particularly on Moloka`i, one cannot ignore the relative integrity of the End area's cultural resources. There are numerous archeological sites (most yet to be surveyed), perennial streams, marshlands which were cultivated with kalo, fishponds, bountiful coastal areas and limited accesses maintained for hunting and fishing. The interconnecting of the environment with the resident for his well-being and survival, continues to play a major role in the lives of Mana`e residents. The embodying concept of aloha `āina with regards to traditional land use is even more important today in light of economic and development pressures. There is a strong identification of Hawaiians with their Mana`e lands, and a supportive community for a subsistence kind of lifestyle and desire for this way of life, which is more in keeping with the ways of the kūpuna (elders), and the previous occupants of this area.

The people of Mana`e wish to permanently secure this style of living, traditional in basic philosophy. This is their privilege, given judicial, legislative or administrative resolutions for an alternative plan that might be developed. The following are recommendations, given the fragile environment, traditional land uses and cultural lifestyle of the East End Moloka`i:

Recommendations

1. Conserve and preserve the integrity of archaeological sites, both large and small. Complete documentation of all sites to support preservation of the cultural integrity of such sites or districts. Nominate sites to the State and National Registers of Historic Places, including renominating all sites that were dropped from the State Register of Historic Places in 1979. *The University of Hawai`i Archaeological Training Project, Kamalō*, which provided an inventory survey of archaeological sites in Kamalō. The sites identified in the Kamalō survey, all sites referenced in *Molokai: A Site Survey*, by Catherine C. Summers and subsequent archaeological reports and cultural impact assessments completed over the years and that will be conducted in the future should also be included for nomination to the State and National Registers of Historic Places.
2. Full consideration shall be given to locations which have religious and cultural significance to the people of Mana`e. Scientific and formal historical considerations do not necessarily reflect all the cares and concerns of the Native Hawaiian and Mana`e residents.
3. Consideration should be given to inventory access trails and roads as traditional and cultural features.
4. Support access for practitioners to mauka and makai areas for hunting, gathering and traditional cultural practices. Guarantee access pursuant to appropriate management plans, guarantee access for practitioners to mauka and makai areas for hunting, gathering, and traditional and customary practices; historic sites, sacred and traditional places, and Wailau.
5. Review land use policies for all coastal areas, wetlands, and lands engineered for kalo cultivation (lo`I kalo/auwai) to preserve those lands to their cultural and environmental purpose. Work to preserve lands previously used for kalo cultivation for kalo cultivation.
6. Because of the high potential for aquaculture use of fishponds, there should be blanket recognition that these areas should not be developed for any other purposes. Archaeological and historic concerns shall be considered before reuse of fishponds to preserve scientific knowledge contained. Effort shall be made to preserve and maintain any fishpond system complex such as hatchery, pond, or trap characteristics.
7. Discourage tourist-related accommodations or businesses which will subsequently change the social infrastructure of the area.
8. Encourage cultural and traditional land use programs.
9. Ensure that traditional and culturally significant lands are conserved, preserved, and protected. Consider designations to protect and preserve traditional lands under the DLNR conservation regulations, through County zoning, or other appropriate methods, including the creation of a Traditional Land Use (TLU)

Overlay. As mentioned above, *Mana`e GIS Mapping Project (2008)* is incorporated herein as [\[Appendix E and\] a link](#) adopted by the Mana`e community in this updated East End Policy Statement for integration as policy and action items within the Plan where appropriate. One of the important outcomes of that project was a recommendation to create a Traditional Land Use (TLU) Overlay. The purpose of the TLU Overlay is to protect Mana`e's numerous cultural and natural resources that form one of the most intact cultural landscapes in all of. Many Mana`e residents, especially the kama`āina, have a strong interconnection with the land and these resources, including subsistence uses, as well as for religious, spiritual, and ceremonial purposes. We agree with this recommendation and therefore, formally incorporate it here in this East End Policy Statement and encourage integrating a TLU Overlay within the updated Plan. This is in keeping with the Maui County Planning Department assurances that it would work towards creating a TLU Overlay.

10. Support proper management of fresh water resources in order to ensure sufficient water for food production, drinking water, native stream life, healthy estuaries, and ground water recharge. The health of our streams and nearshore estuarine environments depend upon sufficient freshwater discharge. Pursuant to the Hawai`i Constitution, Article XI, sections 1 and 7, water is a public trust resource, held in trust by the State for the benefit of the people, for both present and future generations. Public trust purposes, which receive priority over private commercial uses, include domestic uses, Native Hawaiian and traditional and customary rights, appurtenant rights, environmental protection, and reservations for the DHHL Homelands.

A. Hālawa Valley is incredibly rich in archaeological and cultural properties. The 1975 Bishop Museum survey (which only is partially complete) has identified the oldest habitation site yet found on Moloka`i. The study reveals astounding patterns of pre-historic ecological adaptations by our Mana`e kūpuna. Hālawa contains many heiau, pu`uhonua, ko`a, fishponds, habitation sites, complex after complex of lo`i and their auwai systems, all of which are in an excellent state of preservation.

There are seasonal surfing conditions, which are among the best for Moloka`i. There is presently private access through Haka`ano for hunting.

Recommendations

1. Encourage managed public access for recreation, hunting, and other subsistence activities as well as a protocol for the exercise of traditional and customary activities by the Hawaiian community.
 2. Encourage plans for cooperative lo`i kalo cultivation, land restoration using native (indigenous) plant materials, and designated camping facilities.
 3. Encourage proper use of Hālawa Bay by surfers, boaters and other recreational users.
 4. Encourage development of a cultural resource management plan with strong community input.
- B. Kukui O Lanikaula, the traditional home of Lanikaula, the famous prophet of Moloka`i in the 16th century, who counseled and prophesied in a manner for which he was respected throughout Hawai`i Nei. His kuku`i grove is still considered by Hawaiians today as sacred, and of religious significance for traditional practitioners.

Recommendations

1. Immediate plans for erosion control and replanting of the kuku`i tree grove should be made. Appropriate access to the grove should be provided, with development of a management plan. Consider supporting purchase of the area by a governmental or private entity in order to facilitate traditional and religious use.
 2. This area should not be promoted by the visitor industry.
- C. Pu`u o Hoku In recent years, there has been a renewed interest in Polynesian navigation. Theories have been developed and tested by the voyaging canoe Hokule`a that include Pu`u o Hoku as a navigational site, but more explicitly, an area where the ancient Hawaiian navigators would study and then teach this navigational skill for the journeys back to Tahiti.

Recommendation

This Pu`u should be restudied and preserved as a traditional area for observation and teaching. Access should be negotiated.

- D. Ke`ana O Hina (Hina's Cave) Molokai-nui a Hina (Moloka`i Great Child of Hina), is one of the ancient names attributed to our island. Hina is Moloka`i mother. It is said that she resided in Kalua`aha. All other islands in Hawai`i, according to tradition, were born from Papa (Earth Mother). This mating of Wakea (Father Sky) with the goddess Hina has made Moloka`i special for those who can call Moloka`i their ancestral home. The site is located on private lands where cattle ranching operations take place. Kama`āina have reported that the cave of Hina has collapsed.

Recommendations:

1. Restore Hina's cave.
 2. Work with the private landowner to cordon the area off and institute appropriate protections from physical damages and deterioration from erosion, including protection from cattle.
 3. Consider instituting governmental protections through a "Natural Area Reserve" designation or other appropriate measures.
 4. Provide responsible and appropriate access for traditional and customary Hawaiian religious and ceremonial practice.
 5. This site should not be promoted by the visitor industry.
- E. Nā Pu`uhonua or Wahi Pana (Cultural Refuges and Sacred Places) of Mana`e

There are numerous areas in Mana`e, some associated with *heiau*, which are still considered today as sacred places and should not be altered, for example, Kakahaku (Moanui), Paku`i (Manawai) and the areas of Kalua`aha and Mapulehu. Because of their significance, plans for alteration should be reviewed to ensure that activities, even if they don't meet the definition of "development" will not affect the integrity of the mana of the area.

IV. SOCIAL AND ECONOMIC RESOURCES

Mana`e is made up of people with a variety of backgrounds, origins and cultures. The majority of the community shares a common system of values best explained by the following:

1. A profound concern for the land and the care it deserves.
2. An avid interest in the ocean for its recreational value [as well as for] and the bountiful sustenance it can provide.
3. A deep respect for Hawaiian culture, past and present.
4. A strong sense of community, and aloha for the Mana`e lifestyle.

According to the Nov 2015 draft of Molokai Community Plan, “The 2009-2013 estimated median family income (MFI) for East Moloka`i was \$51,807 which was 65% of the \$79,963 statewide MFI; West Moloka`i MFI was \$44,656 which was 56% of the statewide MFI.” Updated census data is currently unavailable; however, it was estimated from the previous East End Policy Statement that Mana`e has over 200 households, averaging 3.7 persons each. This limited breakdown suggests growth pattern guidelines must be unusually strict to prevent commercial development displacement of the larger portion of this population. By income and educational measures, Mana`e residents cannot compete with the average statewide levels and planning; the Plan must reflect this concern. Economic growth has to proceed with this value/income system in perspective.

Recommendations

1. Pursuing economic opportunities that are suited to the skills of the residents and sustainably utilize resources of the land will help retain Mana`e’s rural lifestyle and aid in the preservation of Mana`e’s many unique cultural and natural resources for the next generation. Any economic development plans for Mana`e should limit and discourage tourism-related industries, and instead focus on ecologically responsible and sustainable agriculture.
2. A preferred economic development model would be one that makes use of the present natural and social resources available in Mana`e. East End residents urge the County to coordinate the various state, private and county agencies into a meaningful attempt to develop an economic strategy for Mana`e.
3. Appropriate areas for consideration include Aquaculture, Agriculture and mini-cottage industries compatible and consistent with the rural and traditional community values and unique qualities East End residents desire to preserve. [Examples of appropriate economic development can be found in Appendix F].

These proposals can compatibly coexist within the value framework of the East End community, and compete in the market economy. The resident opinion is to stress the desire to preserve this lifestyle we have, and tailor growth so as not to lose the greater part of it, or forfeit the options we leave for our children.

V. LAND USE

Many of the goals meant to help preserve the rural lifestyle of Mana`e have to do with land use. Mana`e has many conditions and problems confronting residents in this area. Its problems need to be clearly understood to effectively provide the answers the community seeks to ensure their local lifestyle can continue for future generations. The following concerns can be examined in order to better understand existing conditions. The Mana`e community was ahead of its time to recognize in 1981 the need for better land use policies to protect and preserve the unique aspects of rural Hawaiian community life, cultural resources, and environment. Many of the specific concerns noted in the EEPS (1981) *This stands for Emergency Employment Programs. Does this make sense?* are covered by existing state and county laws.

A. Ownership, Titles and Boundaries

Land ownership in Mana`e is generally held in two size groups, both of which follow boundaries granted in the Great Mahele of 1835-1848. The large ahupua`a of the former kings and chiefs have become the estates of today, while the small kuleana grants of the tenant farmers have become the agricultural residences of the East End. Historic factors such as natural disasters, economic requirements, military commitments and educational needs have caused shifts of population to other areas of the State for entire generations at a time. Absentee owners of today do not always know the exact physical location of their lands. Ahupua`a ownership and metes and bounds have remained fairly clear within the large family estates, while kuleana ownership, on the other hand, often has not.

The socio-economic position of the typical kuleana owner over the 130-year period has produced a descendant heir ownership problem that has made 50 percent of the kuleana land untradeable because of unclear title, the cost of quiet title proceedings, and the number of multiple owners on kuleana parcels. The smaller kuleana grants have not been as clearly defined as the larger estates. The peculiar historic arrangement of original boundaries, the inaccuracies of original surveying techniques, as well as sheer numbers all contribute to a descendent heir ownership of kuleana lands that is problematic.

B. Taxes

In this respect, both the ahupua`a and kuleana landowners are in the same problem category. The increase in land tax has created financial hardships. The ahupua`a owner is usually able to manage any increase in land taxes; the kuleana owner often is not.

These unique Mana`e situations, combined with the conventional statewide problems of land tax and development, produce hurdles over which responsible land use and land tax assessment becomes a problem. Tax burdens on kuleana may be alleviated by assessments based on actual use, rather than potential use value.

Recommendation

Encourage residents to explore existing kalo and kuleana land tax relief options.

C. Geography

The physical problems facing responsible land use are another unique aspect of Mana`e. Although statistically the East End contains one-half of Moloka`i's land area, the actual acreage suitable for intensive land use is well below that figure. The high mountain range and accompanying valleys leave only a small portion available, making any subsequent development produce far greater long-range impacts than might be first anticipated.

VI. LEGAL FRAMEWORK FOR LAND USE POLICY, PERMITTING, AND DECISION-MAKING

The following section provides an important legal framework in which agencies are must follow when engaging in decision making actions that may impact Native Hawaiian traditional and customary practices. Section 1-1, HRS, guides agencies to look to Hawaiian judicial precedence and custom and usage in making their decisions. Agencies are required to protect their kuleana rights of hoā`āina or kuleana.

A. The ‘Aha Kiolo: The People’s Councils and The Eight Realms of Decision Making

According to Kumu John Ka`imikaua the purpose of the ‘aha councils was to utilize the expertise of those with ‘ike (knowledge) to mālama ‘āina, to care for the natural resources, and to produce food in abundance not just for the people, but for successive generations. ‘Aha council leadership was determined by the people who collectively understood who the experts were in their community.⁸⁴

With this in mind, when you look at Hawaiian custom and usage, the ancient traditions of which Moloka`i’s ‘āina momona was based upon are the eight realms of decision making from the ancient ‘aha councils. Historically, the ‘aha councils of Moloka`i considered the following eight realms before making decisions:

1. **Moana-Nui-Ākea** – the farthest out to sea or along the ocean’s horizon one could perceive from atop the highest vantage point in one’s area.
2. **Kahakai Pepeiao** – where the high tide is to where the lepo (soil) starts. This is typically the splash zone where crab, limu (seaweed), and ‘opihi (limpet) may be located; sea cliffs; or a gentle shoreline dotted with a coastal strand of vegetation; sands where turtles and seabirds nest; or extensive sand dune environs.
3. **Ma Uka** – from the point where the lepo (soil) starts to the top of the mountain.
4. **Nā Muliwai** – all the sources of fresh water, ground/artesian water, rivers, streams, springs, including springs along the coastline that mix with seawater.
5. **Ka Lewalani** – everything above the land, the air, the sky, the clouds, the birds, the rainbows.
6. **Kanaka Hōnua** – the natural resources important to sustain people. However, management is based on providing for the benefit of the resources themselves rather than from the standpoint of how they serve people.
7. **Papahelōlona** – knowledge and intellect that is a valuable resource to be respected, maintained, and managed properly. This is the knowledge of the kahuna, the astronomers, the healers, and other carriers of ‘ike.
8. **Ke `Ihi`ihi** – elements that maintain the sanctity or sacredness of certain places.⁸⁵

This ancient decision making matrix honors our ancestral past and wisdom, by looking to the needs of the present and ensuring that our decisions provide for abundance for future generations yet unborn. For every decision made and every land use proposal, any proposed amendments to the Plan, or any permit request, should be analyzed according to the impacts of these eight realms and the decision-making matrix should be applied because these are customary laws from ancient times, which were codified by the Kingdom, and adopted by the State. These laws are inherent rights of Native Hawaiians to self-determination and sovereignty.

Additionally, international law recognizes the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which President Obama signed this into law in 2010. Since then, various federal advisory councils that serve as advisory bodies to federal agencies, have provided guidelines for which to implement UNDRIP and to implement provisions for free, prior, and informed consent of native peoples. As such, we here by adopt the

⁸⁴ Malia Akutagawa, Shaelene Kamaka`ala, Harmonee Williams, et al., OFFICE OF HAWAIIAN AFFAIRS, TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA`E, MOLOKA`I, 47 (2016).

⁸⁵ Interview with Dr. Kawika Winter, Director, Limahuli Garden and Pres., Hā`ena Makai Watch Coordinator, and former member of the late Kumu John Ka`imikaua’s Halau Hula o Kukunaokalā in Honolulu, Haw. (Dec. 10, 2014).

UNDRIP and its underlying principles as a mandate that the State and County government must adhere to in making land use decisions in collaboration with native individuals and communities on Moloka`i.

There are certain vested rights of Native Hawaiian ahupua`a tenants (hoa`āina) that have their origins in the ancient land tenure system. This customary law was codified by the Hawaiian Kingdom and later adopted by the State of Hawai`i. The State has reaffirmed these rights in its Constitution and statutes. A unique body of jurisprudence has developed around these laws which reflect a heightened obligation by the State and its political subdivisions to reasonably protect traditional and customary Native Hawaiian rights on both public and private lands.⁸⁶

The native people of Mana`e and Moloka`i continue strongly their cultural practices and their relationship to `āina. For these reasons, this community plan is a reflection of self-determination and the community's right to determine its own autonomy. As a people, the greater Hawaiian community is exploring different avenues to attain sovereignty. However, as the Mana`e and Moloka`i community engages with local government, international, federal, state, and county laws need to be recognized and upheld.

B. Sources of Native Hawaiian Rights Law

The Hawai`i State Constitution reaffirms these rights--particularly Hawaiian access rights--which are protected in one's ahupua`a of residence⁸⁷ or if shown to be customary, in other ahupua`a without the benefit of tenancy if shown that this was the accepted custom and long-standing practice.⁸⁸ All State and County agencies and decision making bodies are obligated under the Hawai`i State Constitution and various statutes to ensure that these Hawaiian rights are not regulatea out of existence. There are affirmative obligations to protect Hawaiian custom and usage and the resources that Native Hawaiians depend upon.⁸⁹ State and County agencies must make an independent assessment regarding the impact that a proposed action may have on Native Hawaiian traditional and customary practices, and must consider the following three factors:

(A) the identity and scope of 'valued cultural, historical, or natural resources' in the petition area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the petition area;

(B) the extent to which those resources—including traditional and customary Native Hawaiian rights— will be affected or impaired by the proposed action; and

(C) the feasible action, if any, to be taken by the State and/or its political subdivisions to reasonably protect Native Hawaiian rights if they are found to exist.⁹⁰

C. `Ohana Values: The Foundations of Hawaiian Traditional and Customary Practices

Dr. Davianna Pōmaika`i McGregor interviewed a large number of kama`āina informants residing in "cultural kipuka" (rural areas that have maintained cultural understandings and practices)⁹¹ who identified common `ohana cultural values and customs for subsistence and mālama. It is the essence of these understandings that should be the standard by which to measure whether something is a customary practice.⁹² According to Dr. McGregor, what

⁸⁶ Akutagawa, Kamaka`ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA`E, *supra* note 4 at 58.

⁸⁷ FORMAN & SUSAN K. SERRANO, HO`OHANA AKU, A HO`OLA AKU HO`OLA AKU: A LEGAL PRIMER FOR TRADITIONAL AND CUSTOMARY RIGHTS IN HAWAI`I 9 (2012) [hereinafter FORMAN & SERRANO, HO`OHANA AKU, A HO`OLA AKU] (citing Kalipi, 66 Haw. at 9, 656 P.2d at 750).

⁸⁸ Pele Def. Fund v. Paty (*Pele I*), 73 Haw. 578, 620, 837 P.2d 1247, 1272 (1992). See FORMAN & SUSAN K. SERRANO, HO`OHANA AKU, A HO`OLA AKU, *supra* note 7, at 13 (citing *Pele I*, 73 Haw. at 620, 837 P.2d at 1272).

⁸⁹ Ka Pa`akai O Ka `Aina v. Land Use Comm'n, 94 Hawai`i 31, 7 P.3d 1068, 1083 (2000).

⁹⁰ FORMAN & SUSAN K. SERRANO, HO`OHANA AKU, A HO`OLA AKU, *supra* note 7, at 17 (citing *Ka Pa`akai*).

⁹¹ DAVIANNA PŌMAIKA`I MCGREGOR, NĀ KUA`ĀINA: LIVING HAWAIIAN CULTURE, 21 (2007).

⁹² Akutagawa, Kamaka`ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA`E, *supra* note 4 at 7-58. MMMM

distinguishes Hawaiian custom and practice is the honor and respect for traditional `ohana cultural values and customs to guide subsistence harvesting of natural resources. Such `ohana values and customs include but are not limited to the following:

1. Only take what is needed.
2. Don't waste natural resources.
3. Gather according to the life cycle of the resources.
4. Allow the native resources to reproduce.
5. Don't fish during their spawning seasons.
6. Alternate areas to gather, fish and hunt.
7. Don't keep going back to the same place. Allow the resource to replenish itself.
8. If an area has a declining resource, observe a kapu on harvesting until it comes back. Weed, replant and water if appropriate.
9. Resources are always abundant and accessible to those who possess the knowledge about their location and have the skill to obtain them. There is no need to overuse a more accessible area.
10. Respect and protect the knowledge, which has been passed down inter-generationally, from one generation to the next. Do not carelessly give it away to outsiders.
11. Respect each other's areas. Families usually fish, hunt, and gather in the areas traditionally used by their ancestors. If they go into an area outside their own for some specific purpose, they usually go with people from that area.
12. Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.
13. Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.
14. Share what is gathered with family and neighbors.
15. Take care of the kūpuna who passed on the knowledge and experience of what to do and are now too old to go out on their own.
16. Don't talk openly about plans for going out to subsistence hunt, gather, or fish.
17. Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and boisterous.
18. Respect family `aumakua. Don't gather the resources sacred to them.⁹³

VII. SUMMARY

The East End Policy Statement contains changes, extends existing guidelines, and includes many innovative measures. We are a community existing as a result of our history. We work to protect that which makes Mana`e unique for ourselves, our children, and generations yet to come, by responsibly planned growth. The provisions in this statement are attempts to avoid problems that have occurred many times elsewhere in Hawai`i as a result of irresponsible growth.

The community is made up of many individuals and must reflect the concerns of all, regardless of land ownership or economic position, in order to be representative and meaningful. Commercial development cannot continue to substantially alter community patterns, trading the benefit of economic gain for the expensive loss of community identity, values and its precious lifestyle. Development is welcome, but must be made realistically responsible to the people it affects, or, as elsewhere in Hawai`i, we may become victims of the growth we seek without realizing the losses we may suffer. Investors will, we hope, share in the solution of community problems, not only profit from the valuable natural and social resources Mana`e has to offer.

⁹³ DAVIANNA MCGREGOR, THE NATURE CONSERVANCY, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, MAKAKUPA`IA AND KAWELA, ISLAND OF MOLOKA`I 16-17 (2006).

REFERENCES

- Malia Akutagawa, Traditional and Customary Practices Report for Mana‘e, “Table 5.1: Moloka`i Subsistence & Ahupua‘a Management Plan Framework”, February 2016.

http://www.academia.edu/21710336/Traditional_and_Customary_Practices_Report_for_Manawa%CA%BBBe_Moloka%CA%BBi. 2017, Accessed 4/24/2017.

- A FRAMEWORK FOR THE AHA MOKU SYSTEM AND COLLABORATIVE GOVERNANCE.

- United Nations, United Nations DECLARATION on the RIGHTS of INDIGENOUS PEOPLES, March 2008.

http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf Accessed: 4/ 24/17.

- Advisory Council on Historic Preservation, SECTION 106 AND THE U.N. DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES: INTERSECTIONS AND COMMON ISSUES:ARTICLE 18 AND SECTION 106, 11/22/13.

<http://www.achp.gov/docs/UNDeclaration106.pdf>, Accessed 4/24/17.

- Markline, LLC, MANA‘E GIS MAPPING PROJECT, Kaunakakai, Hawai`i, May 2008.

- Wendy McElroy, Seven Eminger, Theresa Donham, University of Hawai`i Moloka‘i Archaeological Training Project 2004-2005 Results, December 2005.

http://rkealag.com/reports/Kamalo_report.pdf, Accessed: 4/ 24/17.

- The Constitution of the State of Hawai`i

<http://lrbhawaii.org/con/conart11.html> (See Section 1)

<http://lrbhawaii.org/con/conart12.html> (See Section 7)

- Hawaii Revised Statutes

http://www.capitol.hawaii.gov/hrscurrent/Vol01_Ch0001-0042F/HRS0001/HRS_0001-0001.htm

http://www.capitol.hawaii.gov/hrscurrent/Vol01_Ch0001-0042F/HRS0007/HRS_0007-0001.htm

11 | MAUNALOA POLICY STATEMENT

I. INTRODUCTION AND DESCRIPTION:

This Maunaloa Policy Statement was prepared by the West End community. We, as a people, believe the West End planning is best accomplished by the comprehensive and meaningful input of the majority of the residents. The following document is presented, in this light, to the 2015 Molokai Community Plan Committee for the County of Maui, and is intended as a general guide in formulating future planning for growth within this West End area.

It was compiled from published survey data, current tax and land use maps, Community Plan speaker information, various county and state agency information, and extensive West End community input over the past year. Technical accuracy is as correct as possible under the circumstances this policy was prepared.

West End is defined as: to the west - a direction.⁹⁴ Thus, having a "magnetic" or "sunset" orientation. The description of the West End as applied to this statement includes the areas by ahupua`a place name.⁹⁵

The boundaries are from Papohaku to Waiakane on the South Shore of the West End and from Kawahiau to Naaukahihi on the North Shore; and from Kawahiau to Papohaku on the West Shore; and from Kawailoa to Naaukahihi on the East Shore of the West End.⁹⁶

The West End presently, is a fragile, narrow, coastal community, serving as residences. Land ownership for the largest portion is under Moloka`i Ranch's control. The three main differences distinguishing the West End from the rest of Moloka`i are her geography, her environment, and her people. To these values can be added statistical figures showing over 376⁹⁷ households, averaging 3.7 persons each (approximately 1,504 population), with median incomes of \$39,000.00⁹⁸ per year, which includes wealthy owners in Kaluakoi.

The median income for the majority of Maunaloa community's population is \$8,000.00 to \$15,000.00.⁹⁹ The great majority is in federal and state funded housing. The great number of the Maunaloa residents is on welfare, Section 8 assistance, or both. There are fee simple lots interspersed. Many of the Maunaloa residents survive within the subsistence economy of hunting and fishing.

West Moloka`i includes the mountain range with Kopala and Amikopala peaks reaching 3,000 feet above sea level. The ridges and valleys sloping off this range provide rugged and natural barriers. Natural sandy beaches wind along the coastline. The coastline harbors a large variety of marine life.

Within this geography and environment reside the residents of Maunaloa, with its inherent challenges of a dense population in close living quarters. The goals of this policy statement are to improve and enrich the lives of West End residents.

II. SUBSISTANCE:

⁹⁴ United States Department of the Interior Geological Survey Map, Island of Molokai, 1952.

⁹⁵ Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press.

⁹⁶ Hawaiian Government Survey Map of Molokai, Triangulation by W.D. Alexander and M.D. Monsarrat, 1897; Map by F.S. Dodge. C.J. Willis and S.M. Kananui.

⁹⁷ Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm.

⁹⁸ Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm.

⁹⁹ <http://www.city-data.com/city/Maunaloa-Hawaii.html>. This is to differentiate the difference in median between Kaluakoi and Maunaloa displaying why Maunaloa is primarily subsistence.

Moloka`i is home to one of the few remaining rural communities in the state recognized as a cultural kipuka, a repository of Native Hawaiian values, knowledge, and practices.¹⁰⁰ Apart from Ni`ihau, the island is home to the highest percentage of Native Hawaiians. Moloka`i, unlike the rest of the state, has also continued to retain a substantial amount of available land and resources for traditional and customary and subsistence practices. Such traditions and customs are actively practiced and evolving. Many Moloka`i families rely upon traditional and customary and subsistence practices, not just to feed their families, but to contribute to the perpetuation of Native Hawaiian culture, spirituality, and connection to the land and ancestors. As a cultural kipuka, Moloka`i is thus an “[oasis] from which traditional Native Hawaiian culture can be regenerated and revitalized.”¹⁰¹

The ability of Native Hawaiians on Moloka`i to continue traditional and customary practices may play a critical role in maintaining the island's cultural integrity across Ka Pae `Āina o Hawai`i (the Hawaiian Archipelago). Ensuring continued access to, and the health of Moloka`i's natural and cultural resources, is critical for the perpetuation of traditional and customary practices, including fishing, gathering, cultivating lo`i kalo, hunting, caring for burials, and accessing sacred and religious sites.

Axis Deer were given to King Kamehameha V and were part of the kingdom from 1860s. In this subsistence culture of the West End Maunaloa residents, deer are crucial for the survival of families. Subsistence should supercede commercialized hunting. In subsistence hunting, one hunts for game when food is needed. Hunting opportunities should be limited to Moloka`i residents. In the past, generations working in harmony with lessees of Moloka`i Ranch posed no problem. We would let them know we needed to hunt deer for food for our families. The lessee would check his calendar and let us know an appropriate date we could hunt. The current lessee treats the land as his, refusing entry to Maunaloa residents to hunt for what has fed our families for generations.

An appropriate hunting management plan is crucial for our subsistence hunting, to prevent overgrazing, to control the deer population, and to maintain a strong genetic strain of deer. The problem with overgrazing is not only lack of nutrition of the deer, but the additional erosion issue caused by deer by overgrazing. With the overgrazing and resulting erosion is the silting of our oceans and the killing of our reefs unbalancing the sea's ecology. This threat further impacts our fishing which along with deer sustains our families.

The danger with commercialization is the changing of our life's resource to a commodity. When that resource becomes a commodity, what we need to eat becomes a crime to shoot for our survival. That forces us to become criminals to survive. We should retain gathering rights for subsistence rather than being forced to become criminals to survive.

Selling of meat is objected to by the majority of the Maunaloa residents. Domestic and wild grazing animal monitoring by the community is of the utmost necessity. Commercialization of this resource infringes on the subsistence of the Maunaloa residents.

GOAL AND ACTION:

A. Access to Hunting Grounds:

¹⁰⁰ Dr. Davianna McGregor, a leading scholar and expert on Native Hawaiian traditional and customary rights, notes that only a handful of Native Hawaiian communities have managed to continue, unbroken, the traditions and customs of their ancestors. Dr. McGregor has identified the island of Moloka'i as one of the few remaining intact Native Hawaiian communities. McGregor explains that protecting these cultural kipuka is essential to the perpetuation of Native Hawaiian culture throughout Hawai'i, because they are oases from which "Native Hawaiian culture can be regenerated and revitalized in the setting of contemporary Hawai'i."

Davianna Pomaika' McGregor, Na Kua`aina: LIVING HAWAIIAN CULTURE, UNIVERSITY OF HAWAI'I, PRESS 8, 12 (2007).

¹⁰¹ *Id.*

1. When hunting to feed their families, Maunaloa hunters should be given priority for hunting passes.
2. Current lessee should be held in compliance by Moloka`i Ranch to permit Maunaloa hunters to their gathering rights for subsistence.

B. Implementing Hunting Management Plan:

1. A two Buck Tag System Pass of a group of 10 hunters will be issued to them in which they will be responsible for hunting unlimited does but an overall limit of hunting two bucks that day. The deer controlled management hunting should be maintained between Moloka`i Ranch and Maunaloa residents. During a certain time of year take out does, another time of the year, bucks. Bucks reach their antler peak within 4-5 years. There is a focus to control the deer population to prevent overgrazing and to keep deer genetically healthy for the future generations. The Tag System is to be implemented for the entire year.
2. **SHUT DOWN SEASON:** Winter is the shutdown season. October through February is the drop season for bucks and does. Does give birth and bucks drop their horns.
3. **OPEN SEASON:** Open season for the bucks and does is from spring through summer, March through September. The bucks' breeding season is from the end of spring through summer. Balance will be maintained by controlled management hunting between subsistence and trophy hunters. Shoot for food then you trophy hunt for your two bucks. Any buck with horns from base to tip of 31 inches is considered for the trophy hunt.
4. Give Maunaloa community first PRIORITY on passes for subsistence. Maunaloa hunters responsible for two buck Tag System per 10 hunters unlimited does, but allowed to shoot two bucks that day. The two buck system will prevent indiscriminate shooting by trophy hunters. A good measure is shooting bucks with antlers measuring 31 inches from base to tip.
5. Another facet of management control is shooting old bucks and diseased deer. This is every hunter's responsibility to maintain genetic strength.

The Maunaloa hunting community is in the process of educating the younger hunters to follow this hunting management plan. The intention is to set an excellent example for the young for proper hunting management. The challenge is to get compliance.

C. Fishing:

Fishing is also done for subsistence. Sustainability is for all future generations of Moloka`i. There are three fishponds around Waikane Gulch that are in bad disrepair.

It is full of mud, grass, and mangrove. The rocks have all fallen and need to be restored. The resource of o`io, mullet, and moi will feed many in the Maunaloa community. The structure is still there. It remains a sustainable resource of o`io, mullet, and moi. Fishponds are the life of the people and part of the `āina. No man can own it. Fishponds belong to the people.

The importance of maintaining the ecology of the sea is at the same time protecting a resource that must be sustained. Every individual must malama the ocean as they malama the `āina. With carelessness and greed, this great resource will be sadly depleted for our future generations.

In the past generations working in harmony with lessees of Moloka`i Ranch posed no problem. We would let them know we needed to fish for food for our families. The present lessee has refused Maunaloa residents access to their gathering rights. This current lessee treats the land as his, refusing entry to what has fed our families for generations.

GOALS AND ACTION:

Maunaloa Policy Statement

A. Clean and Restore:

1. The three fishponds around Waikane Gulch be restored, cleaned, and maintained. Access will remain under Moloka`i Ranch control. Moloka`i Ranch should provide needed supplies for the restoration and cleanup of the fishponds. The Maunaloa residents should provide their labor for the restoration, cleanup, and maintenance of these ponds.
2. De-silt fishponds, remove mangrove and wood chip for biomass use, repair pond walls, successively strip keawe for biomass and replant with indigenous grasses and food bearing trees to control siltation.

B. Malama (Take Care of, Preserve, Protect) the Ocean:

1. Every individual needs to use common sense. Leave the area better than when you arrived. Bring opala (rubbish) in, take opala out. Dump into a trash bin.
2. Coral reefs are fragile. Prevent destruction.
3. Take steps to prevent siltation. Silt has detrimental effects on coral reefs, fish, limu, and other resources Maunaloa needs for subsistence.
4. Make sure sewage system is operating to prevent sewage spillage.

In short, the natural resources of deer and marine life found on the West End of Moloka`i are extensive and require careful treatment. Working in harmony with Moloka`i Ranch is crucial for a win-win situation.

III. CONTAMINATED WATER CONCERN:

In 2015, Maunaloa residents received a mailer informing them that the water was contaminated. Though the problem is supposedly resolved, water coming out of the spigot is still an unhealthy brown. A teacher at Maunaloa School purchased water for her students, refusing to allow them to drink from the water faucet. There are many keiki and kūpuna in the Maunaloa community.

The water the Maunaloa community drinks travels an irrigation ditch. In this ditch is tilapia. The spraying of the fields surrounding the irrigation ditch also impacts the quality of the drinking water. By the time the water reaches our faucets, it still remains an unpalatable brown. Promises were made on several occasions by Moloka`i Ranch. The article was in the Molokai Dispatch, noting that this water transport and quality issue has existed for a number of years. The article states:

For the past five years, Molokai Properties Limited, better known as Molokai Ranch, has been illegally transporting drinking water to West End residents through water lines intended to serve agricultural users. Now, they are seeking to legalize their use of the Molokai Irrigation System (MIS) and obtain a permit to continue transporting water through the irrigation lines.¹⁰²

According to the Molokai Dispatch, the Molokai Irrigation System (MIS) was last improved in 1960. The article states:

Improvements to the System: According to the video presented by the DOA, the MIS system is approaching its project life and needs to begin replacement of its major components. The system, which was originally scheduled to have four stages of development that would allow for transport of over 20 million gallons of water per day (mgd), only ever saw the completion of stage one, which was finished in the 1960s and currently has a capacity to transport two to three mgd, according to Teruya.¹⁰³

According to the Molokai Dispatch, September 10, 2007:

¹⁰² <https://themolokaidispatch.com/ranch-seeks-to-renew-water-permit/>. Molokai Dispatch, 7/29/2012, by Eileen Chao, **Ranch Seeks to Renew Water Permit**

¹⁰³ <https://themolokaidispatch.com/know-your-water-know-your-responsibilities/>. Molokai Dispatch, 10/28/2012, by Eileen Chao, **“Know Your Water, Know Your Responsibilities”**

Molokai Ranch to Lose Access to Molokai Irrigation System. Attorney General: Molokai Ranch must get off the Molokai Irrigation System until an environmental assessment has been completed. Molokai Ranch must complete an environmental assessment in order to continue using the Molokai Irrigation System (MIS) to transport water to its west-end properties. A letter from the attorney general’s office said that the Ranch must get off the state run pipeline until the study is done. In the letter, deputy attorney general, Myra M. Kaichi, said Molokai Ranch must remain off of the system “until all environmental effects, if any, are sufficiently and properly addressed.”¹⁰⁴

And from the Molokai Dispatch February 28, 2011 issue:

“West Molokai gets the bulk of its drinking water from Well 17, which is located next to Kualapu`u town. The use of this Well 17 has been illegal for the past four years. How can this be? It must be politics....they put the clean water from Well 17 into the dirty agricultural water of the Molokai Irrigation System (MIS). They do this so they can use the existing MIS water transmission pipe to get to West End, instead of putting in their own line like they promised. And it gets worse – for the past two years the use of this transmission line has also been illegal...we have Molokai Ranch operating an illegal well, using an illegal pipeline and yet charging customers ridiculous water prices on West End”¹⁰⁵

GOALS AND ACTION:

A. Update Water Transport System:

1. Check, update and if necessary, reconstruct the infrastructure water delivery system to West End.
2. Start the construction in 2016 or 2017. Test for contaminants every two months. Have results validated by a third-party, such as Abbey Lab.
3. DOH and University of Hawai`i should do separate testing of water.
4. Test for contaminants at the residential faucets of seven homes quarterly.
5. Ensure safe, efficient and reliable island-wide water systems through protection, improvement, regular testing, replacement, and enhancement of the existing water supply, and development of new water sources.
6. Lower water rates. Maunaloa pays highest rates in the nation¹⁰⁶ for contaminated water.

IV. COMMUNITY SERVICE CENTER:

The distance and subsequent response time of emergency services to West End has been a great concern; moreover, response time is likely to increase as island growth continues. The remote location of the West End with respect to Kaunakakai limits its access to human services in many categories.

Due to the central location of these services and the relative length of the island, an emergency at one end empties the service facility, leaving the opposite end uncovered.

Again, distance from Kaunakakai limits access to the public library, eliminating the many elementary-aged students and senior citizens of this area from its service.

¹⁰⁴ <https://themolokaidispatch.com/molokai-ranch-lose-access-molokai-irrigation-system/>. Molokai Dispatch, 10/10/2007, by Hilary Dyer, “**Molokai Ranch to Lose Access to Molokai Irrigation System**”

¹⁰⁵ <https://themolokaidispatch.com/molokai-ranch-water-wars/>. Molokai Dispatch, by Molokai Dispatch Staff “**Molokai Ranch Water Wars**”

¹⁰⁶ <https://themolokaidispatch.com/appeal-of-ranch-water-rates-denied/>. Molokai Dispatch, 7/1/2012, by Eileen Chao, “**Appeal of Ranch Water Rates Denied**”

No provisions for storage/display of the many archeological and cultural resources West End holds have been provided for. Subsequent loss of Moloka`i treasures to other island display centers must be prevented.

Drug abuse is one of the top concerns of the Maunaloa community. With dense population living conditions, unemployment, and welfare mentality, drug abuse becomes a problem.

Residents must travel off-island if they wish to cremate a loved one's remains. kūpuna (elders) have made a request for a Moloka`i crematorium.

GOALS AND ACTION:

A. Build a Community Service Center:

1. Build a West End Community Service Center. This facility will house medical, dental, health, and drug abuse services. A library-cultural center will be part of service center.
2. Build a drug abuse treatment halfway house, (which should be isolated to permit for proper drug treatment) on the West End.
3. Build a fire station and a police station.
4. Build a crematorium.
5. Have ambulance services housed in the Community Service Center.

The location of these service centers should be on the West End on the top of Kaluakoa. This location best serves the entire West End.

V. PUBLIC FACILITIES:

Due to the geographic makeup of the West End's shore, public facilities include one state highway, seven public rights-of-way to the beach, one day park, and a community center. A number of privately owned beach accesses are in general public use, but do not qualify as such under this group. No public access to hunting exists.

The seven beach access paths are Kaunala (Dixies), Pakaa, Puukoai (High Parking Lot), Poolau (Shit Creek), Midway, Papohaku Beach Park, and Pohakumauliuli (Make Horse).

West End has a mixed residential population; however, these access paths are used by the entire island, as well as a growing visitor industry, for its attractive recreational and hunting value.

Moloka`i's ocean-oriented population is restricted to one boat launching ramp in Kaunakakai, which is expected to provide access to over 70 miles of prime coastal and offshore fishing areas. The exorbitant fuel consumption cost and weather difficulties prohibit use of much of this area.

The community presents these recommendations. The entire island would benefit over the effective duration of this community plan. These solutions/ improvements are chosen to create the least amount of privacy infringement on adjacent residents while maximizing use of the available areas/resources and sharing the burden among the State of Hawaii, Department of Transportation, Harbors Division and Moloka`i Ranch.

GOALS AND ACTION:

A. Fix Roads and Access Paths to Beaches:

1. Repave Kaluakoi road, it is in bad need of repair. Both Moloka`i Ranch and the City and County and wealthy landowners should share the repair cost. All City and County vehicles utilize the same road.
2. Fix deplorable conditions of access paths.

B. Maintain Public Facilities in Existence:

1. Keep public facilities in proper maintenance.

VI. ENVIRONMENT AND NATURAL RESOURCES:

The West End's environment, rich in natural resources, balances on a sensitive ecosystem that requires the utmost in planning care for its survival. A detailed understanding of its content and the hazards it faces are required to carry out this task.

Water - The importance of water to the Native Hawaiian people is captured in the `olelo no`eau, "ala i ka wai (water is life)." Traditional Hawaiian management of this precious resource assured mauka to makai stream flow, which provided sufficient water for food production, drinking water, native stream life, healthy estuaries, and groundwater recharge. Groundwater sources, such as springs and anchialine ponds, were also highly respected and cared for. Today, access to and proper management of water continues to be necessary for a thriving Native Hawaiian people and culture. The health of Moloka`i's streams, fishponds, and nearshore and estuarine environments depend upon sufficient freshwater discharge. Decreases in the levels or quality of discharge from over withdrawal or stream diversions may have devastating impacts to marine resources, as well as the cultural and subsistence practices that depend on these resources.

Pursuant to Article XI, sections 1 and 7, Hawaii Constitution, water is a public trust resource, held in trust by the State for the benefit of the people, for both present and future generations.¹⁰⁷ Court decisions have affirmed that state and county permitting agencies have affirmative and independent obligations to ensure that our public trust water resources are protected and used for the public benefit. This means that traditional and customary practitioners, domestic users, the DHHL, appurtenant right holders, and the environment should receive priority consideration in the decisions that may affect the allocation of public trust water resources. Use of Moloka`i's precious and limited water supply has given rise to a number of challenges over new wells, water allocation, groundwater pumping, and the use of transmission lines, which have yet to be resolved.¹⁰⁸

Soil - The soil once fertile is now lacking in nutrients. Being the most erosion-prone island in the Hawaiian chain, overgrazing of natural and introduced vegetation can have detrimental effects. The indigenous varieties of grasses (i.e. pili) cannot tolerate being eaten to the roots and trampled upon, necessitating careful management of pasture and Kula lands.¹⁰⁹ Because of overgrazing, the runoff mud goes into the fishponds and kills off the reefs. Soil depletion is the direct result of overuse of the planting of pineapple fields. Agriculturally the soil is of poor quality.

Ocean - The rich environmental characteristics of the land give rise to a pristine ecosystem correspondingly as rich. Both nearshore and ocean gathering opportunities remain adequate for commercial and domestic purposes.

Flora and Fauna – Kamakou Preserves on the West End contain habitats where indigenous plant life still exists. These habitats, whether mountain or coastal located, often provide the surroundings necessary for endangered animal life to survive, such as the Koloa Duck and Hawaiian Stilt. These areas further provide habitats for endangered birds as well as nesting grounds for several migratory species.

¹⁰⁷ See, e.g., HAW. CONST. ART. XI SECS. 1 & 7, ART. XII SEC. 7; HRS§§ 1-1, 7-1, 174C-101; HRS CHAPTER 174C; *In re Water Use Permit Applications*, 94 Hawaii 97, 9 P. 3d 409 (2000) (Waiahole I); *Ko'olau Agricultural Co., Ltd. v. Comm'n on Water Res. Mgmt.*, 83 Hawaii 484, 927 P.2d 1367 (1996); *Reppun v. Bd. Of Water* See, e.g., HAW. CONST. ART. XI SECS. 1 & 7, ART. XII SEC. 7; HRS§§ 1-1, 7-1, 174C-101; HRS CHAPTER 174C; *In re Water Use Permit Applications*, 94 Hawaii 97, 9 P. 3d 409 (2000) (Waiahole I); *Ko'olau Agricultural Co., Ltd. v. Comm'n on Water Res. Mgmt.*, 83 Hawaii 484, 927 P.2d 1367 (1996); *Reppun v. Bd. Of Water* ~, 65 Hawaii 531, 656 P.2d 57 (1982).

¹⁰⁸ See *In Re Wai'ola O Moloka'i, Inc.*, 103 Hawaii 401 (2004) and *In Re Water Use Permit Application ("Kukui Molokai Inc.")*, 174 P.3d 320 (2007). These cases remain unresolved, but have been remanded to the Hawaii Commission on Water Resource Management.

¹⁰⁹ Hawaiian Dictionary Mary Kawena Pukui/Samuel H. Elbert copyright 1986 University Hawaii Press. Pg. 178. 1. n. Plain, field, open country, pasture. An act of 1884 distinguished dry or *kula* land from wet or taro land.

GOALS AND ACTION:

A. Water:

1. Control withdrawal from wells. Expanded withdrawal may have significant effects to freshwater discharge into streams, which may have a detrimental effect on natural, cultural, and subsistence resources.
2. Recognize the priority water rights of Native Hawaiians under the Hawaiian Homes Commission Act, the Hawai`i State Constitution, the State Water Code, and court decisions. Protect, restore, and enhance surface and subsurface water sources.
3. Support better management and oversight of water withdrawal, including through complete reporting for all existing wells and permitted groundwater withdrawals, to ensure accurate sustainable yields.
4. Recognize that water is held in public trust by the State, for the benefit of the people. Public trust purposes, which receive priority over private commercial uses, include domestic uses, Native Hawaiian and traditional and customary rights, appurtenant rights, environmental protection, and reservations for the DHHL.¹¹⁰
5. Protect, restore, and enhance surface and subsurface water sources, stream habitats, and priority watershed areas to support groundwater aquifer recharge, aquatic and environmental processes, and riparian, scenic, recreational, and Native Hawaiian cultural resources, as well as constitutionally-protected Native Hawaiian traditional and customary practices.¹¹¹

¹¹⁰ See Waiahole I, 94 Hawaii 137-39 and Waiaola o Molokai, 103 Hawaii 401, 431, (2004). See also, HAW. CONST. ART. XI SECS. 1 & 7, ART. XII SEC. 7; HRS §§ 1-1,7-1, 174C-101; HRS CHAPTER 174C; In re Water Use Permit Applications, 94 Hawaii 97, 9 P. 3d 409 (2000) (Wai`hole I); Ko`olau Agricultural Co., Ltd. v. Comm'n on Water Res. Mgmt, 83 Hawarl 484,927 P.2d 1367 (1996); Reppun v. Bd. Of Water Supply, 65 Hawaii 531, 656 P.2d 57 (1982). For additional information, see also D. KAPUA'ALA SPROAT, OIA I KA WAI: A LEGAL PRIMER FOR WATER USE AND MANAGEMENT IN HAWAI'I (2009), available at <https://www.law.hawaii.edu/files/content/news/18470/WaterPrimer.pdf>.

¹¹¹ These priority uses of water are constitutionally and statutorily established bases for protecting, and in some cases, restoring stream flow to support traditional and customary uses. See, e.g., Waiahole I; see also HRS § 174C~2(c) (“[A]dequate provision shall be made for the protection of traditional and customary Hawaiian rights ...”).

B. Control Erosion:

1. Control deer population.
2. Control cattle grazing.
3. Replant areas with indigenous plants.
4. The possibility of growing marijuana or hemp as a medicinal crop would fertilize the soil and boost Moloka`i's economy.

C. Be Prepared for Tsunami:

1. Inundation areas are common along the Kaluakoi coastal areas. Again, intensive coastal land use in multi-family - resort is discouraged in view of this hazard.
2. High water table of the low-lying coastal areas of the West End are subject to tidal surges. Commercial development as multi-family or resort, with their corresponding sewage disposal problems can irreparably damage this groundwater along with the pristine ocean water it is in contact with. This activity is discouraged in these areas and must be located in regions where this impact can be avoided.

D. Keep Ocean Pristine:

1. Protect mauka to makai stream flow, which is essential to the survival of native stream life.
2. Prevent erosion and silt deposits.
3. Protect coral reefs from degradation.
4. Clear invasive limu and fish.
5. Keep sewage system repaired and operable to prevent sewage spillage.
6. Pick up opala (rubbish). Take opala with you and throw in the trash bin.

E. Prevent Invasive Species Growth:

1. Use common sense. Brush shoes and clothing before entering Kamakou.
2. When you travel in vehicle up to Kamakou, make sure tires are brushed free of roots, pollen, and seeds.
3. Use common sense to preserve the area as you found it.

VII. CULTURAL RESOURCES AND TRADITIONAL LAND USES:

For the Native Hawaiian, West End was figuratively any place "more west" of where they lived; and with their tradition, this meant "closer to the sunset."

It is within this context that a *Maunaloa West End Policy Statement* should be designed. This section serves to describe the traditional resources of the West End, historically and presently, and at the same time, direct this policy statement towards a more beneficial and realistic land use with respect to traditional values.

The west end community wishes to include here the provision of Article 12, Section 7, Hawaii State Constitution, which reads:

The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778 subject to right of the State to regulate such rights.

State and county governments and agencies have obligations to protect the traditional and customary practices of Native Hawaiians. Relying on the rights recognized in key constitutional and statutory provisions, as well as

court decisions. The Hawai`i Supreme Court established an analytical framework for state and county agencies to follow when considering land use and development projects.¹¹² Under this framework, agencies must identify (1) the scope of valued cultural, historical, and natural resources in the area, including the extent which traditional and customary rights are exercised; (2) the extent which these resources will affect or be impaired by the proposed action; and (3) the feasible action, if any, to be taken to reasonably protect native Hawaiian rights, if found to exist.

In 2000, recognizing that the State had a specific “duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups,” the legislature determined that Hawai`i’s environmental review process, Chapter 343, HRS should include a consideration of the effects of proposed action on cultural practices.¹¹³ Guidelines for cultural impact assessments clarify that the analysis should include information relating to the practices and beliefs of cultural or ethnic groups in and around the project area, and that individuals and organizations with expertise should be consulted.

Traditional lands embody the concept of aloha `āina, Land Care (malama the `āina) rather than Land Use. Aloha, dedication, and concern is returned providing all the needs and wants required to sustain this traditional love.

Historically, Hawaiians knew no land ownership. They shared the land. There were political divisions of land called ahupua`a, or districts with natural geophysical boundaries. There were areas where Hawaiians built their homes, raised their families and grew their `uala (sweet potato). There were also areas where they cultivated their kalo (taro), together, as a community.

Visitors and residents alike are less than cognizant of the importance of preventing damage to hunting and fishing and cultural resources.

Accesses to the mountains for gathering of materials for building or for medical needs were guaranteed as were accesses to and along the shoreline for fishing. In addition, the Hawaiians collectively built, stocked, managed, and shared the resources of their ahupua`a. Water was essential for personal needs. Hawaiians knew that the streams had to empty into the ocean in order to continue the delicate brackish water environment for spawning of fish and the harvesting of limu (seaweed). These very streams also fed the auwai (aqueduct), which in turn supplied the streamlife with all the nutrients necessary for productivity. Above all, there was a strong sense of community and and `ōhana. The kuleana (responsibility) for the land and the environment, and resources of the mountains, flatlands, marshlands, fishponds, reefs and ocean is also carried by the people for the survival of generations to come. Given the social, economic, political and environmental conditions of Moloka`i, the relative integrity of the West End area's cultural resources of over 200 cultural sites¹¹⁴ must be protected and maintained. There are numerous archeological sites, most yet to be surveyed, bountiful coastal areas, and limited accesses maintained for hunting and fishing. The interconnecting of the land with the environment, the resident and the well-being of the resident’s survival, plays a major role for West End residents. The concept of Aloha `Āina with regards to traditional land practice is ever more important today in light of impending loss of the resource to economic and development pressures. There is a strong identity of Hawaiians with the lands, and a supportive community for a subsistence kind of lifestyle and desire for this way of life, in keeping with the ways of the kūpuna.

Throughout Moloka`i’s landscape there is an abundance of archaeological and historic sites and traditional cultural properties that document habitation by ancient Hawaiians, as well as the more recent immigrants and their settlements. Archeological, historic, and cultural resources combine to express the heritage of the people and place. Today, numerous Native Hawaiian traditional and customary practices, including fishing, gathering, cultivating lo`i hunting, caring for burials, and accessing sacred and religious sites, continue to be practiced on Moloka`i. The health of Moloka`i’s natural and cultural resources, and access to these resources by Native

¹¹² See Ka Pa`akai O Ka `Aina v. Land Use Comm'n, 94 Hawaii 31 (2000); see also Pele Defense Fund v. Paty, 73 Hawaii 578 (1992); see also Public Access Shoreline Hawaii v. Hawaii County Planning Comm'n, 79 Hawaii 425 (1995).

¹¹³ Act 50 (2000).

¹¹⁴ Halona Ka`opu`iki possesses photos of these cultural sites.

Hawaiian practitioners, mauka to makai, is critical to the perpetuation of Native Hawaiian culture. Many residents practice a subsistence lifestyle, relying upon the island's resources for fishing, hunting, and gathering. The people of Moloka`i are proud of their history, cultural identity, and unique Molokai lifestyle, and are determined to uphold and strengthen these qualities for future generations.

The island's natural resources are intimately connected to the cultural resources. Together they provide the foundation for the traditional Hawaiian lifestyle. Until the 1800s, a communal system of land tenure and subsistence enabled ahupua`a tenants to access the land and its resources for subsistence, medicinal, cultural, religious, and other purposes. By the mid 1800s, Europeans and Americans were established on Moloka`i. During the Mahele (land division) private interests in land were established, but these interests were subject to the rights of native tenants. As the European and American populations increased, the plantation and ranching industries took hold of the island, producing 19 commercial ventures operating throughout the 1800s and 1900s. Several small-scale attempts at sugarcane cultivation were made between 1870 and 1900.

The people of West End wish to secure this style of living, traditional in basic philosophy due to subsistence economy of the West End (Maunaloa area). This is their privilege.

GOALS AND ACTION:

A. Educate and Develop:

1. Educate visitors, including visitors engaged in hunting and fishing, about the importance of natural and cultural resources to the cultural and subsistence practices of Molokai's residents, and how they may prevent damage to these resources.
2. Recognize and support sustainable agricultural, forestry, and game best management practices and sustainable subsistence fishery management as key elements to maintain, preserve, and protect Molokai's land, water, and marine resources.
3. Support the development of game, fishery, and coastal management areas and management plans.
4. Support the establishment of the island as a community-based subsistence fishing area pursuant to Section 188-22.6, HRS, in order to preserve marine and nearshore resources for generations to come.
5. Promote the education of visitors on the significance of historic and cultural sites, how to be respectful of these sites, and how to support the maintenance and preservation of these sites.
6. Educate property owners regarding the need to prevent damage to, or destruction of, historic and cultural sites.
7. Develop educational materials addressing heritage and natural resources impacts from unpermitted ground altering activities; disseminate educational materials widely, including to private landowners and visitors; provide instructions for reporting unpermitted activities.
8. Develop Moloka`i cultural events (Makahiki and Ka Hula Piko) and tourism guidelines that protect island culture and natural resources.
9. Fracking is disallowed and nuclear power plants are illegal.

B. Survey and Document:

1. Survey and document all archaeological sites with immediate efforts toward preservation of the cultural integrity of the sites or districts, including nominations to the State and Federal Registers of Historic Sites.
2. Renominate all sites that were dropped from the State Register of Historic Places in 1979 in the West End.
3. It is necessary to conserve and preserve the entire range of archaeological or historical properties with smaller sites given deserved priority as equally as large site.
4. Full consideration given to the religious and cultural significance of locations as well as established practices.

C. Guarantee Access and Preservation:

1. Guaranteed accesses with appropriate management plans:
 - a. Mauka, makai, west and east directions of the ahupua`a for gathering purposes and hunting.
 - b. Historic sites and sacred traditional places.
 - c. Shoreline.
2. Blanket recognition that fishponds remain intact, not to be developed for any other purposes. Fishponds have the high potential for aquacultural use. Archaeological and historic concerns shall be considered before reuse of fishponds to preserve scientific knowledge contained. Preserve and maintain any fishpond system complex such as hatchery, pond, or trap characteristics.
3. Tax shelters and/or incentives to accomplish the above.

D. Moratorium:

1. A moratorium on the use of water which will guarantee the environmental conditions necessary to promote the above.
2. A permanent moratorium against the development of tourist-related accommodations or businesses which will subsequently change the social infrastructure of the area.

E. Create Programs, Conserve, Preserve, Protect:

1. Create additional cultural and traditional land use programs (i.e., a Lima Hana O Na Opio at Ka `emole and Ke Kula Ho `O Naauao Moloka`i at Keawanui).
2. Extend conservation protection to traditional lands under the DLNR regulations.
3. **Insure** and appropriately preserve this valuable resource, the most certain recommendation would be the creation of an additional land use designation category under State and County parameters, "Traditional Land", with corresponding permitted use.

F. Reforestation of Mount Ka`ana:

1. Reforest with native (indigenous) plants.
2. Reinforce the surrounding fence to protect replanting from deer and cattle.
3. Access to Mount Ka`ana be provided by permission from Moloka`i Ranch. This area should not be promoted by the visitor's industries. Ka`ana, the famous birthplace of hula, is known as the piko (the center, navel). It is home of the Goddess Laka. The Goddess Laka is a person who was deified when she became the patroness of the hula and respected throughout Hawaii. Ka`ana is still considered sacred by Hawaiians and the hula world today. Ka`ana remains significant in traditional cultural and religious hula practices today.

VIII. SOCIAL AND ECONOMIC RESOURCES

1. The West End is made up of residents having a wide variety of backgrounds, origins and cultures. Of these differences, the majority of the community shares a common system of values best explained by the following:
2. A profound concern for the land and the care it deserves, and for the support it can provide.
3. An avid interest in the ocean for its recreational value as well as for the bountiful sustenance it can provide.
4. A deep respect for Hawaiian cultural remnants of the past in the numerous heiaus, activity areas, and the gravesites West End contains.
5. A strong sense of community, more particularly, the West End community, and the common activities it comprises, such as sports, educational programs, and growth.
6. A firm belief in lifestyle and aloha for the West End it portrays.

To these values can be added statistical figures showing over 376¹¹⁵ households, averaging 3.7 persons each

¹¹⁵ Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm

(approximately 1,504 population), with median incomes of \$39,353.00 per year, which includes wealthy owners in Kaluakoi. The median income for the majority of Maunaloa community's population is \$8,000.00 to \$15,000.00¹¹⁶. The great majority is in federal and state funded housing and there are a great number of the Maunaloa residents on welfare, section 8 assistance, or both. There are fee simple lots interspersed. Many of the Maunaloa residents survive within the subsistence economy of hunting and fishing.

This limited breakdown suggests growth pattern guidelines must be unusually strict to prevent commercial development displacement of the larger portion of this population. By income, educational measures, and economic opportunity of West End residents, growth pattern guideline concern must be reflected by the County of Maui.

Economic growth has to proceed with this value/income system in perspective. Placing the West End in a single industry category as resort will subject residents to an employment situation for which there is little experience or training. Jobs would be of service-maintenance orientation and competition from in-migration would be high as on Maui.

A preferred avenue to follow would be one that makes better use of the present natural and social resources available in West End.

An economic development scheme suited to the skills of the residents, the resources of the land and one providing an employment position that can combine pride, a sense of accomplishment, possibilities for expansion and a general sense of well-being on the part of the community.

Moloka`i Ranch carries the kuleana (responsibility) to malama (take care, preserve, protect) the land under their care. Great irresponsibility was displayed in the destruction of what were once beautiful coconut trees. Rather than seeking further construction, rebuild what currently exists. This would generate employment providing islandwide benefit to residents and tourist alike. These derelict buildings are a potentially great economic resource. This is a quote from a Molokai Dispatch 2012 issue. (<https://themolokaidispatch.com/ranch-seeks-to-renew-water-permit/>) “**New Ranch Developments:** Rumbaoa said the Ranch is planning on re-opening the Kaluakoi Resort Hotel—which would host 144 rooms –and 18-hole golf course in the near future.”

The West End residents urge the County to coordinate the various state, private, and county agencies to carry out these goals and actions.

GOALS AND ACTION:

A. Aquaculture:

1. Direct proposals by private aquaculture to the West End.
2. Apply County assistance to aqua-system already in operation if one exists.
3. Investigate possibilities for ocean aquaculture for fishponds and pilot studies begun in both "traditional" and "modern" techniques.
4. County economic development programs assist community representatives in securing public and private grants, techniques and marketing information, land acquisition and management for achieving this economic base.
5. Begin an aquaculture curriculum in Community College adult and student education programs through the University of Hawaii, Department of Education, Kamehameha Schools, Bishop Museum, and private industry.
6. Investigate and initiate aquaculture programs for the following industries on Moloka`i:
 - a. marine sea turtle hatchery;
 - b. Pacific spiny lobster hatchery;

¹¹⁶ <http://www.city-data.com/city/Maunaloa-Hawaii.html>. This is to differentiate the difference in median between Kaluakoi and Maunaloa displaying why Maunaloa is primarily subsistence

- c. cultured pearl farming;
 - d. oyster farming;
 - e. bait fish projects; and
 - f. seaweed and crab farming.
7. Assist total agriculture- aquaculture programs where permits:
- a. de-silt fishponds;
 - b. remove mangrove and wood chip for biomass use;
 - c. repair pond walls;
 - d. successively strip keawe for biomass and replant with indigenous grasses and food bearing trees to control siltation; and
 - e. locate agriculture - aquaculture operations to beneficially utilize entire location.

B. Agriculture:

1. With tax assessment abilities, encourage agricultural use of available lands in the West End. Consider the growing of medicinal marijuana **or hemp** as a viable economic crop.
2. Open more state land to agriculture endeavors and assist with application formalities.
3. Coordinate common marketing techniques to aid distribution.
4. Discourage non-agricultural use of agricultural lands.
5. County encouragement of private investment to be directed to available West End areas. Positive assistance should be provided to induce commitment to the long range, low profit-density of agriculture in the West End area rather than the fast, high profit of resort.
6. State, County and private sectors make available water resources (e.g., wells, rivers) solely for diversified agriculture and animal husbandry. The State and County should identify all available and potential water sources on the island and see whether they could assist in transporting this water to the community for diversified agriculture purposes and at reasonable agricultural price rates (e.g. State buying water from private landowners and selling to community at low agricultural rates).

C. Restore:

1. Restore golf course, restaurant and surrounding buildings at Kaluakoi. Negotiate with Moloka`i Ranch to restore with the help of the **City and County, Honolulu?** This would create employment opportunity as well as tourist interests while utilizing what is already present. The infrastructure still exists at Kaluakoi. This restoration will help rebuild rapport and bridge the distrust that exists between West End residents and the Moloka`i Ranch.
2. Create a driving range and miniature golf course. This creates employment opportunity as well as serves tourist interests. The location would be along Maunaloa Highway on the makai side where a large open space exists.
3. Restore theatre. Basic theater infrastructure in Maunaloa still exists. We would suggest digital downloads to cut operation costs. Negotiate with the vendors of movies for minimal costs.
4. Create Mom and Pop restaurants that deliver to West End residents. Due to exorbitant costs of maintaining a business on Moloka`i, the Mom and Pop stores are a more reasonable alternative. Whether there are a number or simply one that rotates menus remains to be seen. Delivery of meals is an enhancement to the business.
5. Provide a fishing net manufacturing plant. A plant that produces nets at a reasonable cost would be beneficial islandwide. This segues into the people's love of the `āina and their traditional lifestyle and subsistence living.
6. Reconstruct a camping area for utilization by the Moloka`i community for conference meetings and large events. This would be a win-win for Moloka`i community and Moloka`i Ranch. Provide islandwide education for use and maintenance.

The opportunities for alternative economic growth are unlimited in the West End and those listed are but a few that can coexist within the value framework of the West End community. The resident opinion is to stress the desire to preserve this lifestyle we have, and tailor growth so as not to lose the greater part of it or forfeit the options we hope to keep for our children.

IX. LAND USE:

Many of the goals of the community are contained in the area of land use. The West End has many conditions and problems confronting its residents in this area. Its problems need to be clearly understood to effectively provide the answers the community seeks to ensure their local lifestyle and the lifestyles of future generations. Balance must be maintained among community, county, state, and Moloka`i Ranch to create a win-win situation.

Geography-The physical problems facing responsible land use are another aspect. Although statistically the West End contains one-half of Molokai's land area, the actual acreage suitable for intensive land use management is well below that figure. The mountain range and accompanying valleys leave only a small portion available, making any subsequent development product a far greater long range impact than might be first anticipated.

No matter what construction growth the West End community experiences, the cost to present residences are to be kept the same and without increase to fees and/or taxes. This prevents the state from capitalizing on unwanted growth by the people and punishing West End community residents with increased fees and taxes to increase the State's coffers.

GOALS AND ACTION:

A. Taxes:

1. The County to fix tax laws to actual use rather than general area use or potential value use. The depressed economic standard on Moloka`i should be considered in taxation. The majority of livelihood is subsistence.

B. Commercial Development:

1. Limit the height of buildings on the West End to a maximum of two stories.
2. Limit retail-commercial services on the West End to those businesses catering to the residents of the community (e.g., gas station, Mom and Pop businesses).
3. In reference to commercial development, fix what already exists and make it anew. That is Kaluakoi with its restaurant, golf course, empty hotel buildings, and the tent-a-lows at the Kolo, Paniolo, and Kaupo areas. This is regarded by the community to include resort, multi-family apartment/condominium, residential agricultural, subdivision, or industrial types of uses. Where differences exist between agency determination of commercial development, and the community's view of the project, West End residents reserve the right of choice in settling such matters and the development application shall be directed to the community for review.
4. Commercial development of land in West End whether resort, multifamily apartment/condominium, estate ag-subdivisions, or industrial, be directed to the Maunaloa community for review, once guided by the appropriate agencies of the State and County with regard to providing innovative solutions to the aforementioned problems section of this land use category. West End residents reserve the right of choice in settling such matters and the development application shall be directed to the community for review.
5. Developers must be made aware of these difficulties. Developers must do responsible planning to overcome these problems and community impact. Development application to reviewing agencies shall contain addresses to these categories with respect to affected landowners, and meaningful solutions thereto. West End residents reserve the right of choice in settling such matters and the development application shall be directed to the community for review. Development difficulties recommendations:
 - a. Professional title search of all land parcels within 1000 feet of development to include unlocated kuleanas and notification of all possible owners and heirs.
 - b. Registered survey by developer of all surrounding land parcels within 1000 feet of project to pinpoint location and boundaries as well as clear question of unlocated kuleanas if owners or heirs request this donated service.
 - c. Provide access to accommodate present-day modes of transportation to all landlocked or

- unlocated parcels.
- d. Provide access to continue traditional gathering rights.
 - e. Prepare a social impact assessment, identifying potential impact on the community and proposed mitigative measures.
 - f. Document notification to affected landowners and lessees adjacent to a commercial development shall be made at preliminary application review submission.
6. Maunaloa community needs to take an active part in proposed development. Where responsible community concern exists, the impact of a proposed development, and these concerns are in conflict with a governmental reviewing agency, as well as the developer, or his authorized representatives, shall be present to responsibly answer residents' questions. The results of this public meeting shall become part of the application and be used in determining its approval, denial, or provisional changes/additions.
- a. Subdivision of ahupua`a into agricultural lots shall be made to a size that reflects soil type, soil quality and land slope, to encourage agricultural use.
 - b. A professional agricultural feasibility study demonstration to match typical lot sizes shall be made by the developer as a condition of permit approval. Appropriate lot size shall be determined by the developer's agricultural feasibility study.
 - c. Potential water source development, pursuant to Section 14.12, MCC, shall be shown prior to approval so as to not overtax present systems or require more water transfer from the North Shore Valleys. Also, the developer shall demonstrate techniques of water conservation such as recycling or other appropriate schemes.
 - d. At least one-fourth of each individual agricultural lot-owner's property should be under permanent crop cover, such as trees.
 - e. County and state infrastructure must be shown to be adequate or near updating, to minimize development impact.
 - f. All sewage, drainage and environmental problems must be adequately addressed prior to approval. Where differences between agency, developer, or responsible community members exist over "adequacy", an environmental impact statement shall be professionally prepared by the developer in accordance with Chapter 343, HRS to answer these concerns. The statement shall become part of the application and be made available for review by affected parties.
 - g. Archaeological, cultural and historical remains in the development area or surrounding affected region shall be professionally and traditionally investigated before any construction begins. A conservation and preservation orientation is mandated in the consideration of the treatment of archaeological, historical and cultural sites. Historic sites should be saved after they have been identified, rather than bulldozed. Ongoing site monitoring by a professional archaeological entity shall continue throughout the project's development so significant cultural, religious, or scientific properties can be protected and preserved in their natural surroundings for future generations.
 - h. Desecration of grave sites will be treated hastily in the following manner by developers:
 - medical examination of remains to separate individuals;
 - storage of individual remains in containers of native Hawaiian wood immediately after examination;
 - meaningful attempt by developer to research and notify descendants;
 - upon successful contact, reinterment of remains in container at exact location of original burial with complete and appropriate ceremony;
 - under no circumstances are artifacts to be separated from remains or grave sites. They shall be replaced with burial;
 - all artifacts should be documented;
 - commercial land development of coastal areas shall be in strict accordance with the Coastal Zone Management rules and regulations as adopted by the Hawaii State Legislature in 1975;
 - the West End community recommends that the entire island be place in the County Special Management Area (SMA). At the least, the West End area should be included in the SMA; and

- stream channel diversion, filling, bed undermining or material removal for commercial purposes be discouraged by appropriate government enforcement agencies. Where unavoidable, the foregoing activity be carefully assessed by an environmental impact statement prior to commencement and its worth balanced against human need and environmental alteration. Periodic maintenance and/ or clearing by the County or State, by their contracted representatives.
5. Wetlands include identified springs and marsh areas, as well as coastal wetlands areas. Wetland alterations such as filling, draining, or other activity disrupting its ecological function shall be prohibited unless the need outweighs the environmental loss.
- All environmental, coastal zone wetland and wildlife regulations shall be enforced by government regulatory agencies when dealing with commercial development and traditional lands.
 - A continuation of the wetland/ wildlife survey of Moloka`i should be continued into the West End area with documentation of traditional lands.
 - Destruction of these lands by commercial development should be accompanied by penalties making further desecration uneconomical. Landowners should be encouraged to return traditional lands to former use or use compatible with its traditional value by tax credits.
 - Geographical location of commercial development, if centered away from resident impact areas, will lessen the high priced speculative costs of the limited land areas usable in the West End and reduce consequent resident displacement in many cases.
 - Traditionally valuable lands should be given a separate and distinct category under the State Land Use Commission District Boundaries to read: Urban, Rural, Agricultural, Traditional and Conservation.
 - All fishponds and taro kalo lands shall be designated “Traditional”. This will elevate viable agricultural and aquacultural lands from Conservation to Traditional, and apply only traditional methods to “Traditional” land uses. This would protect the fragile ecological balance of centuries, allow Hawaiian culture and values to become a practical way of life today, and not force the land into the financially competitive market of Agricultural designation;
 - All natural resources within the “Traditional” designation shall be protected from disruption except under permitted uses.
 - All Hawaiian cultural, historical, and prehistoric sites be designated "Traditional".
 - Land Tax Assessment: Property taxes, previously administered by the State, are now under the jurisdiction of the County, and the West End community sees this as an effective tool in the implementation of this policy statement. For example, landowners who permit individual access across their property might receive compensation, and in cases of compelling public need, could be offered incentives to permit public access, rather than condemnation threats. The community further recommends the administration of this idea be suitably documented in public tax records as a guard against any showing of favoritism.

C. MISCELLANEOUS GOALS AND ACTIONS:

1. Implement a program to identify all kuleana lands on Moloka`i.
2. Implement a program for the reforestation of kula lands and other forest areas with native plants.

This section on land use contains changes, extends existing guidelines, and includes many innovative measures. We are a community existing as a result of our history. We seek to protect that which makes the West End unique for ourselves, our children, and generations to come, by responsibly planned growth. The provisions in this statement are attempts to enrich and enhance our West End community’s responsible growth.

The community is made up of many individuals and must reflect the concerns of all, regardless of land ownership or economic position, in order to be representative and meaningful. Commercial development must be made realistically responsible to the people it affects to prevent loss of identity, values and its precious lifestyle.

Investors will share in the solution of community problems, as well as profit from the valuable natural and social resources West End has to offer.

IX. LAND USE:

Critically examine potential solutions including potential effects upon the `āina using eight resource realms. These realms provided the ethical foundation for the decision-making process:¹¹⁷

1. Moana-Nui-Ākea – the farthest out to sea or along the ocean’s horizon one could perceive from atop the highest vantage point in one’s area.
2. Kahakai Pepeiao – where the high tide is to where the lepo (soil) starts. This is typically the splash zone where crab, limu, and `opihi may be located; sea cliffs; turtles and seabirds nest; or extensive sand dune environs.
3. Ma Uka – from the point where the lepo (soil) starts to the top of the mountain.
4. Nā Muliwai – all the sources of fresh water, ground/artesian water, rivers, streams, and springs, including springs along the coastline that mix with seawater.
5. Ka Lewalani – everything above the land, the air, the sky, the clouds, the birds, and the rainbows.
6. Kanaka Hōnua – the natural resources important to sustain people. However, management is based on providing for the benefit of the resources themselves rather than from the standpoint of how they serve people.
7. Papahelōlona – knowledge and intellect that is a valuable resource to be respected, maintained, and managed properly. This is the knowledge of the kahuna, the astronomers, the healers, and other carriers of `ike.
8. Ke`Ihi`ihi – elements that maintain the sanctity or sacredness of certain places.

Implement solution with 3 considerations:

1. Honor ancestral past.
2. Address the needs of the present.
3. Set up future generations to have more abundance.

Kumu John Ka`imikaua expressed that this procedural management resulted in lōkahi, “the balance between the land, the people that lived upon the land and the akua (gods).” In turn, lōkahi manifested “pono, the spiritual balance in all things.”¹¹⁸

¹¹⁷ Presentation by Dr. Kawika Winter, ethnobotanist and director of Limahuli Garden and Preserve on the island of Kaua`i. Dr. Winter is a former hālau member of Hālau Hula o Kukunaokalā, led by the late Kumu John Ka`imikaua, who re-introduced the history of the ancient `aha councils in his film A Mau A Mau and in educational workshops on Moloka`i. It was Kumu John’s wish to revitalize the `aha councils to restore pono to the land and people.

¹¹⁸ A MAU A MAU (TO CONTINUE FOREVER): CULTURAL AND SPIRITUAL TRADITIONS OF MOLOKA`I (Nā Maka O Ka `Āina 2000).

**MOLOKAI PLANNING COMMISSION
COUNTY OF MAUI
STATE OF HAWAII**

**IN THE MATTER OF THE)
MAUNALOA WEST END COMMUNITY,)
COUNTY OF MAUI,)
STATE OF HAWAII,)
FOR THE SUBMISSION OF THEIR)
MAUNALOA WEST END POLICY)
_____)**

1 **GOALS AND ACTION:**

2 **A. Taxes: Pages 21-24 are Duplication?**

- 3
4 1. The Maui County need to fix tax laws to actual use rather than general area use or potential value use. The depressed
5 economic standard on Molokai should be considered in rendering taxes. The majority of livelihood is subsistence.
6

7 **B. Commercial Development:**

- 8
9 1. Limit the height of buildings on the West End to a maximum of two stories.
10 2. Limit retail-commercial services on the West End to those businesses catering to the residents of the community
11 (e.g., gas station, Mom n Pop businesses).
12 3. In reference to "commercial development", fix what already exists and make anew. That is Kaluakoi with its restaurant,
13 golf course, empty hotel buildings, and the tent-a-lows at the Kolo, Paniolo, and Kaupo areas. This is regarded by the
14 community to include resort, multi-family apartment/condominium, "residential" agricultural subdivision, or
15 industrial types of uses. Where differences exist between agency determination of "commercial development" and the
16 community's view of the project, West End residents reserve the right of choice in settling such matters and the
17 development application shall be directed to the community for review.
18 4. Commercial development of land in West End whether "resort", "multifamily apartment/condominium", "estate ag-
19 subdivisions" or "industrial", be directed to the Maunaloa community for review, once guided by the appropriate
20 agencies of the State of Hawaii and the County of Maui with regard to providing innovative solutions to the
21 aforementioned (problems) section of this land use category. West End residents reserve the right of choice in settling
22 such matters and the development application shall be directed to the community for review.
23 5. Developers be made aware of these difficulties. Developers must do responsible planning to overcome these problems
24 and community impact. Development application to reviewing agencies shall contain addresses to these categories
25 with respect to affected landowners, and meaningful solutions thereto. West End residents reserve the right of choice
26 in settling such matters and the development application shall be directed to the community for review. Development
27 difficulties recommendations:
28
29 a. Professional title search of all land parcels within 1000 feet of development to include "unlocated *kuleanas*" and
30 notification of all possible owners and heirs.
31 b. Registered survey by developer of all surrounding land parcels within 1000 feet of project to pinpoint location
32 and boundaries as well as clear question of "unlocated kuleanas" if owners or heirs request this donated service.
33 c. Provide access to accommodate present-day modes of transportation to all "land-locked" or unlocated parcels.
34 d. Provide access to continue traditional gathering rights.
35 e. Prepare a social impact assessment, identifying potential impact on the community and proposed mitigative
36 measures.
37 f. Document notification to affected landowners and lessees adjacent to a commercial development shall be made
38 at preliminary application review submission.
39
40 6. Maunaloa community take an active part in proposed development. Where responsible community concern exists over
41 the impact of a proposed development, and these concerns are in conflict with governmental reviewing agency, as
42 well as the developer, or his authorized representatives, shall be present to responsibly answer residents' questions.
43 The results of this public interview shall become part of the application and be used in determining its approval, denial,
44 or provisional changes/additions.
45
46 a. Subdivision of ahupua 'a into "ag lots" shall be made to a size that reflects soil type, soil quality and land slope,
47 which will encourage agricultural use.
48 b. A professional agricultural feasibility study demonstration to match typical lot sizes shall be made by the
49 developer as a condition of permit approval. Appropriate lot size shall be determined by the developer's
50 agricultural feasibility study.
51 c. Potential water source development shall be shown prior to approval so as to not overtax present systems or
52 require more water transfer from the North Shore Valleys. Also, the developer shall demonstrate techniques of
53 water conservation such as recycling or other appropriate schemes.

- 1 d. At least one-fourth of each individual agricultural lot-owner's property should be under permanent crop cover,
2 such as trees.
- 3 e. County and State infrastructure must be shown to be adequate or near updating, to minimize development impact.
- 4 f. All sewage, drainage and environmental problems must be adequately addressed prior to approval. Where
5 differences between agency, developer, or responsible community members exist over "adequacy", an
6 environmental impact statement shall be professionally prepared by the developer in accordance with HRS 343
7 to answer these concerns. The "Statement" shall become part of the application and be made available for review
8 by affected parties.
- 9 g. Archaeological, cultural and historical remains in the development area or surrounding affected region shall be
10 professionally and traditionally investigated before any actual construction begins. A conservation and
11 preservation orientation is mandated in the consideration of the treatment of archaeological, historical and cultural
12 sites. Historic sites should be saved after they have been identified, rather than bulldozed. Ongoing site monitoring
13 by a professional archaeological entity shall continue throughout the project's development so significant cultural,
14 religious, or scientific properties can be protected and preserved in their natural surroundings for future
15 generations.
- 16 h. Desecration of grave sites will be treated hastily in the following manner by developers:
- 17
- 18 ● medical examination of remains to separate individuals;
 - 19 ● storage of individual remains in containers of native Hawaiian wood immediately after examination;
 - 20 ● meaningful attempt by developer to research and notify descendants;
 - 21 ● upon successful contact, reinterment of remains in container at exact location of original burial with
22 complete and appropriate ceremony;
 - 23 ● under no circumstances are artifacts to be separated from remains or grave sites. They shall be replaced
24 with burial;
 - 25 ● all artifacts should be documented;
 - 26 ● commercial land development of coastal areas shall be in strict accordance with the Coastal Zone
27 Management rules and regulations as adopted by the Hawaii State Legislature in 1975;
 - 28 ● the West End community recommends that the entire island be place in the County Special
29 Management Area. At the least, the West End area should be included in the SMA; and
 - 30 ● stream channel diversion, filling, bed undermining or material emoval for commercial purposes be
31 discouraged by appropriate government enforcement agencies. Where an environmental impact
32 statement prior to commencement and it's worth balanced against human need and environmental
33 alteration. Periodic maintenance and/or clearing by County or State, by their contracted
34 representatives.
- 35
- 36 6. Wetlands include identified springs and marsh areas, as well as coastal wetlands areas. Wetland alterations such
37 as filling, draining, or other activity disrupting its ecological function be prohibited unless the need outweighs
38 the environmental loss.
- 39
- 40 ● All environmental, coastal zone wetland and wildlife regulations shall be enforced by government
41 regulatory agencies when dealing with commercial development and traditional lands.
 - 42 ● A continuation of the wetland/wildlife survey of Molokai should be continued into the West End area
43 with documentation of traditional lands.
 - 44 ● Destruction of these lands by commercial development should be accompanied by penalties making
45 further desecration uneconomical. Land owners should be encouraged to return traditional lands to
46 former use or use compatible with its traditional value by tax credits.
- 47

- 1 ● Geographical location of commercial development, if centered away from resident impact
2 areas, will lessen the high priced speculative costs of the limited land areas usable in West
3 End and reduce consequent resident displacement in many cases.
- 4 ● Traditionally valuable lands should be given a separate and distinct category under the State of
5 Hawaii Land Use Commission District Boundaries to read: Urban, Rural, Agricultural, Traditional
6 and Conservation.
- 7 ● All fishponds and taro lands shall be designated Traditional. This would elevate viable agricultural
8 and aquacultural lands from Conservation to Traditional, and apply only traditional methods to
9 traditional uses. This would protect the fragile ecological balance of centuries; allow Hawaiian
10 culture and values to become a practical way of life today, and not force the land into the financially
11 competitive market of Agricultural designation;
- 12 ● All natural resources within the "Traditional" designation shall be protected from disruption except
13 under permitted uses.
- 14 ● All Hawaiian cultural, historical, and prehistoric sites be designated "Traditional".
- 15 ● Land Tax Assessment: Property taxes, previously administered by the State, are now under the
16 jurisdiction of the County of Maui, and the West End Community sees this as an effective tool in
17 the implementation of this policy statement. For example, landowners who permit individual access
18 across their property might receive compensation, and in cases of compelling public need, could be
19 offered incentives to permit public access, rather than condemnation threats. The community further
20 recommends the administration of this idea be suitably documented in public tax records as a guard
21 against any showing of favoritism.

22
23 **B. MISCELLANEOUS GOALS AND ACTIONS:**

- 24 1. Implement a program to identify all *kuleana* lands on Molokai.
- 25 2. Implement a program for the reforestation of *kula* lands and other forest areas with native plants.

26
27
28 This section on land use contains changes, extends existing guidelines, and includes many innovative measures. We are
29 a community existing as a result of our history. We seek to protect that which makes West End unique for ourselves, our
30 children, and generations yet to come, by responsibly planned growth. The provisions in this statement are attempts to
31 enrich and enhance our West End community's responsible growth.

32
33 The community is made up of many individuals and must reflect the concerns of all, regardless of land ownership or
34 economic position, in order to be representative and meaningful. Commercial development must be made realistically
35 responsible to the people it affects to prevent loss of identity, values and its precious lifestyle. Investors will share in the
36 solution of community problems, as well as profit from the valuable natural and social resources West End has to offer.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33

**MOLOKAI PLANNING COMMISSION
COUNTY OF MAUI
STATE OF HAWAII**

**IN THE MATTER OF THE)
MAUNALOA WEST END COMMUNITY,)
COUNTY OF MAUI,)
STATE OF HAWAII,)
FOR THE SUBMISSION OF THEIR)
MAUNALOA WEST END POLICY)
_____)**

**ADDITION TO IX. LAND USE OF THE
MAUNALOA WEST END POLICY DATED MARCH 9, 2016**

**TESTIMONY OF MOLOKAI RESIDENTS
IN SUPPORT OF MAUNALOA WEST END POLICY DATED MARCH 9, 2016**

Residents of Island of Molokai

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42

**MOLOKAI PLANNING COMMISSION
COUNTY OF MAUI
STATE OF HAWAII**

**IN THE MATTER OF THE)
MAUNALOA WEST END COMMUNITY,)
COUNTY OF MAUI,)
STATE OF HAWAII,)
FOR THE SUBMISSION OF THEIR)
MAUNALOA WEST END POLICY)
_____)**

**ADDITION TO IX. LAND USE OF THE
MAUNALOA WEST END POLICY DATED MARCH 9, 2016**

Page 20, immediately below IX. Land Use of the Maunaloa West End Policy dated March 9, 2016, the document submitted herewith is to become and made a part hereof in its entirety, and to be included in the Molokai Planning Commission document.

DATED: Maunaloa, Hawaii, on this 22nd day of March, 2016.

MADONNA DIZON

ELIZABETH NUUANU

1 **[10]12 | IMPLEMENTATION AND MONITORING**

2
3 The preceding chapters identify programs, projects, and actions that need implementation to actualize the Moloka`i
4 Community Plan’s vision, goals, and policies. [Maui County Code]Chapter 2.80B, MCC, specifies an implementation
5 program for the plan’s actions and milestones and requires status reports to monitor the progress of implementation. The
6 implementation program includes a capital improvement element, an implementation schedule, and a financial element.

7
8 **A. IMPLEMENTATION**

9
10 The Plan’s capital improvement (CIP) element includes the infrastructure systems and public facilities, and services that
11 will be needed over [the] a twenty-year planning period, in two-year increments, to implement the [Community] Plan’s
12 vision, goals, and policies. CIP projects are included in the implementation schedule to facilitate capital improvement
13 programming and serve as a guide for forthcoming large infrastructure budget items. The list does not include repair and
14 maintenance projects.

15
16 The implementation schedule is included in this chapter and includes a description of the project or program, priority,
17 timing, the lead implementation agency (County), estimated cost, and potential funding source(s). Actions are identified
18 as either Priority 1 or Priority 2, with Priority 1 being the highest priority. Identifying high priority actions helps agencies
19 focus on implementing key actions considering time and budget constraints. Priority 2 actions are still considered
20 important for implementing the [Community] Plan. The following questions were used to identify Priority 1 actions:

- 21
22 1. Will the action address an urgent issue?
23 2. Is the action required for public health and safety?
24 3. Is the action required by legal mandate?
25 4. Is the action required to prevent the loss of an irretrievable resource?
26 5. Will the action benefit the majority of the community?
27 6. Will the action significantly improve the quality of life of Molokai residents?
28 7. Is the action required for other actions to be initiated?
29 8. Is the action already funded?

30
31 Actions may be implemented by the lead County agency or by another entity, such as the State or [non-profit groups]
32 nonprofit organizations, and assisted by the County agency. For actions that are not the primary responsibility of the
33 County, and there is not a cost to the County budget, the estimated cost column in the implementation table is “not
34 applicable” (N/A). The implementation program should provide enough flexibility over the life of the Plan to allow for
35 reprioritization and adjustments to the level of funding. Implementation of the actions listed in the schedule is subject to
36 available funding.

37
38 **Infrastructure Planning and Finance Policy Framework**

39
40 The infrastructure funding strategy provides an efficient and equitable means of planning and financing infrastructure
41 improvements. The County CIP funding strategy is comprised of three policy statements, with underlying strategies to
42 effectuate the policies.

1 **1. Infrastructure Services Policy:**

2
3 The County is responsible for determining areas where infrastructure and public facilities will be supported.
4

5 **2. Infrastructure Expansion Policy:**

6
7 Developers are generally responsible for public facility and infrastructure expansion costs associated with their projects.
8 As a condition of subdivision or development approval, the County often requires new developments to construct on-site
9 water, roads, wastewater, park facilities, and other infrastructure and public facilities, pursuant to County standards. Upon
10 completion of construction, the County may require the developer to dedicate the infrastructure/facilities to the County.
11 **[Developments] Developers** may also be required to donate easements or other types of partial rights to the County. In
12 addition, **[developments] developers** are often required to provide financial assurance, such as bonding, to ensure
13 enforcement of needed corrective action(s) or uninterrupted operation (in case of bankruptcy, abandonment, or any other
14 default on financial obligation).
15

16 The County has also considered the imposition of impact fees, which are designed to mitigate the impact of new
17 development on infrastructure and public facility systems. These one-time payments are made by the
18 **[developments] developer**; fees are typically passed on to either the seller of land or homebuyer to pay for the cost of
19 infrastructure caused by new development. While the enabling **[ordinance] ordinances** for traffic impact fees have been
20 enacted, the required studies that determine the actual fee amounts have yet to be **[adopted] enacted**; other impact fee
21 ordinances have been discussed but not enacted.
22

23 To ensure that no ambiguities exist regarding infrastructure funding responsibilities, the County may establish an
24 infrastructure funding strategy to ensure that infrastructure improvements are implemented prior to or concurrent with
25 development by the responsible party, depending on the nature of the infrastructure project.
26

27 **3. Existing Deficiencies Policy:**

28 Through its CIP program, the County is responsible for funding operations and capital improvements to address existing
29 deficiencies of County-owned and operated systems.
30

31 The Existing Deficiencies Policy shall be implemented by, but not limited to, the following **[strategy] strategies**:

32
33 **A. *Identify existing service deficiencies and project future operations and maintenance needs:*** Using the CIP program,
34 needs assessment studies, or adopted level-of-service standards, the County will identify existing service deficiencies
35 and projected operations and maintenance needs. The County may provide revenues sufficient to maintain the
36 minimum acceptable level-of-service standards over the 20-year planning horizon. The County will encourage the
37 State to upgrade its facilities to meet the County’s LOS standards.

38
39 **B. *Develop and Utilize Alternative Funding Sources:*** The County could consider alternative funding sources to be used
40 to finance major CIP projects. Some of these sources are currently available while others would require enabling
41 legislation or voter approval before they could be utilized. Such alternatives include: public-private partnerships,
42 which can save time and costs; strategic budget allocations or trust funds to create special funds for specific purposes;
43 special district financing, such as tax districts or redevelopment districts, where revenues are reinvested in the same
44 geographic area; and peak demand pricing, where the charge for the use of public facilities or infrastructure is
45 increased during periods of heaviest use.

1 **B. MONITORING**

2
3 The Monitoring and Evaluation Program establishes a strategy to track [plan] Plan implementation, evaluate the
4 effectiveness of policies and programs, monitor the quality of life on Moloka`i, and allow for periodic program
5 adjustments. This strategy includes establishing and monitoring performance indicators to help implementing agencies
6 attain planned outcomes. Specific benchmarks will be used to measure progress in the implementation of community plan
7 policies and actions. The Department of Planning will coordinate with the appropriate agencies and program specialists
8 to establish benchmarks for major programs and initiatives. Physical, environmental, cultural, and socio-economic
9 indicators will also be used to assess the overall quality of life on Moloka`i.

10
11 The Department of Planning will oversee the Monitoring and Evaluation Program, which will include the preparation of a
12 Monitoring Report. The Department may modify or add indicators, as needed, to track the impacts of plan implementation.
13 The Department will prepare a monitoring report to validate the progress of plan implementation and provide a portrait of
14 the quality of life on Molokai.

15
16 Table 10.1 includes a core set of 39 indicators that could be used to monitor progress toward achieving the goals and
17 objectives of the [community plan] Plan. Many indicators identified in [this plan] the Plan have been borrowed from
18 existing plans, programs and reports, and are based on available and reliable data to ensure their usefulness throughout the
19 planning horizon. However, they can be modified and updated as new data becomes available.

20
21 Furthermore, the quality of life indicators are intended to represent a range of measurements across the various chapters
22 of the [community plan] Plan. The indicators are regional in nature to focus on the island as a whole. Where possible,
23 commonly used indicators have been chosen in order to facilitate comparisons between Moloka`i and other jurisdictions.
24 These core indicators [not only] provide a snapshot of the quality of life on Moloka`i, [but] and also track the progress of
25 key issues that the community plan intends to address. Table 10.2 articulates how the indicators relate to the [community
26 plan] Plan goals and details appropriate sources of data.

Table 10.1 Example Core Indicators

BUILT ENVIRONMENT INDICATORS	<i>LAND USE</i>
	1 Building permits by type
	2 Building permits issued in tsunami inundation zone and future [sea level rise]SLR (%)
	3 Average density of new developments
	4 New urban developments consistent with Urban and Rural Design Principles (%)
	5 Housing [affordability index]Affordability Index
	<i>TRANSPORTATION</i>
	6 Vehicle miles traveled
	7 Commute mode shares
	8 Annual transit ridership
	9 Dedicated bike lanes (total miles)
	<i>INFRASTRUCTURE</i>
	10 Recycled waste (%)
11 Parks and Open Space per 1000 population (acres)	
12 Energy consumption by source (%)	
13 Energy consumption per capita	
SOCIAL ENVIRONMENT INDICATORS	<i>ECONOMIC DEVELOPMENT</i>
	14 Cost of Living Index
	15 Employment by sector
	16 Value of agricultural production
	17 Permitted B&Bs and STRHs (#)
	18 Frequency of passenger flights
	19 Food produced and consumed locally
	<i>POPULATION / COMMUNITY</i>
	20 Unemployment rate
	21 Poverty rate
	22 College bound rate
	23 Drug and alcohol arrests
	24 Child abuse and neglect
	25 Sex assault, domestic violence and mental health
	26 Licensed health care practitioners
	27 Adult residential care homes (# beds)
	<i>CULTURAL HERITAGE</i>
	28 Hawaiian Language students (#)
	29 Subsistence food sources
	30 Properties listed on the State or National Historic Registers (#)
31 Scenic roadways (total miles)	
NATURAL ENVIRONMENT INDICATORS	<i>WATERSHED SYSTEMS</i>
	32 Reclaimed water use (%)
	33 Watershed health
	34 Drinking water quality
	<i>OCEAN / MARINE ENVIRONMENT</i>
	35 Coastal water quality
	36 Healthy coral reefs (%)
	37 Reef fish biomass
	<i>WILDLIFE AND NATURAL AREAS</i>
38 Threatened and endangered species (#)	
39 Protected and conservation lands (total acres)	

Moloka`i Community Plan

	Built Environment Indicators	Objective to Achieve Chapter Goals	Data Sources
	LAND USE AND HOUSING		
1	Building permits by type	Provide housing choices / create mixed-use communities	PD
2	Building permits issued in tsunami inundation zone and future [sea level rise] SLR (%)	Reduce risk from coastal hazards	PD
3	Average density of new developments	Create walkable communities / increase housing affordability	PD
4	New urban developments consistent with Urban and Rural Design Principles(%)	Create compact, efficient, human scale communities / enhance historic character	PD
5	Housing [affordability index]Affordability Index	Increase housing affordability	NAR methodology / UHERO / Maui County Data Book
	TRANSPORTATION		
6	Vehicle [Miles Traveled]miles traveled	Reduce fossil fuel consumption	Maui County Data Book / HI DOT
7	Commute mode shares	Provide a multi-modal transportation system / reduce fossil fuel consumption	HI DOT
8	Annual transit ridership	Provide a multi-modal transportation system / reduce fossil fuel consumption	County DOT
9	Dedicated bike lanes (total miles)	Provide a multi-modal transportation system / reduce fossil fuel consumption	HI DOT
	INFRASTRUCTURE		
10	Recycled waste (%)	Minimize solid waste / divert solid waste to recycling	Department of Environmental Management
11	Parks and Open Space per 1000 population (acres)	Expand opportunities for recreation	Department of Parks and Recreation
12	Energy consumption by source (%)	Reduce fossil fuel consumption / increase use of renewable energy	DBEDT
13	Energy consumption per capita	Reduce fossil fuel consumption	DBEDT

Moloka'i Community Plan

Table 10.2 Core Indicators, Objectives, and Data Sources (continued)

	Social Environment Indicators	Objective to Achieve Chapter Goals	Data Sources
	<i>ECONOMIC DEVELOPMENT</i>		
14	Cost of Living Index	Quality of life indicator	County of Maui Data Book
15	Employment by sector	Economic diversification	County of Maui Data Book
16	Value of [Agricultural Production] agricultural production	Support agricultural economy	UHERO
17	Permitted B&Bs and STRHs (#)	Diversify the tourism industry	[Planning Department] PD
18	Frequency of passenger flights	Reliable air transportation	County of Maui Data Book
19	Food produced and consumed locally	Increase locally grown food	DOA, UH CTAHR
	<i>POPULATION / COMMUNITY</i>		
20	Unemployment rate	Economic resilience	UHERO / U.S. Dept. of Labor, Bureau of Labor Statistics
21	Poverty rate	Economic resilience	US Census Community Survey via DBEDT
22	[Collage bound] College-bound student rate	Increase post-secondary education	Kids Count Data Centre, Annie E. Casey Foundation
23	Drug and alcohol alcohol-related arrests	Effective support services for individuals and families	Crime in Hawaii, Uniform Crime Reports
24	Child abuse and neglect	Effective support services for individuals and families	[HI] State DHS[,] and Child Welfare and Adult Protective Services
25	[Sex] Sexual assault, domestic violence and mental health	Effective support services for individuals and families	[HI] State DHS[,] and Child Welfare and Adult Protective Services
26	Licensed health care healthcare practitioners	Comprehensive health care system	County of Maui Data Book
27	Adult residential care homes (# beds)	[Strength] Strengthen the eldercare infrastructure system	County of Maui Data Book
	<i>CULTURAL HERITAGE</i>		
28	Hawaiian language students (#)	Protect the diverse island culture and local traditions	[HI] State DOE
29	Subsistence food sources	Protect the diverse island culture and local traditions	County of Maui Data Book
30	Properties listed on the State or National Historic Registers (#)	Protect historic cultural resources	[HI] State DLNR, Preservation Division
31	Scenic roadways (total miles)	Protect scenic vistas	[Planning Department] PD

Moloka`i Community Plan

Table 10.2: Core Indicators, Objectives, and Data Sources (continued)

	Natural Environment Indicators	Objective to Achieve Chapter Goals	Data Sources
	WATERSHED SYSTEMS		
32	Reclaimed water use	Decrease pollution, sustainability indicator	DOH, Safe Drinking Water Branch
33	Watershed health	Protect [+]and enhance native eco-systems	DLNR, DOH, University of Hawaii, DWS , Pacific Neon <i>This company makes neon signs???</i>
34	Drinking water quality	Increase water quality, basic quality of life	State DOH, Safe Drinking Water Branch, DWS
	OCEAN [+]AND MARINE ENVIRONMENT		
35	Coastal water quality	Decrease pollution	[HI,]DOH , Clean Water Branch
36	Healthy coral reefs (%)	Improve reef health	[Division of Aquatic Resources, Dept. of Land and Natural Resources, HI] [DLNR, Division of Aquatic Resources]
37	Reef fish biomass	Increase reef health, preserve biodiversity	[Division of Aquatic Resources, Dept. of Land and Natural Resources, HI] [DLNR, Division of Aquatic Resources]
	WILDLIFE AND NATURAL AREAS		
38	Threatened and endangered species (#)	Preserve biodiversity	Pacific Region US Fish [+]and Wildlife Service
39	Protected and conservation lands (total acres)	Protect sensitive lands	County of Maui

Moloka`i Community Plan

Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Capital Improvement Projects (CIP)								
Water	8.1.09	Develop improved water transmission and/or storage systems to provide better fire protection.	CIP	1	On-going	DWS	100	[County]DW S Water Fund
Wastewater	8.2.04	Replace the Kaunakakai effluent force main prior to the end of its useful life.	CIP	2	2022-2023	[Department of Environmental Management (DEM)]DEM	2,100	County
Stormwater Management	8.3.02	Build dispersion and retention facilities to address dirt road runoff.	CIP	1	2022-2023	[Department of Public Works (DPW)]DPW	TBD	County State Private
Stormwater Management	8.3.03	Implement the Kaunakakai Master Drainage Plan.	CIP	1	2016-2035	DPW	1,000 per year	County
Stormwater Management	8.3.08	Complete the Kaunakakai drainage system.	CIP	1	2016-2018	DPW	TBD	County
Stormwater Management	8.3.09	Reconstruct culverts to 100-year flood specifications on all County roads.	CIP	2	2022-2023	DPW	TBD	County
Transportation	8.5.14	Fund and construct a public parking area in Kaunakakai to relieve existing parking requirements on businesses wishing to expand or improve.	CIP	1	2022-2023	DPW	TBD	County Private
Parks & Recreation	9.1.7	Coordinate planning, design and construct a new Kaunakakai gymnasium and athletic building that meets Moloka`i's unique sports needs and serves as a hardened civil defense community shelter for disasters[,] and is located outside of the flood zone.	CIP	1	2020-2021	Parks & Recreation	35,000	County State
Police	9.2.03	Coordinate land acquisition, planning, design, and construction of a new Moloka`i Police Station at a location that meets the unique needs of the Maui Police Department for Moloka`i, out of the special flood hazard area and tsunami evacuation zone, and promotes practical and safe emergency response for the entire Moloka`i community.	CIP	1	2018-2020	[Police]MPD	TBD	TBD
CHAPTER 3 NATURAL, HERITAGE [&]AND SCENIC RESOURCES								

Moloka`i Community Plan

Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Natural Resources	3.1.01	Assist with [a conference]conferences or workshops of key federal, state, and local agencies, and community and [non profit]nonprofit leaders to discuss, plan, and prioritize actions to address environmental and natural resource issues.	Project	1	2016-2021	[Office of Economic Development (OED)]OED	5	County
Natural Resources	3.1.02	Compile GIS data and traditional ecological knowledge to map the highest value ecological areas and natural resources.	Program	2	2016-2021	[Planning Department]PD	50	County [Federal]fe deral Private
Natural Resources	3.1.03	Compile GIS data to map primary and secondary groundwater recharge areas to help prioritize protection and restoration efforts.	Project	1	2016-2021	[Department of Water Supply (DWS)]DWS	2	County [Federal]fe deral
Natural Resources	3.1.04	Assist in conducting workshops with stakeholder groups to develop an integrated natural and heritage resources management system including traditional ecological knowledge.	Project	1	2016 - 2021	OED	N/A	N/A
Natural Resources	3.1.05	Assist in conducting[,] or coordinating public education and involvement events to build community based stewardship and implementation capacity.	Program	2	On-going	OED	N/A	N/A
Natural Resources	3.1.06	Assist in the development of a West Moloka`i dry native forest and lowland shrub restoration program.	Program	2	2016 - 2021	OED	N/A	N/A
Natural Resources	3.1.07	Consult with [UHMC-Moloka`i]Moloka`i Education Center to develop and manage a native plant nursery for community restoration projects.	Program	2	2016 - 2021	OED	5	County
Natural Resources	3.1.08	Conduct outreach to agricultural, ranching, and development interests to implement BMPs to reduce excess sediment loss, herbicide and pesticide use.	Program	1	2016-2021	OED	20	County
Natural Resources	3.1.09	Reduce sediment and nutrient loads from entering surface and coastal waters by assisting landowners, upon request, to design or construct small-scale water retention, bioretention, or other conservation projects to increase infiltration to the aquifer and control surface water run-off. Review regulations and revise, if needed, to support projects.	Program	1		[Department of Public Works (DPW) See Transmittal Letter "Agency Comments"]DPW		
Natural Resources	3.1.10	Work with federal, state, and county agencies to initiate a program to provide education and support for community stewardship of the coastal areas, including conducting baseline studies on coastal water quality and coral reef conditions.	Program	1	2016-2021	OED	100	County State
Natural Resources	3.1.11	Develop a toolbox of green infrastructure BMPs and conduct workshops for consultants, designers, developers, and builders.	Project	2	2016-2021	DPW	50	County State

Moloka'i Community Plan

Moloka'i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Natural Resources	3.1.12	Develop a toolbox of BMPs for use by residents and businesses to improve ecosystem health and water quality in urban and coastal areas. Provide assistance or workshops on BMPs and education to change business and household practices. Maintain a website for public education on water quality pollution prevention and BMPs.	Program	2	On-going	DWS	10 annually	County
Natural Resources	3.1.13	Assist with development of a [Community based Game Management Plan] community-based game management plan , including BMPs.	Project	1	2016-2021	OED	150	County State
Natural Resources	3.1.14	Continue to support organizations that eradicate invasive species.	Program	On-going	On-going	DWS	N/A	N/A
Natural Resources	3.1.15	Encourage the State to establish a quarantine treatment facility on Moloka'i.	Project	1	2016-2021	OED	N/A	N/A
Natural Resources	3.1.16	Assist in developing educational materials to educate visitors, including visitors engaged in hunting and fishing, about the importance of natural and cultural resources to the cultural and subsistence practices of Moloka'i's residents, and how they may prevent damage to these resources.	Project	1	2016-2021	OED	15	County
Natural Resources	3.1.17	Work with the [state, county] State, County , private landowners, and cultural practitioners to ensure that watershed protection, as well as other conservation measures provide appropriate access, through fencing and other means, for cultural and subsistence activities.	Program	1	On-going	DWS	N/A	N/A
Heritage Resources	3.2.01	Complete and regularly maintain a GIS inventory of cultural, archaeological and historic resources and trails assembled from existing inventories and databases to be used for project review.	Program	1	On-going	[Planning Department] PD	N/A	N/A
Heritage Resources	3.2.02	Identify other significant cultural property types, including rural historic landscapes and traditional cultural properties and take action to include appropriate sites on the National Register of Historic Places .	Project	1	2022-2035	[Planning Department] PD	10	County State
Heritage Resources	3.2.03	Establish archaeological and historic districts where high concentrations of sites exist.	Project	1	2016-2021	[Planning Department] PD	10	County State
Heritage Resources	3.2.04	Provide education and incentives to encourage property owners to nominate structures and sites to the State and National [Register] Registers of Historic Places.	Program	2	2016-2021	[Planning Department] PD	N/A	N/A
Heritage Resources	3.2.05	Coordinate with cultural practitioners and state agencies to develop public education programs on the proper gathering and use of subsistence resources.	Program	2	2016-2021	Mayor's Office (Environmental Coordinator)	N/A	N/A

Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Heritage Resources	3.2.06	Develop educational materials addressing heritage and natural resources impacts from unpermitted ground altering activities; disseminate educational materials widely, including to private landowners and visitors; provide instructions for reporting unpermitted activities. Train Moloka`i Development Services Administration (DSA) personnel to immediately respond to complaints.	Program	1	2016-2021	DPW	5	County State
Heritage Resources	3.2.07	Pursue State and County cooperation to update and implement the Mālama Cultural Park master plan.	Project	2	2022-2035	Parks & Recreation	TBD	County
Heritage Resources	3.2.08	Explore options to protect cultural sites listed in Appendix 3.3.	Project	1	2016-2021	[Planning Department]PD	N/A	N/A
Heritage Resources	3.2.09	Establish a comprehensive historical interpretive program including historical markers, maps and brochures identifying ahupua`a and significant historical sites that are appropriate for public interpretation.	Program	2	2016-2021	OED	25	County
Heritage Resources	3.2.10	Coordinate with [kupuna] kūpuna knowledgeable in north shore protocol to hold community meetings to educate people about the history and cultural significance of Wailau and Pelekunu and to encourage pono cultural practices [while on the north shore].	Project	2	2016-2021	Mayor's Office (Environmental Coordinator)	N/A	N/A
Heritage Resources	3.2.11	Encourage the Governor to appoint members to the Moloka`i Burial Council so that regular hearings by this body may resume.	Project	1	2016-2021	[Planning Department]PD	N/A	N/A
Heritage Resources	3.2.12	Promote Moloka`i cultural events that do not have an adverse effect on natural resources. Develop Moloka`i cultural event and tourism guidelines that protect island culture and natural resources.	Program	2	2016-2021	OED	N/A	N/A
Heritage Resources	3.2.13	Provide educational training to applicable county agencies on the role that the [county]County permit process plays in historic preservation.	Program	2	On-going	Planning Department	N/A	N/A
Heritage Resources	3.2.14	Educate property owners regarding the need to prevent damage to, or [descretion]destruction of, historic and cultural sites.	Program	1	On-going	[Planning Department]PD	N/A	N/A
<u>Heritage Resources</u>	<u>3.2.15</u>	<u>Encourage efforts in Waikolu valley to partner with the Kalaupapa National Historical Park - National Park Service, Department of Land and Natural Resources, the community, and other stakeholders to: a) conduct archaeological studies; b) conduct invasive species removal; and c) implement traditional uses of the valley.</u>						
Scenic Resources	3.3.01	Develop BMPs for land and development uses to protect identified priority view corridors or viewsheds.	Project	2	2016-2021	[Planning Department]PD	TBD	County

Moloka`i Community Plan

Scenic Resources	3.3.02	Complete the visual inventory, analysis, and mapping of key scenic view corridors, ridgelines, and viewsheds.	Project	1	2016-2021	[Planning Department] JPD	TBD	County
Scenic Resources	3.3.03	Develop and implement the Scenic Roadway Corridors Management Plan and Design Guidelines.	Project	2	2016-2021	[Planning Department] JPD	20	County
Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Scenic Resources	3.3.04	Provide educational workshops for design consultants and developers on scenic resource BMPs	Program	2	2016-2021	[Planning Department] JPD	N/A	N/A
Scenic Resources	3.3.05	Integrate scenic resource planning into natural and heritage resources strategies and plans.	Program	1	2016-2021	[Planning Department] JPD	N/A	N/A
CHAPTER 4 HAZARDS								
Hazards	4.01	Continue the development of Moloka`i Incident Command Post in coordination with County Civil Defense.	Program	2	2016-2021	[Civil Defense] Emergency Management	150	County State
Hazards	4.02	Identify and submit flood and pre-disaster mitigation projects that qualify for funding under the FEMA Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, NFIP Severe Repetitive Loss Program and other FEMA funded mitigation and NFIP grants consistent with the Maui County [Hazard Mitigation Plan]HMP .	Program	1	On-going	[Civil Defense] Emergency Management	TBD	Federal
Hazards	4.03	Develop programs and distribute materials for public outreach and education to better educate the community and visitors on disaster preparedness, hazard mitigation, multi-hazard risks and vulnerabilities and post disaster recovery. Target materials and programs that will provide information on steps to take to protect lives and strengthen property against natural and [human related]human-related disasters.	Program	2	On-going	[Civil Defense] Emergency Management	TBD	County State Federal
Hazards	4.04	Seek community information on possible hazardous waste sites buried decades ago; investigate and remediate if needed.	Program	1	2016 - 2021	DEM	TBD	County
Hazards	4.05	Identify critical infrastructure, lifelines, roads, and structures that are vulnerable to coastal hazards, including SLR, and develop a more coordinated emergency response system of well-defined and mapped evacuation routes.	Project	1	2016-2021	[Civil Defense] Emergency Management	N/A	N/A
Hazards	4.06	Identify critical infrastructure, lifelines, roads, and structures that are vulnerable to wildfires and develop a more coordinated emergency response system of well-defined and mapped evacuation routes. Formalize existing practices on the use of heavy equipment during fires.	Project	1	2016-2021	Fire & Public Safety	10	County
Hazards	4.07	Develop a wildfire information campaign and signage to build public awareness of wildfire hazards. Improve community awareness of the human, economic, and environmental costs associated with wildfires	Program	2	2016-2021	Fire [&]and Public Safety	15 annually	County

Moloka`i Community Plan

		caused by negligence or accident. Engage the community in creating and maintaining fire breaks.						
Hazards	4.08	Support wildfire mitigation activities, such as green belts around subdivisions and vegetation control around power poles that will minimize risk of wildfire susceptibility to properties and subdivisions.	Program	2	On-going	DPW	TBD	County

Moloka`i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Hazards	4.09	Complete an inventory of vulnerable critical facilities and infrastructure. Include this information in the Maui County HMP for future mitigation project funding.	Project	1	2016-2021	[Civil Defense]Emergency Management	TBD	Federal State
Hazards	4.10	Map SLR projections for specific geographic areas on Moloka`i, utilizing data from the National Oceanic and Atmospheric Administration (NOAA) Digital Coast SLR and Coastal Flooding Impacts Viewer. Map other climate related coastal hazard areas.	Project	2	2016-2021	[Planning Department]PD	20	County
Hazards	4.11	Continue work with FEMA to update FIRMs that incorporate best available information on climate change and SLR.	Project	1	On-going	[Planning Department]PD	N/A	N/A
Hazards	4.12	Implement additional CRS activities to improve class ratings and discounts on flood insurance premiums.	Project	2	On-going	[Planning Department]PD	TBD	County
Hazards	4.13	Conduct erosion analysis of Moloka`i's shoreline to determine rate of erosion and use the results to determine setback calculations that also factor in incremental effects of SLR.	Project	1	2016-2021	[Planning Department]PD	100	County
Hazards	4.14	Coordinate with federal, state and county agencies to obtain current SLR information and maps. Plan phased relocation of critical structures and roadways. Plan long-term strategic retreat of buildings. Identify priority planning areas where resources and planning efforts should be focused. Identify how and where to use adaptation strategies such as retreat, accommodation, and protection.	Program	2	2022-2035	[Planning Department]PD	1,000	County State Federal Private
Hazards	4.15	Per the [Maui County Hazard Mitigation Plan]HMP, update the HAZUS MH model to incorporate detailed data on state and county bridges located in Moloka`i.	Project	1	2016-2021	[Civil Defense]Emergency Management	50	County State Federal
Hazards	4.16	Support development of a cultural archive of the [kupuna's]kūpunas' knowledge of traditional hazard mitigation practices.	Project	2	2016-2021	[Planning Department]PD	TBD	County
Hazards	4.17	Evaluate, update, and prioritize shelters on Moloka`i.	Program	1	2016-2021	[Civil Defense]Emergency Management	50	HMGP
Hazards	4.18	Immediately seek funding and develop an implementation plan to move critical infrastructure and emergency services out of flood and tsunami inundation zones.	Program	1	2016-2021	[Civil Defense]Emergency Management	75	County

Moloka'i Community Plan

Hazards	4.19	Support the relocation of the Puko'o Fire Station on the East End [of Moloka'i].	Project	1	2022-2035	[Civil Defense]Emergency Management	TBD	County
CHAPTER 5 ECONOMIC DEVELOPMENT								
Economic Development	5.01	Identify, target, and recruit new industries and businesses such as agricultural operations, aquaculture, cultural trades and arts, and information technology.	Program	1	2022-2035	OED	100	County
Moloka'i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Economic Development	5.02	Continue to assess potential shipping options [including utilizing the ferry as a small cargo carrier between Maui and Moloka'i].	Project	2	2016-2021	OED	N/A	N/A
Economic Development	5.03	Continue to work with inter island airlines to keep airfares affordable and service frequency adequate to accommodate the needs of Moloka'i visitors, residents, and businesses.	Program	2	On-going	OED	N/A	N/A
Economic Development	5.04	Develop a Moloka'i Agriculture Strategic Plan for all farms.	Project	1	2016-2021	OED	50	State
Economic Development	5.05	Continue to provide business courses to farm owners and agricultural entrepreneurs that include education about [State and Federal]state and federal loan and grant opportunities.	Program	2	On-going	OED	2,500	County
Economic Development	5.06	Encourage the development of cooperative agricultural development programs between the County and the DHHL to support diversified agricultural pursuits.	Program	2	2016-2021	OED	N/A	N/A
Economic Development	5.07	Create a survey of [the Moloka'i]Moloka'i's population to determine the reasons for the high rate of "discouraged workers".	Project	2	2016-2021	OED	20,000	County
Economic Development	5.08	Continue and enhance educational opportunities for Moloka'i's students in areas such as STEM education, business management, leadership, agriculture, and vocational training.	Program	1	On-going	OED	10,000	County Private
Economic Development	5.09	Assess how environmental impact, invasive species, feral ungulates, natural resources, and other factors will negatively or positively impact Moloka'i's present and future.	Project	2	On-going	OED	25	County State Private
Economic Development	5.10	Develop a permanent appropriate site for the farmer's market in Kaunakakai to promote locally grown fresh produce and products.	Project	2	2016-2021	OED	TBD	County
Economic Development	5.11	Identify economic opportunities for the use of targeted plant and animal species for value added products.	Project	1	2016-2021	OED	20	County Private

Moloka`i Community Plan

Economic Development	5.12	Assess which development regulations are going to discourage investors from making improvements on Moloka`i.	Project	1	2016-2021	OED	10	County Private
Economic Development	5.13	Explore the possibility to provide incentives to landowners to help bring [county code legacy]MCC issues into compliance for the purpose of maintaining affordable rental rates.	Project	1	2016-2021	[Planning Department]PD	N/A	N/A
Economic Development	5.14	Support workforce development efforts to help improve Moloka`i's economy.	Program	1	On-going	OED	N/A	N/A
Economic Development	5.15	Develop opportunities to get more local agricultural products into local markets.	Program	1	On-going	OED	N/A	N/A
Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Economic Development	5.16	Support the traditional use of Hawaiian farming systems and the growth of traditional Hawaiian crops.	Program	1	On-going	OED	N/A	N/A
Economic Development	5.17	Support workforce development efforts targeted at sectors poised to revive Moloka`i's economy.	Program		On-going	OED	N/A	N/A
CHAPTER 6 LAND USE [&]AND HOUSING								
Land Use	6.1.01	Adopt a comprehensive zoning map for Moloka`i. Conduct a comprehensive review of interim zoned lands to identify and adopt zoning that is consistent with the [Community] Plan.	Project	1	2016-2021	[Planning Department]PD	TBD	County
Land Use	6.1.02	Amend the zoning code to facilitate the development of mixed use, pedestrian oriented communities.	Project	1	2016-2021	[Planning Department]PD	300	County
Land Use	6.1.03	Implement County responsibilities under [Acts 183 (2005) and 233 (2008)]Part III, Chapter 205, HRS to designate and establish [Important Agricultural Lands (IAL)]IAL and the incentives therein.	Program	2	2016-2021	[Planning Department]PD	500	State
Land Use	6.1.04	Review the SMA boundary and make changes as necessary to comply with the objectives and policies defined in Section 205A-2, HRS [§ 205A-2] and incorporate best available information on Climate Change and SLR.	Project	1	2016-2021	[Planning Department]PD	TBD	County
Land Use	6.1.05	Research and review poor or highly sloped agricultural lands for conversion to different designations.	Project	2	2022-2035	[Planning Department]PD	N/A	N/A
Land Use	6.1.06	Study viable options for transitioning Moloka`i's commercial and population center away from the threat of SLR and coastal inundation.	Project	1	2016-2021	[Planning Department]PD	TBD	County State Federal

Moloka`i Community Plan

Land Use	6.1.07	Identify important subsistence use, lands, and resources.	Project	1	2022-2035	OED	TBD	County State
Land Use	6.1.08	Research and develop a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development.	Project	1	2016-2021	[Planning Department]PD	TBD	County State Federal
Land Use	6.1.09	Adopt a "Traditional Land Use" (TLU) Overlay into the Community Plan Designations. The County PD should look at existing Community Plan Designations and County Zoning in Mana'e and recommend zoning adjustments based on current land use suitability analysis methods, as well as on the community recommendations included in the Mana'e GIS Mapping Project (COM, 2008) and the Traditional and Cultural Practices Report for Mana'e (OHA, 2016).				PD	Aha` Kiole o Moloka`i	
Land Use	6.1.10	Research and conduct viable options to alleviate tax burdens on kuleana land owners, potentially by basing assessments on actual use rather than potential use value.				PD	Aha` Kiole o Moloka`i	
	6.1.11	Research and develop a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development.": Lead County Agency.				PD	Aha` Kiole o Moloka`i	
Housing	6.2.01	Establish partnerships to develop and continue to implement a comprehensive affordable housing plan for Moloka`i that addresses both ownership and rental affordability.	Project	1	On-going	Housing & Human Concerns (DHHC)	N/A	N/A
Housing	6.2.02	Establish partnerships and support [Implement] a housing rehabilitation program including loans, grants, technical assistance and community outreach.	Program	1	On-going	DHHC	N/A	N/A

Moloka`i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Housing	6.2.03	Amend the zoning code to allow a greater variety of housing types to address affordability, including mixed use, mixed housing types, co-housing, prefabricated homes, and small lots.	Project	1	On-going	[Planning Department]PD	Possibly with 6.1.02 (TBD)	County
Housing	6.2.04	Work with developers to support their efforts to provide assistance with securing/leveraging grants, new home buyer tax credits, [Low Income Housing Tax Credits] low income housing tax credits, and other resources that support affordable housing, such as housing models that can be built affordably.	Program	1	On-going	DHHC	N/A	N/A
Housing	6.2.05	Investigate whether a community land trust would consider operating on Moloka`i.	Project	2	2016-2021	DHHC	N/A	N/A
Housing	6.2.06	Establish a cap on [Transient Vacation Rentals (TVRs) and Short Term Rental Homes (STRHs)]TVRs and STRHs.	Project		2016-2021	[Planning Department]PD	N/A	N/A

Moloka'i Community Plan

Housing	6.2.07	For the East End, establish the cap on TVRs for as one, establish the cap on STRHs as five, and establish that there should be no further issuances of conditional permits for TVRs or STRHs.				PD		
CHAPTER 7 COMMUNITY DESIGN								
Community Design	7.01	Amend the 1993 [Molokai Country Town Business Design Guidelines] <u>Design Guidelines For Country Town Business Districts Molokai - Hawaii.</u>	Project	1	2016-2021	[Planning Department] PD	50	County
Community Design	7.02	Develop sub area development plans for Kaunakakai, Maunaloa, Kaluako'i, Kualapu'u / Ho'olehua, and the East End of Moloka'i.	Project	1	2016-2021	[Planning Department] PD	TBD	County
Community Design	7.03	Develop a pedestrian linkage between Malama Park and Kaunakakai through streetscape improvements.	Project	2	2022-2035	[Planning Department] PD	TBD	County
Community Design	7.04	Develop and adopt rural and small town street design standards that are appropriate for Moloka'i.	Project	2		DPW See Transmittal Letter "Agency Comments"		
Community Design	7.05	Create a funding source or mechanism for small business owners to renovate businesses in the island's small towns.	Program	2	2016-2021	OED	50	County
Community Design	7.06	Develop incentives to promote the use of sustainable green building and development practices.	Program	2	2022-2035	Mayor's Office (Environmental Coordinator)	TBD	County
Community Design	7.07	Develop practicable incentives for Moloka'i businesses and property owners to implement sub-area development plan projects purposed to preserve, maintain, and enhance buildings, structures, sites, viewpoints, pedestrian ways, and streets.	Program	2	2022-2035	[Planning Department] PD	TBD	County
Community Design	7.08	Conduct a study to improve walkability in Kaunakakai.	Project	2	2016-2021	[Planning Department] PD	20	County
Moloka'i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Community Design	7.09	Review and update [the] <u>Chapter 16.26B, MCC, relating to indigenous architecture,</u> [ordinance] as appropriate.	Project	2	2016-2021	[Planning Department] PD	N/A	N/A
Community Design	7.10	Investigate options to share the cost of BCT guideline requirements for infrastructure upgrades among all Kaunakakai businesses, such as an Assessment District, so that renovations are economically feasible.	Project	1	2016-2021	[Planning Department] PD	N/A	N/A
CHAPTER 8 INFRASTRUCTURE								

Moloka'i Community Plan

Water	8.1.01	Support the development of a Moloka'i Water Use and Development Plan [(WUDP)] that is consistent with the goals, policies and implementation strategy of the [Moloka'i Community] Plan.	Project	1	2016-2021	DWS	200	County
Water	8.1.02	Implement recommendations from the 2013 <i>Update of the Hawaii Water Reuse Survey and Report</i> .	Project	2	On-going	DEM	N/A	County
Water	8.1.03	Promote water conservation programs.	Program	1	On-going	DWS	40 annually	County
Water	8.1.04	Develop, adopt, and implement a wellhead protection strategy and ordinance for County water distribution systems.	Program	1	2016-2021 On-going	DWS	50 adoption TBD implementation	County
Water	8.1.05	Reconvene the Moloka'i Water [working group] <u>Working Group</u> and encourage all water purveyors to work together to address future water demand, sustainability, quality, and supply issues.	Program	1	On-going	DWS	10 annually	County
Water	8.1.06	Explore the possibility of requiring new developments with privately owned public water systems to meet DWS engineering standards.	Project	2		DWS <i>See Transmittal Letter "Agency Comments"</i>		
Water	8.1.07	Explore the possibility of DWS taking over [Molokai Ranch's] <u>Moloka'i Ranch</u> water systems.	Project	2	On-going	DWS	TBD	Private County
Water	8.1.08	Encourage the acquisition of USGS stream gauges <u>to</u> be placed in Moloka'i's important streams.	Project	1	On-going	DWS	TBD	County Federal Private
Water	8.1.10	Continue to fund watershed partnership on Moloka'i.	Program	1	On-going	DWS	300 annually	County
Wastewater	8.2.01	Assess the feasibility of [either] providing measures to protect the Kaunakakai WWTF against inundation threats or to relocate it out of the coastal floodplain.	Project	1	2022-2035	DEM	200	County

Moloka'i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Wastewater	8.2.02	Conduct a wastewater reuse feasibility study that includes the identification of potential recycled water users, necessary <u>wastewater facility [plant]</u> upgrades, required infrastructure improvements, estimated costs, and funding sources.	Project	2	2016-2021	DEM	50	County
Wastewater	8.2.03	Explore options and necessary [code] and regulation changes to allow graywater reuse systems for irrigation and toilet flushing.	Project	2	2016-2021	DEM	N/A	N/A
<u>Wastewater</u>	<u>8.2.04</u>	<u>Replace the Kaunakakai effluent force main prior to the end of its useful life.</u>				<u>DEM</u>		
Wastewater	8.2.05	Update the Kaunakakai WWTF facilities plan.	Project	1	2022-2035	DEM	100	County

Moloka`i Community Plan

Stormwater Management	8.3.01	Develop a comprehensive stormwater management plan that emphasizes use of natural systems drainage where possible.	Project	1	2022-2035	DPW	500	County
Stormwater Management	8.3.04	Inspect, maintain, and if necessary, repair or install new stormwater drainage swales and culverts, and remove blockages from drains and channels.	Program	1	Ongoing	DPW	500 per year	County
Stormwater Management	8.3.05	Prepare a GIS database which inventories existing stormwater infrastructure.	Project	2	2022-2035	DPW	500	County
Stormwater Management	8.3.06	Evaluate older swales and drains for current functioning and restore, if needed. Add natural drainage storage and filtration to supplement existing system.	Project	2	2022-2035	DPW	TBD	County
Stormwater Management	8.3.07	Improve or restore historic wetlands that help to mitigate the impacts from stormwater drainage systems.	Program	2	2022-2035	DPW	TBD	County
<u>Stormwater Management</u>	<u>8.3.08</u>	<u>Complete the Kaunakakai drainage system.</u>						
<u>Stormwater Management</u>	<u>8.3.09</u>	<u>Reconstruct culverts to 100-year flood specifications on all County roads.</u>						
Solid Waste	8.4.01	Expand waste diversion and recycling programs that include appliances, metals, plastic, glass, cardboards, green-waste, and other recyclable materials.	Program	2	On-Going	DEM	TBD	County State
Solid Waste	8.4.02	Increase public outreach, education, and incentive programs that improve waste reduction, reuse, and recycling.	Program	2	On-Going	DEM	TBD	County
Solid Waste	8.4.03	Develop <u>and place</u> educational signage along the entry corridor heading to the County recycling site.	Project	2	2016 - 2021	DEM	TBD	County
Solid Waste	8.4.04	Implement the ISWMP through programs[,] <u>that include</u> improvements, and upgrades to the solid waste management system; execute the CIP budget as funds allow.	Program	2	On-Going	DEM	TBD	County
Solid Waste	8.4.05	Conduct a survey to determine community preference for the County landfill operating hours.	Project	2	2016 - 2021	DEM	N/A	N/A
Solid Waste	8.4.06	Expand the solid waste recycling center's operating hours as funding and budgets allow.	Project	1	2016-2021	DEM	TBD	County
Solid Waste	8.4.07	Explore the feasibility of [<u>locating</u>] <u>placing</u> more trash cans throughout the island.	Project	2	2016-2021	DEM	TBD	County

Moloka`i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Solid Waste	8.4.08	Conduct a feasibility study to explore waste-to-energy solutions.	Project	2	On-going	DEM	TBD	County
Solid Waste	8.4.09	Explore the feasibility of having more transfer stations located throughout Moloka`i [<u>Island</u>].	Project	1	2016-2021	DEM	TBD	County
Solid Waste	8.4.10	Form a partnership with Molokai NGOs, State Agencies, and DHHL to remove and recycle junk cars from Molokai.	Program	1	On-going	DEM	TBD	County

Moloka'i Community Plan

Solid Waste	8.4.11	Conduct annual reviews of Solid Waste Division contracts to provide over-sight and enforcement.	Program	1	On-going	DEM	N/A	N/A
Solid Waste	8.4.12	Establish a "take it or leave it" station at the recycling center like those that exist on the other islands.	Program	2	On-going	DEM	TBD	County
Transportation	8.5.01	Work with State DOT to [encourage that the] ensure airport and air services meet the needs of Moloka'i's residents, visitors and businesses.	Project	2	On-going	OED	N/A	N/A
Transportation	8.5.02	Support the continued air services between topside Moloka'i and Kalaupapa.	Project	2	2016-2021	OED	10	County
Transportation	8.5.03	Identify challenges and propose solutions to transporting Moloka'i agricultural products to Maui and Oahu markets.	Project	1	On-going	OED	N/A	N/A
Transportation	8.5.04	Advocate for increased barge and ferry service to and from Moloka'i.	Project	1	On-going	OED	N/A	N/A
Transportation	8.5.05	Identify harbor and airport improvements designed to further support the agricultural industry.	Project	2	2016-2021	OED	10	State
Transportation	8.5.06	Plan for an integrated multimodal transportation system with complete streets that serve automotive, public transit, bicycle, pedestrian, and other land transportation modes.	Project	2	2016-2021	DPW	250	County State
Transportation	8.5.07	Develop and implement a trail, greenway and open space access plan that utilizes old agriculture roads and trails where appropriate.	Project	2	2016-2021	[Planning Department] PD	30	County
Transportation	8.5.08	Integrate a parking study with parking mitigation measures appropriate for Moloka'i into a Kaunakakai Revitalization and Beautification Plan. Explore the concept of centralized parking in Kaunakakai Town and utilize areas such as the Old Electric Park.	Project	1	2016-2021	[Planning Department] PD	50	County
Transportation	8.5.09	Evaluate existing MEO transportation services to identify possible improvements to routes and pick up and drop off locations and other supporting facilities.	Project	1	2016-2021	[Planning Department] PD	N/A	N/A
Transportation	8.5.10	Support additional access routes located around Kaunakakai to facilitate access to and from town.	Project	1	2022-2035	DPW	TBD	County
Transportation	8.5.11	Explore the possibility of the County acquiring privately owned roads on Moloka'i.	Project	2	2016-2022	DPW	TBD	County
Moloka'i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Transportation	8.5.12	Encourage a [bike share] bikeshare program for Moloka'i.	Program	2	on-going	DPW	N/A	County
Transportation	8.5.13	Encourage the continued practice of no-fee parking at the [Molokai airport] Moloka'i Airport .	Project	1	On-going	OED	N/A	N/A
Energy	8.6.01	Develop a [Diversified Energy Strategy] diversified energy strategy for Moloka'i that examines locations for large and small scale renewable energy systems.	Project	1		Energy Office <i>See Transmittal</i>		

Moloka`i Community Plan

						<i>Letter "Agency Comments"</i>		
Energy	8.6.02	Create a smart grid that would allow for integration of additional renewable energy sources.	Project	2		Energy Office <i>See Transmittal Letter "Agency Comments"</i>		
Energy	8.6.03	Provide loan programs and tax incentives to encourage individuals and businesses to install renewable energy systems and to use energy saving devices.	Program	2		Energy Office <i>See Transmittal Letter "Agency Comments"</i>		
Energy	8.6.04	Develop an ordinance that would require all new County buildings and facilities to achieve specific energy efficiency standards, such as LEED certification.	Project	2	2022-2035	DPW	N/A	County
Energy	8.6.05	Encourage the use of electric vehicles. Support the installation of Photovoltaic [(PV)] charging stations throughout the Island.	Project	2		Energy Office <i>See Transmittal Letter "Agency Comments"</i>		
Telecommunications	8.7.01	Work with telecommunications providers to expand coverage and provide more reliable service throughout the island.	Program	1	On-going	OED	N/A	N/A
Telecommunications	8.7.02	Work with internet providers to expand high-speed internet service throughout the island.	Program	1	On-going	OED	N/A	N/A
Telecommunications	8.7.03	Provide high speed internet at all county meeting facilities.	Project	1	2016-2021	OED	150	County
Telecommunications	8.7.04	Encourage more provision of wireless "hotspots" in Moloka`i's [Country Towns]country towns.	Program	1	2016-2021	OED	50	County Private
CHAPTER 9 PUBLIC FACILITIES & SERVICES								
Parks & Recreation	9.1.01	Develop, adopt and regularly update a parks and recreation master plan that incorporates public facilities, parks, other recreational opportunities and a financial component.	Project	1	2016-2021	Parks & Recreation	30	County
Parks & Recreation	9.1.02	Amend development regulations to ensure the construction of adequate parking with pathways near public shoreline access points.	Project	1	2022-2035	[Planning Department]PD	TBD	County
Moloka`i Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Parks & Recreation	9.1.03	Adopt a beach/mountain access dedication ordinance using Transfer Development Rights addressed in [HRS]Chapter 46, HRS to improve access along the shoreline and mountains.	Project	2	2022-2035	[Planning Department]PD	TBD	County
Parks & Recreation	9.1.04	Develop a master plan that would identify improvements to Duke Maliu Regional Park.	Project	2	2016-2021	Parks & Recreation	80	County

Moloka`i Community Plan

Parks & Recreation	9.1.05	Provide shade for One Ali`i Park’s playground area.	Project	1	2016-2021	Parks & Recreation	30	County
Parks & Recreation	9.1.06	Consider repurposing the Kilohana Park for a potential site to relocate and build a new Puko'o Fire Station.	Project	2	2022-2035	Parks & Recreation	30	County
Parks & Recreation	9.1.08	Explore land acquisition and development of park facilities at Kumimi Beach.	Project	2	2022-2035	Parks & Recreation	TBD	County State
Parks & Recreation	9.1.09	Explore state or county land acquisition and development of park facilities at Dixie's.	Project	2	2022-2035	Parks & Recreation	TBD	County State
Parks & Recreation	9.1.10	Work with county, [State, and Federal]state and federal agencies, and the[,] community to resolve Malama Park issues.	Project	1	2016-2021	Parks & Recreation	N/A	N/A
Police	9.2.01	Coordinate with community organizations in their prevention and treatment efforts to reduce substance use and abuse.	Program	2	Ongoing	[Maui Police Department]MPD	N/A	N/A
Police	9.2.02	Continue working cooperatively with the Prosecuting Attorney and the Drug Enforcement Agency (DEA) to enforce substance abuse laws.	Program	1	Ongoing	[Maui Police Department]MPD	N/A	N/A
Police	9.2.04	Collaborate with community organizations and other appropriate groups to provide Moloka`i community and cultural sensitivity training for new recruits and transferred personnel.	Program	2	Ongoing	[Maui Police Department]MPD	N/A	N/A
Police	9.2.05	Expand police presence in the East End and West Ends of [Moloka`i]Moloka`i.	Program	1	2022-2035	[Maui Police Department]MPD	TBD	TBD
Police	9.2.06	Explore the possibility of collaborating with an animal rescue organization to establish an animal holding facility on [Moloka`i]Moloka`i.	Program	1	2016-2021	[Maui Police Department]MPD	TBD	TBD
Fire & Public Safety	9.3.01	Develop an island wide fire risk and vulnerability assessment.	Project	1	2016-2021	Fire & Public Safety	30	CWPP Federal
Fire & Public Safety	9.3.02	Explore options for relocating Puko`o Fire Station to a location [that is] not vulnerable to flooding[,and] tsunamis, and best meets the needs of East End residents.	Project	1	2016-2021	Fire & Public Safety	N/A	N/A
Fire & Public Safety	9.3.03	Support the staffing upgrade for the Puko`o Fire Station to meet the same national and Maui County minimum staffing levels as provided at the other fire stations in Maui County. Evaluate the results of the "Standards of Coverage" report and address recommended fire service needs.	Project	1	2016-2021	Fire & Public Safety	380 annually	County

Moloka`i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Fire and Public Safety	9.3.04	Implement and maintain the “Centers for Public Safety Excellence” accreditation program.	Program	1	Ongoing	Fire & Public Safety	8	County

Moloka'i Community Plan

Fire and Public Safety	9.3.05	Support the implementation of the accreditation program by creating one full time position. [Level]Minimum level of effort for [Moloka'i]Moloka'i would be 15 percent.	Program	1	On-going	Fire & Public Safety	20	County
Fire and Public Safety	9.3.06	Complete premises identification addressing for all occupied properties and properties with structures on [Moloka'i]Moloka'i.	Program	1	2016-2021	DPW	TBD	County
Fire and Public Safety	9.3.07	Encourage enforcement and incentives for the effective posting of addresses on applicable [Moloka'i]Moloka'i premises per County Code and public safety [recommendations]recommendations.	Program	1	On-going	DPW	TBD	County
Education	9.4.01	Assist with [accreditation]accreditation of pre-school and child care center providers via professional services.	Program	2	On-going	DHHC	TBD	County
Education	9.4.02	Continue workforce development programs and internships.	Program	1	On-going	OED	N/A	N/A
Education	9.4.03	Provide training for job preparedness, such as proper work ethic, responsibility, resume writing and interviewing.	Program	1	On-going	OED	N/A	N/A
Education	9.4.04	Continue to assess and provide [recommendaitions]recommendations and funding to eliminate achievement gaps in education for Native Hawaiian [strudents]students.	Program	2	On-going	OED	N/A	N/A
Health & Social Services	9.5.01	Conduct community needs surveys and allocate funding to expand the number and variety of social services.	Project	2	On-going	DHHC	N/A	N/A
Health & Social Services	9.5.02	Coordinate with transportation and recreation planners to increase bikeways and pedestrian opportunities for exercise.	Project	2	On-going	Parks & Recreation	N/A	N/A
Health & Social Services	9.5.03	Continue to provide social services for immigrants, early [childhhd]childhood, aging, and seniors.	Program	2	On-going	DHHC	200	Federal
Health & Social Services	9.5.04	Continue to encourage support and funding for the network of services for alcohol and substance abuse.	Project	1	On-going	DHHC	60	County
Health & Social Services	9.5.05	Continue to encourage support and funding for the network of services for domestic violence, sex assault, and families in crisis.	Project	1	On-going	DHHC	TBD	County
Health & Social Services	9.5.06	Form partnerships and provide assistance to develop a plan for establishing long-term and short-term supportive housing, palliative care and hospice facilities.	Project	1	2016-2021	DHHC	N/A	N/A
Cemeteries	9.6.01	Complete a site selection study to identify a location for a new cemetery.	Project	1	2016-2021	DPW	100	County
Cemeteries	9.6.02	Work with the community to develop a map of grave sites at the [Ualapua]Ualapue Cemetery.	Project	1	2016-2021	OED	TBD	Private County

Moloka'i Community Plan Implementation Actions

Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
------------------------	------------	-------------	------	----------	--------	--------------------	---------------------	-------------------

Moloka'i Community Plan

Governance	9.7.01	Continue to improve, promote, and publicize the availability of telecommunications and video conferencing for county services and for participation in county council, and all Board and Commission meetings held on Maui.	Program	1	On-going	Mayor's Office	N/A	N/A
Governance	9.7.02	Provide training to the [Molokai Planning Commission]MoPC on all applicable laws providing the legal framework agencies must follow when engaging in decision making actions that may impact Native Hawaiian traditional and customary practices.	Project	1	On-going	[Planning Department]PD	N/A	N/A
Governance	9.7.03	Conduct regularly scheduled public information meetings on island.	Program	1	2016-2021	Mayor's Office	N/A	N/A
Governance	9.7.04	Provide training to the [Molokai Planning Commission]MoPC on all applicable laws providing the legal framework agencies must follow when engaging in decision making actions that may impact Native Hawaiian traditional and customary practices. Fulfill new requirement for a Native Hawaiian Cultural Expert on Moloka'i Planning Commission. Ensure that a minimum of one Moloka'i resident is a member of each board and commission per MCC 2041.080 is fulfilled.	Program	1	2016-2021	Mayor's Office	N/A	N/A
Governance	9.7.05	Continue to support Maui County Community television on Moloka'i.	Program	1	2016-2021	Mayor's Office	N/A	N/A
Governance	9.7.06	Initiate the convening of a task force to discuss governmental issues of Makanalua.	Project	2	2016-2021	Mayor's Office	N/A	N/A
Governance	9.7.07	Provide training to the [Molokai Planning Commission]MoPC on all applicable laws providing the legal framework agencies must follow when engaging in decision making actions that may impact Native Hawaiian traditional and customary practices. Fulfill new requirement for a Native Hawaiian Cultural Expert on Moloka'i Planning Commission. [same as 9.7.04?]	Program		On-going	[Planning Department]PD	N/A	N/A

This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 2200 Main Street
 Wailuku, Hawaii 96793

Pacific Ocean



Legend

Important Natural Resources		Other	
	Critical Habitat - Plant (USF&W, 2016)		Major Roads
	Critical Habitat - Moth (USF&W, 2016)		Minor Roads
	Forest and Plant Resources (Hawaii DBEDT 2003)		Unpaved Roads
	Wetlands - Nat'l Wetlands Inventory (USF&W, 2016)		Streams
			Reservoirs
			Coral

Product Code: MRENAP_Coun3.2.1_Copyright © 5/4/2017



This map is for planning purposes only and should not be used as a regulatory map.

Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
One Main Plaza
2200 Main Street
Wailuku, Hawaii 96793

Pacific Ocean

Kaiwi Channel

Kalohi Channel

Pailolo Channel

Legend

	East Molokai Watershed Partnership (2017)		Major Roads
	Game Management Areas (DLNR)		Minor Roads
	Reserve Areas 2017 (SOH, DLNR, DOFAW)		Unpaved Roads
	Special Management Areas (SMA)		Streams
	Marine Managed Areas 2016 (DLNR)		Reservoirs
	Hawaiian Islands Humpback Whale National Marine Sanctuary (NOAA)		Coral
	Land Trust Conservation Areas		



This map is for planning purposes only and should not be used as a regulatory map.

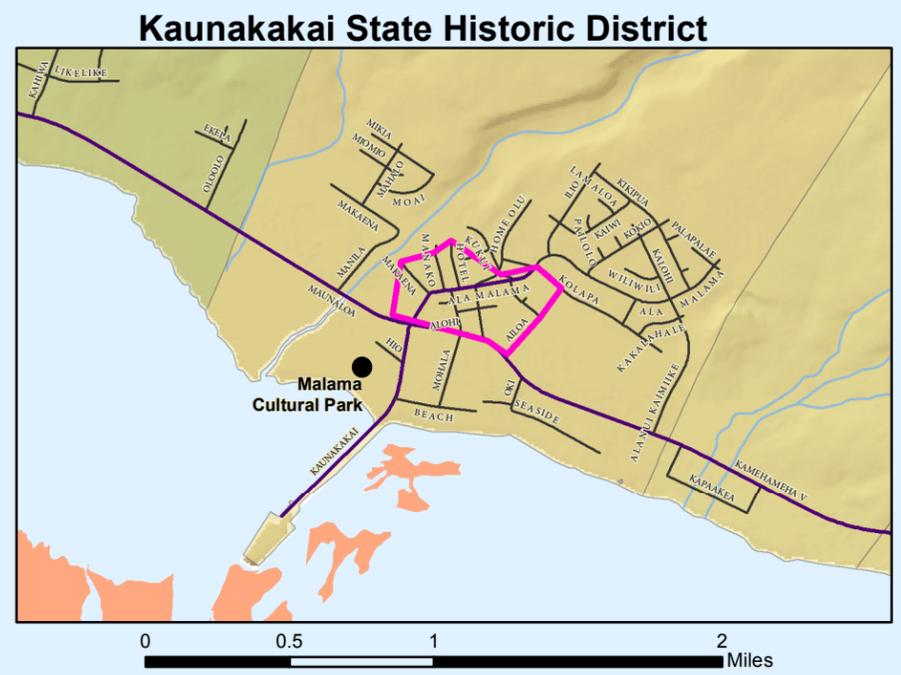
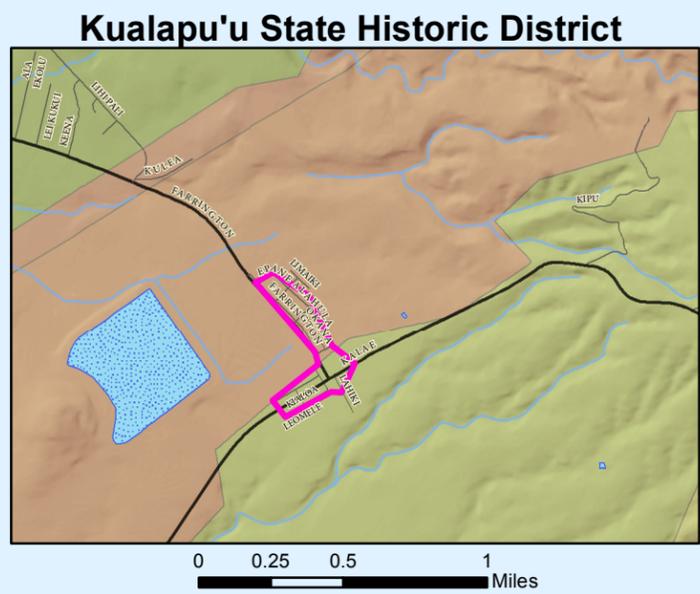


Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 2200 Main Street
 Wailuku, Hawaii 96793



Legend

● Waterfalls	□ Historic Districts
● Places of Interest	■ Ahupua'a
--- NaAlaHele Trails	■ Fishponds
— Major Roads	■ Reservoirs
— Minor Roads	■ Coral
- - - Unpaved Roads	
~ Streams	



Product Code: MPENAP_Coun_3.3.1_Copyright © 5/5/2017

Legend

Critical Infrastructure

- Major Roads

Other

- Hotels
- Streams
- Coral
- Reservoirs
- Building Footprints

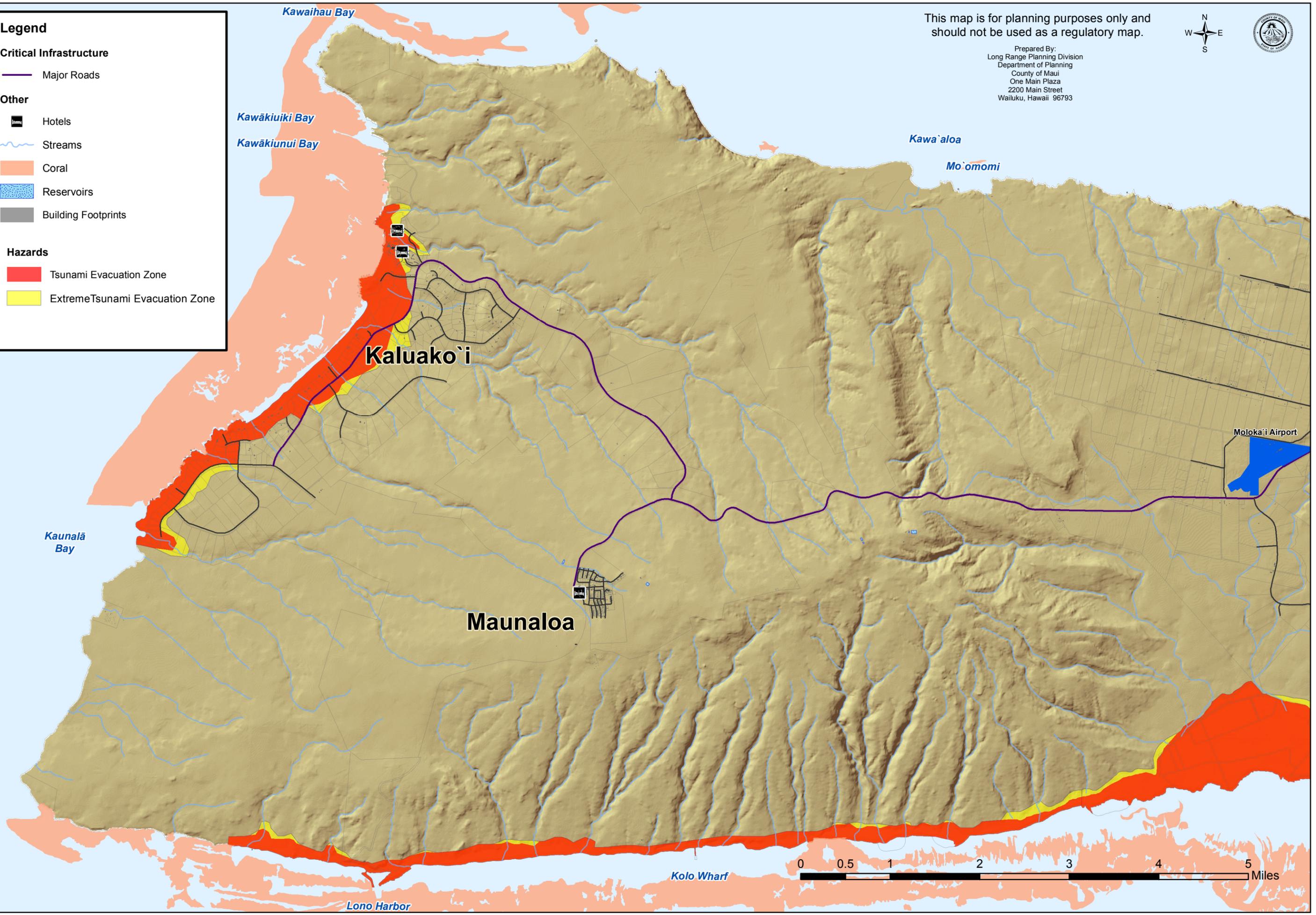
Hazards

- Tsunami Evacuation Zone
- Extreme Tsunami Evacuation Zone

This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 2200 Main Street
 Wailuku, Hawaii 96793



Product Code: MRENAP_Coun_4.1_1 Copyright © 5/5/2017



This map is for planning purposes only and should not be used as a regulatory map.

Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 2200 Main Street
 Wailuku, Hawaii 96793

Legend

Critical Infrastructure

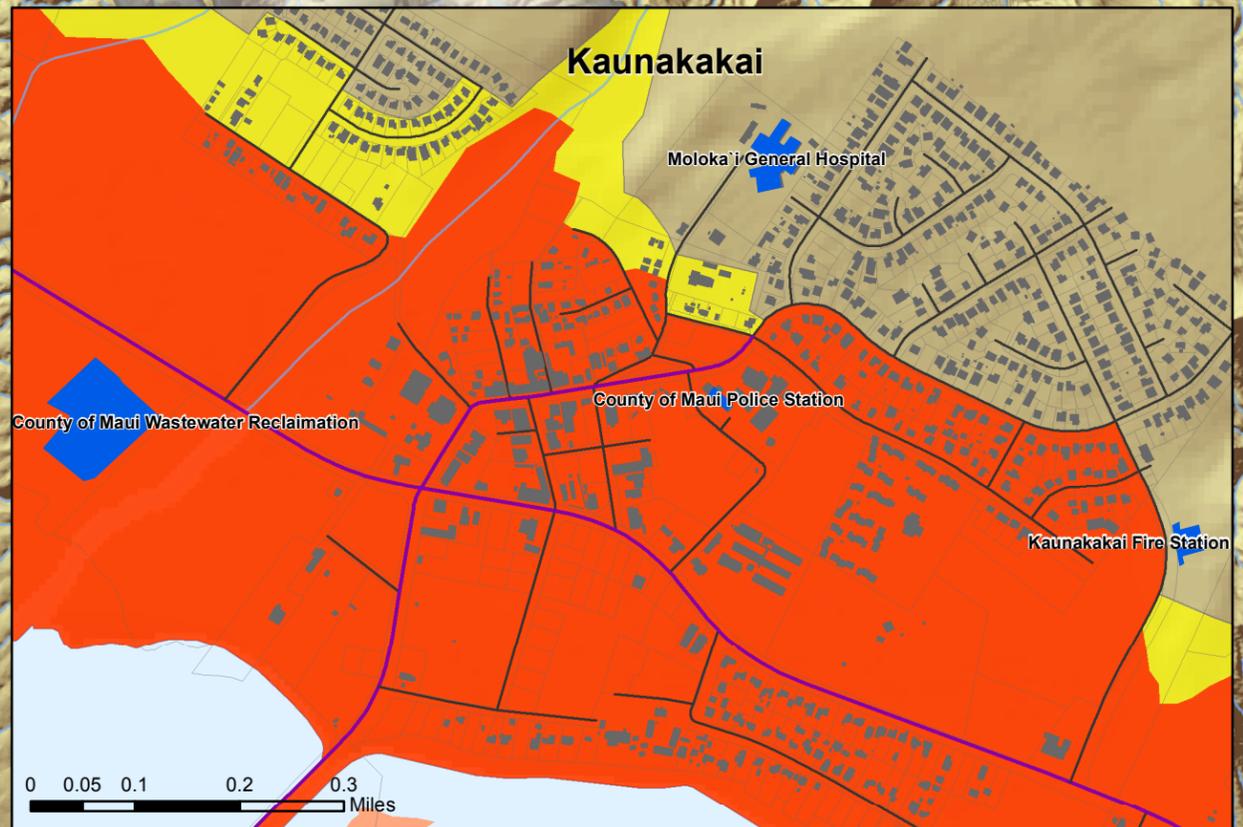
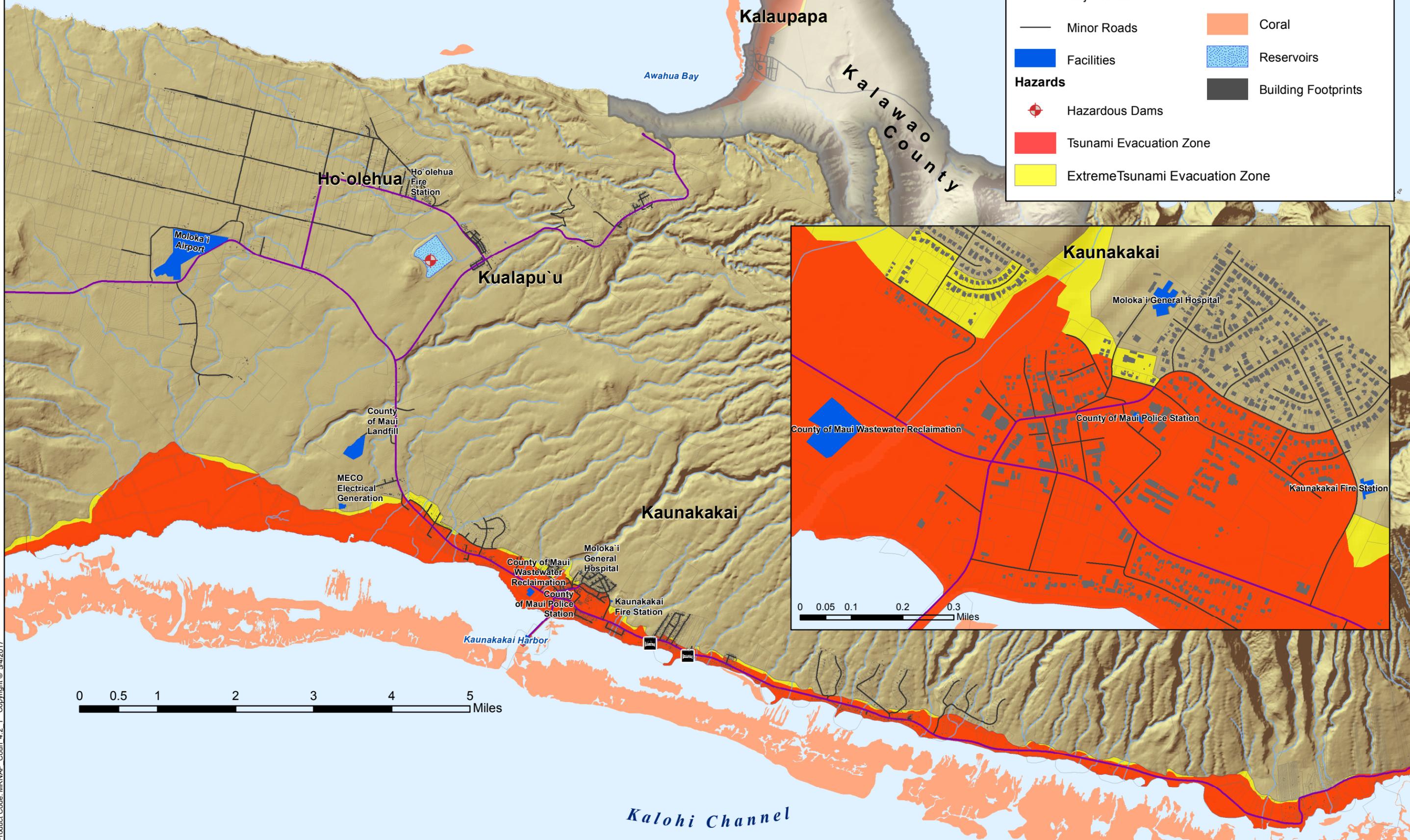
- Major Roads
- Minor Roads
- Facilities

Hazards

- Hazardous Dams
- Tsunami Evacuation Zone
- Extreme Tsunami Evacuation Zone

Other

- Hotels
- Streams
- Coral
- Reservoirs
- Building Footprints



Product Code: MRNAP_Coun_4.2.1_Copyright © 5/4/2017

Kalaupapa Airport

Pacific Ocean

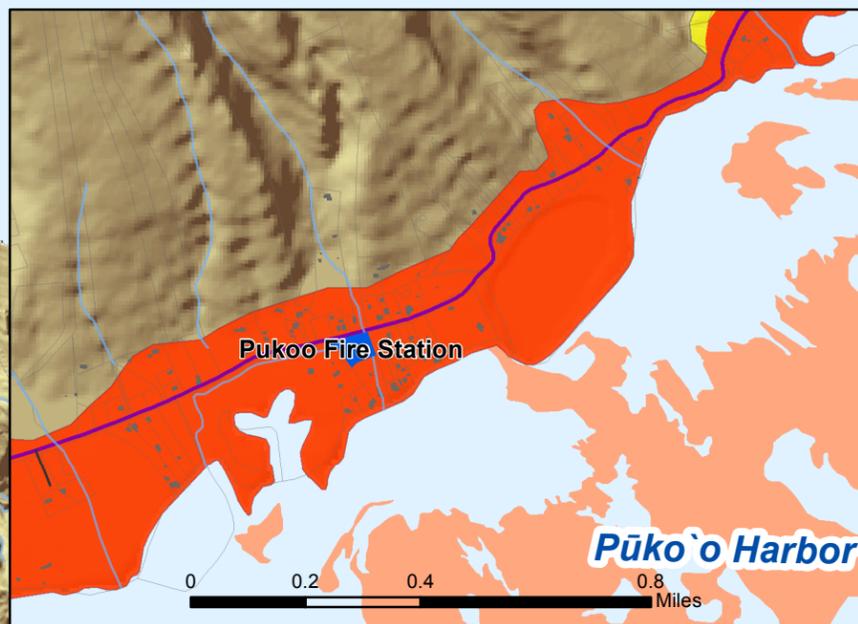
This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
One Main Plaza
2200 Main Street
Wailuku, Hawaii 96793

Kalawao County

Puko'o



Hālawā Bay

Honowēwe Bay

Hālawā

Pūko`o Harbor

0 0.2 0.4 0.8 Miles

Pauwālu Harbor

Pukoo Fire Station

Pūko`o Harbor

Kamalō Harbor

0 0.5 1 2 3 4 5 Miles

Legend

Critical Infrastructure

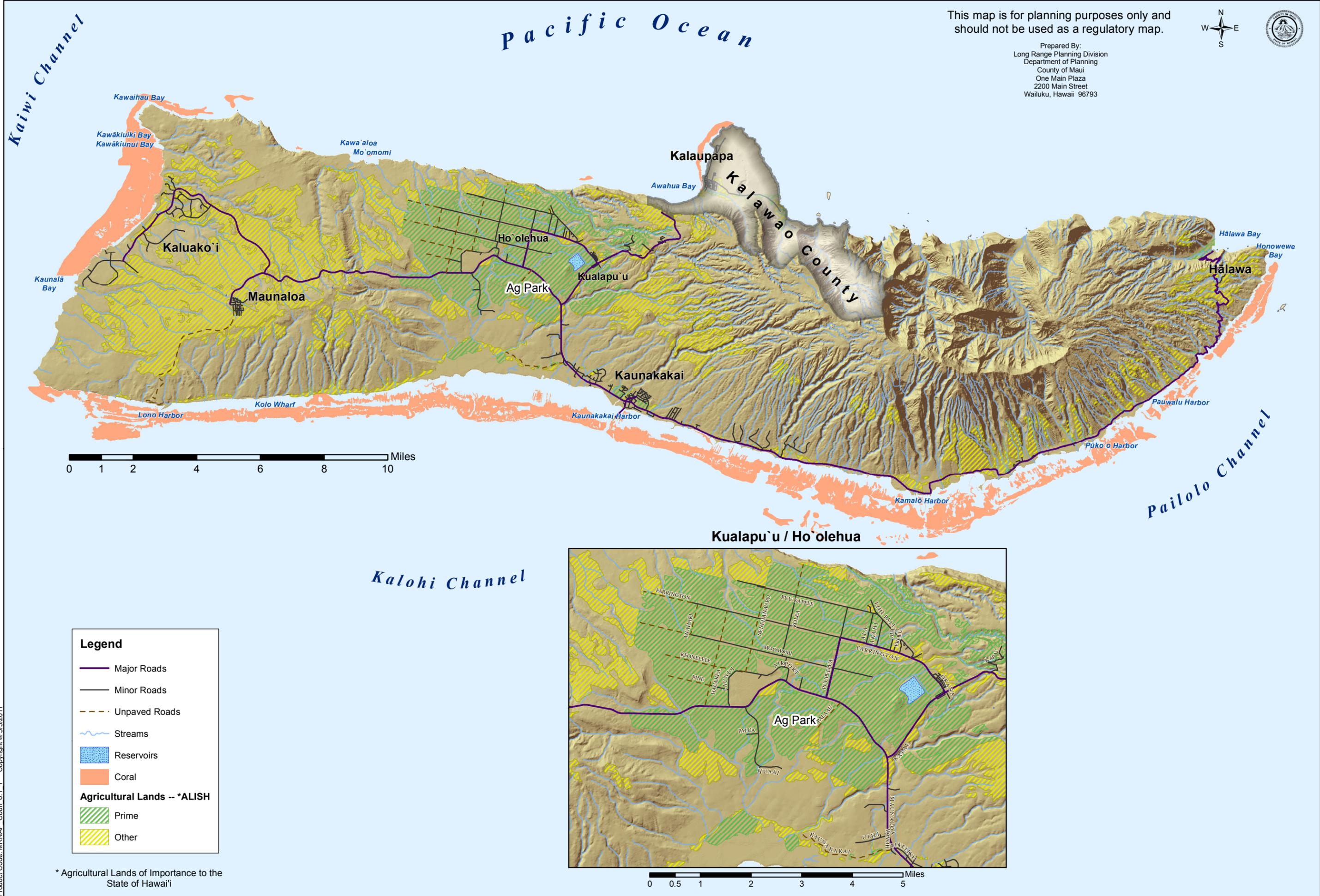
- Major Roads
- Minor Roads

Other

- Streams
- Coral
- Building Footprints

Hazards

- Tsunami Evacuation Zone
- Extreme Tsunami Evacuation Zone



Pacific Ocean

This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 2200 Main Street
 Wailuku, Hawaii 96793

Kaiwi Channel

Pailolo Channel

Kalohi Channel

Kualapu'u / Ho'olehua

Molokai Community Plan Update

Map 6.1 Agricultural Resources

Planning Department/CPAC/MoPC DRAFT

Date: May 5, 2017

Product Code: MRNAP_Coun.6.1.1 Copyright © 5/5/2017

**This map is for planning purposes only and should not be used as a regulatory map.

Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
2200 Main Street
Wailuku, Hawaii 96793

Legend

Region

- West

Community Plan Designations

- Single Family
- Multi-family
- Hotel
- Commercial
- Light Industrial
- Airport
- Agriculture
- Rural
- Project District
- Open Space
- Conservation
- Public/Quasi-public
- Park
- Park/Golf Course

Roads

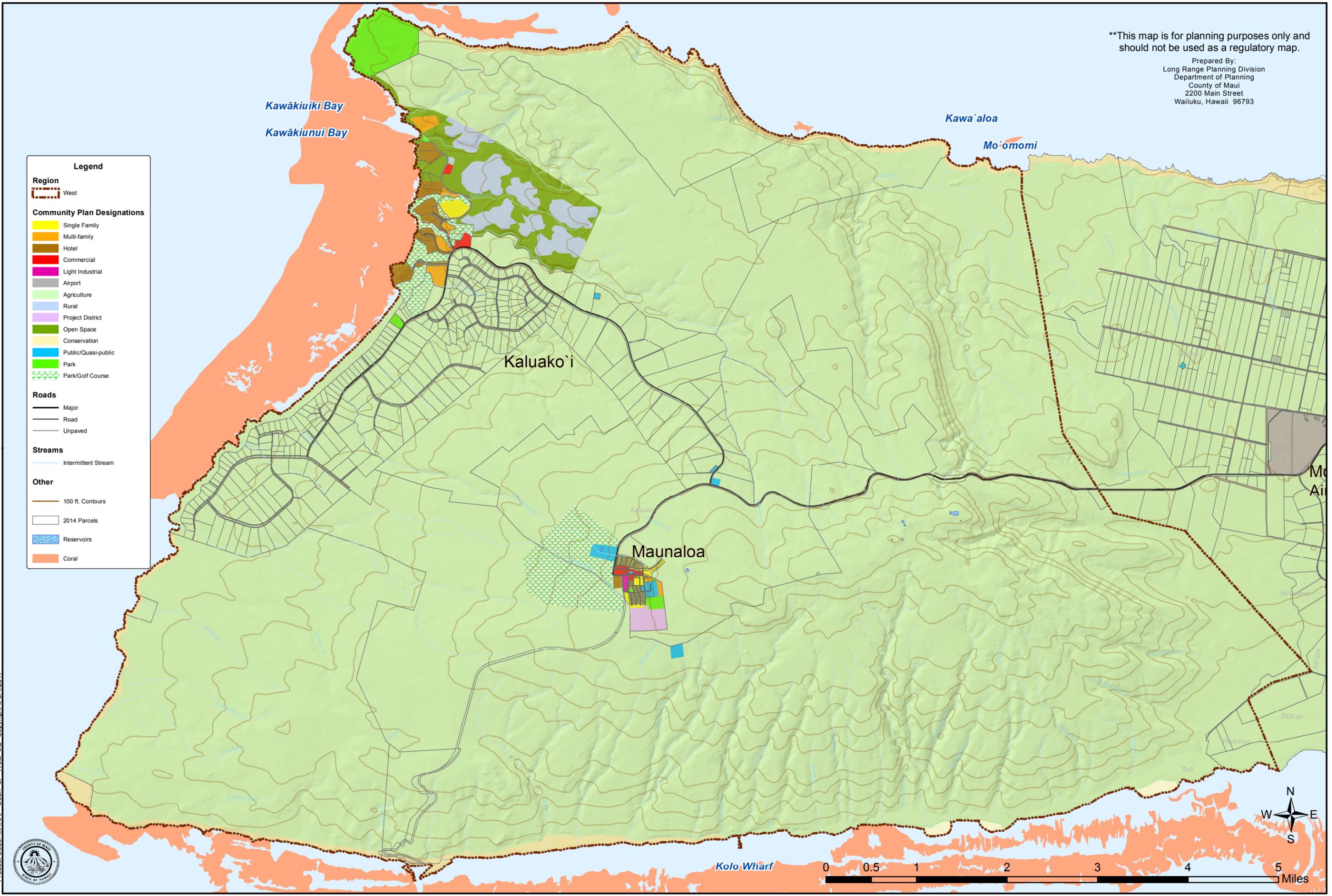
- Major
- Road
- Unpaved

Streams

- Intermittent Stream

Other

- 100 ft. Contours
- 2014 Parcels
- Reservoirs
- Coral



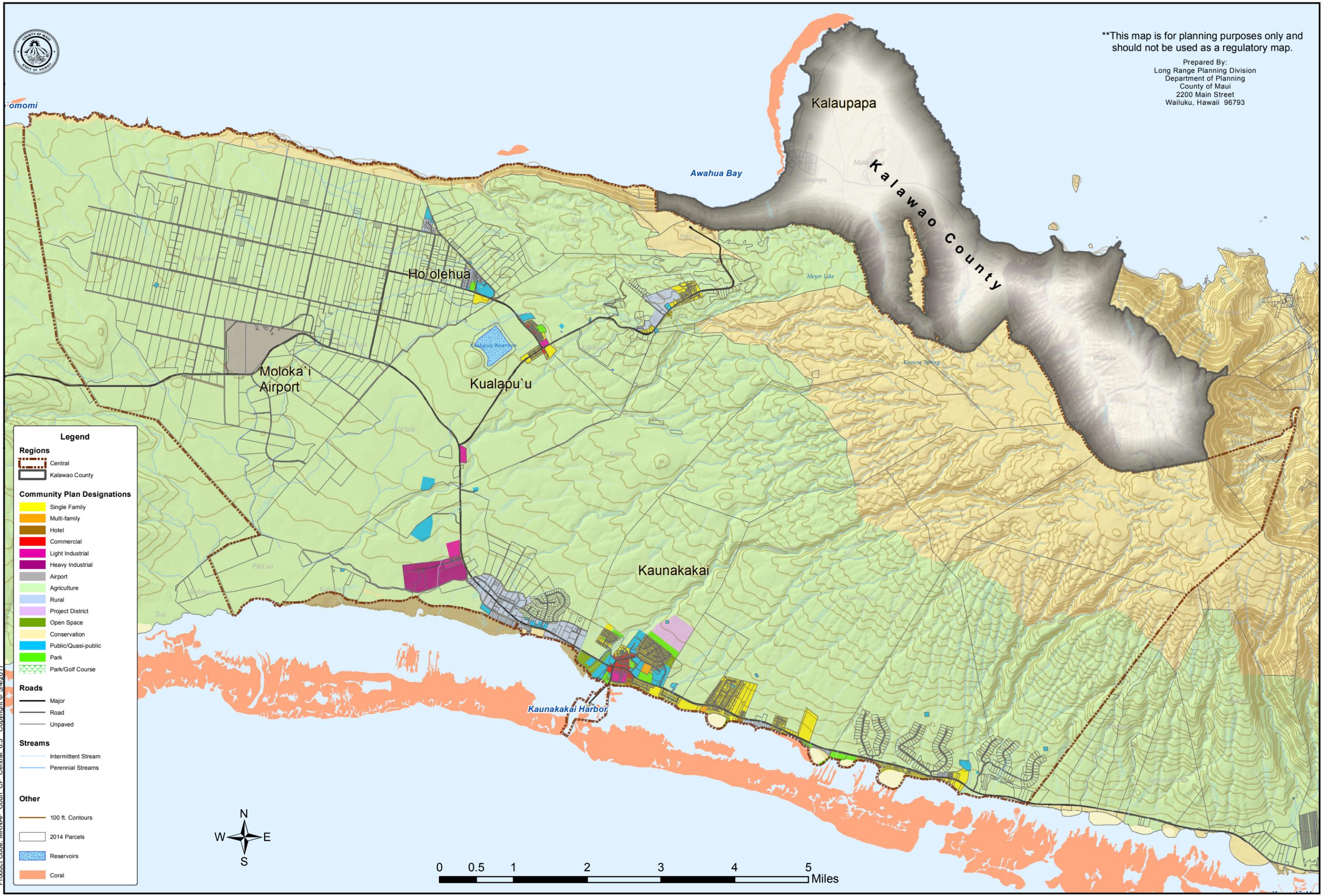
Product Code: MRNAP_Coun_CP_West_6.2_Copyright © 5/4/2017



omomi

****This map is for planning purposes only and should not be used as a regulatory map.**

Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
2200 Main Street
Wailuku, Hawaii 96793



Legend

Regions

- Central
- Kalawao County

Community Plan Designations

- Single Family
- Multi-family
- Hotel
- Commercial
- Light Industrial
- Heavy Industrial
- Airport
- Agriculture
- Rural
- Project District
- Open Space
- Conservation
- Public/Quasi-public
- Park
- Park/Golf Course

Roads

- Major
- Road
- Unpaved

Streams

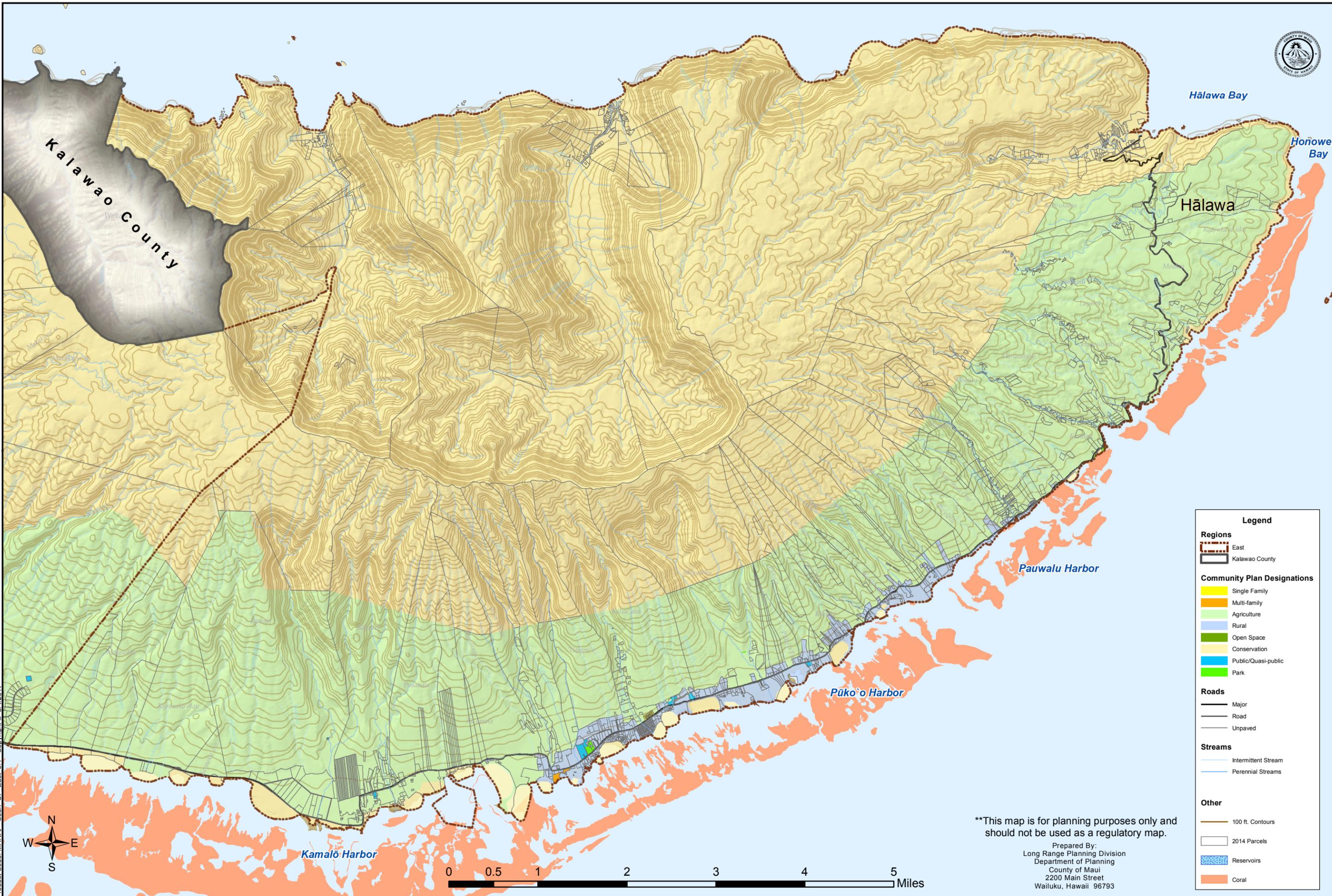
- Intermittent Stream
- Perennial Streams

Other

- 100 ft. Contours
- 2014 Parcels
- Reservoirs
- Coral



Product Code: MRENAP_Coun_CP_Central_6.3 Copyright © 5/4/2017



Hālawā Bay
Honowe Bay

Hālawā

Kalawao County

Pauwalu Harbor

Pūko'o Harbor

Kamalo Harbor

Legend

Regions

- East
- Kalawao County

Community Plan Designations

- Single Family
- Multi-family
- Agriculture
- Rural
- Open Space
- Conservation
- Public/Quasi-public
- Park

Roads

- Major
- Road
- Unpaved

Streams

- Intermittent Stream
- Perennial Streams

Other

- 100 ft. Contours
- 2014 Parcels
- Reservoirs
- Coral

**This map is for planning purposes only and should not be used as a regulatory map.

Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
2200 Main Street
Wailuku, Hawaii 96793

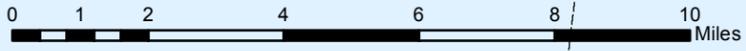


Product Code: MRNAP_Coun_CP_East_6.4 Copyright © 5/14/2017

This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
 Long Range Planning Division
 Department of Planning
 County of Maui
 One Main Plaza
 Wailuku, Hawaii 96793



Legend

Bridges	Air Routes
Boating Facilities	----- To Kaulapapa
Harbors	----- To Lanai
Parcels	----- To Maui
Trails	----- To Oahu
Na Ala Hele Trails	Airports
Other Trails	Roadways
	Highways
	Minor Roads
	Unpaved Roads

Kaunakakai



Kaiwi Channel

Pacific Ocean

This map is for planning purposes only and should not be used as a regulatory map.



Prepared By:
Long Range Planning Division
Department of Planning
County of Maui
2200 Main Street
Wailuku, Hawaii 96793



Legend

Public Facilities

- Services (Purple square)
- Parks (Green square)

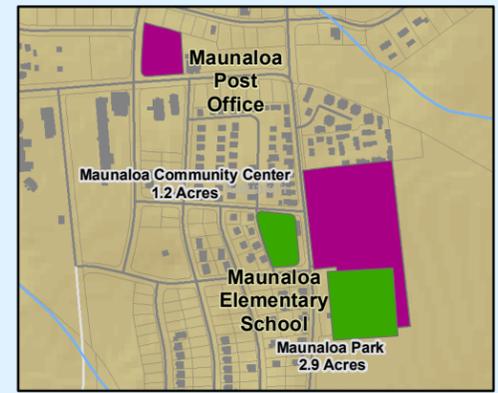
Roadways

- Major Roads (Purple line)
- Minor Roads (Black line)

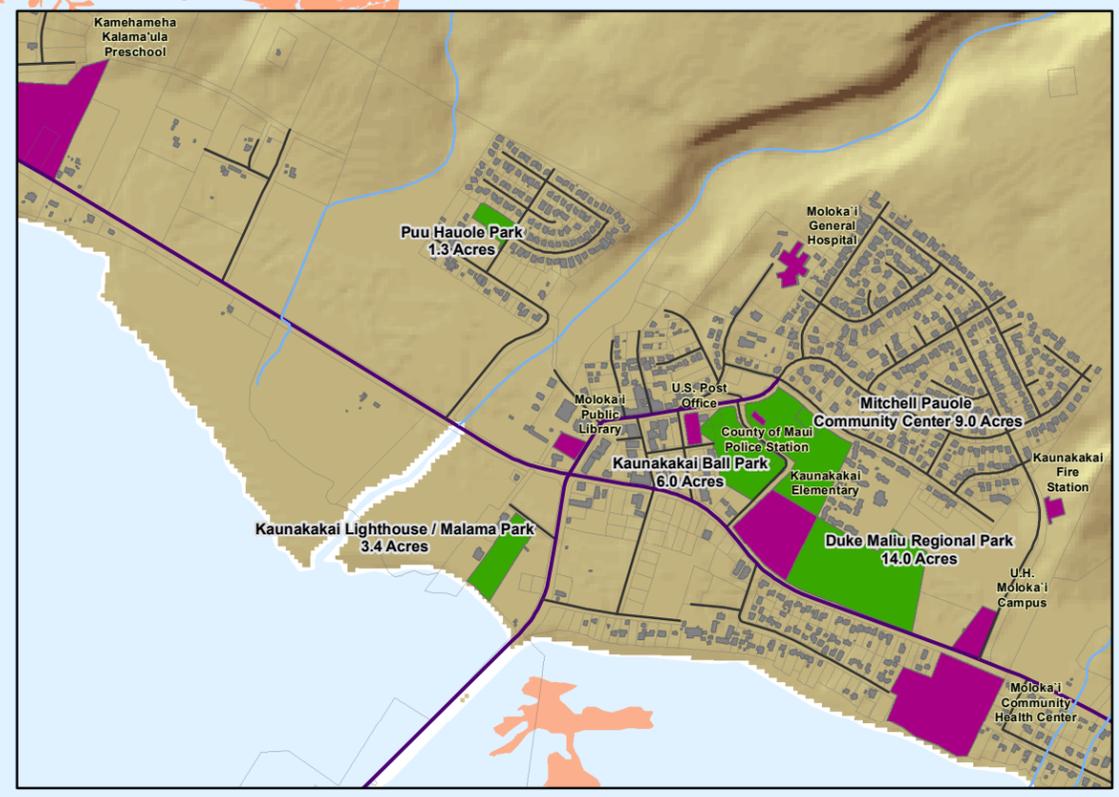
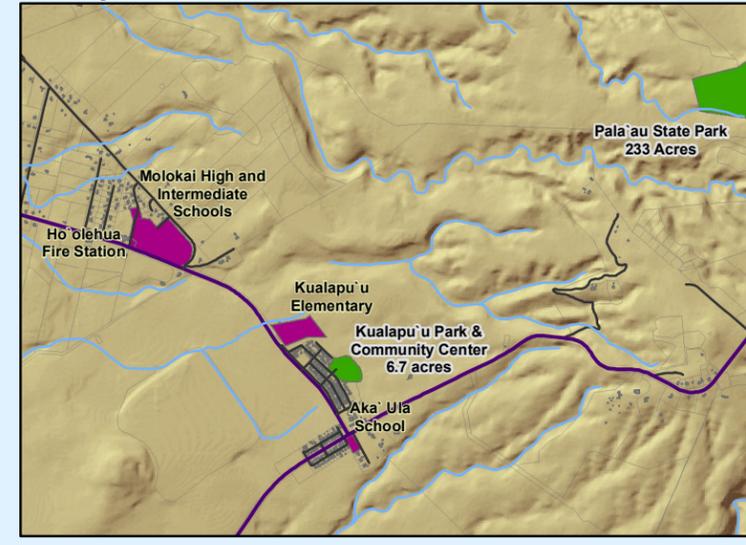
Other

- Streams (Blue wavy line)
- Building Footprints (Grey square)
- Reservoirs (Blue dotted square)
- Parcels (White square)
- Coral (Orange square)

Maunaloa



Kualapu'u



Molokai Community Plan Update

Map 9.1 Public Facilities

Planning Department/CPC/MoPC DRAFT

Date: May 5, 2017

Product Code: MFRNAP_Coun9.1_1 Copyright © 5/4/2017

1

Appendix 1.1 Moloka`i History Summary

2 There were two initial land divisions on the island of Moloka`i, the *Ko`olau* and the *Kona* Districts. In 1859,
 3 the Hawaiian Government combined the districts as it determined that one district would be more efficiently
 4 administered than two. This was done because the population of the island had dropped to 2,864 and
 5 increasing numbers of people were beginning to migrate from the windward valleys on the north side of the
 6 island to the more accessible leeward coastal regions. Then in 1909, a political division of the island was
 7 made to incorporate Moloka`i as one of the districts in the newly formed Maui County, where it remains
 8 today. The Kalaupapa Settlement was administratively separated and became known as Kalawao County,
 9 managed by the State Department of Health.

10

11 Throughout its history, the island has been characterized by its rural, agricultural base, first established by
 12 the early *kanaka maoli*. Moloka`i's strong sense of traditional, culturally significant history is represented
 13 by its many ancient Hawaiian sites, as well as by the impressive ruins of Kalua`aha Church, built in 1844
 14 representing the establishment of the first Missionary station in 1832 and Father Damien's St. Joseph's
 15 church at Wawaia.

16

17 One of the earliest settlement dates for Hawai`i, 500-600 A.D., established by carbon-14 testing, was found
 18 on the Halawa Valley shoreline along the windward coast of the island of Moloka`i. These deep valleys
 19 with their perennial streams, separated one from another by sheer *pali* plunging vertically into the sea, were
 20 developed into terraces for intensive taro cultivation. Today, the stone evidence of these extensive irrigation
 21 systems, terracing, *heiau*, *ko`a* (fishing shrines) and habitation sites are found in the now largely deserted
 22 valleys.

23

24 The more forgiving lush, green southeastern portion of this land is thought to have been the home of the
 25 majority of early Hawaiians. *Lo`i Kalo* (ponded terraces) were found in every wet valley and ringed the
 26 shoreline sides of the numerous stone-walled fishponds stretching almost uninterrupted from Honolewai to
 27 Waikāne and beyond. *Mauka* of the ponds, *uāla* (sweet potato) and *wauke* (paper mulberry) plants were
 28 cultivated between long shallow terraces which swept across the lower *kula* slopes. There are 136 recorded
 29 *heiau* on the island and of these 36 are found from Kamalo`o mana`e to Honoulimalo`o, including `Ili`ili`opae
 30 *heiau* at Mapulehu, the largest on the island and thought to be the oldest.

31

32 At the time of western contact in 1778, the estimated population figure for Moloka`i was 10,500. In 1850,
 33 a Hawaiian government census estimated that the island population was 3,540. By 1910, this figure had
 34 fallen to 1,006, not including the patients at the Kalaupapa Settlement.

35

36 Although not officially in the planning area being considered; Kalawao had a significant and important part
 37 in the history of Moloka`i. During the early 1800's the Kalawao peninsula on the windward coast held a
 38 small thriving community of Hawaiians. Partially due to its strategic location between the deepest valleys
 39 and the summer fishing grounds to the west, it served as a center of the Ko`olau District's activities. Its

1 isolated location was chosen in 1865 by Kamehameha V to serve as the area set aside for those unfortunate
2 victims of leprosy, or Hansen's disease. The Hawaiian residents were relocated and given land either at
3 Kainalu on the east end of Moloka`i or on one of the other Hawaiian Islands. The *pali* trails became the
4 life-lines for food and supplies to the settlement, greatly increasing the need for reliable trails and a cart
5 road from the *pali* to the harbor at Kaunakakai. Access was strictly controlled and the area was virtually
6 cut off from the rest of the population of the island. There were around 700 patients when Father Damien
7 arrived in 1873 to spend the rest of his life caring for the sick of the peninsula. Moloka`i residents were
8 often employed by the Department of Health, which administered the Settlement, to keep the trails and road
9 passable. It was during this period that Moloka`i became known as the Lonely Isle, and in 1909, the area
10 was officially separated from Moloka`i as Kalawao County.

11
12 In 1859, Kamehameha IV had established a sheep ranch on the west end at Kaluako`i, which his brother
13 Kamehameha V expanded by acquiring additional lands augmented by other types of livestock. This was
14 the founding of Moloka`i Ranch, later purchased in 1897 by a group of Honolulu businessmen when it
15 became known as the American Sugar Company. The sugar enterprise did not last long as their wells, with
16 the sustained pumping required, produced saline water which soon killed the cane in the fields. The ranch
17 again reverted to a livestock venture.

18
19 Various diversified agricultural enterprises had been established during the 1870's, among them three
20 small-scale sugar plantations and mills at Kala`e, Moanui and Kamalo`o. These operations had all shut
21 down by 1900. One of the few remaining significant historical sites on the island is the restored 1878 R.
22 W. Meyer Sugar Mill at Kala`e.

23
24 Puko`o was the first town in the western sense and the first County seat with a court house, lock-up, wharf
25 and several small stores. As Moloka`i developed into a limited market-oriented economy surrounding the
26 plantation and ranching activities to the west, a gradual population shift began to occur, and in 1925 the
27 County business center was moved to `Ualapu`e, where a new hospital had opened. Changes were taking
28 place so rapidly, that only ten years later Kaunakakai had assumed the role of major commercial and
29 political center of the island, and the physical facilities were again transferred westward.

30
31 Usually islands were dependent on their surrounding waters for the transportation of goods and people;
32 however, considering the long, narrow configuration of Moloka`i, it would seem probable that trails became
33 a more practical and convenient means of travel from north to south, windward to kona. These trails were
34 gradually turned to horse paths, later widened to accommodate animal drawn cars, wagons or buggies,
35 and eventually when trucks and the automobile were introduced to Moloka`i, they became western-style
36 roads. This new mode of transportation required not only better roads, but supplies of oil and gasoline for
37 fuel.

38
39 As larger ships with deep drafts came to the islands, they required wider openings in the reefs and deeper,
40 well-protected waters for anchorage. On Moloka`i, the harbors were shallow and vulnerable to shifts in the
41 gusty winds. Ships not able to negotiate the reef were forced to anchor in deeper water or tie up to the
42 government installed buoys. Canoes or whaleboats transported passengers and goods to shore, to be met

1 by ox-carts driven over the shoals or to be later deposited on one of the small wharves. The cattle were
2 forced into the water to swim to the waiting ships and lifted by sling onto the decks.

3
4 Contributing to the modernization of transportation on Moloka`i, several wharves were constructed during
5 the early 1880's at Kaunakakai, Puko`o, Kamalo`o, Kalaupapa and Pelekunu. Of the five original wharves,
6 only Kamalo`o wharf barely survives today and is gradually breaking up. The stones of old Kaunakakai
7 wharf are under water approximately one hundred yards west of the present wharf, built in 1899.

8
9 In the early 1900's, inter-island steamers began carrying freight, produce and passengers to and from
10 Moloka`i, an increasingly vital link for the economic well-being of the island. The Kaunakakai wharf has
11 been improved and lengthened several times over the years; the harbor has been dredged and cleared of
12 obstructions and the opening in the reef widened to accommodate the larger barges of Young Brothers and
13 slips for fishing and pleasure boats.

14
15 Passenger travel by ship became less popular with the opening of Ho`olehua airport in 1928; and in 1929,
16 the Inter-Island Airways inaugurated their first regular air service to Moloka`i's new airport, providing a fast,
17 reliable link with other islands.

18
19 The island's population began to increase dramatically in the early 1920's, and by 1930 there were 4,427
20 people on the island; an increase of 3,421 in ten years. The first change occurred when the Government
21 passed the Hawaiian Homes Act in 1921, resulting in the settlement of Kalama`ulna, Hoolehua, Pala`au
22 and Kapa`kea. The establishment of two pineapple plantations, Libby, McNeill and Libby (later Dole
23 Pineapple) at Maunaloa in 1923, and California Packing Corporation (Del Monte) in 1927 at Kualapu`u,
24 further encouraged the gradual population shift west from the more populated eastern areas of the island.
25 These plantations both closed down during the 1970's and 1980's, leaving the island again dependent on
26 diversified agriculture, primarily vegetable farming and cattle ranching. In the late 1970s, resort
27 development at the west end of the island at Kaluakoi became an influence on the islands economy. The
28 population increased during this period to 6,049. The population peaked in 2000 at 7,404 and then declined
29 to 7,255 over the next decade due to closure of the Kaluako`i Hotel and shuttering of Molokai Ranch
30 operations. During the same period, biotech seed companies began operations on Moloka`i.

31
32 The character of the island of Moloka`i remains a truly *mokupuni kua`aina* (country island) both culturally
33 and geographically, and it is this that distinguishes it from other islands and makes Moloka`i *Moloka`i*.

Appendix 1.2 Background Studies for Community Plans

1 The following list of technical studies was used in the development of the Moloka'i Community Plan. The
 2 public facilities and infrastructure assessments, and the socio-economic forecast were conducted for the
 3 County of Maui General Plan. The economic development and housing issue papers, and the land use
 4 forecast were conducted specifically for this community plan update.

- 5
- 6 • The *Final Public Facilities Assessment Update County of Maui* (March 2007) identifies public facilities
 7 and services (e.g., schools, parks, police and fire protection, hospital, and solid waste disposal
 8 services) issues and opportunities in high-growth community plan regions.
- 9
- 10 • The *County of Maui Infrastructure Assessment Update* (May 2003) identifies infrastructure (e.g.,
 11 roadways, drainage, water, wastewater, telephone and electrical systems) issues and opportunities in
 12 the community plan regions.
- 13
- 14 • The *Moloka'i Economic Development Issue Paper: A Discussion Paper for the Department of Planning*
 15 *Community Plan Update* (December 2010 and 2015 Update) discusses current economic conditions
 16 and broad alternative economic futures.
- 17
- 18 • The *Moloka'i Housing Issue Paper, Draft: A Discussion Paper for the Moloka'i Community Plan*
 19 *Update* (December 2010) discusses current issues and projected future needs.
- 20
- 21 • The *Land Use Forecast, Island of Moloka'i, Maui County General Plan Technical Resource Study*
 22 (October 2013) estimates the amount of available land for urban uses and the likely demand for that
 23 land between 2010 and 2035.
- 24
- 25 • The *Socio-Economic Forecast, The Economic Projections for the Maui County General Plan 2030*
 26 (September 2014) projects residential, visitor, and employment growth, as well as housing demand.
 27 This planning tool is used to predict future growth scenarios for each community plan region.
- 28
- 29
- 30
- 31

Appendix 1.3 Community Engagement

1 Before the CPAC process began, the county held several public workshops and conducted many interviews
 2 with Moloka`i residents during 2010-2011. The purpose of these activities was to hear directly from the
 3 people who lived on the island, to listen to their concerns, and to understand what their hopes are.

4 **Open House Events: June – October 2010**

5 **June 2010**

6
 7 The kick-off open house for the Moloka`i Community Plan was held on Saturday, June 26 from 10:00 AM
 8 to 2:00 PM at the Kaunakakai Elementary School cafeteria. More than 40 residents attended the open
 9 house, which was organized to solicit and record as many comments as people were willing to offer.
 10 Participants could visit five “stations” in the room. Some displayed information about Moloka`i while others
 11 asked visitors to write comments in response to specific questions.
 12
 13

14 **October 2010**

15 Two additional workshops were held in October 2010 to gather comments from Moloka`i residents on a
 16 variety of questions and issues. The workshop was organized by the Long Range Division (LRD) staff from
 17 the Maui County Planning Department and its consultant team from Chris Hart and Partners (CHP). It was
 18 held from 9:00 AM to 1:00 PM at the Mitchell Pauole Center and about 60+ people participated in the
 19 workshop, based on the sign-in sheets and a visual count.
 20

21 The workshop was designed with three sessions: 1) Vision and Core Values; 2) Issues and Opportunities;
 22 and 3) Goals and Strategies. Participants in small groups were asked to respond to specific questions on
 23 these three topics.
 24

25 The methodology used for the third workshop differed from the second. Each group was given a specific
 26 topic area to discuss rather than each group covering all topic areas. This methodology was chosen due
 27 to the amount of material to be covered. The four topic areas consisted of 1) economic development, 2)
 28 heritage resources, 3) land use, development and housing, and 4) infrastructure and public services.
 29

30 **November 2014**

31 An outdoor open house was held on Saturday, November 15 from 10:00 AM – 1:00 PM at Kaunakakai
 32 Elementary School. Because the last event was held several years previously, this open house was meant
 33 as a ‘refresher” of what had been expressed in the three previous community workshops.
 34

35 **Interviews**

1 During 2010 and 2011, about 40 interviews with Moloka'i residents were conducted by the county's
 2 planning staff. The interviews typically took about an hour and asked people what their thoughts were on
 3 the island's issues, opportunities, ideas for the future, and any other topics that were particularly relevant.
 4 Interviews were almost always held at a residence or office and included from one to three of the county's
 5 planners.
 6

Appendix 1.4 Legal Framework – Native Hawaiian Traditional and Customary Practices

11 The following section provides an important legal framework in which agencies are must follow when
 12 engaging in decision making actions that may impact Native Hawaiian traditional and customary practices.
 13 Hawai'i Revised Statute § 1-1 guides agencies to look to Hawaiian judicial precedence and custom and
 14 usage in making their decisions. Agencies are required to protect their kuleana rights of hoa'āina or
 15 kuleana.
 16

17 A. The 'Aha Kiole: The People's Councils and The Eight Realms of Decision Making

18 'According to Kumu John Ka'imikaua the purpose of the 'aha councils was to utilize the expertise of those
 19 with 'ike (knowledge) to mālama 'āina, to care for the natural resources, and to produce food in abundance
 20 not just for the people, but for successive generations. 'Aha council leadership was determined by the
 21 people who collectively understood who the experts were in their community.'¹¹⁹
 22
 23

24 With this in mind, when you look at Hawaiian custom and usage, the ancient traditions of which Moloka'i's
 25 'āina momona was based upon are the eight realms of decision making from the ancient 'aha councils.
 26 Historically, the 'aha councils of Moloka'i considered the following eight realms before making their
 27 decisions:
 28

29
 30 9. **Moana-Nui-Ākea** – the farthest out to sea or along the ocean's horizon one could perceive
 31 from atop the highest vantage point in one's area.

32 10. **Kahakai Pepeiao** – where the high tide is to where the lepo (soil) starts. This is typically
 33 the splash zone where crab, limu (seaweed), and 'opihi (limpet) may be located; sea cliffs; or a
 34 gentle shoreline dotted with a coastal strand of vegetation; sands where turtles and seabirds nest;
 35 or extensive sand dune environs.

36 11. **Ma Uka** – from the point where the lepo (soil) starts to the top of the mountain.

37 12. **Nā Muliwai** – all the sources of fresh water, ground/artesian water, rivers, streams, springs,
 38 including springs along the coastline that mix with seawater.

39 13. **Ka Lewalani** – everything above the land, the air, the sky, the clouds, the birds, the
 40 rainbows.

¹¹⁹ Malia Akutagawa, Shaelene Kamaka'ala, Harmonee Williams, et al., OFFICE OF HAWAIIAN AFFAIRS, TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'Ē, MOLOKA'I, 47 (2016).

1 14. **Kanaka Hōnua** – the natural resources important to sustain people. However,
2 management is based on providing for the benefit of the resources themselves rather than from
3 the standpoint of how they serve people.

4 15. **Papahelōlona** – knowledge and intellect that is a valuable resource to be respected,
5 maintained, and managed properly. This is the knowledge of the kahuna, the astronomers, the
6 healers, and other carriers of 'ike.

7 16. **Ke 'Ihi'ihi** – elements that maintain the sanctity or sacredness of certain places.¹²⁰
8

9 This ancient decision making matrix honors our ancestral past and wisdom, by looking to the needs of the
10 present and ensuring that our decisions provide for abundance for future generations yet unborn. For every
11 decision made and every land use proposal, any proposed amendments to the Moloka'i Community Plan
12 or any permit request, should be analyzed according to the impacts of these eight realms and the decision
13 making matrix should be applied because these are customary laws from ancient times, which were codified
14 by the Kingdom, and adopted by the State of Hawai'i. These laws are inherent rights of Native Hawaiians
15 to self-determination and sovereignty.
16

17 Additionally, international law recognizes the United Nations Declaration on the Rights of Indigenous
18 Peoples (UNDRIP), which President Obama signed this into law in 2010. Since then, various federal
19 advisory councils that serve as advisory bodies to federal agencies, have provided guidelines for which to
20 implement UNDRIP and to implement provisions for free, prior, and informed consent of native peoples. As
21 such, we here by adopt the UNDRIP and its underlying principles as a mandate that the State and County
22 government must adhere to in making land use decisions in collaboration with native individuals and
23 communities on Moloka'i.
24

25 'There are certain vested rights of Native Hawaiian ahupua'a tenants (hoa'āina) that have their origins in
26 the ancient land tenure system. This customary law was codified by the Hawaiian Kingdom and later
27 adopted by the State of Hawai'i. The State has reaffirmed these rights in its Constitution and statutes. A
28 unique body of jurisprudence has developed around these laws which reflect a heightened obligation by
29 the State and its political subdivisions to reasonably protect traditional and customary Native Hawaiian
30 rights on both public and private lands.'¹²¹
31

32 The native people of Mana'e and Moloka'i continue to strongly with their cultural practices and their
33 relationship to 'āina. For these reasons, this community plan is a reflection of self-determination and the
34 community's right to determine its own autonomy. As a people, the greater Hawaiian community is
35 exploring different avenues to attain sovereignty. However, as the Mana'e and Moloka'i community
36 engages with local government, international, federal, state, and county laws need to be recognized and
37 upheld.
38

39 B. Sources of Native Hawaiian Rights Law

¹²⁰ Interview with Dr. Kawika Winter, Director, Limahuli Garden and Pres., Hā'ena Makai Watch Coordinator, and former member of the late Kumu John Ka'imikaua's Halau Hula o Kukunaokalā in Honolulu, Haw. (Dec. 10, 2014).

¹²¹ Akutagawa, Kamaka'ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, *supra* note 4 at 58.

1
2 The Hawai'i State Constitution reaffirms these rights--particularly Hawaiian access rights--which are
3 protected in ones ahupua'a of residence¹²² or if shown to be customary, in other ahupua'a without the
4 benefit of tenancy if shown that this was the accepted custom and long-standing practice.¹²³ All State and
5 County agencies and decision making bodies are obligated under the Hawai'i State Constitution and various
6 statutes to ensure that these Hawaiian rights are not regulate out of existence. There are affirmative
7 obligations to protect Hawaiian custom and usage and the resources that Native Hawaiians depend
8 upon.¹²⁴ State and County agencies must make an independent assessment regarding the impact that a
9 proposed action may have on Native Hawaiian traditional and customary practices, and must consider the
10 following three factors:

- 11
12 (A) the identity and scope of 'valued cultural, historical, or natural resources' in the petition area, including
13 the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
14 (B) the extent to which those resources—including traditional and customary native Hawaiian rights—will
15 be affected or impaired by the proposed action; and
16 (C) the feasible action, if any, to be taken ...by the [State and/or its political subdivisions] to reasonably
17 protect native Hawaiian rights if they are found to exist.¹²⁵

18
19 C. 'Ohana Values: The Foundations of Hawaiian Traditional and Customary Practices

20
21 'Dr. Davianna Pōmaika'i McGregor interviewed a large number of kama'āina informants residing in "cultural
22 kīpuka" (rural areas that have maintained cultural understandings and practices)¹²⁶ who identified common
23 'ohana cultural values and customs for subsistence and mālama. It is the essence of these understandings
24 that should be the standard by which to measure whether something is a customary practice or not.'¹²⁷
25 According to Dr. McGregor, what distinguishes Hawaiian custom and practice is the honor and respect for
26 traditional 'ohana cultural values and customs to guide subsistence harvesting of natural resources. Such
27 'ohana values and customs include but are not limited to the following:

- 28
29 1) Only take what is needed.
30 2) Don't waste natural resources.
31 3) Gather according to the life cycle of the resources. Allow the native resources to
32 reproduce. Don't fish during their spawning seasons.
33 4) Alternate areas to gather, fish and hunt. Don't keep going back to the same place. Allow
34 the resource to replenish itself.

¹²² FORMAN & SUSAN K. SERRANO, HO'OHANA AKU, A HO'OLA AKU HO'OLA AKU: A LEGAL PRIMER FOR TRADITIONAL AND CUSTOMARY RIGHTS IN HAWAII 9 (2012) [hereinafter FORMAN & SERRANO, HO'OHANA AKU, A HO'OLA AKU] (citing Kalipi, 66 Haw. at 9, 656 P.2d at 750).

¹²³ Pele Def. Fund v. Paty (*Pele I*), 73 Haw. 578, 620, 837 P.2d 1247, 1272 (1992). See FORMAN & SUSAN K. SERRANO, HO'OHANA AKU, A HO'OLA AKU, *supra* note 7, at 13 (citing *Pele I*, 73 Haw. at 620, 837 P.2d at 1272).

¹²⁴ Ka Pa'akai O Ka 'Aina v. Land Use Comm'n, 94 Hawai'i 31, 7 P.3d 1068, 1083 (2000).

¹²⁵ FORMAN & SUSAN K. SERRANO, HO'OHANA AKU, A HO'OLA AKU, *supra* note 7, at 17 (citing *Ka Pa'akai*).

¹²⁶ DAVIANNA PŌMAIKA'I MCGREGOR, NĀ KUA'ĀINA: LIVING HAWAIIAN CULTURE, 21 (2007).

¹²⁷ Akutagawa, Kamaka'ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, *supra* note 4 at 7-58.

1 5) If an area has a declining resource, observe a kapu on harvesting until it comes back.
2 Weed, replant and water if appropriate.

3 6) Resources are always abundant and accessible to those who possess the knowledge
4 about their location and have the skill to obtain them. There is no need to overuse a more
5 accessible area.

6 7) Respect and protect the knowledge which has been passed down inter-generationally,
7 from one generation to the next. Do not carelessly give it away to outsiders.

8 8) Respect each other's areas. Families usually fish, hunt, and gather in the areas
9 traditionally used by their ancestors. If they go into an area outside their own for some specific
10 purpose, they usually go with people from that area.

11 9) Throughout the expedition keep focused on the purpose and goal for which you set out to
12 fish, hunt, or gather.

13 10) Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a
14 sign of flash flooding.

15 11) Share what is gathered with family and neighbors.

16 12) Take care of the kūpuna who passed on the knowledge and experience of what to do and
17 are now too old to go out on their own.

18 13) Don't talk openly about plans for going out to subsistence hunt, gather, or fish.

19 14) Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and
20 boisterous.

21 15) Respect family `aumakua. Don't gather the resources sacred to them.¹²⁸

¹²⁸ DAVIANNA MCGREGOR, THE NATURE CONSERVANCY, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, MAKAKUPA'IA AND KAWELA, ISLAND OF MOLOKA'I 16-17 (2006).

Appendix 2.1 Definition of Sustainability in Hawai'i

1 **Definition of Sustainability from *Hawai'i 2050 Sustainability Plan* (2008):**

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

A Hawai'i that achieves the following:

- *Respects the culture, character, beauty and history of our state's island communities*
- *Strikes a balance between economic, social and community, and environmental priorities*
- *Meets the needs of the present without compromising the ability of future generations to meet their own needs.*

The updates to the County of Maui's General Plan – which includes the Countywide Policy Plan, the Maui Island Plan, the Lana'i Community Plan, the Moloka'i Community Plan, the Kaho'olawe Community Plan, and the Community Plans on Maui Island – embrace this concept of sustainability, along with the guiding principles in the *Hawai'i 2050 Sustainability Plan*.

In 2011, the Hawai'i State legislature established sustainability as a state priority by incorporating the *Hawai'i 2050 Sustainability Plan* Guiding Principles of Sustainability into Chapter 226, the Hawai'i State Planning Act, of the Hawai'i Revised Statutes.

Appendix 2.2 Sustainability (HRS§ 226-108)

22

23 **HRS §226-108 Priority guidelines and principles to promote sustainability shall include:**

- 24 1) Encouraging balanced economic, social, community and environmental priorities;
- 25 2) Encouraging planning that respects and promotes living within the natural resources and limits of
- 26 the State;
- 27 3) Promoting a diversified and dynamic economy;
- 28 4) Encouraging respect for the host culture;
- 29 5) Promoting decisions based on meeting the needs of the present without compromising the needs
- 30 of future generations;
- 31 6) Considering the principles of the ahupua'a; and
- 32 7) Emphasizing that everyone, including individuals, families, communities, businesses and
- 33 government, has the responsibility for achieving a sustainable Hawai'i.
- 34

Appendix 2.3 Climate Change Adaptation Priority Guidelines (HRS §226 – 109)

2 §226-109 Climate change adaptation priority guidelines:

3 Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the
4 areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural
5 resources; education; energy; higher education; health, historic preservation; water resources; built
6 environment, such as housing, recreation, transportation; and the economy shall:

- 7 (1) Ensure that Hawai'i's people are educated, informed, and aware of the impacts climate change
8 may have on their communities;
- 9 (2) Encourage community stewardship groups and local stakeholders to participate in
10 planning and implementation of climate change policies;
- 11 (3) Invest in continued monitoring and research of Hawai'i's climate and the impacts of climate
12 change on the State;
- 13 (4) Consider Native Hawaiian traditional knowledge and practices in planning for the impacts
14 of climate change;
- 15 (5) Encourage the preservation and restoration of natural landscape features, such as coral reefs,
16 beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to
17 avoid, minimize, or mitigate the impacts of climate change;
- 18 (6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in
19 response to actual or expected climate change impacts to the natural and built environments;
- 20 (7) Promote sector resilience in areas such as water, roads, airports, and public health, by
21 encouraging the identification of climate change threats, assessment of potential consequences,
22 and evaluation of adaptation options;
- 23 (8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and
24 partnerships between government and private entities and other nongovernmental entities,
25 including nonprofit entities;
- 26 (9) Use management and implementation approaches that encourage the continual collection,
27 evaluation, and integration of new information and strategies into new and existing practices,
28 policies, and plans; and
- 29 (10) Encourage planning and management of the natural and built environments that effectively
30 integrate climate change policy.

Appendix 3.1 Ecosystem Services

Ecosystem Services is a term for the benefits that humans receive from natural resources and processes. These services are grouped into four categories as shown below. Many of these ecosystem services are essential to human life and are provided free of cost. Examples of ecosystem services are often used to illustrate the value of natural processes and resources, such as forest regulation of air quality. Calculation of financial values to replace ecosystem services ties economic benefit to environmental health. The categories below are from the Millennium Ecosystem Assessment¹²⁹:

<p>Supporting Services</p> <ul style="list-style-type: none"> ▪ Nutrient cycling ▪ Soil formation ▪ Primary production 	<p>Provisioning Services</p> <ul style="list-style-type: none"> ▪ Food ▪ Fiber ▪ Genetic resources ▪ Biochemicals, natural medicine, pharmaceuticals ▪ Fresh water
<p>Regulating Services</p> <ul style="list-style-type: none"> ▪ Air quality regulation ▪ Climate regulation (global, regional, local) ▪ Water regulation ▪ Erosion regulation ▪ Water purification and waste treatment ▪ Disease regulation ▪ Pest regulation ▪ Pollination ▪ Natural hazard regulation 	<p>Cultural Services</p> <ul style="list-style-type: none"> ▪ Cultural diversity ▪ Spiritual and religious values ▪ Knowledge systems ▪ Education values ▪ Inspiration ▪ Aesthetic values ▪ Social Relation ▪ Sense of place ▪ Cultural heritage values ▪ Recreation and ecotourism

¹²⁹ The Board of Millennium Ecosystem Assessment, (2003). *Ecosystems and Human Well-Being; A Framework for Assessment*, Island Press, Washington DC.

Appendix 3.2 Moloka`i Archaeological Surveys

5
6
7
8
9
10

Being developed by CPAC and community members - to be reviewed and considered for inclusion.

Appendix 3.3 Cultural Sites to be Protected

16
17

Being developed by CPAC and community members - to be reviewed and considered for inclusion.

Appendix 6.1 Comparison of State Land Use and County Community Plan Designations and Zoning Districts

1

STATE LAND USE DISTRICTS	COUNTY COMMUNITY PLAN DESIGNATIONS	COUNTY ZONING DISTRICTS ¹³⁰
Urban	Single Family (SF)	Residential Districts
		R-1, 6,000 sq ft
		R-2, 7,500 sq ft
		R-3, 10,000 sq ft
		R-O Zero Lot Line Residential
	Multi-Family (MF)	Multiple-Family districts
		Two-family (Duplex) District
		A-1 Apartment District A-2 Apartment District
	<p>Mixed Use Residential</p> <p><i>Note: Proposed new land use designation.</i></p>	<p><i>Proposed mix of Residential and Multiple-Family Districts, including neighborhood parks, Business/Commercial, and Public/Quasi-Public</i></p>
	Hotel (H)	Hotel Districts
H-1 Hotel District		
H-M Hotel District H-2 Hotel District		
<p>Business/Commercial (B)</p> <p>Business/Industrial (BI)</p> <p>Business/Multi-Family (BMF)</p> <p>Service Business/Single Family Residential (SBR)</p>	Business Districts	
	B-1 Neighborhood Business District	
	B-2 Community Business District	
	B-3 Central Business District	
	B-CT Business Country Town District B-R Resort Commercial District	
<p>Light Industrial (LI)</p> <p>Heavy Industrial (HI)</p>	Industrial Districts	
	M-1 Light Industrial District	
	M-2 Heavy Industrial District M-3 Restricted Industrial District	

¹³⁰ Examples of listed zoning districts are not exclusive, as additional zoning categories beyond those listed may be appropriate, or amendments may be made to the comprehensive zoning ordinance.

STATE LAND USE DISTRICTS	COUNTY COMMUNITY PLAN DESIGNATIONS	COUNTY ZONING DISTRICTS
Urban (continued)	Airport (AP)	Airport District
	Public/Quasi-Public (P)	Public / Quasi-Public Districts
		P-1 P-2
	Project District (PD)	Project Districts (PD)
	Park (PK)	Park Districts
		PK-1 Neighborhood Park District
PK-2 Community Park District		
PK-3 Regional Park District PK-4 Golf Course Park District		
Rural	Rural	Rural Districts
		RU-0.5 Rural District RU-1 Rural District RU-2 Rural District RU-5 Rural District RU-10 Rural District
Agriculture	Agriculture	Agricultural District
	Open Space (OS)	Open Space Districts
		OS-1 Passive Open Space District OS-2 Active Open Space District
Conservation	Conservation (C)	

1
2

Appendix 6.2 County Community Plan Designations

1
2 The County's nine geographic community plan regions are: Wailuku-Kahului, West Maui, South Maui,
3 Pa`ia-Ha`iku, Makawao-Pukalani-Kula, Hana, Moloka`i, Lāna`i and Kaho`olawe. The following list includes
4 the designations used in the most recently adopted community plan updates, though not every community
5 plan uses all of these designations.

6
7 **[County community plan land use designations are not regulatory].** The following list of designations
8 provides general descriptions of types of uses.

9
10 **Single-Family (SF):** This includes single-family, duplex, and ohana dwellings.

11
12 **Multi-Family (MF):** This includes apartments and condominiums having more than two dwellings.

13
14 **Mixed Use Residential (MUR):** A proposed new designation that would include a mix of single and multi-
15 family residential, neighborhood parks, business/commercial, and public/quasi-public uses.

16
17 **Hotel (H):** This applies to transient accommodations. Such hotel facilities may include permissible accessory
18 uses primarily intended to serve hotel guests.

19
20 **Business/Multi-Family (BMF):** This includes a mixture of retail, office, and commercial services which are
21 oriented to neighborhood service and single family and multi-family residential uses.

22
23 **Service Business/Single-Family Residential (SBR):** Includes single-family dwellings with small-scale
24 and neighborhood-oriented businesses and services that are primarily established in existing residential
25 dwellings or other structures. The business use should be compatible with the physical character of the
26 residential neighborhood.

27
28 **Business/Commercial (B):** This includes retail stores, offices, entertainment enterprises and related
29 accessory uses.

30
31 **Business/Industrial (BI):** Includes a mixture of warehousing, distribution, service operations, retail and
32 offices uses.

33
34 **Light Industrial (LI):** Denotes warehousing, light assembly, service and similar industrial operations.

35
36 **Heavy Industrial (HI):** Denotes major industrial operations with potentially noxious impacts due to noise,
37 airborne emissions or liquid discharges.

38
39 **Airport (AP):** Includes all commercial and general aviation airports and accessory uses.

1 **Public/Quasi-Public (P):** Includes schools, libraries, fire and police stations, government buildings, public
2 utilities, hospitals, churches, cemeteries and community centers.

3
4 **Project District (PD):** Provides for a flexible and creative planning approach, rather than specific land use
5 designations, and allows for a variety of uses in accord with each individual project district objective.

6
7 **Future Growth Reserve (FGR):** Recognizes possible areas of urban growth that would occur beyond the
8 projected ten year time frame of the community plan update, and encourages planning for infrastructure
9 development and use allocations.

10
11 **Park (PK):** Applies to lands developed or to be developed for recreational use, including public and private
12 active and passive parks. Golf courses are identified as "PK (GC)" in order to differentiate golf courses
13 from other kinds of park uses.

14
15 **Rural (R):** Protects and preserves areas consisting of small farms intermixed with low-density single-family
16 residential lots. The requirements of the State Rural District should govern this area.

17
18 **Agriculture (AG):** Indicates areas for agricultural activity, in keeping with the economic base of the County
19 and the requirements of the State Agricultural District.

20
21 **Open Space (OS):** Intended to limit development on lands that may be inappropriate for intensive
22 development due to environmental, physical or scenic constraints, including shore-line buffer areas,
23 landscape buffers, drainageways, viewplanes, flood plains and tsunami-prone areas.

24
25 **Conservation (C):** This category primarily recognizes the designation of lands in the State Conservation
26 District and is used to protect and preserve wilderness areas, beach reserves, scenic areas and historic
27 sites, open ranges, and watersheds; to conserve fish and wildlife; and to promote forestry and grazing.

