

DANNY A. MATEO
County Clerk



PC-41
JOSIAH K. NISHITA
Deputy County Clerk

OFFICE OF THE COUNTY CLERK

COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov/county/clerk

May 23, 2016

Honorable Don Couch, Chair
Planning Committee
Council of the County of Maui
Wailuku, Hawaii 96793

Dear Chair Couch:

Respectfully transmitted are copies of the following communications that were referred to your Committee by the Council of the County of Maui at its meeting of May 20, 2016:

COUNTY COMMUNICATIONS:

No. 16-95 - Robert Carroll, Councilmember

No. 16-98 - William Spence, Planning Director

Respectfully,

A handwritten signature in black ink that reads "Danny A. Mateo". The signature is written in a cursive, flowing style.

DANNY A. MATEO
County Clerk

/jym

Enclosures

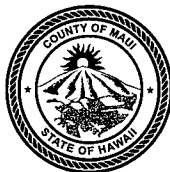
cc: Director of Council Services

RECEIVED
2016 MAY 23 AM 8:57
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COUNTY COUNCIL

ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director



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2016 MAY -4 AM 9:30

OFFICE OF THE MAYOR

COUNTY OF MAUI

DEPARTMENT OF PLANNING

May 4, 2016

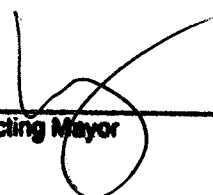
Honorable Alan Arakawa
Mayor, County of Maui
200 South High Street
Wailuku, Hawaii 96793

For Transmittal to:

Honorable Mike White, Chair
and Members of the Maui County Council
200 South High Street
Wailuku, Hawaii 96793

Dear Chair White and Members:

APPROVED FOR TRANSMITTAL



Acting Mayor

5/4/16

Date

SUBJECT: MOLOKA'I COMMUNITY PLAN UPDATE

The Department of Planning (Department) is pleased to transmit the Draft Moloka'i Community Plan Update for Council review and adoption in accordance with the requirements of Maui County Code ("MCC"), Chapter 2.80B. The Department applauds the CPAC's MoPC's and community's diligent efforts to take an active role in the community planning process, and doing so within the time limits established by Maui County Code 2.80(B). This draft includes recommendations from the Department, Moloka'i Community Plan Advisory Committee (CPAC), and the Moloka'i Planning Commission (MoPC) to update the 2001 Moloka'i Community Plan. The Department has worked with the CPAC, MoPC, and Moloka'i Community to reach consensus on many issues and strategies in an effort to produce a transparent and supported community plan update. The draft is presented as a track change document, with the black text representing CPAC recommendations and the blue and red track change text representing MoPC recommendations. The attached documents are as follows:

- (1) Draft Bill;
- (2) Exhibit 1: Moloka'i Community Plan Update, PD/CPAC/MoPC Draft, May, 2016;
- (3) Key Differences between CPAC and MoPC Recommendations; and
- (4) Agency Recommendations.

Community Plan Update Process and Schedule

The Department began initial research, data gathering, and community engagement in early 2010 to update the 2001 Moloka'i Community Plan. Per the direction of Council, the Department updated the Lāna'i Community Plan first, thus postponing work on the Moloka'i Community Plan Update until November 2014. The Moloka'i CPAC held 22 public meetings to review the draft plan between March and October 2015, receiving a two week time extension, due to two hurricanes, of the 180 day review period allowed in 2.80B. The Department

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forwarded the CPAC's revisions and recommendations to the MoPC in November 2015. The MoPC then held eight public meetings to review the draft plan between November 2015 and March 2016, completing their review within the 180 day review period.

The CPAC, MoPC, and Department agreed on many issues, concepts, and recommended changes within the draft plan. Both review bodies heard public testimony and incorporated community ideas, concerns, and recommendations into the draft plan in an effort to work toward community consensus. However, there are key differences between a few CPAC and MoPC recommendations that the Council should be aware of while reviewing the draft. Attachment 3 is a summary of the key differences by chapter.

The Department also worked diligently to engage county agencies in the community plan update process. The Department provided the draft plan to county agencies for review and comment on three occasions and has incorporated agency recommendations through the CPAC and MoPC review processes. The attached agency recommendations (Attachment 4) were received after the MoPC's review period and are provided for Council's review and consideration.

Department Concerns and Recommendations

The Department supports the Draft Moloka'i Community Plan Update, and subsequent adoption, with the following exceptions or concerns:

(1) Chapter 11 Subarea Descriptions: East End Policy Statement and Maunaloa Policy: The 1978 East End Policy Statement is in the 2001 community plan as Exhibit D. While writing the draft plan update, the Department incorporated narrative text, policies, and actions from the 1978 East End Policy Statement into the community plan goals, policies and actions items where appropriate. The Department felt that this was the appropriate strategy to take because portions of the East End Policy Statement are either out dated, conflict with and/or are duplicative of existing laws and regulations.

The CPAC recommended adding three appendix place holders to the Land Use section of Chapter 6 for "subarea descriptions" for East, Central, and West Moloka'i. These descriptions are supposed to provide the opportunity for each region to create statements that tell the story of an area and the desires of that subarea community for future protection, restoration, and development. The CPAC and Department encouraged the East End community to update the 2001 East End Policy Statement to fit the criteria of a subarea description, which do not contain policies and actions, as noted in the Land Use section of Chapter 6.

Two different revised versions of the East End Policy Statement were submitted to the Planning Department. One version was submitted to the Department and the MoPC for review during the February 25th MoPC meeting. A second version was submitted midway through the MoPC final meeting on March 24th with no opportunity for any review by the Department or the MoPC. At a number of meetings the MoPC heard testimony for and against all three versions of the East End Policy Statement, indicating that there was no clear community consensus on the East End Policy Statement. Despite the Department's and Corporation Counsel's advice

throughout the community planning process that these policy statements were not consistent with their own definition of a subarea description and that both versions of the East End Policy Statement and the Maunaloa Policy conflicted with the CPAC and MoPC approved plan text, and that the document submitted on the 24th had no review by the Department or MoPC, the MoPC voted to include the East End Policy Statement, the version submitted on March 24th, and the Maunaloa Policy into the Community Plan. Eight appendices were also submitted with the East End Policy Statement, which in total makes the newly added Chapter 11, larger than the entire draft plan.

Department Recommendation: The Department recommends deleting Chapter 11 in its entirety. If subarea descriptions are included in the plan they should be consistent with the definition that was approved by the CPAC and MoPC as noted in Section 6.1 Land Use. Subarea descriptions should tell the story of an area and the desires of the community and should contain no policies or actions.

If Chapter 11 and its contents are kept in the plan, it should be clearly noted that in the event of discrepancies between Chapter 11 and Chapters 1 through 10, Chapters 1 through 10 shall supersede.

(2) Community Plan Designation Conservation: The 2001 Moloka'i Community Plan, as well as all other community plans prior to the 2016 Lāna'i Community Plan Update, have included a conservation designation on the land use maps. The vast majority of lands identified as community plan conservation are within the State Land Use Conservation District. As the County has no jurisdiction over the State Conservation District, having a community plan conservation designation is misleading. For this reason the Department recommends deleting this designation and identifying Conservation District lands on a separate map. The Department successfully proposed this change during the Lāna'i Community Plan Update and will make the same recommendation for all community plans. The Moloka'i Planning Commission disagreed with the Department and recommended retaining community plan conservation.

Department Recommendation: The Department recommends deleting community plan land use conservation designations from the land use maps and descriptions, and instead only identifying lands within the State Land Use Conservation District.

(3) Relationship of Community Plan Designation and County Zoning: Throughout the community plan update process the Department has explained the relationship between community plan land use designation and county zoning to the CPAC, MoPC, and public. During the CPAC's review of the draft plan the Department noted that the Council's Planning Committee was revising the Lāna'i Community Plan Update land use chapter and appendices to clarify the relationship. The Department presented the Planning Committee's revisions to the MoPC and recommended that they be incorporated in the Moloka'i plan; however the MoPC chose to take no action.

Department Recommendation: The Department recommends that the final table and language approved for the Lana'i community plan be adopted for Moloka'i as well.

(4) **Aha Kiole o Moloka'i**: Per advice from Corporation Council, the Department has not listed companies, organizations, or landowners by specific name in the text or in the action tables. Rather broad terms such as "local businesses", "community groups", and "large landowners" are used to be more inclusive and flexible and does not give recognition to one group over another. The MOPC added "Aha Kiole o Moloka'i" to the partners column on numerous actions throughout the plan against the advice of the Department and Corporation Counsel.

Department Recommendation: The Department recommends changing "Aha Kiole o Moloka'i" to "community groups" in the text and tables.

(5) **Traditional Land Use Overlay District Policy**: Per the comments of a public testifier, the MoPC added a policy to adopt a "Traditional Land Use" (TLU) overlay designation. The recommended policy (Chapter 6 Land Use & Housing, pg. 6-9, Policy 19) references two documents, a GIS mapping project and a cultural practices report. Neither of these documents contain specific guidance or proposed regulations for development that is not already covered in existing laws or policies in the draft plan update; therefore the proposed overlay district is unnecessary. Furthermore, the two documents referenced do not provide appropriate basis for establishing an overlay designation. The GIS Project was a pilot project and pertains to only a portion of Mana'e, not the entire region. The cultural practices report for Mana'e pertains to a fencing plan proposed by the East Moloka'i Watershed Partnership.

Department Recommendation: The Department recommends deleting references to the overlay district because it is unnecessary and would offer no additional cultural protections over already existing policies and laws.

(6) **Appendix 1.4**: Appendix 1.4 provides "legal framework for agency actions that may impact Native Hawaiian traditional and customary practices". The information for this appendix was submitted to the Department and MoPC at their final meeting on March 24th. It was submitted as public testimony, however no public copies were provided therefore the public had no opportunity to review it. The appendix is redundant with existing laws protecting Native Hawaiian rights, and is unnecessary in the community plan. The appendix also attempts to establish new requirements for Moloka'i Planning Commission project review and permit processing, which requires adoption by rulemaking, not just inclusion in the community plan.

Department Recommendation: The Department recommends deleting Appendix 1.4.

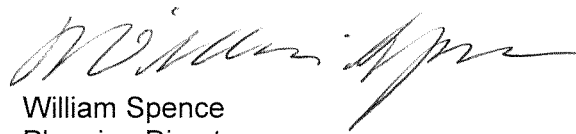
(7) **Appendices 3.2 and 3.3**: Appendices 3.2 and 3.3 were created by the CPAC as placeholders for documents to be created by a small group of CPAC members and community members to be submitted to the MoPC for review and consideration. Appendix 3.2 was intended to be a reference list of archaeological surveys conducted on Moloka'i. Appendix 3.3 was intended to be a list of cultural sites that the community desires to protect. The Department has on numerous occasions contacted the individuals tasked with developing these appendices; however no response has been received and the documents were never submitted to the MoPC for review and consideration.

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Department Recommendation: If the appendices are not provided to Council for review and consideration, the Department recommends deleting the placeholders and reference to the appendices in Section 3.2 Heritage Resources.

Thank you for your consideration of this matter. Should further clarification be necessary, please contact Pam Eaton, Planning Program Administrator at Ext. 7372.

Sincerely,



William Spence
Planning Director

Attachments

xc: Pam Eaton, Planning Program Administrator
David Yamashita, Planner VI
Jennifer Maydan, Senior Planner
Project File
LRD Correspondence File
General File

WRS:MEJ:jlj

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ORDINANCE NO. _____

BILL NO. _____ (2016)

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 (2016), 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. 2738 (1998), as amended;
8. Molokai Community Plan [- Ordinance No. 3022 (2001), as amended] 2016; 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

Attachment 3

Key Differences Between CPAC and Commission Recommendations

Chapter 1 Introduction

- Appendix 1.4: The Commission added a new appendix to Chapter 1 titled “Legal Framework - Native Hawaiian Traditional and Customary Practices”.

Chapter 2 Molokaʻi’s Future

- Vision Statement: The CPAC discussed the vision statement at numerous meetings and finally decided to retain the 2001 vision as well as add a new vision, which was an edited version of the 2001 vision. The Commission deleted the CPAC created vision and recommends using the 2001 vision only.

Chapter 3 Natural, Heritage and Scenic Resources

- Map 3.3: Per the recommendation of the Department and the State Historic Preservation Division (SHPD), the Commission removed the cultural sites layer, which included SHPD’s inventory of historic sites. The reasons for deleting the cultural sites layer included concerns regarding incomplete data, county liability, and protection of cultural resources.
- Native Hawaiian Traditional and Customary Practices: Per the recommendation of the Office of Hawaiian Affairs (OHA), the Commission made a number of changes to the existing conditions, policies, and actions of Chapter 3 to incorporate information regarding Native Hawaiian traditional and customary practices.

Chapter 4 Hazards

No significant differences

Chapter 5 Economic Development

- Subsistence: Subsistence was discussed by both the CPAC and Commission as important to the Molokaʻi community. For the most part, subsistence has been discussed in Chapter 3. The Commission added information on subsistence in the existing conditions, issues, and policies sections of Chapter 5.

Chapter 6 Land Use and Housing

- Subarea Descriptions: The Commission deleted the Subarea Description section in Chapter 6 and the corresponding appendix placeholders recommended by the CPAC.
- Maunaloa Project District: Mixed use residential community plan designation was introduced to the CPAC at the land use workshop as an option to identify areas on the land use map to accommodate future growth. The CPAC had numerous discussions on mixed use residential. Some CPAC members viewed the

designation as an opportunity to identify and describe the community's desires for areas to accommodate future growth, while leaving flexibility for site planning at a later stage in the entitlement process. Other members had concerns about the implementation of the designation and questioned how the community could be assured that mixed use residential areas would be developed according to community desires.

Ultimately the CPAC voted to designate one area on the island as mixed use residential. The area is a 64 acre site in Maunaloa that is designated project district in the 2001 community plan. It should be noted that this vote was not unanimous among the members and numerous subsequent motions were made to revert the area back to project district, although none of these motions passed. Then during the Commission's review at their February 25, 2016 meeting, the Commission unanimously voted to change the 64 acre Maunaloa site back to project district.

- Kaunakakai Project District and Sea Level Rise: Sea level rise (SLR) was recognized by the CPAC as a serious threat that will require action to mitigate potential impacts to homes, businesses, infrastructure, and public facilities, particularly in Kaunakakai and along the southeast shore. The CPAC discussed SLR at multiple meetings and agreed that future development should be directed to areas away from the threat of SLR; however the members were unable to reach agreement on how to plan for the impact of SLR on existing development in Kaunakakai.

The Commission agreed with the CPAC on the threat of SLR and the need to mitigate potential impacts. The Commission voted to change the community plan designation for an approximately 98 acre area *mauka* of Ranch Camp in Kaunakakai from single family to project district to accommodate relocation of the town overtime as SLR begins to impact existing development and land use.

- Traditional Land Use Overlay District Policy: As explained in the transmittal letter the Commission added a policy (pg. 6-9, Policy 19) to adopt a "Traditional Land Use" (TLU) overlay designation that would require any proposed development in Mana'e to be aligned with the data and community recommendations from the Mana'e GIS Mapping Project (COM, 2008) and the Traditional and Cultural Practices Report for Mana'e (OHA, 2016), and allow for traditional Hawaiian structures in these areas. In addition, this area should allow for traditional Hawaiian structures to allow people to live in these sensitive areas to take care of them." The TLU overlay designation is also reference in a Commission recommended policy in Chapter 3, Section 3.2 Heritage Resources (pg. 3-14, Policy 8).

Chapter 7 Community Design

No significant differences

Chapter 8 Infrastructure

- Public Trust Purposes and In-Stream Flow Standards: The Commission added policies, with legal references footnoted, to Section 8.1 Water regarding establishing interim instream flow standards and recognizing the public trust

purposes for water.

- East End Boat Ramp: The CPAC heard public testimony regarding the need for a boat ramp on the East End and added a policy and action in Section 8.5 Transportation supporting completion of a feasibility study to build such a facility. The Commission heard public testimony against the boat ramp and deleted the CPAC's recommended policy and action.

Chapter 9 Public Facilities and Services

No significant differences

Chapter 10 Implementation and Monitoring

The Implementation Schedule was update to reflect all Commission recommended changes to actions throughout the plan.

Chapter 11 Subarea Descriptions

As explained in the transmittal letter, at the final meeting on March 24, 2016 the Commission voted to add a new chapter to the community plan, Chapter 11 Subarea Descriptions, which included the revised East End Policy Statement submitted as public testimony at that meeting, and the Maunaloa Policy, submitted at the March 10 meeting and revised at the March 24 meeting.

Attachment 4

Agency Recommendations

Department of Public Works

- Chapter 3, Section 3.1, Page 3-9, Action 3.1.09: Delete the action and add a new policy to “Encourage coordination between landowners and the U.S. Department of Agriculture, Natural Resources Conservation System to increase infiltration to the aquifer, control surface water runoff, and reduce sediment and nutrient loss from entering surface and coastal waters by constructing small-scale retention, bioretention, or other conservation projects.”
- Chapter 7, Page 7-4, Action 7.04: Delete the action because roadway standards are countywide, not island specific.

Department of Water Supply

- Chapter 8, Section 8.1, Page 8-5, Action 8.1.06: Delete the action and add a new policy to “Encourage new developments with privately owned public water systems to meet DWS engineering standards.”

Office of Economic Development - Energy Office

- Chapter 8, Section 8.6, Page 8-24, Actions 8.6.01 and 8.6.02: Delete the actions and add a new policy to “Continue to participate in the Integrated Resources Planning Advisory Group and support efforts to develop a diversified energy strategy and smart grid for Molokaʻi.”
- Chapter 8, Section 8.6, Page 8-24, Actions 8.6.03: Delete the action because the State DBEDT and Maui Electric Company already offer loan programs and tax incentives to encourage installation of renewable energy systems.
- Chapter 8, Section 8.6, Page 8-24, Actions 8.6.01 and 8.6.05: Delete the action because the installation of photovoltaic charging stations is not economically viable.

Civil Defense

- Chapter 4, Page 4-3, lines 8 to 14: Delete lines and replace with the following text: “Molokai High and Kualapuʻu Elementary have been identified as hurricane evacuation shelters with a combined capacity of 3,197. Three facilities have been identified as evacuation shelters for tropical storms and three are identified as tsunami assembly areas. A State of Hawaii Civil Defense facility survey found recurring deficiencies with existing shelters (Martin & Chock, 2010). A statewide effort is currently underway to validate the shelters and their capacities, the results of which will be amended into this plan when completed.”
- Chapter 4, Page 4-3, lines 21 to 22: Delete sentence and replace with the following text: “Subscribers to Civil Defense Notifications and Emergency Alerts will be notified via text, email and phone calls. Additionally, phone calls will be made to public land lines in the affected area.”

Moloka`i Community Plan Update

Planning Department /CPAC / Molokai PC Draft

Prepared for:
Maui County Council

County of Maui - Department of Planning
May 2016



ACKNOWLEDGMENTS

MOLOKA'I PLANNING COMMISSION

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Zhanell Dudoit
Marshall Racine
Wiliama Akutagawa

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Diane Swenson

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Debra Kelly
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John Sprinzel
Glenn Teves
The Late Moses Luczon

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Keith Regan, Managing Director

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William Spence, Planning Director
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Mark King, GIS Analyst
Michael Napier, GIS Analyst
Kristana Erikson, GIS Analyst

ACKNOWLEDGMENTS

CONTINUED

CONSULTANT TEAM AND SPECIAL STUDIES

Chris Hart & Partners, Inc.

John Knox & Associates: *Molokaʻi Economic Development and Molokaʻi Housing Issue Papers*

Belt Collins Hawaiʻi Ltd., John Kirkpatrick: *Land Use Forecast*

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

Wilson Okamoto & Associates, Inc.: *County of Maui Infrastructure Assessment Update 2003*

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

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

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~~6.5~~	~~West Moloka`i Subarea Description.....~~	~~TO BE DETERMINED~~

LIST OF ACRONYMS

BCT	Business Country Town
BMP	Best Management Practices
BRFA	Bottomfish Restricted Fishing Areas
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CIP	Capital Improvement Programming
CIZ	Change in Zoning
CPAC	Community Plan Advisory Committee
CRS	Community Rating System
CTAHR	College of Tropical Agriculture and Human Resources
CWPP	Community Wildfire Protection Plan
CWRM	Commission on Water Resource Management
DAR	Division of Aquatic Resources
DBEDT	Department of Business Economic Development and Tourism
DEM	Department of Environmental Management
DFIRMS	Digital Flood Insurance Rate Maps
DHHC	Department of Housing and Human Concerns
DHHL	Department of Hawaiian Homelands
DLNR	Department of Land and Natural Resources
DOA	Department of Agriculture
DOE	Department of Education
DOH	Department of Health
DOFA	Division of Forestry and Wildlife
DOFAW	Division of Fish and Wildlife
DPW	Department of Public Works
DSA	Development Services Administration
DSMOA	Department of Defense/State Memorandum of Agreement
DWS	Department of Water Supply
EAP	Emergency Action Plan
EMS	Emergency Management Service
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRMS	Flood Insurance Rate Maps
FIS	Flood Insurance Study
GIS	Geographic Information System
HDOA	Hawaii Department of Agriculture
HDOT	Hawaii Department of Transportation
HFRA	Healthy Forest Restoration Act
HMP	Hazard Mitigation Plan

HRS	Hawaii Revised Statutes
HUD	Housing and Urban Development
IAL	Important Agricultural Lands
ISWMP	Integrated Solid Waste Management Plan
IWS's	Individual Wastewater Systems
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LRDP	Long Range Development Plan
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 Fire Department
MGD	Million Gallons per Day
MIS	Moloka`i Irrigation System
MISWF	Moloka`i's Integrated Solid Waste Facility
MLSWCD	Moloka`i Soil and Water Conservation District
MLT	Moloka`i Land Trust
MMMC	Maui Memorial Medical Center
MoMISC	Moloka`i Maui Invasive Species Committee
MoPC	Moloka`i Planning Commission
MPD	Maui Police Department
MPL	Moloka`i Properties Limited
MW	Megawatt
NFIP	National Flood Insurance Program
NGO	Non-Governmental Organization
NMFS	National Marine Fishery Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resource Conservation Service
OED	Office of Economic Development
OHA	Office of Hawaiian Affairs
ORMP	Ocean Resource Management Plan
PCAs	Potential Contaminating Activities
PD	Planning Department
PV	Photovoltaic
SLR	Sea Level Rise
SLUC	State Land Use Commission
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 Hawaii
UHERO	University of Hawaii Economic Research Organization
UHMC	University of Hawaii Maui College
USDA	United States Department of Agriculture
USFW	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOAD	Volunteer Organizations Active in Disaster
WUDP	Water use and Development Plan
WWRF	Waste Water Reclamation Facility
WWTF	Wastewater Treatment Facility

1 | INTRODUCTION

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

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

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

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

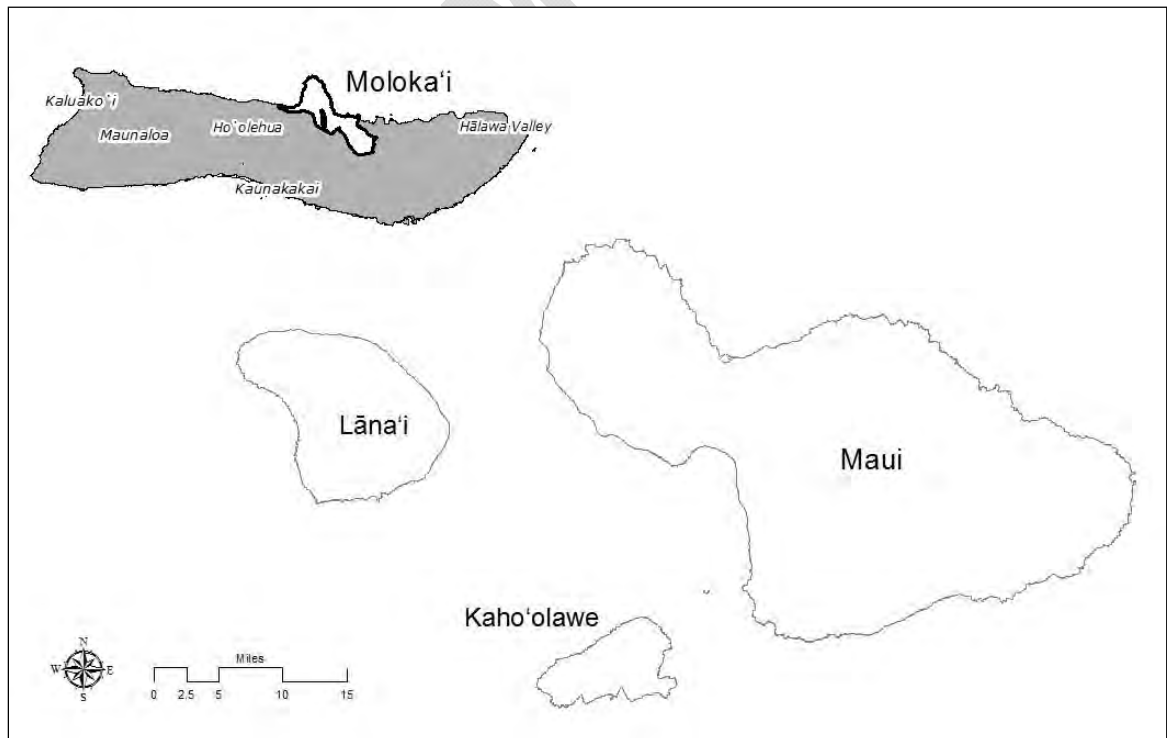
This community plan identifies current and anticipated future conditions and needs on Moloka`i. These conditions and needs are addressed throughout the plan by identifying strategic planning goals, policies, and actions that will guide decision-making and implementation through 2035. Chapter 1 provides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

OVERVIEW OF MOLOKAʻI COMMUNITY PLAN AREA

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

Kaunakakai, the island's major population and commercial center, is located about midway along the south coast. The island's only resort destination area is located at Kaluakoʻi, on the western end of the island. Hotel Molokaʻi and Molokaʻi Shores, just outside of Kaunakakai, also offer limited visitor accommodations. There are small plantation communities in Maunaloa and Kualapuʻu, along with Hawaiian homestead settlements in Hoʻolehua, Kapaʻakea, Kamiloloa, One Aliʻi and Kalamaʻula. The settlement pattern along the southeast coast becomes more rural and scattered as it extends from Kaunakakai to Hālawā Valley. (See Appendix 1.1 for a summary of Molokaʻi history).

Figure 1. 1 Molokaʻi Community Plan Region



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 / DEMOGRAPHICS (2010 Census)

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

FLORA AND FAUNA

- Moloka`i has 79 endangered and 3 threatened terrestrial species and 11 endangered and 2 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 ~~island~~ coastal areas contains 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.

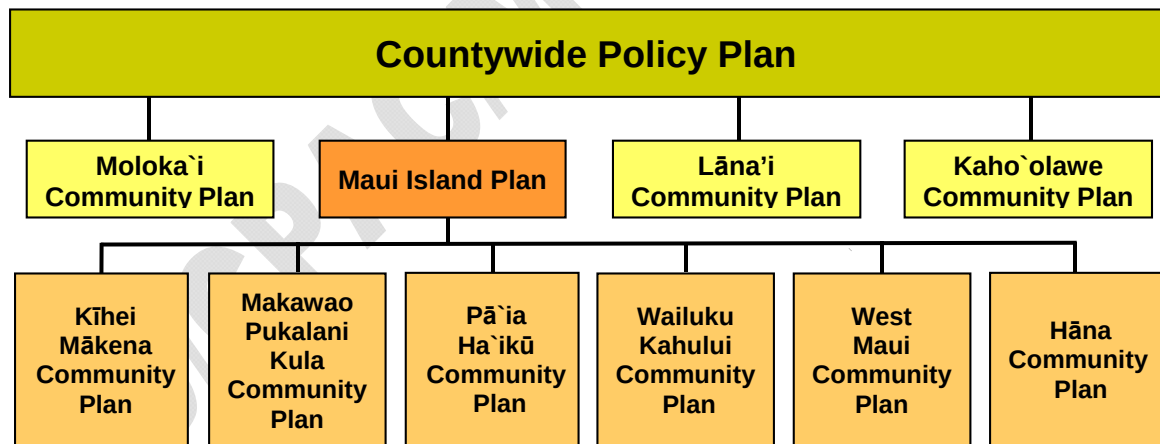
1.1 MAUI COUNTY GENERAL PLAN STRUCTURE

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

The County of Maui General Plan consists of the Countywide Policy Plan, the Maui Island Plan, and the nine community plans (see Figure 1.2). The General Plan was adopted in 1980 and updated in 1990; it sets forth the long-term social, economic, environmental, and land use needs of the County. The Countywide Policy Plan was adopted in 2010, the Maui Island Plan was adopted in 2012, and initiation of the community plan updates began in 2010. The General Plan conforms to the Hawaiʻi State Plan and follows guidance set forth in the State Functional Plans.

In 2011, the Hawaiʻi State legislature established sustainability as a state priority by adopting priority guidelines and principles to promote *Sustainability* (HRS §226-108) into the Hawaiʻi State Planning Act. In 2012, the Hawaiʻi State legislature adopted *Climate change adaptation priority guidelines* (HRS §226-109). The adaptation policy specifies that county or state plans must consider potential climate change impacts to agriculture, conservation lands, coastal and nearshore marine areas, natural and cultural resources, energy, the economy, and many other factors. Chapter 2 further discusses how these guidelines influence or shape the Community Plan.

Figure 1. 2 County of Maui General Plan Organization



From 2004 to 2012, the Maui County Code (MCC) was modified to create new requirements within Chapter 2.80B General Plan and Community Plans. Section 2.80B.070 provides the specific requirements for the community planning process, including requiring that the community plans implement the General Plan’s vision, principles, goals, and policies related to the following core themes listed in the Countywide Policy Plan:

- Protect the Natural Environment
- Preserve Local Cultures and Traditions
- Improve Education
- Strengthen Social and Healthcare Services
- Expand Housing Opportunities for Residents
- Strengthen the Local Economy
- Improve Parks and Public Facilities
- Diversify Transportation Options
- Improve Physical Infrastructure
- Promote Sustainable Land Use and Growth Management
- Strive for Good Governance

B. THE 2016 MOLOKAʻI COMMUNITY PLAN UPDATE

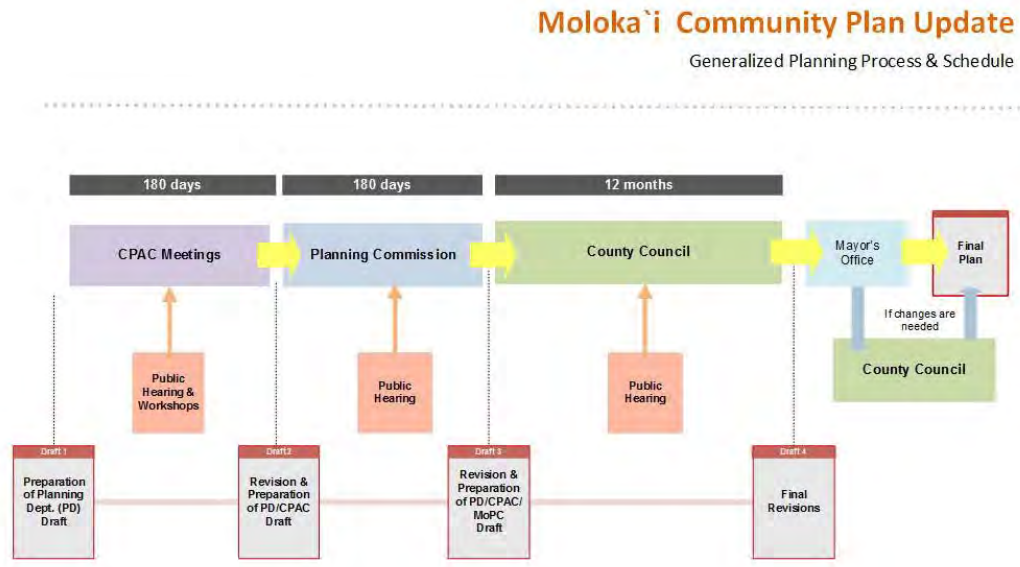
The Molokaʻi Community Plan was initially adopted in 1984 and updated in 2001. The 2016 Molokaʻi Community Plan Update incorporates the new requirements of MCC 2.80B including:

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

The Planning Department's Long Range Division worked with the Molokaʻi community, stakeholders, agencies, the Molokaʻi Community Plan Advisory Committee (CPAC), the Molokaʻi Planning Commission, and the Maui County Council between 2010 and 2016. Technical studies and issue papers referenced during the update process are identified in Appendix 1.2.

MCC 2.80B specifies that the CPAC be composed of thirteen members appointed by the County Council and the Mayor. Planning Department staff and the CPAC conduct meetings and workshops that include public participation. The CPAC's recommendations are forwarded to the Molokaʻi Planning Commission for public hearings and review. The draft plan is then sent along with any Planning Department comments or revisions to the County Council for review and adoption by ordinance. This process and the timeframe are summarized graphically in Figure 1.3.

1 **Figure 1. 3 Generalized Community Planning Process & Schedule**



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

- 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.

10 **C. PLAN ORGANIZATION**

12 The 2016 Moloka`i Community Plan Update is organized into ~~ten~~ eleven chapters with maps and
13 appendices. Chapters provide the related background, existing conditions, issues, and goals,
14 policies and actions. Goals are intended to describe a desirable condition of the island by the year
15 2035. They are intentionally general, but are attainable. Policies are not intended as regulations,
16 but instead provide general guidelines for County decision makers, departments, and collaborating
17 organizations working toward attainment of the goals. Implementing actions are specific tasks,
18 procedures, programs, or techniques that carry out policies. Actions may be implemented by a
19 lead County agency or by another entity, such as the State or non-profit groups assisted by the
20 County. The Moloka`i Community Plan is not intended to be used in the review of applications for
21 ministerial permits, which are permits that do not involve judgment or discretion and are issued
22 based on established criteria, or a set of adopted standards as established by law.

Chapter 1 provides an introduction, followed by Chapter 2 which explores Molokaʻi's future vision, and discusses sustainability and climate change adaptation. Chapters 3 and 4 discuss Molokaʻi'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 Molokaʻi 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 the future location and form 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 addresses implementation and monitoring and also prioritizes the list of actions from previous chapters including cost estimates, timelines, and the implementing agency. The implementation table will facilitate funding decisions during the County budget process.

Chapter 11 Subarea Descriptions was added by the Molokaʻi Planning Commission at their final review meeting. The chapter contains the "East End Policy Statement – 2016 edition" and the "Maunaloa Policy". Because both of these documents were distributed at the final meeting of the Planning Commission, they were not reviewed by the Planning Department, CPAC nor were they vetted by the community.

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

1.2 PROBLEMS AND OPPORTUNITIES

INTRODUCTION

The following outline of the problems and opportunities that Moloka'i faces represents not only issues that the county government must address but also top concerns expressed by the community through public outreach events and deliberations of the Community Plan Advisory Committee and Moloka'i Planning Commission.

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

PROBLEMS

- A. **Economic Activity and Socio-Economic Characteristics:** The high cost of living and limited economic activity is one of the most significant problems facing the community. There is a lack of economies of scale and economic diversity, and therefore a lack of job opportunities. Moloka'i has lower incomes, higher unemployment rates, and a higher number of people receiving public assistance when compared statewide.¹ These socio-economic challenges have contributed to the occurrence of substance abuse, domestic violence, crowding, and generational welfare.
- B. **Education:** The educational level on Moloka'i is uniquely diverse in relation to formal versus place-based education when compared to the rest of the State. While some youth pursue higher education and are able to live and work on Moloka'i, many do not obtain post-high school education, or choose not to return to the island after college. This creates community impacts that affect the economic vitality of Moloka'i.
- C. **Water:** The Moloka'i community has long recognized the need for careful management of groundwater resources and watershed areas that contribute to recharge of the island's sole source aquifer. *Uwe kalani, ola ka honua*². When the heavens weep, the land lives. These water resources are required to support natural ecosystems as well as the many economic, cultural, and subsistence activities of our human population. The numerous studies by USGS and legal case conclusions document that current and future demand exceeds sustainable supply at this time³. Future water use and development will likely call for

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 Moloka'i, Hawaii*. USGS Gulletin 11.

Lindgren, Waldemar (1903). *The Water Resource of Moloka'i Hawaiian Islands*. USGS Water Supply Paper No. 77.

increasing the efficiency of storage and distribution infrastructure, cooperative monitoring strategies, and community wide conservation efforts to ensure aquifer sustainability and water quality. [Expanded withdrawal from wells may have significant affects to freshwater discharge into streams, which may have a detrimental effect on natural, cultural, and subsistence resources.](#)

D. Transportation: As one of the least populated islands in the most isolated island chain in the world, Moloka`i suffers from expensive transportation costs for freight, goods, and people. Limited freight transportation to and from the island contributes to higher costs for groceries, fuel, and other goods and complicates the export of Moloka`i produce. Limited airline and ferry transportation options impact both the ability of tourists to visit the island as well as opportunities for residents to travel off-island.

E. Cost of Energy: Moloka`i faces some of the highest electricity costs in the nation which presents challenges for businesses and residents.

F. Erosion and Sedimentation: Erosion is an issue on Moloka`i that is negatively impacting soils, streams, fishponds, wetlands, coastal waters, and reefs, [as well as the cultural and subsistence practices that rely on these resources.](#) While erosion is being actively addressed by a number of organizations and partnerships, continued work is needed to address this problem. Erosion is caused by runoff and a number of land use activities including ranching, farming, and development, as well as forest damage caused by feral ungulates. Siltation of Moloka`i's reefs and coastal waters is having detrimental effects on fish, limu, and other ocean resources which the Moloka`i community depends on for subsistence fishing and gathering [and for cultural practices.](#)

G. Housing: The availability of workforce housing, ownership and rental, and the variety of housing types on the island are limited. There is a lack of fully entitled land to build new housing in locations conducive to workforce housing. There is a limited variety of housing types available to meet the needs of Moloka`i residents. However, the recent lifting of [a](#) moratorium on subdivision of [agricultural](#) homestead lots will allow some families to move from ~~Kaunakakai~~ [other areas of Moloka`i](#) to ~~homestead lots~~ [Ho`olehua](#), thus freeing up some housing ~~in Kaunakakai.~~

[Oki, D.S., 2006, Numerical simulation of the hydrologic effects of redistributed and additional ground-water withdrawal, Island of Moloka`i, Hawai`i: U.S. Geological Survey Scientific Investigations Report 2006-5177, p. 4, available at <http://pubs.usgs.gov/sir/2006/5177/pdf/sir2006-5177.pdf>.](#)

Commission on Water Resource Management. (1992). *Findings of Fact, Petition to Designate the Island of Moloka`i as a Water Management Area.* DLNR/CWRM.

Waiola CCH-MO96-1. (1997). *In the Matter of the Contested Case Hearing on Water Use, Well Construction, and Pump Installation Permit Applications filed by Waiola O Moloka`i and Moloka`i Ranch, Limited. Findings of Fact.* DLNR/CWRM.

Kuku`i CCH-MO97-1 (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.

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H. Climate Change: Climate change will become increasingly serious before the middle of the 21st century and will impact Moloka`i's economy, the built environment, historic and cultural resources, infrastructure systems, ecosystems, and natural resources.

I. Communications Infrastructure: Limited access to high speed internet and cellular/mobile telephone service presents challenges for education, health care, residents, and businesses.

J. Governance: Due to political, demographic, and district designations Moloka`i is not able to have a real voice in its own future.

OPPORTUNITIES

A. Strong Caring Community: Moloka`i is a special place with a distinctly rural Hawaiian lifestyle. Unlike many other places, residents still help each other with no strings attached. The island's interdependence has allowed residents to survive stressful times and events. There ~~are~~is an abundance of community luaus and a significant number of extended families living together or in close proximity. There is a feeling of sharing, belonging, and community which should be preserved.

B. Cultural Resources and Traditions: Moloka`i nui a hina. `Aina momona. Pule o`o. Moloka`i no ka heke. Moloka`i has an abundance of cultural and archaeological resources and a community with a strong connection to cultural traditions and practices that must be protected and that provide a solid foundation for the future. The island is purported in oral tradition to be the birthplace of hula. Moloka`i has ~~over 100~~numerous sites on the Hawai`i and/or National Register of Historic Places distributed throughout the island. As a result, development of a new model of sustainable tourism may be a possibility for economic growth. This alternative approach, described in the *2006 Moloka`i Responsible Tourism Initiative*⁴, is based on the distinctive characteristics and attributes of the island

C. Distinctive Rural Character: Moloka`i's natural beauty and rural character are key assets of the island. Unlike other islands in the state, Moloka`i's beaches are still generally accessible and uncrowded. In addition, the rural character and genuine sense of aloha is a draw for many visitors, affording an experience that is different from other islands. Based on several community workshops and interviews, it's clear that a slow and cautious approach to future development on the island is preferred by many to retain Moloka`i's distinctive rural character.

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

- 1 **D. Entrepreneurial Spirit:** Many of Moloka`i's residents live here because they value the
 2 sense of community and lifestyle of the island. Since employment opportunities are limited,
 3 many residents have turned to starting and running their own businesses. This is evident
 4 in Kaunakakai, where almost all of the businesses are owned by local residents, some of
 5 whom have successfully maintained their operations over several decades.
 6
- 7 **E. Community Environmental Restoration:** There are various ongoing programs and
 8 partnerships to restore Moloka`i's watersheds and ecosystems. Environmental restoration
 9 is an opportunity for the community, youth, large landowners, and government agencies to
 10 share common goals of restoring and protecting Moloka`i's environment. Working together
 11 will not only accelerate environmental restoration but will also help build trust between
 12 different groups, foster a sense of stewardship responsibility, and expose youth to careers
 13 in environmental restoration.
 14
- 15 **F. Natural Environment:** Moloka`i's natural environment offers many opportunities to move
 16 toward a more sustainable future. With abundant agricultural lands, a year-round growing
 17 season, and an adequate supply of water, Moloka`i has the capacity to grow produce for
 18 both on-island consumption and export. Subsistence resources are relatively abundant
 19 and support an integral component of the Moloka`i lifestyle. Additionally, numerous
 20 opportunities exist to produce renewable energy on-island.
 21
- 22 **G. Subsistence Economy:** [Subsistence is Moloka`i's second economy. According to the](#)
 23 [Governor's Moloka`i Subsistence Task Force Final Report \(June 1994\) approximately a](#)
 24 [quarter of the food acquired by Moloka`i residents comes from subsistence.](#)

2 | MOLOKAʻI'S FUTURE

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

- 2.1 Molokaʻi Vision Statement
- 2.2 Population Growth Forecast
- 2.3 Sustainability and Climate Change Adaptation

The ~~2001~~ Molokaʻi ~~Community Plan~~ vision statement, retained from the 2001 Community Plan, articulates the community's belief in who and what it is, what it wants to become, and how to achieve that vision. ~~expressed the desires and hopes of the community at that time. In 2015 the CPAC carefully reviewed and discussed the 2001 vision statement. The CPAC agreed to retain many of the previous thoughts and ideas while also shaping a new vision for the future. The current vision statement and the 2001 vision statement are respectfully provided on the following pages.~~

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

Finally, in response to the State of Hawaiʻi's adoption of the 2011 priority guidelines and principles to promote sustainability and the 2012 climate change adaptation priority guidelines, Section 2.3 discusses how climate change adaptation strategies and measures to develop a more sustainable island community are woven into the Plan.

¹ County of Maui, Department of Planning. *Socio-Economic Forecast Report*. September 2014

2.1 MOLOKAʻI VISION STATEMENT

Vision Statement

Molokaʻi is an island steeped in tradition and guided by the values of aloha ʻāina and mālama ʻāina (love and care for the land) which guide our stewardship of Molokaʻi's natural resources. We honor our island's Hawaiian cultural heritage, no matter what our ethnicity, and that culture is practiced in our everyday lives. We kokua (help) one another while our true wealth is measured by the extent of our generosity. We envision strong ʻohana (families) who steadfastly preserve, protect and perpetuate these core Hawaiian values.

Our community is resourceful and resilient and passionate about controlling the destiny of our island. We will work diligently to attain energy and food independence and strive to strengthen Molokaʻi's economy while retaining our distinctive rural lifestyle.

We will prepare our keiki for the future with a strong education and aim to offer a range of opportunities so they can become productive members of our community. We will care for our kupuna and carry their legacy forward to help shape Molokaʻi's future.

Through our collective efforts, we will perpetuate Molokaʻi's tradition of an island momona (abundant) with natural and cultural resources, and strive to build an even better island community for the generations to come.

1

2

~~2001~~ 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 `aina and malama `aina (love and care for the land) guide our stewardship of Moloka`i's natural resources, which nourish our families both physically and spiritually. We live by our kupuna'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.

2.2 POPULATION GROWTH FORECAST

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

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

A. HISTORIC TRENDS AND POPULATION FORECAST

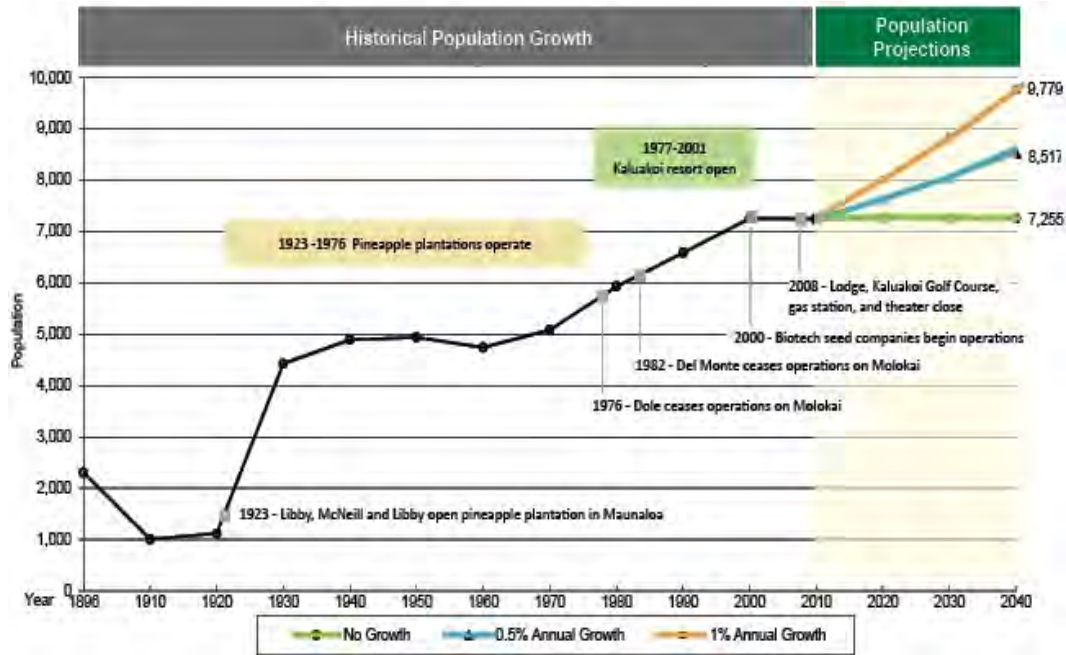
The 2014 County of Maui *Socio-Economic Forecast*² is a planning tool based on projections developed by DBEDT. The population projections are based on trends and model assumptions that are absent of policy changes or directives. The population growth forecast provides a starting point for discussions about the island's future.

The 2010 census counted 7,255 residents living on Moloka'i. The *Socio-Economic Forecast Report* estimated that a 1% annual increase in resident population would add about 2,500 residents to the island by the year 2040, for a total population of around 9,800. Figure 2.1 depicts Moloka'i's historic population growth and identifies significant economic events between 1896 and 2010. It also shows population projections out to 2040 based on three scenarios: 1) no growth, 2) a mid-range annual growth of ½%, and 3) a higher annual growth of 1%.

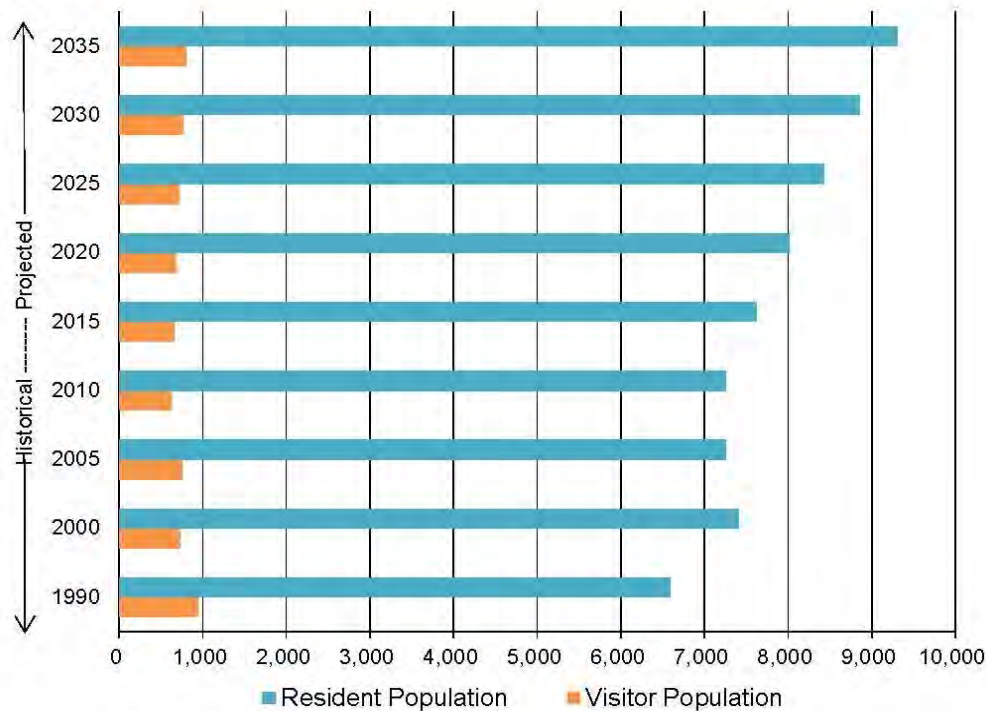
Figure 2.2 depicts the historical and forecasted average daily resident and visitor population from 1990 to 2035. In 1990, the ratio of tourists to residents was approximately 1 to 7. By 2010 the ratio dropped to approximately 1 visitor for every 12 residents; this ratio is forecasted to remain relatively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

² County of Maui, Department of Planning. *Socio-Economic Forecast Report*. September 2014

1 **Figure 2. 1 Historical and Forecasted Moloka'i Resident Population 1896-2040³**



2
3
4 **Figure 2. 2 Historical and Forecasted Moloka'i Average Daily Resident & Visitor Population 1990-2035⁴**

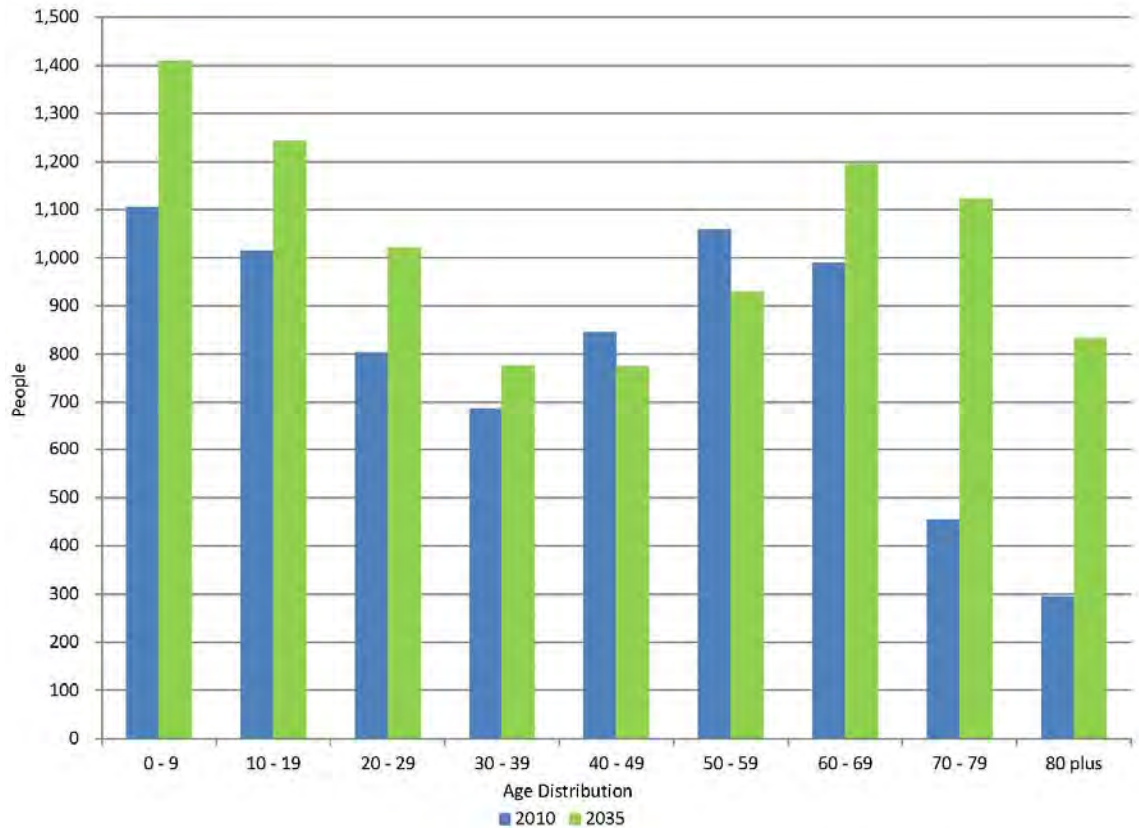


³ Hawai'i State Department of Business, Economic Development and Tourism (2012). *Population and Economic Projections for the State of Hawai'i to 2040*. Honolulu, HI.

⁴ Ibid

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

Figure 2. 3 Historical and Forecasted Moloka'i Age Distribution 2010 and 2035⁵



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

⁵ Ibid

2.3 SUSTAINABILITY AND CLIMATE CHANGE ADAPTATION

One intent of this community plan update is to help establish a sustainable and resilient future for Molokaʻi. This section provides an introduction and brief guide to how sustainability and climate change adaptation are woven into the fabric of 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 the 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 Hawaiʻi State legislature established sustainability as a state priority by adopting priority guidelines and principles to promote *Sustainability* (HRS §226-108) into the Hawaiʻi 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 Hawaiʻi and Appendix 2.2 Sustainability).

B. CLIMATE CHANGE ADAPTATION

In 2012, the Hawaiʻi State legislature adopted HRS §226-109 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. Both near-term implementation options and long-term strategies should be considered. Additionally, under the Hawaiʻi 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 as well as 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 not only Hawaiʻi's natural environment but also its communities and economy. Major climate change effects expected for Hawaiʻi include:

- warmer temperatures
- sea level rise 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

- 1 • increased drought with variable effects on aquifer recharge, stream flows, and freshwater
2 resources

3 These outcomes will adversely affect areas of the economy including agriculture, tourism, fisheries,
4 and trade; the built environment including infrastructure systems, housing, and recreation; historic
5 and cultural resources; as well as ecosystems and natural resources⁶. Limitations in downscaling
6 of climate models make long term predictions for local impacts very complex. However, current
7 observations of trends such as declining rainfall, increased temperatures, and sea level rise can
8 serve as indicators that may help inform communities as they begin to plan for climate change.

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

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

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

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

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

⁶ *Climate Change Adaptation Priority Guidelines*, Act 286

1
2 **The Natural and Built Environment:** How the built environment is designed greatly influences
3 the protection and sustainability of the natural environment as well as the sustainability of a society
4 and culture. A well designed and engineered community is economically efficient when
5 characterized by a compact and pedestrian oriented mix of land uses, multi-modal transportation
6 networks and diversity of housing types. It should provide a strong sense of place and culture, and
7 preserve open space, agricultural land, and natural resources. Moloka'i will build upon its historic
8 small town development patterns, integrate land use and transportation planning, and make
9 development decisions predictable, fair and cost-effective to create sustainable communities into
10 the future.

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

17
18 Natural resources and landscape features such as native forests, valleys, wetlands, springs, dunes,
19 and coral reefs will be protected and restoration should be encouraged; they should be valued for
20 the environmental services they provide and for their cultural importance. Negative and adverse
21 impacts of feral ungulates and invasive species shall be managed, while simultaneously
22 recognizing Native Hawaiian access and gathering rights, and the importance of subsistence
23 activities. ~~and~~ pPrinciples of native Hawaiian land management, including ahupua'a, will be
24 integrated to help guide resource management. Green technology, sustainable building practices,
25 and green infrastructure solutions will also be implemented.

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

3 | NATURAL, HERITAGE, AND SCENIC RESOURCES

This chapter will discuss 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. Section 3.3 addresses scenic resources that shape our experience of place every day. 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 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* (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 that were 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 bare land where invasive plants become established, which resulted in native species loss, reduced water recharge of the aquifer, decreased bio-diversity, 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 Moloka`i's community: natural and heritage resources, recreation, agriculture, tourism, infrastructure, and economic viability. Recent studies have calculated financial values for services provided by forest ecosystems¹ (See Appendix 3.1).

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

Protection and restoration of Moloka`i's forest ecosystems will help to ensure an abundant water supply; it will reduce erosion, surface water runoff, flooding, sedimentation that fills ancient coastal fishponds, and siltation of reefs and ocean waters. Development may disrupt the natural processes of ecosystems, and may increase non-point pollutants in surface water runoff. Most development occurs in coastal areas; nonpoint source pollutants from homes, businesses, farming and industry in coastal areas can decrease water quality and reef health. Modern building techniques that integrate development into the landscape can reduce the impact on water quality, animal and plant habitats, and ecosystem connectivity. *Green infrastructure* uses natural systems, constructed soil, rock, or plant-based systems for surface and storm water management. In 2013, Maui County strengthened stormwater regulations by requiring on-site retention of site runoff for new development.

A. EXISTING CONDITIONS

Moloka`i's largest native forest ecosystem is located in the East Moloka`i mountains that contain deep, mostly inaccessible valleys with high quality habitat for stream fauna, forest birds, native snails, and insects. Moloka`i's other significant habitats are lava tube caves, montane bogs, wet forests and shrublands, cliff and coastal systems, and nine offshore islets. These natural ecosystems provide recovery, or critical habitat identified by the U.S. Fish and Wildlife Service (USFWS) for 79 endangered and 3 threatened terrestrial species and 11 endangered and 2 threatened marine species, including the Maui parrotbill, and 'ākohekohe (crested honeycreeper) and Blackburn's sphinx moth.³

¹ State of Hawai`i (2011). *The Rain Follows the Forest*. Department of Land and Natural Resources.

² State of Hawai`i (2011). *The Rain Follows the Forest*. Department of Land and Natural Resources, Pg. 4.

³ U.S. Fish and Wildlife Service Endangered Species Database, May 2015;
<http://www.fws.gov/endangered/>

1 Approximately 30% of Molokaʻi is in the State Conservation District, which is under the
2 jurisdiction of the Department of Land and Natural Resources (DLNR). Most areas dominated by
3 native species are in mountains or along the coasts (see Map 3.1). Numerous federal, state, and
4 county plans and regulations support actions to protect, conserve, or restore the natural
5 resources of these areas. Partnerships between agencies, nonprofits, community groups and
6 stakeholders have been formed, but there is a need to expand both partnerships and
7 collaboration in order to more effectively address the complexity and scope of environmental
8 issues.

9
10 *Hawaii's Comprehensive Wildlife Conservation Strategy* identified key management areas and
11 the parties responsible for managing them⁴. Although there has been extensive conservation
12 work accomplished to date, the State has identified additional threatened areas that need to be
13 protected such as cave ecosystems, coastal wetlands and shorelines, and stream corridors. Key
14 threats to these areas include feral ungulates, predators, invasive species and human intrusion.
15 Often in addressing one threat another threat can be reduced. For example, forest restoration is
16 being addressed by multiple management actions by many partners, including abatement of feral
17 ungulates. Once feral ungulates cease to disturb the soil the native forest can regenerate in small
18 areas, which reduces the area for invasive plant species to establish and reduces subsequent soil
19 erosion, deposition in nearshore waters, and siltation of coral reefs.

20
21 Hawaii state plans, such as the *Coastal Non-point Pollution Control Program*⁵, the
22 *Implementation Plan for Polluted Runoff Control*⁶; and the *Ocean Resource Management Plan*⁷
23 (*ORMP*), are addressing comprehensive ecosystem management by connecting upland land-
24 based activities to ocean resource conditions. Excessive sediment, and other non-point
25 pollutants such as nutrients, herbicides and heavy metals, are being addressed by multiple efforts
26 (see Map 3.2). Hawaii's Local Action Strategy has partner agencies addressing land-based
27 pollution threats to reefs in the Kawela watershed. Best Management Practices (BMPs) for
28 control of feral ungulates and wildfire are being extended into other areas and sediment retention
29 basins will be constructed and maintained along the south shore. The USDA Natural Resources
30 Conservation Service (NRCS) implements many soil conservation projects on Molokaʻi using the
31 Farm Bill's Environmental Quality Incentives Program and other landowner assistance programs.
32 More programs need to be implemented to manage erosion and runoff, such as implementation
33 of green infrastructure strategies that use grass swales, grass waterways, vegetated terraces,
34 berms, and retention systems.

35
36 Restoration of wetlands and riparian areas can play a vital role in reducing polluted runoff by
37 intercepting surface runoff, subsurface flow, and certain groundwater flows. Molokaʻi community

⁴ *Hawaii's Comprehensive Wildlife Conservation Strategy*. (2005) Department of Land and Natural Resources. Honolulu, Hawaiʻi

⁵ State of Hawaii (1996). *Coastal Nonpoint Pollution Control Program*, 2010 Update

⁶ State of Hawaii (2000). *Implementation Plan for Polluted Runoff Control*.

⁷ State of Hawaii (2013). *Ocean Resources Management Plan*.

groups, nonprofits, and schools are actively restoring loʻi kalo (taro patches) and ʻauwai (irrigation ditches) that reduce and filter sediment loads. At Kawaikapu Preserve, the Molokaʻi Land Trust plans to use the ahupuaʻa based management system to restore lands including ancient taro fields. In Halawa Valley, restoration of taro fields which once measured in the hundreds of acres is ongoing.

The *ORMP* emphasizes links between human activities and the environment and the need for increased stewardship⁸, which usually begins with awareness of a connection between one's activities and an environmental issue. A survey of Hawaii residents about coral reef management priorities found a high level of public awareness of the decline of reef health but little knowledge of how their personal land-based behaviors contribute to that decline or how to do damaging activities differently to help the reefs⁹. Public environmental education and involvement activities are available on the island of Molokaʻi contribute to building a volunteer base for on-going stewardship. Some non-profits use volunteer monitoring, based on BMPs, to build stewardship. Involvement in volunteer monitoring and citizen science not only raises awareness and creates stakeholders, but also increases science literacy within the community.

The Hawaiian Islands Humpback Whale National Marine Sanctuary includes ocean waters adjacent to Molokaʻi's southern, western, and eastern shorelines. The Sanctuary also encompasses the ocean channels between Molokaʻi, and Lānaʻi, and Maui, as well as an extensive ocean area off Molokaʻi's west shore (see Map 3.1). Created by Congress in 1992, the Sanctuary protects humpback whales and their habitat; it constitutes one of the world's most important humpback whale habitats. The National Oceanic and Atmospheric Administration (NOAA) 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. DLNR's Division of Aquatic Resources (DAR) manages four areas to protect ocean fishery resources near Molokaʻi. 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 Molokaʻi 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 Molokaʻi's north shore. The BRFAs are co-managed by DLNR and National Marine Fishery Service (NMFS), a division of NOAA.

The Mokio Preserve, is a 1,718 acre parcel located in northwest Molokaʻi that is owned and managed by the Molokai Land Trust (MLT), with five miles of coastline, dune, and wetland ecosystems. East of Mokio is the Moʻomomi Preserve, 921 acres of the most intact coastal

⁸ Ibid

⁹ NOAA (2010). *Hawaii Coastal Zone Management Program, Final Evaluation of Findings*. Office of Ocean and Coastal Resource Management.

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% of Hawaii's food is imported, which makes the community particularly vulnerable to natural disasters and global events. It is estimated that there is less than one week's supply of food stored on each island. The State of Hawaii's *Increased Food Security and Food Self-Sufficiency Strategy*¹⁰ seeks to increase the amount of locally grown food consumed by Hawaii residents. This will increase food self-sufficiency, which is a component of food security. Since the 1970s Hawaii 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, sweet potato, taro, and breadfruit, but has lower production in fruits and vegetables. Many Molokai's 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.

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 from 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.

¹⁰ Hawai`i Office of Planning, Department of Business, Economic Development, and Tourism; and Hawai`i 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

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 is an issue on Moloka'i.
- Issue 7: The ecological impacts of the Kaunakakai Wharf ~~are not well understood~~ 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.
4. Require all grading and grubbing permits on Moloka`i to comply with MCC Title 20, Chapter 20.08.080.
5. Ensure that the design and construction of new development protects surface, groundwater, and coastal water quality from nonpoint and point source pollution.
6. Encourage *low impact development* education programs, including green infrastructure, for designers, developers, and builders.
7. Support a significant increase in public outreach, education, and involvement events to build community-based stewardship and implementation capacity.
8. Recognize and support sustainable agricultural, forestry, and game best management practices [and sustainable subsistence fishery management](#) as key elements to maintain, preserve, and protect Moloka`i's land, water and marine resources.
9. Encourage and support the establishment and expansion of native plant communities by utilizing appropriate practices and techniques for propagation and planting.
10. Encourage the implementation and adequate funding for the Hawaii Department of Agriculture's Plant Quarantine Program on Moloka`i.
11. Encourage food security through programs and activities to increase the amount of locally grown food in agriculture, permaculture, agroforestry, ~~and~~ aquaponics, [and traditional farming systems](#).
12. [Encourage adequate funding for ecosystem protection and restoration.](#)
13. [Support the development of game, fishery, and coastal management areas and management plans.](#)
14. [Ensure that watershed protection and other conservation measures, including fencing, facilitate Native Hawaiian access rights related to subsistence activities and traditional and customary practices.](#)

15. [Protect and maintain Moloka'i's oceans, beaches, and other recreational areas to ensure a safe environment for recreational and cultural activities.](#)
16. [Support traditional ecological knowledge \(TEK\) as a tool or resource strategy.](#)
17. [Encourage and support research that studies the water quality, invasive species and circulation issues around the Kaunakakai Wharf Road and Small Boat Harbor.](#)
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 County Agency	Partners
3.1.01	Assist with a conference or workshops of key federal, state, and local agencies, and community and non-profit leaders to discuss, plan, and prioritize actions to address environmental and natural resource issues.	OED	Planning Department Department of Water Supply MLSWCD Aha Kiole
3.1.02	Compile GIS data and traditional ecological knowledge to map the highest value ecological areas and natural resources.	Planning Department	DLNR Major landowners NGOs MLSWCD Aha Kiole
3.1.03	Compile GIS data to map primary and secondary groundwater recharge areas to help prioritize protection and restoration efforts.	Water Department	State (CWRM) Planning Department USGS Aha Kiole
3.1.04	Assist in conducting workshops with stakeholder groups to develop an integrated natural and heritage resources management system, including traditional ecological knowledge .	OED	DLNR - Na Ala Hele Trail and Access Program NGOs Aha Kiole
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

Table 3.1 Natural Resources			
No.	Action	Lead County Agency	Partners
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
3.1.07	Consult with UHMC-Moloka'i to develop and manage a native plant nursery for community restoration projects.	OED	UHMC-Moloka'i DLNR MLSWCD NRCS Plant Materials Center/USDA NGOs Private landowners Aha Kiole
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
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 Natural Resource Conservation Service (NRCS) USGS MLSWCD Aha Kiole
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
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
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 Planning Department DLNR MLSWCD Aha Kiole

Table 3.1 Natural Resources			
No.	Action	Lead County Agency	Partners
3.1.13	Assist with development of a community-based game management plan, including BMPs.	OED	DLNR NRCS Major landowners NGOs MLSWCD Aha Kiole
3.1.14	Continue to support organizations that eradicate invasive species.	DWS	OED Aha Kiole
3.1.15	Encourage the State to establish a quarantine treatment facility on Moloka'i.	OED	MoMISC Aha Kiole
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.	OED	DLNR OHA Cultural Practitioners NGOs Aha Kiole
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

1

2

3.2 HERITAGE RESOURCES

Throughout Molokaʻi'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. Archaeological, 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 loʻi, hunting, caring for burials, and accessing sacred and religious sites, continue to be practiced on Molokaʻi. The health of Molokaʻi's natural and cultural resources, and access to these resources by Native 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 Molokaʻi are proud of their history, cultural identity, and unique Molokaʻi lifestyle, and are determined to uphold and strengthen these qualities for future generations.

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

Beginning in the 1920s, growth in cattle ranching and pineapple plantations influenced growth and development on Molokaʻi. Kaunakakai became the shipping and political center of the island as well as the home of Molokai Ranch's headquarters. In 1923, Libby, McNeill & Libby established a pineapple plantation in Maunaloa. Kualapuʻu, originally the location of a small out-station for Molokai Ranch, became home to the California Packing Corporation pineapple plantation in 1927.

A. EXISTING CONDITIONS

Molokaʻi has hundreds of documented archaeological and historic sites as well as numerous undocumented sites. West and central Molokaʻi lands have been extensively surveyed, while the east end has not yet been adequately surveyed. Appendix 3.2 provides a reference list of archaeological surveys conducted on Molokaʻi, including *Molokai: A Site Survey*, April 1971 by Catherine C. Summers. ~~Approximately 120~~ Molokaʻi sites are listed in the State Historic Preservation Division's (SHPD) statewide Inventory of Historic Properties, and ~~numerous roughly 75 of these~~ Molokaʻi sites have been entered in the Hawaiʻi and/or National Registers of Historic Places. ~~Sites depicted on Map 3.3 include sites listed in SHPD's inventory as of 2009, excluding restricted sites. The map does not represent an exhaustive catalogue of Molokaʻi cultural sites.~~

Archaeological sites and traditional cultural properties are distributed across the landscape and include both Hawaiian cultural sites as well as areas of more recent use. A *traditional cultural property* is defined as an area or place "that is eligible for inclusion in the National Register because of its association with cultural practice or beliefs of a living community".¹¹ Some of Molokaʻi's most noted traditional cultural resources include the ancient Hawaiian complexes of Halawa Valley, the *'Ili'ili'ōpai heiau* of Mapulehu, the east end fishponds, [Kukuʻi Lanikaula](#), the *Makahiki* Grounds of Nāʻiwa, the *Hula Piko* of Kāʻana, ~~–~~ [Kapuāiwa Coconut Grove](#), St. Joseph Church, and the R.W. Meyer Sugar Mill of Kalaʻe. Appendix 3.3 provides a list of cultural sites that the community desires to protect.

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

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

¹¹ U.S. Department of the Interior, National Park Service. (1998). *National Register Bulletin 38*.

¹² Chris Hart & Partners, Inc. January 2011. *Cultural Resources Issue Paper*. Prepared for the County of Maui Long-Range Planning Division, Wailuku, HI.

Moloka`i's cultural sites are actively used by many in the community for cultural, spiritual, and subsistence purposes and are important to the perpetuation of Hawaiian traditions and cultural practices. According to the *Governor's Moloka`i Subsistence Task Force Final Report*¹³, among the random sample group surveyed 28% of their food is acquired through subsistence activities and 76% of respondents ranked subsistence as important to their own families. Erosion and reef siltation, over-fishing and improper harvesting, and non-native invasive marine species threaten traditional subsistence practices. Moloka`i has a wealth of traditional cultural practitioners with extensive experiential knowledge of local customs, resources, and ecosystems. Many of these practitioners believe it is their responsibility to teach younger generations traditional conservation practices and adherence to a code of conduct. This community place-based traditional resource management can function collaboratively with the more contemporary, resource management approach. One example is the 'Aha Moku initiative, a joint venture established between the native Hawaiian community and the State to integrate the traditional cultural natural resource management system into existing government regulatory policy.

In the past several decades, the rights of Native Hawaiians, particularly relating to access and gathering, have been extended and clarified. State and county governments and agencies have obligations to protect the reasonable exercise of traditional and customary practices of Native Hawaiians, to the extent feasible. Relying on the rights recognized in key constitutional and statutory provisions, as well as court decisions¹⁴, the Hawai'i Supreme Court established an analytical framework for State and county agencies to follow when considering land use and development projects¹⁵.

B. ISSUES

Issue 1: Cultural, historic, and archaeological sites are vulnerable to destruction, theft, neglect, and environmental degradation. Due to the Hawaiian language not being a written language, these sites represent our libraries and history.

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

¹³ Matsuoka, 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.

¹⁴ 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).

¹⁵ Ibid; see also Public Access Shoreline Hawai'i v. Hawai'i County Planning Comm'n, 79 Hawai'i 425 (1995).

C: GOAL, POLICIES, ACTIONS

GOAL Moloka'i's cultural, historic, and archaeological sites, and cultural practices will be protected and perpetuated for their cultural and historical value, and for enjoyment of and sustainable use by future generations.

Policies

1. Encourage proper management of and appropriate interpretation of significant cultural resources and sites.
2. Promote the rehabilitation, reuse, and historic registration of significant cultural resources, historic structures, and cultural landscapes.
3. Where appropriate, require identification and mitigation of potential impacts to subsistence activities and resources when reviewing development permits and discretionary land use proposals.
4. Support access for subsistence hunting, fishing, and gathering. [Support appropriate public access to the shoreline, public trails and hunting areas, in a manner that protects natural and cultural resources and respects cultural practices.](#)
5. ~~Adhere to~~ [Protect and support](#) Native Hawaiian rights customarily and traditionally exercised for subsistence, cultural, and religious purposes in accordance with the Hawai'i State Constitution (Article XII, Section 7), [HRS sections 1-1 and 7-1](#), and Hawai'i ~~law~~ [court decisions](#).
6. Support the establishment of the island as a community-based subsistence fishing area pursuant to HRS 188-22.6 [in order to conserve marine and nearshore resources for generations to come.](#)
7. Increase community awareness and stewardship of Moloka'i's historic and cultural resources.
8. Protect traditional cultural landscapes such as Hālawā Valley, Hoku Kano-'Ualapu'e Complex, Ka'amola, and Kamalo [through the designation of all of Mana'e within a Traditional Land Use Overlay.](#)
9. Encourage the restoration, management, and use of Moloka'i's fishponds.

10. Support the inclusion of educational programs that emphasize culturally significant arts and practices, the Hawaiian language, and Moloka`i history into the curriculum of Moloka`i schools.
11. Support community-based cultural tourism that does not have an adverse effect on natural resources and culture.
12. Encourage increased funding for the State Historic Preservation Division.
13. Support Moloka`i cultural events that do not have an adverse effect on natural resources and culture.
14. Ensure that permits for any project that may affect historic property are provided to SHPD for review, and that SHPD's recommendations are issued as permit conditions.
15. 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.
16. 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.

1 **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.	Planning Department	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.	Planning Department	SHPD
3.2.03	Establish archaeological and historic districts where high concentrations of sites exist.	Planning Department	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.	Planning Department	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	Planning Department SHPD NGOs, Community Groups Cultural Practitioners OHA
3.2.07	Pursue State and County cooperation to update and implement the Mālama Cultural Park master plan.	Parks Department	Planning Department SHPD DHHL OHA
3.2.08	Explore options to protect cultural sites listed in Appendix 3.3.	Planning Department	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	Community Groups Planning Department SHPD

Table 3.2 Heritage Resources			
No.	Action	Lead County Agency	Partners
3.2.10	Coordinate with kupuna 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.	Environmental Coordinator	OED Cultural Practitioners DLNR OHA NGOs, Community Groups
3.2.11	Encourage the Governor to appoint members to the Moloka'i Burial Council so that regular hearings by this body may resume.	Planning Department	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.	Planning Department	SHPD
3.2.14	Educate property owners regarding the need to prevent damage to, or destruction of, historic and cultural sites.	Planning Department	SHPD

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.

Existing Conditions

Scenic resources on Moloka'i benefit from the limited amount of development which 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 that are used to evaluate and prioritize scenic resources.¹⁶ 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: 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.

¹⁶ 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 Moloka'i's 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, significant views of ridgelines and hill-slopes to maintain open space scenic character.
3. Increase community awareness and appreciation of Moloka'i'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.	Planning Department	NGOs
3.3.02	Complete the visual inventory, analysis, and mapping of key scenic view corridors, ridgelines, and viewsheds.	Planning Department	NGOs
3.3.03	Develop and implement Scenic Roadway Corridors Management Plan and Design Guidelines.	Planning Department	NGOs DPW HDOT
3.3.04	Provide educational workshops for design consultants and developers on scenic resource BMPs.	Planning Department	NGOs
3.3.05	Integrate scenic resource planning into natural and heritage resources strategies and plans.	Planning Department	NGOs

4 | HAZARDS

Hazards from natural forces have been measured in Hawaiʻi 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. Both direct and indirect costs should be considered in 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 capabilities, 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”¹.

*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.*²

The islands that constitute Maui County are exposed to hazards that are sometimes unique to each island. Molokaʻi has greater exposure to high surf from the large Northwestern Pacific swells than other islands. Wildfires and drought have significantly impacted Molokaʻi. Floods and coastal erosion with economic, social, and environmental significance are more common on Molokaʻi because its population center is near shorelines and ~~steep-graded~~ 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 most severe or most frequent hazards. The HMP was completed in 2015 and received final approval from FEMA the same year.

¹ <http://www.soest.hawaii.edu/coasts/sealevel/>

² 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 The 2010 HMP is being updated and will include information on hazard events that have impacted
2 the County since the 2010 Plan was published, as well as more information on the potential impacts
3 of climate change and sea level rise (SLR). Specific references to the 2015 Maui County Multi-
4 Hazard Mitigation Plan pertaining to descriptions in this chapter can be found in the footnotes. The
5 updated HMP will also focus on mitigating the impacts of flooding in order to improve the County's
6 Community Rating System (CRS) class ranking, which is currently 8. This rating provides a 10%
7 annual discount off flood policy premiums. A ranking of 1 out of the 10 classes is the highest and
8 would provide a 45% discount. The NFIP is a Federal program created by Congress to mitigate
9 future flood losses through sound, community-enforced building and zoning ordinances and to
10 provide access to affordable, federally backed flood insurance protection for property owners. The
11 NFIP is designed to provide an insurance alternative to disaster assistance to meet the escalating
12 costs of repairing damage to buildings and their contents caused by floods. The County is in the
13 process of updating the Flood Insurance Rate Maps (FIRMs) that are used to determine which
14 property owners with mortgages will be mandated by FEMA to purchase flood insurance and the
15 cost of the insurance.

Climate Change and Hazards

Scientists agree that climate change is warming the earth based on an extensive body of scientific study, although the range and rate of climate change is still being determined. Some changes in Hawaii and other Pacific Islands are already measurable including SLR, increasing ocean acidity, increasing water and land temperatures, and changing rainfall patterns. Early measurements have also revealed decreasing base flows in streams, changing wind and wave patterns, and changing plant and animal habitats and species distribution. Research currently indicates that global mean sea level may reach approximately 1 foot by mid-century and 2.5 to 6.2 feet by the end of the century; however, there are significant unknowns in predicting SLR (<http://www.soest.hawaii.edu/coasts/sealevel/> 6/29/2015).

The 2014 Hawaii *Climate Adaptation Initiative Act* (Act 83) established an interagency climate adaptation committee tasked with developing a SLR vulnerability and adaptation report that addresses potential statewide climate change impacts out to 2050. The interagency committee of county and community representatives will be overseen by the Department of Land and Natural Resources (DLNR) and the Hawaii State Office of Planning. The committee will make recommendations about the best ways to prepare for SLR and the secondary effects. The committee is required to issue a report that will be available to the public before the end of 2017. Act 83 also authorizes the Office of Planning to coordinate development of climate adaptation plans and policy recommendations and to use the committee's report as framework for addressing other climate threats and climate change adaptation priorities.

The predicted impacts from SLR include increased coastal erosion, coastal bluff/cliff failure, groundwater table elevation, storm surge and inundation of low-lying areas. This will increase the likelihood of property damage and community exposures to hazards, such as high drought conditions and associated higher risk for wildfires. The impacts of SLR can increase saltwater intrusion in parts of the aquifer and cause the groundwater table to rise resulting in inundation of low-lying areas and the infrastructure within (Rotzoll & Fletcher 2013). SLR will accelerate in the future altering the frequency and severity of wave inundation, erosion and flooding events. Man-made structures and residents close to the shoreline pose particular challenges for hazard planning and adaptation to SLR.

A. EXISTING CONDITIONS

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

Moloka`i has nine potential shelters for hazard evacuations with a total capacity of 5,391 people. Molokai High and Kualapu`u Elementary are rated as hurricane shelters with a combined capacity of 3,197 people. While this capacity could accommodate over 40% of the population, studies indicate that only 35% of residents are likely seek public shelter during a hurricane.³ Three shelters are rated for tsunamis and three for tropical cyclones. Only one shelter has been Red Cross approved. A State of Hawaii Civil Defense facility survey found recurring deficiencies with existing shelters (Martin & Chook, 2010)⁴.

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

Flooding and Erosion – Annual storms can bring multiple hazards that impact coastal and inland areas. These impacts include flash floods, high waves, storm surge, high winds and hurricanes. SLR increases the effect of high waves and storm surge that contribute to beach and shoreline erosion and coastal inundation. Major flood problems are associated with the heavy flow of four water courses in east Moloka`i. Wailua Stream, Wawaia Gulch, Kamalo Gulch and Kawela Gulch become blocked due to inadequate bridge openings or deposits of eroded sediment. Many streams run freely onto the roads as a result of inadequate drainage and stormwater infrastructure. This typically occurs around the east side of Kawela and at One Ali'i Beach Park. Roadway flooding can hamper travel and access [and adversely affect emerging response times and capacity](#). When streams and rivers flood on the mauka side of the road, heavy debris often settles on the roadways. Additionally, mud runs off onto roadways making roads impassable and creating hazardous driving conditions. There are several unnamed waterways that flood areas by the Kaunakakai Fire Station and Maui College impacting the cemetery and Kapa`akea Homestead. Rising sea levels will also block the drainage of streams causing overflow at the stream mouth.⁵

³ Source: County of Maui, Department of Civil Defense

⁴ Martin & Chock. (2010) *Maui County Multi-Hazard Mitigation Plan*.

⁵ 2015 Maui County Multi-Hazard Mitigation Plan, Chapter 10 and Chapter 13.

4 Hazards

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

New GIS maps for all islands in the County has been developed for tsunami inundation areas. These maps include delineations of historical and modeled run-up data; they are used for determining building standards and tsunami evacuation areas. Historically in Hawaii, the National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRMs) included the historical tsunami inundation limits. The new Digital Flood Insurance Rate Maps (DFIRMs) should be amended to include for these limits.⁶

Dams and Reservoirs - Dam and reservoir failures can cause damaging flash floods. The sudden release of impounded water can occur during a flood that overtops or damages a dam or reservoir; this can occur on a clear day if the dam has not been properly constructed or maintained. The Kualapu'u Reservoir is an earthen dam located in central Moloka'i, that stores 1.2 billion gallons of water for irrigation purposes. The dam is 57 feet high and is 7,100 feet long with a drainage area of 134 acres. This state regulated reservoir that was built in 1969 has a high flash flood hazard rating.⁷ The nearest town in the flood path, is Ho'olehua Pala'au Homestead located one mile away. Kualapu'u Reservoir has a state approved Emergency Action Plan (EAP) and an engineering assessment was completed in January 2015 (see Hazards map 4.2).⁸

High Surf - The most predictable and frequent coastal hazards in the Hawaiian Islands are sudden high waves combined with strong near shore currents. High surf is defined as waves ranging in height from 10 feet to 20 feet or more. High wave events threaten lives, coastal property, and infrastructure. High waves from hurricanes present a more complex hazard since they may coincide with high tide, storm surge, and high winds to produce a combined threat. They generally occur from June through December and most often hit the eastern shores of the Hawaiian Islands as hurricanes approach. High waves produced by north Pacific swells affect the entire northern and western coast of Moloka'i.⁹ There is a greater threat to the more accessible and frequented areas along the north facing shores of the west La'au Point between Ilio Point and Mo'omomi Beach.¹⁰

Wildfire -Wildfire is the term applied to any unwanted and unplanned fire burning in forest, shrub, or grass areas regardless of whether naturally or human induced. Historically, Moloka'i has been very susceptible to wildfire; there are nine years on record where more than one thousand acres burned. Between 1975 and 2009, wildfires on Moloka'i burned over 65,000 acres, which is

⁶ IBID, Chapter 9

⁷ "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

⁸ 2015 Maui County Multi-Hazard Mitigation Plan, Chapter 11.

⁹ IBID, Chapter 16

¹⁰ *Atlas of Natural Hazards in the Hawaiian Coastal Zone*, 2002

approximately twice as much acreage as wildfires consumed on Maui during the same time period. Wildfires can cause widespread damage to watersheds, human communities, and associated downslope coral reef ecosystems. The danger of wildfire is related to arid conditions, frequent high winds and the high fuel potential of vegetation. Nine out of ten wildfires are human caused. Moloka`i's central area and west end are dry regions with agricultural lands that are particularly susceptible to drought conditions, and are therefore at high risk of wildfire.

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

The Task Force collects wildfire risk data and oversees development of the Community Wildfire Protection Plan (CWPP). The CWPP addresses elements of wildfire protection, hazard assessment, wildfire mitigation priorities, and community outreach and education. The goals and objectives of the plan follow the requirements of the *Healthy Forests Restoration Act* (HFRA), which describes a CWPP as a fire mitigation and planning tool for at-risk communities that meet criteria contained in the HFRA.¹¹

Hazardous Substances & Waste - The Hawaii Environmental Response Law (HERL) requires the DOH to report annually to the State Legislature about sites with potential or known hazardous substances, pollutants, or contaminants.¹² The 2014 Site Rehabilitation Prioritization (SRP) List of Priority Sites reported ten sites on Moloka`i with potential or known contamination. There was also a list of sites eligible for possible remedial action under Comprehensive Environmental Response Compensation and Liability Act (CERCLA) that identified one Moloka`i site for possible listing. Additionally, in 2014 there were four Moloka`i sites located on federal property managed and funded under the Department of Defense/State Memorandum of Agreement (DSMOA) Program.¹³

¹¹ 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 Moloka`i was addressed in the October 2004 County of Maui Drought Mitigation Strategies and the 2005 State Drought Plan.

¹² Martin & Chock. (2010) Maui County Multi-Hazard Mitigation Plan.

¹³ Environmental Response and Planning Community Knowledge Report to the Twenty-Seventh Legislature, State of Hawaii 2014.

B. ISSUES

- Issue 1: There is low public awareness about hazard preparedness, mitigation, response, and recovery.
- Issue 2: In coastal areas, including Kaunakakai, [Sea Level Rise](#) will increase risk of inundation, flooding, storm surge, beach erosion, and shoreline retreat and structural damage.
- Issue 3: Molokaʻi has a high risk of wildfire.¹⁴
- Issue 4: Molokaʻi cannot solely depend upon other islands for resources for their hazard and emergency response.
- [Issue 5: The majority of Molokaʻi's government, businesses and health care facilities, with the exception of the hospital and new fire station, are located entirely within flood and tsunami inundation zones.](#)
- [Issue 6: Pukoʻo Fire Station is the only emergency facility located on the East End of Molokaʻi and is located within flood and tsunami inundation zones.](#)
- [Issue 7: There are no emergency facilities in the West End of Molokaʻi.](#)

C. GOAL, POLICIES, ACTIONS

Goal Molokaʻi 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.

¹⁴ Draft Maui County Hazard Mitigation Plan Update, 2015
4 Hazards
PD/CPAC/MoPC DRAFT May 2016

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 Hawaii State Act 286 (2012) *Climate Change Adaption Priority Guidelines*.
5. Maximize protection of coastal natural resources and ecosystems and avoid the perpetuation of shoreline armoring.
6. Encourage the location or relocation of all critical infrastructure, facilities, and development out of the evacuation and inundation zones vulnerable to coastal hazards in accordance with the 2012 Hawaii State *Climate Change Adaption Priority Guidelines* [and the 2015 Maui County Hazard Mitigation Plan](#).
7. Prioritize mitigation efforts that will provide potential funding opportunities to harden, flood proof, or retrofit vulnerable critical facilities and infrastructure.
8. Support the goals, objectives and actions of the 2015 *Moloka`i Community Wildfire Protection Plan*.
9. Support the protection and restoration of natural systems, such as wetlands and dunes, for flood mitigation and climate change adaptation.
10. Promote the distribution of public education and outreach materials that explain FEMA's National Flood Insurance Program (NFIP).
11. Per the Maui County Hazard Mitigation Plan, encourage the State to utilize the funding provided for in the State Highways Modernization Plan to retrofit, rehabilitate and/or replace highway bridges vulnerable to earthquake hazard.
12. Encourage a greater urgency to act on hazard policies, actions, implementation priorities, and funding.
13. Support the addition of Red Cross approved shelters.
14. [Support the integration of traditional ecological knowledge based coastal hazards information into planning for resilience.](#)

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 VOAD 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 Hazard Mitigation Plan.	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	Fire Department Mayor's Office Environmental Coordinator Red Cross Molokai 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 Planning Moloka'i Fire Task Force MECO
4.09	Complete an inventory of vulnerable critical facilities and infrastructure. Include this information in Maui County HMP for future mitigation project funding.	Planning	Civil Defense
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.	Planning	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.	Planning	FEMA
4.12	Implement additional CRS activities to improve class ratings and discounts on flood insurance premiums.	Planning	FEMA
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.	Planning	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.	Planning	NOAA Pacific Services Center, UH Sea Grant Civil Defense DPW
4.15	Per the Maui County Hazard Mitigation Plan, update the HAZUS MH model to incorporate detailed data on state and county bridges located in Moloka'i.	Civil Defense	FEMA
4.16	Support development of a cultural archive of the kupuna's knowledge of traditional hazard mitigation practices.	Planning	DHHL
4.17	Evaluate, <u>update and prioritize</u> ~~and build~~ Red Cross approved shelters on Moloka'i.	Civil Defense	Red Cross
4.18	<u>Immediately seek funding and develop an implementation plan to move critical infrastructure and emergency services out of flood and tsunami inundation zones.</u>	<u>Civil Defense</u>	<u>FEMA</u>
4.19	<u>Support the relocation of the Puko'o Fire Station on the East End of Moloka'i.</u>	<u>Civil Defense</u>	<u>FEMA</u>

1

5 | ECONOMIC DEVELOPMENT

Several key economic events have shaped the structure and vitality of Molokaʻi's economy. These also have influenced the population makeup and employment opportunities on the island. Molokaʻi 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 Kaluakoʻi which was the origin of Molokaʻi 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 Molokaʻi including sugar, honey, sweet potatoes, and watermelon. In the late 1970s, the Kaluakoʻi Hotel along with its golf course and condominiums opened, officially introducing resort tourism to Molokaʻi. By the early 1980s, the pineapple operations closed ending plantation agriculture on Molokaʻi and triggering a substantial out-migration.

In 1967, the First Corn test plots was started by Molokaʻi Ranch, with the support of the University of Hawaii (Dr. Jim Brewbaker and Dr. Elizabeth Johnson (Granger)). In 1968, Molokaʻi Seed Service (Corn Nuts, Molokaʻi Ranch) and Hawaiian Research (Roland Holden) began business on Molokaʻi. In 1972, Molokaʻi Seed Services sells to Hawaiian Research all of its assets including land leases on Molokaʻi. December 2000 Monsanto purchases Hawaiian Research. In 2000, two biotech seed corn companies, Monsanto and Mycogen Seeds, began operations that are now Molokaʻi's first and second largest private employers. In 2001, the Kaluakoʻi Hotel closed; then in 2008, the island's largest employer at the time, Molokaʻi Ranch, closed its operations and laid off 120 employees. This meant the loss of some important community amenities such as the Kaluakoʻi 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 Molokaʻi Chamber of Commerce surveyed 90 Molokaʻi business representatives. The resulting 2009 report concluded that, "... the quality of the labor force and job applicants was a limiting factor for the Molokaʻi economy."¹ 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 Molokaʻi and that resourcefulness is inherent in the community."²

Additionally, according to the 1994 Governor's Molokaʻi Subsistence Task Force Final Report, subsistence is a viable sector of Molokaʻi's economy. Subsistence practices on Molokaʻi have continued into today primarily due to the availability of renewable natural resources. With Molokaʻi's history of years of macroeconomic strategies that have had negative implications on Molokaʻi's natural resources and native ecosystems, in addition to recognizing Molokaʻi's subsistence economy, it is

¹ Maui Economic Development Board, *Entrepreneurship and the Future of Molokaʻi* (2009)

² Maui Economic Development Board, *MEDB Annual Report On Operations, July 1, 2008 – June 30, 2009*

equally important to carefully move forward with future endeavors to develop and diversity Molokaʻi's economy.

In *Wāiahole I*, the Hawaiʻi Supreme Court held that the public trust doctrine affords protection to natural resources that are important for Native Hawaiian traditional and customary practices,³ including subsistence. The Court further held that private commercial use is not a protected public trust use.⁴ Additionally, as public and private interests often conflict, the State has a constitutional obligation to weigh competing interests in public trust resources with a presumption in favor of public use, access, and enjoyment.⁵ In order to ensure Molokaʻi's subsistence economy remains its viable and ensure the rural character of Mana'e remains intact, it is critical to ensure that the continuous development of Molokaʻi's economy is done so in a way that is in accordance with the state's affirmative obligations.

A. EXISTING CONDITIONS

Molokaʻi's economic development efforts face a unique set of challenges including:

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

These economic challenges are magnified on Molokaʻi; finding workable solutions will require thoughtful collaboration between business owners, major landowners, government entities, and the community.

The USDA awards grants to communities throughout the United States that have high rates of poverty and Molokaʻi ~~has been~~ was designated ~~one of these~~ as a Rural Enterprise Communities for ten years from 1998 to 2008. Molokaʻi is economically disadvantaged due in part to the lasting combined impacts of the Great Recession and the shutdown of the pineapple companies and Molokaʻi Ranch. The following 2009-2013 American Community Survey statistics provide a snapshot of economic conditions on Molokaʻi⁶:

- Molokaʻi has consistently had the state's highest unemployment rate; in November 2014 it was 14.2% versus the statewide average of 4.7%.⁷

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

⁴ Id. at 138.

⁵ Id. at 141-42.

⁶ American Community Survey, 2009-13 5-year Estimate (unless otherwise noted).

⁷ Hawaii State Department of Labor & Industrial Relations (DLIR), December, 2014

- 1 • The 2009-2013 estimated median family income (MFI) for East Molokaʻi was of \$51,807 which
- 2 was 65% of the \$79,963 statewide MFI; West Molokaʻi MFI was \$44,656 which was 56% of the
- 3 statewide MFI.
- 4 • An estimated 21% of people living on Molokaʻi had incomes below the poverty level, which was
- 5 nearly double the statewide rate of 11%.
- 6 • On Molokaʻi, 28% of workers were employed in the government sector compared to 15% on Maui,
- 7 and 21% statewide. Alternatively, Molokaʻi had the lowest percentage of private-sector employees
- 8 at 63% compared to 75% on Maui, and 72% statewide.
- 9 • Molokaʻi had the highest percentage of workers employed in the agricultural, forestry, and fishing
- 10 industries at 7% compared to Maui at 2.4% and the state average at 1.5%.
- 11 • Molokaʻi has only one small hotel and 340 total visitor accommodation units that are mostly condos
- 12 and in 2014 the island had the lowest percentage of workers employed in the tourism sector with
- 13 15% versus 24% for Maui and 16% statewide.

14
15 Standard economic indicators such as unemployment rate, workforce composition, and personal
16 income levels may signify a community in distress; however, Molokaʻi has a significant subsistence
17 economy which provides a vital and viable substitution for many imported goods. This key sector in
18 Molokai's hidden economy is important to food sustainability and self-sufficiency.

19
20 Subsistence is the customary and traditional use by Molokaʻi residents of wild and cultivated renewable
21 resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, transportation,
22 culture, religion and medicine, for barter or sharing, and for customary trade. Many families on
23 Molokaʻi continue to rely upon subsistence fishing, hunting, gathering, or cultivation for a significant
24 portion of their food. Subsistence has also been critical to the persistence of traditional Hawaiian
25 cultural values, customs and practices.

26
27 A number of residents are very protective of their rural and traditional-based lifestyles and have
28 resisted economic development centered on commercial tourism, real estate development, and in-
29 migration of new residents; all important elements in most of the state's economic development
30 strategies. Although many Molokaʻi residents are willing to accept economic tradeoffs to maintain their
31 traditional lifestyles, others desire a more diversified, resilient, production and service-based economy.
32 There is considerable community support for agriculture, aquaculture, and an active community-based
33 tourism sector. Many would like to see small local businesses and entrepreneurs become the primary
34 drivers of Molokaʻi's economic renaissance. There is also a strong community desire to revitalize and
35 reopen the Kaluakoʻi Hotel and golf course, the Maunaloa Lodge, and the other amenities.

36
37 There is no longer a direct freight service connection between Molokaʻi and Maui, which creates
38 logistical problems for producers of perishable goods. The Young Brothers freight schedule makes it
39 difficult to ship perishable goods from Honolulu. Products originating or arriving outside of Hawaii first

arrive in Oahu then move on to Moloka`i. The additional leg of travel increases Moloka`i shipping costs and shipping times, which can affect spoilage rates for agricultural products.

B. ISSUES

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

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

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

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

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

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.

- 1 5. Support expansion of complementary tourism markets including kama`aina, cultural,
2 religious pilgrimage, eco, agricultural, sports, ~~and hunting in a manner that supports the~~
3 conservation of Moloka`i's natural and cultural resources, the protection of Moloka`i's rural
4 lifestyle and cultural traditions, and the sustainability of the island. 7
- 5
- 6 6. Support redevelopment projects such as Kaluako'i Hotel and golf courses, and the
7 reopening of Moloka`i Ranch Lodge with community input to incorporate community
8 culture and lifestyle.
- 9
- 10 7. Support the limited growth of permitted alternative lodging units that do not create an
11 adverse impact on the neighborhood.
- 12
- 13 8. Support increased enforcement of the County's Short-Term Rental Home Ordinance to
14 address the adverse impacts unpermitted rentals have on neighborhoods.
- 15
- 16 9. Advocate for Moloka`i's transportation interests.
- 17
- 18 10. Encourage the State Department of Transportation's implementation of harbor
19 improvements.
- 20
- 21 11. Encourage the State Department of Transportation to improve the airport.
- 22
- 23 12. Create regulations and procedures that will enhance and promote (not hinder) economic
24 development appropriate to the Moloka`i rural character.
- 25
- 26 ~~13. Support the discussion of using the abundance of venison and kiawe for new industries.~~
- 27
- 28 ~~14.~~13. Support art as a business.
- 29
- 30 ~~15.~~14. Support and encourage cottage and mini-industries such as garment and craft
31 production as residentially based economic activities, provided such activities are
32 compatible with the surrounding neighborhood.
- 33
- 34 ~~16.~~15. Support increased education and employment in conservation and restoration to
35 create a sustainable economy.
- 36
- 37 ~~17.~~16. Continue support of the Kuhau business Center.
- 38
- 39 ~~18.~~17. Support the restoration and utilization of Moloka`i fishponds and the development of
40 a fish hatchery on the east end of Moloka`i. 7
- 41

1 19,18. Support community initiatives to develop a management plan for mangroves in
2 fishponds and near shore areas and convert this invasive species into farm inputs and
3 hardwood consumer products.
4

5 19. Encourage the update and implementation of the Moloka`i Responsible Tourism
6 Initiative.
7

8 20. Support subsistence as a sector of Moloka`i's economy.
9

10 ~~20,21.~~ Encourage State and County efforts to secure federal funds to subsidize interisland
11 transportation.
12

13 ~~21,22.~~ Support community-based management of the natural resources on Moloka`i.
14

15 23. Encourage the protection of the north shore coastline, valleys, and fisheries from all
16 commercial activities.
17
18
19

1
2

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 Molokai
5.02	Continue to assess potential shipping options including utilizing the ferry as a small cargo carrier between Maui and Moloka'i.	OED	Ferry Operators Public Utilities Commission Aha Kiole o Molokai
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.	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 Hawaii (UH) College of Tropical Agriculture and Human Resources (CTAHR) Aha Kiole o Molokai
5.05	Continue to provide business courses to farm owners and agricultural entrepreneurs that include education about State and Federal loan and grant opportunities.	OED	Department of Agriculture Farm Service Agency Hawaii Aha Kiole o Molokai
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 Molokai
5.07	Create a survey of the Moloka'i population to determine the reasons for the high rate of "discouraged workers".	OED	MEDB MEO Aha Kiole o Molokai
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 Molokai
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.	OED Mayor's Office (Environmental Coordinator)	DLNR EPA MEDB Aha Kiole o Molokai
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 Molokai
5.11	Identify economic opportunities for the use of targeted plant and animal species for value added products	OED	Aha Kiole o Molokai

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 Molokaʻi.	OED	Planning Department Aha Kiole o Molokai
5.13	Explore the possibility to provide incentives to landowners to help bring county code legacy issues into compliance for the purpose of maintaining affordable housing.	DHHC	Planning Department Aha Kiole o Molokai
5.14	Support Workforce development efforts to help improve Molokaʻi's economy.	OED	Hawaii Workforce Development Dept. Aha Kiole o Molokai
5.15	Develop opportunities to get more local agricultural products into local markets.	OED	HDOA Market Development Branch Aha Kiole o Molokai
5.16	Support the traditional use of Hawaiian farming systems and the growth of traditional Hawaiian crops.	OED	HDOA Aha Kiole o Molokai
5.17	Support workforce development efforts targeted at sectors poised to revive Molokaʻi's economy.	OED	Aha Kiole o Molokai

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 Community 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's 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 the 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.

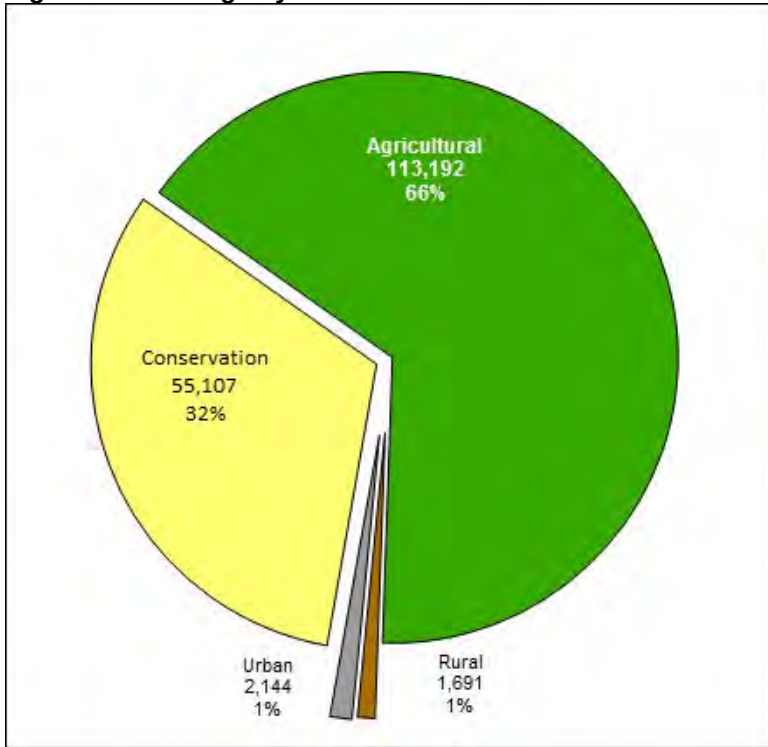
Table 6. 1: Population of Moloka'i's Small Towns

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



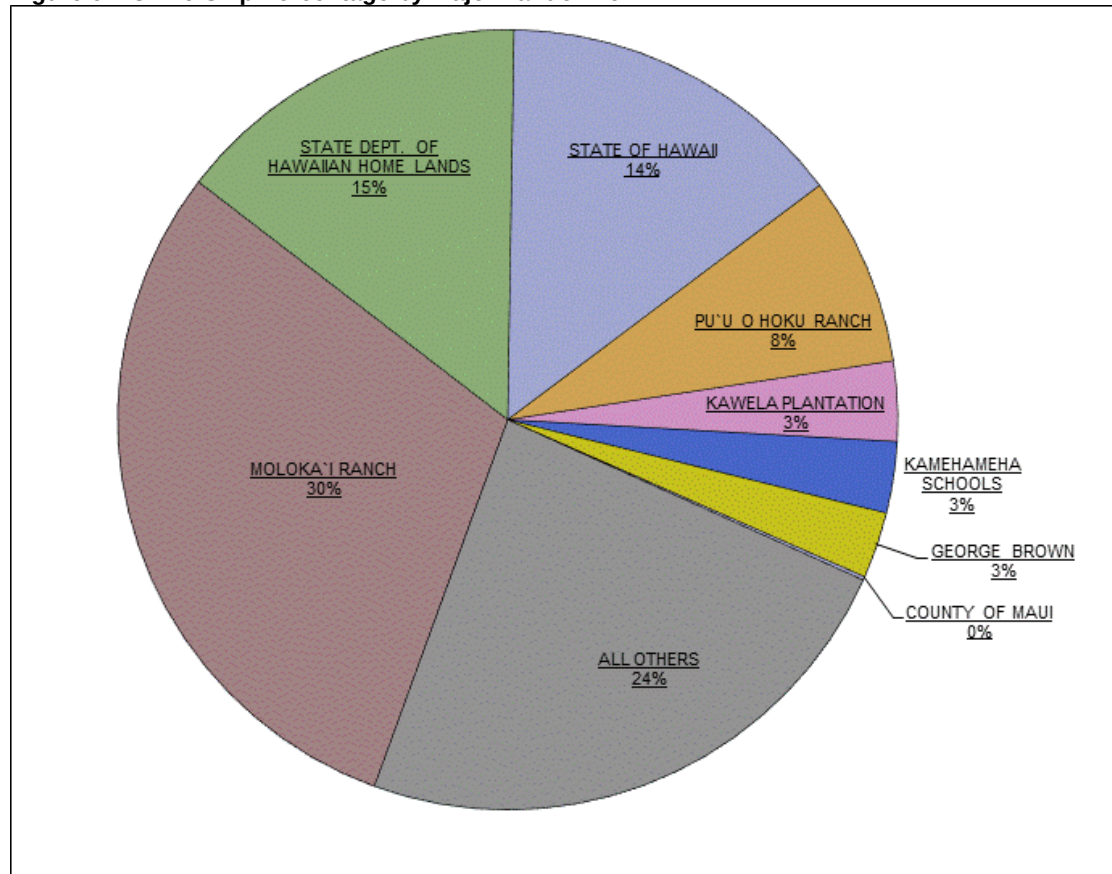
Almost all of the land on Moloka'i designated Urban by the State Land Use Commission (SLUC) is County zoned Interim. The exceptions are those properties for which a zoning change has been granted. Interim zoning has significant consequences for landowners and businesses:

- 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 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 Molokai Ranch. Central Moloka'i has large areas owned by the Department of Hawaiian Homelands (DHHL) and by Molokai Ranch, as well as smaller landowners. East Moloka'i is largely held by small landowners some of which are *kuleana* grants. In the Halawa area Pu'u o Hoku Ranch has extensive property.

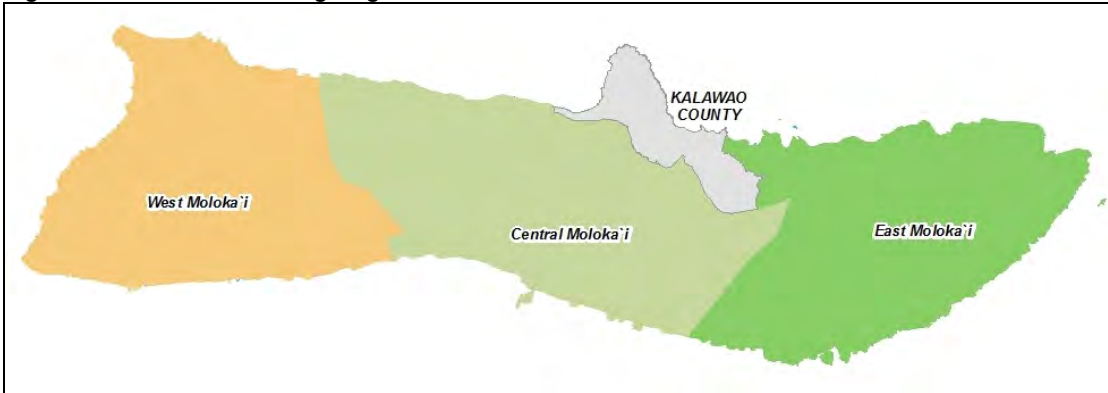
DHHL is not required to comply with the Maui County General Plan, zoning and subdivision regulations, and County building and other ministerial permits. However, DHHL does require lessees to obtain building permit approval from the County Department of Public Works because DHHL does not have its own 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, West Moloka'i and Central Moloka'i (see Figure 6.3).

Figure 6.3 Moloka'i Planning Regions



East Moloka'i

The boundaries of East Moloka'i by ahupua'a are from Makolelau to Halawa on the south shore, and from Pelekunu to Halawa on the north shore. [This area boundary was chosen since 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 which is defined as "to the east – a direction."¹ 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% 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 Moloka'i 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 Land², the Moloka'i Irrigation System, and

¹ Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press

² State Department of Agriculture, November, 1977. Agricultural Lands of Importance to the State of Hawaii Revised

the island's only State owned agricultural park, comprising 753 acres (see Map 6.1). Molokaʻi'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 Molokaʻi's agricultural lands are not under the level of pressure from encroaching urbanization like other areas in the state, implementing tools to protect these lands is a proactive step to ensure these resources are available for future generations.

West Molokaʻi

West Molokaʻi includes primarily the ahupuaʻa of Kaluakoʻi, as well as the coastal portions of Hoʻolehua and ʻIloli ahupuaʻa on the south shore. West Molokaʻi is on the hot and dry leeward side of the island. Its highest elevation is at Puʻu Nana, elevation 1,381 feet. Cattle ranching is the dominant land use in the region. Kaluakoʻi Hotel closed in 2001, followed by the opening of the Lodge at Molokai Ranch and the Molokai Beach Village Tent Cabins at Kaupoa Beach in 2002. However, despite efforts to make Molokai Ranch profitable, all of its West Molokaʻi operations were shut down in 2008. As a result, economic activity and the visitor population in West Molokaʻi have declined. Some condos and single-family homes remain in the Kaluakoʻi- Pāpōhaku area, and limited services remain in Maunaloa for the town's small population. As of 2015, Molokai Ranch is pursuing enterprises in animal husbandry, farming, renewable energy, and hospitality.

B. FUTURE CONDITIONS

The Land Use Forecast³ concludes that sufficient developable lands currently exist on Molokaʻi to meet future demand for housing units, for visitor units, and for commercial and industrial space through the year 2035. This supply of land is in areas identified on the 2001 Molokaʻi 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 Kaluakoʻi and is Community Plan designated single family and multi-family residential. Kaunakakai contains a lesser amount of vacant residential land which is located primarily *mauka* of the existing town. Infill opportunities exist within Kaunakakai town and also exist in ~~Ualapue~~ Ualapue, Kawela, Kualapuʻu, Hoʻolehua, Kalae, and Maunaloa.

The potential future impacts from sea level rise to existing coastal development are important factors to consider for Molokaʻi. Some of the island's existing development and vacant land supply along the south shore, east end, and in Kaluakoʻi may be impacted by future sea level rise, increased coastal flooding, and expensive flood hazard insurance rates. The Molokaʻi 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

³ County of Maui Department of Planning. (October 2013). *Land Use Forecast Island of Molokaʻi Maui County General Plan Technical Resource Study*.

sea level rise and other coastal hazards; ~~however, the new location has not been determined.~~
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.

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.

Maunaloa Mixed Use Residential

~~The area previously identified in the 2001 Moloka'i Community Plan as the Maunaloa Project District has been changed to Mixed Use Residential and encompasses approximately 64 acres. This area will be primarily residential with a majority of workforce and affordable housing. There will be a variety of single family and multi-family residential housing. Business commercial uses will be small scale neighborhood support services such as markets, restaurants, laundromats, doctor's offices, and hardware stores. The sequence for developing business commercial will occur as needed to serve the community. Molokai Ranch's headquarters office may relocate into this area as the need arises. Public/quasi-public uses will be developed as needed to serve the community. This area will include sufficient neighborhood parks to accommodate the population. As defined in Appendix 6.2, light and heavy industrial uses are not included in mixed use residential. Site plan review and land use entitlement for the Maunaloa Mixed Use Residential area shall be for the entire acreage. Determination will be made at the time of entitlement as to whether a project district, detailed zoning, or other means, will best achieve the goals stated above.~~

Subarea Descriptions

~~While the entire island of Moloka'i is covered by one community plan, the island has three distinct planning regions, each containing multiple communities. The three planning regions (East, Central, and West Moloka'i) have overlapping island-wide issues as well as specific regional issues and aspirations. See Appendices 6.3, 6.4, and 6.5 for East, Central, and West Moloka'i Subarea Descriptions. Subarea descriptions are community-created statements that tell the story of an area and the desires of the community for future protection, restoration, and~~

- 1 ~~development. Subarea descriptions may include general or site narratives and preliminary~~
- 2 ~~design concepts to help the community visualize potential changes, but would not include~~
- 3 ~~policies and actions. They are intended for use in future community plan updates to shape~~
- 4 ~~policies and actions.~~

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.

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C. ISSUES

-
- Issue 1: There is no comprehensive zoning map for Moloka`i and the existing zoning code and Interim zoned lands present significant obstacles due to inconsistencies with the community plan.
- Issue 2: The Special Management Area (SMA) boundary does not protect some areas of the near-shore environment and coastal resources and extends inland in areas that are not likely to have coastal impacts.
- Issue 3: There are potential future impacts from sea level rise to existing coastal development that are not adequately addressed.

D: GOAL, POLICIES, AND ACTIONS

Goal Moloka`i's land use pattern will protect agricultural lands, open space, and natural and cultural resources, and support livable small towns and rural communities.

Policies

1. Ensure all lands are zoned for specific land uses and zoning standards are consistent with Community Plan policies.
2. Support the revitalization of Maunaloa Town and Kaluako`i resort area.
3. Direct growth to vacant and underutilized infill lots outside of hazard prone areas and proposed expansion areas as shown on the Moloka`i Community Plan Land Use maps (see Maps 6.2 – 6.4) and as described in Section B Future Conditions.
4. Limit urban zoning to areas designated for urban use on the Moloka`i Community Plan Land Use maps (see Maps 6.2 – 6.4).
5. Where possible, site community facilities such as schools, parks, libraries, and community centers within walking and biking distance of residential areas.
6. Facilitate the provision of infrastructure and public facilities and services prior to, or concurrently with, development, including provision for on-going maintenance through district funding or other funding mechanisms.

7. Work with DHHL and other large landowners to coordinate land use, infrastructure, and public facility planning when feasible.
8. Establish a predictable and timely review process to facilitate the approval of projects that meet planning and regulatory requirements.
9. Discourage developing or subdividing agricultural lands for residential uses where the residence will be the primary use and agricultural activities will be secondary uses ~~unless warranted by slope or SLR and is not prime agricultural land.~~
10. Encourage green belts, open space buffers, and riparian zones to minimize conflicts between agriculture, residential, and industrial uses.
11. Support expansion of the Molokai Agricultural Park as demand warrants.
12. Regulate land use in a manner which reaffirms and respects customary and traditional rights of Native Hawaiians as mandated by Article 12, Section 7, Constitution of the State of Hawaii.
13. Support the expansion of the State Conservation District boundary where warranted for environmental preservation and habitat enhancement.
14. Discourage hotel and multifamily development on the East End.
15. Support and recognize community created subarea descriptions.
16. Evaluate the impact public utility facilities development and land use changes will have on natural and cultural resources, cultural practices, and Native Hawaiian burials.
17. Consult with and solicit input from community members, including community members with generational knowledge, early and often about how to minimize the impact of proposed changes to the use of land on cultural practices, cultural sites, and culturally significant areas, including burials.
18. Support the development of a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development on Moloka`i.
19. Identify and protect Mana'e's numerous cultural and natural resources through adoption of a "Traditional Land Use" Overlay Designation. The boundaries of the Overlay should be from Makolelau to Halawa on the south shore. Adoption of this TLU Overlay means that any proposed development in Mana'e should be aligned with the data and community recommendations from the Mana'e GIS Mapping

[Project \(COM, 2008\) and the Traditional and Cultural Practices Report for Mana'e \(OHA, 2016\). In addition, this area should allow for traditional Hawaiian structures to allow people to live in these sensitive areas to take care of them.](#)

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 Community Plan.	Planning Department	Aha Kiole o Moloka`i
6.1.02	Amend the zoning code to facilitate the development of mixed-use, pedestrian oriented communities.	Planning Department	Aha Kiole o Moloka`i
6.1.03	Implement County responsibilities under Acts 183 (2005) and 233 (2008) to designate and establish Important Agricultural Lands (IAL) and the incentives therein.	Planning Department	Aha Kiole o Moloka`i
6.1.04	Review the SMA boundary and make changes as necessary to comply with the objectives and policies defined in HRS § 205A-2 and incorporate best available information on Climate Change and SLR.	Planning Department	Aha Kiole o Moloka`i
6.1.05	Research and review poor or highly sloped agricultural lands for conversion to different designations.	Planning Department	Aha Kiole o Moloka`i
6.1.06	Study viable options for transitioning Moloka`i's commercial and population center away from the threat of SLR and coastal inundation.	Planning Department	Aha Kiole o Moloka`i
6.1.07	Identify important subsistence use, lands, and resources.	Office of Economic Development	MEDB DLNR OHA Aha Kiole o Moloka`i
6.1.08	Research and develop a climate change policy and adaptation plan to address rising sea levels and beachfront housing and development.	Planning Department	Aha Kiole o Moloka`i</a> <a href="#">Moloka`i Community

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 the a range of household types, life stages (i.e. 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 Moloka`i between 2000 and 2010. Central Moloka`i home construction peaked in the 1970s, while West Moloka`i construction peaked in the 1980s.⁴

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.⁵ The 2010 vacancy rate was 28%, slightly higher than on Maui Island (23%) and Lāna`i (25%). Moloka`i's household size is 2.92 persons per dwelling unit.⁶

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% of their income for gross housing costs, including utilities. By this standard, more than half of Moloka`i renters and home owners pay affordable rents or monthly ownership costs, indicating that housing is more affordable on Moloka`i compared to the rest of Maui County.

⁴ County of Maui, Department of Planning. (October 2013). *Land Use Forecast Island of Moloka`i*.

⁵ Ibid.

⁶ U.S. Census Bureau, 2010.

Figure 6.4 shows that from 2007 to 2011, 49% of Moloka'i renters paid more than 30% of their household income for housing costs versus 53% of Maui County renters and 56% of renters statewide.⁷

Figure 6.4 Gross Rent as a Percentage of Household Income

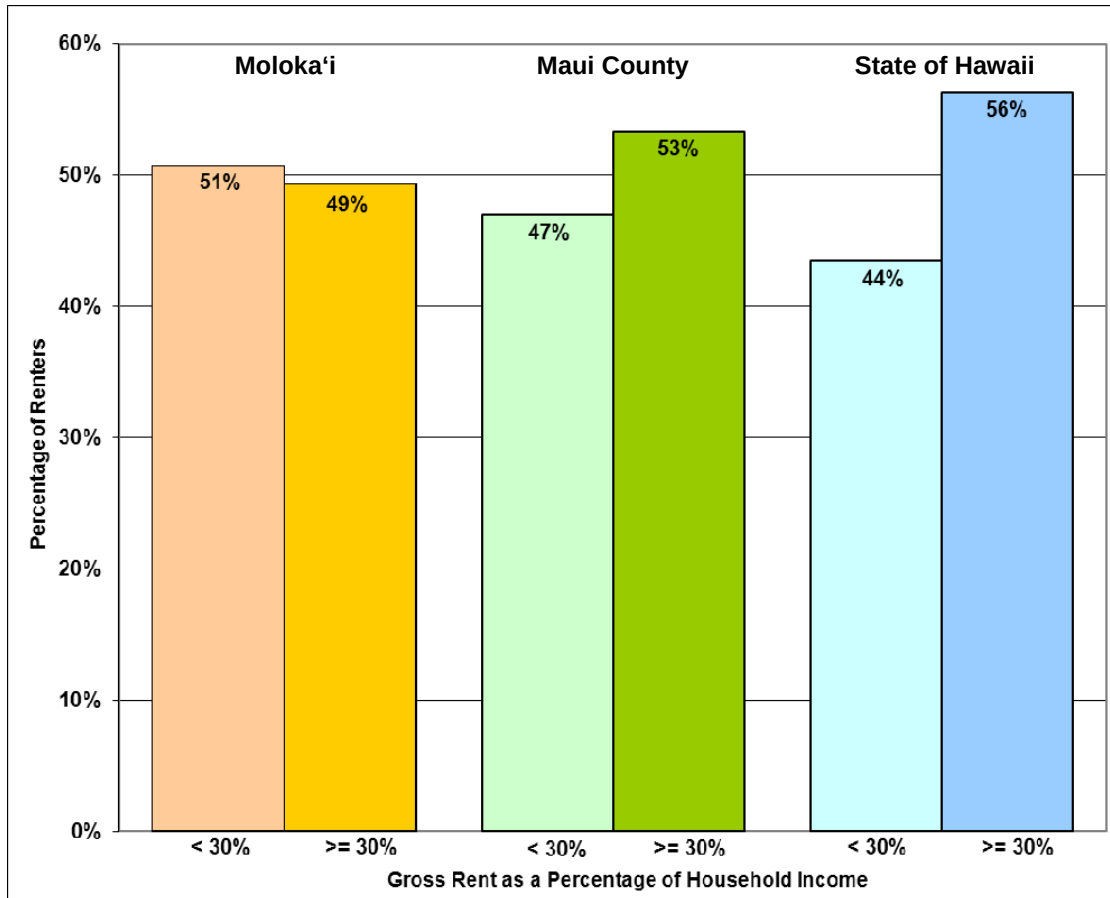


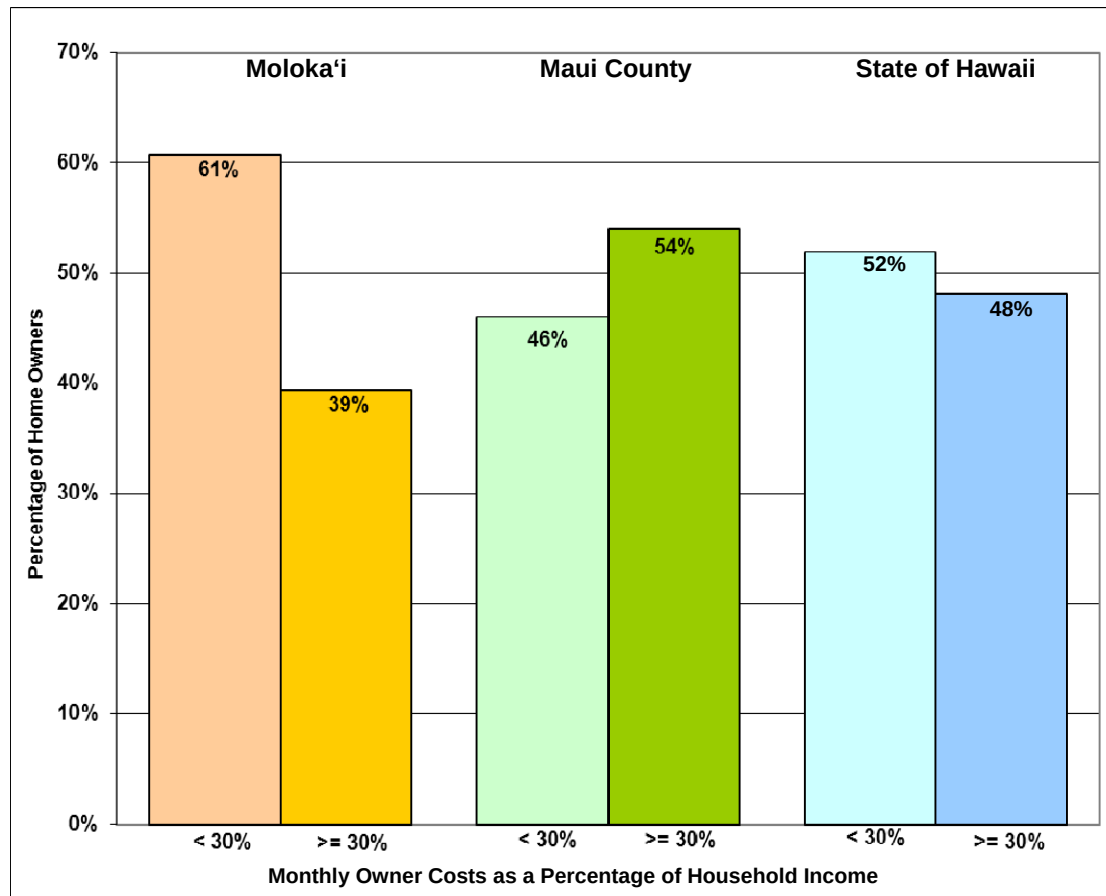
Figure 6.5 shows that from 2007 to 2011, 39% of Moloka'i home owners with mortgages paid more than 30% of their household income for housing ownership costs versus 54% of Maui County home owners and 48% of owners statewide.⁸

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, ~~and~~ lack of available financing, and the presence of numerous undocumented or poorly documented wetlands and archaeological sites on residential lots of record.

⁷ U.S. Census Bureau, 2009-2013 American Community Survey 5-Year Estimates.

⁸ Id.

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



Currently ~~three~~^{two} agencies are working to make more affordable housing available on Moloka'i: a) the Department of Hawaiian Home Lands (DHHL), b) ~~the Moloka'i Affordable Homes and Community Development Corporation, and c)~~ 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.⁹ Additionally, the County of Maui's Workforce Housing Ordinance 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.

⁹ Group 70 International. (June 2005). *Department of Hawaiian Homelands Moloka'i Island Plan*.

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 have 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 (such as, 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.

1

2 **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.	Planning Dept.	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	Planning Dept.
6.2.06	Establish a cap on Transient Vacation Rentals (TVRs) and Short Term Rental Homes (STRHs).	Planning Department	

3

7 | COMMUNITY DESIGN

Some of the most distinctive aspects of Molokaʻi are its wide open spaces, small towns, varied landscapes, and architecture, which reflects both Hawaiian tradition and the island's plantation history. They collectively create an identity unique to Hawaii, perhaps best expressed in a sign commonly seen on the island – “Keep Molokaʻi, Molokaʻi”.

During several community plan workshops, many residents on Molokaʻi voiced a desire to maintain and enhance this rural character and natural beauty. New growth will require special attention to ensure that the rural, historic character of Molokaʻi's small towns is retained. Creating a county historic district in selected locations could help to address the loss of historic structures.

A. Existing Conditions

Molokaʻi's rural character is reflected in its settlement patterns, housing, streetscapes, roadways, public spaces, and the design of public institutions. Remnants of this era are found in Maunaloa, Kualapuʻu, Hoʻolehua, Kaunakakai, and parts of the east end. While Kaunakakai is compact and still retains its country town character, it could benefit from some careful design to enhance the natural beauty and improve walkability. Unfortunately, the historic character of the streetscapes and buildings has been compromised by some demolitions and unpermitted construction.

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

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

Design Principles

Preserve and maintain the traditional features of the built and natural landscape that reflect Molokaʻi'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 Molokaʻi'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 Molokaʻi. Renovate historic structures as a way of maintaining Molokaʻi'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 Molokaʻi'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.

B. ISSUES

Issue 1: The character of Molokaʻi 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.**

Policies

1. Support the use of updated Business Country Town Design (BCT) Guidelines to ensure that the island's historic and rural character is maintained.

2. Use the cultural significance of Malama Park for a design concept that connects Kaunakakai with the ocean.

~~2.3.~~ Encourage the preservation of buildings, structures, and sites of historic and cultural significance.

~~3.4.~~ Maintain Kaunakakai's business development and historical character.

~~4.5.~~ Promote and support projects that create a pedestrian-friendly environment with street trees, benches, and other features in Moloka'i's country towns.

~~5.6.~~ Maintain and enhance the rural character of the Kaluako'i area through low-impact site design and development practices.

~~6.7.~~ Encourage creative innovative approaches to site design, subdivision layout, and architecture to maintain the island's rural character and to protect coastal areas, natural resources, and cultural/historic resources.

~~7.8.~~ Concentrate future growth in and around existing development that maintains county rural standards, and is located outside of the flood inundation zone.

~~8.9.~~ Promote the use of sustainable building and development practices such as those presented in the Leadership in Energy and Environmental Design (LEED) standards.

10. Encourage the use of the County of Maui plant list. [Encourage the use of Hawaiian plants \(Indigenous and Polynesian-introduced plants\) by state, county, and private landowners in order to support a Hawaiian sense of place, to ensure that our cultural heritage is reflected in landscaping, and to help reverse the displacement and decline of Hawaiian plants.](#)

Table 7.1 Community Design			
No.	Action	Lead County Agency	Partners
7.01	Amend the 1993 Moloka'i Country Town Business Design Guidelines.	Planning Dept.	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.	Planning Dept.	Community Groups
7.03	Develop a pedestrian linkage between Malama Park and Kaunakakai through streetscape improvements.	Planning Dept.	Parks Dept. DLNR
7.04	Develop and adopt small town street design standards that are appropriate for Moloka'i.	DPW	Planning Dept.
7.05	Create a funding source or mechanism for small business owners to renovate businesses in the island's small towns.	OED	Planning Dept.
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.	Planning Dept.	Parks Dept. DPW
7.08	Conduct a study to improve walkability in Kaunakakai.	Planning Dept.	Parks Dept. DPW NGOs
7.09	Review and update the indigenous architecture ordinance as appropriate.	Planning Dept.	
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.	Planning Dept.	

8 | INFRASTRUCTURE

Safe, reliable and efficient hard infrastructure and utility systems are critical to the economic vitality and quality of life on Molokaʻi. Roads, bridges, harbors, airports, water, wastewater, solid waste, energy, telecommunications and public transit systems provide necessary support for modern life on the island. Responsibility for the installation, operation and maintenance of these systems on Molokaʻi is shared between a number of public and private entities. Planning for the installation of new systems and the replacement of deteriorating systems may require coordination among these entities as well as the identification of additional funding sources since County Capital Improvement Program budgets are already strained. Consideration should be given to locating future development near existing infrastructure to leverage prior capital investments and to minimize the high cost of installing new systems.

Climate Change and Infrastructure Systems

Sea level rise and the associated coastal impacts have the potential to harm an array of infrastructure and environments in Molokaʻi including: low lying coastal roads, docking facilities in harbors, water supply and wastewater systems. In many cases these impacts will 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. Water supply faces threats from both rising groundwater and saltwater intrusion in wells, as well as declining quality and quantity due to drought and downward trends in groundwater base flows.

Improving 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 that are vulnerable to coastal hazards such as sea level rise to ensure that they are adequately protected or relocated if necessary. For Molokaʻi to have a more sustainable future, it will be necessary to incorporate green infrastructure to restore natural systems where possible.

8.1 WATER

A. EXISTING CONDITIONS

There are three public water systems on Molokaʻi and three private water systems. Most of Molokaʻi's water sources are concentrated in the northeast part of the island, whereas most of the demand is located in the more developed areas to the Central and West Molokaʻi and the southeast coast. Water sources include both surface water and groundwater. Due to increasing withdrawals, several wells have been experiencing rising salinity, and as a result, the State Commission on Water Resource Management (CWRM) designated the island as a Ground Water Management Area in 1992. With this designation, the State was authorized to protect the groundwater resources by managing withdrawals from the aquifer through use of a permitting process. In 1994, EPA designated Molokaʻi as a Sole Source Aquifer, meaning the aquifer supplies more than 50% of Molokaʻi's drinking water.

Molokaʻi Irrigation System (MIS) water usage has remained constant over the years; however, the system has experienced water shortages due to persistent drought conditions. Predicted population increases would place greater demands on water supply. Efforts to develop new water resources have been considered, such as utilizing brackish water wells and recycled sewage effluent. The County 2015 Capital Improvement Program budget includes design of a new well that is intended as backup source for the Kualapuʻu well serving the Kaunakakai area.

B. ISSUES

-
- Issue 1: Much of Molokaʻi's water delivery system infrastructure is outdated, inefficient, and in need of replacement.
 - Issue 2: Potential Contaminating Activities (PCAs) have been identified that may pose a threat to Molokaʻi's water quality¹.
 - Issue 3: Water uses need to be resolved collectively.
 - Issue 4: Cyclical and seasonal water shortages have contributed to water supply shortages in recent years.

¹ Molokai Draft Wellhead Protection Ordinance, 2013

C. GOAL, POLICIES, AND ACTIONS

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

Policies

1. Adhere to priority water rights of Native Hawaiians under the Hawaiian Homes Commission Act, the State Water Code. Protect, restore, and enhance surface and subsurface water sources, stream habitats, and forested watershed areas to support water recharge, aquatic and environmental processes, and riparian, scenic, recreational, and Native Hawaiian cultural resources, as well as constitutionally protected traditional, customary, and DHHL water rights.
2. Supply water in sufficient quantities to meet the community's needs while protecting freshwater ecosystems and species.
3. Support the provision of adequately priced irrigation water to agricultural lands.
4. 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.
5. Encourage CWRM to update Moloka`i's sustainable yield figures and establish maximum withdrawal values.
6. Encourage water resource conservation.
7. Encourage use of alternative water sources such as dual line water supply and recycled water distribution systems.
8. Support public and quasi-public partnerships to protect and restore the island's watersheds and maximize aquifer recharge.
9. Support better management and oversight of water withdrawal to ensure sustainable yields for both human consumption and protection of freshwater ecosystems and native species.
10. Incorporate credible local knowledge and advice on water resource issues as appropriate per the CWRM and DOH authority.
11. Support the completion of an agricultural master plan.

- 1 12. Encourage CWRM to establish and adhere to interim instream flow standards.
- 2
- 3 13. Recognize that water is held in trust by the State, for the benefit of the people.
- 4 Public trust purposes, which receive priority over private commercial uses, include
- 5 domestic uses, Native Hawaiian and traditional and customary rights, appurtenant
- 6 rights, environmental protection, and reservations for the Department of Hawaiian
- 7 Homelands².
- 8
- 9 14. Support the protection, restoration, and enhancement of surface and subsur-
- 10 face water resources, stream habitats, and priority watershed areas to support
- 11 groundwater aquifer recharger, aquatic and environmental processes, and riparian,
- 12 scenic, recreational, and Native Hawaiian cultural resources, as well as constitu-
- 13 tionally-protected Native Hawaiian traditional and customary practices³.
- 14
- 15 15. Support mauka to makai stream flow, which is essential to the survival of native
- 16 stream life.
- 17
- 18

² See *Waiahole I*, 94 Hawai'i 137-39 and *Wai'ola o Moloka'i*, 103 Hawai'i 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 Hawai'i 97, 9 P. 3d 409 (2000) (*Waiahole I*); *Ko'olau Agricultural Co., Ltd. V. Comm'n on Water Res. Mgmt.*, 83 Hawai'i 484, 927 P.2d 1367 (1996); *Reppun v. Bd. Of Water Supply*, 65 Hawai'i 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 Hawai'i* (2009).

³ These priority uses of water are constitutionally and statutorily established bases for protecting, and in some cases, re-storing 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...").

1 Actions
2

Table 8.1 Infrastructure - Water			
No.	Action	Lead County Agency	Partners
8.1.01	Support the development of a Molokaʻi Water Use and Development Plan (WUDP) that is consistent with the goals, policies and implementation strategy of the Molokaʻi Community Plan.	DWS	DHHL, DOA Private Water companies Community groups, NGOs, Cultural Practitioners
8.1.02	Implement recommendations from the 2013 <i>Update of the Hawaii Water Reuse Survey and Report</i> .	DEM	DLNR, DOH CWRM Community groups Cultural Practitioners
8.1.03	Promote water conservation programs.	DWS	Molokaʻi Community
8.1.04	Develop, adopt and implement a wellhead protection strategy and ordinance for County water distribution systems.	DWS	DOH
8.1.05	Reconvene the Molokaʻi 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 Molokai Ranch water systems.	DWS	Molokai Ranch
8.1.08	Encourage the acquisition of USGS stream gauges be placed in Molokaʻi's important streams.	DWS	USGS, Molokaʻi 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, Molokaʻi Ranch
8.1.10	Continue to fund the watershed partnerships on Molokaʻi	DWS	DLNR, OED

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8.2 WASTEWATER

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

A. EXISTING CONDITIONS

The County of Maui Department of Environmental Management, Wastewater Division, provides wastewater service in the town of Kaunakakai and the Kualapuʻu subdivision. Wastewater collected by the Kaunakakai system is treated at the County's Kaunakakai Wastewater Reclamation Facility (WWRF). Wastewater collected by the Kualapuʻu system goes to the private facility that is owned and operated by Molokai Properties Limited (MPL), which also treats Maunaloa Town and Kaluakoʻi as well as the Paniolo Hale and Ke Nani Kai condominium developments. There are also private wastewater treatment facilities at Wavecrest Resort, Molokai Shores, and Hotel Molokai. The remainder of the island is served by individual septic tanks and cesspools, including all schools, all major visitor accommodations, the Hoʻolehua Airport, and all development on Department of Hawaiian Home Lands (DHHL) homesteads.

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

The Kaunakakai WWRF is located on a 23-acre shoreline property makai of Maunaloa Highway. The facility treats wastewater to R-2 standards (disinfected secondary treated recycled water with restrictions on uses and applications). The Wastewater Division has indicated that the 0.3 mgd capacity of the WWRF is currently adequate. This conclusion is supported by the State Department of Health's decision to waive the requirement for development of a facilities plan, which is

normally mandated when a facility reaches 75% of capacity. There are two County force mains on the island. The Kaunakakai force main was replaced in 2007 and the effluent force main is tentatively scheduled for replacement in fiscal year 2019 at an approximate cost of \$2 million⁴. The Kaunakakai Wastewater Pump Station was upgraded in 2012; extending its useful life by 20 years. In 2009, a closed circuit TV inspection of all major sewer lines was conducted which concluded that the existing system is in very good to excellent condition.

Reclaimed water from the WWRF is utilized to a limited extent. Approximately 10,000 gallons per day (4% of total flow) are used to irrigate landscaping in the facility and roadway grassed areas. The remaining flow of roughly 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 due to sea level rise and flooding.

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

⁴ County of Maui, 2016 Capital Improvement Program

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.
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 either 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 plant upgrades, required infrastructure improvements, estimated costs, and funding sources.	DEM	DWS, DHHL, DOA, DOH
8.2.03	Explore options and necessary code 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

8.3 Stormwater Management

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

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

A. EXISTING CONDITIONS

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

Existing drainage systems were designed to convey, divert, or retain runoff generated within the vicinity. However, many of these systems are or regionally inadequate, and many of the downstream systems (ditches and roadway culverts) are incapable of accommodating the runoff generated from developed conditions upstream. During heavy flows, water will overtop the Kaunakakai Stream crossing over Maunaloa Highway and other low lying roadways across the island resulting in severely hampered access and flooding mauka of roadways.⁶

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

⁵ County of Maui Infrastructure Assessment Update, 2003

⁶ Maui Infrastructure Assessment Update, 2003

B. ISSUES

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

C. GOAL, POLICIES, ACTIONS

Goal **Surface water runoff is managed to prevent flooding and to improve water quality for both fresh and coastal waters.**

Policies

1. Support improvement of the island's drainage system
2. Provide surface water management for roadways and other impacted areas.
3. Manage surface water using green infrastructure⁷ and natural system drainage, retention, and filtration to reduce flooding and siltation of ocean waters.
4. Encourage DHHL compliance with County regulations on drainage.
5. Encourage development of an integrated, effective and environmentally sensitive stormwater management system from Kalamaula to Kamalo through a partnership of ~~large~~ landowners mauka of Kamehameha V Highway.
6. Support completion of the Kaunakakai drainage system.
7. Encourage Hawaii Department of Transportation (HDOT) to reconstruct culverts to 100 year flood design standards on all State roads.

⁷ [Green infrastructure uses natural systems, constructed soil, rock, or plant-based systems for surface and stormwater management.](#) ~~Refers to definition in glossary, to be developed.~~

8. Support policies that encourage private landowners to decrease impervious surfaces on private property to reduce surface water runoff.

Actions

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	Planning Dept. 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 which inventories existing stormwater infrastructure.	DPW	DHHL HDOT
8.3.06	Evaluate older swales and drains for current functioning and re-store, 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 the 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

8.4 Solid Waste

A. EXISTING CONDITIONS

Molokaʻi's Integrated Solid Waste Facility (MISWF) is located on 25 acres off Maunaloa Highway at Naiwa. The facility offers recycling for scrap metals and related materials, including vehicles, drop box commodities, electronics, used motor oil, redemption containers, and green waste as well as a landfill which accepts solid waste for the entire island. The Landfill receives approximately 13 tons of waste each day. Metals and green waste receive 3 tons per day each with drop box commodities at one half ton per day and redemption containers at 0.5 tons per day. Approximately \$3 million was expended in 2014 to construct Cell No. 4, providing additional waste disposal capacity until 2021. The Landfill's Master Plan projects construction of Cell 5 in 2019 and Cell 6 in 2016.

In 2009, the Department of Environmental Management's Solid Waste Division updated the county-wide Integrated Solid Waste Management Plan (ISWMP). The ISWMP provides a comprehensive blueprint for the planning and expansion of the County's solid waste management system. The ISWMP has a goal of achieving a 60% recycling of the waste stream, Molokaʻi currently recycles 35% of its waste stream (the same as Maui). Although there is no curbside recycling on Molokaʻi, the Recycling Center offers drop-off site containers for recyclables from both residential and commercial customers for: cardboard, newspaper, glass, plastic, bi-metal containers, used motor oil, and electronics. The Molokaʻi metals facility accepts scrap metals, appliances, vehicles, tires, propane tanks, and batteries during Landfill hours. Also located at the Landfill is the green waste facility which accepts, during Landfill hours, green waste for grinding and composting into piles. The processed green waste is available to the public at no charge.

B. ISSUES

- Issue 1: More solid waste needs to be diverted to the recycling center.
- Issue 2: There is a problem with illegal dumping throughout the Island.
- Issue 3: There is no legally operating junkyard on Molokaʻi.

C. GOAL, POLICIES, AND ACTIONS

Goal	Molokaʻi will minimize the volume of solid waste that enters the island's landfill through a comprehensive and environmentally sound approach to solid waste management.

Policies

1. Make County government operations a model for zero waste.
2. Continue to ~~and~~ expand upon existing public education programs and measures related to waste reduction.
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 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 County dump.

1 **Actions**
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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 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	Moloka'i 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 locating 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 Island.	DEM	
8.4.10	Form a partnership with Molokai NGOs, State Agencies, and DHHL to remove and recycle junk cars from Molokai.	DEM	NGOs DHHL
8.4.11	Conduct annual reviews of Solid Waste 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	

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8.5 Transportation

An integrated, affordable multi-modal transportation system is critical to the quality of life for Molokaʻi residents, and to support a diversified economy. Molokaʻi relies heavily on its air and sea transportation systems to transfer people, goods and services to and from the island. Most consumable goods are transported to the island via barge, making the cost of most items more expensive than on Maui or on Oʻahu. Reliance on an effective, efficient and affordable inter-island passenger transportation system is also evidenced by survey results that show 60% of residents travel off-island for health care services⁸.

A. EXISTING CONDITIONS

Air

Molokaʻi has two airports - Molokaʻi Airport and Kalaupapa Airport - although only Molokaʻi Airport is located in Maui County. Molokaʻi Airport originally opened in 1929 as Hoʻolehua Field and has two runways located on 288 acres on the island's central plateau. It is owned and operated by the State of Hawaii, Department of Transportation Airports Division. The facility is designated as a small commercial airport with a transport runway classification. Molokaʻi is served by various passenger air carriers and air cargo carriers. In 2013, Molokaʻi Airport had a total of 34,518 aircraft arrivals and departures, which is 4% of the statewide total number of airport operations.⁹

The *Molokaʻi Airport Master Plan* was prepared in 1999 by the Hawaii Department of Transportation (HDOT) Airports Division. To accommodate the projected demands through the year 2020, recommended upgrades include extending and improving the airfield runway and taxiway, building a new terminal building, and improving parking and terminal roadways.

Sea

Molokaʻi has a mix of harbor facilities. Kaunakakai Harbor on the south side of the island is the primary harbor for the island. It includes 2 berths, 29 moorings, 1 ramp, and 1 pier. Hale o Lono, located 7 miles west of Kaunakakai, is a wharf in disrepair with 1.5 acres of protected anchorage for day and overnight recreation. Kamalo Wharf on the south shore is considered a temporary-use facility rather than a permanent mooring area.

The Molokaʻi Ferry is a privately owned operation that provides passenger service traveling back and forth between Lahaina on Maui and Kaunakakai.

There is no longer a direct freight ferry service connection between Molokaʻi and Maui, which creates logistical problems for producers of perishable goods. Also, the current Young Brother freight barge schedule makes it difficult to ship perishable goods from Honolulu, since goods departing there on the Sunday night ferry are only accepted on Friday until 11:00 am. Products originating or arriving outside of Hawaii first arrive in Oahu then move on to Molokaʻi. The additional

⁸ Hawaii Statewide Transportation Plan – Report on Public Opinion Poll, November 2010

⁹ Source: Hawaii State Department of Transportation, Airports Division

leg of travel increases Molokaʻi shipping costs and shipping times, which can affect spoilage rates for agricultural products.

Land

Most roads on Molokaʻi are publicly owned and managed; the County is responsible for local roads and the State for Kamehameha V Highway (Hwy 450), Maunaloa Highway (Hwy 460) and Kalae Highway (Hwy 470). Traffic volumes on Molokaʻi are generally low and growth projections do not anticipate much of a change in the future. The *Molokaʻi Long-Range Land Transportation Plan* was prepared by HDOT in 1997. The goal of the plan is to provide a safe and efficient land transportation system through the year 2020.

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

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

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

In 2009, the Hawaii legislature amended state statutes to require the Hawaii Department of Transportation (HDOT) and Hawaii's four county transportation (or public works) departments to adopt 'Complete Streets' policies that accommodate all users of roadways, including pedestrians, bicyclists, transit users, motorists and persons of all ages and abilities. Complete Streets is a relatively new approach to street and transportation design which aims to accommodate all users of roadways and rights of way. Maui County has a Complete Streets policy and consideration of this policy should be made for the design of Molokaʻi's roadways.

¹⁰ *Bike Plan Hawaii*, Hawaii Department of Transportation 2003

Future Multi-Modal Transportation System

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

- Include where applicable, a variety of facilities such as Complete Streets,¹¹ public parking, roads and highways that accommodate multiple users including freight, trucks, cars, transit vehicles, bicycles, and pedestrians.
- Be designed and built to address the needs of people of all abilities.
- Provide safe and functional linkages to connect the island's population centers and destinations.
- Enhance and be compatible with the rural character of Molokai.
- Provide cost-effective connections to air and sea transportation facilities at the interisland transportation hubs at Kaunakakai Harbor and Molokaʻi Airport.

Roads, Highways, and Major Thoroughfares

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

Transit Corridors

- Until demand warrants a public transportation system, MEO will continue to provide bus service for residents and visitors between the island's population centers and transportation hubs.

¹¹ 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.

¹² County of Maui Department of Planning. (July 1993). *Design Guidelines for Country Town Business Districts: Molokai*.

¹³ State of Hawaii Department of Transportation/Highways Division. (July 2014) *Federal Aid Highways 2035 Transportation Plan*.

- Supporting facilities such as bus stops and park-and-rides for the existing MEO service and future transit will be in locations that are conveniently accessed, are safe, and offer protection from the weather.

Bicycle Facilities

- Bicycle paths will be provided along all major highways, per the recommendations of the State's Bike Plan Hawaii (2003)¹⁴
- Bicycle facilities within Molokai's small towns are provided to accommodate local bicycle use and to support the island-wide bicycle system. Bike paths and bike lanes in these areas connect residential areas with shopping, schools, and other local attractions.
- Bicycle 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 Molokai'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 results 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 bike paths and sidewalks is a concern.
- Issue 5: Moloka`i has only one recreational boat ramp facility located in Kaunakakai.

¹⁴ State of Hawaii Department of Transportation/Highways Division. (2003) *Bike Plan Hawaii: A State of Hawaii Master Plan*

Issue 6: There is no inter-island public ferry system.

Issue 7: Some of Moloka`i's existing private roadways are not compliant with Maui 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.
3. Explore options for a direct barge service or a passenger ferry that can carry goods from Moloka`i to Maui.
4. Support improvements to Kaunakakai Harbor.
5. Support the improvement and, if warranted, expansion of public or government run ferry service from Moloka`i to Maui.
6. Maintain the rural character of Moloka`i's road system while accommodating multiple modes of transportation – including transit, freight vehicles, automobiles, pedestrians, bicycles, and other modes.
7. Support improving access to East Moloka`i during wet weather events by providing bridges at sites of flooding on Kamehameha V Highway.
8. Support safe pedestrian routes and bike paths along highways and arterials in accordance with the County's *Complete Streets Policy*.
9. Support continued coordination between the County DOT and MEO to provide rural shuttle services that meet the needs of youth, elderly, disabled, and the general public.

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10. Support Molokai's existing and future private roadways achieving compliance to Maui County standards.

~~11. Support completion of a feasibility study to build a new boat ramp in East Molokaʻi designed to meet the needs of the community.~~

~~12.~~11. Bikeways and sidewalks should be installed, connected and or improved in the urban core and immediate outlying areas.

~~13.~~12. Encourage the State to provide pertinent signage along highways for all Molokaʻi ports-of-entry.

~~14.~~13. Encourage the State to maintain Hale O Lono Harbor and ensure public access.

~~15.~~14. Encourage the review and provide relevant applicability of state transportation plans such as: *1999 Airport Master Plan*, *2003 Bike Plan for Hawaii*, and *Molokaʻi's Long Range Land Transportation Plan*.

15. Encourage the State to identify an upland route for a new highway from Kualapuʻu to Kamalo to provide a safe alternative to the existing shoreline highway. The alignment of the highway should be above areas known to contain cultural features, and below the forestry zone.

16. Evaluate the impact transportation system development and maintenance will have on natural and cultural resources, cultural practices, and Native Hawaiian burials.

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 encourage that the airport and air services meet the needs of Molokaʻi's residents, visitors and businesses.	OED	Planning Dept. HDOT
8.5.02	Support the continued air services between topside Molokaʻi and Kalaupapa.	OED	Planning Dept. HDOT
8.5.03	Identify challenges and propose solutions to transporting Molokaʻi agricultural products to Maui and Oahu markets.	OED	Planning Dept. HDOT
8.5.04	Advocate for increased barge and ferry service to and from Molokaʻi.	OED	HDOT
8.5.05	Identify harbor and airport improvements designed to further support the agricultural industry.	OED	Planning Dept. 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	HDOT Planning Dept.
8.5.07	Develop and implement a trail, greenway and open space access plan that utilizes old agriculture roads and trails where appropriate.	Planning Dept.	Parks & Recreation
8.5.08	Integrate a parking study with parking mitigation measures appropriate for Molokaʻi 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.	Planning Dept.	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 Molokaʻi.	DPW	
~~8.5.12~~	~~Support the completion of a feasibility study to develop a boat ramp in East Molokaʻi to meet the community's needs.~~	~~Parks & Recreation~~	
8.5.12 ³	Encourage a bike share program for Molokaʻi.	DPW	
8.5.13 ⁴	Encourage the continued practice of no-fee parking at the Molokaʻi airport.	OED	HDOT
8.5.14 ⁵	<u>Fund and construct a public parking area in Kaunakakai to relieve existing parking requirements on businesses wishing to expand or improve.</u>	DPW	

8.6 Energy

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

A. EXISTING CONDITIONS

In 2013, MECO had 12 megawatts of diesel-generating capacity that provided electricity to 2,649 residential customers and 562 commercial customers on Molokaʻi.¹⁵ The average residential electricity rate on Molokaʻi was 46 cents per kilowatt hour (kWh); the rate was 37 cents per kWh on Maui; and it was 12 cents per kWh nationally. In 2012, MECO lost about \$200,000 subsidizing Molokaʻi's electricity rates¹⁶. There is potential for the island to generate much of its own electricity if its energy infrastructure is improved. Per PUC rules, the electrical grid threshold is set to no more than 15% input from small scale individual wind/solar power systems in order to avoid compromising service to other customers on the same circuit. In order to accommodate more new small scale wind and solar power sources, existing electrical distribution controls will need to be upgraded with smart grid technology to better manage these intermittent sources of electricity.

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

Molokaʻi has more than enough renewable energy resource potential to meet electrical demand.¹⁷ It's estimated that four 1.5-megawatt wind turbines could meet half the island's electrical use and Molokaʻi also has sites that are suitable for utility-scale solar and biomass projects. In 2013, Princeton Energy Group announced plans to build a 20-megawatt solar photovoltaic project on an 80-acre parcel owned by Molokai Ranch. The project will be built out in three phases: the goal of phase 1 is to meet 30% of the demand. The project would be built out in phases and could eventually meet 80% to 90% of Molokaʻi's electrical energy needs.

¹⁵ Hawaii Energy Facts & Figures, May 2015; Hawaii State Energy Office · energy.hawaii.gov

¹⁶ Princeton Energy Group, 2013 Ikehu Molokaʻi Presentation

¹⁷ Hawaii Energy Facts & Figures, May 2015; Hawaii State Energy Office · energy.hawaii.gov

B. ISSUES

- Issue 1: Dependency on fossil fuels for electricity generation results in a lack of control over costs and supply chain security. Accordingly, Moloka`i has some of the highest electricity rates in the state and in the country.
- Issues 2: Inability of the island's existing power grid to effectively handle intermittent energy sources such as solar and wind power.

C. GOAL, POLICIES, AND ACTIONS

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

Policies

1. Support accelerating development of alternative energy sources to help reduce dependency on oil and other fossil fuels.
2. Support increased use of environmentally friendly alternative fuels on Moloka`i without degrading the environment.
3. Support programs that provide incentives to use more efficient vehicles, appliances, lighting, and other energy consuming devices.
4. Encourage County services and facilities to be energy efficient and to utilize renewable energy where possible.
5. Ensure that main utility transmission lines are robust and resilient enough to withstand severe storm effects.
6. Promote the under-grounding of utilities in new areas of development and in existing areas where feasible.
7. Support development of micro-grids for critical infrastructure and key resources.
8. Support alternative ownership options for Maui County's electric utilities to provide more affordable and clean energy.

9. Encourage amending the Maui County Building code that would 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 Molokaʻi 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 electric vehicles. Support the installation of Photovoltaic (PV) charging stations throughout the Island.	Energy Office	State Energy Office

8.7 Telecommunications

A. EXISTING CONDITIONS

The *Maui County General Plan 2030 Telecommunications Assessment* (January 2007) found that wireless telephone and internet service deficiencies exist on Molokaʻi due to the dispersed nature of development. The study found that urbanized areas had moderate service coverage while the non-urbanized areas had limited coverage. Another assessment conducted in 2012 by the State of Hawaii Department of Commerce and Consumer Affairs indicated that Molokaʻi residents were dissatisfied with cable and internet service and pricing.¹⁸ At that time, system performance was limited since it was provided by microwave feed from Lahaina rather than by undersea fiber optic cable, even though much of the on-island distribution was by fiber cable. However, in 2013 Oceanic successfully negotiated a lease of existing undersea fiber optic cable and since then, download speeds reportedly have improved¹⁹.

B. ISSUES

- Issue 1: Limited access to high speed internet and telecommunications services presents challenges for education, health care, residents, and businesses.
- Issue 2: Molokaʻi has extremely poor cellular/mobile telephone service and numerous dead zones.

C. GOAL, POLICIES, AND ACTIONS

Goal Molokaʻi will have a robust, resilient, and reliable telecommunications network that will meet the growing demands of education, healthcare, residents, and businesses.

Policies:

1. Encourage and support the expansion of the mobile cellular network.
2. Encourage and support the expansion of high speed internet services.

¹⁸ *Community Ascertainment and Related Activities, Results as of 5/30/13*, State of Hawaii Department of Commerce and Consumer Affairs

¹⁹ "Oceanic Internet Upgrade", The Molokaʻi Dispatch, July 22nd 2013, <http://themolokaidispatch.com/oceanic-internet-upgrade/>

3. Support the provision of high speed internet services to all schools.
4. Encourage increased telecommuting (working from home) activities for residents.
5. Encourage cell tower installation and backup generators to be located out of special flood hazard areas and tsunami inundation zones.
6. ~~Require~~ Encourage telecommunications providers to expand the coverage and provide more reliable service throughout the island.

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, 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

The County of Maui Department of Parks and Recreation is responsible for the development, operation, and maintenance of county park facilities. The State Department of Land and Natural Resources (DLNR) has jurisdiction over state beach parks, natural area reserves and other managed lands. The National Park Service manages Kalaupapa.

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 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
Kakahāia 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 Kaunakakai	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, Hawaii

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 to 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 State Department of Land and Natural Resources (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 system, 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 Molokaʻi, four on Lānaʻi 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 Molokaʻi'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 Molokaʻi's facilities and parks.
- Issue 4: Molokaʻi 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 Molokaʻi.
- Issue 7: The Kaunakakai Gym is old and in need of repair.

C. GOAL, POLICIES, ACTIONS

Goal	Molokaʻi 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 system [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 up 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 can 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, 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.	Parks & Recreation	
9.1.02	Amend development regulations to ensure the construction of adequate parking with pathways near public shoreline access points.	Planning	
9.1.03	Adopt a beach/mountain access dedication ordinance pursuant to using Transfer Development Rights addressed in HRS Chapter 46 to improve access along the shoreline and mountains.	Planning	
9.1.04	Develop a master plan that identifies improvements to Duke Maliu Regional Park.	Parks & Recreation	
9.1.05	Provide shade for One Ali'i Park's playground area.	Parks & Recreation	
9.1.06	Consider repurposing the Kilohana Park for a potential site to relocate and build a new Puko'o Fire Station.	Parks & Recreation	MFD
9.1.07	Coordinate planning, design, and construction of 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.	Parks & Recreation	Civil Defense
9.1.08	Explore land acquisition and development of park facilities at Kumimi Beach.	Parks & Recreation	landowners
~~9.1.09~~	~~Explore state or county land acquisition and development of park facilities at Kamalo.~~	~~Parks & Recreation~~	~~landowners~~
9.1.09	Explore state or county land acquisition and development of park facilities at Dixie's.	Parks & Recreation	landowners
9.1.10	Work with County, State, and Federal agencies and the community to resolve Malama Park issues.	Parks & Recreation	Feds, State, Community, DHHL

9.2 POLICE

A. EXISTING CONDITIONS

The Maui County Department of Police has only one main police station located in Kaunakaka`i. The entire island of Moloka`i comprises Maui Police Department 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.<sup>1</sup> Animal control is aided by the Moloka`i Humane a non-profit community services organization that provides spay/neuter services, transport of animals, and humane education.

B. ISSUES

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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 Town.
Issue 5:	There is no animal holding facility on Moloka`i.

¹ Maui Police Department Annual Report 2013, p 25

1 **C. GOAL, POLICIES, ACTIONS**
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4 **Goal** **An effective and efficient police force to help maintain a safe, peaceful**
5 **and friendly community.**
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7 **Policies**
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- 9 1. Support an expanded police presence in the east and west ends of
10 Moloka`i.
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12 2. Encourage the development, adoption and implementation of programs
13 that address substance abuse.
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15 3. Encourage maximizing the island's police resources to properly enforce
16 substance abuse laws.
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18 4. Support the placement of bicycle and/or foot patrol officers in Kaunakaka`i
19 as needed.
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21 5. Encourage involvement on the Police Commission by a Moloka`i
22 representative.
23
24 6. Support the maintenance and development of Police facilities on Moloka`i
25 that meet the Maui Police Department's and community's needs.
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27 7. Encourage police involvement in the community.
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29 8. Encourage and support the recruitment of police officers through the junior
30 police officer program.
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32 9. Support the provision of Moloka`i community and cultural sensitivity
33 training for new police recruits and transferred personnel. .
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35 10. Encourage State hunter safety courses and the development of a shooting
36 range.
37
38 11. Encourage the establishment of an animal holding facility for Moloka`i.
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1 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.	Maui Police Department	Community Organizations
9.2.02	Continue working cooperatively with the Prosecuting Attorney and the Drug Enforcement Agency (DEA) to enforce substance abuse laws.	Maui Police Department	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 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.	Maui Police Department	
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	Maui Police Department	Community Organizations
9.2.05	Expand police presence in the east and west ends of Moloka'i.	Maui Police Department	
9.2.06	Explore the possibility of collaborating with an animal rescue organization to establish an animal holding facility on Moloka'i.	Maui Police Department	Animal rescue organizations

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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 Maui County Department of Fire and Public Safety also known as the Maui Fire Department (MFD) 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. MFD 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 the Island. The newly constructed Kaunakaka'i Station replaced the existing facility in 2010 and 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 from Kamalo to Halawa 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% to Kaunakakai, 25% to Ho'olehua, 25% to Puko'o

MFD is presently completing a "Standards of Cover" report that will 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 attempt to address the expectations of the citizens, MFD and County Government in terms of level of fire service needed. Other factors critical to providing the adequate level of fire service is the level of funding available.

With regard to fire service for the East End, MFD has a memorandum of understanding with the State of Hawaii to lease the current 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 Molokaʻi are not covered by existing fire stations.
- Issue 2: The southern and southwestern facing slopes of the entire island of Molokaʻi are at high risk for fire, especially in developed areas.
- Issue 3: There would be a lack of fire coverage on the West End if future growth occurs.
- Issue 4: Staffing at the Pukoʻo Fire Station is below national and Maui County minimum standards.
- Issue 5: The existing Pukoʻo 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 Molokaʻi, 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 Molokaʻi.

Policies

- ~~1. Evaluate the results of the 2015 "Standards of Cover" report due to be completed summer 2015. Address fire service needs as indicated in the report.~~
- ~~2. Evaluate options to relocate the Pukoʻo Fire Station out of the tsunami and hurricane inundation zone and in a manner that meets fire services as needed on the east end.~~
1. 3. Encourage programs and projects that will address fire risk in affected communities.

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~~2.4.~~ Support locating fire, safety, emergency and ocean rescue services on the West End as population increases warrant.

~~3.5.~~ Support the maintenance and development of Fire facilities on Molokaʻi that meet the Maui Fire Department's and community's needs.

~~4.6.~~ Ensure that Maui Fire Department minimum staffing levels for Molokai meet the same national and Maui 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 Safety			
No.	Action	Lead County Agency	Partners
9.3.01	Develop an island wide fire risk and vulnerability assessment.	MFD	All major landowners
9.3.02	Explore options for relocating Pukoʻo Fire Station to a location that is not vulnerable to flooding, tsunamis and best meets the needs of east end residents.	MFD	
9.3.03	Support the staffing upgrade for the Pukoʻo 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.	MFD	
9.3.04	Implement and maintain the "Centers for Public Safety Excellence" accreditation program.	MFD	
9.3.05	Support the implementation of the accreditation program by creating one full time position. Level of effort for Molokaʻi would be 15%.	MFD	
<u>9.3.06</u>	<u>Complete premises identification addressing for all occupied properties and properties with structures on Molokaʻi.</u>	<u>MFD</u>	<u>MPD, DHHL, Large landowners, Homeowner</u>

			Associations, NHOs
9.3.07	Encourage enforcement and incentives for the effective posting of addresses on applicable Molokaʻi premises per County Code and public safety recommendations.	DPW	MPD, MFD, DHHL, Molokaʻi Ranch, Homeowners' Associations, NGOs

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PD/CPAC/MoPC DRAFT

9.4 EDUCATION

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

Moloka'i 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 also offers Hawaiian language immersion, English as a second language, advanced placement, gifted and talented, honors, alternative learning center and special education programs². 21st Century Community Center Learning Center Grants currently support a variety of enrichment programs at schools across the island.

Aka'ula 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 Moloka'i students in grades five to twelve. They focus on a learning, leading, and decision making as fundamental collaborative processes³.

The University of Hawai'i Maui College – Moloka'i Education Center (UHMC-Moloka'i) is located in Kaunakakai. UHMC-Moloka'i offers access to a wide array of classes (face-to-face and distance

² Hawaii State Department of Education, <http://www.hawaiipublicschools.org>

³ The Aka'ula School, <http://akaulaschool.org/>

education), certificate and degree programs. There is a library and facilities for distance learning through Hawaii Interactive Television System and Skybridge. The Skybridge allows two-way interactive learning for students located on Molokaʻi, Kahului, Hana, Lānaʻi, 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 Hoʻolehua. It also has a demonstration research farm in the Molokai Agricultural Park that shares facilities with UH Maui College Molokaʻi Farm. CES programs focus on outreach and continuing education in agriculture, cooperative and leadership development, and DHHL farm development. The Kuhaʻo Business Development Center provides technical assistance and entrepreneurship.

B. ISSUES

- Issue 1: Some people on Molokaʻi have limited relevant technical knowledge or skills to enter the 21st century workforce, acquire skilled jobs, or start their own business.
- Issue 2: Many 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 Molokaʻi 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 UHMC-Moloka'i campus 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, 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 requirements⁴.
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.

⁴ Note: Hawaiian is not a foreign language; this is for college entrance requirements only.

- 1 13. Support a program to explore career path options, including vocational programs.
- 2
- 3 14. Support opportunities to increase enrollment in post-secondary education.
- 4
- 5

6 **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

8

1 **9.5 HEALTH AND SOCIAL SERVICES**

2 Molokaʻi's health and social service needs are increased due to conditions on the island that
3 include: 1) geographic isolation and high cost of off-island travel; 2) low measurements of economic
4 health, socio-economic stability and food security; 3) high unemployment rates; and 4) language
5 barriers⁵. Molokaʻi has been designated a Medically Underserved Area and a Health Professional
6 Shortage Area for Primary Care, Dental Care and Mental Health, by the U.S. Public Health Service.
7 This designation brings some financial support to help provide a broader array of services.

8 **A. EXISTING CONDITIONS**

9 **Health Services**

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

14
15 Molokaʻi General Hospital (MGH) is a critical medical hospital located in Kaunakakai with 15 beds,
16 with an emergency room, and out-patient clinic. The hospital provides diagnostic and therapeutic
17 imaging services through a CT scanner and ultrasound. In addition, the MGH provides community
18 outreach through health fairs, health screenings and a Meals on Wheels program. A 2004 demand
19 analysis indicated no need for additional hospital beds through 2030 beyond the 2004 licensed
20 levels. MGH no longer accepts long-term care patients. The MGH coordinates with Hawaii Life
21 Flight critical transport to take the critically ill to Honolulu.

22 Many of the hospital's preventive services to the Hawaiian community are offered in partnership
23 with Na Puʻuwai, Inc. a community-based non-profit Native Hawaiian organization. Na Puʻuwai,
24 Inc. was founded in 1985 and is dedicated to betterment of the health conditions of Native
25 Hawaiians⁶.

26 In 2002, Molokaʻi Community Health Center (MCHC) applied for and received funding to develop
27 a freestanding, centrally-located community health center providing core primary health care
28 services⁷. MCHC provides services that focus on the health care needs of a target population that
29 is 200% below the federal poverty guidelines.

⁵ Molokaʻi Ohana Health Care Inc., referencing 2002 & 2003 Hawaii Health Surveys; <http://www.Molokaʻichc.org/content/population-served>

⁶ Na Puʻuwai, Inc., <http://www.napuuwai.com/>

⁷ Ibid, Molokaʻi Ohana Health Care Inc.

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

5 **Social Services**

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

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

17
18 The Maui County Office of Aging employs a full-time Aging and Disability Services Specialist on
19 Molokaʻi to help with needed services to remain as healthy and independent as possible. Services
20 are provided in home or through referral and access programs to frail seniors, family caregivers,
21 and individuals with disabilities of all ages. The Kaunoa Senior Services provides programs and
22 services for well, active seniors and frail homebound residents. These include assisted
23 transportation services, Meals on Wheels Program, and the Congregate Nutrition Program for
24 nutritionally balanced meals in a social atmosphere. For more active seniors there are
25 informational, volunteer opportunities, and a wellness program.

26 27 28 **B. ISSUES**

29
30
31
32 Issue 1: An increasing older and elderly population will increase health and social service
33 needs, including long-term care.

34
35 Issue 2: The Island has immigrant communities with limited English language skills that
36 need health and social services in multiple languages.

37
38 Issue 3: Behavioral and mental health, alcohol and substance abuse, obesity, domestic
39 violence, child abuse and neglect, and sexual abuse, is a concern.

C. GOALS, POLICIES, ACTIONS

Goal **Molokaʻi will have a comprehensive, integrated health care 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 health care, and social services for the community through qualified professionals located on Molokaʻi.
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 island.
6. Support a disabled persons infrastructure system, that includes health and social programs, services for the frail elderly, assistance for home-modifications to support ageing 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.

1
2
3
4
5
6

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 Non-profits

7

9.6 CEMETERIES

A. EXISTING CONDITIONS

Molokaʻi has ~~#~~numerous cemeteries maintained by various entities. The County of Maui Department of Public Works maintains three cemeteries including the Veteran's Cemetery in Hoʻolehua, ʻUalapuʻe Cemetery, and Kapaʻakea Cemetery. The ʻUalapuʻe Cemetery is closed and no longer accepting burials. The Kapaʻakea Cemetery is nearing capacity, with less than 50 burial sites remaining. Other cemeteries on Molokaʻi include [Kanakaloloa Cemetery at Hoʻolehua and Homelani Cemetery at Manawainui](#) ~~two~~ maintained by DHHL, [Maunaloa Cemetery owned by Molokaʻi Ranch and maintained by the community, and several private cemeteries maintained by families or churches.](#) ~~and ...~~.

B. ISSUES

Issue 1: The County DPW is not budgeted sufficient funds to maintain cemeteries on Molokaʻi.

Issue 2: The Kapaʻakea Cemetery is nearing capacity.

C. GOAL, POLICIES, ACTIONS

Goal Molokaʻi'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 grave sites at the ʻUalapuʻe 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, Molokaʻi, and Lānaʻi; 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 council with two-year terms. Molokaʻi is served by a single representative on the Maui County Council.

A. EXISTING CONDITIONS

Direct participation in Council meetings is difficult for Molokaʻi residents. County Council meetings are held on Maui and are scheduled during normal working hours; transportation to and from these meetings for Molokaʻi residents is limited by ferry schedules and expensive flights. Recent improvements in telecommunications have enabled Molokaʻi residents to participate remotely by phone conference.

Maui County Code 2.41.080 states a minimum requirement of one member of the public from Molokaʻi on a number of County Boards and Commissions. However, it appears that this is not widely known throughout Molokai. Physical access to County Council and committee meetings and meetings with members of the County Council is also limited since Molokaʻi 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](#) ~~DOH~~ and DHHL.

B. ISSUES

Issue 1: Molokaʻi 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 Molokaʻi's residents.

Policies

1. Support the implementation of Maui County Code 2.41.080 and expanded opportunities for Molokaʻi residents to be involved in and affect County government decision making.
2. Encourage public participation in government among all Molokaʻi 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 regularly scheduled public information meetings on Molokaʻi 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	
9.7.02	Provide the Molokaʻi Planning Commission with the Planning Director's annual status reports as described in Maui County Code Chapter 2.80B.	Planning Department	

9.7.03	Conduct regularly-scheduled public information meetings on-island.	Mayor's Office	Moloka'i Council Member
9.7.04	Ensure that a minimum of one Moloka'i resident is a member of each board and commission per MCC 2041.080 is fulfilled.	Mayor's Office	
9.7.05	Continue to support Maui County Community television on Moloka'i.	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, NPS, Community
9.7.07	Provide training to the Moloka'i Planning Commission 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.	Planning Department	

1
2

10 | IMPLEMENTATION AND MONITORING

The preceding chapters identify programs, projects, and actions that need implementation to actualize the Molokaʻi Community Plan’s vision, goals, and policies. Maui County Code Chapter 2.80B specifies an implementation program for the plan’s actions and milestones and requires status reports to monitor the progress of implementation. The implementation program includes a capital improvement element, an implementation schedule, and a financial element.

A. IMPLEMENTATION

The capital improvement (CIP) element includes the infrastructure systems and public facilities and services that will be needed over the twenty-year planning period, in two-year increments, to implement the Community Plan’s vision, goals, and policies. CIP projects are included in the implementation schedule to facilitate capital improvement programming and serve as a guide for forthcoming large infrastructure budget items. The list does not include repair and maintenance projects.

The implementation schedule is included in this chapter and includes a description of the project or program, priority, timing, lead implementation agency (County), estimated cost, and potential funding source(s). Actions are identified as either Priority 1 or Priority 2, with Priority 1 being the highest priority. Identifying high priority actions helps agencies focus on implementing key actions considering time and budget constraints. Priority 2 actions are still considered important for implementing the Community Plan. The following questions were used to identify Priority 1 actions:

1. Will the action address an urgent issue?
2. Is the action required for public health and safety?
3. Is the action required by legal mandate?
4. Is the action required to prevent the loss of an irretrievable resource?
5. Will the action benefit the majority of the community?
6. Will the action significantly improve the quality of life of Molokaʻi residents?
7. Is the action required for other actions to be initiated?
8. Is the action already funded?

Actions may be implemented by the lead County agency or by another entity, such as the State or non-profit groups, and assisted by the County agency. For actions that are not the primary responsibility of the County, and there is not a cost to the County budget, the estimated cost column in the implementation table is “not applicable” (N/A). The implementation program should provide enough flexibility over the life of the Plan to allow for reprioritization and adjustments to level of funding. Implementation of the actions listed in the schedule is subject to available funding.

1 Infrastructure Planning and Finance Policy Framework

2
3 The infrastructure funding strategy provides an efficient and equitable means of planning and
4 financing infrastructure improvements. The County CIP funding strategy is comprised of three
5 policy statements with underlying strategies to effectuate the policies.

7 **1. Infrastructure Services Policy:**

8 The County is responsible for determining areas where infrastructure and public facilities will be
9 supported.

11 **2. Infrastructure Expansion Policy:**

12 Developers are generally responsible for public facility and infrastructure expansion costs
13 associated with their projects. As a condition of subdivision or development approval, the County
14 often requires new developments to construct on-site water, roads, wastewater, park facilities,
15 and other infrastructure and public facilities pursuant to County standards. Upon completion of
16 construction, the County may require the developer to dedicate the infrastructure/facilities to the
17 County. Developments may also be required to donate easements or other types of partial rights
18 to the County. In addition, developments are often required to provide financial assurance, such
19 as bonding, to ensure enforcement of needed corrective action(s) or uninterrupted operation (in
20 case of bankruptcy, abandonment, or any other default on financial obligation).

21
22 The County has also considered the imposition of impact fees, which are designed to mitigate the
23 impact of new development on infrastructure and public facility systems. These one-time
24 payments are made by the development; fees are typically passed on to either the seller of land
25 or homebuyer to pay for the cost of infrastructure caused by new development. While the
26 enabling ordinance for traffic impact fees have been enacted, the required studies that determine
27 the actual fee amounts have yet to be adopted; other impact fee ordinances have been discussed
28 but not enacted.

29
30 To ensure that no ambiguities exist regarding infrastructure funding responsibilities, the County
31 may establish an infrastructure funding strategy to ensure that infrastructure improvements are
32 implemented prior to or concurrent with development by the responsible party depending on the
33 nature of the infrastructure project.

35 **3. Existing Deficiencies Policy:**

36 Through its CIP program, the County is responsible for funding operations and capital
37 improvements to address existing deficiencies of County-owned and operated systems.

38
39 The Existing Deficiencies Policy shall be implemented by, but not limited to, the following
40 strategy:

41
42 ***A. Identify existing service deficiencies and project future operations and maintenance***
43 ***needs:*** Using the CIP program, needs assessment studies, or adopted level-of-service
44 standards, the County will identify existing service deficiencies and projected operations and

1 maintenance needs. The County may provide revenues sufficient to maintain the minimum
 2 acceptable level-of-service standards over the 20-year planning horizon. The County will
 3 encourage the State to upgrade its facilities to meet the County's LOS standards.
 4

5 ***B. Develop and Utilize Alternative Funding Sources:*** The County could consider alternative
 6 funding sources to be used to finance major CIP projects. Some of these sources are currently
 7 available while others would require enabling legislation or voter approval before they could be
 8 utilized. Such alternatives include: public-private partnerships, which can save time and costs;
 9 strategic budget allocations or trust funds to create special funds for specific purposes; special
 10 district financing, such as tax districts or redevelopment districts, where revenues are reinvested
 11 in the same geographic area; and peak demand pricing, where the charge for the use of public
 12 facilities or infrastructure is increased during periods of heaviest use.
 13

14 **B. MONITORING**

15
 16 The Monitoring and Evaluation Program establishes a strategy to track plan implementation,
 17 evaluate the effectiveness of policies and programs, monitor the quality of life on Moloka'i, and
 18 allow for periodic program adjustments. This strategy includes establishing and monitoring
 19 performance indicators to help implementing agencies attain planned outcomes. Specific
 20 benchmarks will be used to measure progress in the implementation of community plan policies
 21 and actions. The Department of Planning will coordinate with the appropriate agencies and
 22 program specialists to establish benchmarks for major programs and initiatives. Physical,
 23 environmental, cultural, and socio-economic indicators will also be used to assess the overall
 24 quality of life on Moloka'i.
 25

26 The Department of Planning will oversee the Monitoring and Evaluation Program, which will
 27 include the preparation of a Monitoring Report. The Department may modify or add indicators, as
 28 needed, to track the impacts of plan implementation. The Department will prepare a monitoring
 29 report to validate the progress of plan implementation and provide a portrait of the quality of life
 30 on Moloka'i.
 31

32 Table 10.1 includes a core set of 39 indicators that could be used to monitor progress toward
 33 achieving the goals and objectives of the community plan. Many indicators identified in this plan
 34 have been borrowed from existing plans, programs and reports, and are based on available and
 35 reliable data to ensure their usefulness throughout the planning horizon. However, they can be
 36 modified and updated as new data becomes available.
 37

38 Furthermore, the quality of life indicators are intended to represent a range of measurements
 39 across the various chapters of the community plan. The indicators are regional in nature to focus
 40 on the island as a whole. Where possible, commonly used indicators have been chosen in order
 41 to facilitate comparisons between Moloka'i and other jurisdictions. These core indicators not only
 42 provide a snapshot of the quality of life on Moloka'i, but also track the progress of key issues that
 43 the community plan intends to address. Table 10.2 articulates how the indicators relate to the
 44 community plan goals and details appropriate sources of data.
 45

1 **Table 10. 1 Example Core Indicators**

BUILT ENVIRONMENT INDICATORS	LAND USE
	1 Building permits by type
	2 Building permits issued in tsunami inundation zone and future sea level rise (%)
	3 Average density of new developments
	4 New urban developments consistent with Urban and Rural Design Principles (%)
	5 Housing affordability index
	TRANSPORTATION
	6 Vehicle miles traveled
	7 Commute mode shares
	8 Annual transit ridership
	9 Dedicated bike lanes (total miles)
	INFRASTRUCTURE
	10 Recycled waste (%)
SOCIAL ENVIRONMENT INDICATORS	11 Parks and Open Space per 1000 population (acres)
	12 Energy consumption by source (%)
	13 Energy consumption per capita
	ECONOMIC DEVELOPMENT
	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
	POPULATION / COMMUNITY
	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)
	CULTURAL HERITAGE
	28 Hawaiian Language students (#)
	29 Subsistence food sources
	30 Properties listed on the State or National Registers (#)
	31 Scenic roadways (total miles)
NATURAL ENVIRONMENT INDICATORS	WATERSHED SYSTEMS
	32 Reclaimed water use %
	33 Watershed health
	34 Drinking water quality
	OCEAN / MARINE ENVIRONMENT
	35 Coastal water quality
	36 Healthy coral reefs (%)
	37 Reef fish biomass
	WILDLIFE AND NATURAL AREAS
	38 Threatened and endangered species (#)
	39 Protected and conservation lands (total acres)

2
3

Table 10.2 Core Indicators, Objectives, and Data Sources

	<i>Built Environment Indicators</i>	<i>Objective to Achieve Chapter Goals</i>	<i>Data Sources</i>
	<i>LAND USE AND HOUSING</i>		
1	Building permits by type	Provide housing choices / create mixed-use communities	Planning Department
2	Building permits issued in tsunami inundation zone and future sea level rise (%)	Reduce risk from coastal hazards	Planning Department
3	Average density of new developments	Create walkable communities / increase housing affordability	Planning Department
4	New urban developments consistent with Urban and Rural Design Principles (%)	Create compact, efficient, human scale communities / enhance historic character	Planning Department
5	Housing affordability index	Increase housing affordability	NAR methodology / UHERO / Maui County Data Book
	<i>TRANSPORTATION</i>		
6	Vehicle 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
	<i>INFRASTRUCTURE</i>		
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

Table 10.2 Core Indicators, Objectives, and Data Sources (continued)

	<i>Social Environment Indicators</i>	<i>Objective to Achieve Chapter Goals</i>	<i>Data Sources</i>
	<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	Support agricultural economy	UHERO
17	Permitted B&Bs and STRHs (#)	Diversify the tourism industry	Planning Department
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 rate	Increase post-secondary education	Kids Count Data Centre, Annie E. Casey Foundation
23	Drug and alcohol 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 DHS, Child Welfare and Adult Protective Services
25	Sex assault, domestic violence and mental health	Effective support services for individuals and families	HI DHS, Child Welfare and Adult Protective Services
26	Licensed health care practitioners	Comprehensive health care system	County of Maui Data Book
27	Adult residential care homes (# beds)	Strength 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 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 Registers (#)	Protect cultural resources	HI DLNR, Preservation Division
31	Scenic roadways (total miles)	Protect scenic vistas	Planning Department

Table 10.2: Core Indicators, Objectives, and Data Sources (continued)

	<i>Natural Environment Indicators</i>	<i>Objective to Achieve Chapter Goals</i>	<i>Data Sources</i>
	<i>WATERSHED SYSTEMS</i>		
32	Reclaimed water use	Decrease pollution , sustainability indicator	DOH, Safe Drinking Water Branch
33	Watershed health	Protect + enhance native eco-systems	DLNR, DOH, University of Hawai`i, Pacific Neon
34	Drinking water quality	Increase water quality, basic quality of life	DOH, Safe Drinking Water Branch
	<i>OCEAN / MARINE ENVIRONMENT</i>		
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
37	Reef fish biomass	Increase reef health, preserve biodiversity	Division of Aquatic Resources, Dept. of Land and Natural Resources, HI
	<i>WILDLIFE AND NATURAL AREAS</i>		
38	Threatened and endangered species (#)	Preserve biodiversity	US Fish + Wildlife Service
39	Protected and conservation lands (total acres)	Protect sensitive lands	County of Maui

Molokaʻi 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
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)	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)	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 Molokaʻi'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 Molokaʻi Police Station at a location that meets the unique needs of the Maui Police Department for Molokaʻi, out of the special flood hazard area and tsunami evacuation zone and promotes practical and safe emergency response for the entire Molokaʻi community.	CIP	1	2018-2020	Police	TBD	TBD

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)
CHAPTER 3 NATURAL, HERITAGE & SCENIC RESOURCES								
Natural Resources	3.1.01	Assist with a conference or workshops of key federal, state, and local agencies, and community and non profit leaders to discuss, plan, and prioritize actions to address environmental and natural resource issues.	Project	1	2016-2021	Office of Economic Development (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	50	County Federal 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)	2	County Federal
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 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) <i>See Transmittal Letter "Agency Comments"</i>		

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	3.1.10	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
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, 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, 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	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.	Project	1	2022-2035	Planning Department	10	County State

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	3.2.03	Establish archaeological and historic districts where high concentrations of sites exist.	Project	1	2016-2021	Planning Department	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 of Historic Places.	Program	2	2016-2021	Planning Department	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
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	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 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	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 permit process plays in historic preservation.	Program	2	On-going	Planning Department	N/A	N/A

Molokaʻi 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	3.2.14	Educate property owners regarding the need to prevent damage to, or destruction of, historic and cultural sites.	Program	1	On-going	Planning Department	N/A	N/A
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	TBD	County
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	TBD	County
Scenic Resources	3.3.03	Develop and implement Scenic Roadway Corridors Management Plan and Design Guidelines.	Project	2	2016-2021	Planning Department	20	County
Scenic Resources	3.3.04	Provide educational workshops for design consultants and developers on scenic resource BMPs	Program	2	2016-2021	Planning Department	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	N/A	N/A
CHAPTER 4 HAZARDS								
Hazards	4.01	Continue the development of Molokaʻi Incident Command Post in coordination with County Civil Defense.	Program	2	2016-2021	Civil Defense	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.	Program	1	On-going	Civil Defense	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 disasters.	Program	2	On-going	Civil Defense	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	N/A	N/A

Molokaʻi Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Hazards	4.06	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 caused by negligence or accident. Engage the community in creating and maintaining fire breaks.	Program	2	2016-2021	Fire & Public Safety	15 annually	County
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
Hazards	4.09	Complete an inventory of vulnerable critical facilities and infrastructure. Include this information in Maui County HMP for future mitigation project funding.	Project	1	2016-2021	Civil Defense	TBD	Federal State
Hazards	4.10	Map SLR projections for specific geographic areas on Molokaʻi, 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	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	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	TBD	County
Hazards	4.13	Conduct erosion analysis of Molokaʻi'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	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	1,000	County State Federal Private
Hazards	4.15	Per the Maui County Hazard Mitigation Plan, update the HAZUS MH model to incorporate detailed data on state and county bridges located in Molokaʻi.	Project	1	2016-2021	Civil Defense	50	County State Federal

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	4.16	Support development of a cultural archive of the kupuna's knowledge of traditional hazard mitigation practices.	Project	2	2016-2021	Planning Department	TBD	County
Hazards	4.17	Evaluate, update, and prioritize shelters on Moloka'i.	Program	1	2016-2021	Civil Defense	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	75	County
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	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
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 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 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

Molokaʻi 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	5.10	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
Economic Development	5.12	Assess which development regulations are going to discourage investors from making improvements on Molokaʻi.	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 issues into compliance for the purpose of maintaining affordable rental rates.	Project	1	2016-2021	Planning Department	N/A	N/A
Economic Development	5.14	Support workforce development efforts to help improve Molokaʻi'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
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 Molokaʻi's economy.	Program		On-going	OED	N/A	N/A
CHAPTER 6 LAND USE & HOUSING								
Land Use	6.1.01	Adopt a comprehensive zoning map for Molokaʻi. 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	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	300	County
Land Use	6.1.03	Implement County responsibilities under Acts 183 (2005) and 233 (2008) to designate and establish Important Agricultural Lands (IAL) and the incentives therein.	Program	2	2016-2021	Planning Department	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 HRS § 205A-2 and incorporate best available information on Climate Change and SLR.	Project	1	2016-2021	Planning Department	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)
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	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	TBD	County State Federal
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	TBD	County State Federal
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
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	Possibly with 6.1.02 (TBD)	County
Housing	6.2.04	Work with developers to support their efforts to provide assistance with secureing/leveraging 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.	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).	Project		2016-2021	Planning Department	N/A	N/A
CHAPTER 7 COMMUNITY DESIGN								
Community Design	7.01	Amend the 1993 Moloka'i Country Town Business Design Guidelines.	Project	1	2016-2021	Planning Department	50	County

Molokaʻi 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	7.02	Develop sub area development plans for Kaunakakai, Maunaloa, Kaluakoʻi, Kualapuʻu / Hoʻolehua, and the east end of Molokaʻi.	Project	1	2016-2021	Planning Department	TBD	County
Community Design	7.03	Develop a pedestrian linkage between Malama Park and Kaunakakai through streetscape improvements.	Project	2	2022-2035	Planning Department	TBD	County
Community Design	7.04	Develop and adopt rural and small town street design standards that are appropriate for Molokaʻi.	Project	2		DPW <i>See Transmittal Letter "Agency Comments"</i>		
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 Molokaʻi 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	TBD	County
Community Design	7.08	Conduct a study to improve walkability in Kaunakakai.	Project	2	2016-2021	Planning Department	20	County
Community Design	7.09	Review and update the indigenous architecture ordinance as appropriate.	Project	2	2016-2021	Planning Department	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	N/A	N/A
CHAPTER 8 INFRASTRUCTURE								
Water	8.1.01	Support the development of a Molokaʻi Water Use and Development Plan (WUDP) that is consistent with the goals, policies and implementation strategy of the Molokaʻi 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

Molokaʻi Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
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 Molokaʻi Water working group 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 water systems.	Project	2	On-going	DWS	TBD	Private County
Water	8.1.08	Encourage the acquisition of USGS stream gauges be placed in Molokaʻi's important streams.	Project	1	On-going	DWS	TBD	County Federal Private
Water	8.1.10	Continue to fund watershed partnership on Molokaʻi.	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
Wastewater	8.2.02	Conduct a wastewater reuse feasibility study that includes the identification of potential recycled water users, necessary plant 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
Wastewater	8.2.05	Update the Kaunakakai WWTF facilities plan.	Project	1	2022-2035	DEM	100	County
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

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)
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
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 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, 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 locating more trash cans throughout the island.	Project	2	2016-2021	DEM	TBD	County
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 Island.	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
Solid Waste	8.4.11	Conduct annual reviews of Solid Waste contracts to provide oversight 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 airport and air services meet the needs of Moloka'i's residents, visitors and businesses.	Project	2	On-going	OED	N/A	N/A

Molokaʻi Community Plan Implementation Actions								
Community Plan Chapter	Action No.	Description	Type	Priority	Timing	County Agency Lead	Est. Cost (\$1,000)	Funding Source(s)
Transportation	8.5.02	Support the continued air services between topside Molokaʻi and Kalaupapa.	Project	2	2016-2021	OED	10	County
Transportation	8.5.03	Identify challenges and propose solutions to transporting Molokaʻi 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 Molokaʻi.	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 multi modal 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	30	County
Transportation	8.5.08	~~Integrate a parking study with parking mitigation measures appropriate for Molokaʻi 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	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	DOT	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 Molokaʻi.	Project	2	2016-2022	DPW	TBD	County
Transportation	8.5.12	Encourage a bike share program for Molokaʻi.	Program	2	on-going	DPW	N/A	County
Transportation	8.5.13	Encourage the continued practice of no fee parking at the Molokaʻi airport.	Project	1	On-going	OED	N/A	N/A
Energy	8.6.01	Develop a Diversified Energy Strategy for Molokaʻi that examines locations for large and small scale renewable energy systems.	Project	1		Energy Office See Transmittal Letter "Agency Comments"		
Energy	8.6.02	Create a smart grid that would allow for integration of additional renewable energy sources.	Project	2		Energy Office See Transmittal Letter "Agency Comments"		

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)
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.	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	TBD	County
Parks & Recreation	9.1.03	Adopt a beach/mountain access dedication ordinance using Transfer Development Rights addressed in HRS Chapter 46 to improve access along the shoreline and mountains.	Project	2	2022-2035	Planning Department	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
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

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	9.1.08	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 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	Police	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	Police	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	On-going	Police	N/A	N/A
Police	9.2.05	Expand police presence in the East End and West Ends of Moloka'i.	Program	1	2022-2035	Police	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.	Program	1	2016-2021	Police	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, tsunami, 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
Fire and Public Safety	9.3.04	Implement and maintain the "Centers for Public Safety Excellence" accreditation program.	Program	1	On-going	Fire & Public Safety	8	County
Fire and Public Safety	9.3.05	Support the implementation of the accreditation program by creating one full time position. Level of effort for Moloka`i would be 15%.	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.	Program	1	2016-2021	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)
Fire and Public Safety	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.	Program	1	On-going	DPW	TBD	County
Education	9.4.01	Assist with 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 recommendations and funding to eliminate achievement gaps in education for Native Hawaiian 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 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 Cemetery.	Project	1	2016-2021	OED	TBD	Private County
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

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)
Governance	9.7.02	Provide the Moloka`i Planning Commission with the Planning Director's annual status reports as described in Maui County Code Section 2.80(B).	Project	1	On-going	Planning Department	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	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 Makenalua.	Project	2	2016-2021	Mayor's Office	N/A	N/A
Governance	9.7.07	Provide training to the Moloka`i Planning Commission 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.	Program		On-going	Planning Department	N/A	N/A

Appendix 1.1 Moloka'i History Summary

There were two initial land divisions on the island of Moloka'i, the *Ko'olau* and the *Kona* Districts. In 1859, the Hawaiian Government combined the districts as it determined that one district would be more efficiently administered than two. This was done because the population of the island had dropped to 2,864 and increasing numbers of people were beginning to migrate from the windward valleys on the north side of the island to the more accessible leeward coastal regions. Then in 1909, a political division of the island was made to incorporate Moloka'i as one of the districts in the newly formed Maui County, where it remains today. The Kalaupapa Settlement was administratively separated and became known as Kalawao County, managed by the State Department of Health.

Throughout its history, the island has been characterized by its rural, agricultural base, first established by the early *kanaka maoli*. Moloka'i's strong sense of traditional, culturally significant history is represented by its many ancient Hawaiian sites, as well as by the impressive ruins of Kalua'aha Church, built in 1844 representing the establishment of the first Missionary station in 1832 and Father Damien's St. Joseph's church at Wawaia.

One of the earliest settlement dates for Hawai'i, 500-600 A.D., established by carbon-14 testing, was found on the Halawa Valley shoreline along the windward coast of the island of Moloka'i. These deep valleys with their perennial streams, separated one from another by sheer *pali* plunging vertically into the sea, were developed into terraces for intensive taro cultivation. Today, the stone evidence of these extensive irrigation systems, terracing, *heiau*, *ko'a* (fishing shrines) and habitation sites are found in the now largely deserted valleys.

The more forgiving lush, green southeastern portion of this land is thought to have been the home of the majority of early Hawaiians. *Lo'i Kalo* (ponded terraces) were found in every wet valley and ringed the shoreline sides of the numerous stone-walled fishponds stretching almost uninterrupted from Honolewai to Waikāne and beyond. *Mauka* of the ponds, *u'ala* (sweet potato) and *wauke* (paper mulberry) plants were cultivated between long shallow terraces which swept across the lower *kula* slopes. There are 136 recorded *heiau* on the island and of these 36 are found from Kamalo'o mana'e to Honoulimalo'o, including 'Ili'ili'opae *heiau* at Mapulehu, the largest on the island and thought to be the oldest.

At the time of western contact in 1778, the estimated population figure for Moloka'i was 10,500. In 1850, a Hawaiian government census estimated that the island population was 3,540. By 1910, this figure had fallen to 1,006, not including the patients at the Kalaupapa Settlement.

Although not officially in the planning area being considered; Kalawao had a significant and important part in the history of Moloka'i. During the early 1800's the Kalawao peninsula on the windward coast held a small thriving community of Hawaiians. Partially due to its strategic

location between the deepest valleys and the summer fishing grounds to the west, it served as a center of the Ko`olau District's activities. Its isolated location was chosen in 1865 by Kamehameha V to serve as the area set aside for those unfortunate victims of leprosy, or Hansen's disease. The Hawaiian residents were relocated and given land either at Kainalu on the east end of Moloka`i or on one of the other Hawaiian Islands. The *pali* trails became the life-lines for food and supplies to the settlement, greatly increasing the need for reliable trails and a cart road from the *pali* to the harbor at Kaunakakai. Access was strictly controlled and the area was virtually cut off from the rest of the population of the island. There were around 700 patients when Father Damien arrived in 1873 to spend the rest of his life caring for the sick of the peninsula. Moloka`i residents were often employed by the Department of Health, which administered the Settlement, to keep the trails and road passable. It was during this period that Moloka`i became known as the Lonely Isle, and in 1909, the area was officially separated from Moloka`i as Kalawao County.

In 1859, Kamehameha IV had established a sheep ranch on the west end at Kaluako`i, which his brother Kamehameha V expanded by acquiring additional lands augmented by other types of livestock. This was the founding of Moloka`i Ranch, later purchased in 1897 by a group of Honolulu businessmen when it became known as the American Sugar Company. The sugar enterprise did not last long as their wells, with the sustained pumping required, produced saline water which soon killed the cane in the fields. The ranch again reverted to a livestock venture.

Various diversified agricultural enterprises had been established during the 1870's, among them three small-scale sugar plantations and mills at Kala`e, Moanui and Kamalo`o. These operations had all shut down by 1900. One of the few remaining significant historical sites on the island is the restored 1878 R. W. Meyer Sugar Mill at Kala`e.

Puko`o was the first town in the western sense and the first County seat with a court house, lock-up, wharf and several small stores. As Moloka`i developed into a limited market-oriented economy surrounding the plantation and ranching activities to the west, a gradual population shift began to occur, and in 1925 the County business center was moved to `Ualapu`e, where a new hospital had opened. Changes were taking place so rapidly, that only ten years later Kaunakakai had assumed the role of major commercial and political center of the island, and the physical facilities were again transferred westward.

Usually islands were dependent on their surrounding waters for the transportation of goods and people; however, considering the long, narrow configuration of Moloka`i, it would seem probable that trails became a more practical and convenient means of travel from north to south, windward to kona. These trails were gradually turned to horse paths, later widened to accommodate animal drawn cars, wagons or buggies, and eventually when trucks and the automobile were introduced to Moloka`i, they became western-style roads. This new mode of transportation required not only better roads, but supplies of oil and gasoline for fuel.

As larger ships with deep drafts came to the islands, they required wider openings in the reefs and deeper, well-protected waters for anchorage. On Moloka`i, the harbors were shallow and vulnerable to shifts in the gusty winds. Ships not able to negotiate the reef were forced to anchor in deeper water or tie up to the government installed buoys. Canoes or whaleboats transported passengers and goods to shore, to be met by ox-carts driven over the shoals or to be later deposited on one of the small wharves. The cattle were forced into the water to swim to the waiting ships and lifted by sling onto the decks.

Contributing to the modernization of transportation on Moloka`i, several wharves were constructed during the early 1880's at Kaunakakai, Puko`o, Kamalo`o, Kalaupapa and Pelekunu. Of the five original wharves, only Kamalo`o wharf barely survives today and is gradually breaking up. The stones of old Kaunakakai wharf are under water approximately one hundred yards west of the present wharf, built in 1899.

In the early 1900's, inter-island steamers began carrying freight, produce and passengers to and from Moloka`i, an increasingly vital link for the economic well-being of the island. The Kaunakakai wharf has been improved and lengthened several times over the years; the harbor has been dredged and cleared of obstructions and the opening in the reef widened to accommodate the larger barges of Young Brothers and slips for fishing and pleasure boats.

Passenger travel by ship became less popular with the opening of Ho`olehua airport in 1928; and in 1929, the Inter-Island Airways inaugurated their first regular air service to Moloka`i's new airport, providing a fast, reliable link with other islands.

The island's population began to increase dramatically in the early 1920's, and by 1930 there were 4,427 people on the island; an increase of 3,421 in ten years. The first change occurred when the Government passed the Hawaiian Homes Act in 1921, resulting in the settlement of Kalama`ulna, Hoolehua, Pala`au and Kapa`kea. The establishment of two pineapple plantations, Libby, McNeill and Libby (later Dole Pineapple) at Maunaloa in 1923, and California Packing Corporation (Del Monte) in 1927 at Kualapu`u, further encouraged the gradual population shift west from the more populated eastern areas of the island. These plantations both closed down during the 1970's and 1980's, leaving the island again dependent on diversified agriculture, primarily vegetable farming and cattle ranching. In the late 1970s, resort development at the west end of the island at Kaluakoi became an influence on the islands economy. The population increased during this period to 6,049. The population peaked in 2000 at 7,404 and then declined to 7,255 over the next decade due to closure of the Kaluako`i Hotel and shuttering of Molokai Ranch operations. During the same period, biotech seed companies began operations on Moloka`i.

The character of the island of Moloka`i remains a truly *mokupuni kua`aina* (country island) both culturally 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

The following list of technical studies was used in the development of the Moloka'i Community Plan. The public facilities and infrastructure assessments, and the socio-economic forecast were conducted for the County of Maui General Plan. The economic development and housing issue papers, and the land use forecast were conducted specifically for this community plan update.

- The *Final Public Facilities Assessment Update County of Maui* (March 2007) identifies public facilities and services (e.g., schools, parks, police and fire protection, hospital, and solid waste disposal services) issues and opportunities in high-growth community plan regions.
- The *County of Maui Infrastructure Assessment Update* (May 2003) identifies infrastructure (e.g., roadways, drainage, water, wastewater, telephone and electrical systems) issues and opportunities in the community plan regions.
- The *Moloka'i Economic Development Issue Paper: A Discussion Paper for the Department of Planning Community Plan Update* (December 2010 and 2015 Update) discusses current economic conditions and broad alternative economic futures.
- The *Moloka'i Housing Issue Paper, Draft: A Discussion Paper for the Moloka'i Community Plan Update* (December 2010) discusses current issues and projected future needs.
- The *Land Use Forecast, Island of Moloka'i, Maui County General Plan Technical Resource Study* (October 2013) estimates the amount of available land for urban uses and the likely demand for that land between 2010 and 2035.
- The *Socio-Economic Forecast, The Economic Projections for the Maui County General Plan 2030* (September 2014) projects residential, visitor, and employment growth, as well as housing demand. This planning tool is used to predict future growth scenarios for each community plan region.

Appendix 1.3 Community Engagement

Before the CPAC process began, the county held several public workshops and conducted many interviews with Moloka`i residents during 2010-2011. The purpose of these activities was to hear directly from the people who lived on the island, to listen to their concerns, and to understand what their hopes are.

Open House Events: June – October 2010

June 2010

The kick-off open house for the Moloka`i Community Plan was held on Saturday, June 26 from 10:00 AM to 2:00 PM at the Kaunakakai Elementary School cafeteria. More than 40 residents attended the open house, which was organized to solicit and record as many comments as people were willing to offer. Participants could visit five “stations” in the room. Some displayed information about Moloka`i while others asked visitors to write comments in response to specific questions.

October 2010

Two additional workshops were held in October 2010 to gather comments from Moloka`i residents on a variety of questions and issues. The workshop was organized by the Long Range Division (LRD) staff from the Maui County Planning Department and its consultant team from Chris Hart and Partners (CHP). It was held from 9:00 AM to 1:00 PM at the Mitchell Pauole Center and about 60+ people participated in the workshop, based on the sign-in sheets and a visual count.

The workshop was designed with three sessions: 1) Vision and Core Values; 2) Issues and Opportunities; and 3) Goals and Strategies. Participants in small groups were asked to respond to specific questions on these three topics.

The methodology used for the third workshop differed from the second. Each group was given a specific topic area to discuss rather than each group covering all topic areas. This methodology was chosen due to the amount of material to be covered. The four topic areas consisted of 1) economic development, 2) heritage resources, 3) land use, development and housing, and 4) infrastructure and public services.

November 2014

An outdoor open house was held on Saturday, November 15 from 10:00 AM – 1:00 PM at Kaunakakai Elementary School. Because the last event was held several years previously, this open house was meant as a ‘refresher” of what had been expressed in the three previous community workshops.

Interviews

During 2010 and 2011, about 40 interviews with Moloka'i residents were conducted by the county's planning staff. The interviews typically took about an hour and asked people what their thoughts were on the island's issues, opportunities, ideas for the future, and any other topics that were particularly relevant. Interviews were almost always held at a residence or office and included from one to three of the county's planners.

Appendix 1.4 Legal Framework – Native Hawaiian Traditional and Customary Practices

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. Hawai'i Revised Statute § 1-1 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 hoa'āina or kuleana.

A. The 'Aha Kiole: 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.'¹

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 their 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.

¹ Malia Akutagawa, Shaelene Kamaka'ala, Harmonee Williams, et al., OFFICE OF HAWAIIAN AFFAIRS, TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, MOLOKA'I, 47 (2016).

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.²

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 Moloka'i Community 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 of Hawai'i. 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 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.'³

The native people of Mana'e and Moloka'i continue to strongly with 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

² 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).

³ Akutagawa, Kamaka'ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, *supra* note 4 at 58.

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 ones ahupua'a of residence⁴ 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.⁵ 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 regulate out of existence. There are affirmative obligations to protect Hawaiian custom and usage and the resources that Native Hawaiians depend upon.⁶ 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.⁷

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 kīpuka" (rural areas that have maintained cultural understandings and practices)⁸ 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 or not.⁹ According to Dr. McGregor, what 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:

⁴ 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).

⁵ 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).

⁶ Ka Pa'akai O Ka 'Aina v. Land Use Comm'n, 94 Hawai'i 31, 7 P.3d 1068, 1083 (2000).

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

⁸ DAVIANNA PŌMAIKA'I MCGREGOR, NĀ KUA'ĀINA: LIVING HAWAIIAN CULTURE, 21 (2007).

⁹ Akutagawa, Kamaka'ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, *supra* note 4 at 7-58.

- 1) Only take what is needed.
- 2) Don't waste natural resources.
- 3) Gather according to the life cycle of the resources. Allow the native resources to reproduce. Don't fish during their spawning seasons.
- 4) Alternate areas to gather, fish and hunt. Don't keep going back to the same place. Allow the resource to replenish itself.
- 5) If an area has a declining resource, observe a kapu on harvesting until it comes back. Weed, replant and water if appropriate.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.
- 10) Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.
- 11) Share what is gathered with family and neighbors.
- 12) 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.
- 13) Don't talk openly about plans for going out to subsistence hunt, gather, or fish.
- 14) Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and boisterous.
- 15) Respect family 'aumakua. Don't gather the resources sacred to them.¹⁰

¹⁰ 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

Definition of Sustainability from *Hawai`i 2050 Sustainability Plan* (2008):

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)

HRS §226-108 Priority guidelines and principles to promote sustainability shall include:

- 1) Encouraging balanced economic, social, community and environmental priorities;
- 2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;
- 3) Promoting a diversified and dynamic economy;
- 4) Encouraging respect for the host culture;
- 5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;
- 6) Considering the principles of the ahupua`a; and
- 7) Emphasizing that everyone, including individuals, families, communities, businesses and government, has the responsibility for achieving a sustainable Hawai`i.

Appendix 2.3 Climate Change Adaptation Priority Guidelines (HRS §226 – 109)

- 1 **HRS §226-109 Climate change adaptation priority guidelines:**
- 2 Priority guidelines to prepare the State to address the impacts of climate change, including
- 3 impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas;
- 4 natural and cultural resources; education; energy; higher education; health, historic preservation;
- 5 water resources; built environment, such as housing, recreation, transportation; and the economy
- 6 shall:
- 7 (1) Ensure that Hawai'i's people are educated, informed, and aware of the impacts climate
- 8 change 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
- 12 climate 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
- 16 reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the
- 17 inherent capacity to 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
- 20 environments;
- 21 (7) Promote sector resilience in areas such as water, roads, airports, and public health, by
- 22 encouraging the identification of climate change threats, assessment of potential
- 23 consequences, and evaluation of adaptation options;
- 24 (8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and
- 25 partnerships between government and private entities and other nongovernmental
- 26 entities, including nonprofit entities;
- 27 (9) Use management and implementation approaches that encourage the continual
- 28 collection, evaluation, and integration of new information and strategies into new and
- 29 existing practices, policies, and plans; and
- 30 (10) Encourage planning and management of the natural and built environments that
- 31 effectively 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 Assessment¹¹:

Supporting Services ▪ Nutrient cycling ▪ Soil formation ▪ Primary production	Provisioning Services ▪ Food ▪ Fiber ▪ Genetic resources ▪ Biochemicals, natural medicine, pharmaceuticals ▪ Fresh water
Regulating Services ▪ 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	Cultural Services ▪ Cultural diversity ▪ Spiritual and religious values ▪ Knowledge systems ▪ Education values ▪ Inspiration ▪ Aesthetic values ▪ Social Relation ▪ Sense of place ▪ Cultural heritage values ▪ Recreation and ecotourism

¹¹ 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

Being developed by CPAC and community members - to be reviewed and considered for inclusion.

Appendix 3.3 Cultural Sites to be Protected

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 ¹²
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
	Mixed Use Residential <i>Note: Proposed new land use designation.</i>	<i>Proposed mix of Residential and Multiple-Family Districts, including neighborhood parks, Business/Commercial, and Public/Quasi-Public</i>
	Hotel (H)	Hotel Districts
		H-1 Hotel District
		H-M Hotel District
		H-2 Hotel District
	Business/Commercial (B) Business/Industrial (BI) Business/Multi-Family (BMF) Service Business/Single Family Residential (SBR)	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
	Light Industrial (LI) Heavy Industrial (HI)	Industrial Districts
		M-1 Light Industrial District
		M-2 Heavy Industrial District
		M-3 Restricted Industrial District

¹² 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

The County's nine geographic community plan regions are: Wailuku-Kahului, West Maui, South Maui, Pa'ia-Ha'iku, Makawao-Pukalani-Kula, Hana, Moloka'i, Lāna'i and Kaho'olawe. The following list includes the designations used in the most recently adopted community plan updates, though not every community plan uses all of these designations. ~~The State Conservation District is used to protect and preserve wilderness areas, beach reserves, scenic areas and historic sites, open ranges, wetlands and watersheds; to conserve fish and wildlife; and to promote forestry and grazing. The Moloka'i Community Plan land use map incorporates the State Land Use Conservation District boundary since the County has no jurisdiction within those areas.~~

County community plan land use designations are not regulatory. The following list of designations provides general descriptions of types of uses.

Single-Family (SF): This includes single-family, duplex, and ohana dwellings.

Multi-Family (MF): This includes apartments and condominiums having more than two dwellings.

Mixed Use Residential (MUR): A proposed new designation that would include a mix of single and multi-family residential, neighborhood parks, business/commercial, and public/quasi-public uses.

Hotel (H): This applies to transient accommodations. Such hotel facilities may include permissible accessory uses primarily intended to serve hotel guests.

Business/Multi-Family (BMF): This includes a mixture of retail, office, and commercial services which are oriented to neighborhood service and single family and multi-family residential uses.

Service Business/Single-Family Residential (SBR): Includes single-family dwellings with small-scale and neighborhood-oriented businesses and services that are primarily established in existing residential dwellings or other structures. The business use should be compatible with the physical character of the residential neighborhood.

Business/Commercial (B): This includes retail stores, offices, entertainment enterprises and related accessory uses.

Business/Industrial (BI): Includes a mixture of warehousing, distribution, service operations, retail and offices uses.

Light Industrial (LI): Denotes warehousing, light assembly, service and similar industrial operations.

Heavy Industrial (HI): Denotes major industrial operations with potentially noxious impacts due to noise, airborne emissions or liquid discharges.

Airport (AP): Includes all commercial and general aviation airports and accessory uses.

Public/Quasi-Public (P): Includes schools, libraries, fire and police stations, government buildings, public utilities, hospitals, churches, cemeteries and community centers.

Project District (PD): Provides for a flexible and creative planning approach, rather than specific land use designations, and allows for a variety of uses in accord with each individual project district objective.

Future Growth Reserve (FGR): Recognizes possible areas of urban growth that would occur beyond the projected ten year time frame of the community plan update, and encourages planning for infrastructure development and use allocations.

Park (PK): Applies to lands developed or to be developed for recreational use, including public and private active and passive parks. Golf courses are identified as "PK (GC)" in order to differentiate golf courses from other kinds of park uses.

Rural (R): Protects and preserves areas consisting of small farms intermixed with low-density single-family residential lots. The requirements of the State Rural District should govern this area.

Agriculture (AG): Indicates areas for agricultural activity, in keeping with the economic base of the County and the requirements of the State Agricultural District.

Open Space (OS): Intended to limit development on lands that may be inappropriate for intensive development due to environmental, physical or scenic constraints, including shore-line buffer areas, landscape buffers, drainageways, viewplanes, flood plains and tsunami-prone areas.

[Conservation \(C\): This category primarily recognizes the designation of lands in the State Conservation District and is used to protect and preserve wilderness areas, beach reserves, scenic areas and historic sites, open ranges, and watersheds; to conserve fish and wildlife; and to promote forestry and grazing.](#)

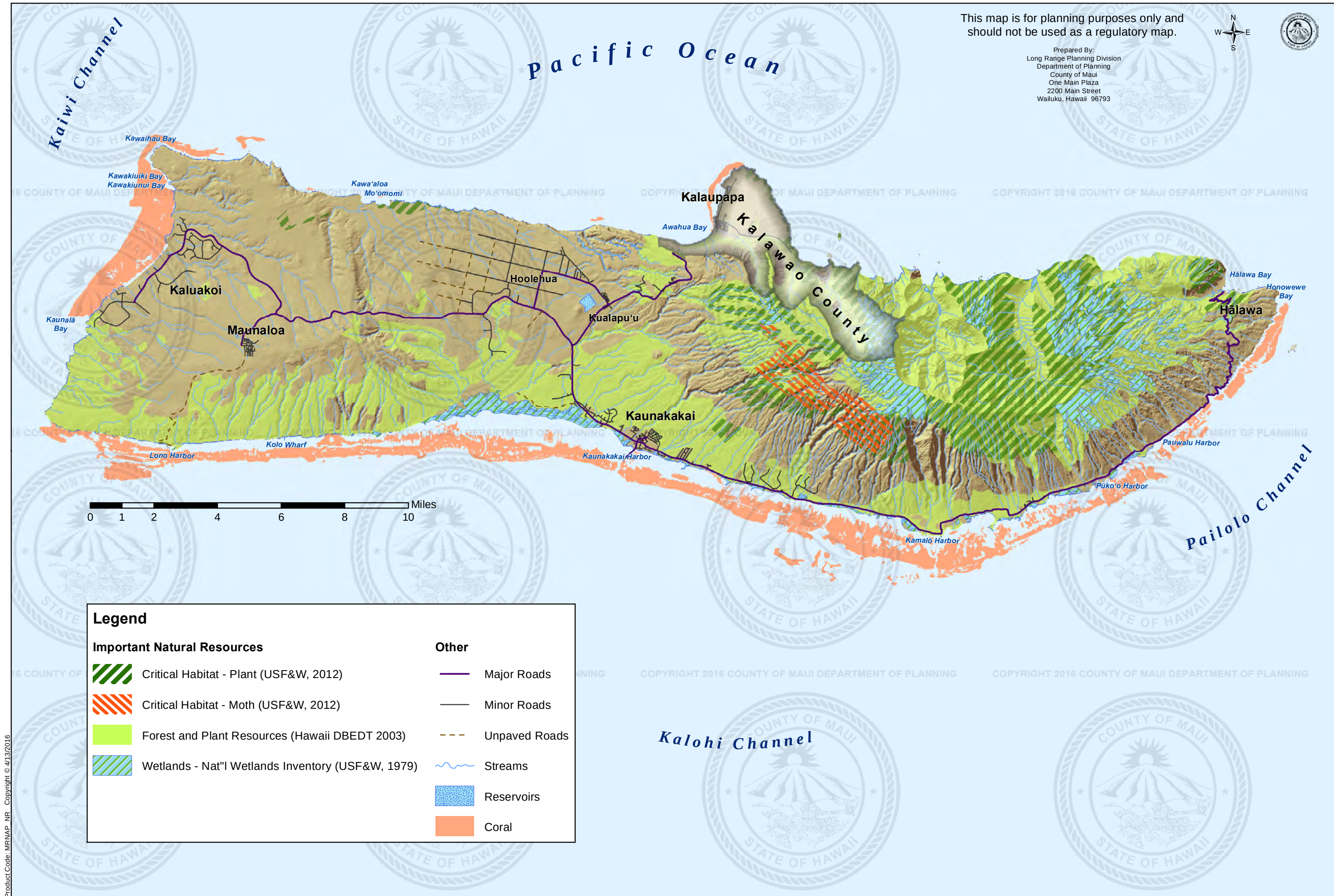
~~Appendix 6.3 East Moloka`i Subarea Description~~

~~Appendix 6.4 Central Moloka`i Subarea Description~~

~~Appendix 6.5 West Moloka`i Subarea Description~~

~~Members of the East End community are updating the East End Policy Statement. This updated subarea description may be submitted to the Planning Department and Moloka`i Planning Commission for review for consistency with County policies and regulations and consideration for inclusion in the draft plan. If the Central Moloka`i and West Moloka`i communities wishes to develop subarea descriptions they also may be submitted to the Planning Department and Moloka`i Planning Commission for review for consistency with County policies and regulations and consideration for inclusion in the draft plan.~~

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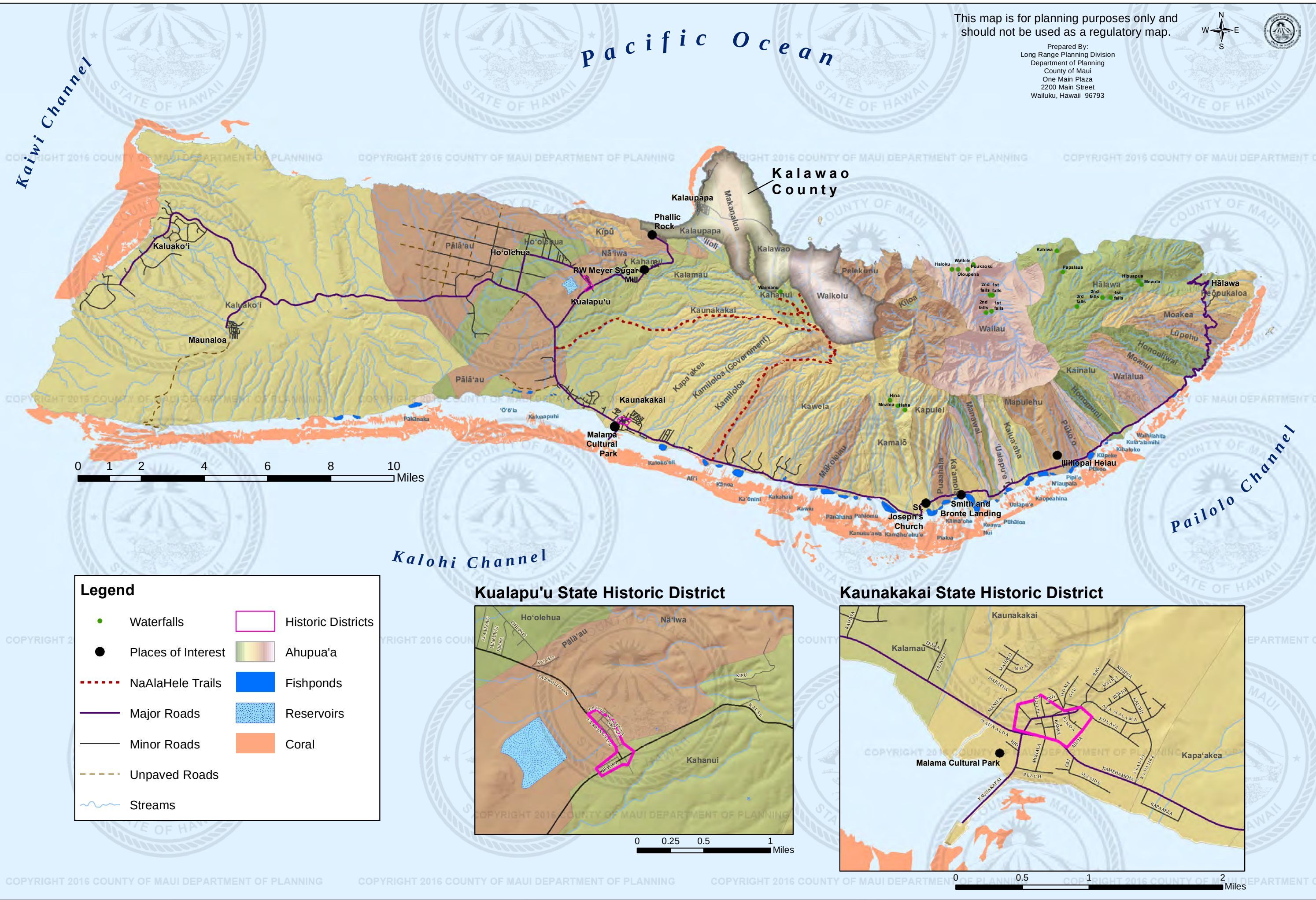


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Legend

Critical Infrastructure

Major Roads

Minor Roads

Other

Hotels

Streams

Reservoirs

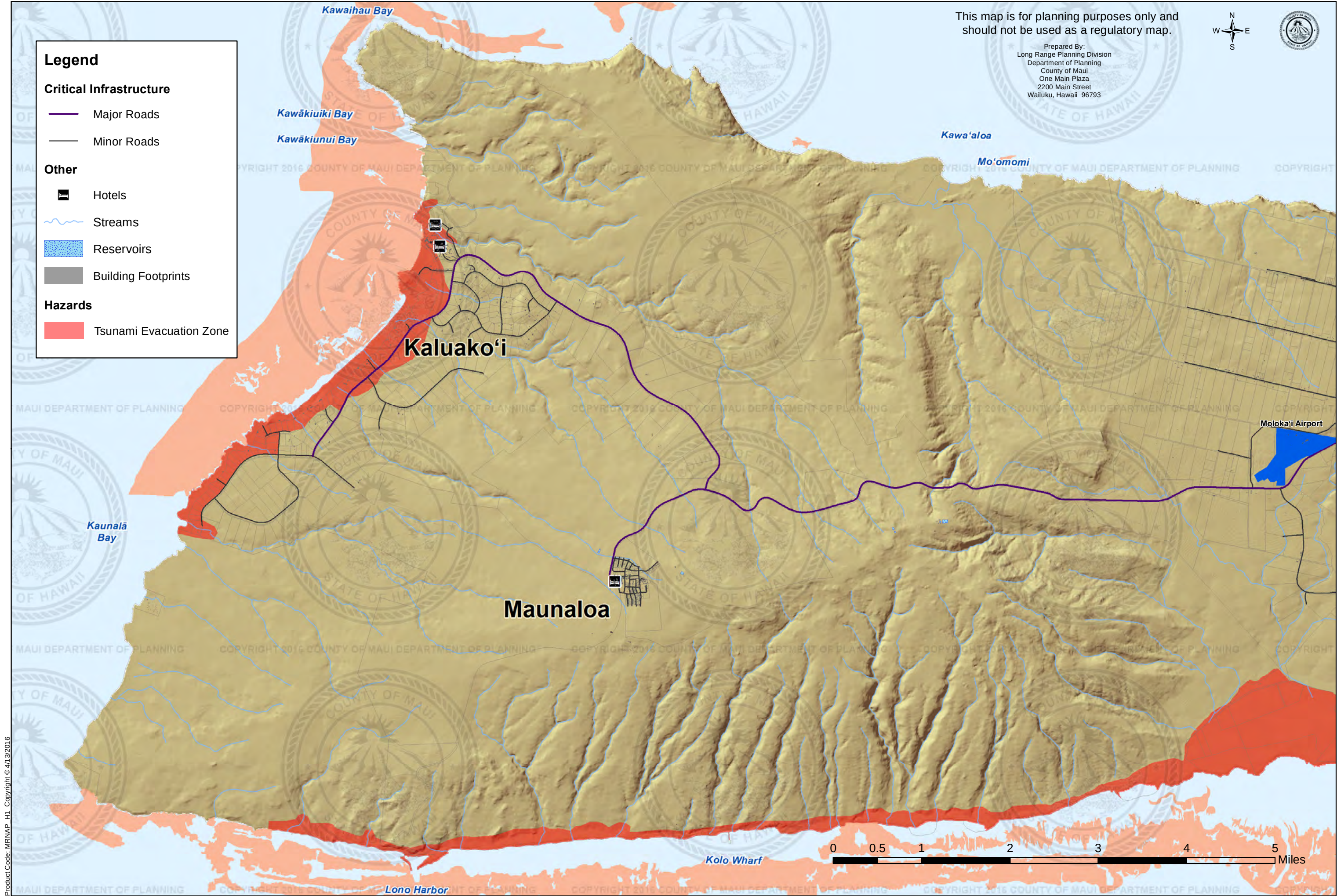
Building Footprints

Hazards

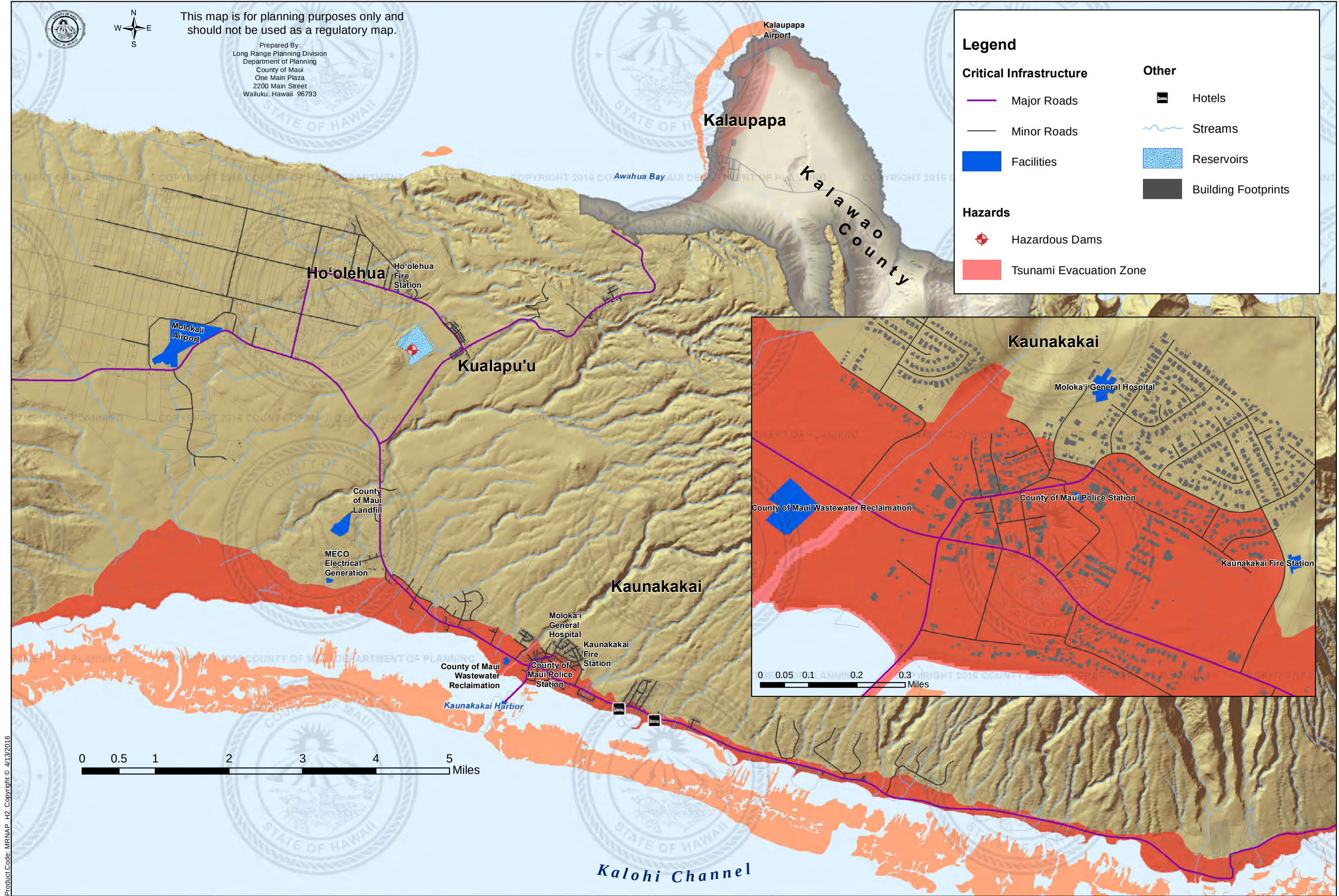
Tsunami Evacuation Zone

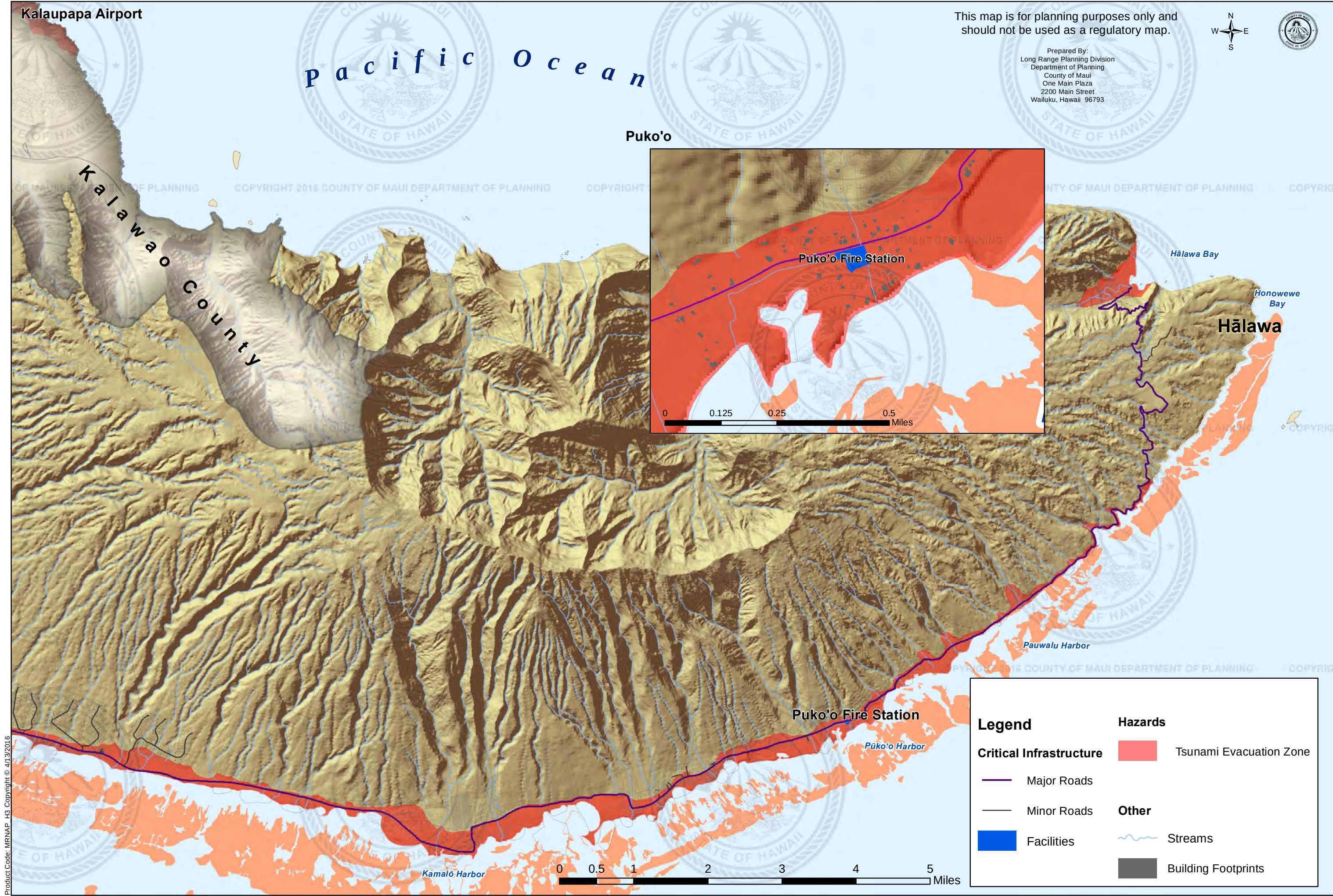
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Map 4.1 Hazards - West

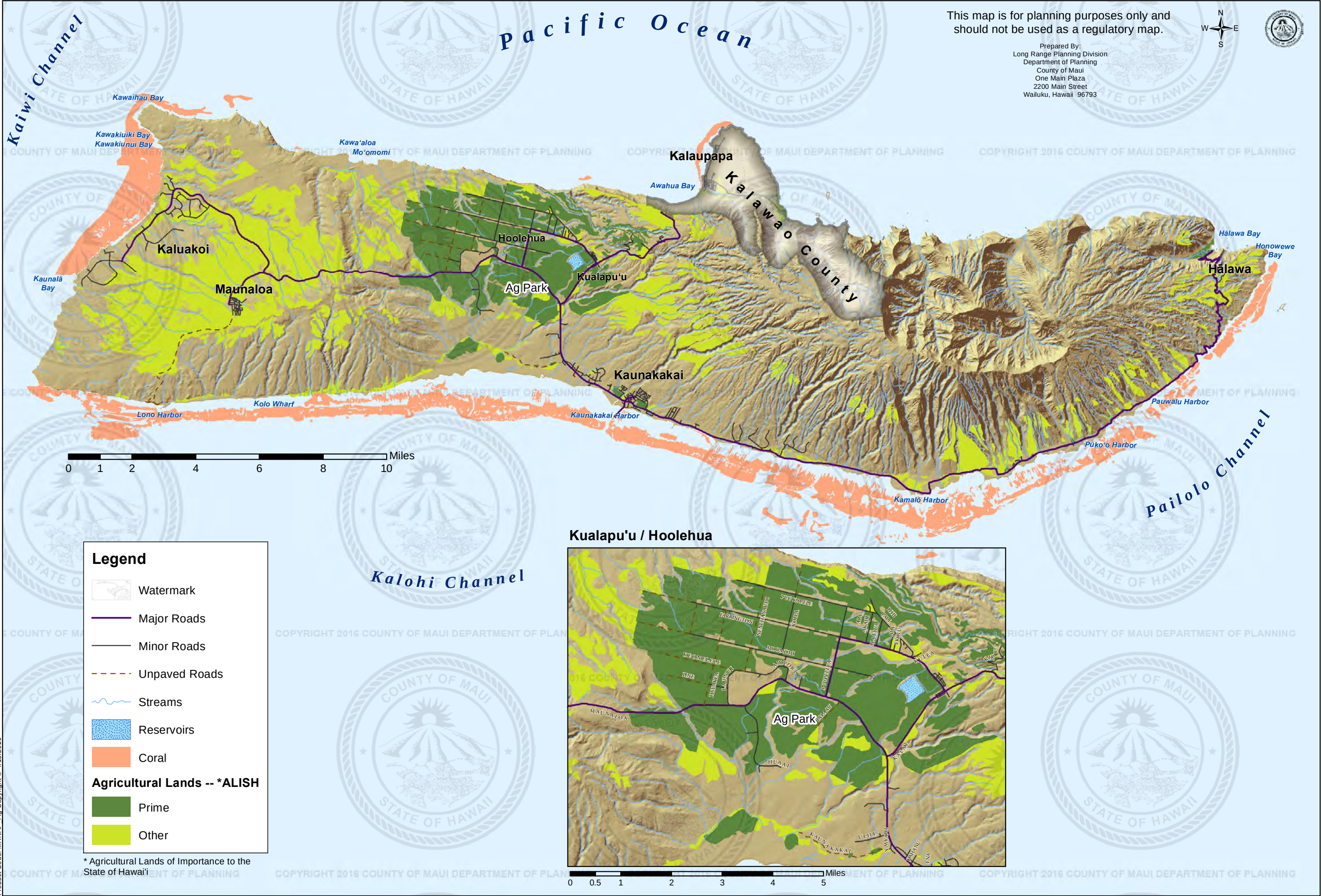




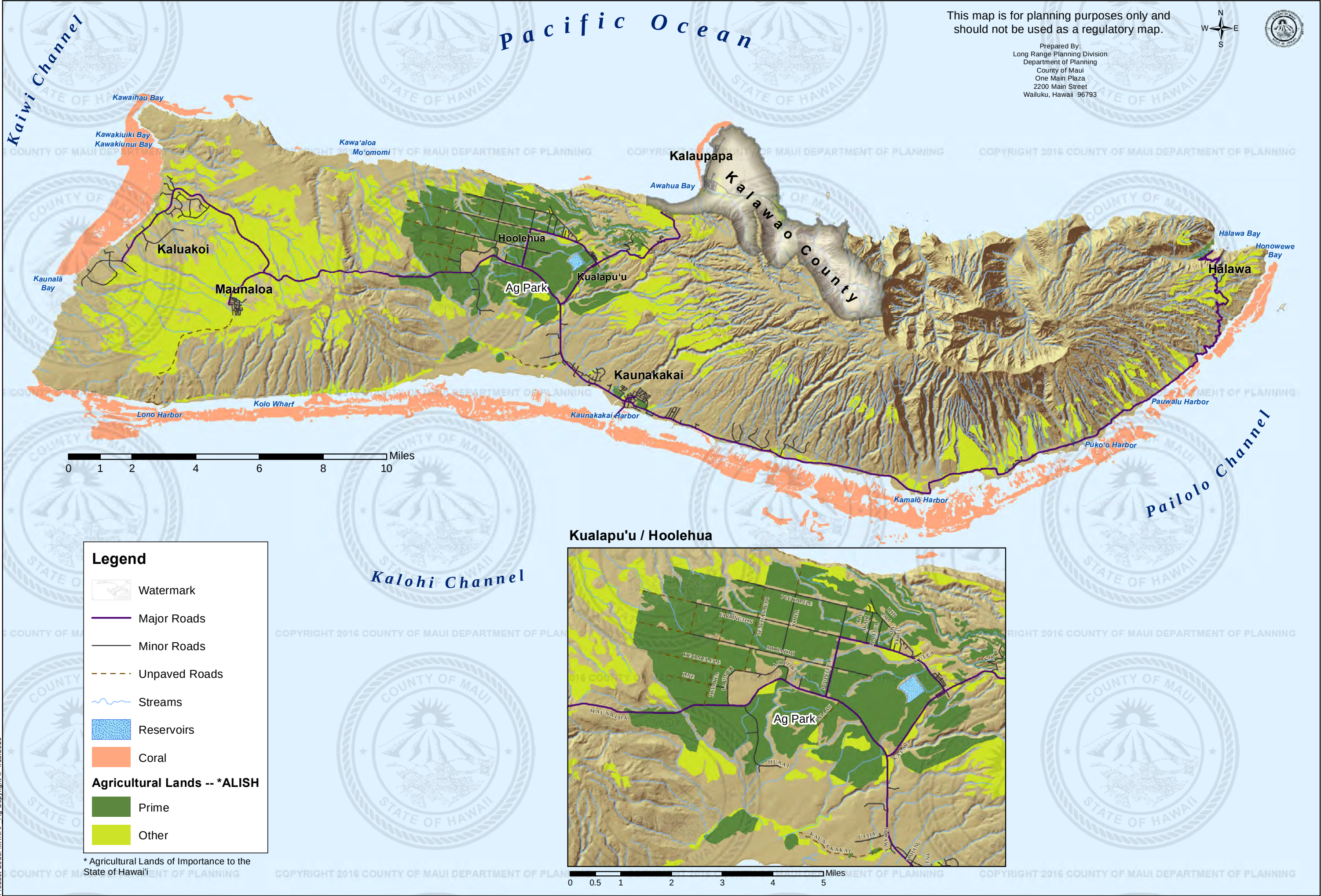
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Map 6.1 Agricultural Resources

Moloka'i Community Plan Update

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Date: May 2016

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Legend

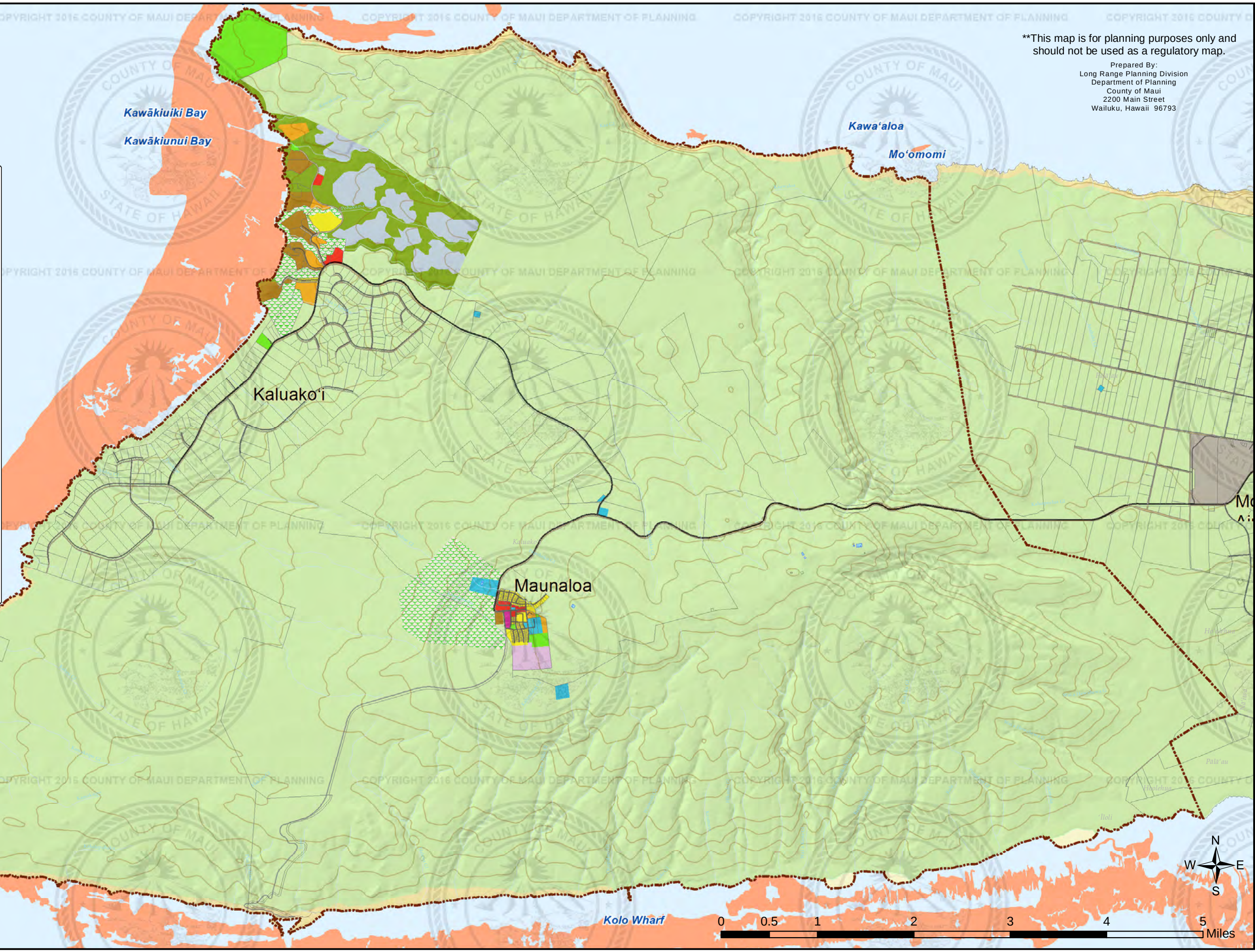
Region
 West

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



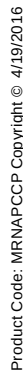
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Map 6.2 Proposed Community Plan Land Use - West Molokā`i Community Plan Update

Planning Department/CPAC/MoPC DRAFT

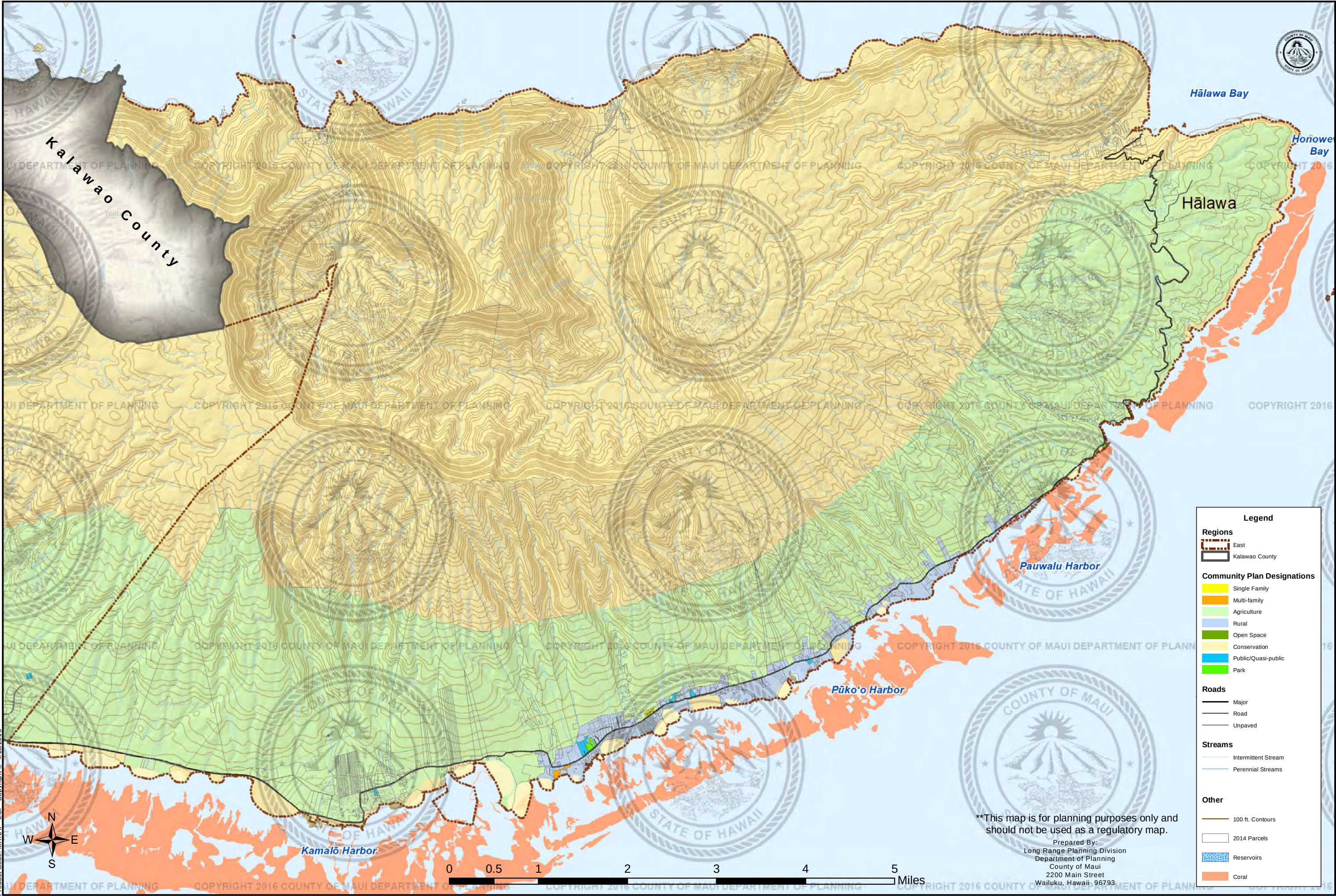
Date: May 2016



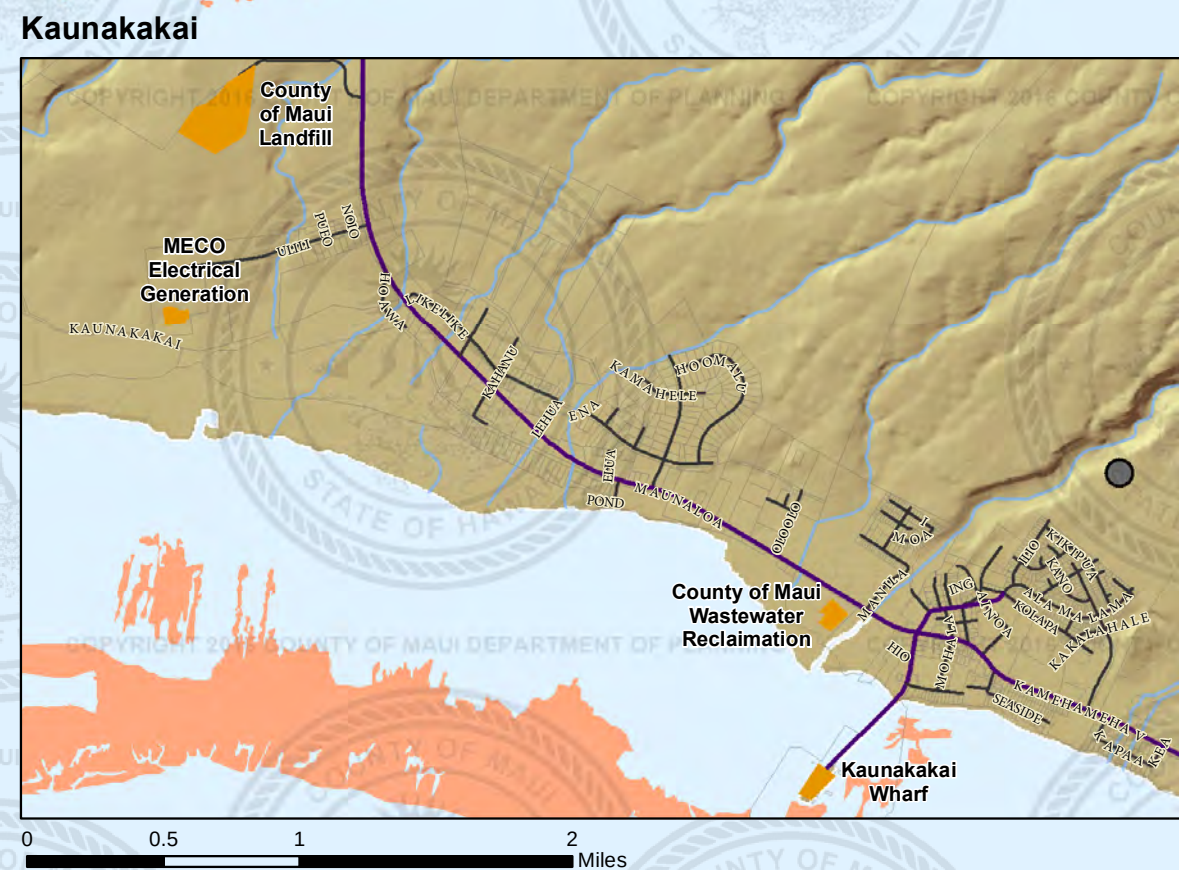
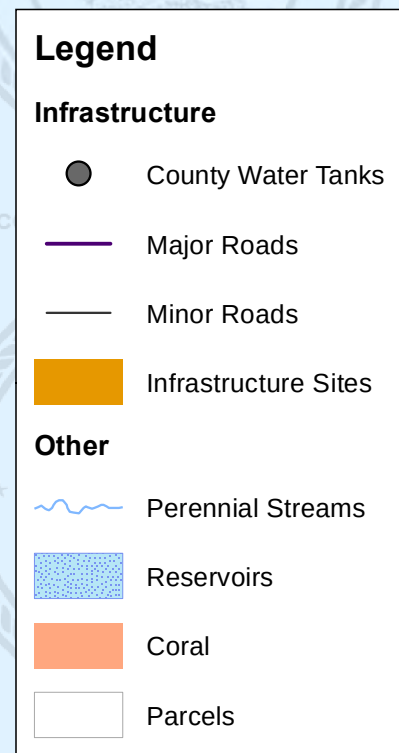
Molokaʻi Community Plan Update

Date: May 2016

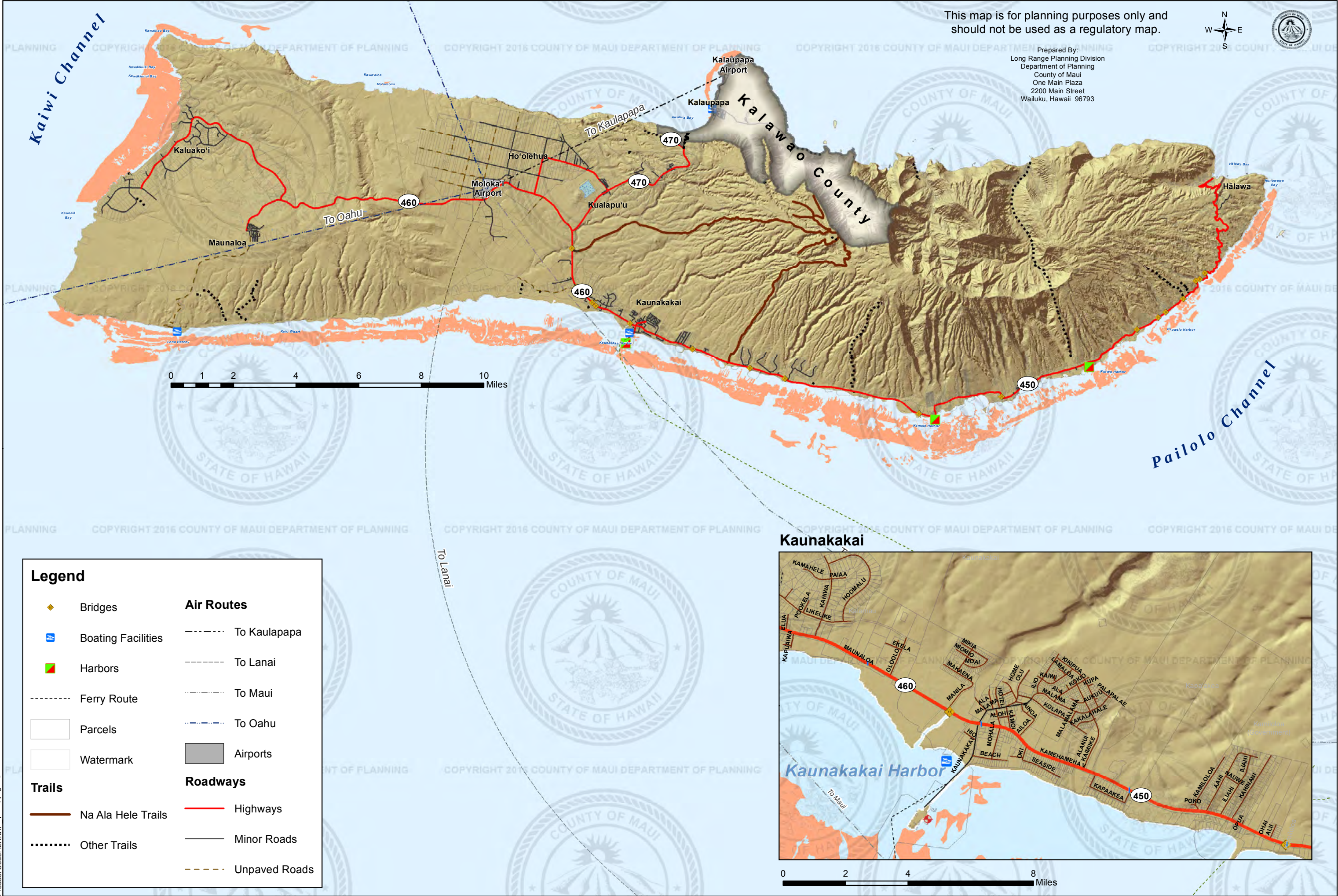
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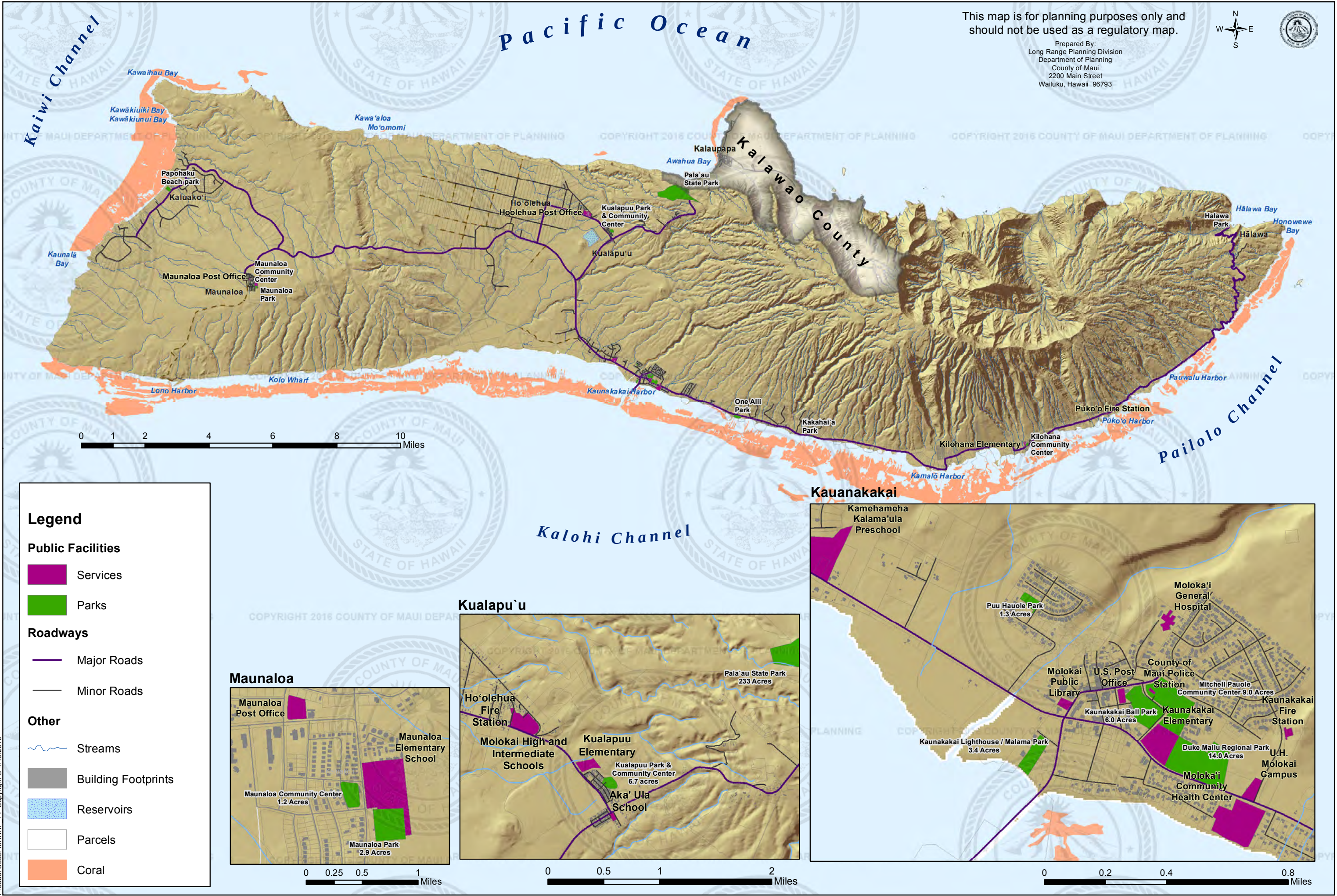
Map 6.4 Proposed Community Plan Land Use - East Moloka'i Community Plan Update



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Map 9.1 Public Facilities

Moloka'i Community Plan Update

Chapter 11

Subarea Descriptions

East End Policy Statement – 2016 edition
Maunaloa Policy

DISCLAIMER

Chapter 11 was added by the Molokaʻi Planning Commission (Commission) at their final Molokaʻi Community Plan Update (Plan) review meeting on March 24, 2016. Per the Commission’s recommendation, this new chapter contains the “East End Policy Statement – 2016 edition” and the “Maunaloa Policy”. The Planning Department (Department) has significant concerns with both of these documents as written and recommends that the documents not be included in the Plan. The Department’s primary concerns include that portions of the documents are inconsistent with the Plan and County policy, and that the documents were not vetted by the community. The “Maunaloa Policy” was submitted to the Commission as testimony at their March 10, 2016 meeting, and was never reviewed at a Commission meeting. The “East End Policy Statement – 2016 edition” was submitted to the Commission as testimony at their final meeting, March 24, 2016. An insufficient number of copies were submitted to the Commission and no public copies were provided, thus the public had no opportunity to review the document. The Department made the Commission aware of the numerous significant concerns; however the Commission voted to include the documents regardless.

In the event of discrepancies between Chapter 11 and Chapters 1 through 10, Chapters 1 through 10 shall control.

Exhibit D
EAST END POLICY STATEMENT – 2016 edition
Updated March 24, 2016

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I. INTRODUCTION AND DESCRIPTION

This East End Policy Statement was prepared by 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 current 2016 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,¹ (na 'e - easterly or windward). East End kupuna 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.² The boundaries are from Makolelau to Hālawa along Moloka'i's South Shore and from 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

¹ Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press.

² United States Department of the Interior Geological Survey Map, Island of Molokai, 1952.

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.

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 kama'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`aina 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.

II. 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

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. Hunting/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 State Department of Land and Natural Resources (DLNR) Watershed Partnership Program, several large landowners in Mana'e holding upland and forested properties, and The Nature Conservancy implemented the Kamalo/Kapualei East Molokai Watershed Partnership (EMoWP) in 1998 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 (attached herein as Appendix A) is to install hunting/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/or 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 Hunting/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

There are no other recommended public facility improvements. However, the Mana'e community wishes to make clear its internal discussions regarding whether or not there is a need for improvements for ocean access from Mana'e (e.g., boat ramp construction). This is necessary to guide the Molokai Planning Commission, the County of Maui Planning Department, the Maui County Council, the Hawai'i 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 Kiole 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 both for and against creating a public boat ramp and associated improvements for more ocean access. Sentiments expressed in preliminary discussions hosted by the 'Aha Kiole 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
- 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.	"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."	"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
• Associated improvements for a boat ramp and deep draft harbor may negatively alter the natural bathymetry through marine excavation; entail the dredging of precious reefs; fill and/or destroy historic fishponds, limu, crab, and fishing grounds; and desecrate underwater heiau (temples). • “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.”	• Need to think outside the box. Consider private boat ramp, rather than public so that there can be better control of what types of boaters may access private boat ramp.	• Boat ramp and deep draft capacity needed to address safety concerns for entry and exit of big boats. • 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
• “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.	•	•

Site-Specific Concerns
1) Manawai
• 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.
2) Puko'o
• 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 Hawaii , 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.
3) North Shore Access
• 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.

4) Kamalo

- No boat ramp in Kamalo.
- There are kama'āina 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.

5) Community Sentiment on Boat Ramps in General in Mana'e

- 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, Maui Planning Department, Molokai Planning Commission and any other appropriate county entity, State and Federal government actors and 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. They reserve the right to undergo their local and customary process of internal decision-making before coming before County, State, and Federal agencies to determine what action is appropriate and feasible 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.).

III. ENVIRONMENT AND NATURAL RESOURCES

Mana'e's environment, rich in natural resources, is a sensitive ecological system 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 the 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 of Moloka'i 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 Molokai residents. The indiscriminate slaughtering of wildlife game should be subject to stiff penalties.

Flooding is common through the many stream beds 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, (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 ground water 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 Mana'e GIS Mapping Project (2008) is incorporated herein as Appendix E. The recommendations made in that report 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* Kupuna 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 Maui County Planning Department with the intent of incorporating it into the updated Moloka'i Community Plan. It provides GPS maps of important natural and cultural resources that warrant greater protection by the County Planning Department and other land use agencies, as well as the Moloka'i Planning Commission.

As stated above, the Mana'e TCP Report (Appendix A) 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 as Appendix F. 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 Molokai Community Plan Update where appropriate.

IV. 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 Molokai, 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 the Hawai'i State Constitution, Article 12, Section 7, 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 the Hawai'i State Constitution, Article 11, Sections 1 and 7, 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 Hawaii’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 Aina, Land Care rather than Land Use, where the aloha dedication and concern given to the aina 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 'uala (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 Hawaii today, and particularly Molokai, one cannot ignore the relative integrity of the East 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 of 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 Federal registers of historic places, including renominating all sites that were dropped from the State Register of Historic Places in 1979. Appendix G provides 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 Catherine Summers Molokai Site Survey book 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 Register 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 mauna 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 State of Hawaii, Department of Land and Natural Resources' conservation regulations, through County zoning, or other appropriate method, including the creation of a Traditional Land Use (TLU) Overlay. As mentioned above, the Mana'e GIS Mapping Project (2008) is incorporated herein as Appendix E and adopted by the Mana'e community in this updated East End Policy Statement for integration as policy and action items within the body of the Molokai Community 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 Hawai'i. Many Mana'e residents, especially the kama'aina, have a strong interconnection with the land and these resources, including for 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 Moloka'i Community 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 Department of Hawaiian Homelands.
- A. Hālawā Valley Hālawā 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 kupuna. 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 Molokai. 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 *kukui* 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's 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'aina have reported that the cave of Hina has collapsed.

Recommendations:

1. Restore Hina's cave.
2. Work with private landowner to cordon the area off and institute appropriate protections from physical damages and deterioration from erosion.
3. for protection from cattle and other sources of erosion
4. Consider institution governmental protections through "Natural Area Reserve" designation or other appropriate measures.
5. Provide responsible and appropriate access for traditional and customary Hawaiian religious and ceremonial practice.
6. This site should not be promoted by the visitory 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 place.

V. SOCIAL AND ECONOMIC RESOURCES

Mana'e is made up of people with a wide 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 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 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 state-wide levels and planning; the County of Maui / Moloka‘i Community 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 that 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, aquaculture, and other small scale industries.
2. A preferred economic development model to follow would be one that makes use of the present natural and social resources available in Mana‘e. The East End residents urge the County of Maui 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 that are 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.

VI. 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) are covered by existing State and County laws and regulations in 2016.

A. Ownership, Titles and Boundaries

Land ownership in *Mana'e* is generally held in two size groups, both of which follow boundaries as 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% 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* land owners 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 Molokai'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 a far greater long-range impacts than might be first anticipated.

VII. A 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. Hawai'i Revised Statute § 1-1 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 *hoa'āina* or kuleana.

A. The 'Aha Kiole: 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.’³

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 their 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

³ Malia Akutagawa, Shaelene Kamaka'ala, Harmonee Williams, et al., OFFICE OF HAWAIIAN AFFAIRS, TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA'E, MOLOKA'I, 47 (2016).

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.⁴

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 Moloka‘i Community 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 of Hawai‘i. 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 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.’⁵

The native people of Mana‘e and Moloka‘i continue to strongly with 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

⁴ 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).

⁵ Akutagawa, Kamaka‘ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA‘E, *supra* note 4 at 58.

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 ones ahupua'a of residence⁶ 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.⁷ 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 regulate out of existence. There are affirmative obligations to protect Hawaiian custom and usage and the resources that Native Hawaiians depend upon.⁸ 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.⁹

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 kīpuka" (rural areas that have maintained cultural understandings and practices)¹⁰ 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

⁶ 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).

⁷ 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).

⁸ Ka Pa'akai O Ka 'Aina v. Land Use Comm'n, 94 Hawai'i 31, 7 P.3d 1068, 1083 (2000).

⁹ FORMAN & SUSAN K. SERRANO, HO'OHANA AKU, A HO'OLA AKU, *supra* note 7, at 17 (citing *Ka Pa'akai*).

¹⁰ DAVIANNA PŌMAIKA'I MCGREGOR, NĀ KUA'ĀINA: LIVING HAWAIIAN CULTURE, 21 (2007).

something is a customary practice or not.’¹¹ According to Dr. McGregor, what 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. Allow the native resources to reproduce. Don’t fish during their spawning seasons.
- 4) Alternate areas to gather, fish and hunt. Don’t keep going back to the same place. Allow the resource to replenish itself.
- 5) If an area has a declining resource, observe a kapu on harvesting until it comes back. Weed, replant and water if appropriate.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.
- 10) Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.
- 11) Share what is gathered with family and neighbors.
- 12) 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.
- 13) Don’t talk openly about plans for going out to subsistence hunt, gather, or fish.
- 14) Respect the resources. Respect the spirits of the land, forest, ocean. Don’t get loud and boisterous.
- 15) Respect family ‘aumakua. Don’t gather the resources sacred to them.¹²”

VIII. 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,

¹¹ Akutagawa, Kamaka’ala, Williams, et al., TRADITIONAL & CUSTOMARY PRACTICES REPORT FOR MANA’E, *supra* note 4 at 7-58.

¹² DAVIANNA MCGREGOR, THE NATURE CONSERVANCY, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, MAKAKUPA’IA AND KAWELA, ISLAND OF MOLOKA’I 16-17 (2006).

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 Hawaii, 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.

Appendix A Traditional and Customary Practices Report
for Mana'e, Moloka'i (February 2016)

Traditional & Customary Practices Report for Mana‘e, Moloka‘i

Traditional Subsistence Uses, Mālama Practices and Recommendations,
and Native Hawaiian Rights Protections of Kama‘āina Families of
Mana‘e Moku, East Moloka‘i, Hawai‘i



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Traditional Subsistence Uses, Mālama Practices and Recommendations,
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Mana‘e Moku, East Moloka‘i, Hawai‘i

February 2016

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APPENDICES

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1. EXECUTIVE SUMMARY

1.1. PROJECT BACKGROUND

Over the years, the people of Mana‘e (East Moloka‘i) have witnessed a notable decline in the health of their watershed. A significant part of this declining health is the degradation of the mauka native forests, which has subsequently had a drastic effect on all of the ahupua‘a of Mana‘e, from mauka to makai. Ensuring the well-being of these mauka areas is essential to the preservation and perpetuation of Native Hawaiian traditional and customary practices carried out in the moku (district), given the symbiotic relationship between the people and their ‘āina. Thus, Mana‘e residents are passionate about protecting their moku and the resources that sustain them. It is their protectiveness of their island – that often puts them at odds with each other in deciding how best to care for her – which is at the core of this report.

In 2013, the East Moloka‘i Watershed Partnership presented the draft East Slope Watershed Start-Up Management Plan (“East Slope Management Plan”) to the Mana‘e community, and proposed the possibility of protecting Mana‘e’s mauka rainforests with an expanded fencing project. That plan was based on the recognition that the degradation of these mauka areas was largely attributable to an influx of habitat altering invasive plant and animal species that have significantly impacted native forests, the life that inhabits them, and the freshwater they foster. The proposed fence has elicited strong reactions from the Mana‘e community – both for and against such a fence. It also has caused some community members to call for additional planning that looks at the entire moku and all of its ahupua‘a, from mauka to makai. In response to these strong reactions, the planning process to create this report was undertaken.

The purpose of this report is to accomplish the following objectives:

- a. Recognize that the people of Mana‘e (East Moloka‘i) regularly exercise Native Hawaiian traditional and customary practices, and document those practices.**
- b. Provide an explanation of Native Hawaiian legal protections pertinent to Mana‘e kama‘āina traditional and customary practices.**
- c. Develop a framework for a community-based Subsistence and Ahupua‘a Management Plan for the Mana‘e Moku, Mauka to Makai.**
- d. Summarize community recommendations for the East Moloka‘i Watershed Partnership’s East Slope Management Plan (January 2014 draft).**

The primary steps taken to reach these goals included:

- Documentation of residents’ traditional and cultural practices in the moku of Mana‘e;
- Gathering mana‘o from key informants (kama‘āina and other experts) regarding how best to protect these resources and practices;

- Analysis of legal protections specific to Mana‘e families exercising Native Hawaiian traditional and customary practices within their moku and ahupua‘a;
- Reconciling varied perspectives and information where possible and finding common areas of agreement in mana‘o shared by Mana‘e families in terms of traditional and modern ‘āina stewardship and ahupua‘a resource management;
- Identifying the recommendations that best incorporate and honor the collective mana‘o, and weaving them into a framework for a community-based Subsistence and Ahupua‘a Management Plan for Mana‘e, Mauka to Makai.
- Summarizing community recommendations for the East Slope Management Plan.

Chapter 2 provides the following information:

- **An overview of the existing management efforts, namely the East Moloka‘i Watershed Partnership (EMoWP)**
- **A synopsis of the key points of the East Slope Management Plan (January 2014 draft)**
- **Community reactions and concerns regarding the East Slope Management Plan**
- **A description of the methods employed in the creation of this plan.**

1.2. FINDINGS

The island of Moloka‘i is historically known as “‘Āina Momona” or “Abundant Land,” referring to the bounty of food that was produced on its fertile lands and the wise governance and stewardship of these lands by the kūpuna who designed and cultivated healthy ahupua‘a for not only themselves, but future generations.¹ Those resources continue to be available today, even if they are not as plentiful. Mana‘e is documented to be one of the most intact cultural and subsistence landscapes within Hawai‘i.² An overwhelming number of kama‘āina informants shared the sentiment that subsistence is “Very Important” for their family.³ In addition, every ahupua‘a in Mana‘e was identified as having various cultural, religious, and subsistence values, which indicates the extent and level of dependence that Mana‘e residents have on their resources.⁴ It is clear that the entire moku of Mana‘e is vital to the subsistence lifestyle of its community and island residents. At the same time, the people of Mana‘e have witnessed a significant decline in the health and abundance of their ahupua‘a resources, mauka to makai, which they are anxious to remedy.

Thus, any proposed conservation approach must take into account potential impacts to the subsistence lifestyle of Mana‘e residents. This chapter (3) includes an overview of the important traditional and customary practices and the resources those practices are dependent on, as identified by the kama‘āina informants interviewed for this project. It consists of the following sections:

- **Significant Cultural Sites and Trails**
- **Nearshore Fisheries: Fishponds, Reefs, Estuaries, and Ocean Gathering Areas**
- **Hunting**
- **Degrading Watershed Health**

In addition, there is an overview of the community feedback in response to the East Slope Management Plan (January 2014 draft), and their thoughts on the proposed fencing. Based on what was presented in that draft Plan and what was shared by community in response, there are essentially five (5) primary ways this conservation effort could be pursued, which are described here, along with the main points heard regarding these options:

- **Proposed Fencing: Pua‘ahala to Hālawā**
- **Alternative 1: Fencing with Pākaikai Corridor**
- **Alternative 2: No Fence**
- **Alternative 3: Mauka-Makai Fencelines**
- **Alternative 4: Lowered Fenceline**

Finally, there was some feedback related to the fence that is summarized in the sub-section entitled: **Additional Community Mana‘o Regarding Fencing.**

1.3. LEGAL FRAMEWORK AND ANALYSIS

This chapter presents the legal framework and analysis that provides the basic legal foundation for Native Hawaiian rights law. It describes relevant constitutional and statutory provisions, as well as the body of common law developed from Hawai‘i Supreme court decisions on Native Hawaiian rights. This legal section is divided into specific areas of the law that correspond to mana‘o shared by Mana‘e kama‘āina informants. This mana‘o is analyzed within the context of the proposed expansion of the East Moloka‘i Watershed Partnership (EMoWP). It covers traditional subsistence activities in Mana‘e, religious and ceremonial protocols, and efforts to mālama ‘āina, in the following sections:

- **‘Aha Moku and Traditional Resource Management**
- **Sources of Native Hawaiian Rights Law**
- **Trails and Traditional Access**
- **Native Burials and Historic Sites Preservation**
- **Water Rights and the Public Trust Doctrine**
- **Subsistence Hunting – An Emergent Cultural Practice and Right**
- **The Value of Integrating Traditional Ecological Knowledge (TEK) in Natural Resource Management**

1.4. RECOMMENDATIONS

This final chapter focuses on the last two objectives of this report:

- **Develop a framework for a community-based Subsistence & Ahupua‘a Management Plan for the Mana‘e Moku, Mauka to Makai.**
- **Summarize community recommendations for the East Slope Management Plan.**

The majority of the kama‘āina informants interviewed do support a fence, as long as it is done with additional management efforts that are based on Native Hawaiian mālama ‘āina values and

traditional ahupua‘a land management practices. From the mana‘o that was shared, the following overarching/foundational principles were identified:

- **Look at and consider the entire ahupua‘a, from mauka to makai.**
- **Allow each ahupua‘a to implement their vision for their place.**
- **Ensure access for Native Hawaiian traditional and customary practices.**
- **Implement management strategies incrementally, observe impacts, and make adjustments accordingly.**
- **Conservation efforts should include the hiring of local people and the utilization of community members in resource management.**

It is important to acknowledge that some informants are opposed to the utilization of a fence as any part of the conservation effort (reasons detailed within report). Most of those in opposition to the proposed fencing shared their ideal scenario, whereby a fence or some type of barrier would not be needed, and the people of Mana‘e could reclaim their traditional kuleana, both their rights and responsibility, to mālama (care for and manage) their land themselves. However, as many of these same informants have expressed, there are numerous challenges that make this proposition difficult.

With this in mind, the recommended approach aims to honor all mana‘o that was shared, and to weave it together into one unified framework for a community-based Subsistence and Ahupua‘a Management Plan for the Mana‘e Moku. In addition, this report aims to strike a balance between modern conservation techniques and traditional Native Hawaiian land management practices.

Thus, it is recommended that fencing should be utilized as part of the conservation effort. However, in line with much of the input provided by the community, fencing alone is not enough. A larger Subsistence and Ahupua‘a Management Plan should be written and implemented, and the East Slope Management Plan should be implemented with these community recommendations in mind, and through open dialogue with the community.

The recommendations are presented in the following sections:

- **Framework for a Subsistence & Ahupua‘a Management Plan for the Mana‘e Moku, Mauka to Makai**
- **Community Recommendations for East Slope Management Plan**
- **Next Steps.**

¹ *A Mau A Mau (To Continue Forever): Cultural and Spiritual Traditions of Moloka‘i* (Nālani Minton and Nā Maka O Ka ‘Āina 2000) [hereinafter *A Mau A Mau*].

² COUNTY OF MAUI, MANA‘E GIS MAPPING PROJECT (2008) (on file with author).

³ *See infra* Part 2.5.2.

⁴ *See id.*

2. PROJECT BACKGROUND

2.1. PURPOSE

Over the years, the people of Mana‘e (East Moloka‘i) have witnessed a notable decline in the health of their watershed. A significant part of this declining health is the degradation of the mauka native forests, which has subsequently had a drastic effect on all of the ahupua‘a of Mana‘e, from mauka to makai. Ensuring the well-being of these mauka areas is essential to the preservation and perpetuation of Native Hawaiian traditional and customary practices carried out in the moku (district), given the symbiotic relationship between the people and their ‘āina. Historically, the numerous ahupua‘a of Mana‘e were very healthy and abundant with intact native forests that captured and stored rainfall to feed the aquifer, streams, springs, ‘auwai, fishponds, and estuaries. While these lands have become degraded over time, the ‘āina continues to support hunting, fishing, and gathering practices of Mana‘e families, which continue to be carried out regularly today. Thus, Mana‘e residents are passionate about protecting their moku and the resources that sustain them. It is their protectiveness of the land – that often puts them at odds with each other in deciding how best to care for her – which is at the core of this report.

In 2013, the possibility of protecting Mana‘e’s mauka rainforests with a fence was proposed to the community through the draft East Slope Watershed Start-Up Management Plan (“East Slope Management Plan”). That plan was based on the recognition that the degradation of these mauka areas was largely attributable to an influx of habitat altering invasive plant and animal species that have significantly impacted native forests, the life that inhabits them, and the freshwater they foster. The proposed fence has elicited strong reactions from the Mana‘e community – both for and against such a fence. It also has caused some community members to call for additional planning that looks at the entire moku and all of its ahupua‘a, from mauka to makai. In response to these strong reactions that consisted of a broad spectrum of opinions, the planning process to create this report was undertaken. (Note: a more detailed description of how this plan came to be is included in Section 2.4.)

The purpose of this report is to accomplish the following objectives:

- a. Recognize that the people of Mana‘e (East Moloka‘i) regularly exercise Native Hawaiian traditional and customary practices, and document those practices.**
- b. Provide an explanation of Native Hawaiian legal protections pertinent to Mana‘e.**
- c. Develop a framework for a community-based Subsistence and Ahupua‘a Management Plan for Mana‘e Moku, Mauka to Makai.**
- d. Summarize community recommendations for the East Moloka‘i Watershed Partnership’s East Slope Management Plan (January 2014 draft).**

The primary steps taken to reach these goals included:

- Documentation of residents’ traditional and cultural practices in the moku of Mana‘e;
- Gathering mana‘o from key informants (kama‘āina and other experts) regarding how best to protect these resources and practices;

- Analysis of legal protections specific to Mana‘e families exercising Native Hawaiian traditional and customary practices within their moku and ahupua‘a;
- Reconciling varied perspectives and information where possible and finding common areas of agreement in mana‘o shared by Mana‘e families in terms of traditional and modern ‘āina stewardship and ahupua‘a resource management;
- Identifying the recommendations that best incorporate and honor the collective mana‘o, and weaving them into a framework for a community-based Subsistence and Ahupua‘a Management Plan for Mana‘e, Mauka to Makai; and
- Summarizing the community recommendations for the East Slope Management Plan.

It should be noted that the project area for this report is significantly larger than that of the East Slope Management Plan. For the purposes of that Plan, the “East Slope” is defined as the lands that “lie above the Forest Reserve boundary line between and including the ahupua‘a of Pua‘ahala to Hālawā.” The project area for this report is extended to include (a) all areas makai of the Forest Reserve boundary from Pua‘ahala to Hālawā, (b) west of Pua‘ahala to Kamalō, and (c) the north shore, west of Hālawā to Pelekunu. Essentially, this is what was traditionally known as the “moku of Ko‘olau.”⁵

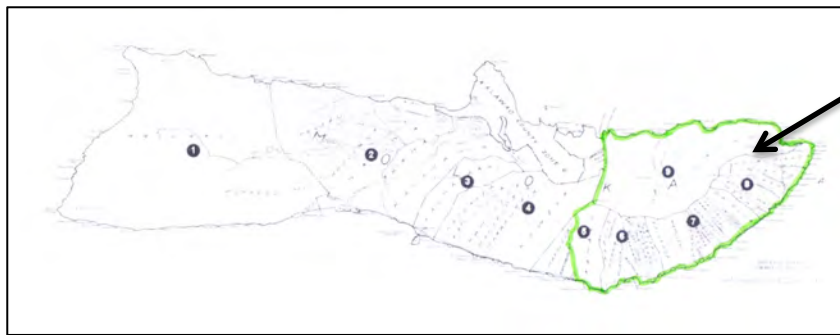


Figure 1. Map of Approximate Project Area: Moku of Ko‘olau/Mana‘e.

Note: Going forward in this report, “Mana‘e Moku” generally refers to this entire area.

The reason for including the north shore (northeast) ahupua‘a in this report is that the kama‘āina informants expressed that what happens on the south shore may impact the north (e.g., migrational patterns of ungulates). They also shared that the mauka-makai trails that span south to north shore might be affected by the fence, which could present access issues. Additionally, the kama‘āina informants expressed a reliance on resources located in the northeast and southeast shore, and that access between the two sides is critical. Thus, it became clear that Mana‘e could not be separated from the north shore, given the interaction and interdependence.

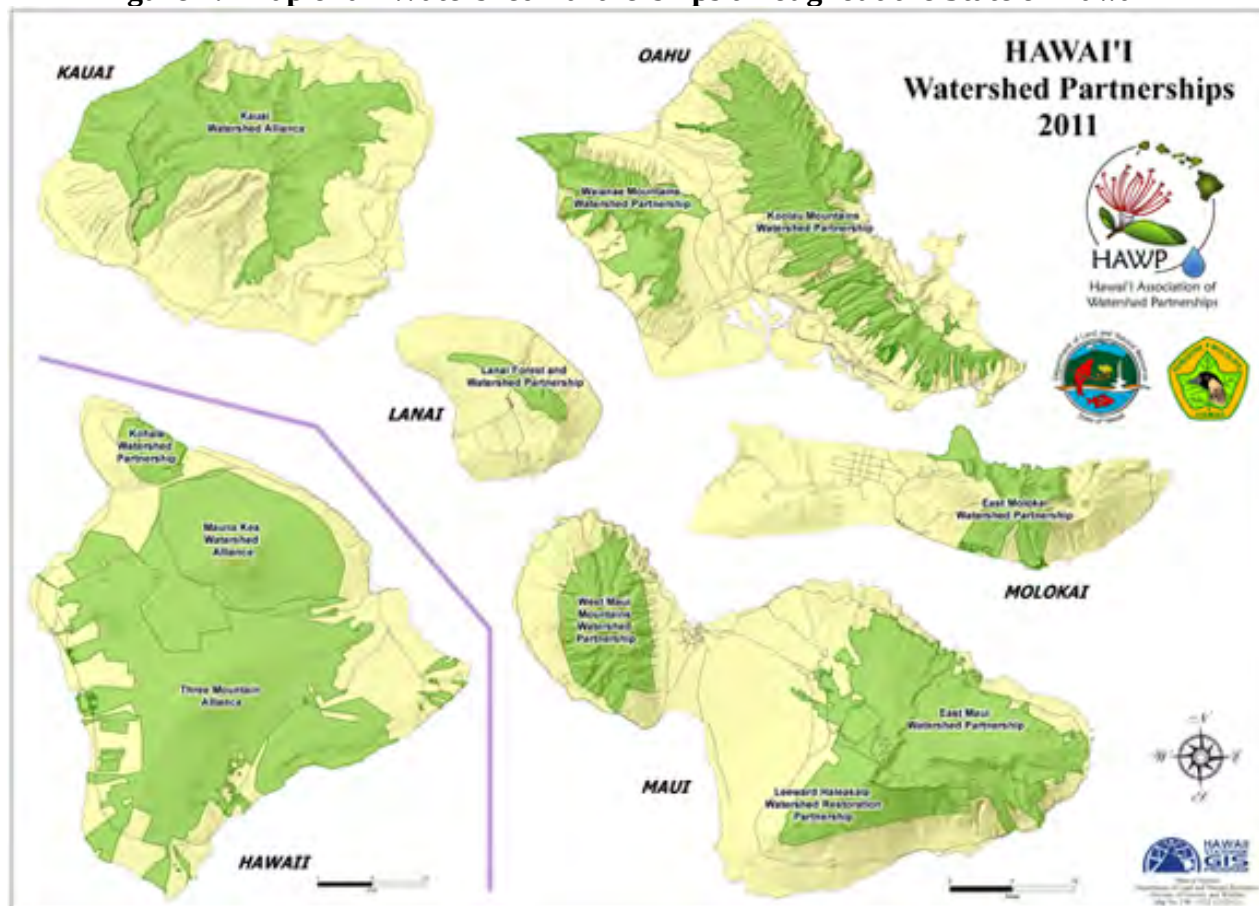
“Mana‘e” is the traditional and colloquial reference to East Moloka‘i. Literally, Ma-na‘e translates as “towards or to the east.” Kama‘āina of Mana‘e typically demarcate the boundaries of the district of Mana‘e as beginning from Kamalō ahupua‘a (southeast), extending to the northeastern most tip of the island known as Hālawā ahupua‘a.⁶ Many families of Mana‘e trace their genealogies back to the northeast ahupua‘a (especially Pelekunu and Wailau valleys). In ancient times, the highest concentration of Moloka‘i’s population was located in the northeast ahupua‘a due to access to the island’s major water tributaries and ideal conditions for wetland taro cultivation, the staple food of early Hawaiians. As foreigners began to settle in Hawai‘i during the Kingdom and U.S. Territorial period, the centers of early commerce on Moloka‘i began in Mana‘e, specifically in the southeast ahupua‘a of Puko‘o and Kamalō. As a result,

many of the north shore families of the Ko‘olau (windward) region relocated to the southeast shore, yet still maintained cultural practices on both sides of the island.

2.2. THE EAST MOLOKA‘I WATERSHED PARTNERSHIP

This section provides an overview of the existing management efforts relating to and including the East Slope Management Plan. In an effort to protect the watershed areas of Moloka‘i, the East Moloka‘i Watershed Partnership (EMoWP) was created in 1999 to “maintain a healthy watershed that would sustain the future quality and quantity of Molokai’s water supply as well as benefit Hawaii’s native flora, fauna and ecosystems.”⁷ The EMoWP is part of the Hawai‘i Association of Watershed Partnerships, which comprises 11 island-based Watershed Partnerships throughout Hawai‘i. These partnerships work collaboratively with more than 71 public and private partners on 6 islands to protect over 2.2 million acres of vital forested watershed lands. Each of these partnerships is a voluntary collaboration between the State and private landowners who are committed to protecting forested lands that provide for water recharge, the conservation of finite resources, and the promotion of healthy ecosystems through collaborative management. The first official watershed partnership began in East Maui in 1991 and grew to include projects on all major islands in the state (see Figure 2 below).⁸

Figure 2: Map of all Watershed Partnerships throughout the State of Hawai‘i



Source: <http://hawp.org/partnerships/>

The Nature Conservancy (“TNC”) and a grassroots community effort, which eventually led to Moloka‘i’s designation as a USDA Enterprise Community (EC), played key roles in the formation of the partnership and helped carry out its first project, the Kamalō/Kapualei Watershed Project (“KKWP”). Watershed protection received the most community votes and the KKWP was the first priority project to be funded by the EC. The hallmark initiative was completed in 2001 with the establishment of the 5.5-mile KKWP fence. Since this time, the EMoWP has grown to 24 partners, which include landowners, community and conservation groups, and funders who support actions to improve and take care of Molokai’s native forests. It is a voluntary alliance, of which TNC is the coordinator. The EMoWP currently protects over 30,000 acres of watershed, including north and central Moloka‘i, extending east to the ahupua‘a of Kapualei. The EMoWP, in partnership with TNC, has utilized the method of fencing in strategic locations of mountainous regions in designated watershed management units to protect pristine native forests from grazing pressure by introduced ungulates (goat, deer, and wild pig).⁹

In the 15 years since the inception of the Kamalō/Kapualei fence project, the protected native forest has shown visible signs of recovery and regrowth. In Kawela alone, erosion has been reduced 10-fold and vegetation has gone from 0% to 75% cover (most of which is native) in just 5 years of fencing and animal control in Kawela’s most denuded areas.¹⁰ The EMoWP is looking to expand its efforts and areas of protection further east from the adjacent ahupua‘a at Pua‘ahala to the easternmost ahupua‘a of Hālawa (located within the moku of Mana‘e. See map on page 10). Many large landowners in East Moloka‘i have requested and/or agreed to have their lands be included as part of this conservation effort.¹¹ The project as currently proposed would encompass approximately 14,000 acres of native forests located in the upper watershed areas with fencing material. This ambitious and extensive project has the potential to impact the rural Mana‘e community whose livelihood is largely dependent on subsistence hunting, fishing, and gathering. Mana‘e families have communicated both their hopes and fears as to how the extended fenceline may either benefit or hinder traditional practices.

Overarching Management Goals for the EMoWP

The guiding management goals for the EMoWP, including the draft East Slope Management Plan, are founded upon the understanding that East Moloka‘i’s native ecosystems are important to the water resources for the island; that active management of these native ecosystems is necessary to maintain healthy watersheds in order to sustain the future quality and quantity of Moloka‘i’s fresh water supply; and that effective management of these resources is best achieved through the coordinated actions of all major landowners in the watershed.¹²

The EMoWP’s overarching management goal is to protect watershed integrity through the management and restoration of biological diversity in partnership lands. TNC coordinates this partnership and aims to accomplish this goal through management efforts in designated areas to: control non-native plant and animal species in designated management areas; monitor these control efforts; conduct native plant restoration; prevent and reduce wildfire; perform community outreach, and; support coastal research and management activities along East Molokai’s south shore and fringing reefs.¹³ It is within this framework that the draft East Slope Management Plan (January 2014 draft) is presented.

2.3. SYNOPSIS OF THE KEY POINTS OF THE “EAST SLOPE WATERSHED START-UP MANAGEMENT PLAN”

The January 2014 draft East Slope Management Plan, while basically extending the fenceline (through implementation of new fenced units) along the remaining Mana‘e ahupua‘a, shares the same overarching management goal as the rest of the EMoWP – to protect watershed integrity through the management and restoration of biological diversity in partnership lands.¹⁴

The East Slope Management Plan’s **Guiding Management Goals** for resource management include:

1. Control ungulate populations in watershed management units.
2. Control invasive plants and prevent the establishment of new invasive plant species in watershed management units.
3. Monitor watershed health.
4. Improve watershed management units via native biological diversity restoration.
5. Protect rare species within watershed management units through maintaining habitat and ecosystem health.
6. Prevent or suppress wildfires in watershed management units.
7. Strengthen community understanding and support for the protection and management of the East Molokai watershed.

Stephanie Dunbar-Co, *East Slope Watershed Start-Up Management Plan* 1-2 (Jan. 2014 draft).

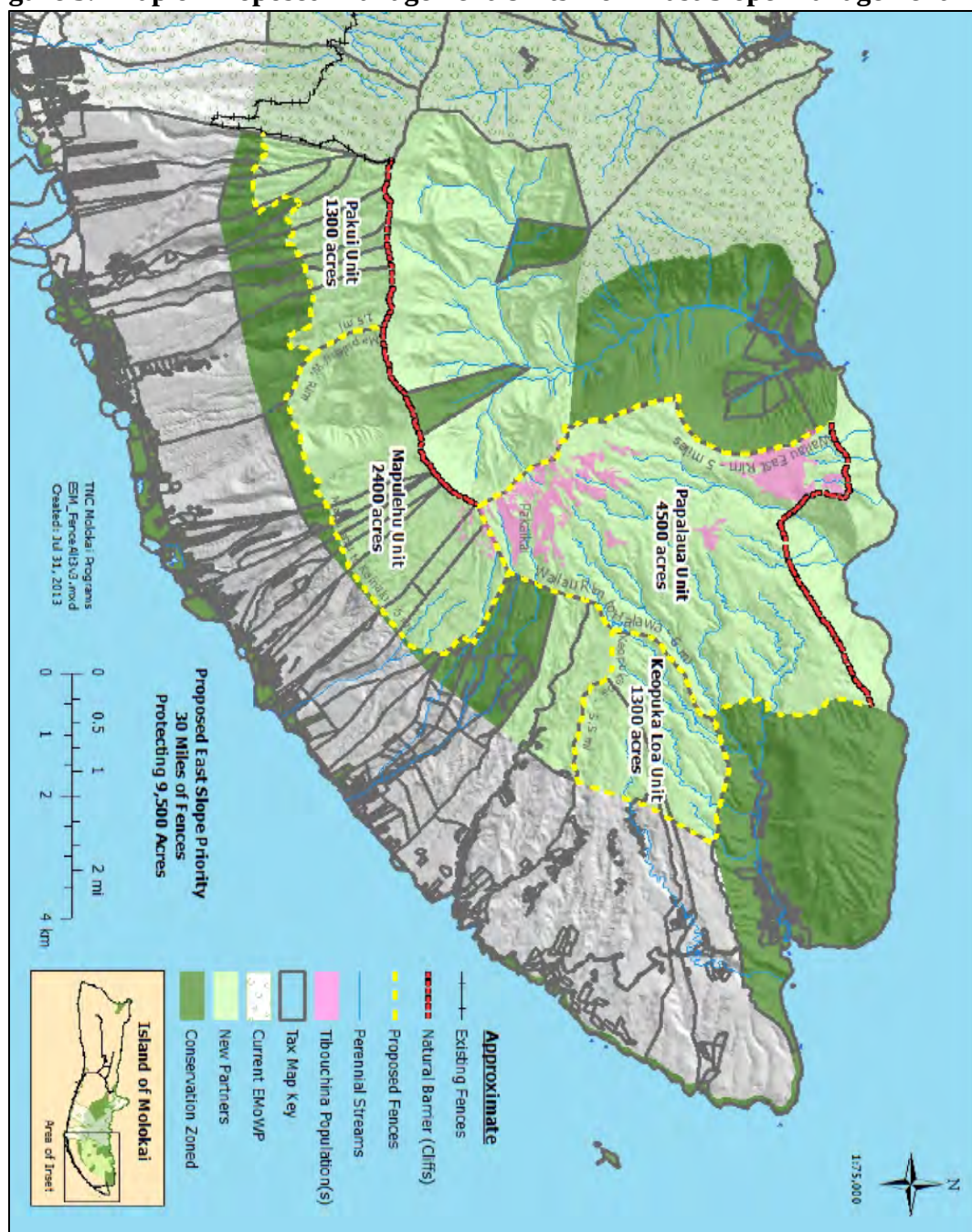
In the early stages of planning, the East Slope Management Plan proposed to erect four fencing units for watershed protection. These units were chosen because “they are hydrologically important, based on rainfall and surface water yields and ... are classified as [State] priority watershed areas ... contain[ing] the best remaining examples of intact, upland, native forest in East Molokai.”¹⁵ The proposed Management Units were prioritized as follows:

Table 2.1: Summary of Proposed Management Units from East Slope Management Plan

Unit	Estimated Size	Location (ahupua‘a)	Notes from East Slope Management Plan
Pāku‘i	1,300 acres	Pua‘ahala to Kalua‘aha	Contains the most continuous, intact sections of native, mauka forest in the East slope.
Mapulehu	2,400 acres	Mapulehu to Pūniu ‘Ōhua	Mix of native & degraded areas. A number of threatened & endangered single-island endemic species occur in the unit.
Keopuka Loa	1,300 acres	Honouli Malo‘o & Keopuka Loa	Maka‘ele‘ele stream originates in this unit, which is the main source of freshwater for Hālawā residents. Pāpio stream provides water to Pu‘u O Hoku Ranch. Mauka sections have intact native forest.
Pāpalaua	4,500 acres	Waialua to Hālawā	Owned entirely by Pu‘u O Hoku Ranch. Too large, needs to be broken into sub-units. Forest health varies. Substantial degradation in Pakaikai, along eastern rim of Wailau, and behind Kahiwa Falls.

*It should be noted that the community input gathered for this report was based on these proposed four units. However, The Nature Conservancy (the implementers of the East Slope Plan), has since narrowed their focus to the first priority unit of Pāku‘i. This is in-line with what some kama‘āina informants recommended – that the plan should be implemented incrementally so the impacts of the first unit can be observed and then adjustments can be made as needed to the subsequent units.

Figure 3. Map of Proposed Management Units from East Slope Management Plan



Source: East Slope Watershed Start-Up Management Plan (January 2014 draft)

Background and community outreach efforts for East Slope Management Plan

Although this report is intended to gather community input on the East Slope Management Plan, this does *not* imply that EMoWP or TNC did not do community outreach, which they did. Instead, it is only intended to augment what they have done, including looking at aspects that are beyond their scope, such as the areas makai of the upper native forests. What follows is a brief summary of how the community has been involved, before and throughout the East Slope planning process thus far (provided by EMoWP/TNC).

- From 1999 to 2013 the EMoWP managed approximately 30,000 acres, including much of north and central Moloka‘i, and east to Kapualei (map below). The majority of the remaining native forest that is not being protected on Moloka‘i is located in Pua‘ahala to Hālawā (the “East Slope”) and provides a significant amount of the island’s fresh water. Some Mana‘e mauka landowners wanted to see expanded protection of these native forests, so the EMoWP pursued the development of the East Slope Management Plan.
- The East Slope fenceline was first proposed to the community at the ‘Aha Kiole o Moloka‘i meeting on April 2, 2013. Since that meeting, the EMoWP/TNC has worked with the ‘Aha Kiole o Moloka‘i to put on and participate in five community meetings to present the project to the community and receive feedback.
- Since 2013, EMoWP has taken almost 40 community members on over 20 helicopter flights of the East Slope. They have met individually with over 50 community members (typically multiple times) to discuss the project.
- Since April 2013, information/updates and requests for participation in the East Slope planning process have appeared in Nature’s NewsFlash, TNC Molokai’s semi-annual outreach publication, which is sent to all post office and mailbox holders on the island.
- In May 2013, TNC initiated coordination of the Mana‘e Mauka Working Group (MMWG), a community group that was formed to help advise the East Slope planning process. The group is made up of 12 Mana‘e residents with long standing ties to the area, its people, and its resources. The group has held nine meetings thus far and continues to communicate regularly via meetings and/or email updates to discuss project details and provide community perspective.
- In October 2014, EMoWP/TNC coordinated an inter-generational community discussion on the East Slope Management Plan to provide community perspective and to help inspire others to be a part of this work. Billy Akutagawa, Malia Akutagawa, William “Tubz” Kalipi, Hano Naehu, Justin Luafalemana, and Heather Place participated. The discussion was filmed and is currently being aired on Akaku, Maui County’s public access community television.
- Between November 2014 and January 2015, TNC developed and distributed outreach folders with easy to read information on the East Slope Management Plan (current status and future direction), EMoWP, TNC, resource protection, and requests for input and participation. Folders were first given to residents of the ahupua‘a that make up the Pāku‘i Unit, and then handed out more broadly, directly engaging 90+ community members. Folders were intended to support previous one-on-one community interactions and reach community members who either didn’t attend or stopped attending community meetings. Distributing folders usually led to casual opportunities to talk story about the project and get feedback.

Below are maps distributed in the most recent Nature’s Newsflash, update as of October 2014, which as stated above, reflect EMoWP/TNC’s immediate priority of the Pāku‘i Unit.

Figure 4. Map of East Molokai Watershed Partnership Partners and Native Ecosystems

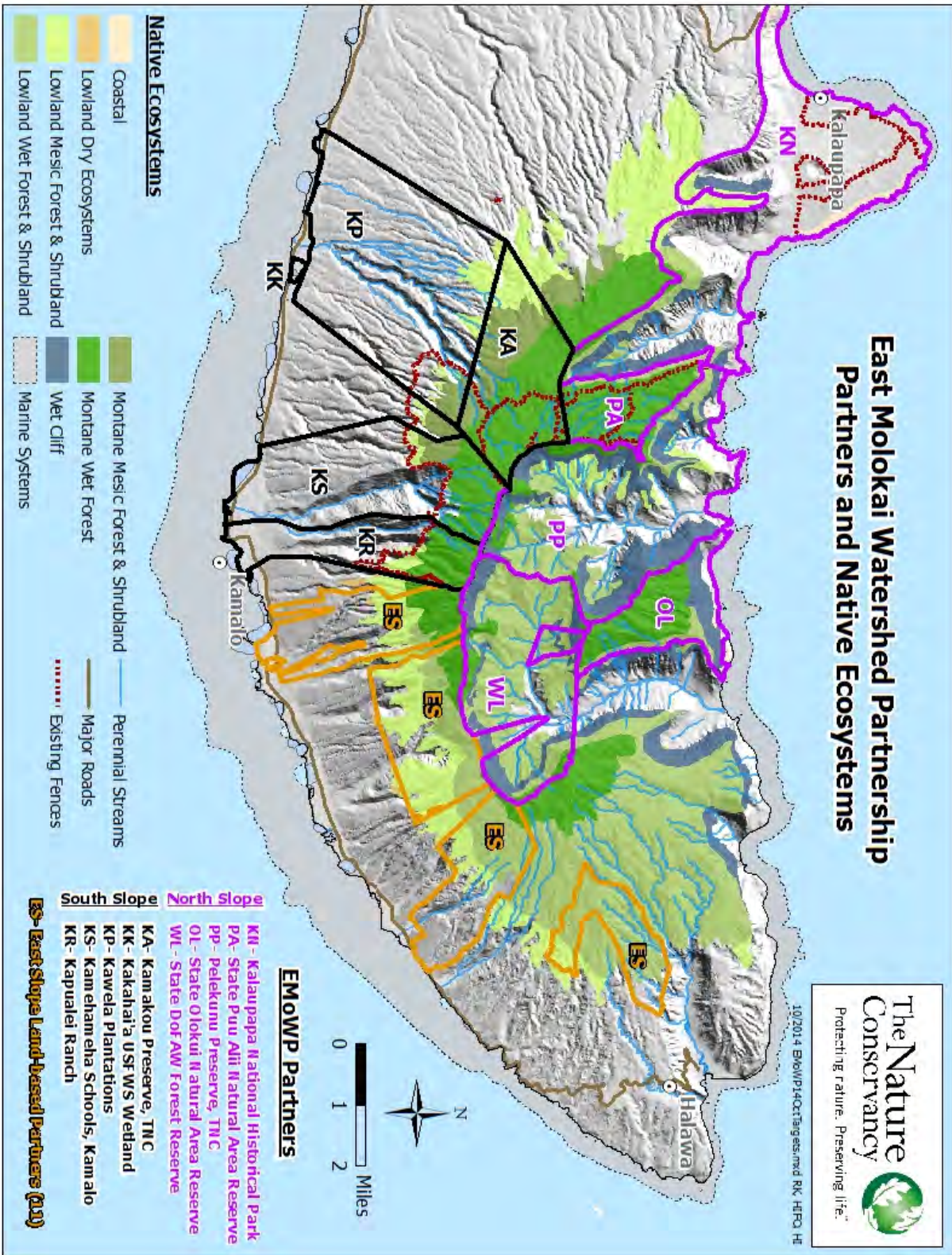
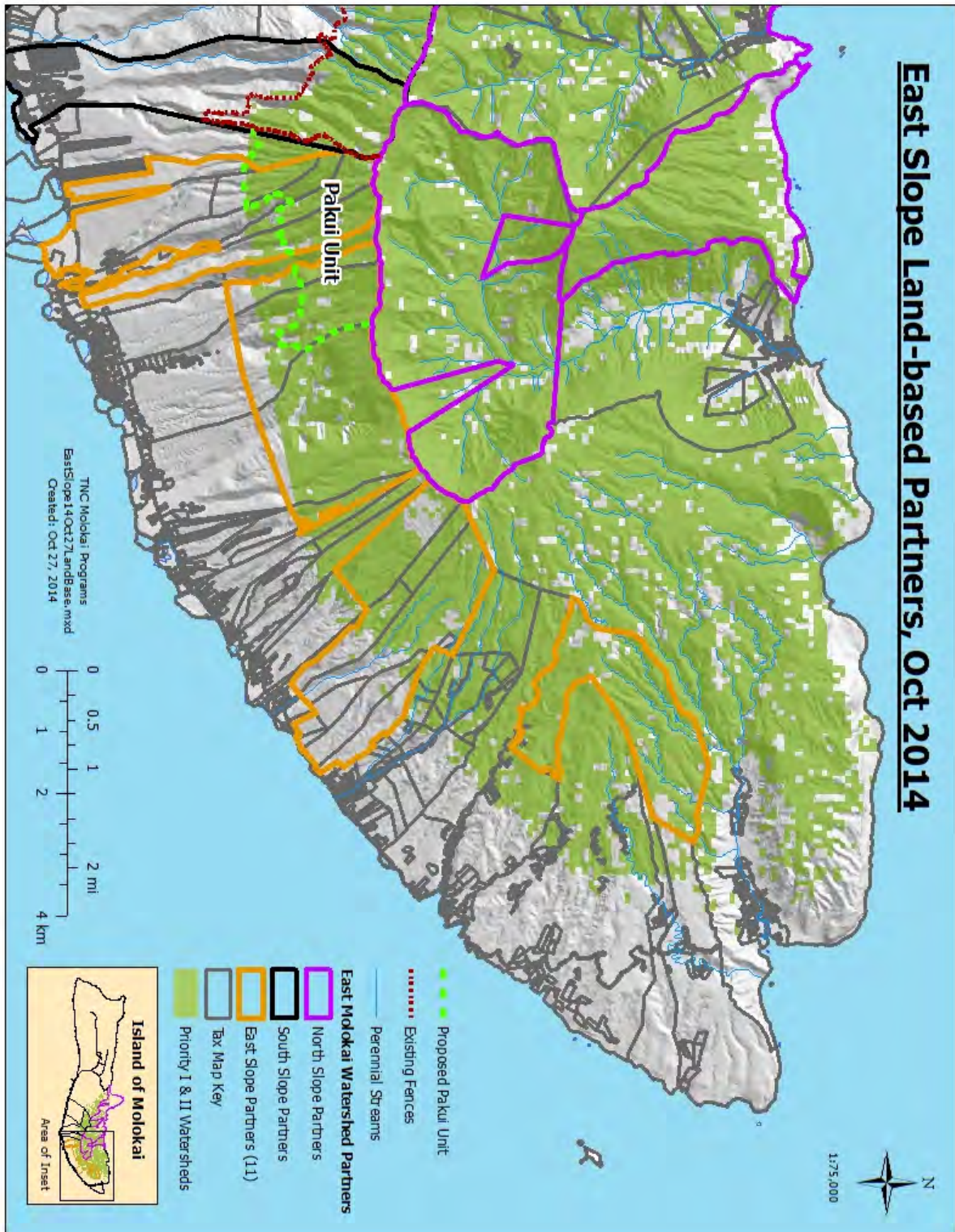


Figure 5. Map of East Slope Land-based Partners, October 2014



2.4. COMMUNITY REACTION & CONCERNS

What did the community ask for?

In November 2013, community members belonging to the ‘Aha Kiole o Moloka‘i – Mana‘e Moku reviewed the draft East Slope Management Plan.¹⁶ The ‘Aha Kiole o Moloka‘i – Mana‘e Moku is an indigenous governance system for East Moloka‘i, and a branch of the ‘Aha Kiole o Moloka‘i, which is part of the Statewide ‘Aha Moku network that serves in an advisory capacity to the State Department of Land and Natural Resources (DLNR). The ‘Aha Moku system is explained further in Section 4.1. At its November 26, 2013 ‘Aha Kiole o Moloka‘i – Mana‘e Moku meeting, there was a general consensus amongst community members that something needed to be done to protect the watershed. Residents acknowledged that the proposed fence was a conservation tool, but expressed that they felt it was not the only tool for natural resource management.

While the ‘Aha Kiole o Moloka‘i – Mana‘e Moku acknowledged that the proposed East Slope Management Plan was a good starting point, the ‘Aha determined that a more comprehensive and integrated management approach was needed that not only protects the upper forested watershed, but addresses the interconnections between all natural and geographical elements of East Moloka‘i’s multiple ahupua‘a. The community requested a cultural management plan that acknowledges the ‘ike kūpuna (ancestral knowledge) passed down through the generations of the ecological and cultural links found within each aspect of the ahupua‘a from the mountaintop known as wao akua (sacred realm of the gods); to the wao kānaka (people’s realm) that comprised the kula lands and hunting grounds; the lo‘i irrigated by ‘auwai; the spring and stream-fed fishponds, limu beds, crab grounds, and estuaries; and the reef and nearshore fisheries. The community also urged that the cultural subsistence practices of long-time kama‘āina families be documented as a foundation from which to address their protectable legal rights of access and mālama in accordance with hoā‘āina and konohiki-based traditional ecological knowledge (TEK) utilized in natural resource management.

A group of Mana‘e residents who oppose the proposed East Slope Management Plan and also feel that the ‘Aha leadership within the Mana‘e Moku is predisposed towards supporting the expanded fenceline, convened separately to form Hui Aloha ‘Āina o Mana‘e (“the Hui”). While the Hui supports ahupua‘a based management and the concept for a cultural management plan, they reject the ‘Aha Kiole o Moloka‘i – Mana‘e Moku as a body that represents their concerns. Members of the Hui consider themselves to have the traditional ‘ike to mālama their own ahupua‘a irrespective of the ‘Aha Kiole o Moloka‘i. This concept is generally in-line with kūpuna traditions that utilized the ‘ike from ‘Aha Ahupua‘a, whereby by long-time ‘ohana that held an intimate knowledge of their place and the resources therein oversaw the management of their own ahupua‘a.

Specifically, members of Hui Aloha ‘Āina o Mana‘e oppose the expanded fenceline for the following reasons (what follows is a summary of their mana‘o):

- The existing Kamalō/Kapuālei fence has created negative impacts to unfenced ahupua‘a immediately east of this area. If more fencing is erected, but other areas left unprotected, ungulate migration will push further east and cause harm to these neighboring ahupua‘a (e.g., spread of invasive plants, increased erosion and run-off into the streams and oceans). It has

also created a pathway just makai of the fenceline where ungulates travel. This new ungulate path/route has created additional erosion and run-off.

- An expanded fenceline will block access to subsistence hunters and gatherers from lands important to them. Native Hawaiian access rights will be threatened.
- Not all landowners have agreed to dedicate their conservation lands to the watershed partnership. Their non-participation jeopardizes ahupua‘a that are left unfenced, such as the potential corridor between Waialua and the north shore, which includes the traditional Pākaikai.¹⁷ The result will be that important cultural sites and wahi pana (sacred sites) will be destroyed by increased ungulate traffic. Moreover, important Mana‘e streams will be contaminated and human health will be compromised, especially for residents of Waialua, Honouliwai, Honoulimalo‘o, and Hālawā who rely exclusively on stream water for domestic and agricultural needs.
- The current proposed East Slope Management plan does not demonstrate a firm commitment to hire locally for conservation work and traditional ahupua‘a management; to in-source local hunters exclusively for ungulate control; and to support small, home-grown businesses that could be utilized for purchasing native plant cultivars and other local enterprises that could benefit directly or indirectly by this project.
- The proposed East Slope Management plan is not ahupua‘a-based, mauka-a-makai natural resource management. Rather, the watershed is narrowly and erroneously defined as the intact and diminished upper native forest. This type of management will not by itself restore the entire watershed and multiple ahupua‘a of Mana‘e.
- Several members of the hui also harbor either a general or specific distrust and resentment towards large landowners. Hui members have communicated anger and frustration with large landowners who have called law enforcement authorities to arrest them for trespassing even though they are merely hunting and gathering for subsistence as an extension of hoa‘āina (ahupua‘a tenant) rights. They are also frustrated with large landowners who have not been good stewards of the land: those who conduct ranching on steep slopes; degrade forest habitat; erode landscapes and cause flash flooding that destroys sensitive aquatic life such as o‘opu and hihiwai; divert water resources; grade, grub, and develop within sensitive ecosystems; and threaten ahupua‘a resources critical to traditional subsistence.

Despite personal disagreements between community members and some distrust towards certain large landowners, it is apparent that the community, ‘Aha Kiole or otherwise, individually or collectively, want and need a holistic ahupua‘a-based management plan. It should be noted that while the East Slope Management Plan is intended to address the mauka watershed primarily, the implementer of that Plan, TNC, has expressed a willingness to work with other entities to incorporate their efforts into a larger mauka to makai watershed plan.

Thus, this report develops a framework for a community-based Subsistence and Ahupua‘a Management Plan that incorporates the East Slope Management Plan, as well as the areas makai of that project area (also extending west to Kamalō, and along the north shore, from Hālawā to Pelekunu). This report aims to accurately reflect community mana‘o and inform government and public and private investors on what activities Mana‘e families support and consider culturally appropriate. It is our hope that the integration of Hawaiian traditional knowledge and practices; the free, prior, and informed consent of kama‘āina families of Mana‘e; and their full participation in managing and caring for their ahupua‘a are honored, respected, compensated, and valued in

tangible forms of exchange and collaboration to develop a stronger East Slope Management Plan, as well as a community-based Subsistence and Ahupua‘a Management Plan.

2.5. METHODS EMPLOYED

2.5.1. Involvement of the University of Hawai‘i’s William S. Richardson School of Law Native Hawaiian Rights Clinic & Markline LLC

As discussed in the previous section, at the November 2013 ‘Aha Kiole o Moloka‘i – Mana‘e Moku meeting, there was a general consensus by attendees that a more comprehensive ahupua‘a-based watershed management plan was desired. Earlier that month, Malia Akutagawa, Assistant Professor of Law at the University of Hawai‘i William S. Richardson School of Law and Hawai‘inuiākea School of Hawaiian Knowledge, and her Fall 2013 Native Hawaiian Rights Clinic held a Traditional & Customary Native Hawaiian Rights Primer workshop¹⁸ for the ‘Aha Kiole. Because this legal information was shared (e.g., access rights and rights to mālama), the community requested assistance with assessing the impacts that the fencing project might have on native rights and practices. The attendees specifically wanted to know their legal rights with respect to subsistence and how to protect their ability to hunt, fish, farm, and gather.

The Office of Hawaiian Affairs (OHA), on behalf of the ‘Aha Kiole o Moloka‘i – Mana‘e Moku, also met with Chair William Aila of DLNR, Leimana DaMate, Executive Director of the Statewide ‘Aha Moku Advisory Committee (AMAC), and specific staff charged with administering the Watershed Management Partnership program. These State agency representatives discussed the possibility of supplementing or expanding the scope of the East Slope Management Plan to include integrated, community-based management, mauka to makai, along the entire span of the multiple ahupua‘a of the Mana‘e Moku. Recognizing that Moloka‘i is a cultural kīpuka, a rural and native stronghold of traditional subsistence practitioners, and that the ‘Aha Kiole on Moloka‘i has been operating as a system of local governance and decision-making, these State agencies agreed to support a watershed management approach more consistent with Hawaiian konohiki resource governance and mālama practices of hoa‘āina.

At both the Mana‘e community’s request and OHA’s urging, Malia Akutagawa organized her law students (“clinicians”) enrolled in the Spring 2014 Native Hawaiian Rights Clinic to focus on this project. The Clinic traveled to Moloka‘i in February 2014 to conduct interviews and focus group discussions among Mana‘e families and to map important cultural sites and areas for traditional subsistence. Care was taken also to collaborate with and exchange information with Stephanie Dunbar-Co, Principal Investigator for TNC and author of the East Slope Management Plan. At the end of the semester, the clinicians completed a rough draft of their preliminary findings and recommendations based on the interviews, focus groups, and intake data gathered. They provided sectional rough drafts of Chapter 4 of this report, summarizing common law decisions and State constitutional and statutory protections of Native Hawaiian rights relevant to specific traditional practices of kama‘āina families of Mana‘e. Over the summer, Malia Akutagawa’s legal research assistant, Shaelene Kamaka‘ala did further edits and supplemented sections in Chapter 4 of the draft report. She prepared a powerpoint presentation of the Clinic’s preliminary findings and recommendations for the Mana‘e community at its ‘Aha Kiole o Moloka‘i – Mana‘e Moku meeting in August 2014.

The next step was to find funding to hire a professional planner to conduct additional interviews, get more intake forms completed, and to finalize this report. Harmonee Williams of Markline LLC was contracted by OHA to complete this work. She is an environmental and community planner residing on Moloka‘i. She has authored and co-authored several community plans, needs assessments, and resource guides with various community groups on Moloka‘i.¹⁹

Malia Akutagawa agreed to remain on the project pro bono as a legal consultant and traditional knowledge holder to fulfill her personal kuleana as a Molokai-born kama‘āina raised in Mana‘e with long-held genealogical ties to this ‘āina. Her knowledge of the land, relationships and connection to many of the ‘ohana of Mana‘e, and neutral approach with respect to gathering and accurately reporting community mana‘o have helped to diffuse some of the internal conflicts and distrust existing between families belonging to Hui Aloha ‘Āina o Mana‘e, members of the ‘Aha Kiole o Moloka‘i – Mana‘e Moku, and conservation-minded proponents of the proposed fenceline. Malia worked with Harmonee to edit and finalize all chapters.

The following sub-sections provide greater detail as to the methods utilized to compile this report.

2.5.2. Outreach, Interviews, Mapping, Meetings & Presentations

The planning team of the Native Hawaiian Rights Clinic and Markline LLC combined efforts to do extensive community outreach throughout 2014. Malia Akutagawa and her law clinicians traveled to Moloka‘i from February 14-16, and with Harmonee Williams, conducted community interviews and gathered mana‘o from key informants (kama‘āina and other experts). Over 70 informants from Mana‘e were identified and contacted. The list of interviewees was also compiled with the assistance of Stephanie Dunbar-Co of TNC. Of the 70 individuals contacted, 27 were able to commit the time to meet in February during the 3-day period that the Clinic and Harmonee Williams were able to conduct interviews and focus group sessions. Follow-up interviews with other ahupua‘a informants were also conducted by Malia Akutagawa and Harmonee Williams between August and December, for a total of 44 informants (this includes individual interviews, focus groups, and those who filled out intake forms).

In order to ensure that the informants represented the entire Mana‘e moku, care and due diligence were taken to identify and contact key individuals and ‘ohana from the many ahupua‘a throughout the moku who possess extensive knowledge of their ‘āina. These informants included subsistence hunters, gatherers, lā‘au lapa‘au (Hawaiian medicine) practitioners, lei makers, lawai‘a (fishermen), mahiai (farmers), kia‘i loko (fishpond experts), limu (seaweed) gatherers and cultivators, traditional artists crafters and sculptors who carve ki‘i, weave lauhala, and make kapa, kūpuna, and other ‘ike (traditional knowledge) holders. It should be noted that those interviewees who are kama‘āina are specifically referred to as “kama‘āina informants” because the law recognizes kama‘āina expertise in authenticating customary practices that also qualify as statutorily and constitutionally protected rights.²⁰ In addition, the planning team understood that kama‘āina knowledge is key to creating a plan like this since kama‘āina possess intimate knowledge of their place and are vital to maintaining ahupua‘a health.

The key informants are listed below. As stated above, the majority are kama‘āina informants. In addition, experts on native species related to terrestrial, marine, and aquatic environments were interviewed as well. Relevant excerpts from these interviews are included throughout the report, but kept anonymous. Notes from the interviews will be kept on file with OHA.

Key Informants (including Kama‘āina Informants and other experts):

1. Clinton Akiona
2. William M. Akutagawa, Jr.
3. Robert “Bobby” Alcain
4. Lori Buchanan
5. William Caster
6. Eric Co
7. Frances Maka Cobb-Adams
8. Jeffrey Davis
9. Tracy Ann Davis
10. Stephanie Dunbar-Co
11. Sonny Dunnam
12. Steven Eminger
13. Alapai Hanapi
14. Mililani Hanapi
15. Raymond B. Kalilikane, Sr.
16. Allen Kalima
17. Mary Ipolani Kalima-Moses
18. Bronson “Duke” Kalipi
19. William “Tubz” Kalipi, Jr.
20. Zaidarene “Tooichi” Kalipi
21. Russell Kallstrom
22. April Kealoha
23. Billy Kekahuna
24. Zallarina Kekahuna
25. Justin Luafalemana
26. Vernetta “Penny” Rawlins Martin
27. Steven Moses
28. Guy Hanohano Naehu
29. Palmer Naki
30. Raymond “Leimana” Naki
31. Walter Naki
32. Mary “Hala” Pale
33. Peter Pale
34. Lacey Leiala N. Phifer
35. Milton Place
36. William K. Puleloa
37. Kalaniua Ritte
38. Loretta Ritte
39. Walter Ritte
40. Gandharva Mahina Hou Ross

41. Tammy Lynn Ross
42. Charlotte Leina‘ala Ka‘ahanui Seales
43. Edward “Eddie” Tanaka
44. Matt Yamashita

**Legal Clinic, Malia Akutagawa, & Harmonee Williams
conducting interviews with Mana‘e Kama‘āina Informants, February 2014**



Photos by Oliver Manglona, Legal Clinician

The process to interview the kama‘āina informants consisted of asking them to (1) fill out an Intake Form; (2) share their mana‘o regarding the resources and traditional and customary practices of Mana‘e, the proposed East Slope Management Plan, and how their moku should be managed (see questions below); and (3) map important sites.

The Intake Form utilized many of the questions from the 1994 *Governor’s Moloka‘i Subsistence Task Force Study* as a template and baseline to provide comparative value. These forms collected data on informants’ employment; household income; household size; level of education; ethnicity; place of birth; ahupua‘a and moku of residence; identification of additional ahupua‘a in Mana‘e which they have ancestral and genealogical ties; how they define subsistence and whether they engage in subsistence activities; how important subsistence is to them; what, when, and from which ahupua‘a they gather ocean, stream, and mountain resources; plants or crops they grow and animals they farm; whether they support, oppose, or have concerns about the proposed fencing project; and what additional local and traditional strategies they recommend for resource management and watershed restoration. A sample of the Intake Form is provided in *Appendix A*.

The following interview questions and other follow-up questions were asked as appropriate:

1. What are some critical areas for Native Hawaiian traditional subsistence (fishing, hunting, ocean and land gathering, farming) and spiritual, religious, and ceremonial activities? (You may also indicate this information on the map)
2. What are some of the mele (songs), ‘oli (chants), mo‘olelo (stories), significant place names, wind names, etc. about Mana‘e that are key to cultural understanding of the ‘āina?
3. What are some of the values and traditions passed down from your makua and kupuna re: how to treat the ‘āina, plant, harvest, and mālama the resources?

4. Do you feel that the proposed watershed management plan, including fencing of the upper areas of the native forest, is consistent with those traditional values and practices that you learned and pass down to the next generation? Do they fit within your understanding of traditional ahupua'a access and management?
5. What needs to be done to renew, maintain, and perpetuate traditional subsistence, religious, spiritual, and ceremonial practices in Mana'e for future generations?
6. What do you see your role being in the mālama of Mana'e?
7. Do you see yourself, your 'ohana, and the community-at-large taking an active role alongside formal conservationists and their work to restore the watershed of Mana'e? If so, what would that role be? How can the community co-manage the resources? How would you add to or amend the present draft watershed management plan?

Kama'āina informants also participated in a mapping exercise with a coded symbols and color pencils to identify traditional agriculture and food production sites (e.g., lo'i kalo and fishponds); general areas important for land, stream, and ocean gathering; ko'a (fishing grounds with corresponding land markers) and fisheries; major hunting areas; and important wahi pana (sacred sites) and trails critical to access, religious and ceremonial uses, and subsistence practices. Understanding the sensitive nature of special fishing and hunting grounds and places for gathering, kama'āina informants were informed that they had the following options:

- To not provide mapping information as a way to preserve confidentiality.
- To put a notation of a generalized area for subsistence practices that would not reveal specific locations of secret fishing, hunting, and gathering spots.

In addition, the purpose of the mapping exercise was explained, which was to indicate important traditional use zones for access, subsistence, and religious and ceremonial practices; especially where kama'āina express concerns that the proposed East Slope Management Plan could potentially impact these areas.

Mapping Exercise, February 2014



Photo by Oliver Manglona, Legal Clinician

2.5.3. Legal Analysis & Recommendations

Students participating in the Native Hawaiian Rights Clinic compiled the data gathered from the intake forms, mapping, and kama‘āina interviews to determine the extent to which Mana‘e families rely on natural and cultural resources for traditional subsistence and religious practices. These practices were also analyzed within the context of statutory, constitutional, and common law protections of Native Hawaiian rights to not only access important biocultural resources but to mālama these resources and the ‘āina that sustains Mana‘e families and their culture. Groups of clinicians were assigned to draft sections of the report that covered specialized areas of Native Hawaiian rights law; they include:

- **‘Aha Moku and Traditional Resource Management**
- **Sources of Native Hawaiian Rights Law**
- **Trails and Traditional Access**
- **Native Burials and Historic Sites Preservation**
- **Water Rights and the Public Trust Doctrine**
- **Subsistence Hunting – An Emergent Cultural Practice and Right**
- **The Value of Integrating Traditional Ecological Knowledge (TEK) in Natural Resource Management**

This analysis comprises Chapter 4, whereby Malia Akutagawa and the law clinicians provide a detailed discussion of the legal rights and protections available to the Mana‘e community.

Lastly, the planning team documented, compiled, and reported the findings and recommendations. The findings are described and illustrated in Chapter 3 of this report. Chapter 5 then provides a more detailed discussion of the recommendations provided by the cultural informants, analyzed by the Law Clinic, and synthesized by Markline LLC. It should be noted that a significant portion of the writing of Chapter 4 and edits to the initial Clinic report were done during the summer of 2014 and throughout 2015 by Shaelene Kamaka‘ala, a Research Assistant and law student enrolled in an independent study project with Malia Akutagawa. Additional guidance, research, and writing was provided by Malia Akutagawa throughout the process.

2.5.4. Meetings & Presentations

OHA Meeting – August 5, 2014

On August 5, 2014, Malia Akutagawa, her law students Shaelene Kamaka‘ala and Keani Rawlins-Fernandez, and Harmonée Williams of Markline LLC attended a meeting with the Office of Hawaiian Affairs (“OHA”) and members of Hui Aloha ‘Āina o Mana‘e. The meeting was hosted by OHA with Moloka‘i/Lana‘i Trustee and former Board Chairperson Colette Machado, OHA Senior Public Policy Advocate Jocelyn Doane, OHA Community Outreach Coordinator Gayla Haliniak-Lloyd, and University of Hawai‘i Department of Ethnic Studies Professor Davianna McGregor present. Those present from the Hui included Harry Ann Aki and her husband (*did not sign in*), Gandharva Mahina Hou Ross and his wife Tammy Lynn Ross, Raymond “Leimana” Naki, and Shaeralee Manosa.

The purpose of the meeting was to address concerns that were raised by the Hui to OHA in regards to the East Slope Management Plan, the involvement of the ‘Aha Kiole o Moloka‘i – Mana‘e Moku, the role played by Malia Akutagawa and the Native Hawaiian Rights Clinic, and the qualifications of Harmonee Williams of Markline LLC.

Most of the Hui members present had already been interviewed by the Clinic earlier in the year (February 2014). However, due to a growing distrust of the ‘Aha Kiole o Moloka‘i core leadership, the representatives of the ‘Aha Kiole o Moloka‘i – Mana‘e Moku, and some of the watershed management partners (some large private landowners), the Hui were also skeptical about OHA’s contract with Markline LLC and the role of Malia Akutagawa and her Native Hawaiian Rights Clinic. The Hui seemingly misunderstood the intent of drafting a community-based subsistence and ahupua‘a management plan; that it was undertaken largely to fulfill the Hui’s own request for a more comprehensive, traditional and integrated management strategy that engages community in the work. All of these issues were discussed, as was the process to hire Markline LLC, and OHA’s strict procurement and bidding process to do so.

Malia Akutagawa shared with the Hui some of the Clinic’s preliminary findings and recommendations that addressed some of their main concerns about the proposed East Slope Management Plan. Hui members expressed appreciation of these findings and recommendations and acknowledged that their mana‘o was accurately reflected in the Clinic’s report. Malia Akutagawa encouraged Hui members to also attend the Clinic’s full presentation scheduled for that evening before the ‘Aha Kiole o Moloka‘i – Mana‘e Moku and also provided a digital copy of the presentation to one of its members. Some of the Hui members decided to attend and expressed positive feedback. Chair Machado was also invited and attended the Clinic’s presentation to get the full scope of the Clinic’s work and findings.

Since that time, members of the Hui have directly contacted Malia Akutagawa and Harmonee Williams to provide additional mana‘o. Thus, several more interviews with Hui members have been conducted at their homes. Finally, the authors participated in a site visit to Ka Ulu Kukui o Lanikaula to learn about this sacred wahi pana and its important historic role in sustaining the Mana‘e watershed.

Clinic Presentation to the ‘Aha Kiole o Moloka‘i – Mana‘e Moku on August 5, 2014

The Law Clinic’s presentation to the ‘Aha Kiole o Moloka‘i – Mana‘e Moku had a relatively low attendance (approximately 15), but the preliminary findings and recommendations were well received by those who did attend. Long-standing issues between the Hui and the ‘Aha Kiole o Moloka‘i – Mana‘e Moku were discussed, and Hui members in attendance expressed a renewed hope and desire to participate in the ‘Aha process and provide ahupua‘a leadership on the council. The Native Hawaiian Rights Clinic officially ended in May 2014 and completed its final deliverables through this presentation and a preliminary report. Malia Akutagawa re-committed herself to remain involved in the process; to provide assistance to Harmonee Williams in conducting future interviews; to cultivate greater trust in the process and mediate any potential tensions that may arise in the future given the sensitive nature of relationships within the Mana‘e community; and to assist in writing and editing the final plan, particularly the legal section (Chapter 4).

⁵ *A Mau A Mau*, *supra* note 1.

⁶ However, in ancient times, the Kawela (Kona) moku included Kamalō ahupua‘a and several ahupua‘a west of Kamalō into the area that is known as Kaunakakai today. This is a dry part of the island. The landscape was not as arid as it is today. The introduction of ungulates (cattle, deer, and goat) have transformed and eroded the landscape. Whole-scale water diversions by Molokai Ranch from Kawela to Kaunakakai and in the Pala‘au region to feed west Moloka‘i lands have also altered the landscape and impacted the productivity and health of watersheds in Kawela moku. These events have altered colloquial understandings of moku or districts demarcations on Moloka‘i. Today, Mana‘e is known to the people as including the ahupua‘a of Kamalō where the air first becomes distinctly cooler and the landscape begins to green.

⁷ HAWAII ASSOCIATION OF WATERSHED PARTNERSHIP, <http://hawp.org/partnerships/> (last visited Dec. 29, 2016).

⁸ *Id.*

⁹ Stephanie Dunbar-Co, *East Slope Watershed Start-Up Management Plan 3* (Jan. 2014 draft).

¹⁰ Interview by Harmonee Williams with Russell Kallstrom, Stephanie Dunbar-Co & Wailana Moses, Staff, The Nature Conservancy Molokai, in Ho‘olehua, Haw. (Dec. 18, 2014).

¹¹ Dunbar-Co, *supra* note 9.

¹² *Id.* at 5.

¹³ *Id.* at 5-10.

¹⁴ *Id.* at 10.

¹⁵ *Id.* at 18.

¹⁶ The Aha Kiole o Moloka‘i, which oversees all councils on Molokai, has a list of those individuals who have officially registered as members. This does not, however, preclude non-members from participating in ‘Aha Kiole meetings. Any reference to “‘Aha Kiole o Moloka‘i – Mana‘e Moku members” reflects those who are actually registered. However, in more general terms, “the Moku” refers to those residing within that moku. Thus, any reference to “Mana‘e community” indicates residents geographically located within Mana‘e who may or may not be registered as official members.

¹⁷ It should be noted that today, Pākaikai is commonly used to refer to a hunting area that abuts the back eastern bowl of Wailau Valley, which differs in location from the traditional Pākaikai (Kamehameha nui’s birthplace).

¹⁸ An informative workshop on the laws protecting Iwi Kūpuna and Hawaiian Traditional and Customary Rights, was conducted by Malia Akutagawa, Associate Professor of Law with Ka Huli Ao Center for Excellence in Native Hawaiian Law, University of Hawai‘i at Mānoa, William S. Richardson School of Law. The workshop was sponsored by the Office of Hawaiian Affairs for the benefit of Kānaka Maoli communities throughout the islands.

¹⁹ Authored and co-authored works by Malia Akutagawa include: *Moloka‘i Energy Needs Assessment* (2014), *Moloka‘i Go Local! Business Directory* (2014), *Sust ‘āina ble Molokai Resource Guide* (2009), *Mapulehu Glass House Feasibility Study* (2009), *Molokai Future of a Hawaiian Island* (2008), *Mana‘e GIS Mapping Project* (2008), and *Ka Honua Momona, Int’l (KHMI) Fishpond Management Plans* (2006-2010).

²⁰ *In re Application of Ashford*, 50 Haw. 314, 440 P.2d 76 (1968).

3. FINDINGS

3.1. IMPORTANCE OF SUBSISTENCE TO MANA‘E RESIDENTS

The island of Moloka‘i is historically known as “‘Āina Momona” (Abundant Land or Land of Plenty), referring to the bounty of food that was produced on its fertile and fruitful lands.²¹ The name honors Moloka‘i as the land of “fat fish and kukui nut relish.” The “fat fish” are raised in the many loko i‘a (fishponds). The “kukui nut relish” is used to flavor the fish and speaks to the abundance of lush resources of Moloka‘i. Because these resources were so plentiful, chiefs of Maui and O‘ahu often fought for control of the island.²² Mana‘e in particular was home to 35 of Moloka‘i’s 53 fishponds, as well as forty lush valleys, well-suited for growing taro, sweet potato, and other vegetables.²³

These resources continue to be available today, even if they are not as plentiful. Mana‘e is documented to be one of the most intact cultural and subsistence landscapes within Hawai‘i.²⁴ Many Mana‘e families continue to rely upon subsistence fishing, hunting, gathering, and/or cultivation for a significant portion of their food. The *Governor’s Moloka‘i Subsistence Task Force Study* (1994) reported that twenty-eight percent (28%) percent of Moloka‘i families’ food was acquired through subsistence activities, and thirty-eight percent (38%) among Native Hawaiian families.²⁵ A strong continuation of traditional and cultural practices was expressed throughout many of the interviews conducted for this TCP Report, from hunting deer, to catching fish, to gathering flowers to make lei, to mālama of heiau. Details of those practices are described and documented in the following sections. This chapter then summarizes the mana‘o shared by community members, including kama‘āina informants and other experts, on the overall watershed health of Mana‘e and on the proposed East Slope Management Plan, as well as the potential impacts of these issues on their ability to carry out those traditional and customary practices. As stated previously, mana‘o from these informants is shared throughout this report, but is kept anonymous. (A list of key informants can be found in Section 2.5, on pages 18-19.)

An overwhelming number of kama‘āina informants shared the sentiment that subsistence is “Very Important” for their family on their Intake Forms.²⁶ As described in the Methods (Section 2.5) of this report, these informants were asked to fill out an Intake Form in order to document the amount and location of subsistence practices occurring in Mana‘e. The following two tables summarize that information. The first is entitled “Mana‘e Resource Usage Data by Ahupua‘a” (Table 3.1), which tabulates the number of informants who reported doing various subsistence activities, and in which ahupua‘a. As shown, every ahupua‘a in Mana‘e was identified as having various cultural, religious, and subsistence values, which indicates the extent and level of dependence that Mana‘e residents’ subsistence lifestyle has on the area’s resources. The second table, “Vital Subsistence Resources in Mana‘e Moku” (Table 3.2), lists the species and kinds of fish, plants, animals, stream life, ocean resources, etc. that are currently gathered, fished, hunted, and/or farmed by the 30 kama‘āina informants that completed an Intake Form.

It is clear that the entire moku of Mana‘e is essential to the subsistence lifestyle of its community and island residents. At the same time, the people of Mana‘e have witnessed a significant decline in the health and abundance of its ahupua‘a resources, mauka to makai. Thus, any proposed conservation approach must take into account the impacts of the strategy, with a particular focus on the impacts to the subsistence lifestyle of Mana‘e residents.

Table 3.1: Mana‘e Resource Usage Data by Ahupua‘a

<i>Informants' responses to the question: Within Mana‘e, which ahupua‘a do you access for traditional, religious, ceremonial purposes and/or to gather, fish, farm, and/or hunt for subsistence?</i>								
Ahupua‘a Name	Religious & ceremonial practices	Hunting	Land gathering	Stream gathering	Fishing & ocean gathering	Farming, Gardening	Fishpond, aquaculture	Raising livestock
Kamalō	2	9	7	1	13	2	1	1
Kapualei	1	6	5	1	6	2	1	1
Kumueli	1	3	4		5			
Wawaia	1	3	4		5			
Pua‘ahala	1	6	5	1	7	1		1
Ka‘amola	2	8	8	1	10	4	3	2
Keawanui	2	8	5	1	9			
West ‘Ohia	2	8	6	2	7	1	1	1
East ‘Ohia	2	8	6	2	7	2	1	1
Manawai	1	7	5	1	6	1		
Kahananui	1	9	6	1	6			
‘Ualapu‘e	2	10	6	2	9	2	2	1
Kalua‘aha	1	8	5	1	7	3		1
Mapulehu	3	11	6	1	12		1	1
Punaula	1	4	4		5			
Puko‘o	2	5	3		10		2	1
Kupeke	1	5	3		7		1	
Ahaino 1	1	4	2		5			
Ahaino 2	1	4	2		5			
Kailiula	1	3	2		5			
Honomuni	1	6	2		6			
Kawaikapu	1	7	2		8			
Kainalu	1	6	3		7			
Puniuohua 2	1	5	3		6			
Puniuohua 1	2	5	3		7	1		1
Waialua	2	5	4		9			
Moanui	4	5	5	1	9	1	1	
Kumimi	4	5	4	2	9	2		
Honouliwai	3	6	4	2	11	1	2	
Honoulimalo‘o	2	5	3	1	9	1		
Keahuoku	1	4	3		6			
Lupehu	2	4	4	1	9	1		
Pohakupili	2	4	4	1	8	1		
Moakea	2	4	4	1	6	1		
Keopukauuku	2	4	4	1	6	1		
Keopukaloa	3	5	5	1	6	1		
Koali‘i	2	5	3	1	6	1		
Hālawa	5	7	8	8	12	1		
Wailau	3	5	8	8	9	1		
Pelekunu	3	3	5	6	8			

*This table shows that, based on the input of the 30 kama‘āina informants that completed an Intake Form, every ahupua‘a in Mana‘e is important for cultural, religious, and/or subsistence practices. The table shows that every ahupua‘a is utilized and it only takes one individual to have standing to assert their rights and warrant legal protections for those rights. It should be noted that this table does not encompass every individual in Mana‘e or Moloka‘i that engages in these practices, only those that filled out an Intake Form.

Table 3.2: Vital Subsistence Resources in the Mana‘e Moku

Religious & ceremonial practices	Hunting	Land Gathering	Stream Gathering	Fishing & Ocean Gathering	Farming & Gardening	Fishpond/ Aquaculture	Raising Livestock
<i>*cultural informants participate in various religious & ceremonial practices in Mana‘e, but they were not asked to specify what their practices are.</i>	- Axis Deer -Black buck - Goats - Pigs	‘A‘ali‘i ‘Āhinahina Ahuhu ‘Ākala Alahe‘e ‘Aloe ‘Awa Guava Hala Hāpu‘u fern Hau Ha‘oui Hō‘io ‘Iliahi (scarce) ‘Ilima Kauna‘oa Kī Kiawe Koa Koali Ko‘oko‘olau Kope Kou Kukui Laukahi Liko/Lehua Liliko‘i Loulu Mai‘a Maile Māmaki Māmane Mangrove Maunaloa Milo Moa Niu Noni Oranges Pakalana Papaya Paria Pepeiao Papaya Pīkake Plum Pōpolo Puakenikeni Squash	Āholehole ‘Ama‘ama Crabs (some) Hīhīwai (scarce; rarely) ‘Ōpae ‘O‘opu Prawns Pūpū	Reef fish ‘Ahi Akule Āholehole ‘Ama‘ama Awa Aweoweo Crab/Pāpa‘i (‘A‘ama, Black crab, Blue pincher, Samoan) Enenue Hā‘uke‘uke He‘e Hīnālea Kākū Kala Kawakawa Kūpe‘e Kūpipi Kole Kumu Lai Leho Limu (all types; ‘Ele‘ele, Huluhuluwaena, Kohu, Lipe‘e, Manauea, Ogo, Pālahalaha, Wāwae‘iole) Loli Mahimahi Mamo Manini Mempachi Moana Moi Mu ‘Ō‘io Onaga Ono ‘Ōpae ‘Ōpakapaka ‘Ōpelu ‘Opihi Pa‘akai Palani Pipipi	‘Aloe ‘Awa Avocado Chili pepper Fig Gandule Green onion Guava Herbs Hwn. Orange Honohono grass Kale Kalo (poi and lu‘au leaf) Kī Ko‘oko‘olau Kukui Lā‘ī Lemon Lemon-grass Lettuce Lū‘au Luffa Macademia nut Mai‘a Māmaki Mango Mountain apple Malunggay Niu Noni Okra ‘Ōlena Papaya Pōpolo Sour sap Starfruit String beans Tangerine Tomato ‘Uala ‘Uhaloa ‘Ulu	<i>*cultural informants participate in fishpond practices in Mana‘e, but they were not asked to specify what their practices are.</i>	Cows (meat) Eggs Fighting cocks Goats Pigs Rabbits

Table 3.2: Vital Subsistence Resources in the Mana‘e Moku (continued)

Religious & ceremonial practices	Hunting	Land Gathering	Stream Gathering	Fishing & Ocean Gathering	Farming & Gardening	Fishpond/ Aquaculture	Raising Livestock
		Lā‘ī ‘Uhaloa ‘Ulu Hawaiian oranges *Gather seeds from wild fruits/plants		Pāpio/Ulua Rainbow runner Shells Ta‘ape Toau Uhu Ula Uouoa Wana Weke	Wāpinē Wiliwili		

*This table shows the species and kinds of fish, plants, stream life, ocean resources, etc. that are currently fished, hunted, gathered, or raised by the 30 kama‘āina informants that completed an Intake Form. It should be noted this table does not capture every species in Mana‘e that is important for cultural, religious, or subsistence practices, but only those identified by the informants that participated in this process. Also, it was recommended that in the future (i.e., in the Subsistence & Ahupua‘a Management Plan) such a table include Latin names for species.

The information in these two tables, gathered from kama‘āina informants, provides a good indication as to how widespread traditional and cultural practices are in Mana‘e. It is critical that this type of information be communicated clearly throughout any conservation efforts so that such resources and practices can be recognized and protected. It is also vital that practitioners know their rights and act to protect them. This will be discussed in more detail in the legal section of this report (Chapter 4). In short, both practitioners and conservationists need to acknowledge what traditional and customary practices exist in Mana‘e today, and then cooperatively decide how to best manage the area with cultural and traditional resources and rights in mind.

The following sections describe these cultural and subsistence resources in more detail. This information is based on input from those who participated in this process. As conservation efforts progress, individuals from each ahupua‘a should participate to ensure all important resources and practices are identified and considered. It should be noted that TNC will be conducting a Cultural Impact Assessment (CIA) and an Environmental Assessment (EA) for each unit proposed, beginning with the Pāku‘i Unit (underway in 2015-16). That process should result in a more thorough identification of natural and cultural resources.

3.2. SIGNIFICANT CULTURAL SITES AND TRAILS

“Pana” – to pulsate, throb, like that of a heartbeat. So intelligently combined with the term “wahi,” to refer to a legendary place or more precisely, places that live through our memory. Wahi pana are those that flourished because of the inhabitants who dwelled there, our kūpuna, but perhaps more importantly allowed those who lived within them to prosper. Scholar No‘eau Peralto asserts,

It has been said that we are all branches of the genealogical trees established long ago by our kūpuna who birthed us in to existence. I ulu nō ka lālā i ke kumu. Nourished and sustained by the many piko that connect us to those kūpuna who came before, we, indeed, are the living embodiments of the sacrifices of their labor.²⁷

It is because of this realization that the concept of aloha ‘āina was and is manifested in the lives of Kānaka Maoli (indigenous Hawaiians) everywhere. Samuel Elbert recounts the abundance of aloha ‘āina sayings in the fact that they can be found in mo‘olelo, mele, mo‘okū‘auhau, etc. Elbert states, “they name illustrious chiefs and places, important rains, seas, winds, and distinctive features.”²⁸ The use and knowledge of such place names are the epitome of aloha ‘āina and strengthen our connections to our glorious past. These types of resources have been identified as “essential for the expression and perpetuation of Hawaiian culture, religion, and language.”²⁹

This section provides a brief description of just some of the multitude of historical and cultural sites identified, along with concerns and possible effects that the fencing project may have on Mana‘e’s historical sites and burials. Section 4.4 sets forth legal protections for historic sites and burials, along with a preliminary recommendation for the Mana‘e community to ensure maximum legal protections are followed and respected.

The following descriptions and associated map are not meant to provide a comprehensive identification of all cultural sites, rather it is intended to show that amongst the 40+ kama‘āina informants, a multitude of such sites are still in existence today throughout the entire Mana‘e moku, and warrant the attention and protection of those involved in work that may pose a threat to these sites. With that in mind, some examples of historical and cultural sites that were identified include:

Heiau:

- Pāku‘i Heiau – part of a larger complex of the heiau called Ka Hokukano, located within the Manawai and Kahananui ahupua‘a. A kama‘āina family has been cleaning and caring for this heiau complex for many years. A dream was re-counted by a kupuna of stars above these heiau, which may be connected to the name Ka Hokukano (hoku meaning stars). Pāku‘i was specifically noted by the late Kumu Hula John Kaimikaua as the site where a prophecy about the future of the Hawaiian people and the islands was made at the time when the edict abolishing the ‘ai kapu was issued by Ka‘ahumanu and Liholiho. Ka‘ahumanu’s soldiers traveled to every island to enforce the edict. When they arrived on the shores of ‘Ualapu‘e, a mock battle ensued. The kahuna who cared for the Pākui heiau were said to have moved the ki‘i and artifacts from the heiau and sealed them in a cave somewhere in the ahupua‘a of ‘Ōhia. When Ka‘ahumanu’s soldiers arrived to burn down the heiau, the kahuna prophesied at Pākui that the high born would fall, and the land and the Hawaiian people would suffer, and that it would be the people of the land that would rise once more to restore pono (goodness, righteous). It is said that we are living in that time now, as marked by the beginning of a Hawaiian Renaissance (restoration of the language, non-instrument navigational voyaging, the aloha ‘āina movement, etc). A resounding chant in the prophecy is “Hō‘ale ka lepo popolo.” Lepo popolo is a metaphor for the common people of the land who rise out of the taro patch with mud on their legs.

Hō‘ale represents the highest reach of the wave as it crests. Kama‘āina of that area speak of the numerous heiau as comprising a kino (body). With the head, shoulders, upper torso along the mountain and upper lowlands, and the feet located in the ocean as a circular platform. Fishermen recount that this heiau “walks” or travels, and can be seen in one place during a certain time of the year, and then gone when they return to the area, only to show up again at a later time.

- A kapa making heiau in Manawai indicates the presence of wauke in the area, helping to identify important resources to protect or restore. It is a heiau exclusive to women and the making of kapa.
- ‘Ili‘ili‘ōpae Heiau – Located in the Pūko‘o area, ‘Ili‘ili‘ōpae is known as the second largest heiau throughout Hawai‘i. There are many mo‘olelo about this sacred place.
- Another heiau, located adjacent to the streambed, has a pit (imu) where a chief from O‘ahu was killed. It was recounted that his body was burned there.
- A fishing heiau was identified mauka of the main road in Ka‘amola by a local family that has been cleaning and caring for it for many years.
- An agricultural heiau and an ocean heiau were identified in the ahupua‘a of Kalua‘aha.
- Certain heiau and ahupua‘a boundary markers may have been destroyed by heavy equipment operations, according to a kama‘āina informant. One such stone formation that was destroyed was described to have the face of a mahi-mahi fish. The kapa heiau may have been partially destroyed by the heavy equipment as well.
- There are numerous other heiau within Mana‘e. Some have been identified by the State Historic Preservation Division (SHPD). Additional heiau were identified in the *Mana‘e GIS Mapping Project* (County of Maui, 2008). Still others are known, but were not identified for protection.

Lo‘i Kalo, Important Water Sources, Pristine Forested Areas, and related resources:

- The ahupua‘a of Honomuni is significant because of the large lo‘i kalo (irrigated terraces for taro) established by the Mō‘ī, King Kamehameha I.
- Pākaikai – Also known as “Queen’s bath”, this area has a great abundance of lo‘i terracing that indicate the cultivation that went on in here in the past.
- Numerous lo‘i terraces identified in the ahupua‘a of Ka‘amola, ‘Ualapu‘e, Kalua‘aha, Waialua, Halawa, among others.
- Ka Ulu Kukui o Lanikaula – Today it is a small grove, but it was once a huge forest of kukui trees (some say 600 acres), which were essential for bringing rains to Mana‘e. The rainclouds were said to travel from Haka‘ano, a northeast ahupua‘a, move through Ulu Kukui o Lanikaula, and further along all the ahupua‘a of East Moloka‘i, until they reached Kamalō, and moved out to sea towards Lāna‘i.
- Pristine, intact native forest in upper ‘Ōhia and Kahananui (within the Pāku‘i Unit).
- Kahuli snail found in Kumu‘eli and along the north side cliffs.
- Pōhakupili – There are many springs located in this area that begin their flow from mauka and flow all the way down to the various fishponds makai. If the top sources are clogged or dry, the springs down below will also dry-up. This is the epitome of what has been happening with the watershed in Mana‘e. Protecting and restoring the Pōhakupili area warrants attention and care.
- Kapo‘oko‘olau – One kama‘āina informant said “There’s a place, Waiku‘ilani, that goes to Kapo‘oko‘olau. There used to be a waterfall going into the gulch that sank down into

the ground, not into the ocean. But along the ocean portion, it formed springs. Each fishpond on east Moloka‘i has 2-3 springs.”

- Waiakea‘akua – identified as “the birthplace of waters,” and described as “the most important water source because it feeds every stream on that side of the island.” It’s critical that area be protected because it acts like a sponge that soaks up the moisture, like Kamakou Bog; its health is vital to the overall watershed health.
- Hālawā – A plethora of cultural sites have been located within this valley, as it was heavily inhabited and used for the cultivation of kalo and other native plants. A full report of all sites within it can be read through Dr. Patrick Kirch’s Hālawā Study.³⁰
- Wailau – Much like its neighbor valleys (Pelekunu to the west and Hālawā to the east), Wailau was made up of extensive lo‘i complexes. These were documented and discussed in Dr. Windy McElroy’s dissertation.³¹ Wailau is also known for its rocks lying offshore and its relevance to the Mo‘olelo of Kana.
- Pelekunu – Much like other surrounding valleys, Pelekunu is known for its plethora of lo‘i that were cultivated here. One of its associated islands, Mōkapu, is known for its role in the Mo‘olelo of Ha‘eha‘ekū. A north-south traditional trail is known to have gone from Pelekunu valley through to Kamalō.

Burials:

- Kumimi and Moanui were identified as having ali‘i burials located there.
- Caves in Moanui are also historically and traditionally significant, but landslides have destroyed at least some of these caves.

Other Historic Sites and Mo‘olelo:

- The traditional Pākaikai area was identified to be Kamehameha nui’s birthplace, and to have a large number of historical sites such as the Queen’s bath, an area of rocks with bowls carved into them and used for making ‘awa (see image below).³² An alternative presented in the East Slope Management Plan would create a corridor through this area, inviting a high concentration of ungulate migration, which could potentially negatively impact important historical sites.³³



‘Awa cups in the traditional Pākaikai area. If the alternative consisting of a corridor is implemented, sites such as these would be threatened by heavily concentrated ungulate traffic.

Photo: Ted Kanemitsu

- Mo‘olelo of Lanikaula – It was said that the great prophet of Moloka‘i, Lanikaula lived in the 15th century. His bones are believed to rest in Ka Ulu Kukui o Lanikaula (kukui grove of Lanikaula). Several informants mentioned that this site is the second most sacred place in all of Hawai‘i.
- Mo‘olelo of ‘Anini – the magic hala tree and hala mat that carried and saved a baby during heavy floods. This indicates an abundance of freshwater from Honouliwai and presence of important lauhala groves.
- Mo‘olelo of Kana – “The rocks of Kana” located outside of Wailau Valley symbolize Kana’s body lying in the ocean.
- ‘Aha‘ino/Honomuni area – local pu‘u one (inland fishpond), whose spring has been impacted by mauka earth moving activities. Coral lanes extending from mākāhā planted in ancient times to attract fish. Also, underwater ahu and reef gardens with the names of women in early Hawaii who tended them. Families related to these women can trace their genealogy and rights of stewardship to these underwater garden plots.
- Hina’s Cave – Hina is known as the mother of Moloka‘i island. Also known for famous wind gourd used to restore pono with the people and the land. The location of this important site was not shared for its protection.

Important Trails:

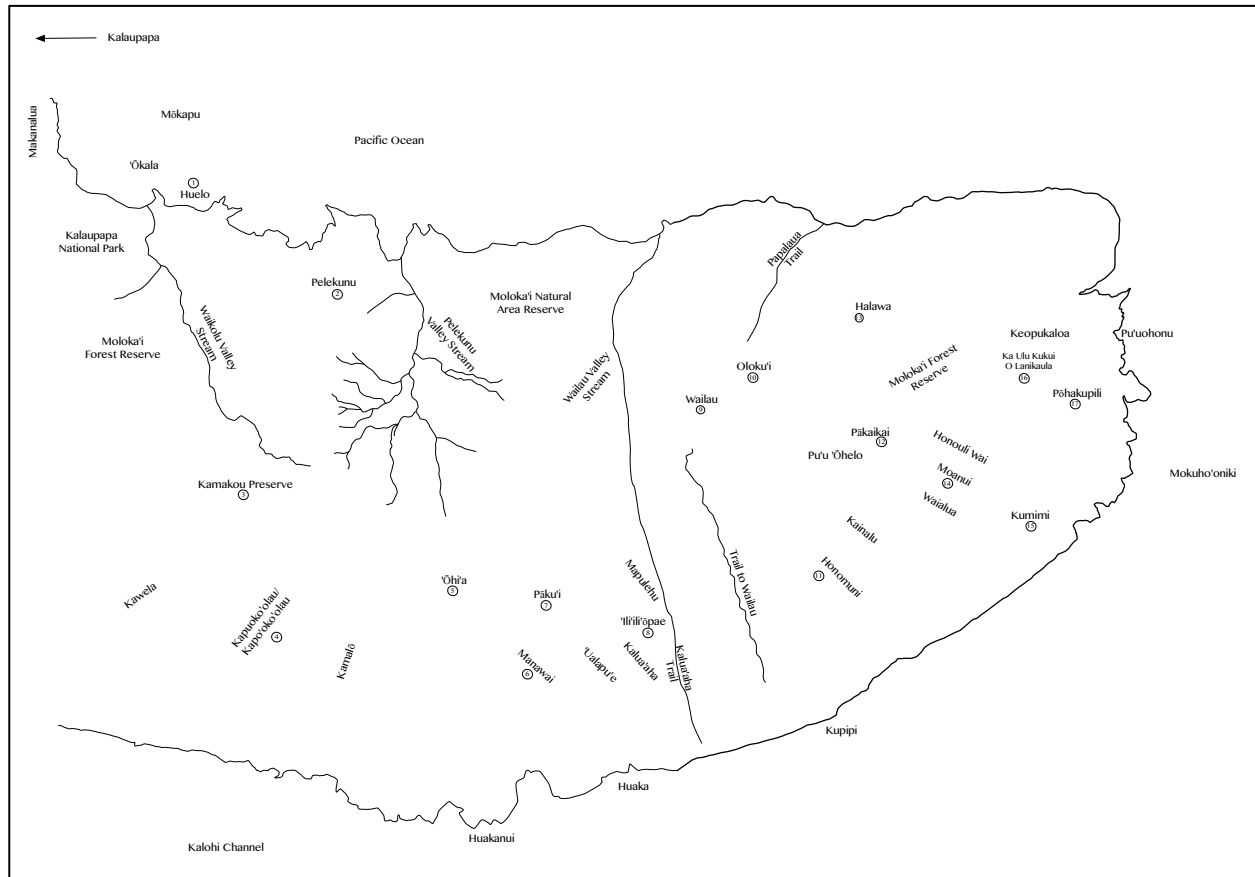
- Wailau Trail – historic trail that leads out from Wailau and cuts towards Mapulehu is still used today. One informant added, “the Wailau Trail was serious. It was categorized as a government road. That is how much people used this road. Uncles were the postal service. There are stories of them delivering mail to Pelekunu. It was the only way to get into town from the backside.”
- Pelekunu trail – begins at Makole. There was documentation of this trail in 1960.
- A few kama‘āina informants mentioned an underground lava tube connecting south shore to north shore, from Kamalō to Pelekunu, although the exact location is unknown. This trail is also mentioned in Auntie Harriet Ne’s *Tales of Molokai*.
- Other trails mentioned include the Kalua‘aha Trail and Papalaua Trail.

Map of Identified Cultural Sites and Trails in Mana‘e

The following map provides an illustration of the multitude of historic sites and trails that the kama‘āina informants identified throughout Mana‘e. Please note that this map does not encompass all of Mana‘e’s historic sites and trails, only those identified by the kama‘āina informants interviewed by the Native Hawaiian Rights Clinic in February. Thus, this map was prepared by the clinicians, based on the sites identified at that time. Each site is numbered and corresponds to a more detailed description, which is provided in *Appendix B*.

It should be noted that TNC will be conducting a Cultural Impact Assessment (along with an Environmental Assessment) for each unit proposed, beginning with the Pāku‘i Unit (the process for which began in 2015). That process should result in a more thorough identification of sites.

Figure 6. Map of cultural sites and trails in Mana‘e identified by kama‘āina informants



Source: UH Native Hawaiian Rights Clinic, Spring 2014.

Recommendations regarding cultural sites and trails, springs, and lo‘i kalo include, but are not limited to the following (a more complete list of recommendations is included in Chapter 5, but these are listed here, as they relate to the map and information collected by the Clinicians):

- Cultural sites should be taken care of and maintained, and whenever possible, such mālama should be carried out by ‘ohana who know the place intimately.
- Trails should be maintained and access should be allowed; ensure they are not blocked by a fence.
- Invasive plants should be removed from streams, especially those that soak up a significant amount of water, such as Java Plum.
- Streams should be maintained, cleared of debris.
- Stream bank should be replanted with native riparian plants.
- Wherever possible, native species should be re-introduced (fish and plants).
- Monitor in-stream flow.
- Lo‘i and ‘auwai should be restored, re-opened, and planted for production. Use them as siltation traps to reduce run-off.

3.3. NEARSHORE FISHERIES: FISHPONDS, REEFS, ESTUARIES, AND OCEAN GATHERING AREAS

Traditionally, an ahupua‘a ran from the top of the mountain down to the shoreline and out to the edge of the reef. *In Re Kamakana* (1978) says “an ahupua‘a in ancient Hawai‘i generally ran from the mountain to the sea. This afforded to the chief of the ahupua‘a and his people a fishery residence at the warm seaside, together with the products of the highlands, such as fuel, canoe timber, mountain birds, and the right of way to the same, and all the varied products of the intermediate land. Consistent with the concept of the ahupua‘a as a self-sufficient land unit, both inland and shore fishponds were considered to be part of the ahupua‘a within its boundaries.” Based on this, modern-day law recognizes that fishponds and konohiki fisheries are part of the ahupua‘a, as are submerged lands.

Numerous kama‘āina informants discussed the importance of Mana‘e’s ocean resources, along with the fishing practices they carry out there, which includes a wide variety of techniques. Several informants mentioned limu (seaweed) gathering as an important part of their traditional and customary practices. They also talked about how the ocean resources have been negatively impacted by the degradation of the watershed. Namely, erosion has caused run-off and siltation of the nearshore waters and the reef. In addition, some of their ko‘a (fishing markers) have been impacted by invasive vegetation, such as kiawe, that has hidden their line of sight; thus, impacting their ability to locate certain fishing grounds. Another direct impact of a degraded watershed on the nearshore waters is that certain springs have stopped flowing, which are essential for fishponds to function as they were meant to, since they provide muliwai (brackish water) that feeds the loko i‘a and provides a micro-ecosystem valued by herbivorous fish, such as mullet and milkfish. Thus, there is a very clear correlation between the health of the mauka watershed and health of the nearshore fishing and gathering areas.

In addition, there have been numerous efforts to restore fishponds on Moloka‘i. One such effort currently underway in Mana‘e is Hui o Kuapā – Keawanui Fishpond, formerly known as the Hawaiian Learning Center, under the direction of Walter Ritte, Kalaniui Ritte, and Hano Naehu. They manage Keawanui Fishpond and Kamehameha lands surrounding that pond. They have been restoring and maintaining Keawanui Fishpond since 1999. Through years of hard work, this program has successfully restored this fishpond to being functional again. They are re-opening springs that were covered by mangrove that naturally feed the fishpond and provide muliwai (the brackish water that attracts and feeds fish), rebuilding the stonewalls, as well as restoring the mauka areas to reduce run-off and siltation in the pond. In addition, they use their loko i‘a as an outdoor hands-on classroom to teach others about this resource.

Numerous other informants discussed the importance of restoring and maintaining Mana‘e’s fishponds, as a cultural practice and a source of healthy, local food, which was started in the 1980s & 1890s. Right now the law allows for more streamlined permitting for fishponds. An environmental assessment and a Finding of No Significant Impact (FONSI) was issued recently and allows for restoration of fishponds, as well as streamlines the permitting system, which makes it easier for practitioners. This supports the community desire to do additional restoration of loko i‘a.

The following table identifies the twenty-five (25) State-owned and private fishponds in Mana‘e that are considered viable for restoration. The location of these ponds span the length of approximately 11 miles of shoreline beginning from the ahupua‘a of Kamalō and terminating in the ahupua‘a of Honouliwai. This information was gathered from the Moloka‘i Fishpond Master CDUA Project provided by the University of Hawai‘i Department of Urban & Regional Planning Practicum Class in December, 1993.

Table 3.3: East Moloka‘i Fishponds Proposed for Restoration³⁴

*Site No.	TMK No.	Name of Pond	Ownership
156	5-6-09	Name Unknown	State
157	5-6-08:20	Kaloko‘iki	Private
160	5-6-05:22	Kaina‘ohe	Private
162	5-6-06:9	Mikiawa	State
163	5-6-06:8	Keawanui	Private
165	5-6-04:28	Kaunahiko‘oku	Private
166	5-6-06	Unknown	State
170	5-6-06	Wehelau‘ulu	State
184	5-6-03:35	Halemahana	State
185	5-6-01:1	Ualapue	State
188	5-7-11	Kalua‘aha	State
189	5-7-10:31	Mahilika	State
190	5-7-09:01	Ka‘ope‘ahina	Private
192	5-7-07:8	Ni‘auhala	Private
193	5-7-08	Unknown	State
202	5-7-07:22	Panahaha	State
206	5-7-06:1	Kupeke	Private
212	5-7-06:22	Kihaloko	Private
213	5-7-06:27	Waihilahila	Private
214	5-7-04:34	Kula‘alamihi	Private
219	5-7-04:5	Ipuka‘iole	Private
220	5-7-04	Kainalu	State
226B	5-7-01 and 03	Unknown	State
No assigned site number	5-7-03:70	Unknown	State
231	5-8-01:3	‘Ohalahala	State

* Site numbers correspond with Summers’ cultural sites inventory.³⁵

Below is a quote that captures the privilege that many kama‘āina feel towards the importance of restoring Mana‘e’s fishponds:

Ho‘olaulima ku na kupuna,
Malama no i ka loko i‘a
E ho‘omau i neia waiwai ho‘oilina

Let us work in the manner of our ancestors,
Let us preserve the fishponds
To continue this part of our heritage³⁶

In addition to fishponds, Mana‘e has relatively healthy fishing grounds that residents utilize regularly. However, they are not the only ones who know of this resource. There have been numerous incidents over the years, including recently, whereby outsiders have come to fish in Mana‘e and have gotten into conflicts with locals over their right to be there. As a model, a Community-Based Subsistence Fishing Area (CBSFA) designation is something that the Mana‘e communities may want to consider to create its own fisheries management plan.³⁷ The community has discussed the creation of a CBSFA in the past and it may be time to re-visit the idea, along with looking at other legal designations.

In sum, the people of Mana‘e were “mahi‘ai o ka ‘āina me ke kai,” farmers of land and sea, which is the motto of Moloka‘i High School. The building of fishponds and other activities of our kupuna, such as creating fishpond gardens and fish houses, and planting coral to coincide with mākāhā, indicate that there is a rich heritage of mālama, of caring for the resources, and of farming these resources, both on land and in the sea. Some of this can happen once more, if these practices are renewed.

Recommendations regarding konohiki fisheries and fishponds include:

- Fishponds should be protected and restored, not only for raising fish, but for their protection of springs and the muliwai created there.
- Remove invasives, such as gorilla ogo limu, and invasive fish like roi.
- All fishing and ocean gathering activities need a healthy watershed, which directly impacts ocean/reef resources.
- Shoreline monitoring should be implemented, as well as offshore monitoring.
- Look into obtaining a Community-Based Subsistence Fishing Area designation.

3.4. HUNTING

Hunting is a large part of Moloka‘i’s subsistence lifestyle, as pigs, deer, and goats have become an integral part of Moloka‘i and Mana‘e families’ diet. Numerous kama‘āina informants shared their fear that any fence might negatively impact their ability to continue subsistence hunting. One kama‘āina informant shared that he has been jumping over fences to hunt and feed his family all his life and he does not want to see any more fences. However, other viewpoints were heard, such as one informant who said that when kama‘āina are asked what his or her main purpose is, the appropriate response should be “to take care of Hina (the island of Moloka‘i),” which should outweigh the need to protect hunting. He shared that there are some things that should not be compromised and if we take care of the ‘āina, the momona will come back.

Another major concern is the waning respect that some hunters have for the ‘āina and for subsistence practices. Specifically, many Mana‘e hunters who consider themselves “the older generation” agreed that the younger generation of hunters have a different mindset than they do. Some of the members of this older generation said that many hunters now-a-days do it for sport, as shown by them posting their prize bucks on the Internet (Facebook). In addition, it was shared that “some hunters don’t participate in mālama anymore, they are getting selective and discarding much of the meat.” Some informants observed that some young hunters go in to a place with disrespect – loud, on 4-wheelers, they only take the rack and prime cuts, and then

leave the carcass on the land. Older hunters said they were taught to take every part, not to waste, and not to pollute. They would take as much meat as they could, and then bury the remains. Unfortunately, those cultural values and practices are eroding.

These concerns among the hunters have become personal because it has given them a negative reputation in the community in terms of conservation and aloha ‘āina practices. Recommendations for addressing this erosion of values were shared by a few informants, such as including mālama ‘āina values in hunter education programs, which should be mandatory for all hunters. These recommendations are discussed in more detail in Chapter 5.

Recommendations related to hunting include:

- Figure out what is a sustainable yield and base hunts on this (knowing how many can be harvested without threatening the population).
- Coordinate community hunts (specific techniques elaborated upon below).
- Since all hunters have to go through the Hawai‘i Hunter Education Course (“hunter course”) to purchase a hunting license in order to hunt in the State, the hunter course could be augmented to include conservational approaches and mālama ‘āina values and practices. Young hunters can be taught cultural values and also be expected to do some of this conservation work so they develop a good ethic early on.
- Permission should be asked for safety issues, as well as a matter of courtesy. That is a Hawaiian value, even though the requirement to do so was eliminated as part of the Kuleana Act. As a community we want to adhere to those values, whether it’s required or not.
- Form a hunting hui or cooperative, through which hunters could get liability insurance, organize their hunts, and possibly do conservation work as well. This way large landowners would be protected, and it would minimize the worry of lawsuits and liability.
- Several community informants suggested the strategic placement of hunting cabins in mauka areas (just below fenceline) to allow for organized hunts. The placement of hunting cabins at the edge of the fences is suggested so these scheduled community hunts could allow hunting to happen directionally down the hill, instead of always up. The cabins could also be used for conservation efforts, which could be carried out by hunters and/or others.
- For community hunts, implement a technique modeled along surround-net fishing or loko ‘umeiki fishtrap. Some fishermen use a bullpen-style technique with a net in the shape of a he‘e, or octopus. The net opens outward like the legs or tentacles of the octopus. Fishermen then paepae, or slap the water, or do certain movements to herd fish into the net, into the head of the he‘e. The net is then pinched off at the base of the head after the fish are herded in there. It was suggested that we could apply the same concept on the land for community hunts. To do so, stakes would be put in the ground at intervals of 10 feet in the shape of a he‘e. And whenever the community was ready to begin its hunt, a cargo net could be erected along these stakes. Then community hunters could then work together to get deer, goat, or pigs into the head of net. (Note: there is further discussion on this proposed technique in Table 5.3 “Community Suggestion” #8 in Chapter 5.)

3.5. DEGRADING WATERSHED HEALTH IN MANA‘E

As stated previously, the people of Moloka‘i have witnessed a notable decline in the health of their watersheds. A significant part of this declining health is the degradation of the mauka native forests, which has subsequently had a drastic effect on all of the ahupua‘a of Mana‘e, from mauka to makai. Some of the specific conditions observed by kama‘āina informants include the following:

- An overall degradation and/or reduction of resources.
- Animals (wild ungulates and domesticated pigs, cows, etc.) have destroyed much of the native forest. This has allowed non-native invasive species to move in. The native forest has/had various elements – groundcover, sub-canopy, canopy, etc. – the features of succession. All of these elements together form a healthy ecosystem, which holds the soil in place and captures rainwater. However, when this is removed or damaged, the non-native vegetation isn’t as effective at holding the soil together or capturing rainwater.
- When new elements are introduced, such as ironwood or kiaawe, they are not good at integrating into the ecosystem. One informant called them “Ilikea plants” – indicating that they are selfish, like some ha‘ole (newcomers) who cannot live in partnership with other plants. A healthy ecosystem consists of biodiversity, whereby all these elements live together. The informants said that the entire system needs to be restored.
- Pigs spread waiawī (strawberry guava) and other invasives; they remove the ground cover, so when the rain comes, the soil washes down.
- Silt in fishponds. The staff at Keawanui Fishpond reported that the pond has plenty of siltation. They believe that much of it was caused by cattle that graze mauka of the pond. In response, they have created berms to prevent the silt from coming down and affecting their operations.
- Several informants talked about native limu dying out in some areas, while coming back in others, such as Ka‘amola.
- Springs are dying out because non-native plants suck up water, which makes lo‘i inoperable. Part of the recommendation is to re-open lo‘i because they transport nutrients that re-enter the stream. Lo‘i are sinks for silt, they let silt settle out, so by the time the water reaches the ocean, the silt is filtered out. Lo‘i also provide ecological niches for opae (shrimp) and ‘o‘opu (fish). Their waste feeds the lo‘i, the ‘auwai (ditch) carries the nutrients down through the system, which then feed the fishpond with nutrient rich water. This feeds the algal-mats. As the water is slowed down, it builds the water table, which gets filled up, and then gushes out at the springs. These springs emerge along the shoreline. When konohiki engineered fishponds, they looked for this “sweet water” from springs, since it attracts fish.
- In ‘Aha‘ino, it was also noted that the waters off the shore were important mating grounds for turtle, known as honu ho‘oipoipo (turtles make love). One informant has witnessed the nesting of turtles along the shoreline where she lives in ‘Aha‘ino. She has been distressed by the clearing of the land above the ‘āina where they live, creating run-off. This run-off has affected the turtles that used to lay their eggs along the shore. What has essentially happened is that the beach sand has now turned to mud. The turtle hatchlings have been unable to emerge through the mud, and they have perished.

- One informant talked about the waters called Waiakea‘akua, which is like a mauka water bowl that fed/feeds the streams. Several years ago, when access was open, she walked along the ridgeline from Pu‘u o Hoku Ranch to ‘Aha‘ino. Compared to today, the resources were more lush then, and there were more native plants. Currently, resources are dwindling as well as the land being noticeably drier now. She fears the mauka water bowl is a critical water source that is in danger and needs to be protected.
- Several interviewees mentioned that the number of hīhīwai (endemic grainy snail) in the streams is depleting. Some kama‘āina informants noted that in Pāpio Stream there is no hīhīwai because there is not enough water. One informant mentioned that within the last 12 years, the spring water died at Honouliwai Stream so the interviewee needed to run a pipe further up the stream to get water. Many community members also rely on the freshwater for lo‘i. Waialua and Pāpio were specifically mentioned as having lo‘i along their banks. Several Mana‘e community members also recognized the cultural importance of the streams in the area. Waialua Stream, for example, is in many oli and mele.

In regards to overall watershed health, informants also talked about impacts by large landowners, and the need for more open dialogue and relationship building with certain landowners within Mana‘e. Some specific concerns and comments included the following:

- Several informants mentioned stream diversions by landowners as a concern. Some were seen first-hand, but not all. Some were reported as happening currently, and others in the past. For example, one interviewee mentioned that Moanui Stream does not run anymore, which they believe is due to a diversion above (not verified).
- Numerous informants were concerned about poor ranching practices by some landowners, which are causing erosion and run-off into the ocean.
- It was reported that one large landowner in ‘Aha‘ino has done extensive earthwork, which has created landslides and brought silt downstream and into the ocean. It is also believed that he punctured a major water vein, which was critical to feeding a spring that fed a local pu‘u one (inland pond). According to informants who live makai of this landowner, the stream waters have since turned foul and stagnant. As mentioned previously, this run-off has also affected the turtles that used to lay their eggs along the shore in ‘Aha‘ino. What has happened is that the beach sand has now turned to mud, the turtle hatchlings have been unable to emerge through the mud, and they have perished.
- One informant suspected chemical applications have been applied mauka because native trees have begun to wither, especially the lauhala. This was noted as being detrimental to her cultural practices and livelihood because she utilizes wauke to make traditional Hawaiian cloths and native plants for designs. She also weaves lauhala, so the health of these plants is critical to her.
- It was reported that one large landowner has also made the mauka area into his personal golf course. Hundreds of golf balls have migrated down the stream and into the ocean. This has caused concern in terms of the environment and marine organisms being impacted by the golf balls and other ocean pollution.
- One Native Hawaiian subsistence hunter reported having been arrested on numerous occasions, hand-cuffed and taken to the precinct, but not charged with a crime, for accessing private lands to hunt.

- Several informants were troubled by the fact that Pu‘u o Hoku Ranch is currently allowing commercial deer hunts on their land. They are concerned that making deer a commodity will encourage people to hunt more than they need. However, other informants saw deer meat and deer by-products as a possible economic engine for restoration work. Both sides agreed it would be helpful to know the approximate number of deer in Mana‘e, and what a sustainable number might be.
- Numerous informants mentioned the ecological and spiritual importance of Ka Ulu Kukui o Lanikaula, the sacred kukui grove (located on Pu‘u o Hoku Ranch lands) and how critical it was that this grove be restored. Traditionally, it was known as a place that gathered the rains of Hina. These rains would begin from Haka‘ano, make their way across several ahupua‘a to the kukui forest of Lanikaula. These rains traversed the multiple ahupua‘a of Mana‘e and terminated at the bend of Kamalō, where they extended out to the sea. Several informants expressed a strong desire for Pu‘u o Hoku Ranch to work with the community to allow and support restoration of this place. Specifically, several members of Hui Aloha ‘Āina o Mana‘e had begun re-planting the kukui grove in the past, but they had encountered obstacles to completing such work (such as access to irrigation water). As mentioned above, many informants noted that Ka Ulu Kukui o Lanikaula was the second most sacred place in all of Hawai‘i, and it is imperative that it be taken care of – for ecological and cultural reasons.

From these discussions, it is apparent that much work needs to be done to ho‘oponopono (to make right) relationships that have soured, or that have never been productive. The strong distrust that some informants have, including members of Hui Aloha ‘Āina o Mana‘e, has been caused by what they consider to be bad faith actions by some large landowners in Mana‘e. Those landowners that display a general disregard for the ‘āina, kai, and places that are special and sacred for ho‘āina, have soured their view for any type of “Watershed Partnership” – that consists of agreements between the state and large landowners. This is a systemic problem that threatens to impede the work that is needed to restore the health of Mana‘e’s watersheds mauka to makai.

When kama‘āina informants were asked about The Nature Conservancy (TNC)’s efforts in the upland native forest to protect the remnant pristine forest, most supported it. Those that were not in complete agreement with the proposed fence, seemed to have more of an issue with what they perceived to be TNC’s general approach to conservation. What was expressed was a discomfort based on the belief that TNC seems to rely more on conventional western conservation strategies, and does not give equal regard to traditional native knowledge. The fact that their Native Hawaiian ancient ancestors had created a very abundant ahupua‘a needs to be acknowledged by modern scientists and conservationists, which should result in more discussions on the diversity of conservation modalities, especially integration of traditional indigenous knowledge and management practices. Some informants also acknowledged that while they would love to see kama‘āina manage their ahupua‘a and moku without a fence, they felt the biggest obstacle would be getting the Mana‘e community to work together to implement such a strategy.

From one kama‘āina’s perspective, in traditional times, while the ali‘i (the mō‘ī or the chiefs) had management/stewardship control of the land, they also had a duty to treat the people fairly,

and to maintain the abundance of the land. If they breached that, then they were no longer fit to rule. Those that lived there and were under the rule of the ali'i or konohiki of that area were free to move to a place that was better for them if they felt those in charge were unfit. Thus, the ali'i knew well that to mistreat the people, meant that the land would also suffer, and not be abundant. 'Āina momona, therefore, was an indication of pono and lokahi (balance and harmony) between the ali'i or konohiki and the maka'āinana or hoa'āina (native tenants of land) – between stewardship control and those who worked the land. If the land was unproductive, then it indicated that there was no pono between the ali'i and the maka'āinana.

Now in this modern day with private ownership, with large landowners in possession of huge tracts of land, there is an expectation by Native Hawaiian families, that these large landowners honor that trust, and manage in such a way that includes family and that values their knowledge and traditional practices. At the heart of this is kuleana, which is a sacred responsibility to the 'āina and the people. When that is not recognized or rejected by the large landowners, then the land suffers and the people suffer.

For those informants with strong feelings of distrust towards some large landowners in Mana'e, it is essential that those landowners demonstrate that they have respect for Native Hawaiian rights, such as access, that they respect their traditional knowledge, and they themselves begin to adopt pono practices on the land.

Additional recommendations regarding ahupua'a management and watershed restoration include:

- Upper forest should be respected and largely left alone. Manage ungulates in order to protect the critical water resources located there. Native plants should be re-planted, and invasives removed as feasible.
- Restore the lower forest, which has become very degraded in many areas. Native plants should be planted and protected. May need to enclose small, newly planted ones with smaller fences so animals don't eat them.
- Fishing ko'a (markers) should be restored, as well as the line-of-sight to them from the ocean. Doing so would revitalize, or bring back the practices of utilizing fishing ko'a. What happens mauka also affects makai, not just in resources, but also in our ability to perpetuate the practice. Non-native plant species on the land affect fishing practices in the ocean, which exemplifies how the ahupua'a must be looked at as a whole.
- Establish native nurseries with mauka and makai species.
- May need to remove some invasives to allow native plants to flourish.
- Support sustainable farming for personal and commercial production.

3.6. SUMMARY OF FEEDBACK ON THE EAST SLOPE MANAGEMENT PLAN (JANUARY 2014 DRAFT)

When interviewing the kama'āina informants, one of the main questions asked was, "Do you support the proposed fence? Why or why not?" While a wide variety of answers were provided, the overwhelming majority said "Yes." However, even those who said yes had a variety of mana'o on exactly how and where that fenceline should be implemented. Based on the East

Slope Management Plan (January 2014 draft) and the community's feedback, there are essentially five (5) discernible ways this conservation effort could be pursued:

- **Proposed Fencing: Pua'ahala to Hālawā**
- **Alternative #1: Fencing with Pākaikai Corridor**
- **Alternative #2: No Fencing**
- **Alternative #3: Mauka-Makai Fencelines**
- **Alternative #4: Lowered Fenceline**

In addition, there was some feedback related to the fence that is summarized in the sub-section entitled: **Additional Community Mana'o Regarding Fencing.**

*It should be noted that since the time when the majority of the interviews for this report were done (early 2014), TNC has stated (in October 2014) that the Pāku'i Unit is their priority and they are focusing on that for now. The Pāku'i Unit consists of the native forests atop the ahupua'a of Pua'ahala to Kalua'aha.³⁸ However, the mana'o is presented here in the way it was shared with the authors of this report.

3.6.1. Proposed Fencing: Pua'ahala to Hālawā

As stated previously, the majority of the informants interviewed support the fencing as proposed in the East Slope Management Plan. Among those Mana'e residents who are in support of the fencing project as proposed, there is general agreement that its goals – to protect and revitalize our critical mauka watersheds – are important and pono. However, there is also a strong sentiment that there must be a balance between the conservation efforts and the protected rights to carry out traditional and customary practices. There is agreement that access to enclosed managed areas must be provided to both hunters and gatherers. As part of the proposal, “step-overs” are included in the East Slope Plan that would ensure such access. There is also recognition that blocking access of the ungulates in managed areas via fencing means that the animals will inevitably migrate to unfenced areas (i.e., change their migration patterns), thus further degrading those areas. While those who support the fencing project as proposed generally recognize these two issues as challenges, the belief is that they can be overcome with the participation and involvement of the community, especially hunters.

Some experienced community hunters believe that the fence would actually make hunting easier, as it is likely that the ungulates will forage along the fenceline (as seen in the Kamalō fencing project), and will have more predictable patterns of movement. There are also some who believe that erecting a fence is akin to the traditional kapu system and argue that preservation of traditional and customary rights necessarily means that sacrifices are needed to be made today to ensure that future generations of Native Hawaiians have a healthy 'āina where they can practice traditional and customary rights. It was also mentioned that it is incorrect to say that fencing is contrary to Native Hawaiian culture. The loko kuapā (fishpond made by building a wall on a reef) was given as an example.

Overall, the proposed fencing from Pua'ahala to Hālawā has substantial support by the kama'āina informants, as long as access for traditional and customary practices is ensured with the implementation of step-overs, and additional management is included for the areas

makai of the fenceline. They would also like to see mitigation efforts for unfenced areas and/or areas impacted by changed migration patterns. However, not every ahupua‘a supports the fence, as detailed below (specific ahupua‘a identified in Chapter 5). Thus, it is recommended that the fence be implemented in those areas that support it.

3.6.2. Alternative #1: Fencing with Pākaikai Corridor

The East Slope Management Plan (January 2014 draft) as proposed includes four priority management units extending from the west in the Pāku‘i region to the northeast in the Pāpalaua region. In between, the Mapulehu and Keopuka Loa Units will also be covered by the East Slope Plan. However, due to the lack of native vegetation and the benefit of continued use as a hunting area, the East Slope Plan alternatively proposes to exclude the Pākaikai sub-unit of Papalaua. This alternative proposal would create a corridor between the adjoining Papalaua and Keopuka Loa Units and the Mapulehu Unit.³⁹ This alternative approach has created some contentions among community members who view this strategy as counter-intuitive to EMoWP’s commitment to protect the mauka forested watersheds.

Several of our informants expressed that their main concern with this alternative is the corridor that it will create through Waialua and Honoulimalo‘o. One of the informants shared their belief that having this corridor would create heavy ungulate traffic, which would deteriorate a number of important streams that supply freshwater to families that rely on them for agriculture and domestic needs. Other informants shared their concerns that increased ungulate activity in the unfenced area would do more harm than good, especially in that it would impact the intact native ecosystems there, such as the native plant species, birds, insects, and fish. Another area of concern is how this alternative would impact some sensitive cultural sites that may be trampled by ungulates, such as the awa cups and ali‘i baths, as well as the Pākaikai agricultural complex of Kamehamehamehanui‘ailuau.

The East Slope Management Plan identified key areas where ungulate activities are most active and where hunting is primarily concentrated. These areas include the mauka watersheds east of Mapulehu in the Pākaikai and Hāka‘a‘ano areas.⁴⁰ Axis deer dominate the Pākaikai area, while Axis deer and pigs are also found in the Hāka‘a‘ano area.⁴¹ Because much of the ungulate activity is concentrated in the area along the corridor that is excluded in the East Slope Plan’s alternative fencing control program, some hunters are reluctant to support the proposed Watershed Plan. One cultural informant stated his belief that if all of the areas between Pāku‘i and Pāpalaua are left un-fenced, it would be better to not have any fence at all.

Another major concern for hunters regarding the deterioration of the Waialua and Honoulimalo‘o region is the waning respect that other hunters have for their ‘āina, as discussed previously. The generational divide between the new and old hunters is thus worrisome for traditional hunters who view the East Slope Plan’s Pākaikai Corridor Alternative as potentially setting off an unintended ecological disaster in the isolated corridor in Moloka‘i’s far east side. The potential for the discarded meat to wash down into the streams is a major concern, and so is the run-off that would be created when hunters access the trails by all terrain-vehicles in the upper-reaches of the corridor.

Overall, “Alternative #1: Fencing with Pākaikai Corridor” has very little community support, due to the potential negative impacts to the land within the corridor, and therefore, should not be pursued.

3.6.3. Alternative #2: No Fence

While there is recognition that something needs to be done to help revitalize the native forest and protect the watersheds in the mauka areas, some informants – who are grounded in practicing the traditional and customary way of conservation or mālama – find the proposed fencing plan to be contrary to Native Hawaiian values. They believe the focus should instead be placed on reinstituting traditional values in the community through education.

These informants say that symbolically, the fence itself represents a continued movement away from traditional values of exercising one’s responsibility or kuleana to care for or mālama the ‘āina. Moreover, the fence historically represents the idea that people should “keep out” which has prevented some kama‘āina from exercising their traditional and customary rights in certain areas. Even with the proposed step-overs, there is lingering concern that erecting a fence will have an implication on the rights of hunting and gathering. Two additional arguments against the use of a fence include mistrust of large landowners and having to work with them (as discussed previously), and having a man-made metal structure in nature.

Informants also expressed their belief that the fenceline as proposed is contrary to the traditional ahupua‘a management practices of their kūpuna, which encompassed mauka to makai. Some said that one area should not be identified as being more important than another (i.e., mauka vs. makai), and encouraged instead, that there be a holistic approach to take care of all the resources in all the areas of the Mana‘e moku.

Overall, there are a few ahupua‘a where the over-riding sentiment of those residents is “no fence” (specific ahupua‘a identified in Chapter 5). Thus, it is recommended that the people of those areas begin and continue a dialogue with the implementers of the fence (TNC) about their desire to manage their place themselves. It is possible, that as the fence west of them is implemented, the impacts may be seen as positive and worth implementing.

3.6.4. Alternative #3: Mauka-Makai Fencelines

This alternative is related to the previous one (No Fence). The reason for this connection is that if certain areas choose not to implement a fence in their ahupua‘a (or ahupua‘a cluster), then it may cause greater harm to that area if a corridor is created. Thus, a mauka-makai fenceline was suggested to prevent migration of ungulates further east. However, some of those residents who are opposed to the fence also do not want a metal man-made structure in their natural areas. Such a mauka-makai fence may actually increase the amount of metal structures surrounding their land. Furthermore, initial feedback from TNC is that mauka-makai fences may be too expensive, and not economically feasible for them to implement. Thus, further discussion is needed if there is interest in pursuing this alternative.

Overall, mauka-makai fences may be considered as a possible alternative in certain areas where the proposed fence is opposed. However, it should only be pursued through open dialogue between kama‘āina, large landowners, TNC, all other key partners involved, and with careful consideration to costs, potential impacts, and alternative management methods.

3.6.5. Alternative #4: Lowered Fenceline

One informant said, “Why are we relegating ourselves to the remnant native forest? Why don’t we bring the fenceline down to allow the native forest to regrow into the areas where it used to be?” Several informants agreed with this sentiment, and some recommended moving the fenceline one or two miles below the receding forest line to allow complete rejuvenation of the forest. One informant suggested lowering the fenceline below the Kamakou flats.

However, some large landowners are only comfortable with including the lands that are within the forest reserve boundary line because these lands fall within the Conservation zone, rather than their Agricultural zoned land. Another potential challenge associated with this proposal is that additional landowners would have to become members of the EMoWP.

Overall, this alternative should be considered in areas where the kama‘āina and large landowners are interested in doing so. It has the potential to have an even greater impact to the health of the overall ahupua‘a.

3.6.6. Additional Community Mana‘o Regarding Fencing

While informants generally support the concept of fencing, some interviews of key informants elicited strategies that could augment the proposed plan. The recommendations heard most commonly are described below and summarized in the Recommendations section (Chapter 5) of this report.

Smaller and More Manageable Sub-Units

The draft East Slope Management Plan currently depicts Management Units that are very large, and that would most likely be difficult to manage. A recommendation shared by some key informants was to build smaller and more manageable sub-units. A strong sentiment from an experienced fencer from the Mana‘e community was to make sure to build what you can manage and manage what you can build; building bigger and not being able to manage it in the long run reduces the effectiveness of protecting the watershed within the fenceline. It should be noted that while the draft East Slope Plan has maps that depict large units, which is what this input was based on, the Plan also includes language that supports this recommendation: “Given the large size of the unit, it will be necessary to break it apart into smaller ‘subunits’ that can be managed more effectively.”⁴²

Active Engagement and Inclusion of the Community and Hunters

Several informants expressed that they would support the fence if fencing is considered to be only one part of a larger conservation effort. This larger effort should solicit active community participation, whereby participants are compensated. A recommendation was also made that management of the fenced areas should include compensated positions for community members

to participate in erecting the fence, eradication of invasive plant species, and control of invasive animal species. These recommendations are also supported by the East Slope Plan.

Traditional Fishing Methods Adapted to Land in order to Manage Ungulate Populations

To help manage ungulate populations, and where needed, to prevent eastern migration of ungulates, it was suggested to build a loko ume'iki, a traditional style of fish traps, on land to help guide the migration of ungulates into a bullpen contraption, in the shape of a he'e (octopus). For the bullpen, you would set up stakes in a specific formation to attract the controlled flow of ungulates from the loko 'ume'iki. When ready, you would hang up cargo nets along the pins that are staked in the ground, forming the bullpen, to round up and catch ungulates. It was stated that this recommendation would probably work best for goats, but could be tried with deer and pigs.

²¹ DAVIANNA PŌMAIKA'I MCGREGOR, NĀ KUA'ĀINA: LIVING HAWAIIAN CULTURE 6-8 (2007) [hereinafter MCGREGOR, NĀ KUA'ĀINA].

²² *Id.* at 193.

²³ *Id.* at 208.

²⁴ MANA'E GIS MAPPING PROJECT, *supra* note 2.

²⁵ Jon Matsuoka, Davianna P. McGregor & Luciano Minerbi, *Governor's Moloka'i Subsistence Task Force Final Report* (1994).

²⁶ *See supra*, Section 2.5.2.

²⁷ Leon No'eau Peralto, *Mauna a Wākea: Hānau ka mauna, the Piko of Our Ea*, A NATION RISING: HAWAIIAN MOVEMENTS FOR LIFE, LAND, AND SOVEREIGNTY 233 (Noelani Goodyear-Ka'ōpua et al. eds., 2014).

²⁸ Samuel Elbert, *Connotative Values of Hawaiian Place Names*, DIRECTIONS IN PACIFIC TRADITIONAL LITERATURE: ESSAYS IN HONOR OF KATHARINE LUOMALA 121 (Adrienne L. Kepler & Harry Nimmo eds., 1976).

²⁹ DAVIANNA MCGREGOR, THE NATURE CONSERVANCY, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, MAKAKUPA'IA AND KAWELA, ISLAND OF MOLOKA'I 24 (2006) [hereinafter MCGREGOR, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE].

³⁰ *Prehistory and Ecology in a Windward Hawaiian Valley: Hālawā Valley, Molokai*, 24 PACIFIC ANTHROPOLOGICAL RECORDS 167 (Patrick Kirch & Marion Kelly eds., 1975).

³¹ Windy McElroy, *The Development of Irrigated Agriculture in Wailau Valley, Moloka'i Island, Hawai'i* (Aug. 2007) (unpublished Ph.D. dissertation, University of Hawaii at Mānoa).

³² It should be noted that today Pākaikai is commonly used to refer to a hunting area that abuts the back eastern bowl of Wailau Valley, which differs in location from the traditional Pākaikai.

³³ TNC has stated that it will fence the native rainforest in Waialua if the EMOWP gets landowner support.

³⁴ UNIV. OF HAW. DEP'T OF URBAN & REG'L PLAN., FISHPOND MASTER CDUA PROJECT 22-23, 25-27 (1993).

³⁵ *Id.* (citing CATHERINE C. SUMMERS, MOLOKAI: A SITE SURVEY (1971)).

³⁶ Graydon "Buddy" Keala et al., *Loko I'a: A Manual on Hawaiian Fishpond Restoration and Management* 6 (2007) (citation omitted), www.ctahr.hawaii.edu/oc/freepubs/pdf/Loko%20I'a%20Full%20Publication.pdf.

³⁷ A state law passed in 1992 (HRS § 188-22.6) allows marine areas in Hawai'i to be designated as a Community-based Subsistence Fishing Area (CBSFA), intended to protect fishing practices "customarily and traditionally exercised for the purposes of native Hawaiian subsistence, culture, and religion." Haw. Rev. Stat. § 188-22.6 (1995).

³⁸ *Summary Update of the East Slope Watershed Project*, NATURE'S NEWSFLASH 2014 (The Nature Conservancy Moloka'i Program, Kualapu'u, Haw.), Oct. 2014.

³⁹ Dunbar-Co, *supra* note 9 at 20.

⁴⁰ *Id.* at 14.

⁴¹ *Id.*

⁴² *Id.* at 19.

4. Legal Framework and Analysis

The following analysis provides the basic legal foundation for Native Hawaiian rights law. It describes relevant constitutional and statutory provisions, as well as the body of common law developed from Hawai‘i Supreme court decisions on Native Hawaiian rights. This legal section is divided into specific areas of the law that correspond to mana‘o shared by Mana‘e kama‘āina informants. This mana‘o is analyzed within the context of the proposed expansion of the East Moloka‘i Watershed Partnership (EMoWP). It covers traditional subsistence activities in Mana‘e, religious and ceremonial protocols, and efforts to mālama ‘āina. This section describes kama‘āina perspectives on the impact, both beneficial and adverse, of the proposed fenceline expansion on their traditional practices. This section touches upon the overall watershed management recommendations within the ethic of mālama ‘āina and a holistic understanding of restoring ahupua‘a health from mauka to makai. A more detailed account of management recommendations is covered in Chapter 5.

This section describes the history behind the formation of ‘aha councils to govern the people and manage the ‘āina within moku (regions or districts on each island) and smaller land divisions called ahupua‘a. It explains the modern application of this ancient system into the legislatively created Statewide ‘Aha Moku Advisory Committee (AMAC) and the initiative taken at the grassroots level to re-activate local ‘aha councils on Molokai. This section focuses specifically on the affirmative role the Ko‘olau/Mana‘e moku has taken in providing a local and indigenous framework for free, prior, and informed consent as the community considers the implications, both positive and negative, of the proposed East Slope Watershed Start-Up Management Plan and determines its role in caring for ahupua‘a resources from mauka to makai.

Other sub-sections will cover the status of hunting as a customary practice, protections afforded to trails and historic sites, traditional fisheries and fishponds, water rights and the public trust, and certain environmental legal protections available to the Mana‘e community.

4.1. ‘AHA MOKU AND TRADITIONAL RESOURCE MANAGEMENT

There is no man familiar with fishing least he fishes and becomes an expert.
There is no man familiar with the soil least he plants and becomes an expert.
There is no man familiar with hō‘ola least he be trained as a kahuna and becomes expert at it.
That mana`o was the standard that kupuna went by in determining who would sit on the councils ...
Through the `aha councils with multiple expertise woven into a strong cord, the people established lōkahi.
Lōkahi is the balance between the land, the people that lived upon the land, and the akua.
The result of lōkahi was pono, the spiritual balance in all things.
The ‘aha represents the binding and the pono that is created for the land that will sustain life.
This prepares the way spiritually for the land physically ...
The manifestation of pono is the land and people flourishing abundantly with food and many descendants.
This comes from understanding the concept of the ‘aha.

- Kumu Hula John Ka‘imikaua⁴³

4.1.1. Statewide ‘Aha Moku Advisory Committee

In recent years, the State of Hawai‘i has acknowledged the need to integrate Hawaiian traditional ecological knowledge into natural resource management. In 2006 and 2007, a series of conferences titled *Ho‘ohanohano I Na Kupuna Puwalu* convened to gather input from Maoli cultural practitioners on natural resource management as part of an initiative sponsored by the Office of Hawaiian Affairs (OHA), the Association of Hawaiian Civic Clubs, the Hawai‘i Tourism Authority (HTA), Hawai‘i Coastal Zone Management Program, Kamehameha Schools, and the Western Pacific Regional Fishery Management Council. Legislators and governmental agencies were also invited.

These gatherings resulted in the passage of Act 212 by the State legislature and approval by former Governor Lingle on June 27, 2007. Act 212 “initiat[ed] a process to create a system of best practices that is based upon the indigenous resource management practices of moku (regional boundaries), which acknowledges the natural contours of land, the specific resources located within those areas, and the methodology necessary to sustain resources and the community.”⁴⁴ Eight representatives from each island, nominated by the Association of Hawaiian Civic Clubs and appointed by Governor Lingle were chosen as part of the Statewide ‘Aha Moku Advisory Committee to begin working on this framework together and on their respective islands. As early as 2008, Moloka‘i worked proactively to establish ‘aha leadership at the moku level. In 2012, the State passed Act 288 to establish the ‘Aha Moku Advisory Committee (AMAC) within the State Department of Land and Natural Resources (DLNR) for the purpose of integrating traditional Hawaiian resource conservation practices on all islands.

Specifically, these Acts charge AMAC with:

- 1) Integrating indigenous resource management practices with western management practices in each moku;
- 2) Identifying a comprehensive set of indigenous practices for natural resource management;
- 3) Fostering the understanding and practical use of native Hawaiian resource knowledge, methodology, and expertise;
- 4) Sustaining the State’s marine, land, cultural, agricultural, and natural resources;
- 5) Providing community education and fostering cultural awareness on the benefits of the ‘Aha Moku system;
- 6) Fostering protection and conservation of the State’s natural resources; and
- 7) Developing an administrative structure that oversees the ‘Aha Moku system.⁴⁵

At the urging of the late Kumu Hula John Ka‘imikaua and those who perpetuate his legacy and teachings, Moloka‘i has taken leadership in organizing its ‘aha councils. Of the islands, Moloka‘i has had the most experience in utilizing its ‘aha councils for local decision-making, working with private entities, and interfacing with State and County agencies. Moloka‘i for the most part has also stayed true to the original intent for which the ‘aha councils were formed i ka wā kahiko (in ancient times).

4.1.2. The ‘Aha Councils Historically

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. These were experts in fisheries management, hydrology and water distribution, astronomy and navigation, architecture, farming, healing arts, etc. As Kumu John explained, the common Molokai saying was, “There is no man familiar with fishing least he fishes and becomes an expert. There is no man familiar with the soil least he plants and becomes an expert. There is no man familiar with hō‘ola least he be trained as a kahuna and becomes expert at it.”⁴⁶ Thus, leaders who governed the people and managed the resources were those who were actual practitioners; those who had gained a comprehensive and masterful understanding of the biological, physical, and spiritual aspects of the ‘āina. The kūpuna metaphorically ascribed these councils and the weaving of various ‘ike, or knowledge streams, as an ‘aha. The individual aho or threads made from the bark of the olonā shrub were woven together to make strong cordage, called ‘aha. Thus the early Hawaiians referred to their councils as ‘aha to represent the strong leadership created when acknowledged ‘ike holders came together to weave their varied expertise for collective decision-making that benefitted the people, land, and natural resources. The term kiole described the abundant human population, likened to the ‘iole or large schools of pua (fish fingerlings) that shrouded the coastline en masse. Thus, Moloka‘i’s councils were called ‘Aha Kiole, the people’s councils.⁴⁷

The 8 Resource Realms and the Decision-Making Matrix under the ‘Aha Councils. Historically, there were certain resource realms that the ‘aha councils of Moloka‘i considered before making their decisions.⁴⁸ The eight resource realms included the following:

- 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 ‘Thi‘ihi*** – elements that maintain the sanctity or sacredness of certain places.⁴⁹

The ‘aha councils held themselves accountable to make wise decisions on behalf of these eight resource realms. They recognized that more than just good intentions were necessary for making sound decisions. The ‘aha as a collective considered every idea along the eight resource realms. Potential solutions were weighed according to how beneficial or detrimental they were to each realm. If a proposed solution was determined to be good overall to each of the resource realms, “honor[ed] the ancestral past, address[ed] the needs of the present, and set up future generations to have more abundance” then that measure was adopted for implementation.⁵⁰ Kumu John Ka‘imikaua expressed that this wise 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.”⁵¹

Each island was divided into moku and ‘aha councils customized their leadership and management in ways that were most appropriate for their place. The common denominator among these councils was the approach of choosing expert practitioners as ‘aha leaders. ‘Aha moku leaders throughout Ka Pae ‘Āina gathered often to learn from each other. These religious and educational exchanges allowed them to adopt innovations, make improvements, and progress forward together. The people governed themselves in this manner for seven hundred years from the second century, A.D. until the Tahitian migration and introduction of the hierarchical ali‘i (chiefly) system in the end of the ninth century.⁵² Kumu John Ka‘imikaua shared the results of ‘aha governance during this rich period of development:

After the passing of the first seven generations under the ‘aha councils, peace was established. By the sixteenth generation, there was no more manufacture of weapons and no knowledge of war amongst the people. The leadership of the ‘aha councils was so proficient in providing for the people’s needs. Everyone had enough food, materials for housing, and clothing. There were no rich, no poor. Because of the ‘aha councils, the people were able to progress and expand their farming and fishing abilities and excel spiritually. About three-hundred years after the formation of the ‘aha moku councils, the lands became abundant and the population of the islands increased.⁵³

The flourishing of the land and people prompted the ‘aha moku councils to join and discuss the manner in which they should organize themselves further to support the growing population and resource abundance. The ‘aha leadership elected to divide moku into smaller, more manageable units of land called ahupua‘a.⁵⁴ ‘Aha ahupua‘a were comprised of resident experts within the ahupua‘a. From here the various ahupua‘a managed themselves under the guidance of their own experts. Ahupua‘a provided the needed structure and organization from which the land could be managed towards abundance and by which the people could prosper further.⁵⁵ Governance remained with the ahupua‘a unless an issue affected the entire moku. These councils would convene according to whether decision-making was necessary at the island-wide (mokupuni), regional (moku), or more specifically at the ahupua‘a level. Representative leadership was present at all these levels. Together, they comprised the people’s councils or ‘Aha Kiole o Moloka‘i and made decisions together for the betterment of the island and its respective divisions.⁵⁶

The ‘aha councils remained relevant on Moloka‘i up until the rule of Kamehameha I,⁵⁷ Hawai‘i’s first king who united all the islands under one rule. Through the ‘Aha Kiole, Moloka‘i

was traditionally divided into four moku, or districts: Kaluako‘i (west), Pala‘au (central), Kawela (kona),⁵⁸ and Ko‘olau (north).⁵⁹ This form of governance earned Moloka‘i’s renown as ‘āina momona, the “fat land” with its numerous fishponds and bountiful harvests.

4.1.3. ‘Āina Governance under the Ali‘i

Political conquests in latter centuries under ali‘i rule typically consolidated power in a Mō‘ī (supreme chief) who acquired authority over an entire moku. Through successful military campaigns they may have also attained power over several islands.⁶⁰ When a new mō‘ī came into power, the first order of business entailed a complicated and politically delicate process of land distribution amongst the ‘aha ali‘i, a council of chiefs loyal to the mō‘ī. This process of land distribution was called a kalai‘āina.⁶¹ If there were existing moku, ahupua‘a, ili, and their palena (boundaries) were already well-known and affixed in the minds of the maka‘āinana (common people of the land),⁶² then it was advantageous to all to maintain these traditional understandings so as to avoid confusion and conflict, as well as maintain ‘āina momona.⁶³ Several Mō‘ī are renown through oli (chants), mele (song), and mo‘olelo (storied accounts) for their wise management and dividing of the lands.⁶⁴ They did so in a manner that maximized productivity, kept maka‘āinana happy, and minimized strife among the chiefs who were granted authority over specific moku.⁶⁵

The ali‘i appointed to govern various moku were called ali‘i ‘ai moku.⁶⁶ They, in turn, selected ali‘i ‘ai ahupua‘a to govern ahupua‘a.⁶⁷ Konohiki, those who possessed special expertise in natural resource management, were designated by the ali‘i ‘ai ahupua‘a to oversee agricultural activities; to fairly allocate water among the maka‘āinana (common people of the land); to monitor fishery health; and enforce kapu. The kapu were strictures and regulations governing human behavior in a manner that preserved resource abundance and allowed for continued renewal.⁶⁸

4.1.4. The Central Role of the ‘Ohana in Contributing to Thriving Ahupua‘a

Despite political wranglings and power dynamics of the ali‘i who sought rule over their island and various moku, the maka‘āinana remained the single constant.⁶⁹ The maka‘āinana comprised many ‘ohana, the extended families who cultivated the land.⁷⁰ If treated fairly by the ali‘i, they remained for many generations in the same area and maintained ‘ohana relationships that spread throughout ahupua‘a and moku.⁷¹ Members of extended ‘ohana lived inland (‘ohana ko kula uka) as well as along the shore (‘ohana ko kula kai).⁷² Typically, the extended ‘ohana lived along ‘ili which were ahupua‘a segments, narrow land strips running mauka to makai.⁷³ For families, ‘ili served a functional purpose to best meet their needs. Families maintained rights to use, cultivate, and mālama their ‘ili.⁷⁴ Ideally, ‘ili comprised a mauka (mountain, inland) piece noted as the ‘umeke ‘ai (“that which filled the poi bowl”) and a makai (shoreline, nearshore) section called the ipukai (“meat bowl”) where a rich source of fish was provided.⁷⁵ At times ‘ili were not contiguous, but comprised of geographically disconnected segments; these were called ‘ili lele (“jumping” or “leaping” ‘ili).⁷⁶ Again, this was likely to serve a functional role so that the extended ‘ohana had access to resources that provided for their subsistence and daily needs. As cartographer and Māhele expert Dr. Kamanamaikalani Beamer writes, “Often ‘ili lele included a mountain section, a wetland section, and a fishery.”⁷⁷ ‘Ohana regularly exchanged valued items and foods with each other and came together to prepare lū‘au (feast celebrations),

conduct hukilau (surround fishing), build hale (houses), engage in communal work activities, and prepare makahiki⁷⁸ tributes collected by the ali'i.⁷⁹

The 'ohana also chose haku who functioned as the head of the family; this person was usually a respected kupuna (elder).⁸⁰ The haku led the 'ohana councils; equitably distributed fish among the family; welcomed guests and ali'i; supervised communal work; and led religious and ceremonial activities.⁸¹ Given that Moloka'i's 'aha councils remained relevant up until Kamehameha's conquest, it is likely that these haku were given a place of importance at the ahupua'a councils; for according to Kumu John Ka'imikaua, the 'aha ahupua'a were comprised of 'ohana representatives known by their family for their 'ike as expert practitioners.⁸² Managing the affairs at the ahupua'a level greatly eased the burden on moku councils to the point where they rarely met, unless a matter affected all ahupua'a within a moku.⁸³ According to Kumu John, this bottom-up process was quite effective, "unlike our modern day governing where the heads of the state makes the final decision for the masses beneath."⁸⁴ The local leadership of the 'ohana councils and the konohiki (resource managers and agents) with their intimate knowledge of place and palena at the ahupua'a level provided efficiencies, maximized productivity, and served to complement and balance the top-down, centralized structure for which the mō'i and the council of chiefs served to govern the larger issues at the mokupuni (island) and moku (district) level.⁸⁵

Additionally, a trust relationship existed between the ali'i nui and maka'āinana which provided a foundation for reciprocity, peace, and prosperity.⁸⁶ This trust relationship was founded on genealogical and cosmological beliefs relating to the mating of earth and sky and the birth of both Hāloa-naka, elder sibling whose kino (body) became the taro plant and staple food of the Hawaiian people, and younger sibling Hāloa, the first ali'i and progenitor of Kānaka Maoli.⁸⁷ As the living manifestation of the akua (gods), the ali'i "mediat[ed] between the divine and human" and held a sacred duty to protect the people:

"Should an *Ali'i Nui* neglect proper ritual and pious behavior, surely a famine or calamity would ensue. Should a famine arise, the *Ali'i Nui* was held at fault and deposed. Alternately, should an *Ali'i Nui* be stingy and cruel to the commoners, the cultivators of the *Āina*, he or she would cease to be *pono*, lose favor with the *Akua* and be struck down, usually by the people. Thus, the *Ali'i Nui* had to juggle their responsibilities to keep the cosmos in order. To protect themselves, and to maintain *pono* for their people ..."⁸⁸

These understandings of reciprocal kuleana and mālama engendered a system of "checks and balances" between ali'i and maka'āinana in service of each other and in their collective reverence for nā akua and 'āina. Further, if the ali'i mistreated maka'āinana or dishonored the trust relationship between them, maka'āinana were free to leave and find a more favorable place to live. This freedom of movement of the maka'āinana provided an incentive for the ali'i to treat them well, as the 'āina was made momona (productive, abundant) by the people's hands.⁸⁹

4.1.5. The Nature of Ahupua'a, Some General Characteristics, and Kama'āina Knowledge of Ahupua'a Health in Mana'e

The Hawai'i Association of Watershed Partnerships' website describe ahupua'a as the "Hawaiian equivalent of a watershed ... a land division with the streams and valleys serving as

boundaries ... includ[ing] the land from the mountains to the coast.”⁹⁰ Ahupua‘a have also been described as “wedge”⁹¹ or “pie” shaped divisions of land “radiat[ing] from the interior uplands, claim[ing] a deep valley, and extend[ing] seaward past the shoreline.”⁹² According to Dr. Beamer, generalized characterizations of ahupua‘a as “watersheds” constituting “pie” or “wedge-shaped” areas of land running from mountain to sea negate the complexity with which the early Hawaiians divided the land⁹³ and serve to “deculturize[] ahupua‘a and remove[] the Hawaiian-ness from the equation.”⁹⁴

Dr. Beamer provides empirical evidence that only 5.4% of Hawai‘i’s nearly 2,000 ahupua‘a qualify as true watersheds.⁹⁵ Few ahupua‘a boundaries actually follow watershed boundaries; rather the boundaries may run along ridgelines or transect watersheds.⁹⁶ On Molokai alone, 8 of a total of 85 ahupua‘a (9.4%) meet the definition of a watershed.⁹⁷ In reality, ahupua‘a divisions are quite varied throughout the Hawaiian archipelago. Some ahupua‘a are landlocked and did not have the capability alone to provide for all the daily needs of the people.⁹⁸ Other ahupua‘a span mid-mountain to sea rather than from mountain peak; include coastal resources only; span both leeward and windward coasts and mountain ranges; or are split into lele. Specifically as to Lana‘i and some areas on Moloka‘i such as Pālā‘au, ahupua‘a span the length from the fishery on one side of the island, up the mountain, and down to the other side of the island to the opposite shore.⁹⁹ On Moloka‘i there are also ahupua‘a split into lele.¹⁰⁰

For Mana‘e families this may be significant in that several expressed in their interviews a practice of traveling to the remote, northeast side of the island to gather hihiwai and ‘o‘opu as well as engage in fishing and hunting activities. The northeast-southeast connection has become reinforced especially for hunters who attest to certain migrational patterns of deer, pig, and goat that they hunt for subsistence. Traditional trails both on land (e.g., Wailau-Mapulehu trail) and underground via lava tube passages (e.g., Pelekunu-Kamalo underground passage); oral history of fishpond stones on the south shore originating from north shore valleys; the flow of spring water on the southeast shore (e.g., Pua‘ahala and Ka‘amola) originating from the north shore (e.g., Pelekunu) and carried via lava tubes into lo‘i and fishponds; attestations relating to the source of all tributaries on the northeast and southeast sides of the island originating from a single source, Waiakeakua (water of the gods); and long-held genealogical ties of several Mana‘e families to the north shore valleys prompted an expanded view of the scope of traditional practices and associated native rights. Rather than create a false dichotomy between north and south Molokai and attempt to confine our understanding merely to where the fence locations are proposed; it became evident early on that this report needed to accurately reflect mana‘o on the north shore connections of hoa‘āina who accessed both sides of the island to hunt, fish, and gather. Thus, this chapter on Native Hawaiian rights law; the rationale behind our interview methods and mapping exercises; the assessment of research findings and proposed recommendations are all based on this broader picture.

Recent scholars have introduced more accurate working definitions of ahupua‘a to mean “culturally appropriate, ecologically aligned, and place specific unit[s] [of land] with access to diverse resources,”¹⁰¹ or “a community-level land-division component that has been implemented in various ways, as part of a larger social-ecological system, with the aim of maximizing resource availability and abundance.”¹⁰²

Keeping in mind that not all ahupua‘a fit the generic definition, identification of wao, which modernly can be seen as bio-cultural zones,¹⁰³ is a helpful framework for understanding where Mana‘e hoa‘āina traditional and customary practices are concentrated and what types of management actions are most appropriate within each zone. The zones include the following: Wao Akua, Wao Kele, Wao Nahele, Wao Lā‘au, and Wao Kānaka.

The Wao Akua has been described by Handy, Handy, and Puku‘i in *Native Planters* as “the forest of the gods, remote, awesome, seldom penetrated, source of supernatural influences both evil and beneficent.”¹⁰⁴ Dr. Kawika Winter, ethnobotanist and director of Limahuli Garden and Preserve on the island of Kaua‘i, describes the Wao Akua as having these types of ecological, spiritual, and social elements: “sacred, montane cloud forest, core watershed, native plant community, non-augmented” and an area that was “traditionally kapu” (forbidden, prohibited).¹⁰⁵

Just below Wao Akua is Wao Kele or Wao Ma‘u Kele described in *Native Planters* as the “rain forest” where “giant trees and tree ferns (‘ama‘u)” grow “under almost perpetual cloud and rain.”¹⁰⁶ Dr. Winter describes this zone as a “saturated forest just below the clouds, the upland rainforest where human access is difficult and rare, and an area that is minimally augmented.”¹⁰⁷ The next zone is the Wao Nahele described by Dr. Winter as a “remote forest, highly inconvenient for human access; a primarily native plant community; minimally augmented; and [utilized by early Hawaiians as a] bird-catching zone.”¹⁰⁸

These descriptions of Wao Akua and Wao Nahele largely correspond to experiences shared by Mana‘e kama‘āina, especially in parts where the native, pristine forests are still intact. These are areas that kama‘āina, including hunters tend not to access. In areas that have been penetrated and overly grazed by ungulates, where forests have turned to grass land, and/or where many invasive, non-native stands of vegetation now occur, more hunters have been able to access these areas. However, the length of time to make these journeys high up into the mountain often deter human access except for those most fit and dedicated to make the trek by foot. There are also certain traditional trails, for example, the Mapulehu-Wailau trail, that straddle northeast and southeast face of the island, allowing for access to both sides. Along the trail, some kama‘āina travel from the south shore along the Wao Kānaka, Wao Lā‘au and into the Wao Nahele, and boggy Wao Akua where perpetual rain clouds blanket the mountain top, and make their way down steep pali (sea cliffs) to the north face into Wailau Valley.

The two remaining bio-cultural zones, where most human interaction occur is the Wao Lā‘au and the Wao Kānaka. The Wao Lā‘au is described in *Native Planters* as “the inland forested region, often a veritable jungle, which surmounts the upland *kula* slopes on every major island of the chain, reaching up to very high elevations.”¹⁰⁹ Dr. Winter describes the Wao Lā‘au as a zone of “maximized biodiversity,” comprised of “a highly augmented lowland forest due to integrated agroforestry of food and fuel trees, hardwood trees, construction supplies, medicine and dyes, and lei-making materials.”¹¹⁰

The Wao Kānaka is where the early Hawaiians chiefly settled. These were the *kula* lands, “the sloping terrain between the forest and the shore”¹¹¹ that were highly valued and most accessible to the people.¹¹² These were the areas where families constructed their hale, cultivated the land, conducted aquaculture, and engaged in recreation.¹¹³ Puku‘i describes the extended ‘ohana ko *kula uka* and ‘ohana ko *kula kai* living “inland or upland, and some near or on the shore.”¹¹⁴

Families living inland cultivated kalo (taro), maia (banana), kō (sugar cane), olonā (native shrub whose bark is used to make cordage), ‘awa root for drinking, medicine, and ceremonial uses, wauke (paper mulberry) to make clothing from pounded kapa.¹¹⁵ They would share these items with the ‘ohana ko kula kai, who contributed by exchanging ipu (gourds), niu (coconut), i‘a (fish), lobster, he‘e (octopus), ‘opihi, and limu (seaweed) that they had harvested.¹¹⁶ According to Handy and Puku‘i, collectively, the Wao Kānaka and the Wao Lā‘au provided “the hard wood of the koa for spears, utensils, and logs for boat hulls; pandanus leaves (*lau hala*) for thatch and mats; bark of the *mamaki* tree for making *tapa* cloth; candlenuts (*kukui*) for oil and lights; wild yams and roots for famine time; sandalwood, prized when shaved or ground as a sweet scent for bedding and stored garments.”¹¹⁷

The presence and access to water was vital to healthy ahupua‘a and ‘āina momona. In optimal conditions, arable lands were terraced with lo‘i kalo (taro patches) fed by ‘auwai (irrigated ditches) from the kahawai (streams and rivers). This system provided ideal conditions for hihiwai (endemic water snails) and the native ‘o‘opu (goby fish) to thrive. Punawai (freshwater springs) formed below as the maka‘āinana created loko i‘a (fish ponds) along the shoreline. Access to sources of water meant wealth, aptly termed as “waiwai” (literally, “water-water”)¹¹⁸ for the abundance water brings to the land.

Wao Kānaka did not terminate at the shore but extended into the sea. Just as the kūpuna identified palena and named various parts of the ‘āina, they also had varied names for the sea:

- *Pu‘eone* for the sandy seashore, sand dunes, and sandbar.
- *Kai pualena*, where rivers and streams transporting minerals from the land collide with the sea, mix and churn the water with a golden hue.
- *Kai koholai* for the shallow lagoons located close to shore within the reef’s protection.
- *Po‘ina nalu* and *kai po‘i* where the waves break along the reef.
- *Kai ele*, the deep, dark blue ocean
- *Kai-popolohua-mea-a-Kāne*, the sea associated with the god Kāne with its vibrant purple-blue and red-brown tones.¹¹⁹

Mana‘e kama‘āina noted rich limu beds, crab and fishing grounds. They identified important types of fish ponds both inland and along the shoreline: the loko pu‘eone located inland within the former sand bar; the walled fishponds (loko kuapā and loko ‘ume iki) that hug the shoreline and surround areas rich in muliwai, where fresh and saltwater mix. Loko kuapā feature sluice gates called makahā by which fish enter. The kūpuna actively engaged in mariculture within the loko kuapā and several families and entities have restored these ponds in Mana‘e. Loko ‘ume iki (fish traps) feature multiple open lanes extending inward and outward to make best use of tidal fluctuations and current flows carrying phytoplankton that attract feeding fish. Fishers utilized these lanes to lay their nets across to capture fish.

Kama‘āina noted important springs within the ocean. They identified the traditional names of reefs and special fishing grounds that lined up with ko‘a (fishing shrines) placed on land. Knowledge of these fishing spots are guarded and kept secret within kama‘āina fishing families and passed down orally from one generation to the next. Mana‘e kama‘āina also noted certain reef patches tended to as though they were ocean gardens. These reef patches hold the names of

women fishers of old who possessed the kuleana of mālama (responsibility to care for) these reef patches. Some of them are noted on the old ahupuaʻa maps of the Hawaiian Kingdom and ʻohana can trace their genealogy to these kupuna wahine and, thus their right to these reef patches. Another kamaʻāina attested to his grandmother's practice of building "manini hale" or stone houses in the ocean to attract manini fish. It was also a shelter for the manini when hiding from predators. The manini hale were carefully constructed with stacked stones that provided narrow entry points for the manini, that could withstand the ocean surge, and which could allow for hand harvest at low tide after lifting stones from the top of these structures.

Manaʻe kamaʻāina report that the most adverse impacts to ahupuaʻa health have occurred along the Wao Lāʻau and the Wao Kānaka. Post-contact introduction of ungulates (cattle, goat, and deer) and invasive plant species have altered the landscape, destroyed lowland native forests and impacted rainfall patterns in Manaʻe. Weather patterns have also changed, likely a result of global climate change, with each successive season occurring a month or several months later than usual. Kamaʻāina attest to prolonged drought conditions that were first evident in the 1980s and have progressively worsened over each subsequent decade to the present day. One kamaʻāina mentioned that his crops were affected by the prolonged drought and he is less able to predict whether there will be enough rainfall to water his crops.

The 30-40 year drought has left streams bone-dry or trickling. Historically these streams often ran perennially or filled every time after a moderate to heavy rain. Now they are dry for most parts of the year, except during the rainy, winter months. Stream levels have markedly decreased throughout the Koʻolau/Manaʻe moku: Kamalo, ʻOhia, ʻUalapuʻe, Kainalu, Waialua, Moanui, Honouliwai, Honoulimaloʻo, Halawa, and Wailau.

Denuding of the lower forest from ungulates, poor land management practices, and extreme drought conditions have left the soil brittle and unable to retain moisture. These conditions have directly impacted populations of the native ʻoʻopu (goby fish), a traditional subsistence resource. The ʻoʻopu utilize heavy rains as a reproductive strategy to facilitate mass congregation into the estuary for spawning. In Honouliwai, kamaʻāina have witnessed soil, branches, and natural debris carried down the mountain into the stream and bay from flash flooding events. These events are happening more often than in previous years, and are causing massive die-offs of ʻoʻopu. The presence of large java plum trees along the stream banks also over-shade and absorb tremendous amounts of stream water that degrade the natural habitat for ʻoʻopu and hihiwai. Kamaʻāina are witnessing significantly lowered populations of these two species in streams both in Manaʻe and north shore valleys like Wailau. This has prompted kamaʻāina to take the initiative to clear back java plum trees in Honouliwai and reintroduce native species back into the stream as an affirmative act of mālama. It has also prompted kamaʻāina to exercise self-restraint and encourage others to do so in harvesting some of these sensitive species that are experiencing population decline from habitat degradation.

Without the lowland native forest, there are less trees to trap water and bring moisture through condensation. Kamaʻāina have noticed the disappearance of pepeiao in the Wao Lāʻau, a type of tree fungus and native delicacy because of a lack of moisture in the air. Adaptive strategies of invasive trees and plants that shade out native plants, emit natural phyto-toxins, and over-compete for space have virtually removed precious ground cover and eliminated native

vegetation and biodiversity. A secondary impact is the reduction of water moisture and soakage in the ground. This in turn has affected the viability of spring lines below. Limu gatherers are noticing that prime seaweed grounds that rely on the muliwai from springs entering the shoreline areas are thinning out or have disappeared altogether. Former lo‘i kalo (wetland taro patches) have also been overtaken by introduced vegetation. These terraced areas are barely visible today and their ability to ameliorate water soakage and allow suspended sediment from heavy rains to settle into the patches rather than wash into the ocean have been compromised. Nutrient exchange from former wetland taro cultivation into fishponds below are no longer possible. This is due to the dilapidated state of ancient lo‘i terraces.

Heavy siltation is also occurring in fishponds and along reefs from land erosion. Areas most affected like Honouliwai and Ka‘amola ahupua‘a and Keawanui fishpond coincide with unsustainable cattle ranching operations above. Cultural sites such as heiau (ancient Hawaiian temples) have also been trampled in certain areas particularly by cattle. Fishing ko‘a that provide a line of sight to secret fishing spots in the ocean have also been compromised by cattle trampling and overgrowth of non-native trees such as kiawe (mesquite). This has had a direct impact on traditional fishing practices.

Similarly, certain land clearing activity has destroyed an important stand of kukui (candlenut) trees in ‘Ohia. These trees emitted a purple dye from the bark and was utilized by one of the kama‘āina families to dye their fishing nets. The ‘ohana preferred this variety of kukui to dye their nets over the more common variety of kukui that produces red dye extracts. The purple dye was seen as more advantageous for sustainable fishing practices. The family traditionally surrounded fish with a “bull-pen” technique, selectively harvested desired fish, and safely released undersized and undesired fish because the purple dye was visible enough to the fish to avoid entanglement and gilling.

In ‘Aha‘ino, extensive grading and grubbing activities in the mauka region have caused numerous land slides and punctured a major water vein. This has caused springs below to dry out, including a spring that fed a loko pu‘uone. Certain vegetation have also dried out below such as lauhala. The area is an important mating and nesting ground for endangered Hawaiian green sea turtles. Kama‘āina witnessed the death of turtle hatchlings struggling to emerge from their nests where mud from the landslides had covered beach sand.

These kama‘āina observations underscore the need for a more coordinated management approach from mauka to makai. They also reflect the wealth of knowledge from kama‘āina families living in Mana‘e, their resilience, and their reliance on natural resources and traditional foods that sustain them. From understanding the language and narrative of the ‘āina, they have expressed the need for comprehensive management along all the Wao and have commented on what actions are most appropriate for each area along the different elevations and gradients.

The following sections in this chapter describe the Native Hawaiian rights that are associated with specific traditional and customary practices in Mana‘e. The sources of Native Hawaiian law derive their origin in kama‘āina expert knowledge and their traditions.

4.1.6. ‘Ohana Values – The Essence Behind Native Traditional and Customary Practices

As reported, the overwhelming majority of kama‘āina informants emphasized the need to recognize and respect Native Hawaiian mālama ‘āina values, and agreed that any and all conservation efforts must include access that would allow for Native Hawaiian traditional and customary hunting and gathering rights, as well as any and all cultural practices. When we look at whether something has evolved into a cultural practice, a litmus test is to look at the ‘ohana, or the family unit, while understanding that traditionally and in modern times, the ‘ohana is central to the life of the land.

Dr. Davianna Pōmaika‘i McGregor, who has interviewed a large number of kama‘āina informants residing in “cultural kipuka” (rural areas that have maintained cultural understandings and practices),¹²⁰ 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 or not. It has to maintain the essence of these values. Many of the values and customs included in Professor McGregor’s list were also identified by the cultural informants for this plan.

According to Dr. McGregor, what 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. Allow the native resources to reproduce. Don’t fish during their spawning seasons.
- 4) Alternate areas to gather, fish and hunt. Don’t keep going back to the same place. Allow the resource to replenish itself.
- 5) If an area has a declining resource, observe a kapu on harvesting until it comes back. Weed, replant and water if appropriate.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.
- 10) Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.
- 11) Share what is gathered with family and neighbors.
- 12) 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.
- 13) Don’t talk openly about plans for going out to subsistence hunt, gather, or fish.

- 14) Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and boisterous.
- 15) Respect family 'aumakua. Don't gather the resources sacred to them.¹²¹

Native Hawaiian law has often been understood as providing access to resources and places important to traditional and customary subsistence and religious practices. The sections above, however, reflect a more multi-dimensional picture of where these rights are properly emplaced:

- In Kānaka Maoli genealogical and cosmological understandings based on reciprocal 'ohana relationships with 'āina that call for a greater kuleana to mālama and that the rights of use and access cannot be severed from the responsibility to mālama.
- In the mind-set of mālama 'āina which involves a way of making decisions that are good for all, rather than sacrificing one interest over the other. This is found in (a) the eight resource realms for which the 'aha councils made decisions; (b) the 'aha kiole decision-making matrix that honors the ancestral past, cares for the needs of the present generation, and provides an abundant future for generations yet unborn; and (c) putting into practice the 'ohana values identified above.
- In the expectation that the ali'i nui, those who were in power and who were living manifestations of nā akua (the gods), were obligated to serve as intermediaries between the gods and the people. They were charged as trustees on behalf of the maka'āinana. The maka'āinana in turn worked the 'āina to make it momona (abundant) through the wise leadership of the ali'i and their konohiki.
- And in the enduring belief that despite the influences of colonization, the privatization of lands and modern practices of excluding and alienating people from accessing the land, the trust relationship still exists and large landowners and government are still expected to make responsible decisions that respect the rights of kama'āina and hoa'āina to continue their traditional practices.¹²²

4.1.7. The 'Aha Kiole Serving as a Vehicle for Free, Prior, and Informed Consent (FPIC) Pursuant to the United Nations' Declaration on the Rights of Indigenous Peoples (UNDRIP)

The United Nations, with 143 nations as signatories, adopted the Declaration on the Rights of Indigenous Peoples (UNDRIP) in September 2007.¹²³ In 2010, U.S. President Barack Obama signed the Declaration and issued an official statement qualifying the United State's position on UNDRIP as non-binding. However, the U.S. position statement provides that America is continuing to meet the spirit of the UN Resolution through its ongoing work on protecting the rights of America's indigenous peoples and strengthening government to government relations with recognized American Indian tribes.¹²⁴ Additionally, with its "near universal acceptance" by a majority of countries, this "endorsement gives it strong moral suasion in the international arena."¹²⁵

Some relevant provisions of UNDRIP include:

Article 26. Indigenous peoples have the **right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired...**[and] have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.

Article 11. indigenous peoples have the **right to...maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites ...**

Article 19. States shall consult and cooperate in good faith with the indigenous peoples concerned...in order to obtain their **free, prior and informed consent** before adopting and implementing legislative or administrative measures that may affect them.

Article 29. Indigenous peoples have the **right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources...**

Article 32. States shall consult and cooperate in good faith with the indigenous peoples concerned...in order to obtain their **free, prior and informed consent** prior to the approval of any project affecting their land or territories and other resources ...¹²⁶
(Emphases added).

Informed consent lays out the framework for indigenous peoples to make fully informed decisions in accordance with their own “customary systems of decision-making.”¹²⁷ It requires governmental entities, corporations, developers, and other public and private entities to negotiate with indigenous peoples with the intent of reaching consensus **prior** to implementation of a proposed action. Indigenous peoples also have the **freedom** to consent to or reject a proposal which may affect their ancestral lands that they own, occupy, access, and/or use.¹²⁸ (Emphases added).

As the next sections in this chapter will make clear, 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. The recent passage of Act 288 in 2012 formally created a Statewide ‘Aha Moku Advisory Committee within the Department of Land and Natural Resources to “integrat[e] indigenous resource management practices with western management practices[; to] identify[] a comprehensive set of indigenous practices for natural resource management; [and to] foster[] the understanding and practical use of native Hawaiian resource knowledge, methodology, and expertise.”¹²⁹ Collectively, these laws and mechanisms reflect a significant step closer to the foundational language found in the UN Declaration on the Rights of

Indigenous Peoples. While not wholly meeting the standards set forth for free, prior, and informed consent, Hawai‘i’s constitutional laws, statutes, and jurisprudence are certainly more expansive than other jurisdictions within the United States.

The ‘Aha Kiole O Moloka‘i and its respective councils on the moku level are self-empowered and self-determined. The Molokai ‘aha councils engage government and private actors from a position that gives them greater parity in making affirmative decisions about the natural and cultural resources that sustain the people. One of the major objectives of this report is to not only accurately document kama‘āina traditional knowledge, mālama practices, and recommended strategies for ahupua‘a-scale restoration and management; but to also appropriately place native community at center stage in the decision-making process and implementation of its own resource management strategy.

4.2. SOURCES OF NATIVE HAWAIIAN RIGHTS LAW

It is within this historical context, that the sources of Native Hawaiian rights law are best understood. As explained in Section 2.4, this Traditional and Customary Practices Report was requested by the ‘Aha Kiole o Moloka‘i - Mana‘e Moku. The ‘Aha Kiole requested the report integrate an ahupua‘a management approach that reflects kūpuna (Hawaiian ancestral) practice and decision-making. The report covers the sources of Native Hawaiian rights law and their relevance to specific cultural, religious, and subsistence practices of Mana‘e kama‘āina. While the ‘aha system today is a modernized version of the ancient framework of natural resource governance practiced on Moloka‘i, the ‘Aha Kiole o Moloka‘i remains true to the essence of the eight realms of decision-making employed by the kūpuna of old: (1) Moana-Nui-Ākea, (2) Kahakai Pepeiao, (3) Ma Uka, (4) Nā Muliwai, (5) Ka Lewalani, (6) Kanaka Hōnua (7) Papahelōlona, and (8) Ke ‘Ihi‘ihi. The recommendations that complement, supplement, and help to inform the East Slope Watershed Management Plan are based on mana‘o shared by Mana‘e kama‘āina informants. Their mana‘o, in many ways, echo the sentiments of ka po‘e kahiko (the people of old) who led with lōkahi and pono in mind.

There are three main sources of law that support Native Hawaiian traditional and customary rights and practices. These sources of law include: Hawai‘i Revised Statutes (“H.R.S.”) Section 7-1, H.R.S. Section 1-1, and Article XII, Section 7 of the State Constitution. In order to understand their meaning and the breadth of what these statutory and constitutional provisions protect, it is necessary to provide the proper historical context for which these laws find their genesis.

4.2.1. The Codification of Customary Law under the Hawaiian Kingdom and Its Modern Adoption and Application under State Law

Through war and conquest waged by Kamehameha, the unification of all the Hawaiian islands was achieved by 1795.¹³⁰ Kamehameha established himself as sovereign, and his heirs continued in succession to rule over the Hawaiian Kingdom as a constitutional monarchy up until the 1893 illegal overthrow of Queen Lili‘uokalani and occupation of the islands by the U.S. government. Laws promulgated under the Kingdom of Hawai‘i largely reflect the codification of

Hawaiian customary beliefs and understandings and underscore the trust relationship between the aliʻi nui towards the makaʻāinana.

Early Constitutional Provisions of the Hawaiian Kingdom, the Māhele, and the Reserved Rights of Hoaʻāina

In 1839 Kamehameha III (Kauikeaouli) promulgated the Declaration of Rights, the first document that described the rights of both aliʻi and makaʻāinana and secured their equal protection under the law. If the chiefs, governors, officers of the Kingdom, or land agents violated these equal rights, the Declaration provided that they would lose their honored status.¹³¹ The following year, the 1840 Constitution set forth the nature of ʻāina; the trustee relationship that the King had over the chiefs and people in managing the land; and acknowledged the vested rights among the king, chiefs, and makaʻāinana in the land¹³²:

Kamehameha I, was the founder of the kingdom, and to him belonged all the land from one end of the Islands to the other, though it was not his own private property. It belonged to the chiefs and people in common, of whom Kamehameha I was the head, and had the management of the landed property.¹³³

These constitutional provisions laid the groundwork for the events that occurred during the Māhele, the privatization and division of the lands among the king, chiefs, and makaʻāinana. The Māhele introduced a hybridized system fashioned along certain western concepts of private property while retaining certain inherent rights to the makaʻāinana that were grounded in the ancient land tenure system.¹³⁴ During the time of the Māhele which began in 1848, Hawaiʻi was transformed from a traditional and communal land tenure system to one based on private property constructs. As the Kingdom was evolving towards a private property regime, it did not wholly adopt a western framework.¹³⁵ In 1845, a Board of Land Commissioners to Quiet Land Titles (“Land Commission”) was formed to preside over claims made by private individuals holding oral land deeds that were not part of the traditional land tenure system.¹³⁶ Once a payment of commutation was made, then the right holder would be issued title in the form of a royal patent.¹³⁷ The Land Commission based its decisions “in accordance with the principles established by the civil code” of the Hawaiian Kingdom and “native usages in regard to landed tenures[.]”¹³⁸ These principles read in part:

The same rights which the King possessed over the superior landlords and all under them the several grades of landlords possessed over their inferiors, so that there was a joint ownership of the land; **the King really owning the allodium, and the person in whose hands he placed the land, holding it in trust ...**

It seems natural then, and obviously just, that the King, in disposing of the allodium, should offer it first to the superior lord, that is to the person who originally received the land in trust from the King; since by doing so, no injury is inflicted on any of the inferior lords or tenants, they being protected by law in their rights as before; and most obviously the King could not dispose of the allodium to any other person without infringing on the rights of the superior lord. But **even when such lord shall have received an allodial title from the King by purchase or otherwise, the rights of the tenants and sub-**

tenants must still remain unaffected, for no purchase even from the sovereign himself, can vitiate the rights of third parties. The lord, therefore, who purchases the allodium, can no more seize upon the rights of tenants and dispossess them ... It being therefore fully established, that there are but three classes of persons sharing vested rights in the land, -- 1st, the government, 2nd the landlord, and 3rd, the tenant

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...

(emphases added)

These principles underscore the trust relationship of the king and chiefs on behalf of the hoā‘āina, the native tenants of the land, those long-time ‘ohana who possessed the most intimate relationship to the land. That these rights are “vested” speaks to what is described in Black’s Law Dictionary as

Rights which have so completely and definitely accrued to or settled in a person that they are not subject to be defeated or canceled by the act of any other private person, and which it is right and equitable that the government should recognize and protect, as being lawful in themselves, and settled according to the then current rules of law, and of which the individual could not be deprived arbitrarily without injustice, or of which he could not justly be deprived otherwise than by the established methods of procedure and for the public welfare. Such interests as cannot be interfered with by retrospective laws; interests which it is properly for a state to recognize and protect and of which individuals cannot be deprived arbitrarily without injustice.¹⁴⁰ ... Immediate or fixed right to present or future enjoyment and one that does not depend on an event that is uncertain. A right complete and consummated, and of such character that it cannot be divested without the consent of the person to whom it belongs, and fixed or established, and no longer open to controversy.¹⁴¹

According to McGregor, when the Land Commission principles are understood alongside the 1840 Constitution it is clear that “any one section of land in the Hawaiian Islands is vested with multiple layers of responsibilities and rights.”¹⁴²

The Māhele of 1848 was the Kingdom’s adoption of a private property system that divided out the multiple interests in land. The first stages of the Māhele of 1848 involved the King and 252 chiefs quit-claiming their interests between each other. The lands, now considered freehold, were converted into allodial titles. The chiefs were then awarded royal patents once they paid a commutation fee for these allodial titles.¹⁴³ The King dedicated the bulk of his landholdings to the government, while keeping the remainder as crown lands¹⁴⁴ for himself and his heirs. There are 1,124 ahupua‘a and 429 ‘ili names listed in the *Buke Kakau Paa no ka Mahele aina I Hooholoia iwaena o Kamehameha III a me Na Lii a me Na Konohiki ana* (Māhele Book). Most of these ahupua‘a and some ‘ili were subsequently delineated as konohiki, crown, or government lands.¹⁴⁵

A Boundary Commission was established in 1862 to resolve boundaries of ahupua‘a and ‘ili which were typically granted in name only. These claims were resolved through reviewing testimony of kama‘āina who possessed a comprehensive knowledge of palena in their area.¹⁴⁶

As one of the early Supreme Court of the Hawaiian Kingdom cases indicates, land surveys and plots alone would not suffice without supporting evidence of kama'āina authentication.¹⁴⁷

All of the Crown, government, and chiefs' lands remained subject to the rights of native tenants. The clause "koe nae na kuleana o na kanaka" is affixed to all LCAs, Royal Patents issued to konohiki, private citizens, Crown and government lands. This clause reaffirms that all lands throughout Hawai'i to the present-day are encumbered by "reserved rights of native tenants."¹⁴⁸ The courts to this present day recognize a kuleana reservation attaches to private property holdings in Hawai'i.¹⁴⁹

Hoa'āina were able to acquire small land-holdings, or kuleana, for themselves through the 1850 Kuleana Act as well as acquire government lands through purchase.¹⁵⁰ The Kuleana Act and the kuleana reservations attached to landholdings reflect traditional and customary understandings that pre-date Statehood and even the time of Kamehameha and his monarchy. These legal provisions represent hoa'āina relationships to their ahupua'a and recognize their rights to access lands from mauka to makai to gather materials for their basic needs (e.g., thatch and aho cordage for making rope and building hale, firewood for imu, ti leaf for wrapping food items, lei-making, and to serve spiritual and ceremonial purposes). Mana'e families, in large part, maintain a kua'āina (country, rural) lifestyle as much of the land remains undeveloped and most have retained traditional, subsistence practices. The exercise of these kuleana rights remain a vital part of the culture.

The Kuleana Act - Hawai'i Revised Statutes, Section 7-1

The Kuleana Act of 1850 protects the rights of hoa'āina (native ahupua'a tenants) to gather specific enumerated items such as firewood, house timber, aho cord, thatch or ti leaf for home consumption and non-commercial use.¹⁵¹ This provision conveyed the King's concern that "a little bit of land even with allodial title, if they were cut off from all other privileges, would be of very little value [.]"¹⁵²

The act was amended the following year to remove a provision that had required hoa'āina seek permission before accessing private lands to gather these articles. As the reciprocal relationships between hoa'āina and the konohiki/chiefs gave sway to western understandings, the people of the land began to suffer and were denied access to areas critical to meeting their basic, daily needs.¹⁵³ The amended Kuleana Act (1851)¹⁵⁴ was carried over from the period of the Hawaiian Kingdom into Statehood as Hawai'i Revised Statutes, Section 7-1. It reads as follows:

Where the landlords have obtained, or may hereafter obtain, allodial titles to their lands, the people on each of their lands shall not be deprived of the right to take firewood, house-timber, aho cord, thatch, or ki leaf, from the land on which they live, for their own private use, but they shall not have a right to take such articles to sell for profit. The people shall also have a right to drinking water, and running water, and the right of way. The springs of water, running water, and roads shall be free to all, on all lands granted in fee simple; provided that this shall not be applicable to wells and watercourses, which individuals have made for their own use.¹⁵⁵

Hawaii Revised Statutes, Section 1-1 on Hawaiian Usage and the Importance of Kama‘āina Expert Testimony

Hawai‘i Revised Statutes, Section 1-1 is another source of law that was enacted in 1892 as part of the civil code¹⁵⁶ of the Hawaiian Kingdom and has survived into Statehood.¹⁵⁷ H.R.S. § 1-1 instructs Hawai‘i’s courts to look to English and American common law decisions for guidance, except where they conflict with “Hawaiian judicial precedent, or ... Hawaiian [custom and] usage” pre-dating 1892.¹⁵⁸ The origins of this law can be traced even further back to the early period of the Hawaiian Kingdom prior to 1838, when it was acknowledged that the islands were “governed ... without other system than [Hawaiian custom and] usage, and with a few trifling exceptions, without legal enactments.”¹⁵⁹ Under Kamehameha III, the constitutional monarchy took shape with the establishment of an Executive Department comprised of a Privy Council and Ministers to the King. This was followed by the creation of a Judiciary in 1847 authorized to “cite and adopt ‘[t]he reasonings and analysis of the common law, and of the civil law [of other countries] ... so far as they are deemed to be founded in justice, and *not in conflict with the laws and usages of this kingdom.*’”¹⁶⁰

This law also encompasses the entire spectrum of Hawaiian traditional and customary practices beyond the specific items listed in H.R.S. § 7-1.

Courts look to kama‘āina expert testimony as the foundation for authenticating Hawaiian custom and usage. This was first discussed in *Application of Ashford*¹⁶¹ which relied on “reputation evidence” of a kama‘āina (native person who was most familiar with the land) over a shoreline boundary dispute rather than accept the conclusions of a certified land surveyor. The court stated:

Kama‘āina witnesses may testify to the location of seashore boundaries dividing private land and public beaches according to reputation and ancient Hawaiian tradition, custom and usage. The method of locating the seaward boundaries was by reputation evidence from kama‘āinas and by the custom and practice of the government’s survey office. It is not solely a question for a modern-day surveyor to determine the boundaries in a manner completely oblivious to the knowledge and the intention of the king and old-time kama‘āinas who knew the history and names of various lands and the monuments thereof.¹⁶²

The premise for this case was based upon the requirements of H.R.S. § 1-1 to look to Hawaiian custom and usage to inform the law.

In many ways the origins and the evolution of Hawaiian rights law are representative of this ‘ōlelo no‘eau, “i ka wa ma mua, ka wa ma hope” — our future can be found in the wisdom of the past.

Article XII, § 7 of the Hawai‘i State Constitution -- A Reaffirmation of Native Hawaiian Rights

Article XII, Section 7 of the Hawai‘i State Constitution (1978) reads as follows:

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 the right of the State to regulate such rights.*¹⁶³

This provision solidifies and enhances H.R.S., §§ 1-1 and 7-1, by making it a constitutional mandate for the State and its political subdivisions to “protect the reasonable exercise of customar[y] and traditiona[l] rights of Hawaiians to the extent feasible.”¹⁶⁴

4.2.2. Relevant Jurisprudence in Native Hawaiian Law

It was from Mana‘e, Moloka‘i that the first landmark Native Hawaiian rights case emerged in 1982 with William “Billy” Kalipi, Sr. asserting his kuleana rights.¹⁶⁵ The Hawai‘i Supreme Court strictly interpreted H.R.S., § 7-1 in *Kalipi v. Hawaiian Trust Co.* (“*Kalipi*”) as protective only of access and gathering rights of native tenants actually residing within the ahupua‘a and that these practices may occur only on undeveloped lands.¹⁶⁶ However, as more cases have been litigated since *Kalipi*, the Hawai‘i Supreme Court has revisited the notion of whether traditional and customary practices are viable only on undeveloped lands. The court’s decision in *Public Access Shoreline Hawaii v. Hawai‘i County Planning Commission* (“*PASH*”) acknowledged that these traditions exercised on “less than fully developed” lands may also warrant protection.¹⁶⁷

Most, if not all, of the ahupua‘a, particularly the lowland forests and upper reaches of the mountain areas in Mana‘e are undeveloped or less than fully developed. Kama‘āina families attest to the importance of these lands for traditional subsistence activities and for access to important cultural sites.

In *Pele Defense Fund v. Paty* (“*Pele I*”), the Hawai‘i Supreme Court expanded its ruling in *Kalipi* and acknowledged that gathering rights may extend to other ahupua‘a without benefit of tenancy if it can be demonstrated that this was the accepted custom and long-standing practice.¹⁶⁸ The court gave great weight to kama‘āina evidence and acknowledged that “traditional and customary rights associated with tenancy in an ahupua‘a [may] extend[] beyond the boundaries of the ahupua‘a.”¹⁶⁹

Similar to the testimony and affidavits submitted in *Pele I*, several kama‘āina in Mana‘e identified the utilization of multiple ahupua‘a for hunting and gathering. As stated earlier, some Mana‘e kama‘āina travel to the remote, northeast side of the island to gather hihiwai and ‘o‘opu and engage in fishing and hunting activities. Some hunters described ungulate migrational patterns between northeast and southeast valleys that coincide with food availability during different seasons. Traditional trails that transect north and south Molokai such as the Wailau-Mapulehu trail and the underground lava tube passage between Pelekunu and Kamalo also reflect movement to different ahupua‘a to access resources that may not be available. For

example, oral history reflects that in order to construct fishponds on the more protected south shore, ancient Molokai kūpuna formed human chains to hand carry basalt stones from the north. These practices confirm that several Mana‘e ‘ohana may enjoy expanded traditional and customary rights beyond their ahupua‘a of residence.

Another significant case is *Ka Pa‘akai O Ka ‘Aina v. Land Use Commission* (“*Ka Pa‘akai*”)¹⁷⁰ wherein the court deemed that state agencies, in this case the Land Use Commission, have “statutory and constitutional obligations” to Native Hawaiians.¹⁷¹ The court stated that one of those obligations is “to protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible”.¹⁷² In addition to ruling that the Land Use Commission had failed to meet its obligation to protect the reasonable exercise of these rights, the court also mandated that state agencies make an independent assessment regarding the impact of proposed actions on Native Hawaiian traditional and customary practices. The three factors that agencies must consider when making these assessments are:

- “(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.”¹⁷³

These factors under the *Ka Pa‘akai* framework are still applicable to any State action affecting Native Hawaiian traditional and customary practices, including those exercised in Mana‘e. The State Department of Land and Natural Resources (DLNR) is the governmental entity administering the overall Hawai‘i Association of Watershed Partnerships. As such, DLNR must ensure it affirmatively protects Hawaiian cultural practices and rights exercised in Mana‘e.

4.3. TRAILS AND TRADITIONAL ACCESS

Section 4.2 explained the sources of Native Hawaiian rights law and the legal foundation that further protects rights to trails and access. This section provides a focused discussion on how this legal foundation and other laws are applied in the context of trails and access.

Traditionally, trails in Hawai‘i serve very important purposes and are an integral part of the traditional Hawaiian lifestyle. There were two main types of trails used for distinct purposes, the first being trails that ran perpendicular to the coastline, from makai to mauka. These trails chiefly served the purpose of providing access to the forest, agricultural lands, and ocean resources along the wao nahele, wao lā‘au, and wao kānaka. The second type of trail is better known as alahele (pathway) or alaloa (long road), which typically run along the shoreline and transect multiple ahupua‘a and/or encircle the entire island. These trails were useful for long huaka‘i, visits between extended ‘ohana living in several ahupua‘a. They were also utilized during the makahiki period when ali‘i accepted their share of the lands’ bounty and offerings and tributes were placed on the ahu for Lono, the god of peace.

Under Kamehameha's rule and unification of all the islands, these customary observations were honored. The trails remained open to all classes of people to move freely and safely in accordance with the Kānāwai Mamalahoe or "Law of the Splintered Paddle," the first edict declared by King Kamehameha I in 1797.¹⁷⁴ This law was also adopted by the State of Hawai'i during the 1978 Constitutional Convention to reflect concern for public safety and welfare.¹⁷⁵ Under Kamehameha III's rule the Kuleana Act was promulgated, reaffirming the importance of keeping traditional trails open for *hoa'āina* to exercise customary access and gathering rights. This provision, later adopted by the State of Hawaii under Hawai'i Revised Statutes, Section 7-1, declared that the "roads shall be free to all, on all lands granted in fee simple."¹⁷⁶ Kuleana reservations attached to landholdings issued at the time of the Māhele and surviving to this day also reflect the supremacy of *hoa'āina* rights of access along *ahupua'a*.

Access to landlocked kuleana is protected under Hawai'i statutory and case law. An easement (i.e., the right to cross another's land for access to and from a public road) for access to a kuleana may be created either expressly, or impliedly based on prior existing use, or by necessity.¹⁷⁷ In the instance where an express grant of an easement contains the language of a kuleana reservation, "*ua koe ke kuleana o na kanaka*," or "reserving the rights of native tenants," this grants an owner of a landlocked kuleana unrestricted right of access through the private land. Even if an original land award does not expressly include a kuleana reservation, a landlocked kuleana owner has a right to access his or her parcel over the surrounding land by way of an easement based on necessity or prior use. An easement may be created by strict necessity where the only access to landlocked kuleana is over the grantor's land or by reasonable necessity where an alternative route is possible, but infeasible.¹⁷⁸

As the Kingdom entered the world stage, engaged in mass agricultural enterprises and trade with foreigners, greater infrastructure was needed to facilitate transportation and commerce. The passage of the Highways Act of 1892 followed. This law recognized that, "All roads, ... trails ... whether now or hereafter opened, laid out or built by the Government ... are hereby declared to be public highways." With appropriate historical documentation and surveys, the State may exercise its authority under the Highways Act to claim trails that were in place before 1892. Trails may become public right-of-ways through dedication or surrender,¹⁷⁹ or by deed granted by a private landowner.¹⁸⁰ Access along Hawaiian trails may also be protected through an implied dedication of a public right-of-way across private land. An implied dedication of a public-right-of-way is established when there is intention and an act of dedication by the property owner, and an acceptance by the public.¹⁸¹

The State legislature created the Nā Ala Hele Statewide Trail and Access System in 1988, a program now housed within the State Department of Land and Natural Resources (DLNR).¹⁸² Under this program DLNR is authorized to conduct an inventory of trails throughout the islands; assess accessibility to these trails; acquire additional trails and access areas for public enjoyment; and promulgate rules for access and use of trails.

Hawai'i's laws are very robust in protecting public trust values; particularly in the field of water law.¹⁸³ The developing jurisprudence in this area also recognize the rights of Native Hawaiians and the natural resources associated with the perpetuation of cultural practices as constitutionally protected public trust purposes.¹⁸⁴ The public trust doctrine in Hawai'i derives its origins within

the nature of the trust relationship of ali'i as mediators of the divine on behalf of the maka'āinana. This trust relationship seeded the laws of the Kingdom, adhered to lands granted at the time of the Māhele, and survived into Statehood through constitutional and statutory provisions. It is likely then that traditional trails fall within the public trust today.¹⁸⁵

4.3.1. Application of Trails and Access Protections with the Mana'e Fencing Project

Kama'āina informants identified additional mauka-a-makai traditional trails in Mana'e such as Kalua'aha trail, the Mapulehu-Wailau trail transecting south to north shore, Papalaua trail on the northeast shore, the trail to Mo'oula Falls in Hālawā, and a trail beneath the mountain via lava tube connecting Kamalō in the south to Pelekunu in the north. There are also other unnamed hunting trails throughout Mana'e. These trails run along both public and private lands. Continued access along these trails should be maintained. As each phased fence line project begins, access along these traditional trails must not be obstructed. Discussions with the EMoWP regarding its proposed fencing project indicated that step-overs would be provided to allow for access. This should be the minimum requirement. A more protective solution would be to ensure that the fence lines do not encroach upon these traditional trails, but run alongside them or be redirected away from these traditional trails.

According to the State's website, the only Nā Ala Hele trail listed for Moloka'i is the Maunahui Road, more commonly known as the Molokai Forest Reserve Road, that leads to the Kamakou Rainforest in central Moloka'i.¹⁸⁶ The Mana'e community may also elect to engage the Nā Ala Hele program to formally register important traditional trails into the Statewide Trails system.

4.4. NATIVE BURIALS AND HISTORIC SITES PRESERVATION

In 1966, the United States Congress passed the National Historic Preservation Act (NHPA) in order to preserve, restore, and maintain the historic and cultural environment of the nation with a view towards "stewardship and trusteeship for future generations."¹⁸⁷ Through this legislation a National Register of Historic Places has been established. The States throughout America also maintain State Historic Registers in concert with the federally administered program. In order to be considered for inclusion into both the national and state historic registers, properties must be a certain "age" (at least fifty years old) and maintain an "integrity" that closely reflects its original state.¹⁸⁸ These properties must also be "significant" in terms of history behind the landscape, architecture, or engineering or their association with specific events, activities, people, or developments that were important in the past.¹⁸⁹ The Hawai'i Register also includes sites that are important to Kānaka Maoli and other ethnic groups as part of their history and cultural identity.¹⁹⁰

The Hawai'i State Historic Preservation Division ("SHPD") is housed within DLNR and charged with the obligation to "administer a comprehensive historic preservation program."¹⁹¹ SHPD is responsible for developing a statewide survey and inventory of historic properties and burial sites,¹⁹² as well as regulating "archaeological activities throughout the State."¹⁹³

As the Mana‘e fencing project moves forward, several State and County permit approvals will be required. Given the presence of many cultural sites and native burials in Mana‘e that are either registered or eligible for inclusion onto the historic register, an archaeological inventory survey¹⁹⁴ must be completed prior to project commencement with SHPD review and concurrence.¹⁹⁵ In addition to conducting an archaeological inventory survey, if native burials are also present, a burial treatment plan¹⁹⁶ subject to approval by the Moloka‘i Island Burial Council is required.¹⁹⁷

If federal funding is received for the fencing project, this may also trigger NHPA Section 106 review as a “federal undertaking” likely to affect listed and/or eligible historic properties.¹⁹⁸ Section 106 is a consultation process between relevant federal agencies, SHPD, Native Hawaiian Organizations (NHOs), the general public, other stakeholders and interested persons.¹⁹⁹ The federal Advisory Council on Historic Preservation (ACHP) has encouraged participants in the Section 106 process to incorporate the precepts found in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) which was signed by President Obama in 2010.²⁰⁰ The ACHP underscores Article 18 of UNDRIP which reads as follows:

“Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.”²⁰¹

The ACHP interprets this provision as consultation that allows for NHOs to “have the opportunity not only to identify those places of religious and cultural importance to them ... but also to influence federal decision making in order to protect those places.”²⁰² The ACHP states that the consultation, in order “to be meaningful and effective,” should begin as early as possible with an “opportunity to identify and resolve issues, including potential adverse effects to historic properties, while there are still a broad range of alternatives available.”²⁰³

4.4.1. Recommendation to Protect Mana‘e’s Historic Sites and Burials in Perpetuity

As mentioned earlier in Section 4.1.7. the ‘Aha Kiole may serve as a decision-making body that upholds the traditional and customary rights and practices of Mana‘e kama‘āina. The ‘Aha Kiole o Moloka‘i – Mana‘e Moku may serve as an NHO and consulting party within the Section 106 process. Individual kama‘āina families in Mana‘e may also request to become a consulting party in this process as well.

A recommended long-term and proactive strategy for protection of culturally significant sites throughout Mana‘e would entail a concerted effort of the ‘Aha Kiole o Moloka‘i – Mana‘e Moku to begin identifying sites that are not yet in the federal and state registers of historic places and to formally request their listing.²⁰⁴ The Society for Molokai Archaeology (SFMA) and the Molokai Enterprise Community Plan have already identified a whole-scale inventory and listing of all cultural sites on the island as a top priority. Some of this work has been undertaken in the Kamalō ahupua‘a and in Wailau through past partnerships between SFMA, Kamehameha Schools, the University of Hawaii at Mānoa Anthropology Department, the University of Hawai‘i Maui College – Moloka‘i Education Center, and the Moloka‘i Rural Development

Project. This collaboration resulted in the training of a cadre of community members to serve as Moloka‘i-based archaeological field technicians. The archaeological inventory surveys from those efforts could serve as a starting point for inclusion of cultural sites into the federal and State register. This work is vitally important, particularly since it is a proactive step towards protecting unlisted sites that may otherwise be subject for “data recovery” in the face of approved development proposals. Data recovery sites are subjectively assessed by contract archaeologists who are hired by developers. These sites are considered low value, and low significance and are ultimately destroyed after the archaeologist completes a drawing or visual rendering of the site. Because of prior abuses in other locales throughout the State, it is important to ensure that the archaeologist contracted to do an Archaeological Impact Survey (AIS) is qualified and ethical.²⁰⁵

It is important for Mana‘e kama‘āina to determine for themselves which sites are important to them, so that they may be preserved in perpetuity. The current “data recovery” process in developing and altering landscapes neglects a growing body of knowledge that recognizes the importance of “cultural landscapes.” Cultural landscapes are areas indicating interactions between humans and nature that aren’t necessarily about environmental subjugation and degradation; rather they reflect “a closely woven net of relationships, the essence of culture and identity.”²⁰⁶ Cultural landscapes are hiding in plain sight throughout undeveloped lands in Hawai‘i, and are prevalent in Mana‘e’s intact ahupua‘a. The rich heritage of Mana‘e’s multiple ahupua‘a qualify as important cultural landscapes that did not only harbor important heiau (temples), pu‘u honua (places of refuge), ahu (stone heaps), and other cultural features. Rather, there is evidence of rich cultivated areas along the wao lā‘au and wao kanaka that are important to the perpetuation of Hawaiian traditional practices. This report attempts to capture their significance to a living and thriving Hawaiian culture in Mana‘e, Molokai that is as equally deserving of protection and restoration as an ancient heiau would be.

In lieu of a comprehensive community-led archaeological inventory prior to the fencing project; a short-term strategy would entail negotiating for non-destructive and non-invasive treatment of all cultural sites, whether listed or unlisted on the register. The ‘Aha Kiole o Moloka‘i – Ko‘olau/Mana‘e Moku may serve as a representative body in discussions with the EMoWP and SHPD.

Individual families who are lineal or cultural descendants²⁰⁷ of iwi kūpuna whose resting places are within the proposed project area should also take the time to formally register family burial sites known to them.²⁰⁸ Families can request that this information remain confidential to the general public as a means to protect native graves from being unearthed or looted for moepū (funerary objects) and artifacts. The benefit of registering known burial sites is that they will be afforded the highest protection under the law. If the East Slope Watershed project proposes to erect fenceline in the vicinity of known burials, SHPD will be able to alert EMoWP to conduct an AIS and develop a burial treatment plan in cooperation with the Moloka‘i Island Burial Council and acknowledged lineal and cultural descendants. In this way, protective and mitigative measures, such as established buffer zones around previously identified burials, and their preservation in place may be included in the burial treatment plan.

4.5. WATER RIGHTS AND THE PUBLIC TRUST DOCTRINE

4.5.1. Legal Framework for Water Law in Hawai‘i

Water law in Hawai‘i is made up of many parts - the Hawai‘i Constitution, the state water code, the Water Commission’s administrative rules, and court decisions.²⁰⁹ In 1978, Hawai‘i elevated resource preservation to a constitutional mandate when it created constitutional provisions that protect natural resources, such as water.²¹⁰ These protections are grounded in the public trust doctrine.²¹¹ Article XI, § 1 and § 7 adopt the public trust doctrine as a “fundamental principle of constitutional law in Hawai‘i.”²¹² Article XI, § 1 of Hawai‘i’s Constitution states that “all public natural resources are held in trust by the State for the benefit of the people.”²¹³ Article XI, § 7 of the constitution lays out more specific directives for how the State should manage its water resources.²¹⁴ Article XI, § 7 finds that “[t]he State has an obligation to protect, control and regulate the use of Hawaii’s water resources for the benefit of its people.”²¹⁵ Furthermore, Article XI, § 7 states:

[t]he legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii’s water resources.²¹⁶

In response to Hawai‘i’s new constitutional mandate, the state legislature enacted Hawai‘i Revised Statutes chapter 174C, known as Hawai‘i’s Water Code, and created the state Water Commission to oversee water management.²¹⁷ The Water Code details the responsibilities of the State Water Commission and lays out specific directives for managing and protecting ground and surface water in Hawai‘i.²¹⁸

Hawai‘i’s Supreme Court has also given specific instructions on how the constitutional mandates are to be executed.²¹⁹ In 2000, the Hawai‘i Supreme Court had the opportunity to use article XI, section 1 and 7 to protect Hawai‘i’s water resources.²²⁰ In *Waiāhole I*, the court reaffirmed the notion that “the public trust doctrine applies to all water resources without exception or distinction.”²²¹ The court in *Waiāhole I* held that article XI, section 1 establishes the permissible “outer limits” of regulatory codes and thus informs how a court interprets any state or agency regulation.²²²

Moreover, the court in *Waiāhole I* held that the state has the responsibility to conserve and protect all of Hawai‘i’s natural water resources.²²³ Summarizing the objectives of the public trust doctrine in terms of water, the court ruled that “in short, the object is not maximum consumptive use, but rather the most equitable, reasonable, and beneficial allocation of state water resources, with full recognition that resource protection also constitutes ‘use.’”²²⁴ The state’s responsibility does not mean that natural resources cannot be impacted or developed. Instead, the public trust doctrine demands controlled development.²²⁵

4.5.2. Obligation to Weigh in Favor of Protected Public Trust Uses

The public trust doctrine also includes a presumption in favor of protecting public use of public trust resources.²²⁶ Under the common law, protected trust uses included navigation, commerce, and fishing.²²⁷ *Waiāhole I* established that the protection of public trust resources²²⁸ and Native Hawaiian traditional and customary rights are also protected public trust uses in Hawaii.²²⁹ The court in *Waiāhole I* did not list all other possible protected uses of the public trust resources, but the court did hold that “private commercial use” is not a protected public trust use.²³⁰ This means that even though private, commercial uses of water resources may offer benefits to the public, they do not constitute public trust uses under article XI, section 1 of the State constitution.²³¹

Additionally, the State also has a duty to weigh competing interests in public resources, always with a presumption in favor of a protected public use.²³² The court in *Waiāhole I* recognized that public and private interests in natural resources often conflict with each other.²³³ To remedy this conflict, the court held that the state is constitutionally obligated to balance the public and private use of public trust resources on a case-by-case basis.²³⁴ The court clarified, however, by holding that the State must start with a presumption in favor of “public use, access, and enjoyment.”²³⁵ As a result, public trust uses of natural resources are the “norm or default condition” while private commercial uses of natural resources undergo a “higher level of scrutiny.”²³⁶

Overall, “[t]he burden ultimately lies with those seeking or approving such [private] uses to justify them in light of the purposes protected by the trust.”²³⁷ This means that the party seeking to use the public trust resource for private, commercial uses bears the burden of demonstrating that the use is “not injurious to the rights of others.”²³⁸ Also, “once adverse impact to the constitutional public trust is raised, the applicant’s burden is intensified, and the agency and reviewing court must be satisfied that the relevant constitutional test is met.”²³⁹

4.5.3. Obligation to Plan

In *Waiāhole I*, the Hawai‘i Supreme Court clarified the State’s public trust obligations as trustee of Hawai‘i’s natural resources.²⁴⁰ *Waiāhole I* held that “if the public trust is to retain any meaning and effect, it must recognize enduring public rights to trust resources separate from, and superior to, the prevailing private interests in the resources at any given time.”²⁴¹

The State, therefore, has an “affirmative duty to take the public trust into account in the planning and allocation of resources, and to protect public trust uses whenever feasible.”²⁴² Overall, “the [S]tate may compromise public rights in the resource pursuant only to a decision made with a level of openness, diligence, and foresight commensurate with the high priority these rights command under the laws of our state.”²⁴³ “[T]he trust duty is not limited to analyzing actions or proposals as they arise.”²⁴⁴ Instead, the public trust doctrine must be considered at “every stage of the planning and decision making.”²⁴⁵

In 2006, *Kelly v. Oceanside* offered an example as to how the public trust doctrine should be applied to agency decisions.²⁴⁶ *Kelly* held that the State has a duty to ensure that the conditions set by agency regulations are met.²⁴⁷ Moreover, *Kelly* ruled that the agency’s “discretionary

authority is circumscribed by the public trust doctrine.”²⁴⁸ This means that in instances where a state agency is granted discretionary authority to exercise its power through a state statute, the agency cannot ignore its public trust duties, and decisions to exercise that authority must be informed by public trust principles.²⁴⁹

4.5.4. Duty to Conserve Public Trust Resources for Future Generations

The court in *Waiāhole I* recognized that there is a constitutional requirement to protect and conserve Hawai‘i’s natural resources and that this requirement is based on a historical understanding that the trust is a public right.²⁵⁰ The constitutional framers felt that it was important to expressly state that protection of natural resources is for the benefit of present and future generations “because it affirms the ethical obligations of this generation toward the next and is entirely consistent with the concept that the Constitution should provide for the future.”²⁵¹ Ultimately, the public trust doctrine advocates for “a controlled development of resources rather than no development.”²⁵² Thus, the State is not obligated to never develop or use trust resources for private, commercial gain, but rather, the public trust requires that the State develop the resources in a manner that ensures long-term protection and beneficial use of the resources.²⁵³

In *In re Wai‘ola*, the Supreme Court of Hawai‘i also clarified that the State assumes the role of trustee over trust resources, and is not just a “good business manager.”²⁵⁴ The legislative and executive branches of state government are “judicially accountable for the dispositions of the public trust,” “just as private trustees are judicially accountable to their beneficiaries for dispositions of the res.”²⁵⁵ As an added measure, judicial review protects against thoughtless use of the public trust.²⁵⁶

4.5.5. Water Law as it Applies to the Mana‘e Streams and the Proposed East Slope Watershed Management Project

Many of the streams on the South East slope of Moloka‘i are culturally, spiritually, and environmentally significant sources of water and streamlife. The Mana‘e community still relies on the streams for freshwater fish and other resources. Based on the interviews, Pelekunu Stream is a source of Tahitian prawn, hīhīwai, ‘o‘opu and ‘opae. Hālawa Stream is a big stream that carries big fish, such as ‘ulua, that feed on the ‘opae. Hālawa stream also has ‘o‘opu that rely on the mauka to makai stream flow for survival and reproduction. ‘O‘opu are also found in the Haka‘ano Stream. Honouliwai Stream carries hīhīwai, small mullet, and ‘aholehole as well. Several interviewees mentioned that the number of hīhīwai in the streams is depleting. Kama‘āina informants noted that in Pipio Stream there is no hīhīwai because there is not enough water. One informant mentioned that within the last 12 years, the spring water died at Honoulimalo‘o Stream so the interviewee needed to run a pipe further up the stream to get water. In addition, another interviewee mentioned that Moanui Stream does not run anymore because there is a diversion by Pu‘u o Hoku Ranch. Many community members also rely on the freshwater for lo‘i. Waialua and Pipio were specifically mentioned as having lo‘i along their banks. Several Mana‘e community members also recognize the cultural importance of the streams in the area. Waialua, for example, is alluded to in many oli and mele.

Under the public trust doctrine, the community’s right to gather fish and other natural resources

that depend on the freshwater is protected as a public trust purpose. As articulated in *Waiāhole I*, *In re Wai‘ola*, and *In re Kukui*, the exercise of Native Hawaiian traditional and customary rights, including the right to gather natural resources that depend on freshwater, is a protected public trust use of the water.²⁵⁷ As a result, any alternative use that may impact Native Hawaiian’s use is reviewed with heightened scrutiny.²⁵⁸ In other words, the law protects Native Hawaiians’ traditional practice of collecting ‘o‘opu and hīhīwai from the streams. If any entity pumps more ground water for a non-public trust use, like a private, commercial business enterprise, it must show that the non-public trust use will not damage the protected public trust uses.

4.5.6. Moloka‘i’s Designation as a Ground Water Management Area and Heightened Protections if Also Designated as a Surface Water Management Area

Moloka‘i is currently designated as a Ground Water Management Area (“GWMA”), which means that the Water Commission more heavily scrutinizes proposed uses of Moloka‘i’s ground water.²⁵⁹ However, Moloka‘i has not been designated as a Surface Water Management Area (SWMA).²⁶⁰ The Water Code also regulates the use of surface water. The Water Code requires that all stream diversions are registered.²⁶¹ The Code defines a stream diversion as “the act of removing water from a stream into a channel, pipeline, or other conduit.”²⁶² The owner or operator of a stream diversion must monitor his/her water use and submit monthly reports to the Water Commission.²⁶³ These reporting requirements for stream diversions are in place even if a diversion is not located in a surface water management area.²⁶⁴ As a result, even though Moloka‘i is not a surface water management area, all pre-existing stream diversions in Moloka‘i should have been registered with the Water Commission by 1988 and all newly created diversions should be subsequently registered as well.²⁶⁵

Some informants expressed concerns about alleged diversions by Pu‘u o Hoku that takes water from Moanui Stream and diversions along Kahawai‘iki, Puniohua, and Pu‘u Elelu Streams. If there are diversions, these diversions must be registered with the Water Commission and the water use must be reported as well. Because Moloka‘i is not a SWMA, owners or operators of diversions do not have to obtain a water use permit to divert water from the streams as long as he/she reports the use to the Water Commission.²⁶⁶

Designating Moloka‘i as a SWMA would give the Mana‘e community the same type of heightened protection for its surface water that it currently enjoys for its ground water. The public trust doctrine only applies to the State of Hawai‘i and its political subdivisions, not to private actors.²⁶⁷ As a result, without state involvement in the surface water management, the community may not be able to utilize the public trust doctrine to protect its surface water.

Surface water management area designation will give the community the necessary legal protections to ensure that the Water Commission, a state agency, is fulfilling its public trust obligations in all decisions that it makes. Without surface water management area designation, however, private owners and operators of diversions are not constitutionally and legally obligated to consider the public trust when diverting water.

4.6. SUBSISTENCE HUNTING - AN EMERGENT CULTURAL PRACTICE AND RIGHT

4.6.1. Revisiting the First Watershed Partnership in East Molokaʻi: Kamalō/Kapualei

In 1998, The Nature Conservancy introduced the concept of forming an East Molokai Watershed Partnership (EMoWP) between the state government, private landowners, and community members in Kamalō and Kapualei ahupuaʻa. Former cattle ranching and heavy grazing from deer and goat had destroyed the native lowland forest. Each year goats were further encroaching into the higher reaches of the native, pristine forest, the most important feature of the watershed. Unchecked erosion on the mountain jeopardized reefs and fishing grounds below with every heavy rain. TNC requested community buy-in to erect a 5.5 mile long lateral fence to straddle and protect the 30,000 acres of remnant native forest. TNC secured a trained, local workforce to erect the fenceline. The two large landowners acquiesced to having their lands fenced and provided permission to community hunters to thin out animals below the fenceline as well as participate in aerial hunts.

Today, over a decade and a half later, TNC and the community have a greater grasp of the advantages and drawbacks of fencing. The upper rainforest above the fenceline has recovered. Everything below the fenceline is denuded. Animals have migrated further east into neighboring ahupuaʻa to access food. These areas are now overgrazed and prone to erosion and landslides. A local shrimp farm and the loko kuapā at Keawanui were inundated with mud several years ago during a heavy rain event. This was caused by erosion contributed by cattle ranching mauka of the shrimp farm and fishpond, as well as an increasing number of feral deer and goat that had migrated to the ahupuaʻa after the Kamalō-Kapualei fenceline was erected.

While residents in neighboring ahupuaʻa observe a degrading landscape, Kamalō residents notice marked improvements, particularly to shoreline resources. Even though below the fence line Kamalō residents see that the land is overgrazed, the fact that the upper native forest has been able to recover due to the protective fenceline has been enough to reduce some of the siltation into Kamalō streams and along the shoreline. This has resulted in noticeable recovery of Kamalō crab, fishing, and limu grounds.

Building on the overall successes at Kamalō-Kapualei, the EMoWP began to circulate a draft proposal in 2013 for an expansion of the EMoWP to potentially run along the entire length of Manaʻe. Ideally, the fenceline would intersect approximately seventeen (17) miles of mountain range and thirty-six (36) ahupuaʻa.

In forming the most effective plan for simultaneously protecting the watershed and preserving native Hawaiian rights in Manaʻe, it would be beneficial to summarize the varied viewpoints of kamaʻāina and their initial thoughts on how the proposed fenceline affects their rights and cultural practices, both positively and negatively. The following is a summary of the varied perspectives of Manaʻe kamaʻāina, as well as some feedback we received from large landowners. All kamaʻāina agreed that something had to be done, especially given the island's prolonged

drought situation that has caused some visible changes even in Mana‘e, a place that has been traditionally greener than other parts of Moloka‘i.

4.6.2. Kama‘āina Offer Differing Viewpoints on Fencing and Hunting

Kama‘āina shared mixed feelings about the expanded fenceline proposal. The thought of laying a fenceline across the entire length of Mana‘e made some hunters leery because a high percentage of mountain areas in Mana‘e are privately owned and it has already been a hardship for hunters to maintain their subsistence practices without being criminalized for trespassing. For them, the fence represented a direct threat to and lack of regard for their subsistence livelihood. One hunter expressed the following sentiment, “All my life I been jumping over fences to hunt and feed my family. I no like see any more fences!”

This sentiment echoes aloha ‘āina activist and president of Pele Defense Fund Palikapu Dedman’s concerns about increased State-sponsored conservation fencing on the Big Island, “Before you know it, everywhere is a pristine area and it’s more and it’s more and it’s more. And our culture is slowly getting pushed away and out.” Animal eradication efforts there have angered hunters like Palikapu, “They go in and kill all the pigs and everything else. Then you eliminate the hunter. I think that the hunter has been ignored and it’s the state’s responsibility to look out for them, too.”²⁶⁸

To avoid a backlash from Mana‘e hunters, EMoWP made sure to consult with both the ‘Aha Kiole as well as form a working group of Mana‘e hunters to craft an acceptable proposal for the East Slope Watershed Management Plan. Several kama‘āina also took part in an aerial survey of the Mana‘e mountain range to discern for themselves the condition of the upper rainforests and ahupua‘a health overall. The Office of Hawaiian Affairs also stepped in on behalf of the ‘Aha Kiole to gather additional mana‘o from Mana‘e kama‘āina as part of this Traditional and Customary Practices (TCP) report.

One kama‘āina who is an avid canoe paddler and original crew member of the Hokule‘a expresses a great reverence for the native forest. She also makes beautiful lei and haku from native plants she gathers from the forest. She is frustrated about hunters asserting rights that include keeping animals on the mountain as a food source while she witnesses the forest diminish in resources and in spiritual mana as Wao Akua. She asserts that it is inappropriate for hunters to claim that hunting is a traditional and customary Hawaiian right, especially because goat, deer, and pig are introduced species. Thus, she fully supports a fenceline and believes that any concession to hunters equates to an infringement on her traditional practices and rights. She contends, “We all talk about the ‘āina being our ice box because we rely on the ‘āina to feed us and provide for all our needs. It’s time we all admit that the ice box is broken and we have to fix it.”

Other gatherers who access the lower mountain forests expressed the decline in resources that they attributed to overgrazing and change in habitat brought on by goat, deer, and pig. Ocean gatherers and fishermen also felt the same in that limu (seaweed) grounds, crab grounds, fishponds, and the reef are choked with silt and mud carried down the eroded mountain during heavy rains.

Another kama'āina, a subsistence fisherman, hunter, and gatherer who understands the different sentiments of various cultural practitioners, spoke from a unifying standpoint and deep love for Moloka'i Nui A Hina (Moloka'i Great Child of Hina), "What is our purpose? To take care Hina or protect hunting? Some things we no can compromise. If we take care the 'āina, the momona going come back." This kama'āina recommended that the proposed fence line be lowered to protect not only the upper remnant forest, but also the damaged area where the lowland forest used to exist. He supports aggressive strategies to remove invasive species and replant natives to restore the lowland forest in addition to protecting the upper remnant forest. He cited precedent during the Hawaiian Kingdom period for constructing stone walls to protect the forest. He pointed specifically to the long stone wall at mid-elevation that traverses several ahupua'a on Moloka'i from Kamalō to Makakupaia which was used to keep cattle from trampling vegetation.

A kama'āina hunter and kia'i loko (Hawaiian fishpond caretaker) also likened the stone wall enclosure of the loko kuapā to the proposed fenceline on the mountain. He felt building walls is a culturally appropriate practice. Where a loko kuapā is a walled fishpond made of stones to protect and cultivate fish; the metal fenceline is a modern-day kuapā on land that is used to protect the precious native forest within.

Some large landowners are wary of having hunters on their land because of liability issues from any injuries sustained on their property. Other landowners are open to providing access, but wish that hunters would have the courtesy of asking permission first. These landowners want to make sure that hunters are utilizing safety measures. They also wish to have open communication with hunters to let them know which areas to hunt and which to avoid in order to safely conduct land management activities. The practice of cutting fences angers large landowners and interferes with their land management, especially if they are raising livestock. Distrust has been fueled on both sides. Some large landowners want a win-win situation where hunters can feel free to hunt, but also give back to the landowners that allow them to hunt on their property. For them, this could be in the form of hunters helping to fix fences and equipment, or doing some kind of conservation work on the land.

Other hunters were okay with EMoWP's compromise measure of having step-overs installed along the fenceline to allow for access into the protected forest. They were willing to make sacrifices in order to restore and protect the native forest so that they could leave the resources in better condition for their children and grandchildren.

Some elder hunters expressed disappointment in the younger generation of hunters who lack respect for the forest by using ATVs that tear up sensitive habitat; waste meat by only taking choice cuts and leaving the rest of the carcass to rot in the open; collect racks for prestige and post pictures of trophy racks on social media sites like Facebook and Instagram. The older hunters felt that the young people were losing the Hawaiian cultural values of mālama. They described pono approaches to hunting: to mindfully walk the land to assess the health of ahupua'a resources; select animals carefully, not just trophy bucks but with a mind for conservation and that preserves the health of the herd; harvest according to need and for subsistence; bury the entrails and bring the rest of the animal home to feed the family.

Some hunters expressed concern about the long fence line impeding the seasonal migration of animals moving back and forth from the north shore to the south shore. Hunters explained that pigs follow the appearance of guava, mountain apple and other foods that are in season at different times of the year and in different places. One hunter also explained the stages of development in deer and how their food requirements change over time. He noted that deer in their senescence seek higher ground to fulfill their food and mineral requirements.

The EMoWP sought to respond to these hunter concerns by including as an alternate plan an open corridor that would span the length from Waialua ahupua‘a to the Pakaikai/Pu‘u O Hoku region. The initial thought was that this corridor would allow for the animals to migrate between the north and south shore as well as leave Pakaikai open as an important hunting area. Much of the land is owned by Pu‘u O Hoku Ranch. The EMoWP has had difficulty in securing a commitment from Pu‘u O Hoku Ranch to join the watershed partnership. For these reasons, the EMoWP thought this proposed open corridor might be a win-win for all. However, several ahupua‘a with important streams (Waialua, Honouliwai, and Honoulimalo‘o) are located within the proposed corridor area. Some reside on kuleana lands within these ahupua‘a and rely on streamwater for both traditional agriculture (e.g., lo‘i kalo cultivation) and domestic purposes. Some of these families who are tucked back along dirt roads that lead deeper into these valleys do not have hook-up to county water and must rely exclusively on the quality and purity of streamwater. Their very real concern is that if every part of Mana‘e is fenced except for their area, an inordinate amount of hooved animals will be forced to migrate there and foul the precious water resources in that region as well as damage important cultural sites such as the King’s Bath in Waialua and the ‘awa cups (‘apu) carved into stone at Pakaikai. For these kama‘āina, they advocate for an all-or-nothing solution. It is either “all-fence” to run the entire length of Mana‘e and protect all resources, or “no-fence” at all, so that some ahupua‘a are not sacrificed for others.

Some kama‘āina felt that a fenceline was not the answer at all; that it only would serve to keep Native Hawaiians out. The answer instead would be the return of konohiki practices of those who possess the knowledge to manage whole-scale ahupua‘a. Some of these kama‘āina were very skeptical about partnering with certain large private landowners; especially those who have a bad track record in caring for the resources and who routinely have Hawaiian cultural practitioners arrested for trespassing their land while in the act of hunting, gathering, holoholo, visiting wahi pana (sacred, cultural sites), and enjoying the streams and waterfalls. They were also distrustful of the ‘Aha Kiole as proper representatives of their concerns. They were more focused on caring for their own ahupua‘a resources rather than formally submit to the ‘Aha Kiole process on an island level and a Mana‘e moku level. They only agreed to be interviewed to ensure that their mana‘o be respected by other Mana‘e kama‘āina, the ‘Aha Kiole, the State, TNC, and the private landowners participating in the watershed partnership.

Others felt that fencing is a good tool in conservation, but it is not the only tool. They felt more comfortable in supporting a holistic plan that integrates Native Hawaiians and locals in all aspects of ahupua‘a management. This would entail having locals and Native Hawaiians hired to conduct fencing and monitoring work. It would also mean securing funds to hire a local and native workforce to restore lowland forests below the fenceline that have been completely destroyed and altered by ungulates; develop native plant nurseries at the cottage-industry level

for Mana‘e families; re-open lo‘i terraces and other agriculture features; restore wahi pana and other cultural sites, including ko‘a (fishing shrines); restore fishpond walls and remove mangrove; and clean the shoreline and reefs of invasive limu (seaweed).

A few kama‘āina advocated for a simple and small-scale approach that would entail building the fence line incrementally, a few ahupua‘a at a time, so that there is opportunity to study and monitor the effect on the watershed, forest, overall ahupua‘a health, hunting, and Hawaiian cultural practices. One kama‘āina suggested that EMoWP can explore adding more fence line, ahupua‘a by ahupua‘a, after they’ve studied the effects in each place and have made improvements and adjustments with each project.

Another kama‘āina who is a pig hunter, fisherman, and also commutes to O‘ahu to do conservation fencing work there explained that small, fence sub-units that are manageable and capable of being maintained is ideal. Fence lines fall into disrepair. Animals can infiltrate these areas and graze on vulnerable native forest land if monitoring and maintenance is not a regular part of management. This individual who also has strong ancestral ties to kuleana lands on the north side of the island also cautioned against erecting a long fence across the entire length of Mana‘e (southeast) and trapping animals on the north shore. In time, they could cause greater harm to the more pristine and water-rich valleys on the north shore and defeat the intent of a watershed partnership.

This report attempts to discern whether a middle ground is available for all stakeholders. This report seeks to address concerns raised by kama‘āina hunters and the need to protect and repair Mana‘e’s upland, native forests; to accommodate all traditional and customary Hawaiian practices that may potentially overlap and conflict; and to suggest ways of achieving an amicable watershed partnership between the State, private landowners, TNC, and the local and native community of Mana‘e. The very process of interviewing Mana‘e kama‘āina; working with the ‘Aha Kiole o Moloka‘i – Mana‘e Moku; receiving guidance from the Office of Hawaiian Affairs; collaborating with TNC’s experienced leaders and conservation workers on the ground; and sharing mana‘o from EMoWP partners and their hunters’ working group has been a rewarding and invaluable experience that is already paving a hopeful path forward.

The following sub-section will cover impacts of introduced ungulates on Moloka‘i’s native ecosystem, overall ahupua‘a health and associated Native Hawaiian Traditional and Customary Practices. This is to address whether the presence of large game is in fact infringing on certain traditional and customary Native Hawaiian practices.

Next will be an exploration into whether hunting itself is a traditional and customary Hawaiian practice and right as some kama‘āina assert. This will entail a review of relevant constitutional and statutory provisions and court decisions, particularly a new legal opinion issued by the Hawai‘i Intermediate Court of Appeals in December 2015 that addresses whether pig hunting is a traditional and customary Hawaiian right.

The next sub-section will cover whether potentially conflicting Native Hawaiian rights and practices can coexist and whether they can be reconciled, especially within the context of the proposed East-Slope Watershed Management plan.

Finally, the last sub-section will determine whether a middle ground can be achieved among stakeholders. This entails looking also to the role the State Department of Land and Natural Resources (DLNR) plays as the lead government agency that administers the watershed partnership program. This section explores the State's duty to affirmatively protect Native Hawaiian rights to the extent feasible, balanced with its authority to reasonably regulate these rights.

4.6.3. Impacts of Large Grazers on Moloka'i's Native Ecosystems, Ahupua'a Health, and Native Hawaiian Traditional and Customary Practices

A Brief Overview of Studies on Ungulate Impacts to Hawaiian Ecosystems Generally and Moloka'i Specifically

The geographical isolation of the Hawaiian Islands created a unique and fragile ecosystem preceding the first human migrations from Polynesia between 300 and 600 A.D.²⁶⁹ Birds, insects, and plant seeds arrived through sea and wind dispersal.²⁷⁰ Plants lost their natural defenses that once protected them from grazers.²⁷¹ Over millenia, new species evolved and developed that exist nowhere else on the planet.

The pua'a or Polynesian pig was the first hooved animal brought to Hawai'i during the Polynesian migrations.²⁷² Descendant of the wild Asiatic swine (*Sus scrofa* subsp. *vittatus*), it was smaller than the wild pig known today in the Islands.²⁷³ The pua'a was a domesticated animal and food source for the 'ohana.²⁷⁴ Polynesian pigs were usually housed in pā pua'a (pig pens), remained within the kauhale ('ohana compound) and foraged in the lowland forest.²⁷⁵ At post-contact, European pigs first brought over by Captain Cook in 1778 and from other foreign vessels over the years, interbred with the pua'a to create the larger feral pig known in Hawai'i today.²⁷⁶ As this new pig variety grew in numbers, they spread further up into the mountains.²⁷⁷

Wild pigs eat a variety of food, depending on whatever is available; they will eat hapu'u tree ferns, waiawī (strawberry guava), and poka mai'a (banana).²⁷⁸ They alter native forests by carrying seeds of invasive plants in their gut and on their coats. They also trample on native plants. Through their rooting behavior and fecal waste they create soil conditions that are ideal for invasive plants to grow and outcompete native vegetation that are more adapted to nutrient-poor soils.

Domestic goats were also introduced first to Ni'ihau upon Captain Cook's arrival in 1778, then on Kaua'i in 1792 on Captain Vancouver's journey.²⁷⁹ An 1850 record of 26,519 goat skins exported to the continental U.S. provides an indication of how huge the goat population expanded over the islands within just seventy-five years from their introduction.

Goats eat both native and non-native plants. A former study of stomach contents of feral goats located at Volcanoes National Park revealed a preference for native vegetation when it is in abundant supply and when there is a low density of other goats to compete with.²⁸⁰ Through seeds propagated from their feces and also carried on their fur, goats also facilitate the recruitment of invasive plant species that outcompete native vegetation.²⁸¹ It has been

documented on the Big Island that goats have destroyed the native mamane forest and caused habitat loss to the endangered palila, the native finch-billed honeycreeper.²⁸² Today, feral goat populations dominate a wide habitat range from low to high altitudes and wet to dry habitats.²⁸³ They have been described to be “the single most destructive herbivore,” especially on island ecosystems worldwide.²⁸⁴

Eight axis deer were brought to Hawai‘i in December 1867 and released on the island of Moloka‘i in January 1868.²⁸⁵ Deer herds established themselves on other islands in the latter part of the 19th century (around 1898 at Diamond Head and around 1910 in Moanalua Valley on the island of O‘ahu) up until mid-way into the 20th century (1920 on Lāna‘i, 1959 on Maui).²⁸⁶ The deer population on Moloka‘i increased rapidly from eight deer to one-thousand within two decades. By 1900, the deer population had grown to an estimated 7,500 before animal control measures were put in place to thin the population down to half the original size.²⁸⁷ The deer’s primary habitat is among the grasslands. They are rarely found above an altitude of 3,500 feet.²⁸⁸

Overall, ungulates in Hawai‘i degrade and replace entire native ecosystems, often leaving behind grasslands dominated by introduced species.²⁸⁹ The destruction of Moloka‘i’s endemic forests coupled with cattle ranching, sugar cane and pineapple agriculture caused major land erosion and siltation of the island’s fishponds and reefs.²⁹⁰

Moloka‘i’s east-west, elongate shape and the natural protection afforded its south-facing shore by the islands of Maui, Kaho‘olawe, and Lāna‘i have provided the optimal conditions for the natural development of an extensive fringing reef²⁹¹ as well as an ideal location for high-density fishpond construction. However, the very nature of the protected coastline, “the relatively weak wave stresses and the coast-parallel transport” also hampers flushing of sediments that settle on the reef.²⁹² Sediment is 5-15 cm. thick on the inner reef flat.²⁹³ These sediments resuspend in the water column, causing turbidity and blocking out sunlight for photosynthesis of microalgae present within coral tissues. The sediment then re-settles back onto the reef during calm conditions.

The fishponds also act as silt traps.²⁹⁴ In 1902, the American Sugar Company introduced the Florida red mangrove (*Rhizophora mangle*) to stabilize the shoreline and capture silt carried by heavy rains down the mountain.²⁹⁵ Mangroves today dominate Moloka‘i’s fishponds and plug up coastal springs. The natural sediment flushing mechanism of the kūpuna-engineered mākāhā (sluice gates) no longer function properly due to the presence of mangrove that accrete and hold sediments,²⁹⁶ as well as alter the water flow and currents entering these ponds.

Kama‘āina Observations of Degrading Health of Mana‘e Ahupua‘a Resources and their Impact on Hawaiian Traditional and Customary Practices

As explained above, traditional gathering for lei-making is one of the cultural practices that are threatened by the presence of ungulates who have altered the landscape and made it difficult for kama‘āina to gather. There are some plants that only exist in the Wao Nahele and Wao Akua such as maile and certain types of native ferns. For lei makers as well as hula practitioners, preserving the last vestiges of native forest is critically important.

As mentioned earlier in Section 4.1.5. of this chapter, Mana‘e kama‘āina have noticed many changes in ahupua‘a health that they attribute to the presence of large grazers such as cattle, goat, and deer. Much of the lowland native forest has been destroyed and invasive plant species have gained a strong foothold in areas that makua and kupuna-aged informants once knew to be dominated by native plants. Kama‘āina are also noticing severe drought conditions that have lasted for decades and worsened over time. They are unsure whether the drought is the result of global climate change; but they know that the dying native forest is not as effective in catching rain as it used to be.

Kama‘āina are noticing that there is less moisture along the lower mountain slopes and the lowland forest has been replaced with invasive kiawe, java plum trees, thorny plants, and grasses. It is more difficult to find pepeiao, a native fungus and delicacy that grows on trees.

Mahi‘ai (farmers) are also suffering. One kama‘āina from Honouliwai who relies completely on rainwater because there is no county infrastructure, mentioned that his crops are suffering and he is less able to gauge whether there will be enough rainfall to sustain his crops.

A common saying and observation made by kama‘āina is that “what happens mauka impacts makai.” Streams that used to flow perennially or flowed quite often are now dry or low. Springs are drying up. It is more difficult to find seaweed like huluhuluwaena and ‘ele‘ele that need an infusion of clean, uncontaminated freshwater seeps along the shoreline.

The taro terraces are overgrown with invasive plants and trees. There is no longer nutrient exchange and water moving efficiently through the ahupua‘a to feed spring lines below, promote limu growth, and create the muliwai (brackish water) that supports fishponds and estuarine environments.

A kama‘āina from Honouliwai ahupua‘a has restocked the stream there with ‘o‘opu and hihiwai that he gathered from pristine streams on the north shore of Moloka‘i. These native, diadromous species live a portion of their life cycle in the stream and a portion in the ocean. The kama‘āina informant actively engages in mālama through cleaning the stream and cutting back java plum trees that shade out stream habitat and absorb too much water. During heavy rains, massive amounts of topsoil, branches, and other forms of natural debris are washed down into the stream because of poor land management practices and the presence of deer that have altered and eroded the landscape above. This has caused massive die-offs of ‘o‘opu and hihiwai in the stream which are also a food source for Native Hawaiians.

Ahupua‘a have been generally described as running “from the mountain to the sea” and providing for the chief and his people “a fishery residence at the warm seaside, together with the products of the highlands, such as fuel, canoe timber, mountain birds, and the right of way to the same, and all the varied products of the intermediate land. ... [B]oth inland and shore fishponds were considered to be part of the ahupua‘a and within its boundaries.”²⁹⁷ Dr. Carlos Andrade describes ahupua‘a fisheries as being well “cared for as if they were extensions of [] gardens” tended just as carefully and intentionally as the “gardens filling coastal plains, stream-lined valleys, and forest clearings in the uplands.”²⁹⁸

Evidence of mālama i ke kai (ocean stewardship) is strongly prevalent in several kama‘āina interviews. These practices are mentioned here for two purposes. Firstly, the full import of the effects that “upstream” uses have on “downstream” activities isn’t always obvious. And secondly, understanding the impacts ungulates have on Hawaiian cultural practices is important to the question of what role the State must play to ensure that these practices can continue. Unchecked sediment deposits from eroded landscapes into the ocean impact marine ecosystems and have a ripple effect on traditional subsistence and other customary practices.

Cattle ranching on the mountain slopes of Ka‘amola and eastern migration of goat and deer from the Kamalō-Kapualei area have caused landslides and siltation into Keawanui fishpond. Hui o Kuapā and the Hawaiian Learning Center have been actively restoring the ecology at Keawanui fishpond by repairing the kuapā (wall), reopening springs that feed the pond, and raising fish, limu, “live-rocks” for the aquarium industry, and Hawaiian oysters in a natural environment. The fishpond workers have had to build berms to protect springflow and prevent the fishpond from becoming a silt-trap. They have had to adapt to these less-than-ideal conditions by utilizing the dead branches of invasive mangrove as vertical substrate placed in the water column for seaweed recruitment (e.g., limu ‘ele‘ele) that would otherwise be smothered by mud that has accumulated in the pond from deforestation above.

Several Mana‘e kama‘āina informants identified key fishing ko‘a across multiple ahupua‘a. Ko‘a are secret fishing spots in the ocean that are known by Hawaiian families and passed down from generation to generation. These fishing ko‘a correspond with ko‘a on land, fishing shrines that serve as markers or lines of sight to fishing grounds in the sea. A portion of fishermen’s catch are also left at the shrine as offerings to the fishing god Kū‘ula. ‘Opihi (limpet) shells are left upturned so that sunlight will reflect off of the shiny inside of the shells and serve as a beacon and line of sight for fishermen attempting to locate their special fishing grounds.

The introduction of ungulates such as goat, deer and cattle have caused severe damage to fishing ko‘a. Many of the fishing shrines have been trampled, resulting in either a complete loss of traditional knowledge of special fishing locations or, at minimum, severely hampering successful fishing ventures. Cattle ranching in former lowland native forest areas has been particularly destructive of these fishing shrines. The growth of invasive kiawe that have overtaken former native and endemic vegetation has also hindered lawai‘a (fishermen) from finding their ocean ko‘a. This has prompted some kama‘āina to recommend that the footprint for the proposed fenceline be relocated lower down the mountain to not only protect the native, pristine upper remnant forest, but also allow for the restoration and protection of the original native, lowland forest.

One kama‘āina informant explained the practice of his grandmother and the women before her in building “manini houses” that are constructed of stones piled in a heap under water which attracts the manini fish (convict tang, *Acanthurus sandvicensis*). Top stones are lifted at low tide to reveal the manini inside the fish house. Women gather the manini by hand.

There are certain named reef patches in the ‘Aha‘ino area known to kama‘āina living on ancestral lands in that ahupua‘a. The names of the individual reef patches in ‘Aha‘ino

correspond with the names of women who lived during the time of the Māhele or even pre-contact times. People who claim ‘Aha‘ino as part of their ancestral lands are able to trace their genealogy to these individual reef patches that served as personal ocean gardens.

It is unclear whether ‘ohana from ancient times planted coral patches like those found in ‘Aha‘ino. However, as mentioned above, the observation made by coral reef scientist Dr. Jim Maragos of the lane of coral connected to the mākāhā of a fishpond in ‘Aha‘ino and extending outward (seaward) from the kuapā, likely indicates intentional coral plantings by ancient Hawaiians. Practices on other islands may also support this premise. For example, it is known that in Kahalu‘u Bay on Hawai‘i Island, fishermen “pruned” reef for two purposes: to lessen breakage of nets on the reef and to create more niches for fish and other marine life to assemble and multiply.²⁹⁹

The ecology of the reef is changing drastically as corals are continuously choked by re-suspended sediment and new silt deposits from heavy rains carrying exposed topsoil down the mountain. Like the adaptations that the kia‘i loko (fishpond caretakers) have employed at Keawanui fishpond, these Hawaiian practices of constructing fish houses and taking kuleana to mālama specific reef patches may be the best way to protect and restore abundance in Mana‘e fisheries.

According to one kama‘āina, the strategic placement of fishponds around coastal springs was not only for the purpose of creating a micro-ecosystem for choice herbivorous fish that feed on limu and thrive in brackishwater. The kūpuna erected kuapā (rock wall) around these coastal springs to form a protective buffer between the natural surf, storm surge, and currents that could otherwise plug these springs with sand particles and rocks.

There is merit in his words, as there is an oral history account of the late kupuna, Auntie Zelig Sherwood of Mana‘e who spoke about the legendary spring Lo‘ipūnāwai located within ‘Ualapu‘e fishpond. It was a critical source of water for the hoa‘āina there who were under the oppressive rule of an O‘ahu chief. The hoa‘āina survived by secretly gathering water from the coastal spring hidden in the center of ‘Ualapu‘e fishpond, while they caused their oppressors to perish by poisoning all the visible waters.³⁰⁰

A less than common understanding is that what is cared for makai also impacts mauka. We learned this concept from Russell Kallstrom with The Nature Conservancy when he described the ongoing studies of native seabirds nesting at Mo‘omomi on Moloka‘i’s northwest coastline.³⁰¹ Mo‘omomi is a community-based subsistence fishery managed for over twenty years by Uncle Mac Poepoe, a Hawaiian homesteader and konohiki of that area. Through the use of the Hawaiian moon calendar and mental models, Uncle Mac tracks feeding patterns, reproduction and life cycles, regeneration, multi-species interactions, and habitat requirements of Mo‘omomi’s marine life. According to Kallstrom, indigenous fisheries management has not only increased the health of the fishery, but has yielded corresponding positive results “upstream” as seen in the significant increase in fecundity, biomass, and survival rates of native seabirds and their offspring that nest along the coastal sand dunes of Mo‘omomi. Bird feces in turn provide valuable nutrients to the land and marine algal beds.³⁰²

Mana‘e kama‘āina have made similar observations of a positive feedback loop mauka-a-makai (mountain-to-sea) and makai-a-mauka (sea-to-mountain). Some examples include:

- Making ho‘okupu (offerings) of ‘opihi, fish, and shellfish at ko‘a (fishing shrines). These ho‘okupu add nutrients from the sea to the soil while at the same time assist lawai‘a (fishers) in finding family fishing grounds at sea. These practices also acknowledge the spiritual and genealogical connections between land and sea species as described in the Kumulipo.
- Erecting loko kuapā (walled fishponds) around important springs preserves water sources that feed fish, crab, and limu beds as well as provides an important emergency water source for people.

4.6.4. Is Subsistence Hunting a Traditional and Customary Hawaiian Practice and Right?

The mana‘o shared by Mana‘e kama‘āina provide a compelling view of enduring Hawaiian customary practices exercised throughout the ahupua‘a, both on land and in the ocean. They also demonstrate a richness in mālama ‘āina traditions that persist today. Scientific studies also corroborate what kama‘āina are witnessing on the ground in terms of impacts to native forests, streams, fishponds, and reefs with the advent of hooved animals. Kama‘āina interviews show that the degraded conditions of Mana‘e ahupua‘a also impact traditional subsistence, gathering, fishing, and religious and ceremonial practices.

However grim the accounts are of the decline in resources and ahupua‘a health, many of the same kama‘āina attest to the importance of subsistence hunting to meet their family needs. Many of these kama‘āina are hunters, fishers, gatherers, and farmers. It is more rare to find that one kama‘āina is skilled in only one of these subsistence activities. If that is the case, then more often than not, other family members are filling the gaps with their own specialized skills (e.g., grandparents pick limu and do lā‘au lapa‘au (Hawaiian medicinal healing); father and son are hunters and fishermen; mother and daughter prepare Hawaiian foods like ‘inamona, raw crab, and gather articles in the forest for lei making).

The 1993 Moloka‘i Subsistence Study indicates from a random phone survey that twenty-five percent of the respondents hunted and on average they hunted seventeen days within a one-year period from July 1992 to June 1993.³⁰³ These figures underscore the importance of wild game in the diets of Molokai families.

Thus this sub-section will provide a legal analysis of whether hunting of introduced animals constitutes a traditional and customary Hawaiian right. If hunting is indeed a Hawaiian custom protected under the law, then the next question will be whether there is room for all traditional and customary practices identified by Mana‘e kama‘āina. Are these practices mutually exclusive or can they co-exist as equally important? If these rights and practices can be reconciled, then what is an achievable middle-ground that will restore the ahupua‘a and maintain ungulate populations for subsistence hunting?

The State agency lead for the East Molokai Slope Watershed Management Plan is the Department of Land and Natural Resources (DLNR). As such, DLNR is obligated under Article XII, Section 7 of the Hawai‘i State Constitution to “protect all [Native Hawaiian hoa‘āina] rights,

customarily and traditionally exercised for subsistence, cultural and religious purposes.”³⁰⁴ It also has the authority to regulate these rights to the extent feasible.³⁰⁵

The sources of Native Hawaiian rights law are described above in Section 4.2. H.R.S., § 7-1, an adoption of the Hawaiian Kingdom’s Kuleana Act (1851), ensures that *hoa‘āina* (native *ahupua‘a* tenants) have access and gathering rights to meet their basic daily needs. The law recognizes *hoa‘āina* “right[s] to take firewood, house-timber, aho cord, thatch, or ki leaf ... [and] a right to drinking water, and running water, and the right of way. ...”³⁰⁶

Hawai‘i Revised Statutes, Section 1-1 instructs Hawai‘i’s courts to look to English and American common law decisions for guidance, except where they conflict with “Hawaiian judicial precedent, or ... Hawaiian [custom and] usage.”³⁰⁷ H.R.S. § 1-1 recognizes certain customary practices that go beyond the rights specifically enumerated in H.R.S. § 7-1.³⁰⁸

The threshold question is whether hunting is a traditional and customary right. The *PASH* case is instructive for determining whether a particular practice qualifies as a Hawaiian custom. The criteria for proof of custom is that it be *consistent*, *certain*, and *reasonable*. The Hawai‘i Supreme Court defines these terms as follows:

(1) “consistency” is properly measured against other customs, not the spirit of the present laws; (2) a particular custom is “certain” if it is objectively defined and applied; certainty is not subjectively determined; and (3) “reasonableness” concerns the manner in which an otherwise valid customary right is exercised—in other words, even if an acceptable rationale cannot be assigned, the custom is still recognized as long as there is no “good legal reason” against it.³⁰⁹

Additionally, a custom need not be exercised since “time immemorial,” but merely predate November 25, 1892 when the original Kingdom law was passed to guide judicial decisions.³¹⁰

How can we determine whether hunting is *consistent*, *certain*, and *reasonable*? As explained in Section 4.2. above, courts look to *kama‘āina* testimony as the standard for authenticating Hawaiian custom and usage.³¹¹

Kama‘āina began with references to the *Kamapua‘a* traditions. As was mentioned above, the Polynesian voyagers brought the *pua‘a* (pig) with them when they settled in Hawai‘i. The *pua‘a* remains a strong part of the Hawaiian culture today. The deification of *Kamapua‘a* as the pig-god reflects the strong cultural connection Hawaiians have to *pua‘a*. The *pua‘a* is not just a food source but has been elevated in *mo‘olelo* (stories) as the adventurous and *kolohe* (mischievous) demigod *Kamapua‘a*.³¹²

Dr. Davianna Pōmaika‘i McGregor offered some unique perspectives on *Kamapua‘a* and whether hunting is a customary practice in the Kamakou Preserve Cultural Assessment she authored. Dr. McGregor shares the opinion of C.M. Kaliko Baker, a Hawaiian language instructor well-versed in the *mo‘olelo* of *Kamapua‘a*:

Kamapua‘a was free to roam, he was not domesticated. When he did damage and violated his neighbor’s property and possessions they retaliated by trying to hunt and kill him. In his antagonistic relationship with the family of Pele deities his role was to break up the lava domain of Pele and convert it into forest. In the final resolution of their hostilities, Pele and Kamapua‘a divided the island of Hawai‘i into their respective domains, the forested areas being the domain of Kamapua‘a. Hawaiian hunters have interpreted this as evidence that the pig has a natural role in the forest. In the end of the Kamapua‘a saga, he ventures to Kahiki where his father-in-law castrates him in order to force him to settle into domestic life with a wife and child. According to Baker, this is an indication that the natural state of the pig was to roam free in the forest and that domestication was an imposition of civilization. Moreover the domestication of Kamapua‘a occurred outside of Hawai‘i. Baker also notes that pigs were hunted, using spears and/or prayers to be offered as ho‘okupu.³¹³

When the Kamapua‘a lore was discussed among Mana‘e kama‘āina, there were some interesting viewpoints. One kama‘āina who is a hunter but most vehemently expressed his disappointment with the disrespectful hunting behavior of youth who tend to hunt for trophies and are wasteful with animal meat stated, “There is no Kamapua‘a tradition on Moloka‘i! When Kamapua‘a arrived on Moloka‘i he was confronted by two mo‘o wahine (lizard protectors) and they chased him off the island!”

Another kama‘āina who expressed a reverence for Wao Nahele and Wao Akua and gathers in the upland forests for lei-making countered Baker’s opinion by reflecting on Kamapua‘a’s latter years when he was less spry and mischievous. He admonished the people to mālama the forest. For this reason, she does not agree that the Kamapua‘a tradition suggests that hunting is a customary right that should dilute the more important kuleana and custom of mālama. For her, feral pigs and other ungulates do not belong in the forest and so a co-existence of hooved animals and native forest is untenable. For her, mālama can and should entail fencing at least the remaining upper native forest. She feels that if any hunters who might be opposed to erecting a fence at all and who might claim that their rights are superior to other traditional and customary Hawaiian practices are selfish and should not be afforded any protections or concessions.

Dr. McGregor points out that the Polynesian pua‘a introduced to Hawai‘i was domesticated and rarely wandered beyond the Wao Kanaka.³¹⁴

The uppermost levels of the rainforest were sacred to the gods and acknowledged as the Wao Akua. Humans rarely ventured into this realm. The harvesting of plants or even trees from this realm required ho‘okupu or the offering of sacrifices to the deities. The pigs rarely roamed into this sector of the forest.³¹⁵

This would suggest that in protecting the Wao Akua, as is proposed in the East Slope Watershed Plan, the EMoWP would not need to make accommodations (e.g., via step-overs) for hunters to enter through the fenceline to hunt.

However, Dr. McGregor observes that development over the last two centuries has pushed the pigs and other ungulates higher up the mountain into Wao Akua.³¹⁶ She cites also the abolition

of the kapu system, the conversion of Native Hawaiians to Christianity, and other foreign influences that corroded Hawaiian precepts on the sacredness of Wao Akua and opened the way for humans and feral animals to infiltrate this region³¹⁷:

Since agriculture and residential development has destroyed the lowland forest areas where the pigs used to be plentiful and easily reached on foot trails Hawaiians must go deeper into the same forests or higher up the same mountain hunted by their ancestors.³¹⁸

This suggests that Hawaiian customs have had to adapt to changing times. The *PASH* court made clear that customs need not have originated from “time immemorial” and practiced continuously onward to present day. Rather, the custom must have been adopted prior to 1892.³¹⁹

It is well-established that the pua‘a arrived with the first Polynesian migration to Hawai‘i in the 4th century A.D. It is also well known that Europeans brought a larger variety of pig in the 18th century with the arrival of Captain Cook. The interbreeding of these two species produced the feral pig known to roam Hawai‘i’s forests today. Pig hunting methods today have been directly influenced by European practices that have been passed down through the generations over the last 150 years. This involves the use of “dogs [to] locate, chase, grab, or bay the game, which is then typically dispatched by the hunter with a gun or knife.”³²⁰

Similarly, axis deer and goat introductions pre-date 1892. Like pig, they have become important food sources for Moloka‘i kama‘āina. These animals are typically hunted with use of rifles. Some also use bow and arrow, but that appears to be a recent and rare method of hunting on Moloka‘i.

The use of guns, knives, bow and arrow, etc. in hunting should not detract from whether or not a particular practice like hunting is customary or not. As McGregor points out with the Hawaiian ‘ohana values, it is the essence of the practice itself that relates to subsistence, culture, and religious ceremony that matter most.³²¹ The pono hunting approach shared by several of the elder kama‘āina hunters reflect this mindset of mālama: being mindful when hunting to respect the resources and gauge their health; to only take what is needed to feed the family; to not waste meat and to bury the entrails respectfully. This approach reflects the essence of Hawaiian practice.

In the recent *State v. Palama* opinion issued by the Hawai‘i Intermediate Court of Appeals, the court affirmed the trial court’s dismissal of criminal charges against a Native Hawaiian defendant who was arrested for pig hunting on private property in Kaua‘i.³²² Palama is a hoa‘āina of Hanapepe and cares for his kuleana land and taro patch there. He often traverses the ahupua‘a and across privately owned lands in Hanapepe to inspect the river flow and water quality for his kalo, as well as hunt for pig to feed his family. One day, Palama went pig hunting with a mule and his dogs. He successfully killed a wild pig with his knife and was subsequently arrested for trespass and for hunting on private lands.

The court applied the *Hanapi* three-part test that a criminal defendant must meet to assert a constitutionally protected native Hawaiian right. Namely, the defendant must prove that he is a descendant of “native Hawaiians who inhabited the islands prior to 1778”;³²³ second, that his

“claimed right is constitutionally protected as a customary or traditional native Hawaiian practice”;³²⁴ and third, “that the exercise of the right occurred on undeveloped or ‘less than fully developed property.’”³²⁵

Palama easily met the first part of the test: proof of native Hawaiian descent. The land on which he hunted also fit the definition of undeveloped or less than fully developed property.

With respect to the second-part of the test, the court sought to determine under *Hanapi* whether there was “an adequate foundation in the record connecting the claimed right to a firmly rooted traditional or customary native Hawaiian practice.”³²⁶ The court referenced the Hawaiian custom and usage statute, H.R.S., § 1-1, to determine under the circumstances of this case, whether Palama’s pig hunting on the subject property constituted a traditional and customary right.

Palama testified that he had been hunting pig since he was a child and that this knowledge was passed down to him by his family. The court received expert testimony from Dr. Jon Osorio, a Professor of Hawaiian Studies. He explained that pigs were an important part of the subsistence diet of ancient Hawaiians prior to 1892; that pigs were hunted as a method to keep the feral pig population down and deter pigs from destroying ‘uala (sweet potato) and lo‘i kalo (taro patches). Dr. Osorio believed that Palama was continuing this tradition of “hunting to supplement the diet of his family, and that he was doing it the same way that his father before him and ancestors before him had done.”³²⁷ It was also noted that Palama was pig hunting in the area surrounding his taro patch. Another native pig hunter from the same area offered kama‘āina expert testimony. He testified that native Hawaiian hunters, including Palama’s ‘ohana, have been hunting on the subject private property for successive generations.

Based on the evidence offered, the appeals court agreed with the trial court that pig hunting constitutes a traditional and customary Hawaiian right. The court also agreed that the Defendant’s constitutionally protected hunting privilege was reasonably exercised. The court found substantial evidence in the record that Palama hunted in a reasonable manner, in alignment with cultural subsistence values and with a mindset for traditional conservation in that he protected his taro patch by hunting pig in the surrounding area.

Given the *Palama* opinion, it is more than likely that the State would uphold pig hunting by Mana‘e kama‘āina as a valid and constitutionally protectable traditional and customary Hawaiian right, so long as they hunt in a reasonable manner that does not infringe on the rights of others. The same legal framework could also apply to subsistence hunting of deer and goat.

4.6.5. Can Potentially Conflicting Native Hawaiian Practices Coexist? Can these Rights be Reconciled?

With hunting as a traditional and customary Hawaiian right, how can it be reconciled with other traditional and customary rights and practices that may be adversely affected by hunting?

It might all be a matter of perspective. One kama‘āina informant shared that when asked what his purpose is, the appropriate response would be to take care of Hina. For him, that means the

use of conservation fencing. To the kama‘āina who looks at any fence as a “Keep Out, No Trespass” sign and an infringement on his hunting rights, perhaps he might look at the conservation fence in a different way. The incremental step-overs for access are both an assurance that he may continue to hunt and that private landowners will no longer stop him from doing so. At the same time, the natural resources protected within the fence will remain vibrant and abundant so that the other cultural practices he exercises can be maintained today and for succeeding generations of his family.

Reconciling potential conflicts requires finding some kind of common ground. Prevalent in every kama‘āina interview we conducted was a profound love for ‘āina, and more specifically for Moloka‘i as “one hānau” (birth place). This deep-seated aloha for island and place evoked many passionate statements from kama‘āina on how to mālama ‘āina and how to mālama each other when there is disagreement. Not a single interviewee reflected a one-sided approach based on rights and privileges, absent responsibility to mālama ‘āina. All could readily agree with the sentiment that the ‘āina, while it is our ice box, still needs fixing.

Earlier Hawaiians had to grapple with potentially conflicting uses. Konohiki were put in charge to carefully regulate uses, so resources would not be over-used or depleted. This is why the kapu system was established – to monitor the people’s activities and their use of the resources. Similarly, we must balance the need for an intact forest, the need for hunters to access certain areas to procure game, and the need for lā‘au lapa‘au practitioners, lei makers, fishers, and limu gatherers to enjoy thriving resources.

Ka po‘e kahiko, the people of ancient times, were subject to a stringent kapu system. The kapu system regulated what types of foods men and women could consume.³²⁸ It provided the protocols of engagement between maka‘āinana and esteemed ali‘i.³²⁹ Kapu were also placed on certain activities, such as when to make war and when to honor peace.³³⁰ Finally, the kapu system served as a set of conservation measures.

For example, water use was regulated through a complex set of kāmāwai (laws). This entailed the fair allocation of water and honoring time slots among mahia‘i (farmers) for opening and closing ‘auwai (irrigation ditches) leading from the main stream to a vast network of lo‘i kalo (taro patches). Konohiki or lunawai (water managers) enforced the kāmāwai and exacted capital punishment on those who disobeyed the law.³³¹

Similarly, kapu were also integrated into fisheries management and conservation. Konohiki oversaw the fishing activities within each ahupua‘a. They ordered the people to alternate fishing areas to avoid depletion and allow for replenishment. They also issued species-specific kapu to correspond with fish spawning periods.³³² According to respected Hawaiian historian, Mary Kawena Pukui, the kapu system in the Kā‘ū district of Hawai‘i Island was practiced in the following manner:

When inshore fishing was tabu (kapu), deep sea fishing (lawai‘a-o-kai-uli) was permitted, and vice versa. Summer was the time when the fish were most abundant and therefore the permitted time for inshore fishing. Salt was gathered at this time, also, and large quantities of fish were dried ... In winter, deep sea fishing was permitted. A tabu for the

inshore fishing covered also all the growths in that area, the seaweeds, and shellfish, as well as the fish. When the kahuna had examined the inshore area, and noted the condition of the animal and plant growths, and decided that they were ready for use, that is, that the new growth had had a chance to mature and become established, he so reported to the chief of the area, and the chief ended the tabu. For several days it remained the right of the chief to have all the sea foods that were gathered, according to his orders, reserved for his use, and that of his household and retinue. After this, a lesser number of days were the privilege of the konohiki (overseers of lands under the ali'i). Following this period the area was declared open (noa) to the use of all.³³³

At the end of a fishing expedition, the lawai'a would make an offering of the first catch before the altar of Kū'ula; prized catch were set aside for the ali'i and his household; then apportionment to the kahuna and konohiki; and finally among the fishermen and those who were in need.³³⁴ As Titcomb describes,

Division was made according to need, rather than as reward or payment for share in the work of fishing. Thus all were cared for. Anyone assisting in any way had a right to a share. Anyone who came up to the pile of fish and took some, if it were only a child, was not deprived of what he took, even if he had no right to it. It was thought displeasing to the gods to demand the return of fish taken without the right.³³⁵

The practice of sharing catch is still prevalent among the people of Moloka'i and is practiced by many Mana'e kama'āina. It is very common especially for fishermen to share catch; hunters to share venison, smoked pig, and goat jerky; farmers and gardeners to share fruits and vegetables with extended 'ohana, neighbors, and especially kupuna who are no longer able to holoholo and easily provide for themselves.

Ali'i were not immune from societal expectations related to sharing. For instance, while the catch belonged to the ali'i when fishing was done by or for him, the ali'i was obligated to share generously with the people.³³⁶

Dr. Lilikalā Kame'eleihiwa explains that the source of reciprocity and interdependence between ali'i and maka'āinana is embedded within the obligation to mālama 'āina. Ali'i were charged with providing the leadership and organization to make the land bountiful and, in turn, capable of sustaining a growing population. The maka'āinana through their labor fed and clothed the ali'i. If a commoner failed in his kuleana to mālama the portion of 'āina allotted to him, he was dismissed. If a konohiki failed in his leadership and management of the resources, he was also discharged of his duties. If the land suffered and the people starved, it was perceived as the fault of the ali'i for displeasing the gods and not following religious protocols. Negligence in mālama 'āina signaled also a breakdown in the relationship between ali'i and maka'āinana.³³⁷

Chapter 5 covers the kama'āina recommendations to the tough questions we asked:

- If you were konohiki, what would you do?
- Even if you support the fencing initiative in your ahupua'a, how would you mālama neighboring ahupua'a who are presently not included in the watershed partnership?

- How would you prevent ungulates from migrating to Waialua, Honouliwai, and Honoulimalo‘o and fouling the streams there if everywhere else was fenced?
- If it is not feasible to lower the fenceline to the former lowland forest, how can we repair the damage done by ungulates? How can we re-plant?
- How would you organize community hunts?
- How would you respond to private landowner concerns regarding liability? How would you mend soured relationships between hunters and large landowners?
- How do you address eroding cultural understandings and diverging values between elder hunters and young hunters? How can you give young hunters an ethic of conservation, mālama and aloha ‘āina?

The answers are quite innovative and inspiring.

4.6.6. Finding a Middle Ground: Revisiting Article XII, Section 7 in Balancing the State’s Constitutional Mandate to Affirmatively Protect Native Hawaiian Rights to the Extent Feasible with its Authority to Reasonably Regulate these Rights

Under Article XII, Section 7 of the Hawai‘i State Constitution, government must protect Native Hawaiian rights, but may reasonably regulate them to the extent feasible.³³⁸ However, this provision does not give the State “the unfettered discretion to regulate the rights of ahupua‘a tenants out of existence.”³³⁹ Additionally Article XII, Section 7 of the Constitution “places an affirmative duty on the State and its agencies to preserve and protect traditional and customary native Hawaiian rights, and confers upon the State and its agencies ‘the power to protect these rights and to prevent any interference with the exercise of these rights.’”³⁴⁰

In criminal cases where the constitutional privilege of exercising a valid Native Hawaiian right succeeds under the three-prong *Hanapi* test, an additional requirement is a “balancing test” that requires the court to “look to the totality of the circumstances and balance the State’s interest in regulating the activity against the defendant’s interests in conducting the traditional or customary practice.”³⁴¹

In *Palama*, the State successfully requested judicial notice be taken of the DLNR Game Mammal Hunting Regulations, Hawaii Administrative Rules (HAR), Title 13, Chapter 123 specifically for the island of Kaua‘i which informs hunters of public hunting grounds where pig hunting is allowed. In doing so, it challenged the trial court’s finding that this regulation served as a “blanket prohibition or extinguishment of [Palama’s] protected [Hawaiian] practice.”³⁴² The State reasoned that Palama could easily have acquired permission from the landowner or obtained a hunting license to hunt on public lands as provided for by State regulations.

Palama argued that the State’s implementation of H.R.S., § 183D-26 would impermissibly delegate to private landowners “the absolute power to grant or deny Native Hawaiians their constitutional privileges.”³⁴³ The trial court also found the State’s rationale to be flawed. Focusing specifically on whether the State’s enforcement of the regulation infringed on Palama’s

right to hunt on the subject private property in Hanapepe ahupua‘a (where he is a hoā‘āina), the appeals court ruled that this action would “operate[] as a summary extinguishment of Palama’s constitutionally protected right to hunt pig on the subject property.”³⁴⁴

The ICA reiterated the Hawai‘i Supreme Court’s position in *PASH* that western understandings of property law are not synonymous with Hawai‘i’s system; namely, “the western concept of exclusivity is not universally applicable” here.³⁴⁵ Further, the appeals court looked to the legislative record to determine the constitutional framers’ intentions in adopting Article XII, § 7:

Aware and concerned about past and present actions by private landowners ... which preclude native Hawaiians from following subsistence practices traditionally used by their ancestors, your Committee proposed this new section to provide the State with the power to protect these rights and to prevent any interference with the exercise of these rights. Moreover, your Committee decided to provide language which gives the State the power to regulate these rights. ...³⁴⁶

Delegates of the 1978 convention communicated the importance of this constitutional amendment, given that “large landowners, who basically are 10 to 12 corporations and estates and who own almost 90 percent of all private lands, have intruded upon, interfered with and refused to recognize [sic] such rights.”³⁴⁷ The court factored these committee findings into its analysis in *Palama* and concluded that requiring Palama to gain landowner permission to utilize lands that he traditionally and customarily accesses for hunting or in the alternative hunting on public land “frustrates the protections afforded by HRS § 1-1 and 7-1 and article XII, section 7.”³⁴⁸

The *Palama* case was decided within a criminal trespass context and places the burden on the Native Hawaiian defendant to prove s/he was practicing a constitutionally protected traditional and customary Hawaiian right. The more appropriate standard of review for this watershed partnership is to look especially at the State’s constitutionally mandated public trust obligations – to care for natural ecosystems, as well as to preserve Native Hawaiian rights and practices that rely on healthy resources and ecosystems.

Reviewing the *Palama* case is still instructive, however, in determining the delicate balance the State must exercise to affirmatively protect Native Hawaiian rights, while at the same time reasonably exercise its regulatory powers. *Palama* is also instructive regarding the State’s role in facilitating and fostering productive and respectful relationships between Native Hawaiian cultural practitioners, large private landowners, and conservation groups.

In a civil context where certain proposed actions may impact Native Hawaiian rights, the burden sits squarely with the applicant to prove there is no infringement on those rights. Here, the EMoWP involves the State as a lead and partner. Per the *Ka Pa‘akai* standard, the State must make an independent assessment of what cultural practices exist in the subject area, determine the potential cultural impacts, and adopt a plan that mitigates those impacts. It is also necessary that the State affirmatively protect Native Hawaiian rights, which are also considered public trust purposes under the State constitution.

The EMoWP proposal and this Mana‘e Traditional and Customary Practices Report are a combined exercise in collaborative governance between State government, private, and native Hawaiian stakeholders. This collaboration is also a positive step toward meeting constitutional obligations to protect traditional and customary Hawaiian rights and the public trust.

The EMoWP has a complex challenge as well as an incredible opportunity to achieve synergy – whole-scale solutions that are greater than the sum of the individual parts. It can attain this through collaborating with the Native Hawaiian community; melding conventional conservation strategies with indigenous, ecological knowledge; and considering the deeper and very positive implications of what Hawaiians mean by laulima (working together), mālama (stewardship), and pono (doing things the right way, even when it is more difficult at the outset).

4.7. THE VALUE OF INTEGRATING TRADITIONAL ECOLOGICAL KNOWLEDGE IN NATURAL RESOURCE MANAGEMENT

By studying clues in the landscape, scientists have begun to realize that what they believed to be pristine ecosystems, were in fact sophisticated and biodiverse environments that were sustainably designed by indigenous peoples over hundreds of years. There is a new appreciation for indigenous resource management strategies based on traditional ecological knowledge (TEK)³⁴⁹ because of the solutions that they may offer in these modern times.³⁵⁰ According to a report titled, “Our Common Future” from the World Commission on the Environment and Development (WCED), “Tribal and indigenous peoples’ ... lifestyles can offer modern societies many lessons in the management of resources ...[they] are repositories of vast accumulations of traditional knowledge and experience that link humanity with its ancient origins. Their disappearance is a loss for the larger society, which could learn a great deal from their traditional skills in sustainably managing very complex ecological systems.”³⁵¹

The waiwai (richness) found in the Mana‘e kama‘āina interviews underscore the importance of traditional knowledge in paving a sustainable path forward.

⁴³ *A Mau A Mau*, *supra* note 1.

⁴⁴ Report to the Twenty-Fifth Legislature 2009 Regular Session: Final Report Aha Kiole Advisory Comm. at 7 (2008), available at <http://www.ahamoku.org/wp-content/uploads/2011/09/Final-Report-12-18-081.pdf> [hereinafter Aha Kiole Legislative Report 2009] (quoting Act 212, 2007 Leg., 24th Sess. (Haw. 2007)).

⁴⁵ HAW. REV. STAT. §171-4.5(d) (2013) (emphasis added).

⁴⁶ *A Mau A Mau*, *supra* note 1.

⁴⁷ *Id.*

⁴⁸ 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) [hereinafter Dr. Kawika Winter Interview].

⁴⁹ *Id.*

⁵⁰ Dr. Kawika Winter, *Applying Traditional Resource Mgmt. Philosophies to Contemporary Conservation Efforts on Kaua‘i*, Presentation to the Native Hawaiian Rights Clinic, Univ. of Haw. William S. Richardson Sch. of Law (Nov. 9, 2015) [hereinafter Dr. Kawika Winter Presentation].

⁵¹ *A Mau A Mau*, *supra* note 1.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Ahupua'a*, MARY KAWENA PUKUI & SAMUEL H. ELBERT, HAWAIIAN DICTIONARY 9 (rev. & enlarged ed. 1986) (“[L]and division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua'a), or because a pig or other tribute was laid on the altar a tax to the chief.”).

⁵⁵ CARLOS ANDRADE, *HĀ'ENA THROUGH THE EYES OF THE ANCESTORS*, 27 (2008) (describing Kaua'i Island's “Golden Age” when its reigning ali'i Manokalanipo “initiat[ed] a system of classifying and organizing lands into different categories in order to better manage resources and people” and through this system, “peace and prosperity” resulted). *See also* KAMANAMAICALANI BEAMER, *NO MĀKOU KA MANA: LIBERATING THE NATION*, 32-33 (2014) (describing land identified and bound by palena allowed for resource governance and management that ensured greater productivity).

⁵⁶ *A Mau A Mau*, *supra* note 1.

⁵⁷ Aha Kiole Legislative Report 2009, *supra* note 44 at 38.

⁵⁸ ANDRADE, *supra* note 55 (the term “kona” typically refers to lands along that are south or southwest facing on each of the Hawaiian islands.).

⁵⁹ *Id.* (The term “ko'olau” refers to lands that are typically situated on the windward side of each island, the lands buffeted by the pre-dominant northeasterly winds of Hawai'i.).

⁶⁰ BEAMER, *supra* note 55, at 31.

⁶¹ *Id.* at 45-47.

⁶² Lorenz Gonschor & Kamanamaikalani Beamer, *Toward an Inventory of Ahupua'a in the Hawaiian Kingdom: A Survey of Nineteenth- and Early Twentieth-Century Cartographic and Archival Records of the Island of Hawai'i*, 48 HAW'N J. HIST. 53, 56 (2014) (land boundaries were known by maka'āinana mentally and their knowledge was passed down orally. The concept of physically drawing maps came post-European contact. While certain famous mō'ī from various islands are credited for demarcating moku and ahupua'a, it is noted that some ahupua'a pre-dating the “centraliz[ed] ali'i” system are more likely that similar “kin-based land units” of older “non-feudally organized Polynesian islands.”). *See also* BEAMER, *supra* note 55, at 32-33 (the palena created “spaces of attachment and access . . . [they] delineated the resource access of maka'āinana and ali'i on the ground, literally connecting people to the material and spiritual resources of these places.” The knowledge of these palena known “visually and cognitively” by hoa'āina was shared orally from one generation to the next).

⁶³ BEAMER, *supra* note 55, at 47.

⁶⁴ Gonschor & Beamer, *supra* note 62, at 55 (“[T]he system of ahupua'a divisions was created by rulers who unified or centralized governance of their respective islands, such as Mā'ilikukahi on O'ahu and 'Umi on Hawai'i Island.”). *See also* ANDRADE, *supra* note 55, at 27 (explaining that Manokalanipo was part of Kaua'i Island's “Golden Age” of agricultural productivity, also creating a framework of land classification along moku and ahupua'a).

⁶⁵ BEAMER, *supra* note 55, at 34-35 (Mā'ilikūkahi is the famed mō'ī of O'ahu who is known as the first to establish palena (boundaries and divisions) of moku and ahupua'a in a manner that made the land productive. These palena are noted to this day in land titles and maps).

⁶⁶ E.S. CRAIGHILL HANDY & MARY KAWENA PUKUI, *THE POLYNESIAN FAMILY SYSTEM IN KA'U, HAWAI'I* 5 (1998).

⁶⁷ *Id.*

⁶⁸ ANDRADE, *supra* note 55, at 30, 74.

⁶⁹ BEAMER, *supra* note 55, at 45 (noting that while “all lands were redistributed [by the new, reigning, successive mō'ī to his loyal chiefs], the rights over those lands would change to a lesser extent for maka'āinana families who continued to live on their lands with similar rights throughout multiple kālai'āina, while the rights of individual chiefs and mō'ī could change with each kālai'āina.”).

⁷⁰ HANDY & PUKUI, *supra* note 66 (describing 'ohana in her native homeland district of Kā'ū on Hawai'i Island, “[t]he fundamental unit in the social organization of the Hawaiians of Ka-u was the dispersed community of 'ohana, or relatives by blood, marriage and adoption, living some inland and some near the sea but concentrated geographically in and tied by ancestry, birth and sentiment to a particular locality which was termed the 'āina [sic].”).

⁷¹ HANDY & PUKUI, *supra* note 66 (describing that over time, through inter-marriage among families, the presence of extended 'ohana became established throughout the ahupua'a and nearby moku).

⁷² *Id.* at 4.

⁷³ *Id.*

⁷⁴ BEAMER, *supra* note 55, at 43.

⁷⁵ HANDY & PUKUI, *supra* note 66, at 4.

⁷⁶ *Id.*

⁷⁷ BEAMER, *supra* note 55, at 44.

⁷⁸ Gonschor & Beamer, *supra* note 62, at 55 (describing makahiki as a time of peace, celebrated annually during the period of the god Lono-i-ka-makahiki. At each ahupua‘a boundary, ahu (altars) were erected with a pua‘a (pig) and other tributes for the ruling ali‘i placed atop it. Ho‘okupu (offerings) were also given to ensure ‘āina momona (abundance) and blessings upon the land).

⁷⁹ HANDY & PUKUI, *supra* note 66, at 5-6 (describing the important role extended ‘ohana played in making the land productive, establishing sharing networks, and providing local leadership in every day ahupua‘a affairs).

⁸⁰ *Id.* at 6.

⁸¹ *Id.*

⁸² *A Mau A Mau*, *supra* note 1.

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ Dr. Kamanamaikalani Beamer, presentation to HWST 458 Nat. Resource Issues & Ethics in Haw. class, Univ. of Haw. at Mānoa Lecture (Feb. 5, 2015) [*hereinafter* Dr. Kamana Beamer Presentation] (explaining that under one rule, the mō‘ī and ‘aha ali‘i represented top-down governance that was necessary to govern the larger affairs of an island. The kupa‘āina, the common people familiar with their land, maintained the palena, their place-based knowledge of the uses and boundaries of their ahupua‘a).

⁸⁶ LILIKALĀ KAME‘ELEIHIWA, NATIVE LANDS & FOREIGN DESIRES: PEHEA LĀ E PONO AI?, 26 (1992) (“the *Ali‘i Nui* kept the *‘Āina* fertile and the *Akua* appeased; the *maka‘ainana* fed and clothed the *Ali‘i Nui*. The *Ali‘i Nui* determined the correct uses of the *‘Āina*. The *pono*, or righteous *Ali‘i Nui*, was one who established order upon the *‘Āina* so that it might be more productive.”).

⁸⁷ *Id.* at 24.

⁸⁸ *Id.* at 26.

⁸⁹ Marion Kelly, *Changes in Land Tenure in Hawaii, 1778-1850* (June 1956) (unpublished thesis, University of Hawai‘i at Mānoa) (on file with author).

⁹⁰ HAWAI‘I ASSOCIATION OF WATERSHED PARTNERSHIPS, <http://hawp.org/what-is-a-watershed> (last visited Jan. 29, 2015).

⁹¹ E.S. CRAIGHILL HANDY & ELIZABETH GREEN HANDY WITH THE COLLABORATION OF MARY KAWENA PUKUI, NATIVE PLANTERS IN OLD HAWAII: THEIR LIFE, LORE, AND ENVIRONMENT 48 (rev. ed. 1991) [*hereinafter* HANDY, HANDY & PUKUI].

⁹² Gonschor & Beamer, *supra* note 62, at 69 (citing Marion Kelly, *Changes in Land Tenure in Hawaii, 1778-1850* (June 1956) (unpublished M.A. thesis, University of Hawai‘i)).

⁹³ Gonschor & Beamer, *supra* note 62, at 79. *See also* BEAMER, *supra* note 55, at 40-42.

⁹⁴ BEAMER, *supra* note 55, at 51.

⁹⁵ Gonschor & Beamer, *supra* note 62, at 70.

⁹⁶ *Id.* at 73.

⁹⁷ *Id.* at 70.

⁹⁸ *Id.* at 69-79.

⁹⁹ *Id.* at 69. *See also* BEAMER, *supra* note 55, at 52 (“On Lāna‘i and Moloka‘i, some ahupua‘a extend across the island from a fishery up into the mountains and down to the adjacent fishery.”).

¹⁰⁰ Gonschor & Beamer, *supra* note 62, at 69.

¹⁰¹ *Id.* at 71.

¹⁰² Dr. Kawika Winter Presentation, *supra* note 50.

¹⁰³ *Id.*

¹⁰⁴ HANDY, HANDY & PUKUI, *supra* note 91, at 56.

¹⁰⁵ Dr. Kawika Winter Presentation, *supra* note 50.

¹⁰⁶ HANDY, HANDY & PUKUI, *supra* note 91, at 56.

¹⁰⁷ Dr. Kawika Winter Presentation, *supra* note 50.

¹⁰⁸ *Id.*

¹⁰⁹ HANDY, HANDY & PUKUI, *supra* note 91, at 56.

¹¹⁰ Dr. Kawika Winter Presentation, *supra* note 50.

¹¹¹ HANDY & PUKUI, *supra* note 66, at 4.

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- ¹¹² HANDY, HANDY & PUKUI, *supra* note 91, at 56.
- ¹¹³ Dr. Kawika Winter Presentation, *supra* note 50.
- ¹¹⁴ HANDY & PUKUI, *supra* note 66, at 4.
- ¹¹⁵ *Id.* at 6.
- ¹¹⁶ *Id.*
- ¹¹⁷ HANDY, HANDY & PUKUI, *supra* note 91, at 56.
- ¹¹⁸ *Id.* at 57.
- ¹¹⁹ *Id.* at 56-57.
- ¹²⁰ MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21.
- ¹²¹ MCGREGOR, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, *supra* note 29, at 16-17.
- ¹²² MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21, at 28-29 (noting that “[a]lthough the chiefs and the konohiki had full appropriation rights over the land and the people, in the main this was a system of mutual obligation and benefit between the chiefs and the people. The chiefs controlled the land and distributed it among the maka‘āinana. The chief was required to manage and oversee the production on the land. He regulated the use of scarce resources and apportioned these resources among the people according to principles of fair use ... He conserved the resources of the land through restriction and replacement policies. Although Hawaiian tradition records cases of arbitrary, irresponsible, and self-serving chiefs who abused the people, they were clearly exceptional cases and were quickly replaced with responsible chiefs who cared for the well-being of the people. The Hawaiian proverb ‘I ali‘i no ali‘i no nā kanaka’ (a chief is a chief because of the people) reflects the Hawaiian attitude that the greatness of a chief was judged according to the welfare of the people under him. According to the Hawaiian historian David Malo, ‘In former times, before Kamehameha, the chiefs who took great care of their people. That was their appropriate business, to seek the comfort and welfare of the people, for a chief was called great in proportion to the number of his people.’”).
- ¹²³ *United Nations Declaration on the Rights of Indigenous Peoples*, G.A. Res. 61/295, U.N. Doc. A/RES/61/295 (Sept. 13, 2007), 46 I.L.M. 1013 (2007) [hereinafter UNDRIP].
- ¹²⁴ *Announcement of U.S. Support for the United Nations Declaration on the Rights of Indigenous Peoples: Initiatives to Promote the Government-to-Government Relationship & Improve Lives of Indigenous Peoples* (available at <http://www.state.gov/documents/organization/184099.pdf>).
- ¹²⁵ Frank Seier, ‘Free, Prior and Informed Consent’ under UNDRIP: What Does it Really Mean?, (Jun. 2011), <http://www.right2respect.com/2011/06/‘free-prior-and-informed-consent’-under-the-un-declaration-on-the-rights-of-indigenous-peoples-what-does-it-really-mean/> (last visited Jan. 28, 2015).
- ¹²⁶ UNDRIP, *supra* note 123.
- ¹²⁷ FOREST PEOPLES PROGRAMME, *Free, prior and informed consent (FPIC)*, <http://www.forestpeoples.org/guiding-principles/free-prior-and-informed-consent-fpic> (last visited Jan. 28, 2015).
- ¹²⁸ *Id.*
- ¹²⁹ HAW. REV. STAT. §171-4.5(d) (2013).
- ¹³⁰ MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21, at 30 (noting that Kamehameha I conquered the islands of O‘ahu, Moloka‘i, Maui, and Lāna‘i in 1795 after having his warriors train with Western military weapons).
- ¹³¹ *Nā Kumukānāwai O Ka Makahiki 1839 A Me Ka 1840*, 1.1 KA HO‘OILINA: JOURNAL OF HAWAIIAN LANGUAGE SOURCES, Luna Ho‘oponopono et al., eds., Jason Kāpena Achiu trans., Mar. 2002 [hereinafter L.1840], at 30-59, available at <http://hooilina.org/collect/journal/index/assoc/HASH0166.dir/1.pdf> (last visited Feb. 17, 2015).
- ¹³² MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21, at 32.
- ¹³³ L.1840, *supra* note 131; *McBryde Sugar Co. v. Robinson*, 54 Haw. 174, 185-87, 504 P.2d 1330, 1338-39 (1973)); *See also* *Kekiekie v. Dennis*, 1 Haw. 42, 43 (1851) (validating that the rights of hoa‘āina, native ahupua‘a tenants, were guaranteed through the 1840 Constitution of the Hawaiian Kingdom).
- ¹³⁴ BEAMER, *supra* note 55, at 144.
- ¹³⁵ *Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (PASH)*, 79 Hawai‘i 425, 447, 903 P.2d 1246, 1268 (1995) (concluding that the “western concept of exclusivity [in private property law] is not universally applicable in Hawai‘i” and that “the issuance of [] Hawaiian land patent[s]” at the time of the Māhele conveyed “a limited property interest.”).
- ¹³⁶ Gonschor & Beamer, *supra* note 62, at 58.
- ¹³⁷ *PASH*, 79 Hawai‘i at 445 (citing *Law Creating the Bd. to Quiet Land Titles*, in *Fundamental Laws of Hawaii* 137 (1904)).

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- ¹³⁸ *Id.* (citing Act of April 27, 1846, pt. I, ch. VII, art. IV, § 7; L. 1845–46, at 109, *reprinted in 2 Revised Laws of Hawaii* 2123 (1925)).
- ¹³⁹ MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21, at 34 (citing OFFICE OF THE COMM’R OF PUB. LANDS, INDICES OF AWARDS MADE BY THE BD. OF COMM’R TO QUIET LAND TITLES IN THE HAWAIIAN ISLANDS, at 2 (1929)).
- ¹⁴⁰ BLACK’S LAW DICTIONARY, 1564 (6th ed. 1990) (citing American States Water Serv. Co. of Cal. v. Johnson, 31 Cal.App.2d 606, 88 P.2d 770, 774).
- ¹⁴¹ *Id.* (citing St. ex rel. Milligan v. Ritter’s Estate, Ind. App., 46 N.E.2d 736, 743 (1943)).
- ¹⁴² MCGREGOR, NĀ KUA‘ĀINA, *supra* note 21, at 35.
- ¹⁴³ Gonschor & Beamer, *supra* note 62, at 59.
- ¹⁴⁴ *Id.* at 58.
- ¹⁴⁵ *Id.*
- ¹⁴⁶ *Id.* at 60-61.
- ¹⁴⁷ *In re* Boundaries of Pulehunui, 4 Haw. 239, 251 (1879).
- ¹⁴⁸ Gonschor & Beamer, *supra* note 62, at 61.
- ¹⁴⁹ DAVID M. FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A 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].
- ¹⁵⁰ Gonschor & Beamer, *supra* note 62, at 61.
- ¹⁵¹ Act of August 6, 1850, § 7, *reprinted in Laws of His Majesty Kamehameha III, King of the Hawaiian Islands* 202, 203–04 (1850) [hereafter L. 1850].
- ¹⁵² Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (PASH), 79 Hawai‘i 425, 446, 903 P.2d 1246, 1267 (1995) (citing 3B *Privy Council Records* 681, 713 (1850)).
- ¹⁵³ *Id.* (citing L. 1851, § 7, at 98 regarding the “many difficulties and complaints have arisen from the bad feeling existing on account of the Konohiki’s [sic] forbidding the tenants on the lands enjoying the benefits that have been by law given them.”).
- ¹⁵⁴ Act of July 11, 1851, *reprinted in Laws of His Majesty Kamehameha III, King of the Hawaiian Islands* 98–99 (1851) [hereafter L. 1851].
- ¹⁵⁵ Haw. Rev. Stat. § 7-1 (1994).
- ¹⁵⁶ L.1892, c. 57, s 5, approved on November 25, 1892 which states, “Section 5. The common law of England, as ascertained by English and American decisions, is hereby declared to be the common law of the Hawaiian Islands in all cases, except as otherwise expressly provided by the Hawaiian Constitution or laws, or fixed by Hawaiian judicial precedent, or established by Hawaiian national usage, provided however, that no person shall be subject to criminal proceedings except as provided by the Hawaiian laws.”
- ¹⁵⁷ Haw. Rev. Stat. § 1-1 (2013); *See* FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A HO‘OLA AKU, *supra* note 149, at 9-10.
- ¹⁵⁸ State v. Zimring, 52 Haw. 472, 475 (1970) (citing De Freitas v. Trustees of Campbell Estate, 46 Haw. 425, 380 P.2d 762 (1963)).
- ¹⁵⁹ Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (PASH), 79 Hawai‘i 425, 437, 903 P.2d 1246, 1258 (1995) (note 21, citing 1 *Statute Laws of His Majesty Kamehameha III, King of the Hawaiian Islands* 3 (1845-46)).
- ¹⁶⁰ *Id.* (note 21, citing Act of September 7, 1847, ch. I, § IV; 2 *Statute Laws of His Majesty Kamehameha III, King of the Hawaiian Islands* (1847) (emphasis added)).
- ¹⁶¹ *In re* Ashford, 50 Haw. 314, 440 P.2d 76 (1968).
- ¹⁶² *Id.* at 316.
- ¹⁶³ HAW. CONST. art. XII, § 7 (1978) (emphasis added).
- ¹⁶⁴ Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (PASH), 79 Hawai‘i 425, 437, 903 P.2d 1246, 1258, note 43 (1995).
- ¹⁶⁵ Kalipi v. Hawaiian Trust Co., 66 Haw. 1, 656 P.2d 745 (1982).
- ¹⁶⁶ FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A HO‘OLA AKU, *supra* note 149, at 9 (citing Kalipi, 66 Haw. at 9, 656 P.2d at 750).
- ¹⁶⁷ *See* PASH, 79 Hawai‘i at 451.
- ¹⁶⁸ 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 149, at 13 (citing *Pele I*, 73 Haw. at 620, 837 P.2d at 1272). In *Pele I*, the plaintiffs, the Pele Defense Fund (“PDF”) challenged the state’s decision to exchange specific ceded lands for privately owned land on Hawai‘i Island. PDF claimed that after the land swap, its Native Hawaiian

members seeking to exercise traditional subsistence, cultural, and religious practices were denied access to the undeveloped and now privately owned land. PDF provided testimony and affidavits attesting to the actual practices of Native Hawaiians living in the Puna region as traditionally gathering outside of their ahupuaʻa of residence onto the lands subject in this litigation. This evidence formed the basis for the court’s decision to affirm these practices as rights protected by law.

¹⁶⁹ FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A HO‘OLA AKU, *supra* note 149, at 13-14 (citing *Pele I*, 73 Haw. at 620-21, 837 P.2d at 1272; citing also *Pele Def. Fund v. Estate of James Campbell*, Civ. No. 89-089, 2002 WL 34205861 (Haw. 3d Cir. Aug. 26, 2002)).

¹⁷⁰ *Ka Pa‘akai O Ka ‘Aina v. Land Use Comm’n*, 94 Hawai‘i 31, 7 P.3d 1068 (2000).

¹⁷¹ *Id.* at 1083 (2000).

¹⁷² *Id.*

¹⁷³ FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A HO‘OLA AKU, *supra* note 149, at 17 (citing *Ka Pa‘akai*).

¹⁷⁴ HAWAI‘I LEGAL AUXILLARY, THE LAW OF THE SPLINTERED PADDLE: KĀNĀWAI MĀMALAHOE, *available at* <https://www.hawaii.edu/uhelp/files/LawOfTheSplinteredPaddle.pdf>. King Kamehameha I declared this law after having attempted to attack with his spear an innocent group of people fishing along the shoreline. Kamehameha I accidentally slipped into a lava rock crevice. Not knowing Kamehameha’s identity, two fishermen stayed behind while the others ran away in fright. In their defense, they struck Kamehameha with a paddle which splintered over his head and left Kamehameha unconscious. When Kamehameha awakened, he realized the error he committed as an ali‘i charged with the responsibility to care for the common people and to treat them fairly. For this he instituted the Kānāwai Māmalahoe or Law of the Splintered Paddle which gave all people the right to travel along the roads and trails unmolested. The passage reads as follows:

THE LAW OF THE SPLINTERED PADDLE

O my people,
Honor thy gods;
Respect alike (the rights of)
Men great and humble;
See to it that our aged,
Our women, and our children
Lie down to sleep by the roadside
Without fear or harm.
Disobey, and die.

KĀNĀWAI MĀMALAHOE

E nā kānaka,
E mālama ‘oukou i ke akua
A e mālama ho‘i i kānaka nui
a me kānaka iki;
E hele ka ‘elemakule,
ka luahine, a me ke kama
A moe i ke ala
‘a‘ohe mea nana e ho‘opilikia.
Hewa nō, make.

¹⁷⁵ HAW. CONST. art. IX, § 10 (1978). (“The law of the splintered paddle, *mamala-hoe* kanawai, decreed by Kamehameha I – Let every elderly person, woman and child lie by the roadside in safety – shall be a unique and living symbol of the State’s concern for public safety.”); *See also* HAWAI‘I LEGAL AUXILLARY, *supra* note 174, at 16.

¹⁷⁶ L. 1851; Haw. Rev. Stat. § 7-1 (1994).

¹⁷⁷ *Palama v. Sheehan*, 50 Haw. 298, 301, 440 P.2d 95, 97-98 (1968) (holding that the defendants established access rights under H.R.S. section 7-1 because the previous owners of their property historically used a trail running through plaintiffs’ property. The trails provided access between the defendants’ taro patches, which were located mauka (inland) of the plaintiffs’ property, and their kuleana parcels at the seashore. The court held that defendants were entitled to a right-of-way across plaintiffs’ land by reason of necessity, because flooding when it rained prevented access by a more indirect route. The court also allowed for vehicular access along the trail which was widened in 1890.); *Rogers v. Pedro*, 3 Haw. App. 136, 642 P.2d 549, cert. denied, 64 Haw. 689 (1982).

¹⁷⁸ *Kalaukoa v. Keawe*, 9 Haw. 191, 194 (1893).

¹⁷⁹ Haw. Rev. Stat. § 264-1(c).

¹⁸⁰ Haw. Rev. Stat. § 264-1(c)(1).

¹⁸¹ *The King v. Cornwell*, 3 Haw. 154, 161 (1869).

¹⁸² Haw. Rev. Stat. § 198D.

¹⁸³ *In re Waiāhole Combined Contested Case Hearing*, 94 Hawai‘i 97, 128-146, 9 P.3d 409, 441-458 (2000).

¹⁸⁴ *Id.* at 137 (citations omitted).

¹⁸⁵ FORMAN & SUSAN K. SERRANO, HO‘OHANA AKU, A HO‘OLA AKU, *supra* note 149, at 29 (describing King Kamehameha’s “sovereign prerogatives” attaching to all private property conveyed at the Māhele which “includ[ed]

the power ‘[t]o encourage and even to enforce the usufruct [right of enjoyment] of lands’ and ‘[t]o provide public thoroughfares and easements, by means of roads, bridges, streets, etc.’” Principles Adopted by the Board of Commissioners to Quiet Land Titles in Their Adjudication of Claims Presented to Them (Aug. 20, 1846), 2 Statute Laws of His Majesty Kamehameha III, King of the Hawaiian Islands 81, 85, *reprinted in* 2 REVISED LAWS OF HAW. 21242128 (1925)).

¹⁸⁶ NĀ ALA HELE TRAIL & ACCESS SYSTEM, *Moloka‘i*, <https://hawaiiitrails.ehawaii.gov/island.php?island=Molokai> (last visited Jul. 5, 2015).

¹⁸⁷ 16 U.S.C. § 470aa (1966), *amended by* Act of Dec. 19, 2014.

¹⁸⁸ 30 C.F.R. § 60.4 (2016)

¹⁸⁹ *Id.*

¹⁹⁰ HAW. ADMIN. R. § 13-284-6(b) (2015).

¹⁹¹ HAW. REV. STAT. § 6E-3 (2015).

¹⁹² *Id.* § 6E-3(1), (3)-(5) (2015).

¹⁹³ *Id.* § 6E-3(13) (2015)

¹⁹⁴ HAW. ADMIN. R. § 13-276-2 (2015) (explaining an archaeological inventory survey is a written report submitted to SHPD that identifies and documents the presence of archaeological and historic sites, including burial sites in a project area, and evaluates their significance).

¹⁹⁵ HAW. REV. STAT. § 6E-8 (2015).

¹⁹⁶ HAW. ADMIN. R. § 13-300-2 (2015).

¹⁹⁷ *Id.* § 13-300-3(b) (2015).

¹⁹⁸ 43 C.F.R. § 10.1(b)(1)(ii) (2014).

¹⁹⁹ 36 C.F.R. § 800.2(c) (2016).

²⁰⁰ ADVISORY COUNCIL ON HISTORIC PRESERVATION, *Sec. 106 & the U.N. Declaration on the Rights of Indigenous Peoples: Intersections & Common Issues: Article 18 & Sec. 106* (2013), available at <http://www.achp.gov/docs/UNDeclaration106.pdf>.

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *See* Haw. Rev. Stat. § 6E-5.5(b)(1) (2013).

²⁰⁵ *See generally*, Rod Thompson, *Court Orders Trail, Bones Returned: The Hawaiian relics were moved during construction of a Big Isle residential area*, HONOLULU STAR BULLETIN (Aug. 3, 2001), <http://archives.starbulletin.com/2001/08/03/news/story14.html>; *see also* NATASHA BALDAUF & MALIA AKUTAGAWA, HO‘I HOU I KA IWIKUAMO‘O: A LEGAL PRIMER FOR THE PROTECTION OF IWI KŪPUNA IN HAWAI‘I NEI 9-13 (2013).

²⁰⁶ Harold Schaich, Claudia Bieling & Tobias Plieninger, *Linking Ecosystem Services with Cultural Landscape Research*, 19 GAIA 269, 270-71 (2010).

²⁰⁷ HAW. ADMIN. R. § 13-300-2 defines a “lineal descendant” as a person who has “direct or collateral genealogical connections to certain Native Hawaiian skeletal remains.” In contrast, a “cultural descendant” is a claimant who has demonstrated “genealogical connections to Native Hawaiian ancestors who once resided or are buried or both, in the same ahupua‘a or district in which certain Native Hawaiian skeletal remains are located or originated from.”

²⁰⁸ *See* BALDAUF & AKUTAGAWA, *supra* note 205, at 76 (providing the step-by-step procedures for burial sites registration).

²⁰⁹ D. KAPUA‘ALA SPROAT, OLA I KA WAI: A LEGAL PRIMER FOR WATER USE AND MANAGEMENT IN HAWAI‘I 7 (2009).

²¹⁰ *Id.*

²¹¹ *Id.*

²¹² *In re Waiāhole Combined Contested Case Hearing*, 94 Hawai‘i 97, 132, 9 P.3d 409, 444 (2000).

²¹³ HAW. CONST. art. XI, § 1 (1978).

²¹⁴ *Id.* art. XI, § 7 (1978).

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ SPROAT, *supra* note 209, at 9.

²¹⁸ *Id.*

²¹⁹ *See In re Waiāhole Combined Contested Case Hearing (Waiāhole I)*, 94 Hawai‘i 97, 9 P.3d 409 (2000).

²²⁰ *See id.*

²²¹ *Id.*

²²² *Id.* at 133.

²²³ *Id.*

²²⁴ *See id.* at 140.

²²⁵ *Id.* at 141.

²²⁶ *Id.* at 142..

²²⁷ Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 476 (1970).

²²⁸ *In re Waiāhole Combined Contested Case Hearing (Waiāhole I)*, 94 Hawai‘i 97, 136, 9 P.3d 409, 448 (stating that “we thus hold that the maintenance of waters in their natural state constitutes a distinct ‘use’ under the water resources trust. This disposes of any portrayal of retention of waters in their natural state as ‘waste’”); *see also* Nat’l Audubon Soc’y v. Superior Court of Alpine Cty., 33 Cal. 3d 419, 434, 658 P.2d 709, 719 (1983) (stating that a natural resource’s ecological use and recreational use are public trust uses).

²²⁹ *Waiāhole I*, *supra* note 228 at 137.

²³⁰ *Id.* at 138 (holding “that the public trust may allow grants to private interests in trust resources under certain circumstance” but that in no way does private commercial use a protected public purpose that is protected by the trust).

²³¹ *Id.*

²³² *Id.* at 142.

²³³ *Id.*

²³⁴ *Id.* at 141.

²³⁵ *Id.* at 142.

²³⁶ *Id.*

²³⁷ *Id.*

²³⁸ *Id.* (quoting *Robinson v. Ariyoshi*, 65 Haw. 641, 649 n. 8, 658 P.2d 287, 295 n. 8 (1982)).

²³⁹ *Id.* (citing *Commonwealth Dep’t of Env’tl. Resources v. Commonwealth Pub. Util. Comm’n*, 18 Pa.Cmwlth. 558, 335 A.2d 850, 865 (1975)).

²⁴⁰ *Id.*

²⁴¹ *Id.* at 132.

²⁴² *Id.* at 141.

²⁴³ *Id.*

²⁴⁴ D. Kapua‘ala Sproat & Issac H. Moriwake, *Ke Kalo Pa‘a o Waiāhole: A Case Study of the Use of the Public Trust as a Tool for Environmental Advocacy*, COMMON LAW REMEDIES FOR PROTECTING THE ENV’T 269 (Denise Antolini & Cliff Rechtschaffen eds., 2007).

²⁴⁵ *Id.*

²⁴⁶ *Kelly v. 1250 Oceanside*, 111 Haw. 205, 140 P.3d 985 (2006).

²⁴⁷ *Id.* at 227 (stating that the County had “an affirmative duty” to ensure that a land developer complied with environmental protection conditions).

²⁴⁸ *Id.* at 230 (stating that “although in some respect, exercise of DOH’s authority is discretionary in nature, such discretionary authority is circumscribed by the public trust doctrine”).

²⁴⁹ *Id.* at 230-31, 140 P.3d at 1010-11.

²⁵⁰ *In re Waiāhole Combined Contested Case Hearing (Waiāhole I)*, 94 Hawai‘i 97, 142, 9 P.3d 409, 453.

²⁵¹ STANDING COMM. REP. NO. 77, *reprinted in* 1 PROCEEDINGS OF THE CONST. CONVENTION OF HAW. OF 1978 686 (State of Hawaii 1980).

²⁵² *Waiāhole I*, *supra* note 250 at 142.

²⁵³ *Id.*

²⁵⁴ *In re Wai‘ola O Moloka‘i, Inc. (In re Wai‘ola)*, 103 Haw. 401, 422, 83 P.3d 664, 685 (2004) (quoting *Ariz. Cent. for Law in Pub. Interest v. Hassell*, 837 P.2d 158, 168–69 (Ariz.Ct.App. 1991)).

²⁵⁵ *Id.* at 422-23 (clarifying that beneficiaries include future generations, not just present generations).

²⁵⁶ *Id.*

²⁵⁷ *In re Waiāhole Combined Contested Case Hearing (Waiāhole I)*, 94 Hawai‘i 97, 9 P.3d 409, 449; *In re Wai‘ola*, 103 Haw. at 442; *In re Kukui (Moloka‘i) Inc.*, 116 Haw. 148, 507-08, 174 P.3d 320, 346-47.

²⁵⁸ *Waiāhole I*, 94 Haw. at 142.

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- ²⁵⁹ ST. OF HAW., DEPT. OF LAND AND NAT. RES., COMMISSION ON WATER RESOURCE MANAGEMENT, *Water Management Areas*, <http://dlnr.hawaii.gov/cwrm/groundwater/gwma/> (last visited Apr. 23, 2014); See HAW. REV. STAT. § 174C-41 (2015).
- ²⁶⁰ SPROAT, *supra* note 209, at 28. Nā Wai ‘Ehā on Maui is currently the only surface water management area in Hawai‘i; *Water Management Areas*, *supra* note 259. Like ground water designation, surface water management area designation adds heightened scrutiny and requirements for the use of surface water.; See HAW. REV. STAT. § 174C-41 (2015).
- ²⁶¹ HAW. REV. STAT. § 174C-92 (2015).
- ²⁶² *Id.* § 174C-3 (2015).
- ²⁶³ HAW. ADMIN. R. § 13-168-7(a) (2015); See SPROAT, *supra* note 209, at 26 (detailing the requirements for surface water reporting).
- ²⁶⁴ See HAW. REV. STAT. § 174C-92 (2015).
- ²⁶⁵ HAW. ADMIN. R. § 13-168-31 (2015); See SPROAT, *supra* note 209, at 26.
- ²⁶⁶ See HAW. REV. STAT. § 174C-48 (2015).
- ²⁶⁷ HAW. CONST. art XI, § 1 (1978).
- ²⁶⁸ *Deer growth mystery in Hawaii pits hunters against government*, FOX NEWS (May 23, 2012), <http://www.foxnews.com/us/2012/05/23/deer-growth-mystery-in-hawaii-pits-hunters-against-government.html>.
- ²⁶⁹ Mark Chynoweth, Christopher A. Lepczyk, Creighton M. Litton, and Susan Cordell, *Feral Goats in the Hawaiian Islands: Understanding the Behavioral Ecology of Nonnative Ungulates with GPS and Remote Sensing Technology*, 41-42 (2010) (Poster Presentation, Proc. 24th Vertebr. Pest Conf.) available at http://www.markchynoweth.info/uploads/2/8/9/7/2897583/chynoweth_et_al._vpc_2010_41-45_feral_goats_in_hawaiian_islands.pdf
- ²⁷⁰ *Id.* at 42.
- ²⁷¹ *Id.*
- ²⁷² Kepā Maly, Benton Keali‘i Pang, & Charles Pe‘ape‘a Makawalu Burrows, *Pigs in Hawai‘i, from Traditional to Modern*, available at <http://www.eastmauiwatershed.org/wp-content/uploads/2013/01/Puaa-cultural-fact-sheet-04.03.pdf>.
- ²⁷³ *Id.*
- ²⁷⁴ *Id.*
- ²⁷⁵ *Id.*
- ²⁷⁶ *Id.*
- ²⁷⁷ *Id.*
- ²⁷⁸ Sérgio L. G. Nogueira-Filho, Selene S. C. Nogueira, & José M. V. Fragoso, *Ecological impacts of feral pigs in the Hawaiian Islands*, BIODIVERS CONSERV DOI 10.1007/s10531-009-9697-0 (2009), <http://web.stanford.edu/group/fragoso/docs/Nougeiro%20Fragoso%202009%20Ecological%20impact%20Pigs.pdf>.
- ²⁷⁹ Chynoweth, Lepczyk, Litton, & Cordell, *supra* note 269, at 42.
- ²⁸⁰ *Id.* (citing D. K. Morris, *Summer food habits of feral goats in Hawaii Volcanoes National Park*, unpublished National Park Service Report 17 (1969)). Study revealed that 98% native plant species were found in goat stomach contents in areas where native vegetation was abundant and there was a low population density of goats. In areas where goat density was high and native vegetation was scarce, the stomach contents of goats were 99% non-native plants.
- ²⁸¹ *Id.*
- ²⁸² *Id.* at 43.
- ²⁸³ *Id.* at 42.
- ²⁸⁴ *Id.* at 41.
- ²⁸⁵ George H. Waring, *Preliminary Study of the Behavior and Ecology of Axis Deer on Maui, Hawaii*. Hawaii Ecosystems at Risk (HEAR) Project, available at: <http://www.hear.org/AlienSpeciesInHawaii/waringreports/axisdeer.htm>
- ²⁸⁶ George H. Waring, *Preliminary Study of the Behavior and Ecology of Axis Deer on Maui, Hawaii*, HAWAII ECOSYSTEMS AT RISK (HEAR) PROJECT (2007), <http://www.hear.org/AlienSpeciesInHawaii/waringreports/axisdeer.htm>.
- ²⁸⁷ *Id.*
- ²⁸⁸ *Id.*
- ²⁸⁹ Chynoweth, Lepczyk, Litton, & Cordell, *supra* note 269, at 43.

²⁹⁰ THE CORAL REEF OF SOUTH MOLOKA‘I, HAWAI‘I: PORTRAIT OF A SEDIMENT-THREATENED FRINGING REEF iv (Michael E. Field et al. eds., 2008), available at <http://pubs.usgs.gov/sir/2007/5101/sir2007-5101.pdf>.

²⁹¹ *Id.* at 7.

²⁹² *Id.* at 144.

²⁹³ *Id.*

²⁹⁴ *Id.* at 7.

²⁹⁵ *Id.* at 129.

²⁹⁶ *Id.* at 7.

²⁹⁷ *In re* Kamakana, 58 Haw. 632, 638-39, 574 P.2d 1346, 1350 (1978) (citing *In re* Boundaries of Pulehunui, 4 Haw. 239, 241 (1879) and *Harris v. Carter*, 6 Haw. 195, 197 (1877)).

²⁹⁸ ANDRADE, *supra* note 55, at 30.

²⁹⁹ Interview with Dr. Kaipo Perez, Recreation Specialist I, City & Cty. of Honolulu, in Honolulu, Haw. (Jul. 1, 2015).

³⁰⁰ CAROL ARAKI WYBAN, TIDE AND CURRENT: FISHPONDS OF HAWAI‘I 32 (1992).

³⁰¹ Russell Kallstrom, remarks at community meeting regarding Proposed Mo‘omomi Community-Based Subsistence Fishing Area (CBSFA) Administrative Rules, in Ho‘olehua, Hawai‘i (Nov. 8, 2014) (on file with author).

³⁰² *Id.*

³⁰³ DAVIANNA MCGREGOR, THE NATURE CONSERVANCY, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, MAKAKUPA‘IA AND KAWELA, ISLAND OF MOLOKA‘I 22 (2006) [hereinafter MCGREGOR, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE].

³⁰⁴ HAW. CONST. art. XII, § 7 (1978).

³⁰⁵ Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (*PASH*), 79 Hawai‘i 425, 451, 903 P.2d 1246, 1272 (1995).

³⁰⁶ HAW. REV. STAT. § 7-1 (1994).

³⁰⁷ *State v. Zimring*, 52 Haw. 472, 475 (1970) (citing *De Freitas v. Trustees of Campbell Estate*, 46 Haw. 425, 380 P.2d 762 (1963)).

³⁰⁸ *PASH*, *supra* note 305, at 441.

³⁰⁹ *Id.* at 447, note 39.

³¹⁰ *Id.* (citing *State v. Zimring*, 52 Haw. 472, 475 (1970) as “implicitly disapprov[ing] the ‘time immemorial’ standard when it indicated that ‘the Hawaiian usage mentioned in HRS § 1-1 usage which predated November 25, 1892.’”).

³¹¹ *In re* Ashford, 50 Haw. 314, 440 P.2d 76 (1968) (relying on expert “reputation evidence” of kama‘āina).

³¹² Maly, Pang, & Burrows, *supra* note 272.

³¹³ McGregor, Cultural Assessment for the Kamakou Preserve, *supra* note 29, at 17.

³¹⁴ *Id.* at 18.

³¹⁵ *Id.*

³¹⁶ *Id.*

³¹⁷ *Id.*

³¹⁸ *Id.* at 16.

³¹⁹ Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (*PASH*), 79 Hawai‘i 425, 451, 903 P.2d 1246, 1272 (1995) (citing *State v. Zimring*, 52 Haw. 472, 475, 479 P.2d, 204 (1970) as “implicitly disapprov[ing] the ‘time immemorial’ standard when it indicated that ‘the Hawaiian usage mentioned in HRS § 1-1 usage which predated November 25, 1892.’”).

³²⁰ Maly, Pang, & Burrows, *supra* note 272.

³²¹ MCGREGOR, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, *supra* note 29, at 15.

³²² *State v. Palama*, No. CAAP—12—0000434, 2015 WL 8566696 (Haw. Ct. App. Dec. 11, 2015).

³²³ *Id.* at 4 (citing *State v. Hanapi*, 89 Hawai‘i 177, 186, 970 P.2d 845, 894 (1998) (quoting *PASH*, 79 Hawai‘i at 449, 903 P.2d at 1270).

³²⁴ *Id.* (citing *Hanapi*, 89 Hawai‘i at 186, 970 P.2d at 494).

³²⁵ *Id.* (citing *Hanapi*, 89 Hawai‘i at 186, 970 P.2d at 494).

³²⁶ *Id.* (citing *Hanapi*, 89 Hawai‘i at 187, 970 P.2d at 495).

³²⁷ *Id.* at 6.

³²⁸ KAME‘ELEIHIWA, *supra* note 86, at 33-36 (describing certain food restrictions placed on women, particularly foods considered kinolau (major physical forms) of male Akua (gods). These foods included banana, certain types of red fish, pig, and coconut. Female consumption of these foods constituted an act of defilement, not in the sense that women were inferior to men, but with the understanding that women were inherently powerful through their procreative abilities to birth land, gods, and chiefs. To consume these foods would lessen the mana of men. The separation of the sexes allowed both men and women to maintain their mana over certain roles. For the men, their mana was expressed in their sexual prowess, their skills in agriculture, as masterful warriors, deep-sea fishermen, navigators and ocean voyagers).

³²⁹ *Id.* at 36-39 (describing the ali‘i as intermediaries between the gods and the common people. As the gods had power over life and death, the ali‘i through the ‘Aikapu also had this power over the people. Maka‘āinana who violated certain kapu, such as allowing their shadow to fall upon the ali‘i or failing to prostrate before the ali‘i, were put to death. This physical separation between ali‘i and maka‘āinana and the understanding that ali‘i were representatives of nā Akua mirrored the manner in which Hawaiians perceived their gods, as entities to both fear and love. Conversely, ali‘i were expected to be devout and in their religious protocols. A failure to do so provided grounds for maka‘āinana to abandon their ali‘i as poor leaders and conduits of the gods’ favor)

³³⁰ *Id.* at 44-45 (describing the worship of the war god Kū during eight months of the year. During this period, warfare was permitted and human sacrifices were made to Kū. Four months of the year were dedicated to the god Lono who represented peace and fertility. During these months hard labor was kapu and warfare forbidden. The people enjoyed a period of peace, feasted, engaged in hula and games. Ho‘okupu offered to Lono in the months that ushered the new year (makahiki) were representations of the abundance of the land and accumulation of material wealth in the form of pigs and produce, kapa, and feathers)

³³¹ HANDY, HANDY & PUKUI, *supra* note 91, at 57-59.

³³² MARGARET TITCOMB, NATIVE USE OF FISH IN HAWAII 13 (2d. ed. 1992).

³³³ *Id.* at 14.

³³⁴ *Id.* at 8.

³³⁵ *Id.*

³³⁶ HAWAIIAN FISHING LEGENDS xviii (Dennis Kawaharada, ed., 1992).

³³⁷ KAME‘ELEIHIWA, *supra* note 86, at 30-31.

³³⁸ Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (*PASH*), 79 Hawai‘i 425, 437, 903 P.2d 1246, 1258 (1995)).

³³⁹ *PASH*, 79 Hawai‘i at 451, 903 P.2d at 1272.

³⁴⁰ Ka Pa‘akai O Ka ‘Aina v. Land Use Commission, 94 Hawai‘i 31, 45, P.3d 1068, 1082 (2000) (citing Stand. Comm. Rep. No. 57, *reprinted in* 1 PROCEEDINGS OF THE CONSTITUTIONAL CONVENTION OF 1978, at 639 (1980)).

³⁴¹ State v. Palama, No. CAAP—12—0000434, 2015 WL 8566696, 7 (Haw. Ct. App. Dec. 11, 2015) (citing State v. Pratt (*Pratt II*), 127 Haw. 206, 216-18, 277 P.3d 300, 310-312 (2012)).

³⁴² *Id.* at 8.

³⁴³ *Id.*

³⁴⁴ *Id.* at 8-9.

³⁴⁵ *Id.* at 9 (citing Pub. Access Shoreline Haw. v. Haw. Cnty. Planning Comm’n (*PASH*), 79 Hawai‘i 425, 447, 903 P.2d 1246, 1268 (1995)).

³⁴⁶ *Id.* (citing Stand. Comm. Rep. No. 57, at 639).

³⁴⁷ *Id.* (citing Comm. Whole Rep. No. 12).

³⁴⁸ *Id.* at 9-10.

³⁴⁹ FIKRET BERKES, SACRED ECOLOGY 7 (3d. ed. 2012) (defining TEK as “a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.”).

³⁵⁰ *Id.* at 3.

³⁵¹ *Id.*

5. RECOMMENDATIONS

This final chapter addresses the last two objectives of this report:

- **Develop a framework for a community-based Subsistence & Ahupua‘a Management Plan for the Mana‘e Moku, Mauka to Makai; and**
- **Summarize Community Recommendations for the East Slope Management Plan.**

It aims to be clear in the roles and responsibilities of the various entities involved. The chapter concludes with a brief list of “Next Steps” for implementation.

This section builds on the information provided to meet the first two objectives of this report. The first objective entailed documenting Native Hawaiian traditional and customary practices of Mana‘e kama‘āina. This information is provided in Chapter 3 on “Findings.” The interviews and intake information gathered demonstrate that Native Hawaiian traditional and customary practices are still regularly exercised in Mana‘e, both in the form of subsistence activities, such as hunting, farming, fishing, and gathering, as well as in customary, religious, and ceremonial practices. Details of those practices are described and documented in the sections on cultural sites and trails, nearshore fisheries, and hunting. In addition, Chapter 3 summarizes the mana‘o shared by the community on the proposed East Slope Management Plan (January 2014 draft), and how it may potentially impact the people’s ability to carry out their traditional and customary practices. While some informants had concerns that the expanded fence could cause some negative impacts in the short-run, such as having to jump over fences or locate step-overs to access certain areas, most recognized and supported the intended positive effects of repairing the watershed for the long-term ecosystem health.

Chapter 4 “Legal Framework and Analysis” addresses the second objective of assessing specific legal protections of Mana‘e kama‘āina traditional and customary practices. The legal section is divided into specific areas of the law that correspond to mana‘o shared by Mana‘e kama‘āina informants. This mana‘o is analyzed within the context of the proposed expansion of the East Moloka‘i Watershed Partnership (EMoWP). It covers traditional subsistence activities in Mana‘e, religious and ceremonial protocols, and efforts to mālama ‘āina. The chapter describes relevant constitutional and statutory provisions, as well as the body of common law developed from Hawai‘i Supreme court decisions on Native Hawaiian rights.

Building on that information, this chapter takes the mana‘o shared by the kama‘āina informants about their traditional and customary practices, along with the legal information pertinent to such practices in Mana‘e, and weaves them together to create the framework of the Subsistence and Ahupua‘a Management Plan for Mana‘e Moku. It then summarizes the Community Recommendations for the East Slope Management Plan from the perspective of it being a key aspect of the overall restoration of the moku of Mana‘e from an indigenous mauka-a-makai standpoint. It should be noted that the authors recognize the stated desire of many community members to have one integrated plan, and advocate that the future Subsistence and Ahupua‘a Management Plan be such a document. The original intent was for this document to be that plan. However, it was decided that it would instead take the first step of creating the framework and foundation for such a plan. A comprehensive moku-wide plan will require significantly more

resources to be fully adequate, including an in-depth and iterative community process. Furthermore, time constraints require that community recommendations for the East Slope Management Plan be shared while the project is still in its planning phase.

Since the recommendations within this Traditional & Customary Practices Report (TCP) provide for both short and long-term measures, and whereas some of these recommendations can be implemented in the short-term, and are within TNC's scope of work, we encourage the incorporation of those recommendations into the East Slope Management Plan. For those long-term strategies that need more community leadership and management outside of TNC's scope of work, we encourage that this TCP be utilized as a starting point for future discussions regarding comprehensive moku planning. In addition, other restoration projects within Mana'e should continue to move forward, whether they are undertaken by individuals, families, organizations, or by ahupua'a. It is the authors' hope that even though this report it is not a "full plan," it can still be useful in securing funding for projects that are in alignment with what is presented here.

Regarding the input for the East Slope Management Plan, the majority of the community members interviewed, including kama'āina informants, do support the proposed fence, as long as it is done with additional management efforts that are rooted in Native Hawaiian mālama 'āina values and traditional ahupua'a land management practices. From mana'o shared by kama'āina informants, the following overarching/foundational principles were identified (for any and all planning processes for Mana'e):

- **In developing a management strategy, utilize a holistic ahupua'a-based approach running from mauka to makai.**
- **Allow each ahupua'a to implement their own vision for their place.**
- **Ensure access for Native Hawaiian traditional and customary practices.**
- **Implement management strategies incrementally, observe impacts, and make adjustments accordingly.**
- **Conservation efforts should include the hiring of local residents and the utilization of community members in resource management.**

This report acknowledges that some informants are opposed to the utilization of a fence as any part of the conservation effort. The reasons are detailed herein. Some kama'āina informants shared their ideal scenario whereby a fence or some type of barrier would not be needed, and the people of Mana'e could reclaim their traditional kuleana, both their rights and responsibility, to mālama (care for and manage) their ancestral/traditional lands or ahupua'a themselves. However, as many of these same informants have expressed, there are numerous challenges to enacting this proposition.

With this in mind, the recommended approach presented here is to honor all mana'o shared, and to weave them together into a unified framework for a community-based Mana'e Subsistence and Ahupua'a Management Plan, along with recommendations for the East Slope Management Plan. Additionally, this report incorporates traditional Native Hawaiian land management practices to complement and enhance modern conservation techniques.

The recommendations are presented in the following sections:

- **Framework for a Subsistence & Ahupua‘a Management Plan for the Mana‘e Moku, Mauka to Makai**
- **Community Recommendations for the East Slope Management Plan**
- **Next Steps**

5.1. **FRAMEWORK FOR A SUBSISTENCE AND AHUPUA‘A MANAGEMENT PLAN FOR THE MANA‘E MOKU, MAUKA TO MAKAI**

Various members of the Mana‘e community requested the creation of a community-based Subsistence and Ahupua‘a Management Plan in tandem with the East Slope Management Plan presented by TNC and the EMoWP. These plans are intended to be complementary to each other and are ideally conceived together as an integrated mauka-a-makai management framework. Ultimately, the authors advocate for an in-depth, iterative process with the community that would involve more time and funding, and would result in a detailed action plan with specific goals, timelines, and entities responsible for implementation. As one informant said, “yes, I support a larger plan that is community-based and addresses the entire moku, but it should go ahupua‘a by ahupua‘a, not one-size fits all. It’s gotta have specific recommendations for each ahupua‘a. I know that’s a lot of work, but that’s how it should be.”

Thus, what is presented here is a framework and foundation for such a plan. It is hoped that the full plan can be developed in the near future with additional resources, but fewer than would be necessary if starting from ground zero, since it can build on what is provided in this document.

First and foremost, the Subsistence and Ahupua‘a Management Plan for the Mana‘e Moku should be based on a solid foundation of Native Hawaiian values and principles, which includes: **the 8 Resource Realms and ‘Aha Decision-Making Process, the 5 Wao of the Ahupua‘a, and Mālama ‘Āina and ‘Ohana Values.** These three concepts were presented in Chapter 4, and are summarized here in relation to the recommendations.

5.1.1. **The 8 Realms of Decision-Making under the ‘Aha Councils**

As discussed in Chapter 4, historically there were certain ethics and realms of consideration upon which the ‘Aha councils of Moloka‘i based their decisions.³⁵² The eight realms of decision-making included consideration of³⁵³:

- 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; or a gentle shoreline dotted with a coastal strand of vegetation; sands where turtles and seabirds nest; or extensive sand dune environs such as Mo‘omomi in northwest Moloka‘i that expand upward all the way to the mountain.
- 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.

The ‘Aha as a collective considered every decision around impact and benefit to the eight resource realms. The ‘Aha would first identify and consider a given problem or situation; engage in a critical examination of potential solutions with consideration of their possible effects upon the eight resource realms; and ultimately implement solutions that “honor the ancestral past, address the needs of the present, and set up future generations to have more abundance.”³⁵⁴ Potential solutions were weighed according to how beneficial or detrimental they were to each realm. Kumu John Ka‘imikaua expressed that this wise 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.”³⁵⁵

Application to Subsistence and Ahupua‘a Management Plan: It is recommended that the 3-Part Decision-Making Process adopted by the ancient ‘aha councils and the 8 Resource Realms of Decision-Making be utilized by whatever entity eventually oversees implementation of the Plan.

5.1.2. The 5 Wao of the Ahupua‘a

Identification of wao, which modernly can be understood as bio-cultural zones,³⁵⁶ is a helpful framework for understanding where Mana‘e hoa‘āina traditional and customary practices are concentrated and what types of management actions are most appropriate within each zone. The zones include the following: Wao Akua, Wao Kele, Wao Nahele, Wao Lā‘au, and Wao Kānaka. Multiple definitions of the 5 wao were shared in Chapter 4, thus abbreviated definitions are given below for reference:

- 1) ***Wao Akua*** – sacred, montane cloud forest, core watershed, native plant community, non-augmented and an area that was traditionally kapu (forbidden, prohibited).³⁵⁷
- 2) ***Wao Kele*** – saturated forest just below the clouds, the upland rainforest where human access is difficult and rare, and an area that is minimally augmented.³⁵⁸
- 3) ***Wao Nahele*** – remote forest, highly inconvenient for human access; a primarily native plant community; minimally augmented; and [utilized by early Hawaiians as a] bird-catching zone.³⁵⁹
- 4) ***Wao Lā‘au*** – a zone of maximized biodiversity, comprised of a highly augmented lowland forest due to integrated agroforestry of food and fuel trees, hardwood trees, construction supplies, medicine and dyes, and lei-making materials.³⁶⁰
- 5) ***Wao Kānaka*** – where the early Hawaiians chiefly settled. These were the kula lands, “the sloping terrain between the forest and the shore”³⁶¹ that were highly valued and most accessible to the people.³⁶² These were the areas where families constructed their hale,

cultivated the land, conducted aquaculture, and engaged in recreation.³⁶³ Wao Kānaka did not terminate at the shore but extended into the sea.

Application to Subsistence and Ahupua‘a Management Plan: It is recommended that the framework for the Plan is based on these 5 Wao.

5.1.3. Mālama ‘Āina and ‘Ohana Values

As reported, the overwhelming majority of cultural informants emphasized the need to recognize and respect Native Hawaiian mālama ‘āina values, and agreed that any and all conservation efforts must include access that would allow for Native Hawaiian traditional and customary hunting and gathering rights, as well as any and all cultural practices. When we look at whether something has evolved into a cultural practice, a litmus test is to look at the ‘ohana, or the family unit, while understanding that traditionally, the ‘ohana is central to the life of the land.

Professor Davianna McGregor, who has interviewed a large number of cultural informants residing in “cultural kipuka” (rural areas that have maintained cultural understandings and practices),³⁶⁴ identified common ‘ohana cultural values and customs for subsistence and mālama. The essence of these understandings should be the standard by which to measure whether something is a cultural practice or not. It has to maintain the essence of these values. Many of the values and customs included in Professor McGregor’s list were also identified by the cultural informants for this plan.

According to Professor McGregor, what 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. Allow the native resources to reproduce. Don’t fish during their spawning seasons.
- 4) Alternate areas to gather, fish and hunt. Don’t keep going back to the same place. Allow the resource to replenish itself.
- 5) If an area has a declining resource, observe a kapu on harvesting until it comes back. Weed, replant and water if appropriate.
- 6) 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.
- 7) Respect and protect the knowledge which has been passed down intergenerationally, from one generation to the next. Do not carelessly give it away to outsiders.
- 8) 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.
- 9) Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.

- 10) Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.
- 11) Share what is gathered with family and neighbors.
- 12) 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.
- 13) Don't talk openly about plans for going out to subsistence hunt, gather, or fish.
- 14) Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and boisterous.
- 15) Respect family 'aumakua. Don't gather the resources sacred to them.³⁶⁵

In terms of understanding Native Hawaiian traditional and customary rights, it is vital to understand that access and usage privileges are balanced by the responsibility to mālama. There are rights for access and usage, but there is also a kuleana, or responsibility to take care of resources. That understanding was embedded within the kapu system. Namely, strictures were placed on the harvesting of certain fish during their spawning times or kapu were placed on certain areas to allow for replenishment. Kapu were lifted once spawning periods ended and konohiki (resource managers) observed an abundant supply of fish in a given area. Thus, the understanding that access rights of hoa'āina go hand-in-hand with a kuleana to mālama 'āina.

Application to Subsistence and Ahupua'a Management Plan: It is recommended that overarching values be agreed upon for the foundation of the Plan. The 'ohana values listed above can provide a solid starting point. In addition, the following values, which are closely related to (or based on) the 'ohana values, were identified through the process of developing this report. They may also serve as examples to be considered for the final Plan.

The “Icebox” Value – Many residents of Mana'e talked about the ocean and the land as their “icebox.” This is an important concept to discuss because people have different interpretations of what it means. The understanding of the icebox is that you grab the items you need to make a meal, then put everything back in – that's how the icebox works. You don't take everything out at once. Today, many feel that if they don't take the last 'opihi then someone else will, which indicates a lack of understanding of the concept. “Icebox” means you should just take what you need for today, so that species can continue to reproduce and flourish tomorrow and for future generations.

Today, as cultural values erode, resource abuse is widespread. One kama'āina informant said, “you cannot take from the icebox if the icebox is broken.” Basically, the “icebox” of Mana'e needs to be fixed; that's where mālama comes in. Another value of Hawai'i's kapu system was the careful balance of multiple and potentially competing subsistence usages and ceremonial practices. Kūpuna practiced self-restraint to avoid over-harvesting and to ensure abundance. There was also active mālama taking place, some of which continues today. Numerous kama'āina informants expressed the value of exercising self-restraint so that the resources are maintained. Several of them also shared how they practice this ethic, such as one informant who said that he doesn't gather hīhīwai anymore to allow for replenishment and encourages others to do the same. One cultural informant described how he proactively conducted mālama practices through kanu (planting) and re-stocking hīhīwai and 'o'opu in streams that had lost or diminished populations of these native and endemic species. He also labored to provide a

healthy environment for these species by cutting back java plum trees that create a thick canopy overhead and shade out stream habitat and whose roots absorb too much water and cause stagnating conditions.

“Hunting Pono” Values – Similar concerns about eroding cultural values were raised by Mana‘e hunters. There is a sense that the younger generation lacks the values of older generations. There have been observations that many young hunters are not hunting for meat, but instead for trophy racks. This is indicated by facebook posts of their racks on the internet and only taking prime venison cuts and leaving the rest of the carcass on land to rot. Older hunters said they were taught to take every part, not to waste, and not to pollute. They would take as much meat as they could, and then bury the remains. Unfortunately, younger hunters are dishonoring these cultural subsistence values.

Some young hunters also access hunting grounds disrespectfully with loud ATVs instead of walking the hunting trails. The use of these vehicles to tear up traditional trails and enter resource abundant grounds is a form of disrespect and a lack of consciousness towards the ‘āina that feeds us. Elder cultural informants identified the value of walking to a place (vs. driving), since walking the trails affords the opportunity to see and monitor the resources, to know or learn where to go for resources, to appreciate what you have, and to approach respectfully. Also, accessing hunting (or fishing) spots by foot is a natural conservation method because people will be less prone to over-harvest when they have to carry everything out on their back.

In response to these observations, several kama‘āina informants recommended the hunter education program be augmented to include conservation skills/techniques, along with mālama ‘āina values and practices. This was seen as a solid strategy since all individuals are required to attend hunter education classes to earn a hunting license. Young hunters can be taught cultural values and recruited to engage in conservation work so they develop a good ethic early on. Lastly, there was significant discussion on developing a “hunting hui” in order to conduct community hunts, pool resources, and operate under a common liability insurance that would satisfy the concerns of large landowners whose lands are accessed for hunting. Such a hui could also assist in various conservation activities – both on public and private lands – such as fixing fences, installing/repairing irrigation, etc., in order to give back to the landowners in exchange for access.

“Educational Values/The Value of Education” – Besides hunters, numerous other kama‘āina informants talked about the need for education, both in terms of specific practices, as well as more overarching values. They believe the focus must be placed on re-instating traditional values within the community. One informant stated that there should be widespread education of the customary and traditional practices of taking only what you need, taking one plant and planting two or three in its place, and not hunting the same place repeatedly.

While it was widely agreed that education must be a key component of this Subsistence and Ahupua‘a Management Plan, the specific components of that educational program still need to be developed. Some suggestions included education for hunting, fishing, fishpond restoration, native plant restoration, and lo‘i kalo restoration. All of these courses could include a foundation of mālama ‘āina values and how to incorporate them into such practices.

5.1.4. Ahupua‘a Management Practices

Traditional ahupua‘a land management practices are founded on Native Hawaiian values and principles of mālama described above. Kama‘āina informants were asked, “If you were the konohiki, and you were in charge of taking care of your ahupua‘a, how would you do it?” There was a wide array of answers, from general values to specific practices. Many informants shared specific recommendations about their ahupua‘a or others in Mana‘e, where they and/or their ‘ohana carry out various cultural practices, such as taking care of heiau, restoring and planting lo‘i, gathering lā‘au lapa‘au and/or other native plants, utilizing traditional fishing techniques, restoring fishponds and streams, etc. It is critical that this knowledge is preserved to ensure that such practices will be perpetuated. And although much of their mana‘o is specific to their place, there were common threads, which are compiled below.

In addition, one group that we interviewed, Hui Aloha ‘Āina o Mana‘e (“the Hui”), created an outline for an “Aloha ‘Āina Ahupua‘a Training Program” (see Appendix C). It should be noted that this group wanted to implement their program without a fence. Still, their program included many of the main components that other informants identified, and is incorporated below.

Thus, what is presented in the following table is a summary of the key components as shared with us by the community members (largely kama‘āina informants) we interviewed, including the Hui. It summarizes the key recommendations shared, and should be added to as appropriate. The framework is presented in a table for ease of understanding and viewing. Following the table is a longer narrative that provides a more detailed explanation of the table. The narrative is in outline form and contains some of the place-specific recommendations shared.

Table 5.1: Mana‘e Subsistence & Ahupua‘a Management Plan Framework

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION& THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO AKUA ● Sacred Forest ● Montane Cloud Forest ● Core Watershed ● Native-Plant Community ● Non-Augmented ● Traditionally Kapu area	○ Native Forest ○ Freshwater source ○ North to South Trails (e.g., Wailau to Mapulehu Trail) ○ Goat (some, both N & S side) ○ Pig (migrate between N & S) ○ Deer (some places like Pākaikai)	<i>A complete inventory needs to be done. EMoWP will be doing an Environmental Assessment (EA) and Cultural Impact Assessment (CIA) for each unit as they progress, which should cover Wao Akua for those areas.</i>	▪ <u>Trails</u> – Maintain Native Hawaiian cultural rights & practices to traverse on traditional trails for travel, subsistence, and religious purposes. Consider designation of all traditional trails as public trails under the State Na Ala Hele Trails program. ▪ <u>Hunting</u> – Provide waivers and/or Memoranda of Agreement (MOA) between local/community hunters, EMoWP, & other landowners. Form hunting hui/cooperatives with mandated liability insurance and initiate partnerships or agreements with large landowners for hunting access. Coordinate with hunter education and licensing program supplemental curriculum for traditional management and conservation work in tandem with EMoWP initiatives.³⁶⁶	□ Wao Akua should be respected and largely left alone, which can be accomplished with fencing. □ Implement fence (where supported). □ Manage ungulates in order to protect the critical water resources located there. □ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access.
WAO KELE ● Saturated Forest (below clouds) ● Upland Rainforest (human access difficult and rare) ● Minimally Augmented	○ Native Forest ○ Streams ○ Waterfalls ○ North to South Trails (e.g., Wailau - Mapulehu Trail) ○ Goat (some, both N & S side) ○ Pig (migrate between N & S) ○ Deer (some places like Pākaikai)	<i>A complete inventory needs to be done. EMoWP will be doing an EA and CIA for each unit as they progress, which should cover Wao Kele for those areas.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – consider application to State Water Commission for Surface Water Management Area Designation of important streams. Work with Water Commission to determine In-Stream Flow Standards and include community collaboration (critical to determine how much water is needed for traditional and customary practices and stream health).	□ Implement fence (where supported). □ Manage ungulates; Implement hunting recommendations detailed in narrative below. □ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access. □ Maintain and restore native stream ecology.

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION& THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO NAHELE • Remote Forest (highly inconvenient for human access) • Primarily Native Plant Community • Bird-Catching Zone • Minimally Augmented	- o Native Forest - o Streams - o Waterfalls - o ‘O‘opu - o Hihīwai - o North to South Trails (e.g., Wailau - Mapulehu Trail) - o Goat, Pig, Deer - o Lei plants (e.g., maile)	<i>A complete inventory needs to be done. EMoWP will be doing an Environmental Assessment (EA) and Cultural Impact Assessment (CIA) for each unit as they progress, which may include Wao Nahele in those areas.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – same as above.	☐ Protect Waiakeakua, the waterbowl that feeds all streams. ☐ Implement fence (where supported). ☐ Manage ungulates; Implement hunting recommendations detailed in narrative below. ☐ Remove invasive plants and re-plant natives, as feasible. ☐ Restore Ulu Kukui o Lanikaula at Pu‘u o Hoku to catch the rain cloud. ☐ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. ☐ Maintain trails and ensure access. ☐ Maintain and restore native stream ecology.
WAO LĀ‘AU • Lowland Forest • Maximized Biodiversity • Highly Augmented due to Integrated Agroforestry (food and fuel trees, hardwood trees, construction supplies, medicine and dyes, lei materials)	- o Native Lowland Forest - o Trails: lateral - between ahupua‘a; vertical N-S, mauka-makai - o Goat, Pig, Deer - o Streams: ‘o‘opu, hihīwai - o Springs - o Brackish water fish species that swim and feed upstream: e.g., ‘aholehole, mullet - o Cultural sites: heiau, pu‘uhonua, etc. - o Native plants: kukui, wauke, ulu, pepeiao - o Lei Plants: maile, ginger - o Construction wood and plant fibers for structures and implements - o Lo‘i kalo	<i>A complete inventory needs to be done for Wao Lā‘au. Should be done as part of next steps.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – same as above. ▪ <u>Appurtenant Water Rights</u> - an inventory should be done to determine appurtenant water rights associated with lo‘i kalo (taro lands) (lo‘i) and ‘auwai (irrigation ditches) which have reserved water rights from the time of the Māhele. ▪ <u>Wahi pana</u> – Inventory important wahi pana and cultural sites, and petition to include them in National and State Historic Sites Registries.	☐ Implement fence where feasible and supported. This is most likely lower than proposed fenceline, so would require additional landowner agreements. ☐ Manage ungulates; implement hunting recommendations. ☐ Remove invasive plants and re-plant natives, ☐ Restore Ulu Kukui o Lanikaula at Pu‘u o Hoku ☐ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. ☐ Maintain trails and ensure access. ☐ Maintain and restore native stream ecology. ☐ Restore ko‘a for ceremonial offerings and to serve as a line of sight to important traditional fishing grounds in the ocean. ☐ Cultural sites should be cared for and maintained. Mālama should be carried out by hoa‘āina families as feasible.

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION & THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO KANAKA • “Hawaiian Footprint” Zone • Habitation • Agriculture • Aquaculture • Recreation	- o Cultural sites (e.g., heiau) - o Burials - o Trails (lateral - between ahupua‘a and N-S, mauka-makai) - o Canoe plants/trees: ‘ulu, mai‘a, ‘uala, kalo (wet & dryland) - o Native plants/trees: kukui, wauke, pepeiao, etc. - o Lei Plants: maile, ginger, ti leaf, etc. - o Fishing ko‘a - o Shoreline resources: limu, crab, pipipi, kupe‘e, ‘opihi, ‘opae, etc. - o Ocean resources: fish, he‘e, honu, etc. - o Fishponds - o Estuaries - o Springs entering shoreline/ocean - o Stream resources: ‘o‘opu, hīhīwai, prawns - o Reef patches tended as sea gardens (associated with women) - o Manini houses (tended by women) - o Special fishing grounds tended by ‘ohana (linked to ko‘a on land) - o Reef - o Open Ocean	<i>A complete inventory needs to be done for Wao Kanaka.</i> <i>Should be done as part of next steps.</i>	▪ <u>Streams</u> – same as above. ▪ <u>Wahi pana</u> – same as above. ▪ Protect ancient burial sites through official burial registration with State Historic Preservation Division. ▪ For landowners not in the Watershed partnership and who own property below proposed fenceline, draft right of entry agreements for kama‘āina families to do restoration, such as native plantings with mobile fencing units to restore lowland forests. ▪ Create hui or cooperative for cottage industry development among kama‘āina families to operate native plant nurseries for reforestation work. ▪ Create agreements between native plant nursery growers and implementers of restoration work (EMoWP for mauka areas) for purchase of native plants. ▪ Initiate strategy for leasing of State-owned fishponds for restoration work, food production, reopening and protecting springs. ▪ Participate in new statewide streamline permitting process for fishpond restoration and utilization. ▪ Investigate new/additional zoning consistent with this Mana‘e TCP & larger ahupua‘a plan. ▪ Prevent filling and building on wetlands through strict enforcement of zoning and permitting requirements. ▪ Investigate illegal grading and grubbing activities taking place without a permit to protect ahupua‘a resources, especially springs, streams and nearshore area from siltation and non-point source pollution. ▪ For overall protection of nearshore fisheries, initiate process and proposed management plan for Community-Based Subsistence Fishing Area (CBSFA) designation. ▪ Institute protections for endangered green sea turtles in critical mating and nesting areas (eg ‘Aha‘ino, Honomuni). Minimize negative land-based activities that contribute to deterioration of essential habitat.	□ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access. □ Restore ko‘a and line of sight from ocean. □ Cultural sites should be cared for and maintained. Mālama should be carried out by hoa‘āina families as feasible. □ Maintain and restore native stream ecology. □ Establish native nurseries with mauka and makai species. □ Lo‘i and ‘auwai should be restored, re-opened, and kalo planted for production. Lo‘i can also be utilized as silt traps to reduce run-off. □ Support sustainable farming for personal and commercial production. □ Support fishpond protection and restoration efforts. □ Remove invasives, such as gorilla ogo limu, or invasive fish like roi. □ Implement shoreline monitoring and offshore monitoring. □ Explore options for community-based resource management of marine resources through obtaining Community-Based Subsistence Fishing Area (CBSFA) designation.

*Note: This table reflects a synthesis of the mana‘o of kama‘āina informants of Mana‘e. The ‘Aha Moku o Ko‘olau/Mana‘e requested that this Traditional and Customary Practices Report be done with an integrated ahupua‘a management approach that reflects kūpuna (Hawaiian ancestral) practice and decision-making. In addition to the above table, which summarizes the primary actions proposed, below is a more detailed description of these recommendations.

Narrative to support preceding table with more detailed recommendations:

- **Restore natural resource infrastructure to bring back the regular rains (reported to have been daily) that numerous kama‘āina informants recalled, and increase soakage in landscape, which includes restoration of native forests in mauka areas, as well as lowland forest.** This includes the following specific recommended actions:
 - Protect **Waiake‘akua**, identified as “the birthplace of waters,” and described as “the most important water source because it feeds every stream on that side of the island.” It’s critical that this area be protected because it acts like a sponge that soaks up the moisture, like Kamakou Bog; its health is vital to the overall watershed health.
 - Restore and re-forest **Ka Ulu Kukui o Lanikaula**, the sacred kukui grove located on Pu‘u o Hoku Ranch lands, which is said to be the key to bringing back the rains to Mana‘e.³⁶⁷ Develop community agreement with Pu‘u o Hoku Ranch to re-plant kukui and have local families provide native plant nurseries for that.
 - Remove invasive plants, such as kiawe and Java Plum, and re-plant natives in forest succession pattern. Re-create the native forests by simultaneously planting all levels (ground-cover, sub-canopy, canopy, etc.). Plant in accordance with the Wao (Wao Lā‘au is the food forest; Wao Kanaka is the human agricultural zone), and use species that also provide materials for building, crafts, clothing, and food (canoe plants). Support the creation of groves and orchards.
 - Start native plant nurseries that provide stock for such plantings.
 - Utilize the orographic effect for strategic native tree plantings at various height intervals; steady trade winds carry moisture from the ocean, causing condensation on trees. Trees are responsible for 40% rainfall by lift. This is orographic or “lift rain” that is capable of recycling over time to produce 100% rain from a cloud forest in the Wao Akua and Wao Nāhele. Tree lines cause the wind to spiral vertically and descend back down to hit succeeding tree lines along higher elevations. If trees are strategically planted at different height intervals, it will cause several of these spirals as it travels up the mountain top. As a result, bands of rainfall will form along the various altitudes and tree lines and travel down ahupua‘a from mauka to makai.
 - In areas below EMoWP’s fenceline, provide mobile fences to protect new saplings until they grow to a certain height and trunk size that make them invulnerable to ungulate grazing.
 - Engage in responsible plant gathering practices that promote continued and healthy growth.
 - Initiate a program similar to efforts undertaken in Niger, Africa in Farmer Managed Natural Regeneration (FMNR) where heavily grazed native tree plants can be restored through strategic trimming and pruning work to assist them to grow straight and tall, rather than bush-like.³⁶⁸

- Set-up water catchments to collect rainwater to irrigate plants.
 - Create kīpuka (oases) that will allow for regenerative growth of lowland forests in the long-term. Start by strategically growing appropriate water plants near springs that will add to water absorption in the landscape and eventually create more moisture rich habitat for lowland forest restoration.
 - Plant utilizing methods that capture rain/moisture and reduce erosion, which will be unique to each location, but could include techniques such as staggered net-and-pan plantings that circulate water from plant to plant and tree to tree. Incorporate earthworks, such as building and restoring terraced areas for lo‘i and installing swales for planting trees. Utilize lo‘i for the dual purpose of cultivating kalo and serving as silt traps to purify water and avoid siltation in fishponds and on reefs. Identify plants that hold soil in place; don’t remove a tree (even if invasive) without re-planting with something else (plant more than one tree).
 - Use cabins for not only hunter access, but for restoration work as appropriate.
 - Collaborate with people already doing restoration work and build off of their efforts and successes.
- **Preserve and re-open the springs that contribute to muliwai (brackish water), especially where ancient fishponds are located:**
- Springs are an important part of mo‘olelo of the area and contribute to overall food and water security.³⁶⁹
 - Restore walls of dilapidated fishponds to prevent sand and rocks that may be brought in by ocean currents from covering the springs that enter into the ocean. As one kama‘āina informant said, “It is well-known that fishponds were typically constructed around underwater springs. Part of the reason that they were constructed was to protect these springs from stones and sand debris that could potentially cover these springs were it not for the presence of the kuapā (fishpond wall).”
 - Remove mangrove that have established themselves on and around these springs.
 - Consider again the orographic effect, and how muliwai feeds the rain coming off the ocean onto the land, impacting plants mauka.
 - Estuaries are known as some of the most vital and productive areas. The mix of fresh and salt water along with rich stream and spring nutrient inputs result in a multitude of niches for marine flora and fauna. Estuaries also serve as important feeding, spawning, and nursery grounds and are the entry and exit points for diadromous species.
- **Re-open old spring-fed lo‘i that were part of the loko i‘a kalo complex (areas where lo‘i kalo fed loko i‘a and nutrients were cycled between the two):**
- Restore lo‘i and plant kalo.
 - Remove invasive trees (especially water-intensive species, like Java Plum) located on old lo‘i terraces.
 - Clean out ‘auwai connecting streams to lo‘i (e.g., Hau trees).
 - Restore loko i‘a.
- **Restore streams:**

- Remove invasive canopy trees that shade streams and suck up water (e.g., Java Plum).
- Plant natives along stream banks to stabilize, such as akakai grass. Native plants along banks also promote build-up of detritus (algal and micro-algal growth) as a food source for fish such as mullet and āholehole, which swim upstream; they need the stream cleared to do so.
- Restore habitat for hīhīwai and ō‘ōpu through stream maintenance. Consider re-introduction of such species.
- Conduct stream monitoring.
- **Restore loko i‘a (fishponds):**
 - Remove mangrove, re-open springs
 - Remove invasive limu, re-plant with native and other edible limu for fishfeed and human consumption for subsistence.
 - Erosion control efforts in mauka regions also beneficial to the ocean.
 - Improve micro-ecosystem (habitat) for fish, especially those that are attracted to muliwai (mullet, awa, āholehole).
- **Restore reef and protect fishing grounds:**
 - Identify and reduce harvesting of grazing fish that eat limu to reduce algal domination on the reef.
 - Recognize Native Hawaiian families that have ancestral and on-going special relationships with certain fishing spots that were deliberately cultivated (e.g., fishing ko‘a, certain reef patches, manini houses).
 - Restore corresponding fishing ko‘a/shrines or markers on land.
 - Remove invasive limu, re-plant with native and other edible limu for fishfeed and human consumption for subsistence.
 - Identify critical fish nursery areas and feeding grounds, nesting, spawning and reproduction of fish, turtle, and other marine species.
 - Seek special legal protections for coastal resources through Marine Life Conservation District (MLCD), Fisheries Management Area (FMA), or Community Based Subsistence Fishing Area (CBSFA) designations. Special estuaries we would likely need to protect include Honouliwai, Honoulimalo‘o, and Hālawa.
 - Recognize traditional nearshore fisheries (konohiki fisheries) that include fishing area from the shoreline to the edge of the barrier reef, or where there is no reef, one (1) mile from the shore. This means limiting recreational activities that pose a potential safety hazard to fishermen (skindivers), such as wind-surfing, kite-surfing, jet-skiing, water skiing, knee boarding. Maintain and enforce the law of no jet-skis/thrill-craft, as well as other activities that would disrupt fish schools, feeding, and nursery areas.
- **Recommendations for cultural sites and trails:**
 - Restore, preserve, and maintain cultural sites, such as heiau, ko‘a, etc. Mālama should be carried out by kama‘āina families as feasible and appropriate.
 - Restore, preserve, and maintain mauka-makai trails and trails traversing the Ko‘olau and connecting the north and south faces of the island.
 - Ensure that the fence does not obstruct these trails.

- There were lateral trails that connected ahupua‘a. Identify, map, restore, and maintain those trails. Research if there was an alalao; if so, map and restore it.
 - Establish multi-purpose cabins at strategic points along ahupua‘a clusters for plant maintenance of trails and cultural sites, as well as watershed restoration (removal of invasive and planting of natives) and hunting.
- **Improve large-scale land management practices:**
- While some large landowners utilize sustainable land management techniques, others were identified by kama‘āina informants as having engaged in poor land management practices, such as cattle ranching in steep areas; grading, grubbing, and clearing large land areas which punctured water veins and dried up important spring lines below. These actions resulted in erosion, flash-flooding, ‘o‘opu and hīhīwai die-offs, landslides and mudslides, mud deposits on sensitive turtle nesting grounds, ocean fouling, and reef siltation. There should be a call to action for these landowners to become good neighbors and work with the community to improve their land management practices, and thereby contribute to overall watershed and ahupua‘a health.
 - Review the Molokai Community Plan, map out certain areas that are critical to the overall watershed health, and include these recommendations in the Community Plan.
 - Review zoning, including the Special Management Area (SMA) near the shoreline; ensure there is legal development within those zones, as well as enforcement for grading and grubbing permits.
 - Work with large landowners to create agreements with community to do the proposed conservation work, such as cleaning streams and springs, re-opening and clearing of trails, removal of invasive species, and re-planting of natives. These agreements could take the form of conservation or cultural easements, an MOA for right-of-entry, etc. Discuss the possibility of exchanging hana (work) for permission to hunt on large landowner property. Also discuss topics of liability, the creation of a hunting hui with common liability insurance, hunter education program with conservation training and work, and creating a Mana‘e specific hunter manual for safety, conservation, and work projects with large landowners.

5.2. COMMUNITY RECOMMENDATIONS FOR THE EAST SLOPE MANAGEMENT PLAN

This section presents a summary of community input and recommendations for the East Slope Management Plan (January 2014 draft). It is composed primarily of recommendations that are related to the proposed fence and those activities directly impacted by it, such as hunting, along with other traditional and customary practices within the proposed fenceline.³⁷⁰ Overall, the majority of kama‘āina informants interviewed are in support of the fencing project as proposed. However, other viewpoints were expressed as well, which were documented in more detail in Chapter 3. Thus, what follows is a summary of those perspectives. They are presented in the five (5) primary ways this conservation effort could be pursued, based on what was presented in the East Slope Management Plan and the input received for this process.

Community Mana‘o Regarding Proposed Fencing (summary of details in Chapter 3)

- **Proposed Fencing: Pua‘ahala to Hālawā** – *as proposed in the East Slope Management Plan (January 2014 draft).*
 - Overall, the proposed fencing from Pua‘ahala to Hālawā has substantial support by the kama‘āina informants interviewed, as long as access for traditional and customary practices is ensured with the implementation of step-overs (which the East Slope Plan includes). Many also suggested additional management for the areas makai of the fenceline (to be implemented by kama‘āina and various cultural groups who have already stepped forward, or who will step forward to take on the kuleana of implementing the Subsistence & Ahupua‘a Management Plan). Several informants also stated that they would like to see mitigation efforts for unfenced areas that may be impacted by changed migration patterns of ungulates. However, not every ahupua‘a supports the fence (specific ahupua‘a identified below). Thus, it is recommended that the fence be implemented, first and foremost, in those areas that support it.
- **Alternative #1: Fencing with Pākaikai Corridor** – *a possible alternative presented in the East Slope Management Plan due to it being a preferred deer hunting area and being characterized by relatively degraded native forest.*
 - Alternative #1: Fencing all of Mana‘e with the exception of leaving a corridor at Pākaikai open has very little community support due to the potential negative impacts to the land, cultural sites, and water resources within the proposed corridor from heavy ungulate migration and traffic to this area. This alternative should not be pursued.
- **Alternative #2: No Fencing**
 - Of the kama‘āina informants interviewed thus far, a few ahupua‘a (hoa‘āina of the ahupua‘a) have stated that their over-riding sentiment is “no fence” (specific ahupua‘a identified below). Thus, it is recommended that the residents/kama‘āina of those areas begin a dialogue with the implementers of the fence (TNC) about their desire to manage their place themselves. It is possible that as the initial fencing units are implemented west of them, the impacts may be seen as positive and worth implementing within their ahupua‘a. If not, then alternatives should be pursued (see next alternative).
- **Alternative #3: Mauka-Makai Connector Fencelines** – *an alternative proposed by some kama‘āina informants that are opposed to the mauka fencing project (East Slope Plan), and concerned about the spillover impacts to their ahupua‘a where the proposed open corridor exists.*
 - Kama‘āina proposed the construction of mauka-makai fences as connecting links to TNC/EMoWP’s lateral fenceline that would be constructed along the pristine forest-edge. This strategy may serve to mitigate harm to neighboring, unfenced ahupua‘a and abate concerns of ungulate outmigration and spillover into these unprotected areas.

- It is also in alignment with the sentiment of other kama‘āina informants that communities in each ahupua‘a should take care of their own issues without harming neighboring ahupua‘a. This sentiment was shared by hunters who felt that each ahupua‘a or ahupua‘a “cluster” (where several ahupua‘a are small in size and can combine their efforts) should conduct community hunting activities to control ungulate populations to a sustainable level and distribute meat to the families living in their area.
 - The mauka-makai fence would serve to keep ungulates within their ahupua‘a of origin while community hunters could organize regular campaigns to thin out herds within their own ahupua‘a. One kama‘āina hunter proposed a unique method for organizing community hunts along native, traditional fishing principles and strategies like “surround-net” and what could be likened to how loko ‘ume‘iki (fish trap ponds) are constructed and utilized. This hybridized method for hunting ungulates would entail setting up posts spanning the vertical length of ahupua‘a. These posts would be established at 10 meter increments in the outline of a he‘e (octopus) head with ‘awe (legs) extending or fanning outward. On community hunt days, cargo net could be laid along these posts to form the shape of the he‘e much like surround net is laid in the ocean. Hunters located at lower elevations of the ahupua‘a could “paipai” (scare) ungulates by coordinating their movements upward until the ungulates are trapped and cinched within the po‘o (head) of the he‘e.
 - TNC has expressed some concerns about additional costs associated with mauka-makai connector fences. The authors urge that this alternative be seriously considered if TNC and the EMoWP wishes to build and maintain a good-faith relationship with communities living in unfenced areas. Further dialogue will need to take place between kama‘āina, large landowners, TNC, and all other key partners involved, with careful consideration to costs, potential impacts, and alternative management methods. Additional considerations are included in Table 5.3.
- **Alternate #4: Integrating “Release Valves” Between Fenced Sub-Units to Facilitate Ungulate Movement and Aid in Community Hunts** -- *an alternative to mauka-makai connector fences that would also address concerns of ungulate migration and spillover impacts to large unfenced corridors.*
 - If mauka-makai connector fences are too cost-prohibitive, another suggestion was offered that would entail creating incremental “release valves” between fencing sub-units in each ahupua‘a/ahupua‘a cluster. These “release-valves” are envisioned as open, vertical mauka-makai, N-S directional pathways that run between and parallel to TNC/EMoWP’s fencing sub-units like mākāhā (gate openings) in loko kuapā (fishpond walls). To minimize further degradation of the Wao Akua and Wao Nāhele, these mākāhā-like pathways or release valves could be strategically located in areas that do not have intact native forests. These pathways could also run along the contour of the land to minimize erosion.
 - The function of these land mākāhā or release valves would be to control the flow of ungulates along various ahupua‘a and mitigate spillover to the large open and unfenced corridor from Waialua to Hālawā. Each ahupua‘a will have a fair share

of meat and hunters will not have to travel outside of their ahupua‘a to hunt. This would also ensure that each ahupua‘a will still have access in their area to animals for subsistence hunting. In this manner, increased hunting pressure and safety threats for homes located in the large open corridor from Waialua to Hālawā will be avoided.

- Community hunts can also be strategically organized along these mākāhā openings or release valves since animal traffic is more likely to flow along these pathways. As a matter of human safety and to avoid hunting accidents with regular hikers, care must be taken to not site these mākāhā along ancient, traditional foot trails where people usually traverse.
- **Alternative #5: Lowered Fenceline** – *an approach recommended by some kama‘āina informants whereby the proposed fenceline would be implemented lower than currently proposed in order to allow for the original native lowland forest to recover that was located within the Wao Lā‘au.*
 - Overall, this alternative should be considered in areas where the kama‘āina and large landowners are interested in doing so. It has the potential to have an even greater impact to the health of the overall ahupua‘a; however, it would also require additional landowners to join the East Molokai Watershed Partnership.
- **Additional Community Mana‘o Regarding Fencing** – *the recommendations below are elaborated on in Table 5.3.*
 - Smaller and More Manageable Sub-Units
 - Active Engagement and Inclusion of the community, especially hunters
 - Traditional Fishing Methods Adapted to Land in order to Manage Ungulate Populations.

Mana‘o Shared by the Hoa‘āina (native tenants) of each Ahupua‘a Cluster

It is important to note that “hoa‘āina” legally refers to native tenants currently living in a specific ahupua‘a, which is why it is used in the heading of this section. Based on the interviews conducted, tenants of each ahupua‘a had very different perspectives and priorities. This makes sense based on the history of each ahupua‘a being relatively separate and independent in their land management. Thus, the recommendation is that for those ahupua‘a who want the fence, where that community is basically united on that approach, and the large landowners are a part of the partnership, then those ahupua‘a should move ahead and implement their vision for their place.

In contrast, there are hoa‘āina of certain ahupua‘a who are strongly opposed to the fence. In most of these cases, the hoa‘āina do not have a good relationship with the large landowners (or *some* of the landowners) in their ahupua‘a. Often it is because they disagree with the way these landowners are currently managing their property – implementing land use practices that are not sustainable, or not within the spirit of mālama, but degrade ahupua‘a health. Thus, it is these hoa‘āina who feel they should manage their own ahupua‘a without a fence. In general, those informants who feel this way also believe they have the ‘ike (knowledge) to do that. Perhaps in the future these hard feelings that are being experienced between large landowners and

community members can be worked through, but for now we need to look at each ahupua‘a, or clusters of ahupua‘a, and ensure that their vision is included in this plan.

In the ‘Aha Council system, decisions were made along ‘Aha Ahupua‘a as well. So if a proposed action only affected that one ahupua‘a, then councils would decide on the ahupua‘a level, and the ‘Aha Moku at the district level was not triggered for decision-making. We are finding as we are interviewing different families within different ahupua‘a that they’re often of one mind, so we can consider this as making decisions along the ahupua‘a level. This is useful in cases such as this one, where the entire moku does not agree. If that’s the case, then we must be sure that decisions made affect only that ahupua‘a and not the others, which is when other strategies should be explored, such as mauka-makai fences.

The table below is a summary of mana‘o shared by the 44 key (mostly kama‘āina) informants interviewed and/or surveyed (with an Intake Form) for this process. The authors took care to identify and talk to representatives of as many key long-time kama‘āina families as possible, as well as to coordinate with TNC on who to talk to. In addition, TNC has talked with many of these same families, and is currently in the process of doing outreach to the residents of each ahupua‘a as their project progresses, beginning with the Pāku‘i Unit, which consists of the ahupua‘a of Pua‘ahala, Ka‘amola, Keawanui, West ‘Ōhi‘a, East ‘Ōhi‘a, Manawai, Kahananui, ‘Ualapu‘e, and Kalua‘aha. Thus, as shown below, the informants interviewed for this process who live in the ahupua‘a within the Pāku‘i Unit are generally in support of the fence as proposed by the most current East Slope Management Plan update (as of October 2014).³⁷¹

Table 5.2: General Sentiment Towards Proposed Expanded Fence by Ahupua‘a or Ahupua‘a Cluster, From West to East

Ahupua‘a	General Sentiment
Pua‘ahala, Ka‘amola, Keawanui	Support the fence.
West ‘Ōhi‘a, East ‘Ōhi‘a, Manawai, Kahananui, ‘Ualapu‘e	Support the fence.
Kalua‘aha	Majority support the fence, some concern about access for subsistence practices.
Mapulehu, Puko‘o, Kūpeke	Unknown (none interviewed).
‘Aha‘ino	Some against the fence, some support.
Honomuni, Kawaikapu, Kainalu, Pūniu‘ōhua	Support the fence.
Waialua, Moanui, Kumimi	Some against fence, especially if there is a corridor created through this area (the Pākaikai Corridor alternative). The main concern is the outmigration and spillover of ungulates into this open corridor that would foul important streams that residents rely on for both agricultural and domestic purposes.
Honouliwai, Honoulimalo‘o	Support the fence. They recommended go slow, see if the first fence works out and adjust management accordingly. Some concern about Pākaikai Corridor also because they are reliant on stream water for both agricultural and domestic use.
Pu‘u o Hoku Ranch lands	Undecided.
Hālawā	Support the fence. Emphasized the need for all ahupua‘a tenants to be informed. ³⁷²

*Note: This table is only based on the 44 informants surveyed for this process.

The following table presents the recommendations for the East Slope Management Plan shared by the kama‘āina informants interviewed for this report. In December 2014, the authors met with EMoWP/TNC to review these recommendations, thus, their initial feedback is included as well.

****Note new abbreviation utilized in table: “SAMP” (Subsistence & Ahupua‘a Management Plan) to minimize table size.***

Table 5.3: Community Suggestions for East Slope Management Plan

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
1. Create small, manageable fenced sub-units with priority to absolutely pristine native upland forest.	Build what you can manage and manage what you can build; building bigger and not being able to manage it in the long run reduces the effectiveness of protecting the watershed within the fenceline.	The size of fencing units is an ongoing debate. EMoWP strives to find the right balance between minimizing the amount of fencing used (larger units = less fencing, less disturbance in forest, less cost) and making units small enough to manage.	Size of units should be determined through an open dialogue between EMoWP & community.
2. In lieu of mauka-makai connector fences, create small corridors between fencing units in most appropriate places (i.e., areas that do not have intact native forest, and will not cause intensive erosion) as “release valves” that lessen ungulate migration and pressure on large, unfenced areas.	- Consider lesser quality areas (not intact native forest) for these potential “release valves” to allow for North-South migration and to ease pressure on unfenced areas not in the watershed partnership. - This would also make coordinated community hunting more effective (ungulates would travel through corridors like fish do through mā kāhā). - These areas should not correspond with traditional trails where hunting may conflict with hiking activity and pose a potential safety hazard. - Site these areas in less erosive terrain (this may entail creating an area that runs along contour with the land to reduce scarring and erosion of the landscape).	- If you create a corridor, you create edges, basically open more areas to “infection,” where invasive plants can spread. - Creates safety concerns. Narrow corridors could create potential danger if ungulates (esp. in numbers) “collide” with people. - The need for “release valves” indicates over-population. - Another potential strategy might be to increase animal control on the north shore. - The concept needs more study as to its potential effects; consider pros & cons. - May work better along lower contour fence.	The use or non-use of small corridors as “release valves” that lessen spillover impacts to large unfenced areas should be determined through an open dialogue between EMoWP & community.
3. Plant food for ungulates along these “release valve” areas (corridors discussed above).	So less stress is placed on native plant life in neighboring ahupua‘a that have not yet been fenced.	Brings up idea of creating “animal management areas” that are away from native ecosystems (lower). Would allow access to food source & protect ecosystem.	Need dialogue between EMoWP & community, if use small corridors.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
4. Tie in a mauka-makai fenceline to lateral fences erected by EMoWP pursuant to the East Slope Management Plan.	▪ Need to let each ahupua‘a (or ahupua‘a cluster), who are in agreement, manage their own area. Those ahupua‘a (or clusters) who strongly oppose the fence and for which large landowners have not joined the watershed partnership could manage their own areas. In this way, decisions made in one ahupua‘a (or cluster) do not infringe upon decisions made in another ahupua‘a (or cluster). ▪ Even if this is an added expense, it is necessary in order to prevent harm to neighboring ahupua‘a and is consistent with the ‘Aha Councils’ methodology of caring for the 8 resource realms and utilizing a decision-making matrix that included honoring kūpuna wisdom, addressing the needs of the present, and ensuring abundance for future generations. ▪ As an alternative, we could look at planting a living fence out of acceptable vegetation that would essentially block out-migration to unfenced ahupua‘a.	▪ Agree with concept of allowing each ahupua‘a decide on its management. The difficulty comes in getting funding since it’s not typically done (no proof of effectiveness). ▪ Also, deer go all the way makai, so a mauka-makai fence wouldn’t stop all lateral movement. ▪ Another idea might be to do partial mauka-makai fence and add on a “wing-fence” to draw animals in (would work mostly for goats and on flat areas).	Use of mauka-makai fences should be determined through an open dialogue between EMoWP & community, with all considerations researched and presented.
5. Fencing should correspond with an animal control plan outside the fence that has certain benchmarks based on carrying capacity.	This would bring ungulate population to sustainable numbers that preserve a food resource for subsistence while allowing the land to heal and re-establish preferred vegetation. This could be carried out by or with the help of the community hunting huis/cooperatives discussed in the narrative above.	This again brings up the idea of “animal management areas.” There is no evidence that a native Hawaiian forest can sustain any level of ungulate activity. There is strong evidence that a native forest will heal with zero tolerance (no ungulates), which is the goal for fenced areas.	Such animal control is outside of EMoWP/TNC’s scope of work, but will help with implementation if requested. Need a carrying capacity study first.
6. Coordinate community hunts accordingly to reach planned benchmarks (outside fence).	Need a carrying capacity study for deer (and possibly pigs and goats), along with a survey on how many of these animals are needed for household consumption. This suggestion could also be carried out by or with the help of the community hunting huis/cooperatives.	Agree.	Kuleana of SAMP implementers. Also a carrying capacity study should be conducted for deer, pigs & goats.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
7. A program integrating conservation by hunters should be included as part of the Hawai‘i Hunter Education Course.	Should teach cultural values regarding hunting (e.g., ATVs, trophy rack hunting, wasting meat, discarding remains, etc.). This program could be developed with the members of the hunting hui/cooperatives.	Agree.	Kuleana of SAMP implementers to work with course teachers.
8. For community hunts, implement technique modeled along surround-net fishing or loko ‘umeiki fishtrap.	Place stakes at every 10 meters along the mountain in the outline of a he‘e (octopus) to mimic the fishing practice of surround net. When community hunts are scheduled, erect a cargo net barrier along the stakes. Hunters from below will chase animals into the net, which will be cinched at the top. Note: animal count surveys should be done beforehand to avoid catching too many animals. Animals hunted for subsistence should be harvested sustainably to continue as a food source, but also in manageable numbers to minimize degradation of native vegetation.	- Mostly useful for goats, but probably won’t work for deer or pigs. - Again, there is no evidence that a native Hawaiian forest can sustain itself with any ungulates, but good to minimize numbers.	Kuleana of SAMP implementers.
9. Install cabins up mauka 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 can 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 & bring the animals down the mountain. - The second purpose is to conduct fence monitoring work, invasive species removal (above & below fence), establishing new stands of native plants, and maintenance of trails & cultural sites. Hunters can be utilized to do such activities.	Need to consider placement – it’s ultimately up to the landowner. Also need to decide who’s responsible for maintenance. There has been vandalism to some cabins, so it might be easier to construct something simple, like a platform with a roof.	Kuleana of SAMP implementers.
10. Create meat distribution points along each ahupua‘a or ahupua‘a cluster on community hunt days.	That way the meat is not wasted; all families can have a fair share of game meat for home consumption.	Good idea, but will take some coordination. It’s been tried before and there is often more meat than can eat, so need a plan for extra meat. Need a hunting leader to determine how much to hunt and to coordinate drop-offs.	Kuleana of SAMP implementers; Hunting Hui may act as lead coordinator.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
11. In those ahupua‘a with fence, a detailed plan and integration of hoa‘āina in ahupua‘a management below the fenceline is essential.	- Animals below the fenceline may have increased impact to lower areas of the ahupua‘a (Wao Lā‘au, Wao Kanaka) and created more erosion. - To avoid denuding these areas, planting of native and canoe crops must be undertaken while removing some invasive species (e.g., kiawe, java plum) that extract too much water and negatively impact streams, taro terraces, heiau, and fishing ko‘a. - Create mobile, detachable fencing units to surround and protect native plants and trees.	Need to be careful to not remove invasives (those not along stream) without replanting with natives that hold soil in place.	Kuleana of SAMP implementers.
12. Establish cottage industries among hoa‘āina families to operate backyard native plant nurseries.	- Include plants that are grown-out to specific sizes that will not leave these plants/trees vulnerable to ungulate grazing. - Create mobile, detachable fencing units to surround and protect native plants and trees. - Erect water catchment up mauka and re-open springs to water these plants and trees. - Grow native species for mauka and makai areas in these nurseries.	Good idea, although there is no stage at which most plants are not still vulnerable to ungulate grazing.	Kuleana of SAMP implementers.
13. Address secondary impacts/threats to areas that will not be fenced, especially the north shore ahupua‘a.	- Deer and pig migrate according to seasonal shifts and food availability (e.g., pigs follow the guava and mountain apple; deer and goat when they reach an old age end up moving further mauka and eating different kinds of vegetation to meet nutritional needs). - Fencing causes ungulates to travel around or to the next unfenced ahupua‘a to find food, this causes more wounds in the land and provides an area for invasives to come into, particularly if these animals end up feeding on native plants (<i>one kama‘āina informant identified certain native plants ungulates eat when they run out of their preferred food sources</i>).	This may be true, but what it means is that: a) this should be monitored (e.g., conduct a study on ungulate populations in north shore ahupua‘a before and after fence is erected), and b) animal control should be increased for north shore ahupua‘a.	A study should be done to monitor ungulate populations in the north shore ahupua‘a – before and after implementation of fence. Needs funding.

5.3. NEXT STEPS

Looking forward, here are the basic actions that need to be taken to implement the recommendations from this report:

1. **TNC should continue gathering input and collaborating with Mana‘e Community to integrate recommendations from this Report.**
 - This can be done as part of their CIS (Cultural Impact Statement) and EA (Environmental Assessment) processes.
2. **Mana‘e Community should work together to develop the Subsistence and Ahupua‘a Management Plan for Mana‘e Moku.**
 - This may be led by ‘Aha Kiola o Moloka‘i – Mana‘e Moku or another appropriate entity.
 - Find funding for planning process.
 - Use a community process to select and hire an appropriate community and environmental planner to oversee process.
3. **Identify Potential Groups/Organizations to Oversee Implementation.**
 - Such a group/organization should become apparent during the process of developing the Subsistence & Ahupua‘a Management Plan, based on their involvement. One obvious consideration is the ‘Aha Moku o Moloka‘i – Mana‘e Moku.
 - That group/organization should then seek funding to implement the Subsistence & Ahupua‘a Management.

³⁵² Interview with Dr. Kawika Winter, *supra* note 48. (Dr. Winter stated that he “express[es] [this mana‘o] with humility and in the hope that it is staying true to Kumu John’s teachings. ‘Oia ihola me ka ha‘aha‘a a me ka ‘oia‘i‘o.”).

³⁵³ *Id.*

³⁵⁴ Dr. Kawika Winter Presentation, *supra* note 49.

³⁵⁵ *A Mau A Mau*, *supra* note 1.

³⁵⁶ Dr. Kawika Winter, *Conservation Past and Present: Applying "traditional ecological knowledge" philosophies to contemporary conservation practices on Kaua‘i*, Presentation at the Univ. of Haw. at Mānoa Imi ‘Ike Nat. Resources and Env’tl. Mgmt. Research Seminar Series (Dec. 10, 2014) [hereinafter Winter, *Conservation Past and Present*].

³⁵⁷ *Id.*

³⁵⁸ *Id.*

³⁵⁹ *Id.*

³⁶⁰ *Id.*

³⁶¹ HANDY & PUKUI, *supra* note 66, at 4.

³⁶² HANDY, HANDY & PUKUI, *supra* note 91, at 56.

³⁶³ Winter, *Conservation Past and Present*, *supra* note 356.

³⁶⁴ MCGREGOR, NĀ KUA‘ĀINA, *supra* note 120, at 6–8.

³⁶⁵ MCGREGOR, CULTURAL ASSESSMENT FOR THE KAMAKOU PRESERVE, *supra* note 29, at 16-17.

³⁶⁶ It should be noted that each individual landowner has to allow and agree to participation, it is their decision, and not that of the EMoWP.

³⁶⁷ As described in Chapter 3, Ka Ulu Kukui o Lanikaula is only a small grove today, but it was once a huge forest of kukui trees (some say 600 acres), which were essential for bringing rains to Mana'e. The rainclouds were said to travel from Haka'ano, a northeast ahupua'a, move through Ulu Kukui o Lanikaula, and further along all the ahupua'a of East Moloka'i, until they reached Kamalō, and moved out to sea towards Lāna'i.

³⁶⁸ For more information on Farmer Managed Natural Regeneration, see the following link:
<http://permaculturenews.org/2008/09/24/the-development-of-farmer-managed-natural-regeneration/>.

³⁶⁹ There may be support for this informant's statements because further interviews and literature search revealed that one of the fishponds in Mana'e, 'Ualapu'e fishpond, provided a safety net for the early Hawaiians living in that area. When warriors from Hawai'i island attempted to subjugate the people living in Mana'e it was told in legend that the people knew of an important underwater spring located within 'Ualapu'e fishpond. The people devised a plot to kill their enemy by poisoning the stream. The enemy perished due to the poisoned waters but the hoa'āina survived because they secretly gathered the spring water flowing into the fishpond.

³⁷⁰ Some have argued that hunting is not a traditional and customary practice. However, deer, goat, and pig were introduced prior to 1892, at which time the King placed a kapu on introduced deer which were given as gifts to him; they then became an important part of subsistence for Moloka'i families. Culture has evolved to include these animals as important food sources for traditional subsistence. Therefore, they are protected by the Hawai'i Constitution Article XII, §7 and HRS, § 1-1.

³⁷¹ *Summary Update of the East Slop Watershed Project*, *supra* note 38.

³⁷² One of the authors conducted an informal talk-story with two kama'āina informants of the ahupua'a of Hālawā (one of them being the oldest living Native Hawaiian born and raised in Hālawā who still lives there), which is what this sentiment is based on. Because it was a short discussion and not a formal interview, the notes were not included in the Meeting Notes.

Traditional & Customary Practices Report for Mana‘e, Moloka‘i

Traditional Subsistence Uses, Mālama Practices and Recommendations,
and Native Hawaiian Rights Protections of Kama‘āina Families of
Mana‘e Moku, East Moloka‘i, Hawai‘i

February 2016

Appendices

- A. Intake Form
- B. Description of Cultural Sites Identified on Map
- C. Hui Aloha ‘Āina o Mana‘e’s “Aloha ‘Āina Training Program”

Name				
Mailing Address				
Email				
Phone	Home	Work	Cell	Age
Gender		Relationship Status		
Male	Female	Married	Single	Living w/ partner
Employment Status	Employed	Unemployed	Laid Off	If working, where do you work? Or what type of work do you do?
(please check appropriate box)				
Household Income (please circle)	\$ 0 – 9,999	\$10,000 – 19,999	\$20,000 – 29,999	\$30,000 – 39,999
	\$40,000 – 49,999	\$50,000 – 59,999	\$60,000 +	
Please specify number, including self:	How many people are living in your home?	How many children (17 yrs or younger) are living in your home?	How many adults (18 yrs or older) are living in your home?	How many families are living in your home?
What is the highest level of formal education you have completed?	Less than grade school	Grade school (6 years)	Intermediate school	High school (12 years)
(please circle)	G.E.D.	Trade School	College	Graduate school
Ethnic/Racial Background (please circle)	Caucasian	Chinese	Filipino	Japanese
	Korean	Native Hawaiian (full or part)	Pacific Islander	Portuguese
	Multiple Ethnic (non-Hawaiian)	Other:		

Name:				
District of Residence	Maunaloa / Kaluako'i	Ho'olehua	Kualapu'u / Kalae Kipu	Kalama'ula / Kaunakakai
(please circle)	East End (Mana'e)	Kaunakakai / Kawela	Halawa / North Shore	Kalaupapa
Place of Birth	Where did you spend most of your 18 yrs growing up?	How many years have you lived in the state of Hawai'i?	How many years have you lived on Molokai?	What ahupua'a do you currently reside in?
As to Mana'e ahupua'a, which ahupua'a do you have genealogical connections to? (Circle all that apply)	Kamalo Kapualei Kumueli Wawaia Pua'ahala Ka'amola Keawanui West 'Ohia East 'Ohia Manawai Kahananui 'Ualapu'e Kalua'aha Mapulehu Punaula Puko'o Kupeke Aha'ino 1 Aha'ino 2 Kailiula Honomuni Kawaikapu Kainalu Puniuhua Puelelu Puniuhua 2 Puniohua 1 Waialua Moanui Kumimi Honouliwai Honoulimalo'o Keahuoku Lupehu Pohakupili Moakea Keopukauuku Keopukaloa Koali'i Halawa Wailau Pelekunu			
Definition of Subsistence: The customary and traditional uses by Molokai residents of wild and cultivated renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, transportation, culture, religion, and medicine; for barter, or sharing, for personal or family consumption; and for customary trade.				
Which of the following traditional and subsistence activities have you or family engaged in while living on Molokai? (Please circle all that apply)	Hawaiian traditional and religious ceremonial practices	Hunting	Land gathering	Stream gathering
	Fishing and ocean gathering	Farming, gardening	Fishpond, aquaculture	Raising livestock
If you do not engage in any of these activities, why not?	Too busy	Too old	Disabled	Not interested
	Rely on others	Other: _____		

Name:				
About how many <u>times a month</u> do other people on Molokai give your family food like fish, meat, limu, etc. that they have caught, gathered, or grown themselves?				_____ times a month
Overall, how important is subsistence to your family?	1 Very Important	2 Somewhat Important	3 Somewhat unimportant	4 Not at all Important
About what percent of your family's food comes from subsistence activities (fishing, hunting, gathering, raising animals, cultivation)?				_____ %
Do you ever use the resources you get from subsistence for any of the following activities? (Circle all that apply)				
Sharing/Gift-Giving	Exchange/Trade	Sale	Restock	Other: _____
Does subsistence benefit you and your family in any of the following ways? (Please circle all that apply)				
Carry on the culture	Family togetherness	Spiritual well-being/Religion	Exercise/Health/Diet	Recreation
Medicine	Education	Leis, Decorations, and Crafts	Other: _____	
Do you use subsistence resources for special occasions?			Yes	No
If yes, for what types of special occasions do you collect for? (Circle all that apply)				
Anniversary parties	Birthdays	Funerals	Graduations	Holiday celebrations
Lū'au	Reunions	Weddings	1-Year Anniversary of Death	Blessing Something Newly Built
Other:				
Do you collect food from the ocean or land for people from other islands?			Yes	No
When you go fishing, hunting, or gathering, how often do you take people from off island with you?	1 Always	2 Often	3 Rarely	4 Never

Name:					
Do you fish?		About how many days in the past year did you fish?	Does this number represent a typical number of days you fish every year?		If no, why?
Yes	No	_____ days	Yes	No	
During which season of the year do you do the most fishing?		Summer (Jun – Aug)	Fall (Sep – Nov)	Winter (Dec - Feb)	Spring (Mar – May)
What types of fish do you generally catch? (please circle all that apply)					
Awa		Akule	Aholehole	Ahi	Aweoweo
Enenui		Hage	Hinalea	Kahala	Kaku
Kawakawa		Kole	Kumu	Kupipi	Lai
Mahimahi		Mamo	Marlin/Kajiki	Menpachi/U'u	Moana
Moi		Mu	Mullet	Nabeta	Oio
Onaga		Ono	Opakapaka	Opelu	Palani
Papio/Ulua		Rainbow Runner	Ta'ape	Toau	Uhu
Weke		Uouoa	Other:		
Do you gather other resources from the ocean?		About how many days in the past year did you gather resources from the ocean?	Does this number represent a typical number of days you gather ocean resources every year?		If no, why?
Yes	No		Yes	No	
During which season of the year do you do the most ocean gathering?		Summer (Jun – Aug)	Fall (Sep – Nov)	Winter (Dec - Feb)	Spring (Mar – May)

Name:					
Identify the types of resources you gather from the ocean. (circle as many that apply)					
Crab/Papa'i		He'e/Octopus	Kupe'e	Leho	Lobster/Ula
Opihi		Pipipi	Salt	Sea Cucumber/Loli	Shrimp/Opae
Sea Urchin/Wana		Other:			
Do you hunt?		About how many days in the past year did you hunt?	Does this number represent a typical number of days you hunt every year?		If no, why?
Yes	No		Yes	No	
During which season of the year do you hunt the most?		Summer (Jun – Aug)	Fall (Sep – Nov)	Winter (Dec - Feb)	Spring (Mar – May)
Identify the types of animals you hunt. (circle those that apply)					
Axis Deer		Birds	Goats	Pigs	Other: _____
Do you gather from the land?		About how many days in the past year did you gather from the land?	Does this number represent a typical number of days you gather from the land every year?		If no, why?
Yes	No		Yes	No	
During which season of the year do you gather from the land the most?		Summer (Jun – Aug)	Fall (Sep – Nov)	Winter (Dec - Feb)	Spring (Mar – May)
Identify the types of wild plants/fruits you gather from the land. (circle those that apply)					
A'ali'i		Ahinahina	Akala	Ahuhu	Alahe'e
Alae		Awa	Banana/Maia	Guava	Hala
Hapu'u/Ferns		Hau	Ha'uwi	Ho'io	Iliahi/Sandalwood
Ilima		Kaunaoa	Kiawe	Koa	Koali
Ko'oko'olau		Kou	Kukui	Laukahi	Liko/Lehua

Name:					
Identify the types of wild plants/fruits you gather from the land. (circle those that apply)					
Lilikoi	Loulu	Maile	Mangrove	Maunaloa	
Mamake	Milo	Niu	Noni	Oranges	
Papaya	Paria	Pepeiao	Plum	Popolo	
Ti Leaf/Shoot/Root	Uhaloa Leaf/Root	Ulu	Other:		
Do you gather from streams?		About how many days in the past year did you gather from streams?	Does this number represent a typical number of days you gather from streams every year?		If no, why?
Yes	No		Yes	No	
During which season of the year do you gather the most from streams?		Summer (Jun – Aug)	Fall (Sep – Nov)	Winter (Dec - Feb)	Spring (Mar – May)
Identify the types of things you gather from streams. (circle those that apply)					
Aholehole	Crabs	Frogs	Hihiwai	Mullet	
Opae	O'opu	Prawns	Pupu	Uouoa	
Other:					
Do you grow vegetables, fruits, and/or medicinal plants for your family?			If yes, please list the types of vegetables, fruits, and/or medicinal plants you grow.		
Yes		No			
Do you raise animals for food for your family?			If yes, what types of animals do you raise?		
Yes		No	Poultry		
			Meat	Eggs	Fighting Cocks
Cattle		Deer	Rabbits	Goats	Pigs
Do you support the proposed East Molokai Watershed Project?			Are you concerned that the proposed East Molokai Watershed Project extending from Kamalo to Halawa will impact your traditional subsistence and religious practices?		
Yes	No	Unsure	Yes	No	Unsure
Why?			If yes, how so?		

Name:								
As to Mana'e, which ahupua'a do you access for traditional, religious, ceremonial purposes and/or gather, fish, farm, and/or hunt for subsistence? (Please check all that apply)								
Ahupua'a Name	Religious & ceremonial practices	Hunting	Land gathering	Stream gathering	Fishing & ocean gathering	Farming, Gardening	Fishpond, aquaculture	Raising livestock
Kamalo								
Kapualei								
Kumueli								
Wawaia								
Pua'ahala								
Ka'amola								
Keawanui								
West 'Ohia								
East 'Ohia								
Manawai								
Kahananui								
'Ualapu'e								
Kalua'aha								
Mapulehu								
Punaula								
Puko'o								
Kupeke								
Ahaino 1								
Ahaino 2								
Kailiula								
Honomuni								
Kawaikapu								
Kainalu								
Puniuohua 2								
Puniuohua 1								
Waialua								
Moanui								
Kumimi								
Honouliwai								
Honoulimalo'o								
Keahuoku								
Lupehu								
Pohakupili								
Moakea								
Keopukauuku								
Keopukaloa								
Koali'i								
Halawa								
Wailau								
Pelekunu								

Description of Cultural Sites Identified on Map on page 32:

1. Huelo – Located on the northern shore, just east off of Makanalua Peninsula, Huelo is known to be the home to the very last endemic loulu palm (*Pritchardia munroi*). Seedlings from here have been transferred to the Kalaupapa plant nursery, Kamalō, and mauka Kainalu for cultivation and re-propagation of this species.
2. Pelekunu – Much like other surrounding valleys, Pelekunu is known for its plethora of lo'i that were cultivated here. One of its associated islands, Mōkapu, is known for its role in the "Mo'olelo of Ha'iha'ikū." A north-south traditional trail is known to have gone from Pelekunu valley through to Kamalō. In 1960, a diversion of that same trail was documented to lead to Manuahi as well.
3. Kamakou Preserve – The Kamakou rainforest was fenced off by The Nature Conservancy of Hawai'i as its distinct natural flora are rare and have yet to be tainted by humans. There are many native species of plants and animals found within this portion of land that are not found with such high integrity elsewhere in Hawai'i.
4. Kapu'oko'olau/Kapo'oko'olau – "There's a place, Waiku'ilani, that goes to Kapo'oko'olau. There used to be a waterfall going into the gulch that sank down into the ground (not into the ocean). But along the ocean portion, it formed springs. Each fishpond [on east Moloka'i] has 2-3 springs."
5. 'Ōhi'a – "My 'ohana was instructed only to pick kukui from east 'Ōhi'a, but when the [name removed to protect confidentiality] family built a hale up there, the lepo came down and the stream overflowed. The kukui was used for eating, to make inamona and to dye their fishing nets. Some kukui bark can make a dark maroon dye. Other kukui is more reddish. When trying to surround a pile of fish, the fish will be spooked and run into the dark. If the fish is maroon, it can hide. This allowed the fisherman to be more selective in harvesting." There is also a known ko'a (fishing grounds, usually identified by lining up with marks on shore) off-shore of 'Ōhi'a that was used by fishermen until kiawe was spread by cattle and grew too thick and tall to utilize the ko'a traditionally.
6. Manawai – Known to have 12-15 documented heiau sites as discussed in a field study done by Kathleen Kawelu, Ph.D.
7. Pāku'i – Most known for its heiau where a prophecy was made concerning the sovereignty of Hawai'i and how "the little fish (maka'āinana) will rise to eat the big fish (ali'i)".
8. 'Ili'ili'ōpae – Located in the Pūko'o area, 'Ili'ili'ōpae is known as the second largest heiau throughout Hawai'i. It is told that this particular heiau was used for "sorcery" and human sacrifice was practiced here.
9. Wailau – Much like its neighbor valleys (Pelekunu to the west and Hālawā to the east), Wailau was made up of many lo'i complexes. These were documented and discussed in Dr. Windy McElroy's dissertation. There is a traditional/historic trail that leads out from Wailau and cuts towards Mapulehu as well as the coast that is still used to this day. Wailau is also known for its rocks lying offshore and its relevance to the "Mo'olelo of Kana."

10. Oloku'i – One of the most pristine areas in Hawai'i. In fly-overs you can see banana patches. People lived there as evidenced from the banana groves. 'Oloku'i has largely escaped impact so far from humans in modern times.
11. Honomuni – It is said that in this area, Kamehameha had his people build a great lo'i that fed majority of the east coast of Moloka'i.
12. Pākaikai – Also known as "Queen's bath", this area has a great abundance of lo'i terracing that indicate the cultivation that went on in here in the past. A local of Moloka'i addressed that this area called Pākaikai was traditionally located closer to Pu'u 'Ōhelo rather than where it is now identified to be located.
13. Hālawa – A plethora of cultural sites have been located within this valley as it was heavily inhabited and used for cultivation of kalo and other native plants. A full report of all sites within it can be read through Dr. Patrick Kirch's Hālawa Study.
14. Moanui & Kumimi – both known for the vast ali'i burials located here.
15. Ka Ulu Kukui o Lanikaula – The kukui groves of Lanikaula are well known for their significance to the chiefess Lanikaula and demarcated as an area where she would play. Today, Ka Ulu Kukui o Lanikaula can be seen as a paradigm for what is happening to Hawai'i's forests.
16. Pōhakupili – There are many springs located in this area that begin their flow from mauka all the way down to the various fishponds makai. If the top sources are clogged or dry, the springs down below also dry-up. This is the epitome of what is happening with the watershed in Mana'e.

Hui Aloha ‘Āina o Mana‘e

Aloha Āina Training Program

Field Crew	Training Activities	Training Activities
Feral Ungulate Management	Hunting/Slaughter/ Meat distribution	Transect monitoring
Invasive Plant Removal	Hand removal, Chainsaw removal	Mulching/ Timber production
Native Plant Nursery/ Restoration	Seed Collection/Nursery Propagation	Grow out/ Re-planting
Stream/Riparian Zone Restoration	Invasive Species Removal/ Clean Debris	Native Species Monitoring
Shoreline Monitoring	Important Near Shore Resources	Invasive Species Removal
Lo‘i Kalo Restoration/ Production	Lo‘i Restoration	‘Auwai Maintenance
Sustainable farming/ Commercial production	Vegetables	Fruit
Loko I‘a Restoration/Production	Kuapā restoration	Aquaculture
Offshore monitoring	Important Offshore Resources	Subsistence Enforcement
Traditional Navigation, Moon cycles and seasons		
Native art		

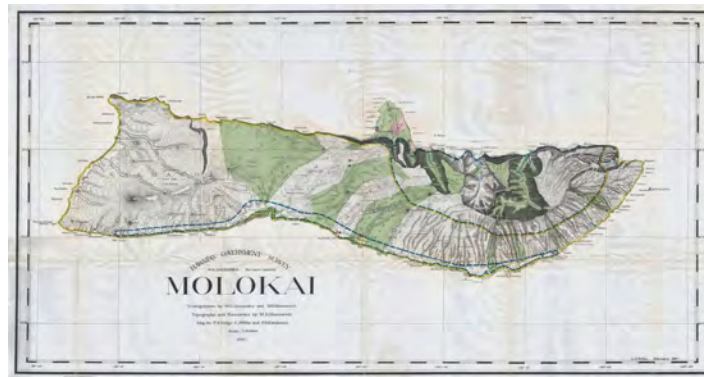
Appendix B A Framework for the Aha Moku System and Collaborative Governance

A FRAMEWORK FOR THE AHA MOKU SYSTEM AND COLLABORATIVE GOVERNANCE

HISTORY OF THE ‘AHA COUNCILS

“There is no man familiar with fishing least he fishes and becomes an expert. There is no man familiar with the soil least he plants and becomes an expert. There is no man familiar with hō`ola least he be trained as a kahuna and becomes expert at it.”¹

- Following this principle, leaders who govern people manage the resources should be those who are actual practitioners; i.e those who have gained a comprehensive and masterful understanding of the biological, physical, and spiritual aspects of the ‘āina. In traditional Hawaiian resource management, those with relevant knowledge comprised what were called the ‘Aka Kiole,² the people’s council.
 - **‘Aha** – The kūpuna metaphorically ascribed these councils and the weaving of various ‘ike, or knowledge streams, as an ‘aha. The individual aho or threads made from the bark of the olonā shrub were woven together to make strong cordage, called ‘aha. Thus the early Hawaiians referred to their councils as ‘aha to represent the strong leadership created when acknowledged ‘ike holders came together to weave their varied expertise for collective decision-making that benefitted the people, land, and natural resources.³
 - **Kiole** – The term kiole described the abundant human population, likened to the ‘iole or large schools of pua (fish fingerlings) that shrouded the coastline en masse. Thus, Molokai’s councils were called ‘Aha Kiole, the people’s council.⁴
- ‘Aha council leadership was determined by the people who collectively understood who the experts were in their community. These were experts in fisheries management, hydrology and water distribution, astronomy and navigation, architecture, farming, healing arts, etc.
- 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.



¹ *A Mau A Mau (To Continue Forever): Cultural and Spiritual Traditions of Moloka‘i* (Nālani Minton and Nā Maka O Ka ‘Āina 2000) [hereinafter *A Mau A Mau*].

² *Id.*

³ *Id.*

⁴ *Id.*

HOLISTIC PROBLEM SOLVING OF THE ANCIENT ‘AHA COUNCILS

1. Identify problem or issue
2. 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:⁵
 - a. ***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.
 - b. ***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; or a gentle shoreline dotted with a coastal strand of vegetation; sands where turtles and seabirds nest; or extensive sand dune environs.
 - c. ***Ma Uka*** – from the point where the lepo (soil) starts to the top of the mountain.
 - d. ***Nā Muliwai*** – all the sources of fresh water, ground/artesian water, rivers, streams, springs, including springs along the coastline that mix with seawater.
 - e. ***Ka Lewalani*** – everything above the land, the air, the sky, the clouds, the birds, the rainbows.
 - f. ***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.
 - g. ***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.
 - h. ***Ke ‘Ihi‘ihi*** – elements that maintain the sanctity or sacredness of certain places.
3. Implement solution with 3 considerations
 - a. Honor ancestral past
 - b. Address the needs of the present
 - c. 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.”⁶

AHA MOKU SYSTEM UNDER STATE LAW

- **What is it?** - The aha moku system is a land, water, and ocean system of best practices that is based upon indigenous resource management practices of ahupua‘a and moku (regional) boundaries. Its goal is to find methods of sustaining, protecting and keeping the natural balance among the different ecosystems existing within the eight main Hawaiian Islands. It serves in an advisory capacity to the chairperson of the Board of Land and Natural Resources (BLNR). An important focus of the aha moku system is to bring regional concerns from island communities forward to the Department of Land and Natural Resources (DLNR) so issues can be addressed and if needed, mitigated.

⁵ 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.

⁶ *A Mau A Mau*, *supra* note 1.

The ‘aha were created under Act 288, which recognized that over the past 200 years, Hawaii has suffered through extensive changes to the Native Hawaiian culture, language, values, and land tenure system, resulting in the following:

- Over-development of coastlines;
- Alterations of fresh water streams;
- Destruction of watersheds;
- Decimation of coral reefs;
- The decline of endemic marine and terrestrial species⁷

In addition to these consequences, Act 288 recognized the value of cultural practitioners and their use of knowledge that has been passed down through kupuna, experienced farmers, and fishers to engage and enhance sustainability, subsistence, and self-sufficiency.⁸

Puwalu ‘Ekahi – From August 15-17, 2006, representatives from 43 moku (regions) across the state and over one hundred Hawaiian cultural practitioners, including kupuna and acknowledged traditional experts, joined together to share their mana‘o and call on Native Hawaiians to begin a process to uphold and continue Hawaiian traditional land and ocean practices.⁹

Puwalu ‘Elua – On November 8 and 9, 2006, educators, administrators, cultural practitioners, and kupuna discussed how to incorporate traditional Hawaiian cultural knowledge into an educational framework that could be integrated into a curricula for all public, private, charter, and Hawaiian immersion schools in Hawaii.¹⁰

Puwalu ‘Ekolu – On December 19 and 20, 2006, policymakers and stakeholders engaged in protecting Hawai‘i’s ecosystems; Native Hawaiian practitioners with expertise in traditional sustainability methods; Native Hawaiian organizations, agency and legislative representatives in state government; and experts in education and environmental advocacy discussed existing programs and their successes and failures in community-building. Participants in Puwalu ‘Ekolu, agreed that statutes, ordinances, and a framework for consultation with Hawaiian communities using the Hawaiian perspective and traditional methods such as the ahupua‘a management system are needed, and that the ‘aha moku system should be established.¹¹

From 2006 to 2010, three more puwalu were convened to gather additional community input on best practices in the area of native Hawaiian resource management. Integrating the mana‘o of farmers, fishers, environmentalists, educators, organizations and agencies, and governmental representatives, consensus was reached on the necessity of integrating the ‘aha moku system into government policy.¹²

⁷ 2012 Haw. Sess. Laws Act 288, § 1 at 1:1-8.

⁸ 2012 Haw. Sess. Laws Act 288, § 1 at 1-8.

⁹ 2012 Haw. Sess. Laws Act 288, § 1 at 2:8-3:7.

¹⁰ 2012 Haw. Sess. Laws Act 288, § 1 at 3:8-19.

¹¹ 2012 Haw. Sess. Laws Act 288, § 1 at 3:20-4:10.

¹² 2012 Haw. Sess. Laws Act 288, § 1 at 4:11-22.

**‘AHA MOKU ADVISORY COUNCIL (AMAC) AND
THE ‘AHA KIOLE O MOLOKA‘I LEADERSHIP**

Statewide ‘Aha Moku Advisory Council (AMAC)	
Po‘o – Moku O Keawe (Hawai‘i)	Pi‘ilani Ka‘awaloa
Po‘o – Moku O Pi‘ilani (Maui)	Kyle Nakanelua
Po‘o – Moku O Kanaloa (Kaho‘olawe)	Les Kuloloio
Po‘o – Nanai Kaula (Lana‘i)	Winifred “Winnie” Basques
Po‘o – Moloka‘i Pule O‘o (Moloka‘i)	Kamalu Poepoe
Po‘o – Moku O Kakuhihewa (O‘ahu)	Rocky Kaluhiwa
Po‘o – Manokalanipo (Kaua‘i)	Thomas Hashimoto
Po‘o – Kahumoku (Ni‘ihau)	Keith and Bruce Robinson

‘Aha Kiole o Moloka‘i	
Po‘o Moloka‘i:	Kamalu Poepoe
Po‘o – Moku o Mana‘e	Hanohano Naehu
Po‘o – Moku o Kawela	Mervyn Dudoit
Po‘o Alaka‘i	Kanoe Davis, Hawai‘iloa Mowat, Kawika Duvauchelle
Po‘o – Moku o Pala‘au	Kulia Keli‘ikuli-Peters
Po‘o Ahupua‘a o Naiwa	Lori Buchanan
Po‘o Ahupua‘a o Kalaupapa	James Espaniola
Po‘o – Moku o Kaluakoi	Byron Espaniola, Halona Kaopuiki
Po‘o – Planning/Consultation	Walter Ritte, Jr.
Po‘o – Cultural Specialist	‘Opu‘ulani Albino
Po‘o – Resource Management	Mac Poepoe

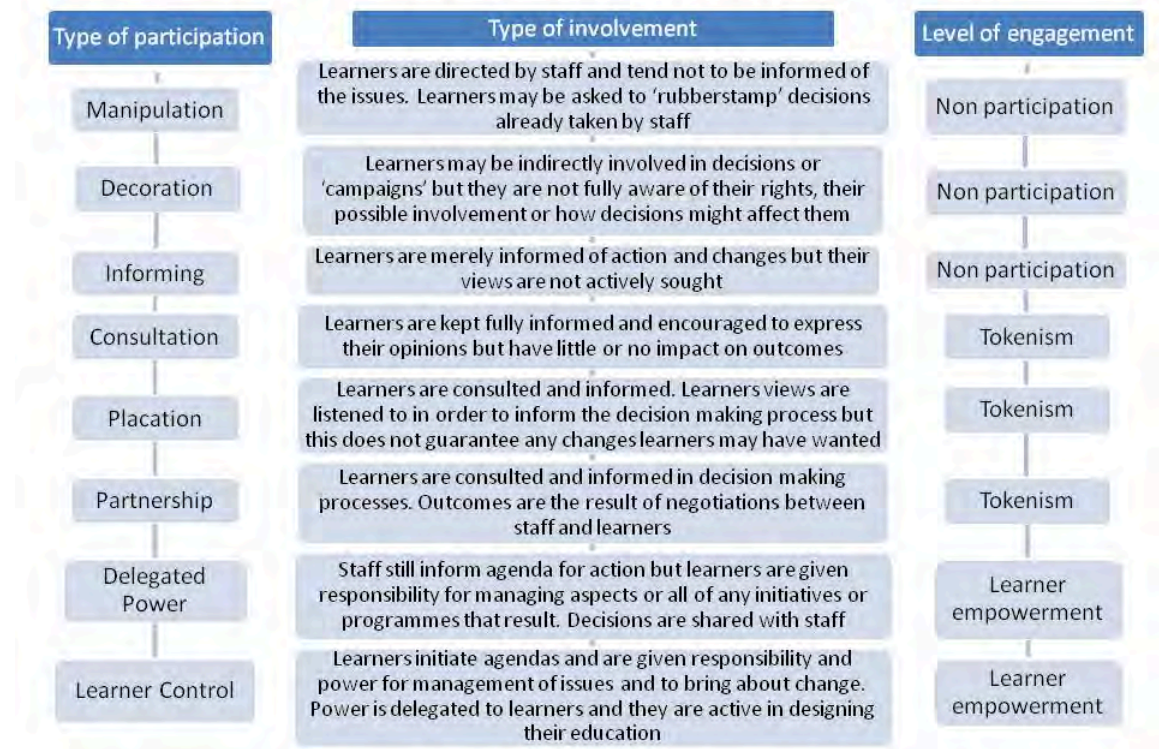
COLLABORATIVE GOVERNANCE

Collaborative governance, brings public and private stakeholders together in collective forums with public agencies to engage in consensus-oriented decision making.

Collaborative Governance stresses six important criteria:

- (1) a forum initiated by public agencies or institutions,
- (2) participants in the forum include nonstate actors,
- (3) participants engage directly in decision making and are not merely “consulted” by public agencies,
- (4) the forum is formally organized and meets collectively,
- (5) the forum aims to make decisions by consensus (even if consensus is not achieved in practice), and
- (6) the focus of collaboration is on public policy or public management. This is a more restrictive definition than is sometimes found in the literature.

‘LADDER’ OF PARTICIPATION



13

Collaborative governance allows those affected by decisions and those with relevant knowledge to have an influential say in the decision making process. Act 288 and creation of the 'aha councils are attempts to integrate collaborative governance processes through communication lines to DLNR and through annual reports.

¹³ Arnstein's Ladder of Participation - https://talintuoh.files.wordpress.com/2013/03/ladder_-of-participation.jpg

PROS/CONS OF COLLABORATIVE GOVERNANCE	
PROS	CONS
May be cheaper/quicker than litigation	Power imbalances between stakeholders
Greater fulfillment for community from public discussion	Commitment needed by both public/private stakeholders
Educated decisions made by those who are most affected	Decisions may still be made contrary to suggestions of stakeholders
Decisions/deliberations made public	History of antagonism may impede process

WHAT AREAS OF EXPERTISE MAY THE AHA COUNCILS ADVISE ON?

The aha councils are allowed to provide advice on the following:

1. Integrating indigenous resource management practices with western management practices in each moku;
2. Identifying a comprehensive set of indigenous practices for natural resource management;
3. Fostering the understanding and practical use of native Hawaiian resource knowledge, methodology, and expertise;
4. Sustaining the State's marine, land, cultural, agricultural, and natural resources;
5. Providing community education and fostering cultural awareness on the benefits of the aha moku system;
6. Fostering protection and conservation of the State's natural resources; and,
7. Developing an administrative structure that oversees the aha moku system.

Within the DLNR, several divisions are related to these areas:

AQUATIC RESOURCES (DAR) Manages the State's marine and freshwater resources through programs in commercial fisheries and aquaculture; aquatic resources protection, enhancement and education; and recreational fisheries. Issues fishing licenses
BOATING AND OCEAN RECREATION (DBOR) Responsible for the management and administration of statewide ocean recreation and coastal areas programs pertaining to the ocean waters and navigable streams of the State which include 21 small boat harbors, 54 launching ramps, 13 offshore mooring areas, 10 designated ocean water areas, 108 designated ocean recreation management areas, and beaches encumbered with easements in favor of the public. Registers small vessels.
CONSERVATION AND COASTAL LANDS (OCCL) The Office of Conservation and Coastal Lands is responsible for overseeing private and public lands that lie within the State Land Use Conservation District. In addition, to privately and publicly zoned Conservation District lands, OCCL is responsible for overseeing beach and marine lands out to the seaward extend of the State's jurisdiction.

CONSERVATION AND RESOURCES ENFORCEMENT (DOCARE)

Responsible for enforcement activities of the Department. The division, with full police powers, enforces all State laws and rules involving State lands, State Parks, historic sites, forest reserves, aquatic life and wildlife areas, coastal zones, Conservation districts, State shores, as well as county ordinances involving county parks. The division also enforces laws relating to firearms, ammunition, and dangerous weapons.

FORESTRY AND WILDLIFE (DOFAW)

Responsible for the management of State-owned forests, natural areas, public hunting areas, and plant and wildlife sanctuaries. Program areas cover watershed protection; native resources protection, including unique ecosystems and endangered species of plants and wildlife; outdoor recreation; and commercial forestry. **Issues hunting permits.**

HISTORIC PRESERVATION DIVISION (SHPD)

SHPD's three branches, History and Culture, Archaeology, and Architecture, strive to accomplish this goal through a number of different activities.

IS THERE A LEGAL BASIS TO REQUIRE COLLABORATIVE GOVERNANCE?

- Agencies responsible for protecting traditional and customary Native Hawaiian rights must conduct detailed inquiries into the impacts on those rights to ensure that proposed uses of land and water resources are pursued in a culturally appropriate way.
 - This is the responsibility of the agency, not the developer!¹⁴
 - The failure of a state agency to take appropriate measures may be a breach of constitutional obligations to protect Native Hawaiian interests and possibly an infringement upon due process rights.
- Ka Pa'akai O Ka 'Aina v. Land Use Commission (Ka Pa'akai),¹⁵
 - Supreme Court of Hawaii rules that "the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Hawaiians to the extent feasible."¹⁶
 - In a dispute brought by Native Hawaiian cultural practitioners opposed to a developer's request before the State Land Use Commission (LUC) to reclassify certain lands to urban zoning on Hawai'i Island in order to build a resort, the Hawai'i Supreme Court noted "[a]rticle XII, section 7 of the Hawai'i Constitution obligates the LUC to protect the reasonable exercise of customarily and traditionally exercised rights of native Hawaiians to the extent feasible when granting a petition for reclassification of district boundaries."¹⁷ In order to satisfy these obligations the LUC needed to evaluate:
 - (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

¹⁴ David M. Forman & Susan K Serrano, Ho'ohana Aku, a Ho'ōla Aku: A Legal Primer for Traditional and Customary Rights in Hawai'i 15 (2012).

¹⁵ 94 Hawai'i 31, 35, 7 P.3d 1068, 1071 (2000).

¹⁶ See also Pub. Access Shoreline Hawai'i v. Hawai'i Cnty. Planning Comm'n, 79 Hawai'i 425, 450 n.43, 903 P.2d 1246, 1271 (1995).

¹⁷ Ka Pa'akai, 94 Hawai'i at 46, 7 P.3d at 1083.

- 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 LUC to reasonably protect native Hawaiian rights if they are found to exist.¹⁸
 - The Ka Pa‘akai ruling now mandates this legal framework be followed by all State and County agencies for the protection of traditional and customary Hawaiian rights.
 - The Statewide AMAC, with direction from local ‘aha councils on each island, could utilize their traditional knowledge and cultural expertise to provide advisories or guidance documents to the DLNR and its multiple divisions on protocol for engagement with Native Hawaiian communities and how to protect traditional and customary rights and practices on the ground.
 - DLNR has consulted with ‘Aha Kiole o Moloka‘i (along with other Native Hawaiian groups, such as the Hawaiian Civic Clubs and OHA) on a variety of resource management issues¹⁹ including in November 2012 when ‘Aha Kiole o Moloka‘i reached an understanding with the state about limiting cruise ship visits to the island following protests the previous year (and earlier, in 2007) that blocked landings at the Kaunakakai pier.²⁰

¹⁸ Id. at 47, 7 P.3d at 1084.

¹⁹ Forman & Serrano, supra note 14, at 53.

²⁰ Id.

Appendix C United Nations Declaration on the Rights of Indigenous Peoples



United Nations

United Nations
DECLARATION
on the **RIGHTS**
of **INDIGENOUS**
PEOPLES



United Nations

United Nations Declaration
on the Rights of Indigenous Peoples





Resolution adopted by the General Assembly

[*without reference to a Main Committee (A/61/L.67 and Add.1)*]

61/295. United Nations Declaration on the Rights of Indigenous Peoples

The General Assembly,

Taking note of the recommendation of the Human Rights Council contained in its resolution 1/2 of 29 June 2006,¹ by which the Council adopted the text of the United Nations Declaration on the Rights of Indigenous Peoples,

Recalling its resolution 61/178 of 20 December 2006, by which it decided to defer consideration of and action on the Declaration to allow time for further consultations thereon, and also decided to conclude its consideration before the end of the sixty-first session of the General Assembly,

Adopts the United Nations Declaration on the Rights of Indigenous Peoples as contained in the annex to the present resolution.

*107th plenary meeting
13 September 2007*

Annex

United Nations Declaration on the Rights of Indigenous Peoples

The General Assembly,

Guided by the purposes and principles of the Charter of the United Nations, and good faith in the fulfilment of the obligations assumed by States in accordance with the Charter,

Affirming that indigenous peoples are equal to all other peoples, while recognizing the right of all peoples to be different, to consider themselves different, and to be respected as such,

¹See *Official Records of the General Assembly, Sixty-first Session, Supplement No. 53 (A/61/53)*, part one, chap. II, sect. A.

Affirming also that all peoples contribute to the diversity and richness of civilizations and cultures, which constitute the common heritage of humankind,

Affirming further that all doctrines, policies and practices based on or advocating superiority of peoples or individuals on the basis of national origin or racial, religious, ethnic or cultural differences are racist, scientifically false, legally invalid, morally condemnable and socially unjust,

Reaffirming that indigenous peoples, in the exercise of their rights, should be free from discrimination of any kind,

Concerned that indigenous peoples have suffered from historic injustices as a result of, inter alia, their colonization and dispossession of their lands, territories and resources, thus preventing them from exercising, in particular, their right to development in accordance with their own needs and interests,

Recognizing the urgent need to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources,

Recognizing also the urgent need to respect and promote the rights of indigenous peoples affirmed in treaties, agreements and other constructive arrangements with States,

Welcoming the fact that indigenous peoples are organizing themselves for political, economic, social and cultural enhancement and in order to bring to an end all forms of discrimination and oppression wherever they occur,

Convinced that control by indigenous peoples over developments affecting them and their lands, territories and resources will enable them to maintain and strengthen their institutions, cultures and traditions, and to promote their development in accordance with their aspirations and needs,

Recognizing that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment,

Emphasizing the contribution of the demilitarization of the lands and territories of indigenous peoples to peace, economic and social

progress and development, understanding and friendly relations among nations and peoples of the world,

Recognizing in particular the right of indigenous families and communities to retain shared responsibility for the upbringing, training, education and well-being of their children, consistent with the rights of the child,

Considering that the rights affirmed in treaties, agreements and other constructive arrangements between States and indigenous peoples are, in some situations, matters of international concern, interest, responsibility and character,

Considering also that treaties, agreements and other constructive arrangements, and the relationship they represent, are the basis for a strengthened partnership between indigenous peoples and States,

Acknowledging that the Charter of the United Nations, the International Covenant on Economic, Social and Cultural Rights,² and the International Covenant on Civil and Political Rights,² as well as the Vienna Declaration and Programme of Action,³ affirm the fundamental importance of the right to self-determination of all peoples, by virtue of which they freely determine their political status and freely pursue their economic, social and cultural development,

Bearing in mind that nothing in this Declaration may be used to deny any peoples their right to self-determination, exercised in conformity with international law,

Convinced that the recognition of the rights of indigenous peoples in this Declaration will enhance harmonious and cooperative relations between the State and indigenous peoples, based on principles of justice, democracy, respect for human rights, non-discrimination and good faith,

Encouraging States to comply with and effectively implement all their obligations as they apply to indigenous peoples under international instruments, in particular those related to human rights, in consultation and cooperation with the peoples concerned,

Emphasizing that the United Nations has an important and continuing role to play in promoting and protecting the rights of indigenous peoples,

²See resolution 2200 A (XXI), annex.

³A/CONF.157/24 (Part I), chap. III.

Believing that this Declaration is a further important step forward for the recognition, promotion and protection of the rights and freedoms of indigenous peoples and in the development of relevant activities of the United Nations system in this field,

Recognizing and reaffirming that indigenous individuals are entitled without discrimination to all human rights recognized in international law, and that indigenous peoples possess collective rights which are indispensable for their existence, well-being and integral development as peoples,

Recognizing that the situation of indigenous peoples varies from region to region and from country to country and that the significance of national and regional particularities and various historical and cultural backgrounds should be taken into consideration,

Solemnly proclaims the following United Nations Declaration on the Rights of Indigenous Peoples as a standard of achievement to be pursued in a spirit of partnership and mutual respect:

Article 1

Indigenous peoples have the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms as recognized in the Charter of the United Nations, the Universal Declaration of Human Rights⁴ and international human rights law.

Article 2

Indigenous peoples and individuals are free and equal to all other peoples and individuals and have the right to be free from any kind of discrimination, in the exercise of their rights, in particular that based on their indigenous origin or identity.

Article 3

Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.

Article 4

Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to

⁴Resolution 217 A (III).

their internal and local affairs, as well as ways and means for financing their autonomous functions.

Article 5

Indigenous peoples have the right to maintain and strengthen their distinct political, legal, economic, social and cultural institutions, while retaining their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State.

Article 6

Every indigenous individual has the right to a nationality.

Article 7

1. Indigenous individuals have the rights to life, physical and mental integrity, liberty and security of person.
2. Indigenous peoples have the collective right to live in freedom, peace and security as distinct peoples and shall not be subjected to any act of genocide or any other act of violence, including forcibly removing children of the group to another group.

Article 8

1. Indigenous peoples and individuals have the right not to be subjected to forced assimilation or destruction of their culture.
2. States shall provide effective mechanisms for prevention of, and redress for:
 - (a) Any action which has the aim or effect of depriving them of their integrity as distinct peoples, or of their cultural values or ethnic identities;
 - (b) Any action which has the aim or effect of dispossessing them of their lands, territories or resources;
 - (c) Any form of forced population transfer which has the aim or effect of violating or undermining any of their rights;
 - (d) Any form of forced assimilation or integration;
 - (e) Any form of propaganda designed to promote or incite racial or ethnic discrimination directed against them.

Article 9

Indigenous peoples and individuals have the right to belong to an indigenous community or nation, in accordance with the traditions and customs of the community or nation concerned. No discrimination of any kind may arise from the exercise of such a right.

Article 10

Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.

Article 11

1. Indigenous peoples have the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature.
2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs.

Article 12

1. Indigenous peoples have the right to manifest, practise, develop and teach their spiritual and religious traditions, customs and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains.
2. States shall seek to enable the access and/or repatriation of ceremonial objects and human remains in their possession through fair, transparent and effective mechanisms developed in conjunction with indigenous peoples concerned.

Article 13

1. Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons.
2. States shall take effective measures to ensure that this right is protected and also to ensure that indigenous peoples can understand and be understood in political, legal and administrative proceedings, where necessary through the provision of interpretation or by other appropriate means.

Article 14

1. Indigenous peoples have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning.
2. Indigenous individuals, particularly children, have the right to all levels and forms of education of the State without discrimination.
3. States shall, in conjunction with indigenous peoples, take effective measures, in order for indigenous individuals, particularly children, including those living outside their communities, to have access, when possible, to an education in their own culture and provided in their own language.

Article 15

1. Indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information.
2. States shall take effective measures, in consultation and cooperation with the indigenous peoples concerned, to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among indigenous peoples and all other segments of society.

Article 16

1. Indigenous peoples have the right to establish their own media in their own languages and to have access to all forms of non-indigenous media without discrimination.

2. States shall take effective measures to ensure that State-owned media duly reflect indigenous cultural diversity. States, without prejudice to ensuring full freedom of expression, should encourage privately owned media to adequately reflect indigenous cultural diversity.

Article 17

1. Indigenous individuals and peoples have the right to enjoy fully all rights established under applicable international and domestic labour law.

2. States shall in consultation and cooperation with indigenous peoples take specific measures to protect indigenous children from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development, taking into account their special vulnerability and the importance of education for their empowerment.

3. Indigenous individuals have the right not to be subjected to any discriminatory conditions of labour and, inter alia, employment or salary.

Article 18

Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.

Article 19

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.

Article 20

1. Indigenous peoples have the right to maintain and develop their political, economic and social systems or institutions, to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities.

2. Indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress.

Article 21

1. Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of education, employment, vocational training and retraining, housing, sanitation, health and social security.

2. States shall take effective measures and, where appropriate, special measures to ensure continuing improvement of their economic and social conditions. Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities.

Article 22

1. Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities in the implementation of this Declaration.

2. States shall take measures, in conjunction with indigenous peoples, to ensure that indigenous women and children enjoy the full protection and guarantees against all forms of violence and discrimination.

Article 23

Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions.

Article 24

1. Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services.

2. Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health. States shall take the necessary steps with a view to achieving progressively the full realization of this right.

Article 25

Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.

Article 26

1. Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.
2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.
3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.

Article 27

States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples' laws, traditions, customs and land tenure systems, to recognize and adjudicate the rights of indigenous peoples pertaining to their lands, territories and resources, including those which were traditionally owned or otherwise occupied or used. Indigenous peoples shall have the right to participate in this process.

Article 28

1. Indigenous peoples have the right to redress, by means that can include restitution or, when this is not possible, just, fair and equitable compensation, for the lands, territories and resources which they have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent.
2. Unless otherwise freely agreed upon by the peoples concerned, compensation shall take the form of lands, territories and resources

equal in quality, size and legal status or of monetary compensation or other appropriate redress.

Article 29

1. Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.
2. States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.
3. States shall also take effective measures to ensure, as needed, that programmes for monitoring, maintaining and restoring the health of indigenous peoples, as developed and implemented by the peoples affected by such materials, are duly implemented.

Article 30

1. Military activities shall not take place in the lands or territories of indigenous peoples, unless justified by a relevant public interest or otherwise freely agreed with or requested by the indigenous peoples concerned.
2. States shall undertake effective consultations with the indigenous peoples concerned, through appropriate procedures and in particular through their representative institutions, prior to using their lands or territories for military activities.

Article 31

1. Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

2. In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights.

Article 32

1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.
3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.

Article 33

1. Indigenous peoples have the right to determine their own identity or membership in accordance with their customs and traditions. This does not impair the right of indigenous individuals to obtain citizenship of the States in which they live.
2. Indigenous peoples have the right to determine the structures and to select the membership of their institutions in accordance with their own procedures.

Article 34

Indigenous peoples have the right to promote, develop and maintain their institutional structures and their distinctive customs, spirituality, traditions, procedures, practices and, in the cases where they exist, juridical systems or customs, in accordance with international human rights standards.

Article 35

Indigenous peoples have the right to determine the responsibilities of individuals to their communities.

Article 36

1. Indigenous peoples, in particular those divided by international borders, have the right to maintain and develop contacts, relations and cooperation, including activities for spiritual, cultural, political, economic and social purposes, with their own members as well as other peoples across borders.
2. States, in consultation and cooperation with indigenous peoples, shall take effective measures to facilitate the exercise and ensure the implementation of this right.

Article 37

1. Indigenous peoples have the right to the recognition, observance and enforcement of treaties, agreements and other constructive arrangements concluded with States or their successors and to have States honour and respect such treaties, agreements and other constructive arrangements.
2. Nothing in this Declaration may be interpreted as diminishing or eliminating the rights of indigenous peoples contained in treaties, agreements and other constructive arrangements.

Article 38

States, in consultation and cooperation with indigenous peoples, shall take the appropriate measures, including legislative measures, to achieve the ends of this Declaration.

Article 39

Indigenous peoples have the right to have access to financial and technical assistance from States and through international cooperation, for the enjoyment of the rights contained in this Declaration.

Article 40

Indigenous peoples have the right to access to and prompt decision through just and fair procedures for the resolution of conflicts and disputes with States or other parties, as well as to effective remedies for all infringements of their individual and collective rights. Such a decision shall give due consideration to the customs, traditions, rules and legal systems of the indigenous peoples concerned and international human rights.

Article 41

The organs and specialized agencies of the United Nations system and other intergovernmental organizations shall contribute to the full realization of the provisions of this Declaration through the mobilization, inter alia, of financial cooperation and technical assistance. Ways and means of ensuring participation of indigenous peoples on issues affecting them shall be established.

Article 42

The United Nations, its bodies, including the Permanent Forum on Indigenous Issues, and specialized agencies, including at the country level, and States shall promote respect for and full application of the provisions of this Declaration and follow up the effectiveness of this Declaration.

Article 43

The rights recognized herein constitute the minimum standards for the survival, dignity and well-being of the indigenous peoples of the world.

Article 44

All the rights and freedoms recognized herein are equally guaranteed to male and female indigenous individuals.

Article 45

Nothing in this Declaration may be construed as diminishing or extinguishing the rights indigenous peoples have now or may acquire in the future.

Article 46

1. Nothing in this Declaration may be interpreted as implying for any State, people, group or person any right to engage in any activity or to perform any act contrary to the Charter of the United Nations or construed as authorizing or encouraging any action which would dismember or impair, totally or in part, the territorial integrity or political unity of sovereign and independent States.

2. In the exercise of the rights enunciated in the present Declaration, human rights and fundamental freedoms of all shall be respected. The exercise of the rights set forth in this Declaration shall be subject only to such limitations as are determined by law

and in accordance with international human rights obligations. Any such limitations shall be non-discriminatory and strictly necessary solely for the purpose of securing due recognition and respect for the rights and freedoms of others and for meeting the just and most compelling requirements of a democratic society.

3. The provisions set forth in this Declaration shall be interpreted in accordance with the principles of justice, democracy, respect for human rights, equality, non-discrimination, good governance and good faith.

Appendix D 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



Preserving America's Heritage

SECTION 106 AND THE U.N. DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES: INTERSECTIONS AND COMMON ISSUES: ARTICLE 18 AND SECTION 106

The Advisory Council on Historic Preservation (ACHP) adopted a plan to support the U.N. Declaration on the Rights of Indigenous Peoples (Declaration) on March 1, 2013. In the plan, the ACHP commits to raising awareness about the Declaration in the historic preservation community and incorporating the principles and aspirations of the Declaration into ACHP initiatives and programs. As part of the effort to raise awareness, the ACHP also committed to developing guidance on the intersection of the Section 106 process and the Declaration.

In recognition that the Declaration is an international instrument written to be relevant to many nations and indigenous peoples, the ACHP has liberally interpreted the language and intention of the articles in the Declaration. The ACHP has identified nine articles that intersect with the mission and work of the ACHP and with the Section 106 review process. They are Articles 8, 11, 12, 15, 16, 18, 25, 31, and 38. This guidance addresses the relationship between Article 18 and the tribal and Native Hawaiian organization (NHO) consultation requirements in the Section 106 process. Future guidance will address the other articles.

The Section 106 Process

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of undertakings they carry out, assist, fund, or permit (undertakings) on historic properties and to afford the ACHP a reasonable opportunity to comment on such undertakings. Federal agencies meet these requirements by completing the Section 106 process set forth in the implementing regulations, "Protection of Historic Properties," 36 C.F.R. part 800. The goal of the process is to identify and to consider historic properties that might be affected by an undertaking and to attempt to resolve any adverse effects through consultation.

Both the NHPA and the Section 106 regulations require that federal agencies, in carrying out their Section 106 responsibilities, consult with any Indian tribe or NHO that attaches traditional religious and cultural significance to historic properties that may be affected by an undertaking. The regulations provide both general directions regarding consultation at Section 800.2(c)(2) as well as very specific steps to be taken throughout the process.

U.N. Declaration on the Rights of Indigenous Peoples

"The Declaration is a comprehensive statement about the rights of indigenous peoples around the world. It emphasizes the rights of indigenous peoples to maintain and strengthen their own institutions, cultures, and traditions and to pursue their development in keeping with their own needs and aspirations."¹

¹ United Nations Permanent Forum on Indigenous Issues. "Frequently Asked Questions - Declaration on the Rights of Indigenous Peoples." Available at: <http://www.un.org/esa/socdev/unpfii/documents/FAQsindigenousdeclaration.pdf>. Accessed: 10/24/2013.

The position of the United States is that the Declaration, “while not legally binding or a statement of current international law—has both moral and political force. It expresses both the aspirations of indigenous peoples around the world and those of States in seeking to improve their relations with indigenous peoples. Most importantly, it expresses aspirations of the United States, aspirations that this country seeks to achieve within the structure of the U.S. Constitution, laws, and international obligations, while also seeking, where appropriate, to improve our laws and policies.”²

There are 46 articles in the Declaration that address a wide range of issues facing indigenous peoples. The article which is the focus of this document is Article 18:

“Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.”

Article 18 and the Section 106 Process

The Declaration, while not having the force of law, expresses ideals. Article 18 of the Declaration addresses the right of indigenous peoples to participate in decision making when their rights would be affected. The scope of this article is very broad, covering all rights to which indigenous peoples are entitled.

On the other hand, Section 106 and its implementing regulations do have the force of law. However, the scope of Section 106 is narrower in that it addresses only the consideration of impacts of undertakings on historic properties, but broader in the sense that it applies regardless of who holds “rights” to such properties.

Regardless, Section 106 seems consistent with the thrust of Article 18 of the Declaration in various respects.

For instance, Section 101(d)(6)(B) of the NHPA and the Section 106 regulations require federal agencies to invite Indian tribes and NHOs to participate in Section 106 consultation when an undertaking may affect historic properties of traditional religious and cultural importance to them. These consultation requirements are intended to ensure that Indian tribes and NHOs have the opportunity not only to identify those places of religious and cultural importance to them (sometimes referred to as sacred sites) but also to influence federal decision making in order to protect those places. While other federal directives and statutes may require that federal agencies seek information from Indian tribes and NHOs, the NHPA requires federal agencies to invite them to participate in the consultation process to identify, evaluate, and resolve effects to historic properties of religious and cultural importance to them. Moreover, this obligation to consult is triggered regardless of whether the tribe or NHO holds a “right” over the property at issue. All that matters is that the historic property is of traditional and cultural importance to the tribe or NHO. Of course, if a tribe holds rights over a historic property under consideration in a Section 106 review, such as treaty rights, those rights may be determinative of the final federal agency decision regardless of the outcome of the Section 106 review.

The consistency between the thrusts of Section 106 and Article 18 is also reflected in how the Section 106 regulations address federal agency responsibilities for tribal consultation when an undertaking takes place on tribal lands. For instance, in consideration of tribal sovereignty, a Section 106 agreement to resolve adverse effects cannot apply on tribal lands without the relevant tribe’s signature.

² Announcement of U.S. Support for the United Nations Declaration on the Rights of Indigenous Peoples.

While the federal agency makes the decisions in the Section 106 process, including whether to proceed with the proposed undertaking, the process emphasizes consultation, both as a means for other parties to express their views and concerns and for the federal agency to be fully informed in reaching its decisions. Accordingly, the Section 106 process anticipates that federal agencies will, in carrying out the process, consider the views of other parties, including those of Indian tribes and NHOs.

The fact that the U.N. Declaration includes a provision regarding the rights of indigenous peoples to participate in decision making underscores the importance of federal agency consultation with Indian tribes and NHOs in the Section 106 process when historic properties of religious and cultural significance to them may be affected by a proposed undertaking. It is also important for federal agencies to remember that President Obama's announcement of U.S. support for the U.N. Declaration including all its articles, further underscores the importance of tribal and NHO consultation and participation in decision making.

In order for consultation to be meaningful and effective, it must begin as early as possible in project planning to fully afford all, including Indian tribes and NHOs, an opportunity to express the full range of their interests and concerns. The Section 106 regulations at 36 C.F.R. § 800.2(c)(2) state that:

The agency official shall ensure that consultation in the section 106 process provides the Indian tribe or Native Hawaiian organization a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects. It is the responsibility of the agency official to make a reasonable and good faith effort to identify Indian tribes and Native Hawaiian organizations that shall be consulted in the section 106 process. Consultation should commence early in the planning process, in order to identify and discuss relevant preservation issues and resolve concerns about the confidentiality of information on historic properties.

Early and ongoing consultation also provides the federal agency the opportunity to identify and resolve issues, including potential adverse effects to historic properties, while there are still a broad range of alternatives available. This could result not only in the preservation of historic properties of importance to Indian tribes and NHOs but also in significant cost and time savings for federal agencies and project proponents.

The ACHP has produced extensive guidance regarding consultation with Indian tribes and NHOs:

Consultation with Indian tribes in the Section 106 process: A Handbook, available at <http://www.achp.gov/docs/consultation-indian-tribe-handbook.pdf>

Consultation with Native Hawaiian organizations in the Section 106 Review Process: A Handbook, available at <http://www.achp.gov/docs/consultation-indian-tribe-handbook.pdf>.

Other ACHP guidance regarding Indian tribes and Native Hawaiians is available at <http://www.achp.gov/nap.html>.

For more information about the Declaration and the ACHP's plan to support it, go to www.achp.gov/undeclaration. More information about the Section 106 review process can be found at www.achp.gov/work106.

November 22, 2013

Appendix E Mana'e GIS Mapping Project (May 2008)

MAY 2008



Prepared By:
Markline LLC

MANA‘E GIS MAPPING PROJECT

MAY 2008

Prepared For:
The County of Maui &
Mālama Pono o Ka ‘Āina

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**Individuals names to be added*

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1 Executive Summary

1.1 Purpose

The purpose of the Mana‘e GIS Mapping Project is to collect, present, and analyze data on cultural and natural resources in the Mana‘e region of the island of Molokai (the “East End”). This data has been gathered through a working partnership between the County of Maui Department of Planning and the Community of Mana‘e. It is intended to provide both entities with accurate information regarding the resources located there, historically and currently.

The primary products of this small-scale study are the GIS-based maps and associated data tables. These maps are meant to demonstrate the current and historic land use patterns in Mana‘e, with a focus on the wetlands and the wet lands (i.e., areas that are typically wet, but do not have the official designation of “wetlands”). These wet land areas are highlighted because they indicate a significant component of the traditional cultural and natural resource system – namely, the loko i‘a (fishponds) and lo‘i kalo (taro patches) – that is in dire need of protection. The terms “wetland” and “wet land” are discussed more in Chapter 3 (Data).

Overall, it is the hope of the Mana‘e community that this project will be “Phase I” of a longer process, and will be used as a pilot project. As such, this report demonstrates the process used to carry out natural and cultural resource mapping and analysis, presents the data collected, and then explains what more *could* be done with further funding. Specifically, this project utilizes GPS (Global Positioning System) and the documenting of local knowledge to locate some of the area’s important natural and cultural resources (see Methodology section). However, there are numerous other sites whose locations still need to be verified, including many of those shown in Molokai: A Site Survey by Catherine Summers (1971). Similarly, there is a tremendous amount of information that could be extracted and synthesized from oral histories and historic literature and maps, in order to better document historic land use patterns. Such continued work will hopefully be carried out as part of a subsequent phase of activity.

An additional goal of this project was to identify the major issues currently affecting Mana‘e and what options exist to protect the cultural and natural resources that are still largely intact and interconnected within the ahupua‘a system. The most obvious issue is residential development on and near these resources. This report presents the regulations that are currently in place that are intended to protect these resources, and suggests possible ways to address this situation. It also recommends follow-up work for implementation, including the adoption and inclusion of pertinent information in the Molokai Community Plan Update, which is scheduled to begin in mid-2008.

1.2 Location

The project area includes an estimated 32 ahupua'a located along the east end of the island of Molokai, which encompasses approximately 22,317 acres. The maps below show the location of Molokai within the major Hawaiian Islands (Figure 1), and the ahupua'a located within the project area boundaries (Figure 2).

FIGURE 1: Map of the Hawaiian Islands (with Mana'e highlighted)

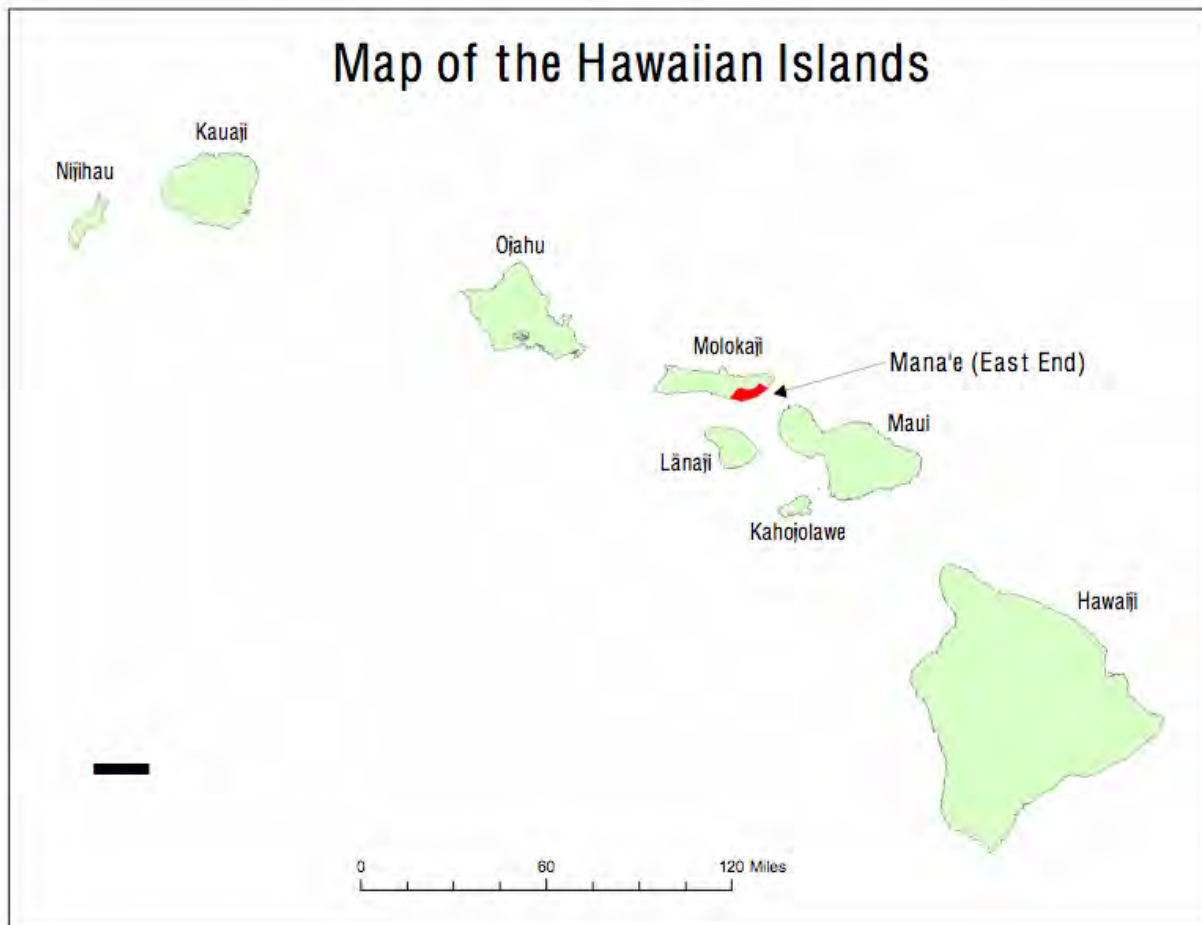
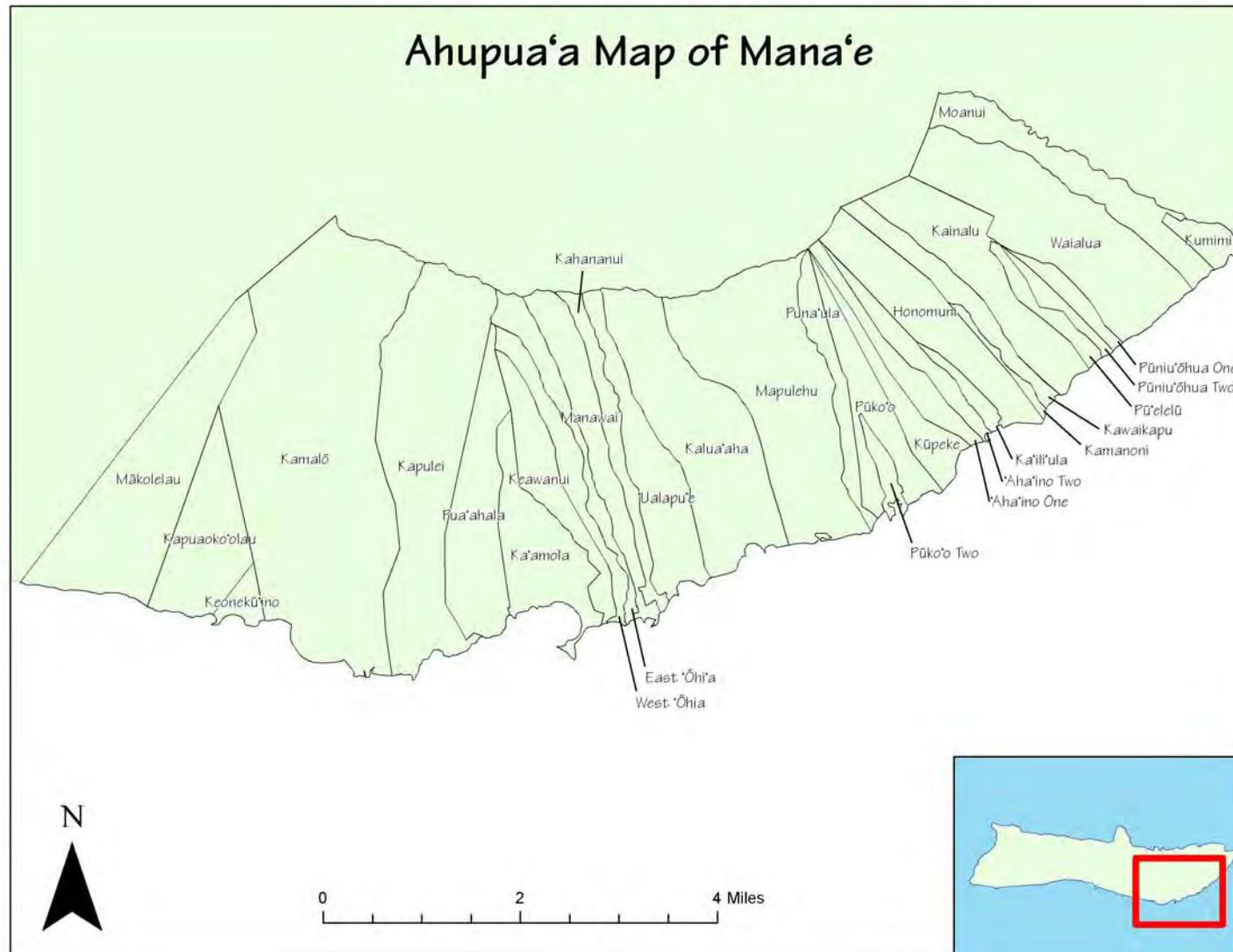


FIGURE 2: Ahupua'a Map of Mana'e (project area outlined)



1.3 Stakeholders

The information in this report is intended to be used as a planning resource. It is also hoped that this type of resource identification and mapping can be a model for other areas around the state with similar situations. Therefore, the stakeholders involved in this project are numerous. The list below demonstrates the wide range of those affected, both directly and indirectly.

- Mālama Pono o Ka 'Āina (MPOKA) – the group that initiated this project. MPOKA was formed in 2005 as a non-profit corporation made up of community members of East Molokai (Mana'e) who are dedicated to the protection and preservation of the lands, waters, and society of this area.
- The Mana'e Community – including long-time residents, their 'ohana, newly settled residents, as well as visitors to the area, who would like to see the area protected. Additionally, those interested in building in Mana'e can use this report to ensure they are complying with the regulations that exist, and to get a better understanding of the most appropriate locations to build and methods to use.
- Molokai Residents – who stand to benefit from having part of their island home and resources protected, especially subsistence and religious practitioners.
- Residents of Hawai'i, especially Native Hawaiians – who can use this project as a model and a precedent.
- The Mana'e ecosystems – including all of the cultural and natural resources located within the project area that are in need of protection.
- Government Agencies – who are responsible for the health, safety, and welfare of people and the natural and cultural resources of Mana'e, including agencies from the County and State (including but not limited to: the County of Maui Department of Planning, the State Department of Land and Natural Resources, the Coastal Zone Management Program, the Department of Health, and the Soil and Water Conservation District).
- Maui County Planning Department – has a particular stake in this project because the planners are the ones who must review applications for proposed development in Mana'e and determine if it should be allowed. This includes looking at the potential impact of the proposed development near the shoreline and on Native Hawaii access rights (including subsistence activities). The Planning Department is

also responsible for long range planning, which includes the Molokai Community Plan Update and implementation strategies.

- Others interested in using best management practices that will promote sustainability and utilize traditional stewardship strategies in land use, development, planning and construction.

1.4 Methodology

The methodology chosen for this project is based on other cultural data gathering methodologies that have been used successfully in the State of Hawai'i for studying traditional cultural landscapes (these plans and studies are listed in Appendix B). These studies all used a multi-method approach. Similarly, the methodologies utilized in this study included GPS fieldwork, kupuna and community interviews, and other research methods described below. This approach was chosen by the "planning team," which consisted of the planning consultant, Maui County planning staff (namely the planner based on Molokai, Nancy McPherson and the Cultural Resources Planner, Stan Solamillo), and MPOKA members.

- GPS Fieldwork – Garmin handheld GPS units were used to mark the positions of various sites that various MPOKA members identified as needing such documentation. The majority of the GPS points were taken by students from the University of Hawai'i's Department of Urban and Regional Plan (DURP) during their spring break service project in March of 2007. Approximately 12 students were broken into 3 teams (the number varied over the 3 days of mapping as students had varying availability to participate). Each team was led by a Mana'e community member with personal knowledge of the area.
- Kupuna and Community Member Interviews – Students were briefed on appropriate methods for collecting data from residents in a manner that is respectful of cultural traditions (the studies referenced above were used as guides). The oral interviews were conducted in a manner consistent with Federal and State laws and guidelines for historical documentation. The data was collected using standardized forms in order to facilitate input into the GIS database. The information and questionnaires given to the volunteers are included in Appendix C.
- Research – Various members of the planning team also looked into other sources of information that could be used to verify the historical use of the project area. Those sources include literature, photos, and maps of the area that document native traditions and historical accounts of the cultural and natural resources and their locations. A summary of this inventory is included in Chapter 3. This information should be utilized more fully in follow-up work.

- Analysis – The data collected during this project was analyzed by the planning team mentioned above. This analysis is intended to be as factual and objective as possible. The data itself is included so others may do their own analysis as so desired.
- Multi-method Approach – The various methods described above were intended to be utilized together in the following sequence: gather information from community members and kupuna, verify that data with GPS, and convert those GPS points to digital format and display graphically as maps. The last step of the data collection component of this study was to have the community validate these end products; all of which was followed by synthesizing and analyzing the information. Due to the small scale of this study, the focus was on setting up the process, so further research can be conducted and easily added.

1.5 Summary of Chapters

Chapter 2: Project Background, Description & Timeline

This chapter describes how this project came about and what it hopes to accomplish. In brief, several East Molokai residents contacted Maui County in 2004 with their concerns about the upsurge in residential development that was occurring along the coastal plain. They believed this activity was negatively impacting the area's natural and cultural resources, especially those related to historical wetlands – the loko i'a (fishponds), lo'i kalo (taro patches), and punawai (springs), as well as the coastline and surrounding reef.

After their initial contact with the County, these residents incorporated themselves as Mālama Pono o Ka 'Āina (MPOKA), and asked the County to help them to map the natural and cultural resources that were most in need of protection. In addition, they wanted to create maps that showed where building permits had been issued – in relation to these sensitive resources – in order to visually demonstrate the problem.

In response to these concerns, Maui County allocated \$10,000 in the FY 2006-2007 budget for the project. It was conceived as a community-based mapping project that would conduct a thorough assessment of cultural and natural resources in Mana'e, and would result in a traditional use study and overlay maps that show the location of these resources – historic and current – and highlight the areas most in need of protection.

The project began in March 2007 and was completed in May 2008. Overall, it is the hope of the Mana'e community that this project will be "Phase I" of a longer process, and will be used as a pilot project.

Chapter 3: Data

The maps created for this project are presented in this chapter, with a detailed description of how they were created and how they are intended to be used. They include the following:

- **Mana'e Wetlands Inventory** (Figures #3 and #4)
- **Natural and Cultural Resources** (Figures #5 and #6)
- **Wetlands, Natural and Cultural Resources on Aerial Imagery** (Figures #7 and #8).
- **Building Permits Issued in Mana'e** (Figures #9 and #10)
- **Historic Land Use Maps**
 - o **'Ualapu'e Historic Land Uses** (Figure #11)
 - o **Kalua'aha (Makai) Historic Land Uses** (Figure #12)
 - o **Kalua'aha (Mauka) Historic Land Uses** (Figure #13)
- **Mana'e Ahupua'a and Associated Lele in Wailau** (Figure #14)

In addition, this chapter summarizes the process for extracting information from other sources, such as oral histories, literature, historic maps, and photos, and linking it to the project database. It also presents the summary of what information has already been collected, and what pieces have been included as appendices.

Chapter 4: Analysis of Data & Implications for Planning

The intent of Chapter 4 is to analyze the data that was presented in Chapter 3 and discuss how it should be taken into consideration for future planning for Mana'e. The primary planning implications include:

- **Mana'e is rich in natural and cultural resources that are still largely intact and interconnected. This makes the area a unique cultural landscape that is an important resource to the residents of Mana'e, the island of Molokai, and the state of Hawai'i. Its importance should be recognized and the resources protected.**
- **Subsistence practices are vital to the residents of Molokai and their lifestyle. Thus, the main components of the traditional food system in Mana'e should be protected, including the wetlands (lo'i kalo and loka i'a), the coastline, and nearshore waters.**
- **Development in Mana'e, especially along the coast and in/near wetlands, needs to be carefully planned in order to protect the sensitive resources located there.**

- **Careful planning should take into consideration the rights of those who own land in the area. The goal is not to stop all growth or development, but to direct it to areas that can handle it best.**

Chapter 5: Existing Regulations & Possible Next Steps

This chapter looks at various ways to protect Mana'e's natural and cultural resources. Specifically, it lists the existing Federal, State, and County laws relevant to the development of wetlands (lo'i kalo and loka i'a) on Molokai. It also summarizes some of the permitting procedures that may be applicable, penalties that may be levied, or enforcement actions that a regulating authority may take, as well as various incentives available to encourage developers to preserve wetlands.

Overall, the information presented in this chapter (and related appendices) is intended to be a planning resource – a compilation of information. Many of the laws listed here can only be enforced through some sort of legal action, such as a civil action. MPOKA has made it very clear that this is NOT their intent. Instead, they are hoping to find ways to work with all stakeholders involved, and to create win-win situations through the use of incentives and other creative strategies. Some of these strategies are discussed here.

2 Project Background, Description, and Timeline

2.1 Project Background

The Maui County Planning Department was contacted by East Molokai residents in 2004 (before they had officially incorporated themselves as Mālama Pono o Ka 'Āina). After many months of input and discussion, a budget request was submitted, and the Maui County Council allocated \$10,000 in the FY 2006-2007 budget for the project. The project was conceived as a community-based mapping project that would conduct a thorough assessment of cultural and natural resources in Mana'e, resulting in a traditional use study and overlay maps that show the location of these resources – historic and current – and highlight the areas that are most in need of protection.

This action was in response to what residents perceived as an upsurge in residential development from 1995 onward that was occurring along the coastal plain. These activities were believed to negatively impact the area's natural and cultural resources, especially those related to historical wetlands (the loko i'a, lo'i kalo, and punawai), as well as the coastline and surrounding reef. Grading for new development as well as alterations to streambeds may have affected the watersheds and drainage flows of intermittent streams in Kamalō, 'Ohi'a, Kalua'aha, Pūko'o, Kainalu, and Honomuni ahupua'a. Floods that were never reported in the oral tradition, or in living memory of lifelong residents, have occurred in West 'Ohi'a and Puko'o, and are now reported by residents to be on the increase. The last such flooding event occurred in November of 2006 and flooded local residents' yards and the parking lot of the Wavecrest Condominium with mud and debris to a depth of at least a foot.

The cultural and natural resources present in this part of the island are now considered under specific threat from both direct and indirect effects of development. Grading, grubbing and fill deposition, often without the securing of permits, has occurred and continues to occur on lots adjacent to these resources as well as on contiguous wetlands and marshes. The areas currently subjected to this type of activity include Pūko'o, Manawai, 'Ohi'a and 'Ualapu'e, but development is occurring all along the southern coastline. Changes to drainage patterns and hydrology, including upland grubbing and grading and road creation without the use of Best Management Practices (BMP's), removal of material from dry streambeds, and the filling in of natural springs and wet land areas are also continuing problems affecting the land and nearby ocean.

For these reasons, MPOKA wanted to map the location of the historic and current wetlands (including the loko i'a, lo'i kalo, and punawai), as well as the heiau (shrines/temples), pāpōhaku (stone walls), ko'a (fishing shrines), and other known cultural sites that are in need of protection. In addition, they wanted to create maps that show

where building permits have been issued – many of which include parcels that contain wetlands, or in some cases, are completely within areas that were historically wetlands, in order to clearly show the problem. One recognized limitation is that numerous landowners have built or altered the wetlands or shoreline without permits, so the maps only show a partial picture. (Note: there are photos that help to demonstrate this problem, but they have not been included in this report since the intent is not to blame individual landowners.)

In addition to mapping these important resources, MPOKA wanted to research possible next steps for protecting them. Thus, this report includes a chapter on existing regulations and proposed strategies for implementing protection measures (Chapter 5).

2.2 Project Description and Timeline

This mapping project officially began in March 2007 and was completed in May 2008. Prior to the official start in March '07, there had been several years of discussions between the Mana'e Community and Maui County in an attempt to get money allocated for such work to happen. In the months immediately prior to the project initiation, there was a considerable amount of planning and coordinating to get the schedule secured. The bulk of this was done by the Maui County Planner on Molokai, Nancy McPherson, and members of MPOKA.

It should be emphasized that this project should be viewed as a “pilot,” and the beginning of more work to follow. With a relatively small budget, it provides a demonstration and explanation of what could be done with more funds. It also establishes the methodology to be used, and ways in which the data collected could be put into action to protect this environmentally and culturally sensitive area.

The following is a brief overview of the main components of work completed for this project (Phase I):

- Mapping and Kupuna Interviews – The bulk of the GPS mapping took place between March 22nd and 25th, 2007, during the UH DURP Spring Break Service Project. Several kupuna interviews were also conducted during this time as well, with a focus on the historical land use of Mana'e.
- Data Processing – DURP students then took the GPS points collected during their trip and created GIS layers that showed the location of those points. They also created excel tables that described each of the points collected. The kupuna interviews were transferred to CD format, which are included with the information submitted to the County. The intention was to transcribe all of these interviews, and then to extract the appropriate information and enter it into data tables

connected to the GIS layers. However, it was found that the GIS work was taking more time than anticipated, and as the goal of the project was to generate maps for planning purposes, it was felt that this work needed to take priority. The audio files have all been saved to CD and can be transcribed in the future as part of a continuation of this project.

- Meetings – Numerous meetings took place during the 14 months of the project. MPOKA continued to hold its monthly meetings, which the project consultant and various members of the Maui County planning staff attended when they were available. In addition, the consultant met with MPOKA members and Maui County staff throughout the project. Several community meetings were held as part of the Spring Break Service Project, the most notable being the Kupuna Luncheon and Participatory Mapping Exercise held at the end of the Service Project in March 2007.
- Extension – The original due date for the Report was December 2007. However, due to scheduling conflicts, the Consultant decided to request an extension to the due date. In September, the Consultant and Maui County Planner McPherson met with the County Planning Department to give a project update and to ask for an extension. The Planning Department agreed to this extension, especially since the Molokai Community Plan Update process had also been pushed back. This meant that there was time to complete this project by May 1, 2008, and get the information produced into that Update, scheduled to begin in summer 2008.
- Report and Maps
 - o Preliminary Draft Report and Maps to MPOKA – March 13, 2008
 - o Draft Report and Finalized Maps to MPOKA – April 10, 2008
 - o Departmental Draft to Maui County – May 1, 2008

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3 Data

3.1 Maps

The following maps were created in GIS (Geographic Information System). The first 4 maps are presented in 2 separate maps, each printed at 11 inches wide by 17 inches long (11" x 17"), in order to make the data easier to see and read. For each of these sets of maps, the first map shows the data from the western boundary of the project area (the ahupua'a of Mākolēlau) east to the ahupua'a of Kalua'aha. The second map of each set continues east from Kalua'aha to the other end of the project area – the ahupua'a of Kumimi. A list of the maps is presented below. A more detailed description is presented in the pages prior to each map, or set of maps, including the metadata.

- **Mana'e Wetlands Inventory** (Figures #3 and #4)
- **Natural and Cultural Resources** (Figures #5 and #6)
- **Wetlands, Natural and Cultural Resources on Aerial Imagery** (Figures #7 and #8).
- **Building Permits Issued in Mana'e** (Figures #9 and #10)
- **Sample of Historical Land Uses (LCA)**
 - o **'Ualapu'e Historic Land Uses** (Figure #11)
 - o **Kalua'aha (Makai) Historic Land Uses** (Figure #12)
 - o **Kalua'aha (Mauka) Historic Land Uses** (Figure #13)
- **Mana'e Ahupua'a and Associated Lele in Wailau** (Figure #14)

Figures #3 and #4 – Mana’e Wetlands Inventory

Description – These maps show the wetlands in Mana’e as designated by the U.S. Fish and Wildlife Service (“National Wetland Inventory Data”) and the National Cooperative Soil Survey (“Soil Survey Data”).

Because “wetlands” are such a significant issue for this project, the term is defined and discussed in more detail here. Most definitions of wetlands contain 3 basic elements: hydrology, soils, and vegetation. One standardized definition is used by the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and the Hawai’i State Department of Health:

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.”

This description is taken from the Hawai’i Wetland Field Guide, by Erickson and Puttock (2006). The authors also present several other definitions, but it is this one that the Corps of Engineers uses for official delineation of wetlands for regulation by the Clean Water Act.

Another definition presented in the Hawai’i Wetland Field Guide is that used by the U.S. Fish and Wildlife Service (USFWS), which is one of the main sources for this project’s wetlands maps:

“Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.”

This definition includes unvegetated wet areas (e.g., beaches, mudflats, gravel streambeds, shallow ponds) that are not considered wetlands under other definitions.

Members of MPOKA identified 3 *uses* of Mana’e’s “wetlands” that they consider important: (1) for historical food production (loko i’a and lo’i kalo), (2) as habitats for native species, and (3) as a sediment filter for mauka erosion. In Mana’e, as in many places in Hawai’i, the total area that would be considered wetlands by both of these definitions is currently less than what it was historically. This is so for a number of reasons, including the filling in of such wetlands for development.

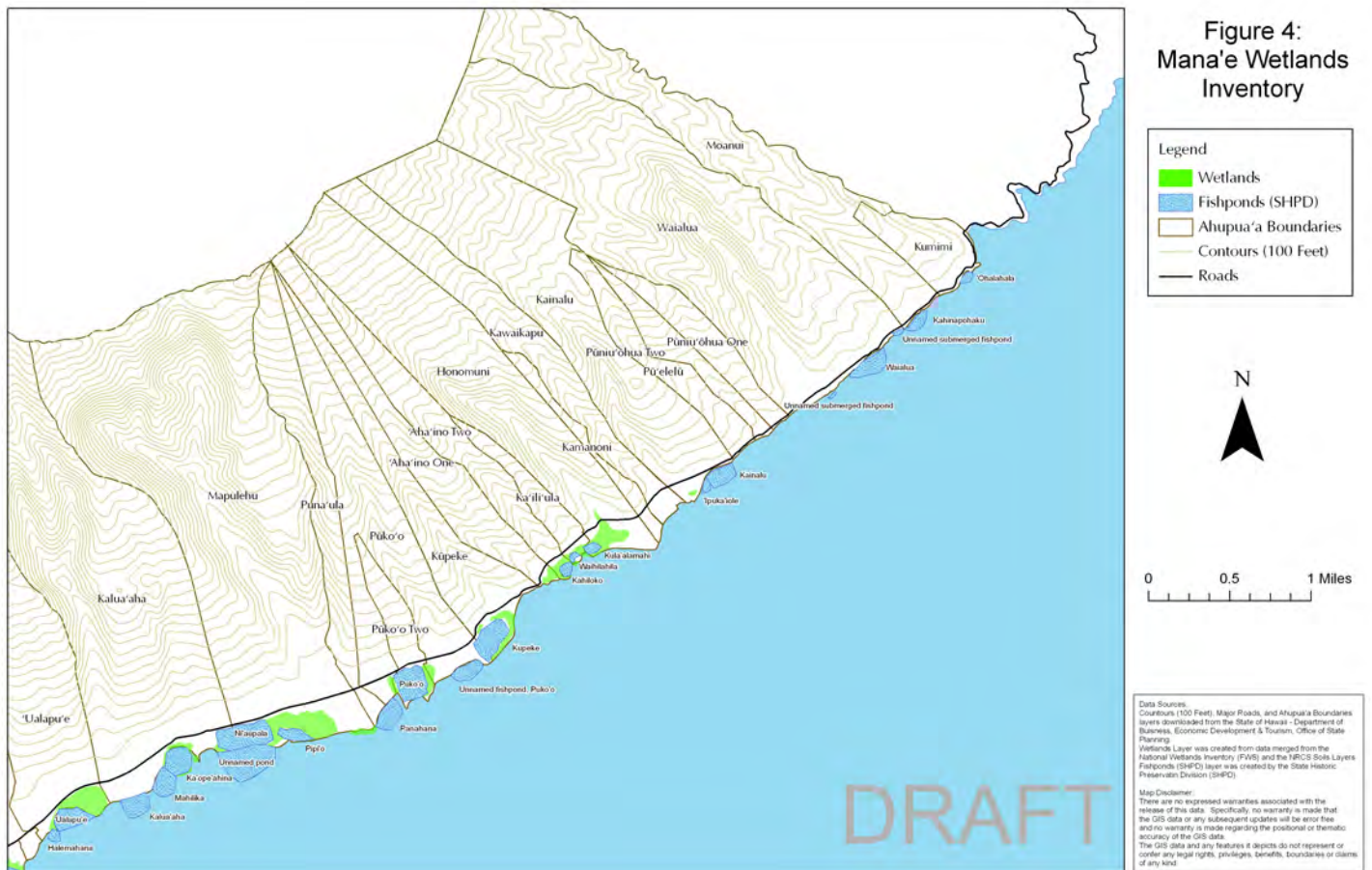
Metadata

- The Wetlands Data Layer was created by merging data from the National Wetland Inventory data (Fish and Wildlife Service), and the Soil Survey data (National Cooperative Soil Survey).
- All other layers used in the maps were downloaded from the Hawai'i Statewide GIS program (Department of Business, Economic Development and Tourism, State of Hawai'i). These layers include the Ocean Polygons, 100 Foot Contours, DAR Streams, Ahupua'a Boundaries, Maui Major Road Names, Special Management Area, and TMK parcel layer.

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**Figure 4:
Mana'e Wetlands
Inventory**



Figures #5 and #6 - Natural and Cultural Resources

Description - These maps show the GPS points taken by the DURP students and those available from SHPD (State Historic Preservation District) of various natural and cultural resources in Mana'e. This is not meant to be a comprehensive demonstration of all the natural and cultural resources within Mana'e, since there are numerous more sites to be mapped. It is, however, meant to show that the area is rich in such resources – one of the most intact cultural landscapes in the state.

Metadata

- The DURP GPS Points Layer was created by taking GPS points with Garmin handheld GPS units during the March 2007 Spring Break Field Study. (The associated data table is included in Appendix D.)
- The SHPD Points, Polygons, Fishponds, and Lines Layers were created by the State Historic Preservation Division from 1984 to 2004. The points were created by GPS units and also by the process of geo-referencing maps that were submitted to SHPD as part of archeological reports. (The associated data table is included in the data CDs submitted to the County.)
- All other layers used in the maps were downloaded from the Hawaii Statewide GIS program (Department of Business, Economic Development and Tourism, State of Hawai'i). These layers include the Ocean Polygons, 100 Foot Contours, DAR Streams, Ahupua'a Boundaries, Maui Major Road Names, Special Management Area, and TMK parcel layer.

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Figures #7 and #8: Wetlands, Natural and Cultural Resources on Aerial Imagery

Description - These maps are a compilation of the wetlands layer and the natural and cultural resources as mapped by the DURP students and recorded by SHPD. They are mapped on aerial imagery.

Metadata

- The DURP GPS Points Layer was created by taking GPS points with Garmin handheld GPS units during the March 2007 Spring Break Field Study. (The associated data table is included in Appendix D.)
- The SHPD Points, Polygons, Fishponds, and Lines Layers were created by the State Historic Preservation Division from 1984 to 2004. The points were created by GPS units and also by the process of geo-referencing maps that were submitted to SHPD as part of archeological reports. (The associated data table is included in the data CDs submitted to the County.)
- The aerial imagery was downloaded from the School of Ocean & Earth Science & Technology (SOEST) University of Hawai'i at Mānoa.
- All other layers used in the maps were downloaded from the Hawaii Statewide GIS program (Department of Business, Economic Development and Tourism, State of Hawai'i). These layers include the Ocean Polygons, 100 Foot Contours, DAR Streams, Ahupua'a Boundaries, Maui Major Road Names, Special Management Area, and TMK parcel layer.

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Figures #9 and #10 – Building Permits Issued in Mana’e

Description – These maps are intended to show where development has already occurred along the coast of Mana’e. There are instances of people building without permits, which obviously are not shown on this map.

Metadata

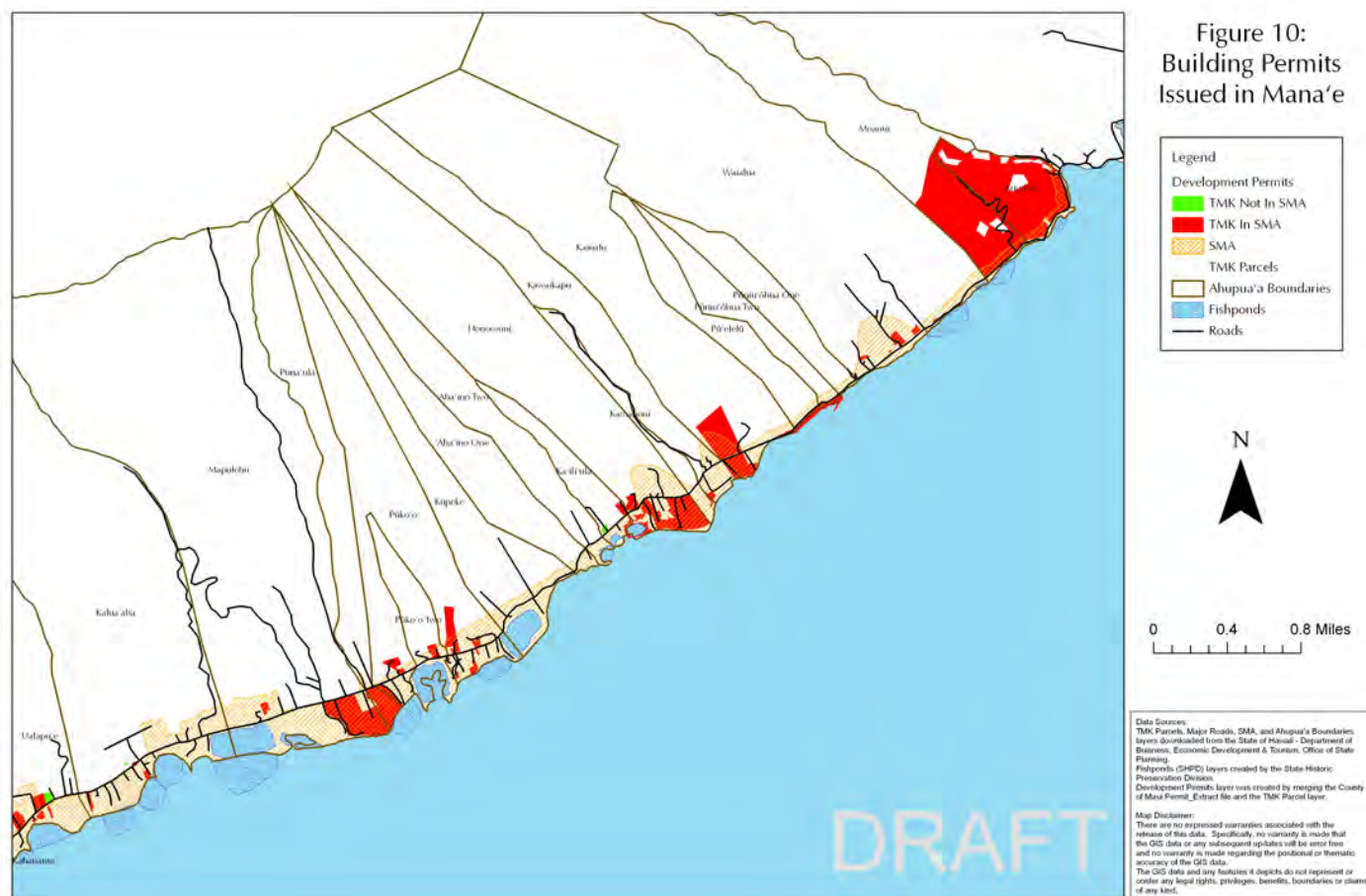
- The Building Permits Layer was created by downloading a database file from the Maui County website and joining the data with a Molokai parcel layer. This layer depicts all the development permits issued by the County of Maui based upon the Tax Map Key parcel. (The associated data table is included in the data CDs submitted to the County.)
- All other layers used in the maps were downloaded from the Hawai’i Statewide GIS program (Department of Business, Economic Development and Tourism, State of Hawai’i). These layers include the Ocean Polygons, 100 Foot Contours, DAR Streams, Ahupua’a Boundaries, Maui Major Road Names, Special Management Area, and TMK parcel layer.

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Figure 9:
Building Permits
Issued in Mana'e



Figure 10:
Building Permits
Issued in Mana'e



Figures #11, #12, and #13: Historic Land Use Maps for ‘Ualapu’e and Kalua’aha (Makai and Mauka)

Description – These maps were created in order to show the historical land uses of Mana’e within the ahupua’a of ‘Ualapu’e and Kalua’aha. They were created by using the current Tax Map Key maps and historic maps. The maps were geo-referenced and the features on those maps were extracted to depict the former land awards that were granted during the Mahele and subsequent years after until the early 1900s. Because it takes a significant amount of time to research and label each historic land use, only two ahupua’a were mapped. However, it should be used as a pilot, or sample of what could be done for each ahupua’a of Mana’e with additional funding.

Metadata

- The Land Awards Layer was created by Jason Jeremiah using the current Tax Map Key maps and historic maps. The maps were geo-referenced and the features on those maps were extracted to depict the former land awards that were granted during the Mahele and subsequent years after until the early 1900s. The types of awards that are contained within the land awards layer are Land Commission Awards (LCAs), Land Grants (Grants), Koele, and Mahele Awards.

Figures #14: Mana’e Ahupua’a and Associate Lele in Wailau

Description – This map was created to show that several of the ahupua’a in Mana’e traditionally included a detached lot of land on the other side of the island. Inhabitants of the ahupua’a had gathering rights in the associated lele. This map includes the lele identified in Sites of Molokai (Summers, 1971), but other lele may exist.

Metadata

- The Lele Layer was created by Jason Jeremiah using a map in Sites of Molokai (Summers, 1971). The map was geo-referenced and the features on the map were extracted to depict the location of the lele.
- All other layers used in the maps were downloaded from the Hawai’i Statewide GIS program (Department of Business, Economic Development and Tourism, State of Hawai’i). These layers include the Ocean Polygons and the Ahupua’a Boundaries.

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Figure 11:
'Ualapu'e Historic
Land Uses



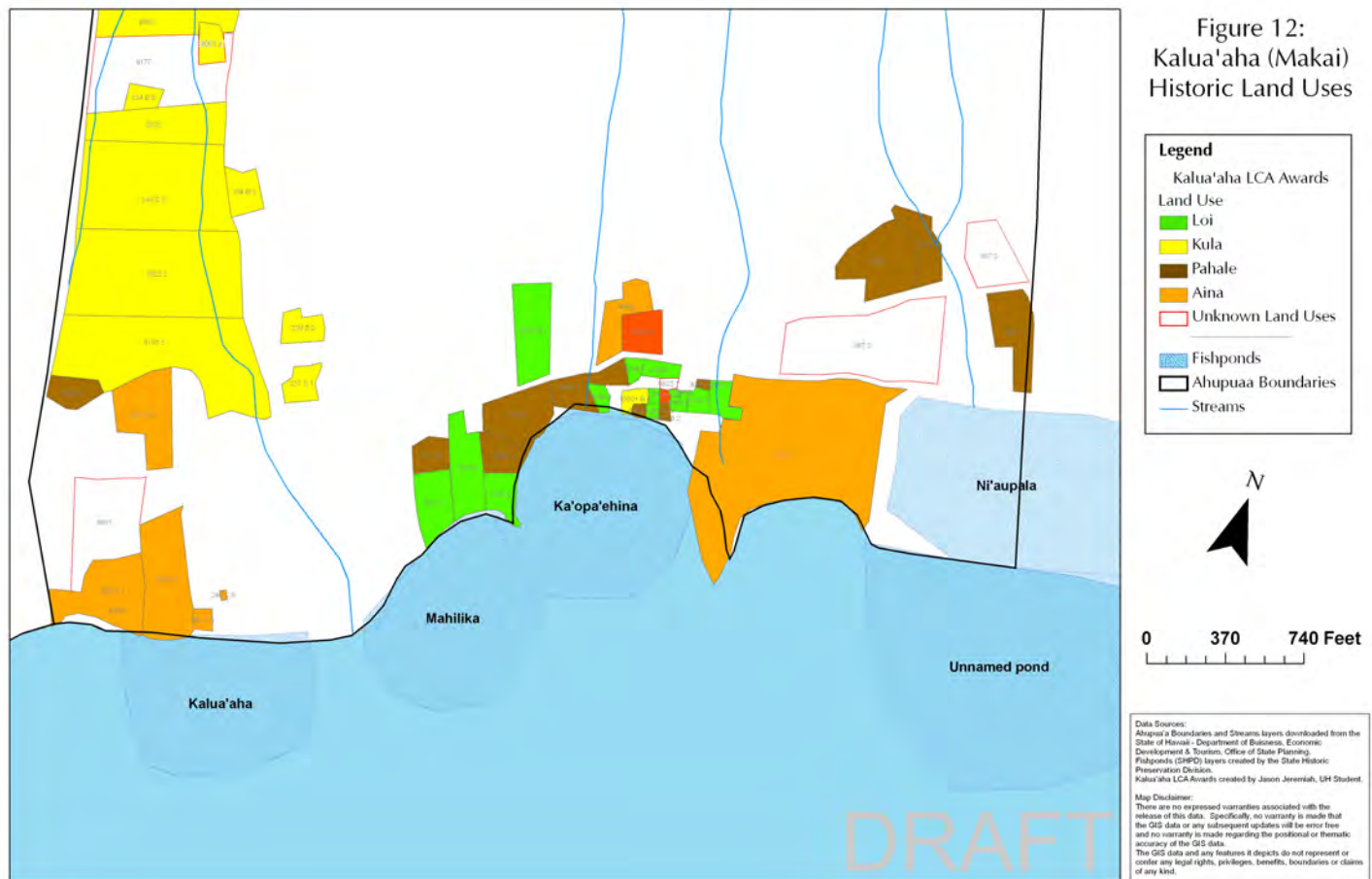
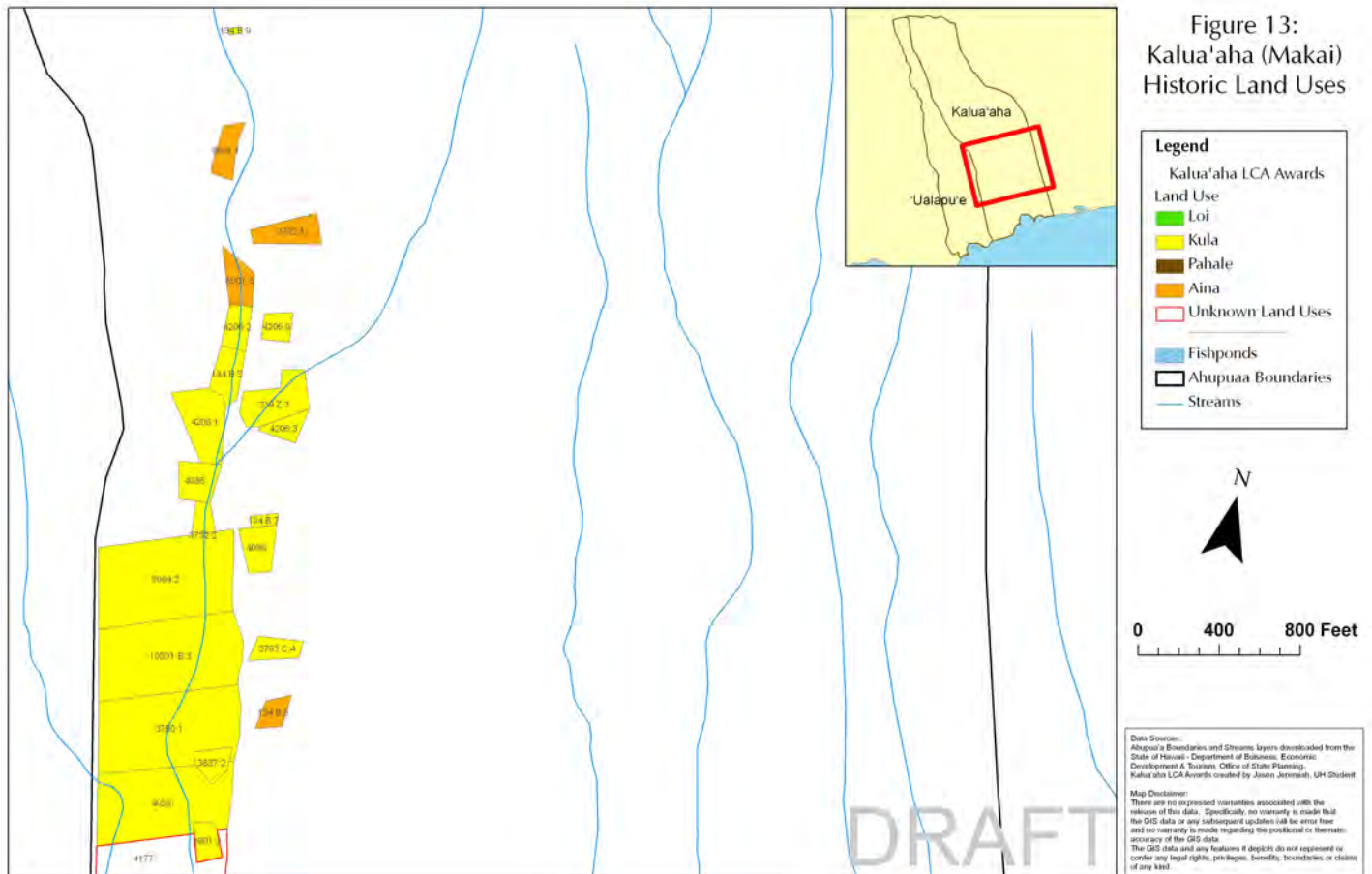


Figure 13:
Kalua'aha (Makai)
Historic Land Uses



3.2 Oral History

The original scope of this project included doing a significant amount of oral history work. However, as the project progressed, it became apparent that the scope included much more work than was feasible. Thus, it was decided that the focus should be on the creation of the maps and setting up the process for future phases of work. Below is a summary of the limited oral history work that was done, along with an overview of what could be done in future project phases.

The intent of doing oral histories for this project was to interview kupuna and community members who know Mana'e well, and to "talk story" with them about the traditional land use patterns of the area and related topics. Some of the primary objectives include: site identification and location, resource identification, documentation of beliefs and practices, assessment of impacts of development on resources, and formulation of culturally appropriate recommendations for mitigation and protection. Then, as in related cultural land use studies (such as those listed in Appendix B), the appropriate information should be extracted and linked to the various ahupua'a and place names within Mana'e. All of this data should be collected in a standardized manner, using forms, in order to facilitate input into the GIS database.

During the DURP Spring Break trip, several interviews were conducted and recorded. The information and questionnaire forms that were given to the students who helped to conduct those interviews are included in Appendix E. The audio files have been copied to CDs and submitted to the County with this report. One of those interviews was transcribed as a sample and is included in Appendix F. This interview lasted 28 minutes and took approximately 2 hours to transcribe. The next step would be to analyze this transcription and extract any information that is pertinent to Mana'e's traditional land use patterns and/or resources. Then that information would get entered into a database that is linked to the GIS database created for this project.

The ultimate goal is to produce a database that allows people to pick a site, find its location on the map, then have access to all known related information, such as the place name, the ahupua'a it is located in, any historical significance, and photos (if appropriate). It should be noted that before any further work is done in this manner, the kupuna of the area should be consulted, since collecting and sharing information may not be appropriate for culturally sensitive sites.

The GIS database that has been created for this project currently contains the GPS location of some sites, and a brief description of what the site is or was. More information can be linked to this database in future project phases.

3.3 Other Information Sources

In addition to oral histories, other information sources that can be used to collect and extract data include literature, maps, and photos – current and historic (for maps and photos, it is often meaningful to use both current and historic to compare). Similar to the oral histories, information gathered from these other sources can be extracted and input into the project database, and then linked to particular sites. This is another goal of future project phases. The inventory of such sources is summarized here.

Literature

There are a significant number of literature resources that could be useful for this project – both directly (those with specific information regarding Mana’e) and indirectly (such as past studies). During this project numerous such resources were identified, and some have been located and digitized for future use, but not all. Appendix C includes the project’s current list of references, many of which could be used to extract relative information to enter into the project database.

Photos

Both historic and current photos can be useful for this type of study. Old photos need to be located and digitized. Some current photos have been included with this report to the County, but are not being distributed to the public, since the intent is not to blame individual landowners.

Maps

So far, three historical maps have been located. They are included in the CDs given to the County, who can then decide how best to use and/or distribute. Those maps are dated 1893, 1896, and 1897.

Other

In addition to the sources mentioned above, there is also information available that could be used to create a complete historic land use map of Mana’e. A sample of this was shown previously (Figures #11-13). The sources of data that were used to create those sample maps, and that could be used to create a complete historic land use map for Mana’e, include the following:

- The **Māhele Award Books** include the māhele award granted to the claimant for their claims to land. Upon approval by the Land Commission, a māhele award would be granted to the claimant upon payment of the commutation fee to King via the Privy Council.
- The **Native Register** includes all records for the registration of all land claims by aboriginal Hawaiians. Originally in Hawaiian; also translated in English.

- The **Foreign Register** includes all records for the registration of all land claims by foreigners in the Kingdom of Hawai'i.
- **Native Testimonies** are testimonies to land claims. The term "native" refers to a testimony to someone who is native to the area and can verify the claimants claim for land.
- The **Foreign Testimonies** are testimonies to land claims. The term "foreign" refers to a testimony to someone who is foreign to the area and is verifying that the claim by the claimant is true.
- A **Royal Patent** upon confirmation of a Land Commission Award (LCA) signaled that you had paid your commutation fee to the government. The commutation fee was generally 1/3 unimproved value of the land. A royal patent provided you with the meets and bounds of the land and provided you with legal title.

Additional information on this topic is included the data CDs submitted to the County with this report.

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4 Analysis of Data and Implications for Planning

The previous chapter presented the data collected for this report. This chapter analyzes what that data means and what its implications are for the planning area.

4.1 Cultural Landscape

The maps that show cultural and natural resources mapped by the UH students and by SHPD (Figures #5, 6, 7, and 8) demonstrate the numerous important sites and resources located throughout Mana'e. These sites include historical/archaeological sites, such as heiau, ko'a, and pāpōhaku. In addition, there are a multitude of sites that are not yet mapped. This explains why Mana'e is one of the most intact cultural landscapes in the state.

The planning implication is that Mana'e is rich in natural and cultural resources that are still largely intact and interconnected. This makes the area a unique cultural landscape that is an important resource to the residents of Mana'e, the island of Molokai, and the state of Hawai'i. Its importance should be recognized and the resources protected.

4.2 Subsistence

The sites mapped in the figures mentioned above (#5 – 8) also include natural resources sites, such as punawai, loka i'a, and lo'i kalo, many of which have important subsistence uses. The entire area of Mana'e was traditionally a food producing system – the streams and punawai fed the kalo lo'i, which emptied into the loka i'a. In addition, the coastline and nearshore waters were important sources of food, including various types of seafood and limu. While some of these uses continue today, many components of this system have been altered, which significantly impacts those residents who wish to continue such subsistence practices, especially Native Hawaiians.

A study conducted on Molokai in 1994 found subsistence to be a very important part of many residents' food source (Matsuoka, et. al., 1994). The following facts were taken from that study:

- Among the random sample group surveyed across the entire island, 28% of their food was acquired through subsistence activities.
- Among the Hawaiian families surveyed, 38% of their food was acquired through subsistence activities.
- Among the respondents, 76% ranked subsistence as very important and somewhat important to their own families.

- Virtually every respondent believed that subsistence was important to the lifestyle of Molokai

The planning implication is that subsistence practices are vital to the residents of Molokai and their lifestyle. Thus, the main components of the traditional food system in Mana'e should be protected, including the wetlands (lo'i kalo and loka i'a), the coastline, and nearshore waters.

4.3 Development along the Coast and in/near Wetlands

As discussed previously, development has had a significant impact upon the natural and cultural resources within Mana'e. One area that has been hit the hardest is the coastal area. The main reasons for this are that the coastline is an environmentally sensitive area AND it is the place that has experienced the most development pressure.

The planning implication is that Development in Mana'e, especially along the coast and in/near wetlands, needs to be carefully planned in order to protect the sensitive resources located there.

4.4 Landowners

This project also needs to take Mana'e landowners' perspectives into consideration. So while the previous three sections discussed the need for protecting the natural and cultural resources located in Mana'e, it is important to also consider the potential impacts that protecting such resources could have on all stakeholders involved, including land value and restrictions on building.

Careful planning of Mana'e needs to take into consideration the rights of those who own land in the area. The goal is not to stop all growth or development, but to direct it to areas that can handle it best.

5 Existing Regulations & Possible Next Steps

While the focus of this small-scale project was to map the cultural and natural resources located in Mana'e, it was meant to be a step towards the larger goal of protecting these resources. Thus, this chapter looks at the existing Federal, State, and County laws relevant to the development of wetlands (such as kalo lo'i and loka i'a) on Molokai. It also summarizes some of the permitting procedures that may be applicable, penalties that may be levied, or enforcement actions that a regulating authority may take, as well as various incentives available to encourage developers to preserve wetlands.

Overall, the information presented in this chapter (and related appendices) is intended to be a planning resource – a compilation of information. Many of the laws listed here can only be enforced through some sort of legal action, such as a civil action. MPOKA has made it very clear that this is NOT their intent. Instead, they are hoping to find ways to work with all stakeholders involved, and to create win-win situations through the use of incentives and other creative strategies.

The first three sections below list the most relevant Federal, State, and County laws. The fourth section presents incentives and some other creative strategies. The final section discusses possible next steps. The details that explain these laws and incentives are included in Appendix G.

5.1 Federal

The Federal water quality and wetlands requirements that are most relevant to Mana'e include the following:

A. Clean Water Act

1. Department of Health 401 Water Quality Certificate
2. Dredge and Fill/Wetlands (Section 404)
3. Clean Water Act, Section 402, National Pollutant Discharge Elimination System ("NPDES") Permit
4. Section 403 – Ocean Discharge Criteria

B. Coastal Zone Management Act ("CZMA")

C. National Environmental Policy Act ("NEPA")

5.2 State

This section lists the State laws that impact wetlands in Hawai'i. Some of these laws require analysis, but do not mandate specific actions.

- A. Conservation District
- B. Hawaii Environmental Policy Act (“HEPA”)
- C. Historic Preservation Review
- D. State Water Code
- E. Traditional & Customary Native Hawaiian Rights
- F. Community Based Subsistence Fishing Areas

5.3 County

Because Molokai is within Maui County, any development of lo‘i or loka i‘a falls under the jurisdiction of Maui County’s Department of Planning and/or the Molokai Planning Commission. The most relevant requirements include the following:

- A. Shoreline Setback Rules
- B. Grading and Grubbing Permits
- C. Special Management Area Permit

5.4 Incentives and Other Strategies

As mentioned above, the primary goal of MPOKA members is to work with all stakeholders involved, and create win-win situations through the use of incentives and other creative strategies. Below is a list of some possibilities, and others are included in Appendix G:

Federal

- A. **The Wetlands Reserve Program (“WRP”)** – voluntary program that helps landowners restore and protect wetlands.
- B. **Federal Emergency Wetland Act of 1986** – promotes conservation of wetlands through State and Federal cooperation.

State

- C. **Legislative Action** – such as the introduction of a resolution and/or a type of protective zoning, such as a “Cultural Overlay District.” (A draft resolution has been prepared, and can be viewed for those interested.)
- D. **Land Swapping** – the basic idea behind land swapping is to have the State purchase sensitive coastal areas and “swap” their mauka land that is less sensitive with coastal landowners. This would call for the assistance of the Department of Land and Natural Resources, among others.

County

- E. **Tax Breaks** – could be offered to landowners who preserve or restore wetlands

- F. Permitting Fees Waived** – for people who come to the County for advice/help on appropriate building locations and methods.

5.5 Funding & Follow-up

In conclusion, there is much more work to be done on this project. It is recommended that further funding be sought to continue the mapping and research that has already begun, and to follow-up on the implementation strategies briefly outlined in this report.

Some of the priority actions to seek funding for include:

- Mapping of other cultural and natural resources
- A wetlands inventory
- Oral histories (transcribing and extracting information)
- Research of literature and historic maps and photos
- Continued development of database (extract information from sources listed above)
- Creation of a historic land use map for all of Mana'e
- Implementation of strategies mentioned above

Numerous funding sources exist. Some feasible sources include:

- Maui County
- The Open Space Fund
- U.S. Army Corps of Engineers
- The Office of Hawaiian Affairs
- Preserve America – Federal program that gives grants to Preserve America Communities (Maui County received this designation in October 2007)

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6 Appendices

Appendix A – Glossary and Acronyms

Glossary of Hawaiian Terms

- Ahupua'a – traditional Hawaiian land division that extended from the top of the mountain to the fishing and gathering waters of the sea, containing all of the resources needed for human survival. These divisions of land also provided the principal physical and social structure for traditional society.
- Heiau – shrines/temples
- Ko'a – fishing shrines
- Kuleana – a small area of land awarded in fee by the Hawaiian government during the Mahele.
- Land Commission Award – a land claim awarded by the Land Commission; these awards also became known as kuleanas.
- Lele – a detached part or lot of land belonging to one 'ili, but located in another.
- Lo'i kalo – taro patches
- Loko i'a – fishponds
- Mālama 'Āina –
- Pāpōhaku – stone walls
- Punawai – springs

List of Acronyms

- COE – U.S. Army Corps of Engineers
- MPOKA – Mālama Pono o Ka 'Āina
- SHPD – State Historic Preservation District
- UH DURP – University of Hawai'i Department of Urban & Regional Planning
- USFWS – U.S. Fish and Wildlife Service

Appendix B – Reference Studies

The follow Studies have successfully used cultural data gathering methodologies for studying traditional Hawaiian landscapes, and were used as a model for this report:

CANDO (Minerbi, McGregor & Matsuoka) in the *Native Hawaiian Ethnography Study for the Hawaii Geothermal Project Proposed for Puna & Southeast Maui* (1996) and the *Hawaii Externalities Workbook* (1997).

County of Maui Department of Planning (Davianna McGregor, Ph.D. et al., 1995), *Kalu Kanu o ka 'Āina*, Cultural Landscape Study.

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Appendix C – Additional References

The majority of the following references have been located. Additional resources are included on the data CDs submitted to the County.

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Appendix D – DURP GPS Points Data Table

DURP GPS Points			
Point	Site Name	Site Type	Ahupuaa
1	Spring at Cowboys loi	Spring	Kaamola
2	Spring at Cowboys loi	Spring	Kaamola
3	Kukui Heiau	Heiau	Ohi'a
4	Historic Church	Church	Manowai
5	Spring/punawai	Spring	Manawai
6	Kahokukano Heiau	Heiau	Kahananui/Manawai
7	Cemetery Above Kilohana	Cemetery	Kahananui
8	Old water tank	Historic Property	Ualapue
9	Old pig pen	Historic Property	Ualapue
10	Historic Church behind	Church	Ualapue
11	Possible grave site	Wall	Ualapule
12	Kilohana School	School	Ualapue
13	Heiau at Auntie Tooichi	Heiau	Kahananui
14	Akutagawa	Wall	Ualapue
15	Auntie Kitty's Heiau	Heiau	Ualapue
16	Ualapue (Pukoo) Post	Historic Building	Ualapue
17	Entrance to Fishpond	Fishpond	Ualapue
18	Ki'o pua	Fishpond	Ualapue
19	Ki'o pua	Fishpond	Ualapue
20	Ki'o pua	Fishpond	Ualapue
21	Ki'o pua	Fishpond	Ualapue
22	Ki'o pua	Fishpond	Ualapue
23	Ki'o pua	Fishpond	Ualapue
24	Ualapue Fishpond	Fishpond	Ualapue
25	Spring feeding lo'i	Spring	Ualapue
26	Wetland near fishpond	Spring	Ualapue
27	Wetlands	Spring	Ualapue
28	Wetlands	Spring	Ualapue
29	Spring	Spring	Ualapue
30	Kuleana or cattle walls	Wall	Ualapue
31	Cattle wall	Wall	Kaluaaha
32	Hale Kauila	Heiau	Kaluaaha
33	Spring at Ka'opeahina Pond	Spring	Kalua'aha
34	Kalima yard spring	Spring	Kalua'aha
35	Spring at Ka'opeahina Pond	Spring	Kalua'aha
36	Spring at Ka'opeahina Pond	Spring	Kalua'aha
37	Spring at Ka'opeahina Pond	Spring	Kalua'aha
38	Old lo'i across Kaluaa	Loi	Kaluaaha
39	Old lo'i across Kaluaa	Loi	Kaluaaha
40	Wet lands/former spring	Church	Kaluaaha
41	Old School, Rockwall, Windmill	Rockwall	Kalua'aha
42	Kalua'aha Church	Church	Kaluaaha

Point	Site Name	Site Type	Ahupuaa
43	Our Lady of Seven Sorrows	Church	Kaluaaha
45	Historic wall	Wall	Kaluaaha
46	Lee's property	Wall	Mapulehu
47	Lee Mott wall	Heiau	Mapulehu
48	Ililiopae Heiau	Heiau	Mapulehu
49	Public Access way	Traditional Access	Pukoo
50	Accessway beach	Traditional Access	Pukoo
51	Accessway at road	Traditional Access	Pukoo
52	Northwest corner of Street	Historic buil	Pukoo
53	Watercress Patch	Spring	Puko'o
54	Fishpond filled in	Fishpond	Pukoo
55	Beach access	Traditional Access	Pukoo
56	Well at Fire Station	Spring	Pukoo
57	The Old Stone House	Historic House	Kupeke
58	Squid Hole at Kupeke Fishpond	Spring	Ualapu'e
59	Spring at NW corner of Kupuke	Spring	Kupeke
60	Spring NE corner of Kupuke	Spring	Kupeke
61	Former taro lands	Loi	Waialua
62	Former beach access	Traditional Access	Waialua
63	Waialua stream at Hwy	Stream	Waialua
64	Former Beach Access	Traditional Access	Moanui

Appendix E – Information and Questionnaires used for Interviews

MANA‘E CULTURAL & NATURAL RESOURCE SURVEY & GIS MAPPING PROJECT

APPENDIX II

OUTLINE OF ORAL HISTORY GATHERING & FIELDWORK PHASE PROJECT DESCRIPTION & INTERVIEW METHODOLOGY

❖ What is the ultimate goal of the project?

- To collect data from residents both in the field, in group settings and individually, in a manner that will be respectful of cultural traditions yet that will gather the most amount of data as efficiently as possible, then validate that data, convert to digital format and display graphically, on maps, as well as in a cultural survey format, for use as a planning tool.

❖ What is the scope of the mapping project?

- The geographic scope for mapping purposes will be the area from Makolelau ahupua‘a in the west to Kūmimi ahupua‘a in the east, and to the mauka-makai extents that were used in the U.S. Army Corps of Engineers aerial survey for the *Molokai Coastal Resource Atlas* (1984). However, as detailed in other official reports concerning the development of cultural management plans, Hawaiian cultural landscapes were by nature interconnected, therefore the whole ahupua‘a must be taken into account. This in effect includes the eastern third of Molokai, including the mauka areas and northeastern valleys, in the greater general study area.
- This project aims to document the cultural and natural resources that support the rural, culturally grounded and subsistence-based lifestyle that still exists on Molokai and which is still practiced by its kama‘aina families as well as by relative newcomers, in order to provide information that can then be used by the Maui County Long-Range Planning Division to create a GIS database and maps for planning purposes.

❖ Who are the stakeholders, and what are some of the issues? Who will benefit?

- Stakeholders:
 - Mana‘e residents, property owners, and visitors, both local and from elsewhere. Kupuna, makua and ‘opio.
 - ‘Ohana from na ahupua‘a o Mana‘e, both still living in the area and living elsewhere
 - Government agencies responsible for health, safety and welfare of people and natural resources of Mana‘e (DLNR, CWRM, DOH, SWCD etc.)
 - Others involved in real estate, development, planning and construction, many of whom are long term Molokai residents.
- The Molokai community has a strong sense of rural identity, and Hawaiian subsistence practices are still exercised regularly. Molokai people have a strong desire to maintain the integrity of their island lifestyle and ecosystem, a sentiment known as “malama ‘aina.” The last ten years or so have brought changes to the area, especially along the southern coastline, that some residents have expressed concerns about. The project is designed to assure that Native Hawaiian and

subsistence practices and resources are identified for a specific geographic area in order to prevent future conflicts and produce a planning resource useful for all stakeholders.

- The beneficiaries are kama‘aina families and other long time residents, newly settled outsiders privileged to be able to live in this special place, the ecosystems of the area, the kupuna or ancestors, and the rest of Hawaii nei.

❖ **What are the Team’s tasks?**

- Build trust, connections, and an information network
- Conduct a thorough collection of community mana‘o with the resources available
- Conduct field work with UH DURP volunteers
- Provide information gathered in a useable format to Maui County Planning staff for production of GIS data and maps, ideally in time for inclusion in the Molokai General Plan and/or Community Plan update.

❖ **What are some other interview methodologies that have been used successfully?**

❖ Kepa Maly: Ka Hana Lawai‘a Ame Na Ko‘a O Na Kai ‘Ewalu (2003)

- Written to create an extensive data compendium of traditional Hawaiian fishing practices
- Oral interviews:
 - Conducted in a manner consistent with Federal and State laws and guidelines for historical documentation.
 - Format for the interviews:
- Identified the informant and how he/she came to know about the areas of which they speak.
- Identified the time and place of specific events being described
- The recorded events were transcribed and returned to the informant for review, revisions and release.
- Copies of the full study were provided to the informant and their family.
- Uses four sources for its data:
 - Native traditions
 - Historical accounts
 - Government communications
 - Oral interviews

❖ CANDO (Minerbi, McGregor & Matsuoka): Native Hawaiian Ethnography Study for the Hawaii Geothermal Project Proposed for Puna & Southeast Maui

- Oral interviews collected and synthesized in order to document impact of proposed geothermal prospecting on cultural and subsistence landscape in Puna, Hawaii Island, and Southeast Maui.
- Was done as a cultural impact assessment for the EIS on a US Dept of Energy project.
- Objectives:
 - Site identification
 - Resource identification (natural and cultural)
 - Documentation of beliefs and practices
 - Assess impacts of geothermal on above listed items
 - Make culturally appropriate recommendations
- Oral data gathering methodology:
 - Interviews were gathered from
 - Local ‘ohana

- Grassroots organizations
- State agencies
- Different levels of significance were attached to each interview according to the following criteria:
 - Proximity to the area of concern as well as frequency of interaction with said area
 - Does the subject fall under the State Revised Statutes Article XII Section 7 regarding ahupua'a tenant rights?
 - If the subject is non-Hawaiian, do they still have genealogical ties to the area (i.e. through marriage or hanai)?
 - Non-resident practitioners
 - ◆ La'au Lapa'au
 - ◆ Hula & other spiritual/cultural practices
 - ◆ Subsistence
 - Members of Hawaiian organizations that have a vested interest in maintaining a healthy Hawaiian presence in the area
 - ◆ QLCC
 - ◆ OHA
 - ◆ Input gathered from these & other organizations in the form of comments & recommendations
- Using the above criteria, individuals to be interviewed were selected by a small council
 - The chosen group was then approved by the Federal agency that was accepting the report
 - Respected community members were then chosen to facilitate the interview
- The scope of the interviews was taken from the criteria developed in the Health and Environmental Risk Report, which identified the following areas as topics of concern:
 - Community Life
 - Family Life
 - Human well being
 - Human ecosystems
 - Natural environment
 - Customs and Practices
 - Rights
 - Economics
- Besides oral interviews, focus groups were convened in order to gather data
 - These groups were important for assessing inter-cultural perceptions
 - The agenda of these groups consisted of:
 - A brief presentation of the issues by the facilitators
 - A semi-structured discussion on the presentation
 - A semi-structured discussion on the impacts of the geothermal project on their communities
 - A discussion on possible ways to mitigate detrimental impacts in a culturally appropriate way
- The data was then gathered using the aforementioned techniques and synthesized
- ❖ Other project examples
 - UH Manoa, DURP (Luciano Minerbi, PI)
 - North Kohala Native Hawaiian Cultural & Natural Resource Study, 2005
 - Papohaku Dunes Cultural & Natural Resource Preservation Practicum, 2005
 - Waipi'o Practicum,

- *Kalo Kanu o ka 'Āina: A Cultural Landscape Study of Ke'anae and Wailuanui*, for County of Maui Planning Dept. and the Maui County Cultural Resources Commission, by Group 70, Davianna McGregor, Ph.D. and Cutlural Surveys Hawaii Inc., July 1995

❖ **Questions for the East Molokai – Mana‘e Cultural Resource Survey and Mapping Project Team:**

- What will we need to get, create or identify resources for? Create a list
 - Documents that provide background information on Mana‘e, including:
 - History of Mana‘e
 - Natural & Cultural Resource Management
 - Development Pressure
 - Uniqueness of landscape, cultural and natural resources
- Identify stakeholders involved, and why
 - ‘Ohana / kama‘aina of each ahupua‘a / moku
 - Homeowners / Property Owners
 - Lauge landowners
 - Tenants / Renters
 - Subsistence practitioners – hunters and gatherers
 - Religious practitioners
 - Realtors, architects, contractors
 - Malama Pono O Ka Aina and other CBO’s
 - County of Maui agencies (e.g. Public Works)
 - State agencies (DLNR, DOH, SHPD etc.)
- Prepare an explanation of what participants’ information will be used for
 - Participants can choose to be anonymous
 - Involved in all processes & stages of project development and execution
 - Certain information can remain off the record
 - Participants can pull out at any time, and their own information goes with them
 - A release form that includes above assurances will be created
 - Personal histories / genealogies of interviewers to share with informants
 - Mea mahalo / makana for informants
- Locate Maps (Long Range Planning has some already) and GPS equipment
 - Current and Historical – topographic, USGS quad, etc.
 - Also include compiled place names of the area (check Soehrens)
 - Base maps w/ topography, streams, some place names, ahupua‘a boundaries
 - GPS field units and instructions
- Prepare interview materials – distribute materials ahead of time
 - Use general questions from the individual review form that was developed for the Geothermal Project, with modifications to make it more appropriate for the Mana‘e area
 - Questions to be added
 - Historic accounts of disasters (hurricanes, floods, tsunami), local management and mitigations
 - Specific knowledge of the importance and function of wetlands and other environmental services in relation to the surrounding area
 - Resources no longer in existence, but remembered by kupuna

- Other?

❖ *SOURCE: Kamuela Enos, draft materials, Papohaku Dunes Cultural and Natural Resource Preservation Practicum, Spring 2005, after Minerbi, Matsuoka and McGregor, CANDO Multimethod*

CULTURAL RESOURCE SURVEY AND MAPPING PROJECT
MANA'E, MOLOKAI
INDIVIDUAL INTERVIEW FORM

Name: _____ Address: _____

Ph: _____ Age: _____ Gender _____ M: _____

1. DESCRIBE YOUR RELATIONSHIP TO AND OR EXPERIENCE WITH THE AHUPUA'A OF _____ .
2. DESCRIBE LENGTH OF TIME AND FREQUENCY OF CONTACT WITH THE AHUPUA'A.
3. POINT OUT ON THE MAP AND DESCRIBE SITES AND AREAS OF CULTURAL AND HISTORIC USE AND SIGNIFICANCE TO YOU AND YOUR 'OHANA IN THE AHUPUA'A (refer to list of types of cultural sites and use areas).
4. IDENTIFY AND DESCRIBE NATURAL RESOURCES USED FOR CULTURAL, RELIGIOUS AND SUBSISTENCE PRACTICES LOCATED AND/OR GATHERED IN THE AHUPUA'A.
5. ARE THERE STREAMS OR SPRINGS IN THE AHUPUA'A WHICH YOU REMEMBER WHICH NO LONGER FLOW?
6. ARE THERE OTHER RESOURCES WHICH YOU REMEMBER WERE AVAILABLE, THAT ARE NO LONGER PRESENT IN THE AHUPUA'A?
7. DESCRIBE 'AUMAKUA AND DEITIES ASSOCIATED WITH THE AHUPUA'A. PLEASE SHARE ANY LEGENDS, TRADITIONS OR CHANTS ASSOCIATED WITH THE DEITIES AND RELATED PLACES.
8. DESCRIBE HAWAIIAN CULTURAL AND SUBSISTENCE ACTIVITIES THAT HAVE BEEN OR CAN BE CONDUCTED IN THE AHUPUA'A.
9. PLEASE SHARE WHAT YOU KNOW TO BE THE MEANING, SIGNIFICANCE, OR STORY RELATED TO PLACE NAMES IN THE AHUPUA'A.
10. CAN YOU PLEASE SHARE INFORMATION ABOUT HISTORIC EVENTS OR PERSONS ASSOCIATED WITH THE AHUPUA'A?
11. SHOULD ALL INFORMATION ABOUT HAWAIIAN CULTURAL USE AREAS AND SITES BE INCLUDED ON THE MAP? IS THERE ANY INFORMATION WHICH SHOULD NOT BE MADE PUBLIC?
12. DO YOU HAVE ANY SPECIFIC CULTURAL KNOWLEDGE ON THE ROLE THAT WETLANDS, LO'I KALO AND FISHPONDS PLAY IN THE LOCAL ECOLOGY?

13. WILL THE DEGRADATION OF SHORELINE RESOURCES AFFECT THE HAWAIIAN CUSTOMS, BELIEFS, PRACTICES, SITES OR USE AREAS WE HAVE DISCUSSED?
14. DO YOU HAVE ANY INFORMATION OR MO'OLELO ABOUT NATURAL DISASTERS IN THIS AHUPUA'A, OR CULTURAL KNOWLEDGE ON DISASTER MITIGATION?
15. HOW COULD ANY OF THE NEGATIVE IMPACTS BE REDUCED OR AVOIDED?
16. HOW WOULD YOU LIKE THE HAWAIIAN HISTORICAL AND CULTURAL SITES AND USE AREAS THAT WE DISCUSSED TO BE MANAGED?

Please answer the following three items by circling the number which corresponds to the appropriate questions above.

A. MY OWN DIRECT KNOWLEDGE:	3, 4, 5, 6, 7, 8, 10, 12
B. REPORTED TO ME BY RELATIVES:	3, 4, 5, 6, 7, 8, 10, 12
C. REPORTED TO ME BY OTHERS:	3, 4, 5, 6, 7, 8, 10, 12

Explain how THE INFORMANT is qualified to be a respondent for this study:

RECORDER: _____

DATE: _____

PLACE: _____

INTERVIEW: # _____

(Put this id # and your initials on all pages of interview notes).

Appendix F – Transcription of Oral History

Interviewers: Lehua Kauhane (LK), Andrew Choy (AC), Lee Mott (LM)

Interviewees: Auntie Toohey (AT), Uncle Philip (UP)

Date: March 27, 2007

Location: Philip and Toohey's Backyard

Transcribed April 2008 by Andrew Choy

AT: Let me tell you a story, it's a true story. You see my mom used to tell us 'not to do any work at night.' But that's the only time I get for wash clothes and hang on the line. So I'm hanging my clothes on the line one night.....and I see something white passing by as I'm hanging clothes. So I pick up my clothes and say, "E kala mai." Then I go inside. A few months later I forget, so I washing my clothes again at night. As I'm washing I see this white thing passing by again. I said, "oh my gosh, I'm sorry" and I picked up my clothes and went inside.

The third time about a year later I was washing clothes again, but this time I when turn and went look, it was a beautiful white horse! Beautiful! With the mane flying, the tail up. I thought to myself "oh my gosh, this is so beautiful." Then I went in the house.

My daughter came, and she just gave birth, so I was helping her and the husband take care the baby. So she was hanging clothes. I was in the kitchen, sitting down and eating. All of a sudden I hear her running up the stairs!

She slammed the door open, "Ma!"

And I said, "oh shucks, you seen the horse!"

She said, "You knew about it?! How come you never tell me?!"

I said, "you don't have to be afraid, it's not going to harm you." You know, I didn't think she would see it. I thought it was only me. I felt good that at least she saw it. She looked at me like she was stun yah. But anyways, that's the story. Lets go along the other way, yah Philip?

UP: No, we go thru the pig pen, go to the back.

LK: What do you think about the horse?

AT: You know the only thing I can think of was [war? Inaudible].

UP: You know the Hawaiians, they seen the horse, but with a rider, with a lady.

LM: When the stream comes high, does the stream come up here?

UP: No, the stream no come here. We don't have a problem with the stream, not yet.

LM: [Pointing at plant] Is this the kind with the little berries on it?

UP: where?

LM: This one.

UP: No, that's black berries. That's medicine too.

AT: That's good for babies.

LK: You boil the berries?

UP: No, no. The leaves.

AT: You pound the leaves. And then you give it to them. And then all their mucus come out, either through their vomit or comes through here too.

LK: So you just mash up the leaves, that's what I wondered.

Moving to another location (northeast or northwest corner of the property)

UP: The heiau is right around here somewhere. That's why get all these rocks. This stone wall, not supposed to be over here, supposed to be over there. You know in those days no more surveyor, so they just put the wall over there. But the heiau is right here. We never know about this heiau till later. We never know.

LK: Auntie Tootie, do you know how far back it goes?

AT: Phillip, about far? Ten feet?

UP: More than 10. About 15 or 20 ft.

AT: About 15 x 20 ft. Molokai Electric knocked it down and cut down our trees too.

UP: They cut the pear tree for the telephone line.

AT: You see these people over here, [she points to another property forgot in what direction] because the stream kinda went into their property, they had to come thru this way to go out.

LM: That's Eddie Medeiros' mom.

AT: Yup, that's his mom.

UP: Joe Medeiros.

LK: How did you guys find the heiau?

AT: Well we were cleaning here, and then we seen all this rocks piled up. I think my brother, he identified it as a heiau.

Walking to another part on the property, I think the mauka part of the property, along the highway. Pointing at the hillside.

UP: The heiau up here. Toooh, what the name of this heiau?

AT: Nahokukano.

UP: You see, that's the leg over there. By the telephone exchange.

LM: Milton took us there yesterday.

LK: Milton didn't know what kind of heiau it was. Ok, so [by the telephone exchange] that's the leg of Nahokukano Heiau.

UP: That's where my mother was raised. Raised by the kahunas, husband and wife. Raised right over there. They were strong kahunas.

AT: Tell them about the one in the ocean.

UP: Oh, the heiau yah? I found one in the ocean. Some people say it's a pile of rock that the Hawaiians used to put on a barge to make fishponds. But ah, this is the story. I hardly tell anybody. I was diving. I see a dark spot, way in the front of me. The pile of rock was a small hump. About 20-30 feet wide. The rocks, they were plenty far down and I look and get plenty of vanna on them. And I was like, "wow, what this rock doing down here." I felt funny kine, cause first time I see pile of rocks here like that. So I went around and kept on going. I was diving for squid. Then about three months later, we went back for look for squid again. I saw the pile of rocks. I went look again at the rocks. Had one wall, the wall was this high. The wall was on the east side of the pile of rocks. Whoever was with me, I said to him, "eh, never have this place, never had this wall." I never went back there again. I know that was something and the only thing I can think of is a heiau. But nobody told me about that heiau so there's a girl, a older timer on Molokai. She wanted me to take her over there and show her that pile of rock. I said, "Well when I get time I take you." But I no like take anybody.... I no know what they going do with the place. You know on Maui or Big Island. They went in the cave and they start moving things around. You cannot go inside and make anykine. Something going to happen. Our kupunas teach us, "don't touch." When you go somewhere and see something nice and different, don't touch, especially in caves.

Pointing at a plant

UP: When you get high cholesterol, you chew that. We call it the cholesterol plant. Had the name, but we forget, but we know it's for cholesterol. You chew about five leaves everyday.

AC: How does it taste?

AT: Taste like vegetable.

LK: You know the place you were talking about, the heiau in the water, is that a place you wouldn't want people to know about?

UP: I was told not to take anybody, you don't know what they going do. They might not do nothing that time when you take them, but when you not there later, you never know. They might go digging around.

UP: You know us Hawaiians, we don't know all the time where all the heiaus stay yah.

LK: What ahupuaa was the heiau you were talking about before?

UP: Kahana Nui. It's in the Kahana Nui area. Same as the one up there [*pointing towards Nahokukano I think*]

AT: Nahokukano is half in Manuwai and half is in Kahana nui.

UP: The next time you guys come back. I can take you in my boat, we can go see the heiau. You guys get underwater camera? It's good to take picture, cause you tell the story, you get the picture. If no more picture, hard for believe the story.

AC: Is it ok to take pictures of the heiau?

UP: Yah, I think so. I mean we doing it in a good way, a good reason. We not destroying anything. Main thing is nobody go out there and destroy it.

You know, another time a professor from the mainland, this is a good friend of mine, Dick Hart. He go "Philip, you can show me that place?" I look at him, he's my good friend yah, but haole yah. So I went go ask my uncle, "hey uncle I get my haole friend, he's real nice, I like him. He's one professor." My uncle say ok, but only cause I know him.

I didn't know you folks were interested in that kinda stuff.

LK: Any kind of stuff like that, that you want to share.

UP: Oh yah, I can take you to the caves. Get all kine stuff there.

LK and AC: Oh, well we don't really want to go in the caves. That's ok. That kine stuff maybe shouldn't be documented.

LK: That kine stuff maybe it's better not to share. That kind of stuff I would like to know about it, but not where it is located.

UP: It's ok, as long as you just look and admire, but no touch. Get canoes, capes, helmets. You just go look and you go, just leave. Our kupunas told us "no touch, I know care how nice the stuff, don't touch!"

Did Milton tell you the story about him and his brother went go hunting and someone pushed the brother off the rock?

LK: Auntie Touchie told us the story. He was on the heiau.

UP: Well he never touch nothing. But he wanted to she-she right. But all the kupunas told there children, don't mess the place. Don't dirty the place. Kapu. He was on the big rock. He put his gun down and he walk up on the side of the heiau. The place he was, was a big heiau and it goes back quite aways. He went, but he never passed the heiau. He thought he did, but he never. He made she-she right there. He never know. He pau. He pick up his gun and he went to the stream. The stream was down below and the deers go back and forth. He was looking down. Then somebody shoved him. Boom, he went flying. He fell down. He got up, he looked around, but nobody was there. So he got his rifle and went home. That evening he came sick like hell. He became real sick and my mother in law came and asked, "what's the matter?" He said, "I don't know, I feel lousy." She looked at him and she knew the sick. She knew the sick already. This is not one common sick, this is not one regular sick. He go, "you know I was at the heiau, looking for deer, I wanted to go she-she, but I guess I never go past the heiau." She said how far did you go? He said, "from here to there." She said, well you never past the heiau. So the mother left that night, you know as the Hawaiians say, she went go hooponopono. She went to the heiau to ask forgiveness for her son. She came back home, he was alright. But you know, he gotta go ask for forgiveness himself too.

You know, when you go bathroom outside, you always gotta say, "excuse me" and ask for forgiveness, because you don't know where you going bathroom on. I talk in Hawaiian e kala mai [*then some other words I cannot decipher at about the 25:20 mark in the recording*] I don't know if there's people under me. [*he says more Hawaiian 25:30 mark*] If there is somebody under there, please excuse me, I like make she-she. You gotta ask permission, then you walk away, you gotta say mahalo.

When you go in the mountain, I know care what you there for, you always gotta ask. Like, "I'm going to pick ti-leaf, pick maile, hunt wild pig." You gotta say all that. If not, you get hurt. Serious kine hurt. All my kupuna told me this. They tell us, no fly a kite, the kite hard luck. I look at her and go how can be hard luck when it's only in the air. But they were worried that the kite would get stuck in the electric wire and get all tangled and we would get electrocuted. That's why they said hard luck, so we keep away and no fly kites. That's how they protected us.

End

Appendix G – Legal Memo

I. FEDERAL LAWS

This section summarizes federal water quality and wetlands requirements applicable to Manaʻe, Molokai. The requirements most relevant to the development of wetlands are the: Clean Water Act; Coastal Zone Management Act; and National Environmental Policy Act.

A. Clean Water Act

The Federal Water Pollution Control Act of 1972, referred to as the Clean Water Act (“CWA”), is the principal federal law protecting surface waters in the United States.¹ The goal of the Act is to ensure that the nation’s waters are “fishable and swimmable.”² The CWA is administered by the Environmental Protection Agency (“EPA”)³ and/or U.S. Army Corps of Engineers (“the Army Corps”), who, together with the states, manage and control the discharge of pollutants into U.S. surface waters.⁴ The CWA’s principal enforcement mechanisms are pollutant discharge limits and permitting programs.⁵

The CWA has two enforcement provisions: sections 309 and 505. Section 309⁶ authorizes appropriate agencies to issue an order to comply or to institute civil actions or seek criminal penalties. Section 505 of the CWA authorizes citizen suits against any person who violates an effluent standard or order; or, against EPA for failing to perform a nondiscretionary duty.⁷

The sections of the CWA most relevant to development of wetlands are: Department of Health Water Quality Certification (Section 401); Dredge and Fill Wetlands regulation (Section 404); the National Pollutant Discharge Elimination System (Section 402); and the Ocean Discharge Criteria (Section 403).

1. Department of Health 401 Water Quality Certificate

Section 401’s⁸ Water Quality Certification (“WQC”) is regulated by Water Quality Standards promulgated in Hawaiʻi Administrative Rules Chapter 11-54. The WQC requires applicants, prior to discharging a pollutant into navigable waters of the United States, to obtain certification from the State that the discharge will comply with the applicable effluent (sewage)

¹ See U.S. Environmental Protection Agency, <http://www.epa.gov/lawsregs/laws/cwahistory.html>.

² P.L. 92-500.

³ The mission of the U.S. EPA is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends. EPA is responsible for implementing federal laws designed to protect the nation’s natural resources. This is done primarily through regulations, but EPA has also developed a wide variety of funding, planning, and educational programs. See www.epa.gov.

⁴ www.epa.gov.

⁵ www.epa.gov.

⁶ 33 U.S.C. §1318.

⁷ 33 U.S.C. 1365.

⁸ 33 U.S.C. §1341, http://www.law.cornell.edu/uscode/33/usc_sec_33_00001341----000-.html.

limitations and water quality standards.⁹ In doing so, the applicant must certify that the proposed project will comply with state and federal water quality regulations and must submit to the State of Hawai'i Department of Health ("DOH") appropriate data in support of this claim.

The Section 401 WQC application and guidelines may be downloaded from the DOH website.¹⁰ The following is an initial list of what an applicant must submit:

1. Description of the associated existing uses at the "discharge" location;
2. Project Description, including the project site coordinates and a description of the overall project scope and activities;
3. Description of the "discharge" activity and the purpose of the proposed discharge activity;
4. A description of the Existing Environmental and Potential Environmental Effects from the Construction Activities;
5. A description of the existing biological environment and potential biological environmental effects;
6. A description of the existing uses and its potential effects.

2. Dredge and Fill/Wetlands (Section 404)¹¹

Under Section 404 of the CWA,¹² the Army Corps regulates discharges of dredged or fill materials into the waters of the United States, including wetlands such as fishponds.¹³ A 404 permit is needed if a development impacts a navigable water of the United States. Impacts include the discharge of dredged material (i.e., material excavated from waters), discharge of fill material (i.e., material placed in waters such that dry land replaces any portion of water or the bottom elevation of waters is changed), and the disturbance of hydrological support to wetlands (i.e., cut off of water supply). Depending on the impacts, a Section 404 permit may be required prior to performing any construction activities. A waiting period of 45 days or more after the permit application is submitted may be imposed before the construction project can start, depending on the type of permit necessary.¹⁴

2a. *Applicability*

⁹ See Hawai'i Department of Health ("DOH"), <http://hawaii.gov/health/environmental/water/cleanwater/forms/wqc-index.html#Water%20Quality%20Certification>.

¹⁰ DOH, <http://hawaii.gov/health/environmental/water/cleanwater/forms/wqc-index.html#Water%20Quality%20Certification>.

¹¹ 33 U.S.C. § 1344, [http://www.law.cornell.edu/uscode/html/uscode33/usc_sec_33_00001344----](http://www.law.cornell.edu/uscode/html/uscode33/usc_sec_33_00001344----000-.html)

¹² 33 U.S.C. § 1344. See 40 CFR Part 122.2 for a more complete definition of waters of the United States.

¹³ For regulatory purposes under the CWA, the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." 40 CFR 230.3(t).

¹⁴ Managing Your Environmental Responsibilities, www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myer2_dredgeandfill.pdf; See also www.usace.army.mil/inet/functions/cw/cecwo/reg/eng4345a.pdf.

The Army Corps defines “discharge of dredged material” as “any addition of dredged material into the waters of the United States.”¹⁵ It further defines ‘dredged material’ as “material that is excavated or dredged from waters of the United States.”¹⁶ These discharges, which require permits under Section 404 of the CWA, include:

- The addition of dredged material to a specified discharge site located in waters of the United States;
- The runoff or overflow from a contained land or water disposal area; and
- Any addition, including redeposit other than incidental fallback, of dredged material, including excavated material, into waters of the United States.

The Army Corps also defines “discharge of fill material” as “the addition of fill material into waters of the United States.”¹⁷ Fill material “means any material use for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of any waterbody.”¹⁸ These discharges, which require permits under Section 404 of the CWA, include:

- Placement of fill necessary for the construction of any structure or infrastructure in a water of the United States;
- Construction of any structure, infrastructure, or impoundment in waters of the United States requiring rock, sand, dirt, or other material for its construction;
- Site development fills in waters of the United States for recreational, industrial, commercial, residential, or other uses.

This list is not exhaustive. The Army Corps Honolulu Engineering District¹⁹ can be contacted to determine whether permits are required for any particular development project.²⁰

2b. Section 404 Permit Process Requirements

Section 404 prohibits the discharge of dredged or fill material if a practicable alternative exists that is less damaging to the aquatic environment; or, if the nation’s waters would be significantly degraded by the material. When applying for a permit, a wetland mitigation must be performed to show that the project:

- a. Avoided wetland impacts where practicable;
- b. Minimized potential impacts to wetlands; and
- c. Provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands.

The Army Corps may issue permits, after notice and an opportunity for public hearings, for the discharge of dredged or fill material into waters of the United States at specific disposal sites. Prior to issuing Section 404 permits, state approval must also be obtained via a Section 401 certification. See Part II(A)(1), above.

¹⁵ 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

¹⁶ 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

¹⁷ 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

¹⁸ 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

¹⁹ <http://www.poh.usace.army.mil/>.

²⁰ <http://www.co.maui.hi.us/departments/Planning/>.

There are two types of Section 404 permits: general and individual permits. For discharges that have only minimal adverse effects, the Army Corps issues general permits. General permits may be issued on a nationwide, regional, or state basis for particular categories of activities.²¹ Individual permits are usually required for activities with potentially significant impacts.

2c. The Individual Permit Process²²

The following steps must be completed to obtain an individual permit:²³

To receive a Section 404 individual permit, operators must complete an “Application for Department of Army Permit.”²⁴ The Army Corps requires that permit applicants describe the project and its purpose, the reasons for discharging dredged or fill material, types of material being discharged, and the surface area of wetlands to be filled. Applicants must also submit one set of drawings showing the location and character of the proposed activity. The application is submitted to the District Engineers having jurisdiction over the location of the proposed activity.²⁵

The Army Corps will issue a public notice once the complete permit application has been received. The notice includes the proposed activity, location, and potential environmental impacts. The public comment period lasts between 15-30 days, depending on the proposed activity. The application and comments are reviewed by the Army Corps, which determines whether an EIS is necessary. Citizens may also require that the Army Corps conduct a public hearing by simply requesting one. However, these are not normally held.²⁶

The Army Corps, along with states and other federal agencies, evaluates the permit application, taking into account any comments received. Based on the steps identified above, the Army Corps may either approve or deny the application. The Army Corps issues a “Statement of Finding,” which explains how the permit decision was made. This document is made available to the public.

3. Clean Water Act, Section 402, National Pollutant Discharge Elimination System (“NPDES”) Permits

²¹ For a list of current Nationwide Permits (NWP) see http://ceres.ca.gov/wetlands/permitting/NWP_table.html.

²² This information was taken from Managing Your Environmental Responsibilities at: www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myer2_dredgeandfill.pdf.

²³ These steps are a basic example of the requirements to obtain an individual permit. This process may require additional steps, such as a pre-application meeting with the Army Corps district engineer or state officials or negotiation of mitigation plans. Each project must be assessed on a case by case basis; contact the Army Corps District Office for details regarding specific projects.

²⁴ This application is available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/eng4345a.pdf>.

²⁵ Note that states may contact the Army Corps in conjunction with granting state approval for a project. The application process varies by state; contact the state and Army Corps District Office for details regarding specific projects.

²⁶ http://www.fws.gov/charleston/docs/404_permits.html.

In 1973, the Hawai'i State Legislature formally established a water pollution control program.²⁷ Then, in November 1974, EPA delegated the administration of Hawai'i's National Pollutant Discharge Elimination System ("NPDES") permit program to DOH.

The NPDES program was designed to control point source discharges of pollutants²⁸ into waters of the state through uniform permitting procedures. Point sources are discrete conveyances such as pipes or man-made ditches.²⁹ Individual homes do not require a NPDES permit if they: (a) are connected to a municipal system; or (b) do not have a surface discharge; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.³⁰

NPDES permits apply generally to point source discharges or surface water runoff from certain kinds of activities, like construction on land greater than one acre. There are two NPDES potential permits: individual and general, which are described below.

3a. Hawai'i's Individual Permits under the delegated NPDES Program³¹

Point source discharges require a discharge permit from DOH. Agricultural operations that may require NPDES permits include: concentrated animal feeding operations; concentrated aquatic feeding operations; and aquaculture operations depending on their size. However, some agricultural activities are exempted and do not generally require a discharge permit.³² These activities include: (1) crop cultivation, grazing, orchard production, and similar agricultural activities that may cause nonpoint source pollution only; (2) return flows from irrigated agriculture; (3) discharges of dredged or fill materials that are regulated by a general permit under Section 404 of the CWA.³³

3b. Hawai'i's General Permits under the delegated NPDES Program³⁴

Some operations or activities may be covered by a general permit. A general permit is a permit that authorizes an activity that likely involves a discharge, however, the activity is a common and necessary activity and any discharge is determined to be insignificant with little or no alternative to the discharge.

If the activity is covered by a general permit, one need not apply for an individual permit. An agricultural producer seeking to operate under a general permit must nevertheless apply to

²⁷ Act 100 was codified as Chapter 342, Hawai'i Revised States (HRS), "Environmental Quality."

²⁸ "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. See http://www.epa.gov/OWOW/invasive_species/invasives_management/cwa402.html#.

²⁹ <http://cfpub.epa.gov/npdes/>.

³⁰ <http://cfpub.epa.gov/npdes/>.

³¹ The following is taken from <http://www.nasda.org/nasda/nasda/foundation/state/Hawaii.pdf>.

³² 40 C.F.R. Section 122.3.

³³ This includes silvicultural point sources, which are discernible, confined and discrete conveyance related to rock crushing, gravel washing. 40 C.F.R. § 122.27. See Na Mamo O `Aha `Ino v. Galiher, 60 F.Supp.2d 1058 (D. Hawai'i, 1999).

³⁴ The following is taken from <http://www.nasda.org/nasda/nasda/foundation/state/Hawaii.pdf>.

DOH for authorization. If DOH denies such authorization under a general permit, the producer must then apply for an individual permit. An agricultural producer should check with DOH to determine whether a proposed activity requires an individual permit, or if it is eligible for coverage under a general permit, in which case the producer would simply need DOH authorization prior to conducting the activity.

3c. Permit Process

DOH's Environmental Management Division issues NPDES permits for discharges from construction activities. The General NPDES Permit coverage is regulated by Hawai'i Administrative Rules, Chapter 11-55, sections 34 to 34.12 and appendixes, Water Pollution Control.

Application for a permit may be requested from: Maui District Health Office, 54 High Street, Room 300 Wailuku, Hawai'i 96793. Applications must be submitted to DOH more than thirty days before the start of construction dewatering activities.³⁵ If an applicant fails to apply for coverage under a general permit before starting construction, it will likely be required to apply for an individual permit.

4. Section 403 – Ocean Discharge Criteria

CWA Section 403 on "Ocean Discharge Criteria" sets forth requirements for NPDES permits governing discharges into all ocean waters.³⁶ Under this section, no permit under section 1342 (402 permits) shall be issued unless it complies with guidelines EPA issues under section 403.³⁷

In establishing guidelines on the impacts of disposal, EPA weighs a number of factors while examining how certain amounts of disposal would affect ocean waters.³⁸ The factors identified in section 403 include:

- (A) the effect of the disposal of pollutants on human health or welfare, including but not limited to plankton, fish, shellfish, wildlife, shorelines, and beaches;
- (B) the effect of disposal of pollutants on marine life including the transfer, concentration, and dispersal of pollutants of their byproducts through biological, physical, and chemical processes; changes in marine ecosystem diversity, productivity, and stability; and species and community population changes;
- (C) the effect of disposal of pollutants on esthetic, recreation, and economic values;
- (D) the persistence and permanence of the effects of disposal of pollutants;
- (E) the effect of disposal at varying rates, of particular volumes and concentrations of pollutants;
- (F) other possible locations and methods of disposal or recycling of pollutants including land-based alternatives; and

³⁵ Chapter 11-55 Appendix G(9), available at: <http://hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html#CWB-NOI Form G>.

³⁶ 33 U.S.C. 1343, available at: [http://www.law.cornell.edu/uscode/33/usc_sec_33_00001343----](http://www.law.cornell.edu/uscode/33/usc_sec_33_00001343----000-.html)

³⁷ 33 U.S.C. 1343(c).

³⁸ 33 U.S.C. 1343(c).

- (G) the effect on alternate uses of the ocean, such as mineral exploitation and scientific study.

B. Coastal Zone Management Act (“CZMA”)

The federal Coastal Zone Management Act (“CZMA”) was enacted in 1972³⁹ to encourage states to better manage coastal areas. The CZMA provides grants to states that develop and implement federally approved coastal zone management plans.⁴⁰ At the federal level, the National Oceanic Atmospheric Administration (“NOAA”) administers the federal coastal zone management program and regularly evaluates each participating state’s coastal management programs to ensure consistency and provide funding of coastal projects and programs.

The CZMA is primarily implemented at the County level, via Special Management Area permits. See Part IV.C., below.

C. National Environmental Policy Act (“NEPA”)

The National Environmental Policy Act (“NEPA”) is the basic national charter for protection of the environment.⁴¹ The Act requires all federal agencies to consider potential environmental impacts of proposed actions during the planning and decision-making process.⁴²

NEPA requires that a detailed statement accompany all major federal actions significantly affecting the quality of the human environment.⁴³ Generally, the agency is required to first prepare an Environmental Assessment (“EA”).⁴⁴ If the agency determines that its actions will have no significant impact, a finding of no significant impact is prepared and an Environmental Impact

³⁹ See <http://coastalmanagement.noaa.gov/>.

⁴⁰ <http://coastalmanagement.noaa.gov/>.

⁴¹ The Act declares it a national policy to: “encourage productive and enjoyable harmony between man and the environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and to enrich the understanding of the ecological systems and natural resources important to the Nation.”⁴¹ See <http://www.saj.usace.army.mil/restore/programs/NEPA.htm>.

⁴² 42 U.S.C. §§ 4321-4347. Section 102(2)(C) requires all major Federal actions significantly affecting the quality of the human environment to include a statement on: the environmental impacts of the proposed action; any adverse environmental effects which cannot be avoided should the proposal be implemented; alternatives to the proposed action; the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity; and, any irreversible and irretrievable commitments of resources which would be involved in the proposed action should be implemented. See <http://www.nepa.gov/nepa/regs/nepa/nepaeqia.htm>.

⁴³ NEPA provides that the detailed environmental impact statement shall cover the following: (1) the environmental impact of the proposed action, including the likely cumulative effect of the proposed action; (2) any adverse environmental effects which cannot be avoided should the proposal be implemented; (3) alternatives to the proposed action; (4) the relationship between local long-term uses of man’s environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. AMJUR Pollution § 112.

⁴⁴ If a determination is made early-on that a project will have significant impacts on the environment, the agency can elect to prepare an EIS without first doing an EA.

Statement (“EIS”)⁴⁵ is not necessary. In the alternative, if the agency determines that there will be significant impacts, then an Environmental Impact Statement must be prepared.⁴⁶

Because NEPA applies only to Federal actions significantly affecting the environment, it is not generally applicable to private landowners and the development of their wetlands. If federal permits are involved, however, NEPA can be triggered. For example, in a 404 Permit application, the Army Corps may determine that an EA or EIS is necessary.

⁴⁵ Courts have held that an EIS is in compliance with NEPA when its form, content, and preparation substantially (1) provide decision makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in the light of its environmental consequences; and (2) make information of the proposed project’s environmental impact available to the public, and encourage public participation in the development of such information. AMJUR Pollution § 112.

⁴⁶ 42 U.S.C. 4321 §102(2)(C).

II. STATE LAWS

This section describes the many state laws that impact wetlands in Hawai'i. These include: State Conservation District classification; the Hawai'i Environmental Policy Act; Historic Preservation review; the State Water Code; Traditional and Customary Native Hawaiian Rights; and Community-Based Subsistence Fishing Areas. Some of these laws require analysis but do not mandate specific actions.

A. Conservation District

In Hawai'i, land use zoning is divided between the State and County. The state divides land into the following four districts: urban; rural; agricultural; and conservation.⁴⁷ The four counties can then further regulate the districts under their land use code, except for the conservation district.⁴⁸ The Conservation District is administered solely by the State Department of Land and Natural Resources ("DLNR"), with minimal input from the counties.⁴⁹

"The Conservation District has five subzones: Protective; Limited; Resource; General; and Special. Omitting the Special subzone, the four other subzones are arranged in a hierarchy of environmental sensitivity, ranging from the most environmentally sensitive (Protective) to the least sensitive (General); the Special subzone is applied in special cases to allow a unique land use on a specific site."⁵⁰

The Protective (P) Subzone appears to be most appropriate for fishponds because the Hawai'i Administrative Rules articulate the objective of this subzone as protecting valuable resources that include, among other things, "significant historic, archeological... features and sites."⁵¹ "The P subzone shall encompass... [l]ands and waters necessary for the preservation and enhancement of designated historic or archeological sites."⁵² Some of the identified land uses that are allowable in the protective subzone include work on fishponds,⁵³ kuleana uses,⁵⁴ and the limited construction of structures.⁵⁵ Even though these land uses are allowable, many of the specific activities would require prior permission from DLNR or the Board of Land and Natural Resources.

One alternative to P subzoning for the Mana'e project is Special subzoning, which is used for places with "unique development qualities which complement the natural resources of the area."⁵⁶ Only seven Special subzones have ever been created.⁵⁷ It has been used for a college

⁴⁷ Haw. Rev. Stat. § 205-2. Both the Hawai'i Revised Statutes and Administrative Rules related to can be obtained at http://luc.state.hi.us/admin_rules.htm. See also State Land Use Commission website for additional general information, available at <http://luc.state.hi.us/about.htm>.

⁴⁸ Haw. Rev. Stat. § 205-5.

⁴⁹ Haw. Rev. Stat. § 205-5(a).

⁵⁰ "Conservation Lands" webpage, Office of Conservation and Coastal Lands, Department of Land and Natural Resources, available at <http://www6.hawaii.gov/dlnr/occl/conservation.php>.

⁵¹ Haw. Admin. Rule § 13-5-11(a) available at <http://www6.hawaii.gov/dlnr/occl/Rules.php>.

⁵² Haw. Admin. Rule § 13-5-11(b2) (emphasis added).

⁵³ Haw. Admin. Rule § 13-5-22 (P-2).

⁵⁴ Haw. Admin. Rule § 13-5-22 (P-3).

⁵⁵ Haw. Admin. Rule § 13-5-22 (P-9, P-10).

⁵⁶ Haw. Admin. Rule § 13-5-15.

campus, cemetery, nursing home, Sea Life Park, and other educational projects. Most significantly, it was used for the Miloli'i fishing village in South Kona that was designated as a community based subsistence fishing area.⁵⁸ The Mana'e community could seek to have all or some of the fishponds along the coast designated as Special subzones, which allow for restoration and aquaculture. This area of Molokai is very unique because no other place in Hawai'i continues to have a similar concentration of fishponds, and it could be cultivated using both ancient and modern techniques.

B. Hawaii Environmental Policy Act ("HEPA")

The Hawai'i Environmental Policy Act ("HEPA") seeks to have decision-makers (primarily but not exclusively the government) consider the environmental impacts of projects prior to the commencement of any action.⁵⁹ HEPA is very similar to the federal government's NEPA and federal policy, rules, and court decisions can provide insight regarding how HEPA should operate. There are eight triggers that require the production of an EA or EIS.⁶⁰

The following three triggers are particularly relevant to private fishpond and coastal wetlands: (1) "use of any land classified as Conservation District by state law"; (2) "use within the Shoreline Setback Area (usually 40 feet inland from the certified shoreline)"; and (3) "use within any Historic Site or District as designated in the National or Hawai'i Register of Historic Sites."⁶¹ Although the proposed reconstruction, restoration, repair, or use of any Hawaiian fishpond is generally exempt from HEPA, this exemption is not available for fishpond owners seeking to fill or construct on-top of a fishpond.⁶² There were six final EAs prepared because of HEPA or NEPA for the restoration of fishponds between 1991 and 2007.⁶³ There were no EAs or EISs submitted for the filling of or construction on top of fishponds.

Some of the coastal land in Mana'e is classified as part of the conservation district and, therefore, non-minor changes to any such fishpond would require production of at least an EA.⁶⁴

The shoreline setback in Maui County is greater than the state minimum of 25 or 40 feet for parcels greater than 100 feet in average lot depth.⁶⁵ (See Part IV(A) for additional information about County setbacks on Molokai). While it becomes more technical and complicated to explain how the County determines the shoreline setback, it is clear that all loko kuapā and loko 'umeke

⁵⁷ Exhibit 2, Special Subzones: September 6, 1994, HAR § 13-5. This is from the most recent publication of the section of Hawaii Administrative Rules. It lists all the designated sub-zones.

⁵⁸ Haw. Rev. Stat. § 188-22.7.

⁵⁹ Haw. Rev. Stat. § 343-1.

⁶⁰ Haw. Rev. Stat. § 343-5(a), see The Environmental Guidebook, A Guidebook for the Hawaii State Environmental Review Process, April 2004, available at <http://www.state.hi.us/health/oeqc/index.html>.

⁶¹ The Environmental Guidebook, supra note 47, at 13.

⁶² Haw. Rev. Stat. § 183B-2.

⁶³ Calculated via a search on the EA and EIS Online Library on the Office of Environmental Quality Control website. A link to the library is available at: <http://www.state.hi.us/health/oeqc/index.html>.

⁶⁴ State of Hawaii Land Use District Boundaries – Island of Molokai, Office of Conservation and Coastal Lands, Department of Land and Natural Resources, http://www6.hawaii.gov/dlnr/occl/files/Subzones/12-05/molokai_conserv_subz2005.pdf.

⁶⁵ Website: Shoreline Setback Areas, County of Maui, available at <http://www.co.maui.hi.us/departments/Planning/czmp/ssa.htm>.

(shoreline) fishponds⁶⁶ with artificial rock walls extending into the ocean are in the setback area. According to the Hawai'i Administrative Rules, "[w]here an artificial wall seaward of the natural shore is used to create a fish pond, the shoreline shall be at the natural shore and not at the artificial outer wall."⁶⁷ Therefore, these types of fishponds are within the setback area and most non-restorative actions taken on them will trigger, at a minimum, an EA. Fishponds that are slightly inland of the shore may not necessarily be in the shoreline setback area and would require greater investigation to make this determination.

Finally, actions taken on registered historic properties trigger HEPA. As discussed below, there are several fishponds on Molokai that are on the State Historic Registry or could be placed on it thereby triggering environmental review.⁶⁸

In sum, nearly all non-minor actions such as filling or building structures on a fishpond will trigger environmental review pursuant to HEPA.

C. Historic Preservation Review

The State of Hawai'i seeks to "preserve and sustain reminders of earlier times which link the past to the present" through DLNR's State Historic Preservation Division.⁶⁹ One way of preserving these important places is by maintaining an inventory of historic properties on both private and public land. Once a property is listed, the property owner has certain affirmative obligations as well as some potential benefits.⁷⁰

Any person can nominate a property for designation, not just the property owner.⁷¹ If the property owner objects to the nomination, s/he may testify against it at the Hawai'i Historic Places Review Board meeting.⁷² If unsatisfied by the result, the property owner can also demand a contested case hearing.⁷³

In the 1970's, several properties including one fishpond were registered on the State list without the owner's receiving notification.⁷⁴ In part due to these actions, listing properties without notifying the owner has not happened since.⁷⁵ In general, if a property owner objects to designation, the property will not be listed.

⁶⁶ Draft Environmental Assessment, Kapoho Bay Fishpond Restoration Project, Prepared by: Farber & Associates Planning Services, pg 12-13 (Oct. 2007) citing W.K. Kikuchi, Hawaiian Aquacultural Systems, Ph.D. dissertation, Department of Anthropology, University of Arizona, Tuscon, AZ (1973).

⁶⁷ Haw. Admin. Rule § 13-222-16 (b)(7).

⁶⁸ Moloka'i Island Historic Register Quadrant Map, State Historic Preservation Division, Department of Land and Natural Resources, available at <http://hawaii.gov/dlnr/hpd/moloquad.htm> (select Kamalo Quad 04).

⁶⁹ SHPD, DLNR, <http://hawaii.gov/dlnr/hpd/hpgtrg.htm>.

⁷⁰ Haw. Admin. Rule § 13-198-9, Haw. Admin. Rule § 6E-10, Haw. Rev. Stat. § 343-5, and Maui Code § 3.48.553. See generally State Historic Preservation Division, Frequently Asked Questions webpage, http://hawaii.gov/dlnr/hpd/hp_faq.htm. See Maui County generally at Maui Code § 2.88 (cultural resources commission), Art III (Maui County Historic Districts) § 19.48, § 19.50, and § 19.52.

⁷¹ Haw. Admin. Rule § 13-198-3.

⁷² Haw. Admin. Rule §13-198-4.

⁷³ Haw. Admin. Rule §13-198-6.

⁷⁴ Telephone interview with Susan Tasaki, Architecture Branch, SHPD, (Apr. 19, 2008).

⁷⁵ Telephone interview with Susan Tasaki, Architecture Branch, SHPD, (Apr. 19, 2008).

The restoration of fishponds, lo`i kalo, dry land taro fields, and other sites were explicitly expressed as SHPD's goals in the Statewide Historic Preservation Plan.⁷⁶ There are numerous fishponds on Molokai that are on the State registry; two are in the Kamalō area (Pahiomu Fishpond and Kipapa Fishpond).⁷⁷ There are additional historic sites mauka of the coast in the Mana`e area.⁷⁸

D. State Water Code

Fresh water from streams and aquifers is managed by the Commission on Water Resource Management via the State Water Code.⁷⁹ Although the fishponds in Mana`e are generally salt or brackish water, the lo`i and fishponds are always fed by streams or springs. If a land owner wants to alter the stream or spring, s/he must get permission via a permit from the Commission.⁸⁰ As discussed below, the Commission must consider traditional and customary native Hawaiian rights and practices when reviewing permit applications. This review may prevent further diversion of fresh water if such diversion would harm the wetland sites.

E. Traditional & Customary Native Hawaiian Rights

1. Analysis of impact on native Hawaiian traditional and customary practices frequently required

In Ka Pa`akai o ka `Āina v. Land Use Commission, the Hawai`i Supreme Court held that Article XII, section 7 of the Hawai`i Constitution creates an affirmative duty on the State and its agencies to preserve and protect traditional and customary native Hawaiian rights.⁸¹

State agencies must, at a minimum, make specific findings and conclusions regarding:

- (1) 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 affected area;
- (2) the extent to which those resources -- including traditional and customary native Hawaiian rights -- will be affected or impaired by the proposed action; and
- (3) feasible action, if any, to be taken by the [the State agency] to reasonably protect native Hawaiian rights if they are found to exist.⁸²

Therefore, the State is required to make this formal analysis prior to taking any action, such as granting zoning changes and Special Management Area permits, which may affect a fishpond.⁸³

⁷⁶ Statewide Historic Preservation Plan For the State of Hawai`i, SHPD, see Goal II. Promote Sensitive Historic Preservation, Community Revitalization and Economic Revitalization, Objective D.4 (November 2001) available <http://hawaii.gov/dlnr/hpd/presplan.htm>.

⁷⁷ Moloka`i Island Historic Register Quadrant Map, SHPD, Department of Land and Natural Resources, available at <http://hawaii.gov/dlnr/hpd/moloquad.htm>. See also "Combined Map 1" and "Combined Map 2" from Harmonee

⁷⁸ "Combined Map 1" and "Combined Map 2" from Harmonee

⁷⁹ Haw. Rev. Stat. Ch. 174C.

⁸⁰ Haw. Rev. Stat. § 174C-93.

⁸¹ Ka Pa`akai v. Land Use Commission, 94 Haw. 31, 45 (2000).

⁸² Ka Pa`akai, 94 Haw. at 47.

This required analysis will, at the very least, delay further construction. However, rights of access and collection will not necessarily prevent landowners from developing their lands nor create an affirmative duty for the private landowner to maintain undeveloped lands in their natural state.⁸⁴

2. Possible arguments that Native Hawaiians have the right to practice within private fishponds

There are three requirements⁸⁵ initially set forth in the Public Access Shoreline Hawai'i v. Hawai'i County Planning Comm'n (hereinafter "PASH") case and later explained in State v. Hanapi that must be satisfied for a traditional and customary practice to be protected.⁸⁶ First, the person must be qualified as set forth in PASH and Hanapi. Second, the person must "establish that his or her claimed right is constitutionally protected as a customary or traditional Native Hawaiian practice." Finally, the person must prove that exercise of the right occurred or will occur on either undeveloped land or "less than fully developed land."

2a. Requirement One: Qualified Persons

Native Hawaiians are defined in the Hawai'i Constitution as "descendants of native Hawaiians who inhabited the islands prior to 1778."⁸⁷ With regard to constitutionally protected traditional and customary rights, any native Hawaiian regardless of blood quantum is entitled to these rights.⁸⁸ In addition, the Third Circuit (Hawai'i Island) has extended these entitlements to relatives by blood, marriage or adoption, and other people accompanying native Hawaiians who are practicing traditional and customary activities.⁸⁹ The Hawai'i Supreme Court in PASH declined to rule on this issue but has left the possibility open.⁹⁰

There were some conflicts regarding whether practitioners must stay within their own ahupua'a or exercise protected practices in other ahupua'a. In Kalipi v. Hawaiian Trust Company, LTD, Kalipi primarily lost his case because he no longer resided with the ahupua'a.⁹¹ Subsequently in Pele Defense Fund v. Paty, this limitation of gathering only in the ahupua'a that you reside in was removed if the party could demonstrate that in that specific geographic area, the practice of crossing ahupua'a boundaries was traditional and customary.⁹²

Similarly, on Molokai, this factual showing would need to be established. However, Courts have established a trend of expanding traditional and customary rights, which may prove

⁸³ This may be limited to discretionary permits only.

⁸⁴ Public Access Shoreline Hawai'i v. Hawaii County Planning Comm'n, 79 Haw. 425, 450 (1995) (hereinafter "PASH"), citing Pele Defense Fund v. Paty, 73 Haw. 578, 621 (1992) (hereinafter, "PDF").

⁸⁵ They are described as "factors" in Hanapi but are actually all mandatory.

⁸⁶ State v. Hanapi, 89 Haw. 177, 186 (1998).

⁸⁷ Hawai'i Constitution Article XII, § 7.

⁸⁸ PASH, 79 Haw. 425, 449.

⁸⁹ Pele Defense Fund v. The Estate of James Campbell, Civil No. 89-089, pg 26, 27, 34 (3rd Cir 1994) (hereinafter "PDF 3rd Circuit").

⁹⁰ PASH, 79 Haw. 425, 449 footnote 41.

⁹¹ Kalipi v. Hawaiian Trust Company, LTD, 66 Haw. 1 (1982). See e.g., PDF, 73 Haw. at 616.

⁹² The Hawai'i Supreme Court found this to be possible and sent the case down to trial level to make a factual determination of whether it was true in this case. This understanding is confirmed by the Supreme Court in PASH. PDE, 73 Haw. at 621; PASH, 79 Haw. at 438.

helpful in Mana`e.

2b. Requirement Two: Protected Rights

Some traditional and customary native Hawaiian rights are codified in Article XII, section 7 of the Hawai`i Constitution and in Hawai`i Revised Statutes sections 1-1 and 7-1.⁹³ However, other rights may exist even though the claimed right is not specifically enumerated in the Constitution or statutes.⁹⁴

Several cases confirm that activities not listed in the statutes can be traditional and customary. In Kalipi v. Hawaiian Trust Company, LTD, the party sought to gather ti leaf, bamboo, kukui nuts, kiawe, medicinal herbs, and ferns.⁹⁵ In PDE, the plaintiffs sought to gather various items in the forest and hunt.⁹⁶ In PASH, the citizens sought to continue “food gathering and fishing for `ōpae, or shrimp, which are harvested from anchialine ponds.”⁹⁷ In Hanapi, the defendants sought to protect religious, gathering, and sustenance activities in and around fishponds.⁹⁸ The rights sought in Hanapi were not upheld by the court (additional discussion below in Part III(E)(2)(b)(ii)).

i. Cultivation of taro and other agriculture in lo`i

Thus far, the Court has not considered the right to cultivate taro on private undeveloped land. During the Mahele of 1848, common people or maka`āinana were allowed to apply for parcels to own in fee simple.<sup>99</sup> These small parcels, later known as a kuleana, were the parcels used by maka`āinana to grow their own food and build a home.¹⁰⁰ They could even get additional small parcels not adjacent to their house lots to cultivate if they had historically used them, e.g., kula parcels.¹⁰¹ Today, taro is specifically mentioned in the Hawai`i Revised Statutes in two places relevant to traditional and customary practices. First, kuleana property owners were guaranteed appurtenant water rights to support the cultivation of taro.<sup>102</sup> Second, the statute defines traditional and customary rights of ahupua`a tenants to include “the cultivation or propagation of taro on one’s own kuleana.”¹⁰³

⁹³ Hanapi, 89 Haw. at 186.

⁹⁴ Hanapi, 89 Haw. at 186.

⁹⁵ Kalipi 66 Haw. at 13.

⁹⁶ PDE, 73 Haw. at 621.

⁹⁷ PASH, 79 Haw., at 430.

⁹⁸ Hanapi, 89 Haw. at 178.

⁹⁹ Section 7 of the Kuleana Act. Act of Aug. 6, 1850, 2 Rev. Laws Haw. 2141-42 (1925).

¹⁰⁰ Jon M. Van Dyke, *Who Owns the Crown Lands of Hawai`i?*, pg 46 (2008).

¹⁰¹ Haw. Rev. Stat. § 174C-101.

¹⁰² Haw. Rev. Stat. § 174C-101(d). “(d) The appurtenant water rights of kuleana and taro lands, along with those traditional and customary rights assured in this section, shall not be diminished or extinguished by a failure to apply for or to receive a permit under this chapter.”

¹⁰³ Haw. Rev. Stat. § 174C-101(c) (emphasis added). “(c) Traditional and customary rights of ahupua`a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one's own kuleana and the gathering of hihiwai, opae, o`opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes.”

The explanation of traditional and customary rights in the statutes goes further to include numerous gathering rights, presumably on other people's property.¹⁰⁴ By not mentioning cultivating taro or other food on other people's property, the provision implies that cultivating taro on other people's property is not protected. Our research has not identified any cases where native Hawaiians have asserted the right to grow taro on someone else's private property.

ii. Restoration of ancient Hawaiian fishponds

Petitioners Kalipi and Hanapi lost their cases due to specific factual circumstances which do not establish precedent that the asserted rights listed above were not valid. However, in Hanapi, the court held that the defendant did not produce sufficient evidence that "stewardship" or "restoration and healing of lands" was a traditional or customary Native Hawaiian practice.¹⁰⁵ (The fishponds had been filled by the property owner rather than deteriorated by natural processes.) In Hanapi, the court did not reach a decision regarding whether subsistence activities in the fishpond were a protected right. Minor maintenance of fishponds would likely be considered traditional and customary but large scale restoration (or construction of a new fishpond) is a more difficult argument to make in court. As detailed above, evidence is required to prove the existence of a traditional and customary right that is not enumerated.

iii. Fishing in ancient Hawaiian fishponds

Fishing in state waters in general would likely be considered a traditional or customary practice. However, fishing in fishponds is not as clear because, long ago, the Hawai'i Supreme Court held that fish ponds are private property.¹⁰⁶ Cases have explained that during the Māhele, fishponds were transferred as private property, generally to the konohiki of an area.¹⁰⁷ The Hawai'i Constitution allows for people to fish in State ocean waters but specifically excluded fishponds.¹⁰⁸ In addition, Hawai'i Revised Statutes explains that all fishing areas adjacent to government land except ponds shall be open to the public.¹⁰⁹ Fishponds were treated as different from other ocean areas because they were private and one could exclude people from them.

At least one writer, Ian Hlawati, has argued that fishing rights do extend to private fishponds.¹¹⁰ Essentially, he argues that courts have found and are attempting to reverse "unjustified losses of customary Hawaiian rights."¹¹¹ Combined with the idea that private property

¹⁰⁴ Haw. Rev. Stat. § 174C-101(c).

¹⁰⁵ Hanapi, 89 Haw. at 187.

¹⁰⁶ Application of Kamakana, 58 Haw. 632, 640 (1978).

¹⁰⁷ Kamakana, 58 Haw. at 640.

¹⁰⁸ "All fisheries in the sea waters of the State not included in any fish pond, artificial enclosure or state-licensed mariculture operation shall be free to the public, subject to vested rights and the right of the State to regulate the same" Haw. Const. Art. 11, § 6.

¹⁰⁹ It does not state fishponds, so one could argue that it is not referring to the ancient Hawaiian fishponds that this project concerns but rather small inland freshwater ponds. Haw. Rev. Stat. §187A-21. The Haw. Rev. Stat. on Flood Control and Flood Water Conservation uses the word "pond" in defining "Standing body of water" as "a fresh water pond, lake, or reservoir, or the Pacific Ocean along an extended shoreline or a tidal inlet such as a bay, harbor, pond, or estuary." Haw. Rev. Stat. §179-2.

¹¹⁰ Ian H. Hlawati, Loko I'a: A Legal Guide to the Restoration of Native Hawaiian Fishponds within the Western Paradigm, 24 U. Haw. L. Rev. 657, 666-667 (2002)

¹¹¹ Hlawati, supra note 96, at 666; (citing Reppun v. Board of Water Supply, 65 Haw. 531, 548 (1982)).

owners are the successors of the konohiki, he argues that these owners have responsibilities if they seek the benefits of the title of konohiki.¹¹² Therefore, private owners of fishponds may only have the right to regulate fishing in the waters, i.e., exclude others, to the extent that they provide for the tenants of the ahupua`a.¹¹³ This argument can be extended further based on konohiki fishing rights. Even in the areas where konohiki (private) fishing rights exist, “the tenants shall be allowed to take for home consumption or commercial purposes, any aquatic life of the fisheries, subject to the restrictions imposed by the konohiki.”¹¹⁴ This argument has not been asserted in Court yet and is not very compelling.

A second argument that fishing in a fishpond is a protected traditional and customary right, is very site and fact specific to the custom of a particular area. If immediately prior to and/or after the Mahele, the tenants in that particular ahupua`a were allowed to fish in the fishponds, this right may continue to the present. However, this is untested in Court. In addition, it is extremely fact intensive and requires significant evidence.

2c. Requirement Three: Undeveloped or Less Than Fully Developed Property

Practitioners are limited to using private property that is undeveloped or less than fully developed.¹¹⁵ “[O]nce land has reached the point of ‘full development’ it may be inconsistent to allow or enforce the practice of traditional Hawaiian gathering rights on such property.”¹¹⁶ However, the Court has been reluctant to explain what less than fully developed means.¹¹⁷ The limited clarification provided is that “fully developed” means “lands [are] zoned and used for residential purposes with existing dwellings, improvements, and infrastructure.”¹¹⁸

So, if a plaintiff was able to prove that s/he is eligible, and fishing or restoration of a fishpond is a protected traditional and customary practice, they must still establish that the land is less than fully developed. In this case, the properties in the project area vary in size and development. Small parcels of land adjacent to the fishpond that have structures on them would likely be considered fully developed. On the other hand, larger parcels that do not have structures adjacent to the fishpond may be considered less than fully developed.

¹¹² “the grant of such water rights to a konohiki owner were inseparable from the konohiki’s duty to provide for his tenants.” Hlawati, *supra* note 96, at 666 (citing Reppun v. Board of Water Supply, 65 Haw. 531, 547 (1982)).

¹¹³ Hlawati, *supra* note 96, at 667.

¹¹⁴ Haw. Rev. Stat. § 187A-23 (b).

¹¹⁵ *Hanapi*, 89 Haw. at 186.

¹¹⁶ *Hanapi*, 89 Haw. at 186.

¹¹⁷ *PASH*, 79 Haw. at 187.

¹¹⁸ *Hanapi*, 89 Haw. at 186-87.

F. Community Based Subsistence Fishing Areas

Designating community-based subsistence fishing areas is a relatively new concept in Hawai'i fisheries management that may be appropriate for the Mana'e area.¹¹⁹ "The goal of community-based management is to provide the 'local community [with] an understanding of the importance and values of native wildlife and their habitat and a sense of pride and ownership or stewardship that encourage[s] voluntary compliance.'"¹²⁰ Thus far, only two areas (Miloli'i and Ha'ena) have been designated for community based subsistence fishing in Hawai'i by the legislature.¹²¹ However, these areas differ from Mana'e in that they are in state marine waters rather than private fishponds.

¹¹⁹ Haw. Rev. Stat. § 188-22.6.

¹²⁰ Brooke Kumabe, Protecting Hawai'i's Fisheries: Creating an Effective Regulatory Scheme to Sustain Hawai'i's Fish Stocks, 29 U. Haw. L. Rev. 243 (2006) quoting Dwayne Meadows et al., Hawai'i Statewide Aquatic Wildlife Conservation Strategy, 3-13 (Pacific Cooperative Studies United. 2005), available at <http://hawaii.gov/dlnr/dar/sawcs.htm>.

¹²¹ The Miloli'i and Ha'ena areas are designated in Haw. Rev. Stat. §§ 188-22.7 and 188-22.9.

III. COUNTY LAWS

Because Molokai is within Maui County, at the County level, any development of loʻi or fishponds will fall under the jurisdiction of Maui County, Maui Department of Planning, and the Molokai Planning Commission. The requirements most relevant to development of loʻi or fishponds are: Shoreline Setbacks; Grading and Grubbing Permits; and the Special Management Area permits.

A. Shoreline Setback Rules

The jurisdiction of the County is first determined by where the State certifies the shoreline.¹²² Hawaiʻi Revised Statute Chapter 205A, sections 41 through 49, pertains to “Shoreline Setbacks.”¹²³ DLNR determines the shoreline,¹²⁴ which is generally delineated by the highest reach of the wash of the waves.¹²⁵ Counties may adopt rules that require shoreline setbacks established at greater distances¹²⁶ than those set by the State, which are not less than 20 feet and not more than 40 feet inland from the shoreline.¹²⁷ Molokai’s shoreline setback is greater than the State’s setback, and is based on lot size. Generally, the shoreline setback is 40 feet, but it can be greater.¹²⁸ For instance, for lots with a depth of 160 feet or more, the setback is either a maximum of 150 feet or 25% of the average lot depth—whichever is the least distance from the shoreline.¹²⁹

The Molokai Planning Commission’s “Rules Relating to Shoreline Setbacks” are found in Rules of the Molokai Planning Commission (“Rules”) § 12-4-1 to -17.¹³⁰ The relevant provisions are:

1. Rule § 12-4-6(b), which requires that “prior to commencement of grubbing, grading, or construction activities, the shoreline setback line shall be identified on the ground and posted with markers, posts, or other appropriate reference marks by a surveyor licensed in the State of Hawaii”

¹²² E-mail from Joseph Alueta, Administrator, Maui County Planning Department (Apr. 7, 2008).

¹²³ See generally HAW. REV. STAT. §§ 205A-41 to -49. The statute is available online, on the Hawaiʻi Capitol website, http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0205A/.

Alternatively, you may search for the statute directly from the Capitol website, by going to <http://www.capitol.hawaii.gov/> and then clicking on “Hawaii Revised Statutes” and then clicking on the “Browse” button and then selecting the HRS section you wish to see.

¹²⁴ HAW. REV. STAT. § 205A-42.

¹²⁵ See generally *In re Ashford*, 50 Haw. 314 (1968); *County of Hawaii v. Sotomura*, 55 Haw. 176 (1973); *Diamond v. State*, 112 Hawaiʻi 161 (2006).

¹²⁶ HAW. REV. STAT. § 205A-45.

¹²⁷ HAW. REV. STAT. § 205A-43.

¹²⁸ See Molokaʻi Planning Commission Rule § 12-4-6.

¹²⁹ Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008); Molokaʻi Planning Commission Rule § 12-4-6.

¹³⁰ See Molokaʻi Planning Commission, <http://www.co.maui.hi.us/boards/bDetail.php?BoardID=26>. Click on the link to “Rules of the Molokai Planning Commission relating to the Shoreline Area” to access these regulations.

2. Rule §12-4-10, which delineates the “prohibited activities within the shoreline area.” This includes mining or taking of sand or coral, rocks, soil, or other beach deposits except under certain circumstances, including:
 - where mining is authorized by a variance;
 - clearing of materials from existing drainage pipes and canals and mouths of streams;
 - cleaning for state or county maintenance.
3. Rule §12-4-11, which prohibits structures within the shoreline area, unless the builder receives a variance, or it is a “minor structure” such as landscape features, single-storied recreation buildings, pools, walkways, or lanai.
4. Rule § 12-4-15, which is the penalty provision, provides that “[a]ny person who violates any provision of these rules shall be subject to the penalties provided for in Chapter 205A-32, HRS.” (See discussion of penalties under HRS 205A in Part C, below).

Any person who observes a possible violation of the shoreline setback rules may file a complaint with the Maui County Department of Planning. Upon receiving a complaint, the Department will send an inspector to investigate.¹³¹

B. Grading and Grubbing Permits

Grading is the “temporary storage of soil, sand, gravel, rock, or any similar material and excavation or fill or any combination thereof.” Grubbing is “any act by which vegetation, including trees, timber, shrubbery and plants, is uprooted and removed from the surface of the ground.”¹³²

Maui Code Chapter 20.08 (“Soil Erosion and Sedimentation Control”)¹³³ “preserve[s] and enhance[s] the natural environment” by “regulating and controlling grubbing and grading operations within the County.”¹³⁴ There are only limited exceptions to this chapter.¹³⁵ Maui County administers these provisions.

Section 20.08.40 prohibits any grading or stockpiling without a grading permit, any grubbing without a grubbing permit, or any activity on land within a “special management area” without a permit.¹³⁶ (See discussion of special management areas, Part C, below). Sections 20.08.050 through 20.08.90 detail how an applicant must apply for various permits.

¹³¹ Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008). The Planning Commission is not the authority that would enforce these violations.

¹³² Maui Code § 20.08.020.

¹³³ To access the Code, go to Maui County Code, available at <http://municipalcodes.lexisnexis.com/codes/maui/index.htm>, and click on the link to “Title 20 Environmental Protection.” Alternatively, find the Code at <http://ordlink.com/cgi-bin/hilite.pl/codes/maui/maintoc.htm>, and click on the link to “Title 20 Environmental Protection.”

¹³⁴ Maui Code § 20.08.010.

¹³⁵ See generally Maui Code § 20.08.030 - .031.

¹³⁶ Maui Code § 20.08.040.

Grubbing or grading permits are valid for one year from the date of issue.¹³⁷ The permit may, however, be extended in “cases of hardship or for good cause.”¹³⁸ The Maui Department of Public Works, Development Services Administration grants these waivers. The threshold for “hardship” or “good cause” is not difficult to meet, and the Administration generally grants an extension if a developer is actively grading and grubbing but has not finished construction within the one year period.¹³⁹

There are various provisions relating to penalties. If a developer grades or grubs without a permit, “the fees set forth in the annual budget shall be doubled or increased by an additional \$200, whichever is greater, as a penalty for noncompliance with the grading permit requirement.”¹⁴⁰ The developer must also correct any damage caused by the grading, or post a performance bond to cover the cost.¹⁴¹ The permit may be suspended or revoked if it is determined that the permittee supplied incorrect information, or if the activities are not performed in accordance with the terms of the permit.¹⁴² Any person violating the permitting provisions shall “be punished by a fine not exceeding \$1,000 or by imprisonment not exceeding one year, or both.”¹⁴³ Importantly, a violation is considered a new offense for each day that it occurs.¹⁴⁴

Moreover, regardless of whether a permit is required, the Code mandates that “all grading, grubbing, and stockpiling activities shall provide [best management practices] to the maximum extent practicable to prevent damage by sedimentation to streams, watercourses, natural areas, and the property of others.”¹⁴⁵

Any person who observes a possible violation of the grading and grubbing rules may file a complaint with the Maui Department of Public Works, Development Services Administration. Upon receiving a complaint, the Administration will send an inspector to investigate.¹⁴⁶

C. Special Management Area Permit

The Coastal Zone Management Act (“CZMA”) is a federal law that provides funding to state and county governments that develop and manage their coastal zones. The “coastal zone” includes coastal waters and the adjacent shoreline. The CZMA is intended to control development

¹³⁷ Maui Code § 20.08.110.

¹³⁸ Maui Code § 20.08.110.

¹³⁹ Telephone Interview, Lance Nakamura, Maui Department of Public Works, Development Services Administration (Apr. 14, 2008).

¹⁴⁰ Maui Code § 20.08.095. The fees for grading and grubbing permits are set annually by the Maui County Council. The fees are based on a sliding scale, according to the development area. For example, 100 cubic yards equals a fee of \$15. In this example, the fee would be \$200, because that is more than the value of twice the \$15 fee. Telephone Interview, Lance Nakamura, Maui Department of Public Works, Development Services Administration (Apr. 14, 2008).

¹⁴¹ Maui Code § 20.08.095.

¹⁴² Maui Code § 20.08.120.

¹⁴³ Maui Code § 20.08.320.

¹⁴⁴ Maui Code § 20.08.310.

¹⁴⁵ Maui Code § 20.08.035.

¹⁴⁶ Telephone Interview, Lance Nakamura, Maui Department of Public Works, Development Services Administration (Apr. 14, 2008).

along the shoreline, not necessarily prohibit all development. The CZMA is implemented at the county level via the “Special Management Area” permitting system.¹⁴⁷

HRS Chapter 205A is Hawai‘i’s Coastal Zone Management program.¹⁴⁸ HRS section 205A-2 outlines the objectives and policies of the program, including:

1. “protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources . . . that are significant in Hawaiian and American history and culture”;¹⁴⁹
2. “protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources”;¹⁵⁰
3. “stimulate public awareness, education, and participation in coastal management”;¹⁵¹
4. “promote the protection, use, and development of marine and coastal resources to assure their sustainability”;¹⁵²
5. “requi[re] replacement of coastal resources having significant recreation value including, but not limited to, surfing sites, fishponds, and sand beaches . . . or requiring reasonable monetary compensation to the State . . . when replacement is not feasible”;¹⁵³
6. “ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline.”¹⁵⁴

First, a geographic Special Management Area (“SMA”) is designated.¹⁵⁵ Before any development may occur within an SMA, a developer is required to get an SMA permit.¹⁵⁶ A “Special management area minor permit” authorizes development that is no more than \$125,000 in value and has no “substantial adverse environmental or ecological effect.”¹⁵⁷ A “Special management area use permit” authorizes development that is more than \$125,000 in value or which “may have substantial adverse environmental or ecological effect.”¹⁵⁸

¹⁴⁷ See generally HAW. REV. STAT. §§ 205A-1 to -33.

¹⁴⁸ See generally HAW. REV. STAT. §§ 205A-1 to -64. The statute is available online, on the Hawai‘i Capitol website:

http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0205A/.

Alternatively, you may search for the statute directly from the Capitol website, by going to <http://www.capitol.hawaii.gov/> and then clicking on “Hawaii Revised Statutes” and then clicking on the “Browse” button and then selecting the HRS section you wish to see.

¹⁴⁹ HAW. REV. STAT. § 205A-2(b)(2)(A).

¹⁵⁰ HAW. REV. STAT. § 205A-2(b)(3)(A).

¹⁵¹ HAW. REV. STAT. § 205A-2(b)(8)(A).

¹⁵² HAW. REV. STAT. § 205A-2(b)(10)(A).

¹⁵³ HAW. REV. STAT. § 205A-2(c)(1)(B)(ii) (emphasis added).

¹⁵⁴ HAW. REV. STAT. § 205A-2(c)(3)(B).

¹⁵⁵ The Moloka‘i Planning Commission is the designated authority for Moloka‘i. See HAW. REV. STAT. § 205A-23. Moloka‘i Planning Commission Special Management Area Rules §12-302-7 states that the SMA boundaries are designated on the maps adopted by the Commission, which are in the keeping of the Maui Department of Planning.

¹⁵⁶ HAW. REV. STAT. § 205A-28 (“No development shall be allowed in any county within the special management area without obtaining a permit in accordance with this part.”).

¹⁵⁷ HAW. REV. STAT. § 205A-22.

¹⁵⁸ HAW. REV. STAT. § 205A-22. There is no set standard for what qualifies as a “substantial adverse environmental or ecological effect.” Generally, the Maui Department of Planning requests an opinion from

HRS 205A-32 is the penalty provision. A person who violates the SMA rules (or Molokai's shoreline setback rules, see Part A, above) is liable for a civil fine up to \$100,000 or the cost of remediating the environment.¹⁵⁹ Additionally, that person may be liable for fines up to \$10,000 per day.¹⁶⁰

On Molokai, the SMA program is headed by the Molokai Planning Commission, which has passed Rules to regulate the program.¹⁶¹ The following rules relate to SMAs on Molokai:

1. Rule § 12-301-65 to -67 "Special Management Area Permit and Special Use Permit" describes the rules of practice and procedure that the Commission follows.
2. Rule § 12-302-1 to -26 "Special Management Area Rules" relates specifically to SMA boundaries and permits. Rule § 12-302-14 states that the Commission shall approve or deny "special management area minor permits," in accordance with HRS 205A-26. Rule § 12-302-15 pertains to "special management area use permits." An SMA use permit must be review by both the Maui Department of Planning and the Molokai Planning Commission, who will seek input from other relevant government entities

There is no citizen suit provided for in the SMA statute or County rules. Any person who observes a possible violation may file a complaint with the Maui Department of Planning or the Molokai Planning Commission.

other relevant government agencies, including the Hawai'i State Historic Preservation Division, the Department of Land and Natural Resources, and the federal Army Corps of Engineers. Based on evaluations by these other agencies, the Maui Department of Planning may determine that there is a "substantial" effect. Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008).

¹⁵⁹ HAW. REV. STAT. § 205A-32(a)(1)-(2).

¹⁶⁰ HAW. REV. STAT. § 205A-32(b).

¹⁶¹ These can be located on the Moloka'i Planning Commission's website, <http://www.co.maui.hi.us/boards/bDetail.php?BoardID=26>. Click on the link to "Rules of Practice and Procedure for the Molokai Planning Commission" and the link to "Special Management Area Rules and Regulations for the Molokai Planning Commission (with Amendments)."

IV. INCENTIVES

A. Federal Incentives

There are several federal incentive programs to help increase compliance with wetland laws and conservation. The following sections describe some of these programs in detail and suggests other potential incentives.

1. The Wetlands Reserve Program (“WRP”)¹⁶²

The Wetlands Reserve Program (“WRP”)¹⁶³ is a voluntary program that helps landowners restore and protect wetlands. Landowners participating in WRP can receive up to 100% reimbursement for restoring wetlands previously drained or converted to other agricultural uses. Under WRP, the landowner still controls access to the land.

1a. How WRP works

Landowners may file an application for a conservation easement or a cost-share restoration agreement with the U.S. Department of Agriculture (“USDA”) to restore and protect wetlands. Participants voluntarily limit future use of the land, but retain private ownership. The program offers three enrollment options:

Permanent Easement. This is a conservation easement in perpetuity.¹⁶⁴ Easement payments for this option equal the lowest of three amounts: the difference in the appraised fair market value of the larger parcel before the easement is in place and the appraised fair market value of the larger parcel after the easement is in place; an established payment cap; or an amount offered by the landowner. In addition to paying for the easement, USDA pays up to 100% of the cost of restoring the wetland.

30-Year Easement. Easement payments through this option are 75% of what would be paid for a permanent easement. USDA also pays up to 75% of the restoration cost.

For both permanent and 30-year easements, USDA pays all costs associated with recording the easement in the local land records office, including recording fees, charges for abstracts, survey and appraisal fees, and title insurance.

Restoration Cost-Share Agreement. This is an agreement, generally for a minimum of 10 years, to re-establish degraded or lost wetland habitat. USDA pays up to 75% of the cost of the restoration activity. This enrollment option does not place an easement on the property.

¹⁶² The following information was taken from the United States Department of Agriculture, available at <http://www.nrcs.usda.gov/programs/wrp/>.

More information is available at: <http://www.nrcs.usda.gov/programs/farmbill/2002/>

¹⁶³ United States Department of Agriculture, Natural Resources Conservation Service, available at: <http://www.nrcs.usda.gov/programs/wrp/>

¹⁶⁴ An easement is an interest in land owned by another person, consisting in the right to use or control the land, or an area above or below it, for a specific limited purpose. An easement may last forever (perpetual), but it does not give the holder the right to possess, take from, improve, or sell the land. BLACK’S LAW DICTIONARY (8th ed. 2004), easement. A conservation easement is a legal agreement restricting the development of a piece of property. See BLACK’S LAW DICTIONARY (8th ed. 2004), conservation.

1b. Application

Applications are accepted through a continuous sign-up process. Applications may be obtained and filed through USDA's e-gov Internet site at: <http://forms.sc.egov.usda.gov/eforms/formsearchservlet>. Enter "Natural Resources Conservation Service" in the Agency field, "Wetlands Reserve Program" in the Program Name field, and "AD-1153" in the Form Number field.

1c. Eligibility

To be eligible for a conservation easement, the landowner must have owned the land for at least 12 months prior to enrolling it in the program, unless the land was inherited, the landowner exercised the landowner's right of redemption after foreclosure, or the landowner can prove the land was not obtained for the purpose of enrolling it in the program.

To be eligible for WRP, land must be restorable and be suitable for wildlife benefits. This includes:

- Wetlands farmed under natural conditions;
- Farmed wetlands;
- Prior converted cropland;
- Land that has become a wetland as a result of flooding;
- Range land, pasture, or production forest land where the hydrology has been significantly degraded and can be restored;
- Riparian areas which link protected wetlands;
- Previously restored wetlands that need long-term protection.

2. Federal Emergency Wetland Act of 1986

The federal Emergency Wetlands Act¹⁶⁵ promotes the conservation of wetlands through state and federal cooperation. The Act provides for federal wetland acquisition and promotes the use of Land and Water Conservation Fund monies for acquisition of wetlands for public outdoor recreation.

3. Other incentives

Other possible incentives include:

- the acquisition of wetlands by federal, state, and/or local government agencies;
- the denial of 401 water quality certification for proposed projects that would result in wetland destruction;
- financial (tax) incentives for wetlands protection, and
- financial disincentives for wetlands destruction.

All of these ideas will require more research before determining their feasibility.

¹⁶⁵ 16 U.S.C. §§ 3901-3932 (2003), available at: <http://ipl.unm.edu/cwl/fedbook/ewra.html>

B. County Incentives

Currently, there are no incentive programs at the County level.¹⁶⁶ One might propose a variety of incentives or restrictions applicable in the future, including:

- tax breaks for land owners who preserve or restore wetlands (similar to the tax relief provided for kuleana land owners);
- reducing taxes on adjacent properties if the landowner remediates the wetland or allows a community group to do so;
- community fundraising for wetland acquisition by Maui County;
- increasing the shoreline setback near a wetland;
- setting up conservation easements with a non-profit organization;
- voluntary restrictive covenants between landowners.

¹⁶⁶ Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008); Telephone Interview, Lance Nakamura, Maui Department of Public Works, Development Services Administration (Apr. 14, 2008).

Appendix F Table 5.1: Mana‘e Subsistence & Ahupua‘a
Management Plan Framework & Table 5.3:
Community Suggestions for East Slope
Management Plan

Table 5.1: Mana‘e Subsistence & Ahupua‘a Management Plan Framework

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION& THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO AKUA • Sacred Forest • Montane Cloud Forest • Core Watershed • Native-Plant Community • Non-Augmented • Traditionally Kapu area	- o Native Forest - o Freshwater source - o North to South Trails (e.g., Wailau to Mapulehu Trail) - o Goat (some, both N & S side) - o Pig (migrate between N & S) - o Deer (some places like Pākaikai)	<i>A complete inventory needs to be done. EMOWP will be doing an Environmental Assessment (EA) and Cultural Impact Assessment (CIA) for each unit as they progress, which should cover Wao Akua for those areas.</i>	▪ <u>Trails</u> – Maintain Native Hawaiian cultural rights & practices to traverse on traditional trails for travel, subsistence, and religious purposes. Consider designation of all traditional trails as public trails under the State Na Ala Hele Trails program. ▪ <u>Hunting</u> – Provide waivers and/or Memoranda of Agreement (MOA) between local/community hunters, EMOWP, & other landowners. Form hunting hui/cooperatives with mandated liability insurance and initiate partnerships or agreements with large landowners for hunting access. Coordinate with hunter education and licensing program supplemental curriculum for traditional management and conservation work in tandem with EMOWP initiatives.³⁶⁶	□ Wao Akua should be respected and largely left alone, which can be accomplished with fencing. □ Implement fence (where supported). □ Manage ungulates in order to protect the critical water resources located there. □ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access.
WAO KELE • Saturated Forest (below clouds) • Upland Rainforest (human access difficult and rare) • Minimally Augmented	- o Native Forest - o Streams - o Waterfalls - o North to South Trails (e.g., Wailau - Mapulehu Trail) - o Goat (some, both N & S side) - o Pig (migrate between N & S) - o Deer (some places like Pākaikai)	<i>A complete inventory needs to be done. EMOWP will be doing an EA and CIA for each unit as they progress, which should cover Wao Kele for those areas.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – consider application to State Water Commission for Surface Water Management Area Designation of important streams. Work with Water Commission to determine In-Stream Flow Standards and include community collaboration (critical to determine how much water is needed for traditional and customary practices and stream health).	□ Implement fence (where supported). □ Manage ungulates; Implement hunting recommendations detailed in narrative below. □ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access. □ Maintain and restore native stream ecology.

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION& THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO NAHELE ● Remote Forest (highly inconvenient for human access) ● Primarily Native Plant Community ● Bird-Catching Zone ● Minimally Augmented	- o Native Forest - o Streams - o Waterfalls - o ‘O‘opu - o Hīhīwai - o North to South Trails (e.g., Wailau - Mapulehu Trail) - o Goat, Pig, Deer - o Lei plants (e.g., maile)	<i>A complete inventory needs to be done. EMoWP will be doing an Environmental Assessment (EA) and Cultural Impact Assessment (CIA) for each unit as they progress, which may include Wao Nahele in those areas.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – same as above.	☐ Protect Waiakeakua, the waterbowl that feeds all streams. ☐ Implement fence (where supported). ☐ Manage ungulates; Implement hunting recommendations detailed in narrative below. ☐ Remove invasive plants and re-plant natives, as feasible. ☐ Restore Ulu Kukui o Lanikaula at Pu‘u o Hoku to catch the rain cloud. ☐ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. ☐ Maintain trails and ensure access. ☐ Maintain and restore native stream ecology.
WAO LĀ‘AU ● Lowland Forest ● Maximized Biodiversity ● Highly Augmented due to Integrated Agroforestry (food and fuel trees, hardwood trees, construction supplies, medicine and dyes, lei materials)	- o Native Lowland Forest - o Trails: lateral - between ahupua‘a; vertical N-S, mauka-makai - o Goat, Pig, Deer - o Streams: ‘o‘opu, hīhīwai - o Springs - o Brackish water fish species that swim and feed upstream: e.g., ‘aholehole, mullet - o Cultural sites: heiau, pu‘uhonua, etc. - o Native plants: kukui, wauke, ulu, pepeiao - o Lei Plants: maile, ginger - o Construction wood and plant fibers for structures and implements - o Lo‘i kalo	<i>A complete inventory needs to be done for Wao Lā‘au. Should be done as part of next steps.</i>	▪ <u>Trails</u> – same as above. ▪ <u>Hunting</u> – same as above. ▪ <u>Streams</u> – same as above. ▪ <u>Appurtenant Water Rights</u> - an inventory should be done to determine appurtenant water rights associated with lo‘i kalo (taro lands) (lo‘i) and ‘auwai (irrigation ditches) which have reserved water rights from the time of the Māhele. ▪ <u>Wahi pana</u> – Inventory important wahi pana and cultural sites, and petition to include them in National and State Historic Sites Registries.	☐ Implement fence where feasible and supported. This is most likely lower than proposed fenceline, so would require additional landowner agreements. ☐ Manage ungulates; implement hunting recommendations. ☐ Remove invasive plants and re-plant natives, ☐ Restore Ulu Kukui o Lanikaula at Pu‘u o Hoku ☐ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. ☐ Maintain trails and ensure access. ☐ Maintain and restore native stream ecology. ☐ Restore ko‘a for ceremonial offerings and to serve as a line of sight to important traditional fishing grounds in the ocean. ☐ Cultural sites should be cared for and maintained. Mālama should be carried out by hoa‘āina families as feasible.

WAO	NATURAL & CULTURAL RESOURCES	EXISTING CONDITION & THREATS	LEGAL PROTECTIONS	COMMUNITY MANAGEMENT RECOMMENDATIONS
WAO KANAKA • “Hawaiian Footprint” Zone • Habitation • Agriculture • Aquaculture • Recreation	- o Cultural sites (e.g., heiau) - o Burials - o Trails (lateral - between ahupua‘a and N-S, mauka-makai) - o Canoe plants/trees: ‘ulu, mai‘a, ‘uala, kalo (wet & dryland) - o Native plants/trees: kukui, wauke, pepeiao, etc. - o Lei Plants: maile, ginger, ti leaf, etc. - o Fishing ko‘a - o Shoreline resources: limu, crab, pipipi, kupe‘e, ‘opihi, ‘opae, etc. - o Ocean resources: fish, he‘e, honu, etc. - o Fishponds - o Estuaries - o Springs entering shoreline/ocean - o Stream resources: ‘o‘opu, hīhīwai, prawns - o Reef patches tended as sea gardens (associated with women) - o Manini houses (tended by women) - o Special fishing grounds tended by ‘ohana (linked to ko‘a on land) - o Reef - o Open Ocean	<i>A complete inventory needs to be done for Wao Kanaka.</i> <i>Should be done as part of next steps.</i>	▪ Streams – same as above. ▪ Wahi pana – same as above. ▪ Protect ancient burial sites through official burial registration with State Historic Preservation Division. ▪ For landowners not in the Watershed partnership and who own property below proposed fenceline, draft right of entry agreements for kama‘āina families to do restoration, such as native plantings with mobile fencing units to restore lowland forests. ▪ Create hui or cooperative for cottage industry development among kama‘āina families to operate native plant nurseries for reforestation work. ▪ Create agreements between native plant nursery growers and implementers of restoration work (EMoWP for mauka areas) for purchase of native plants. ▪ Initiate strategy for leasing of State-owned fishponds for restoration work, food production, reopening and protecting springs. ▪ Participate in new statewide streamline permitting process for fishpond restoration and utilization. ▪ Investigate new/additional zoning consistent with this Mana‘e TCP & larger ahupua‘a plan. ▪ Prevent filling and building on wetlands through strict enforcement of zoning and permitting requirements. ▪ Investigate illegal grading and grubbing activities taking place without a permit to protect ahupua‘a resources, especially springs, streams and nearshore area from siltation and non-point source pollution. ▪ For overall protection of nearshore fisheries, initiate process and proposed management plan for Community-Based Subsistence Fishing Area (CBSFA) designation. ▪ Institute protections for endangered green sea turtles in critical mating and nesting areas (eg ‘Aha‘ino, Honomuni). Minimize negative land-based activities that contribute to deterioration of essential habitat.	□ Remove invasive plants and re-plant natives, as feasible. □ Ensure access for hoa‘āina hunting, Native Hawaiian traditional and customary gathering and mālama practices, religious and ceremonial activities. □ Maintain trails and ensure access. □ Restore ko‘a and line of sight from ocean. □ Cultural sites should be cared for and maintained. Mālama should be carried out by hoa‘āina families as feasible. □ Maintain and restore native stream ecology. □ Establish native nurseries with mauka and makai species. □ Lo‘i and ‘auwai should be restored, re-opened, and kalo planted for production. Lo‘i can also be utilized as silt traps to reduce run-off. □ Support sustainable farming for personal and commercial production. □ Support fishpond protection and restoration efforts. □ Remove invasives, such as gorilla ogo limu, or invasive fish like roi. □ Implement shoreline monitoring and offshore monitoring. □ Explore options for community-based resource management of marine resources through obtaining Community-Based Subsistence Fishing Area (CBSFA) designation.

Table 5.3: Community Suggestions for East Slope Management Plan

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
1. Create small, manageable fenced sub-units with priority to absolutely pristine native upland forest.	Build what you can manage and manage what you can build; building bigger and not being able to manage it in the long run reduces the effectiveness of protecting the watershed within the fenceline.	The size of fencing units is an ongoing debate. EMoWP strives to find the right balance between minimizing the amount of fencing used (larger units = less fencing, less disturbance in forest, less cost) and making units small enough to manage.	Size of units should be determined through an open dialogue between EMoWP & community.
2. In lieu of mauka-makai connector fences, create small corridors between fencing units in most appropriate places (i.e., areas that do not have intact native forest, and will not cause intensive erosion) as “release valves” that lessen ungulate migration and pressure on large, unfenced areas.	- Consider lesser quality areas (not intact native forest) for these potential “release valves” to allow for North-South migration and to ease pressure on unfenced areas not in the watershed partnership. - This would also make coordinated community hunting more effective (ungulates would travel through corridors like fish do through mākāhā). - These areas should not correspond with traditional trails where hunting may conflict with hiking activity and pose a potential safety hazard. - Site these areas in less erosive terrain (this may entail creating an area that runs along contour with the land to reduce scarring and erosion of the landscape).	- If you create a corridor, you create edges, basically open more areas to “infection,” where invasive plants can spread. - Creates safety concerns. Narrow corridors could create potential danger if ungulates (esp. in numbers) “collide” with people. - The need for “release valves” indicates over-population. - Another potential strategy might be to increase animal control on the north shore. - The concept needs more study as to its potential effects; consider pros & cons. - May work better along lower contour fence.	The use or non-use of small corridors as “release valves” that lessen spillover impacts to large unfenced areas should be determined through an open dialogue between EMoWP & community.
3. Plant food for ungulates along these “release valve” areas (corridors discussed above).	So less stress is placed on native plant life in neighboring ahupua‘a that have not yet been fenced.	Brings up idea of creating “animal management areas” that are away from native ecosystems (lower). Would allow access to food source & protect ecosystem.	Need dialogue between EMoWP & community, if use small corridors.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
4. Tie in a mauka-makai fenceline to lateral fences erected by EMoWP pursuant to the East Slope Management Plan.	- Need to let each ahupua‘a (or ahupua‘a cluster), who are in agreement, manage their own area. Those ahupua‘a (or clusters) who strongly oppose the fence and for which large landowners have not joined the watershed partnership could manage their own areas. In this way, decisions made in one ahupua‘a (or cluster) do not infringe upon decisions made in another ahupua‘a (or cluster). - Even if this is an added expense, it is necessary in order to prevent harm to neighboring ahupua‘a and is consistent with the ‘Aha Councils’ methodology of caring for the 8 resource realms and utilizing a decision-making matrix that included honoring kūpuna wisdom, addressing the needs of the present, and ensuring abundance for future generations. - As an alternative, we could look at planting a living fence out of acceptable vegetation that would essentially block out-migration to unfenced ahupua‘a.	- Agree with concept of allowing each ahupua‘a decide on its management. The difficulty comes in getting funding since it’s not typically done (no proof of effectiveness). - Also, deer go all the way makai, so a mauka-makai fence wouldn’t stop all lateral movement. - Another idea might be to do partial mauka-makai fence and add on a “wing-fence” to draw animals in (would work mostly for goats and on flat areas).	Use of mauka-makai fences should be determined through an open dialogue between EMoWP & community, with all considerations researched and presented.
5. Fencing should correspond with an animal control plan outside the fence that has certain benchmarks based on carrying capacity.	This would bring ungulate population to sustainable numbers that preserve a food resource for subsistence while allowing the land to heal and re-establish preferred vegetation. This could be carried out by or with the help of the community hunting huis/cooperatives discussed in the narrative above.	This again brings up the idea of “animal management areas.” There is no evidence that a native Hawaiian forest can sustain any level of ungulate activity. There is strong evidence that a native forest will heal with zero tolerance (no ungulates), which is the goal for fenced areas.	Such animal control is outside of EMoWP/TNC’s scope of work, but will help with implementation if requested. Need a carrying capacity study first.
6. Coordinate community hunts accordingly to reach planned benchmarks (outside fence).	Need a carrying capacity study for deer (and possibly pigs and goats), along with a survey on how many of these animals are needed for household consumption. This suggestion could also be carried out by or with the help of the community hunting huis/cooperatives.	Agree.	Kuleana of SAMP implementers. Also a carrying capacity study should be conducted for deer, pigs & goats.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
7. A program integrating conservation by hunters should be included as part of the Hawai‘i Hunter Education Course.	Should teach cultural values regarding hunting (e.g., ATVs, trophy rack hunting, wasting meat, discarding remains, etc.). This program could be developed with the members of the hunting hui/cooperatives.	Agree.	Kuleana of SAMP implementers to work with course teachers.
8. For community hunts, implement technique modeled along surround-net fishing or loko ‘umeiki fishtrap.	Place stakes at every 10 meters along the mountain in the outline of a he‘e (octopus) to mimic the fishing practice of surround net. When community hunts are scheduled, erect a cargo net barrier along the stakes. Hunters from below will chase animals into the net, which will be cinched at the top. Note: animal count surveys should be done beforehand to avoid catching too many animals. Animals hunted for subsistence should be harvested sustainably to continue as a food source, but also in manageable numbers to minimize degradation of native vegetation.	- Mostly useful for goats, but probably won’t work for deer or pigs. - Again, there is no evidence that a native Hawaiian forest can sustain itself with any ungulates, but good to minimize numbers.	Kuleana of SAMP implementers.
9. Install cabins up mauka 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 can 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 & bring the animals down the mountain. - The second purpose is to conduct fence monitoring work, invasive species removal (above & below fence), establishing new stands of native plants, and maintenance of trails & cultural sites. Hunters can be utilized to do such activities.	Need to consider placement – it’s ultimately up to the landowner. Also need to decide who’s responsible for maintenance. There has been vandalism to some cabins, so it might be easier to construct something simple, like a platform with a roof.	Kuleana of SAMP implementers.
10. Create meat distribution points along each ahupua‘a or ahupua‘a cluster on community hunt days.	That way the meat is not wasted; all families can have a fair share of game meat for home consumption.	Good idea, but will take some coordination. It’s been tried before and there is often more meat than can eat, so need a plan for extra meat. Need a hunting leader to determine how much to hunt and to coordinate drop-offs.	Kuleana of SAMP implementers; Hunting Hui may act as lead coordinator.

Community Suggestion	Additional Community Mana‘o	Initial EMoWP/TNC Molokai Feedback	Implementation
11. In those ahupua‘a with fence, a detailed plan and integration of hoa‘āina in ahupua‘a management below the fenceline is essential.	- Animals below the fenceline may have increased impact to lower areas of the ahupua‘a (Wao Lā‘au, Wao Kanaka) and created more erosion. - To avoid denuding these areas, planting of native and canoe crops must be undertaken while removing some invasive species (e.g., kiawe, java plum) that extract too much water and negatively impact streams, taro terraces, heiau, and fishing ko‘a. - Create mobile, detachable fencing units to surround and protect native plants and trees.	Need to be careful to not remove invasives (those not along stream) without replanting with natives that hold soil in place.	Kuleana of SAMP implementers.
12. Establish cottage industries among hoa‘āina families to operate backyard native plant nurseries.	- Include plants that are grown-out to specific sizes that will not leave these plants/trees vulnerable to ungulate grazing. - Create mobile, detachable fencing units to surround and protect native plants and trees. - Erect water catchment up mauka and re-open springs to water these plants and trees. - Grow native species for mauka and makai areas in these nurseries.	Good idea, although there is no stage at which most plants are not still vulnerable to ungulate grazing.	Kuleana of SAMP implementers.
13. Address secondary impacts/threats to areas that will not be fenced, especially the north shore ahupua‘a.	- Deer and pig migrate according to seasonal shifts and food availability (e.g., pigs follow the guava and mountain apple; deer and goat when they reach an old age end up moving further mauka and eating different kinds of vegetation to meet nutritional needs). - Fencing causes ungulates to travel around or to the next unfenced ahupua‘a to find food, this causes more wounds in the land and provides an area for invasives to come into, particularly if these animals end up feeding on native plants (<i>one kama‘āina informant identified certain native plants ungulates eat when they run out of their preferred food sources</i>).	This may be true, but what it means is that: a) this should be monitored (e.g., conduct a study on ungulate populations in north shore ahupua‘a before and after fence is erected), and b) animal control should be increased for north shore ahupua‘a.	A study should be done to monitor ungulate populations in the north shore ahupua‘a – before and after implementation of fence. Needs funding.

Appendix G University of Hawai'i Archaeological Training
Project, Kamalō, Moloka'i, Hawai'i
(December 2005)

University of Hawai‘i Moloka‘i Archaeological Training Project

2004-2005 Results

Kamalō, Moloka‘i, Hawai‘i



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And

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1. INTRODUCTION

THE MOLOKA‘I ARCHAEOLOGICAL TRAINING PROJECT

As part of a University of Hawai‘i archaeological field training program, archaeological inventory survey and mapping were carried out at Kamalō Ahupua‘a, Ko‘olau District, on the Island of Moloka‘i (Figure 1.1). This work took place on land owned by Kamehameha Schools Bishop Estate on TMK:(2)5-5-001:006 and (2)5-5-002:018. The work was non-destructive to archaeological features, and no plans for development in the project area have been proposed.

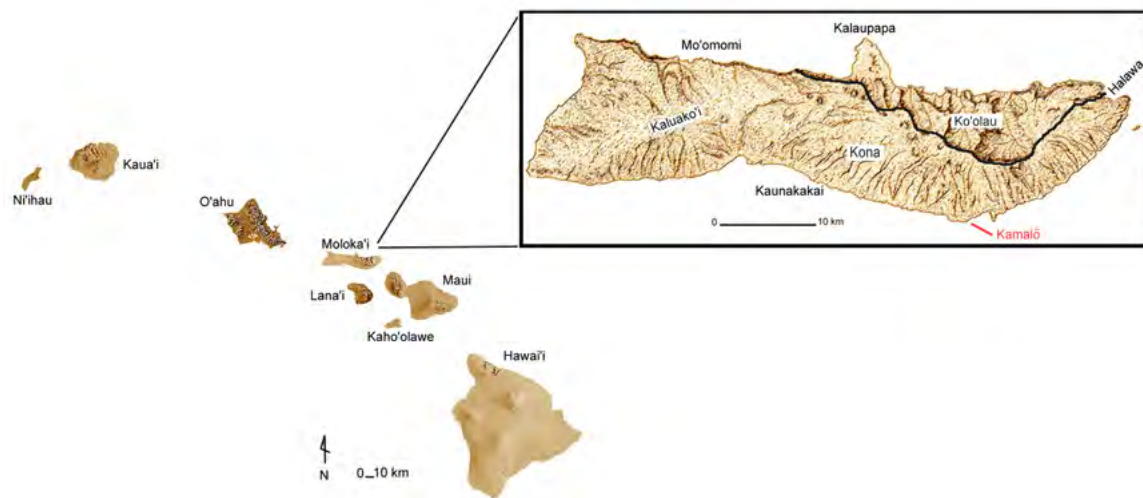


Figure 1.1: Map of the Hawaiian Islands with inset of Moloka‘i, showing Kamalō.

The work was carried out in two phases, in Fall 2004 and Spring 2005. Theresa Donham, M.A. served as instructor for the 2004 course, and Windy McElroy, M.A. instructed the 2005 session. Cyril Calugay, B.A. served as teaching assistant in 2005. The 2004 Fall session ran from August 21 through December 18 and consisted of ten field classes, at six hours each. Eight students completed this course. The Spring 2005 fieldwork consisted of eight three-hour classes carried out between February 5 and May 14. This phase of fieldwork was complemented by eight three-hour classroom sessions, and students received college credit for completing the course. Fifteen students participated in this session, five of them returning from the previous semester.

BACKGROUND

Physical Environment

The *ahupua‘a* of Kamalō is located along the southeastern coast of Moloka‘i approximately 9 miles east of Kaunakakai (see Figure 1.1). Kamalō is roughly rectangular in shape (as opposed to the idealized wedge-shaped Hawaiian land division which ran from the mountain to the ocean) and encompasses roughly 4,000 ac. Today the three *ahupua‘a* to the east of Kamalō - Kapualei, Kumu‘eli, and Wāwā‘ia - are also

commonly referred to as ‘Kamalō,’ although they are distinct land divisions themselves and are not considered here.

Along the southern, seaward edge of Kamalō are easily exploited fringing reefs and offshore fisheries. The ocean off Kamalō was a prime fishing ground, with far-reaching coral cover before dredging operations of the late 1960s destroyed much of the reef (CRAMP 2005). The Coral Reef Assessment and Monitoring Program (CRAMP) noted a peculiarity of the sea floor in the area:

Unique features of the area are the “blue holes” that lie to the east of Kamalo. This portion of the reef is bisected by canyons that appear to be submerged valleys or areas where reef development was retarded by fresh water and sediment discharged from Kamalo gulch. Another hypothesis is that the “blue holes” are “Karst” dissolution features undermining the carbonate reef structure. Eastern (upwind) vertical faces in the “blue holes” show with high cover by *Porites compressa* with low cover on the western (wave impacted) edge.

(CRAMP 2005)

Inland from the coast is the widest coastal plain on Moloka‘i (CRAMP 2005) providing extensive opportunity for agriculture. The Kamalō Stream flows intermittently across the coastal plain but is perennial in the upper valley (Cordy and Cordy 2001:3). It is possible that the stream flowed to the sea year-round before the introduction of ungulates and the subsequent degradation of the watershed above east Moloka‘i, but that remains to be studied. Leone (2002) elaborates on the destruction wreaked by introduced species:

Now thousands strong in the ahupuaa of Kamalo and Kapualei on the island’s south slope, the goats’ incessant grazing has moved the native ohia forest farther up the mountain.

As the goats chomp on native plants and grasses, the soil erodes and runs off onto the reefs below, affecting fishing. And the loss of native forest makes the East Molokai aquifer less productive, so there is less water for crops like taro.

(Leone 2002:1)

Inland from the coastal plain the western half of the *ahupua‘a* rises as a steep slope to the 2,500 ft. elevation punctuated with the small erosional gulches of Kapuaoko‘olau, Waiakuilani, ‘Aiko‘olua and Lepelepe (Cordy and Cordy 2001:1). The eastern half of the *ahupua‘a* is the large amphitheater-headed Kamalō Gulch. At the head of the gulch are the “Seven Sisters” waterfalls, three of which are named on the 1993 Moloka‘i USGS topographical map (Hina Falls, Mo‘olua Falls, and Haha Falls) as well as in song:

Nani wale no na wailele ‘uka
‘O Hina ‘o Haha ‘o Mo‘olua
Na wai ‘ekolu i ka uluwehiwehi
‘O Kamalō i ka malie.

Beautiful waterfalls of the upland
Hina, Haha and Mo‘olua
The three waters in the verdant overgrowth
Of Kamalō, in the calm.

Wahine ‘Ilikea, by Dennis Kamakahi.
Lyrics from www.huapala.org.

The walls of Kamalō gulch rise steeply to 1,600 ft. at the extreme. Ka‘āpahu Ridge along the east side of Kamalō Gulch rises to a prominent andesite dome over 3,500 ft. high and is known locally as the *mo‘o* (lizard). According to legend the shark deity of Kainalu (an

ahupua'a to the east) challenged the *mo'o*, or lizard deity, of Kamalō to a fight over territory. After a long and bloody battle the *mo'o* was mortally wounded so the shark deity of Kainalu claimed victory and swam away. In one last effort before dying, the *mo'o* crawled from the sea inland where she died facing north, forever to remain guardian of Kamalō as the ridge Ka'āpahu (Curtis n.d.:2).

On Moloka'i the land divisions in the western half of the island are larger while those along the wetter eastern portion of the island are smaller, narrower and more numerous. It is at Kamalō that the *ahupua'a* increase in size toward west Moloka'i. Lyons suggested that smaller *ahupua'a* were the result of a "long occupancy of the soil by a dense population" (1875a:103). Following Lyons' generalization, the *ahupua'a* of Kamalō may not have been as densely populated or inhabited for as long a period of time as the smaller *ahupua'a* to *mana'e*, or eastward. (*Mana'e* is a common term today used to mean "to the east" but which literally means "to windward" and was probably used traditionally with that reference. The opposite directional term used in east Moloka'i was *malalo*, or "down," meaning down-wind, or toward the west.)

Among written sources there is general agreement that Kamalō was formerly known as Kamalo'o, which means 'the dry place' (Cooke 1949:83; Ne and Cronin 1992:33; Pukui et al. 1974:80). Harriet Ne relates that this is because Kamalō is where the sea "dried up and the waves, breaking on the outside reef, did not come up to the shore" (Ne and Cronin 1992:33). This barrier reef, the longest in Hawai'i, extends from Honouliwai some 10 miles to the east, nearly to La'au Point about 20 miles west of Kamalō with little change in character at Kamalō.

It is at the coastal bend of Kamalo'o, 'the dry place,' where the relatively high rainfall of southeast Moloka'i - averaging about 40 in. per year - begins an abrupt and rapid decline westward to less than 15 in. per year along the south central Moloka'i coast (Juvik and Juvik 1998:56). Perhaps it is this easily recognized change in climate that inspired the name Kamalo'o, which today has been shortened to simply Kamalō. Such contractions in Hawaiian place names, at least on Moloka'i, are not uncommon (i.e., Kaunakahakai to Kaunakakai and Haka'a'ano to Haka'ano).

The vegetation in Kamalō ranges from a dense mangrove cover along the western fishpond backed by *akulikuli* wetlands just inland from the pond, to a largely native '*ōhi'a* forest in the uplands. In the Kamalō gulch are scattered monkeypod (*Samanea* sp.), mango (*Mangifera* sp.), Java plum (*Eugenia* sp.), *kukui* (*Aleurites moluccana*), *wiliwili* (*Erythrina sandwicensis*), *koa haole*, (*Leucaena glauca*) and a ground cover made up of a dense growth of introduced shrubs, weeds, and grasses. The coastal plain has been largely bulldozed and disturbed and is dominated by immature *kiawe* (*Prosopis pallida*) with a similar ground cover as that of the valley. Along the ocean edge of the coastal plain is a more mature cover of Java plum, and a few mango and monkeypod trees. The steep slopes, as well as the erosional gulches, are almost predominately mature *kiawe* forest with a grass and weed understory.

Soils of Kamalō consist of Kealia silt loams along the coast, Pulehu series soil from behind the coast to the base of the slope, stony alluvial land at the valley bottom and slope base, and very stony land on the slope and ridge (Foote et al. 1972).

Historic Background

Only a few references to Kamalō could be found in the historic literature. One of these lists Kamalō as the site of a major battle. It is said that Kapi‘iohookalani, son of Kualī‘i the chief of O‘ahu, invaded Moloka‘i with a large force and was fighting the Moloka‘i people at Kamalō when Alapa‘inui from the Big Island arrived and joined the Moloka‘i forces. The battle was fought for four days with equal successes on both sides until the final battle was fought at Kawela, five miles west of Kamalō, on the fifth day (Fornander, 1880: 136-137; Kamakau, 1961:70-71). Kamakau and Fornander provide details of the battle:

Every able-bodied man came out of his house to fight. The Molokai forces attacked from the hills, those of Hawaii from the sea, while a great number landed from the fleet and fought on land. The battle began in the morning and lasted until afternoon. The ruling chief of Oahu found himself surrounded by sea and by land and hemmed into a small space. Ka-pi‘i-o-ho-o-ka-lani died at Kawela below Kamiloloa, and many chiefs and fighting men were slaughtered, but some escaped and sailed for Oahu.

(Kamakau, 1961:70-71)

This famous battlefield may still be seen in the place described, where the bones of the slain are the sports of the winds that sweep over that sandy plain, and cover or uncover them, as the case may be. The numerical strength of the two opposing armies is not mentioned in the legends; but to judge from the multitude of bones and the number of skulls that are bleaching in the sun when a strong north wind has removed their sandy covering, the numbers engaged on each side must have been reckoned by thousands.

(Fornander 1880:138)

Kamalō is also noted in *mo‘olelo* for its *weke*, or goatfish, which is said to induce nightmares. *Mo‘olelo* say that this came about when a boastful shark who lived at La‘au Point initiated a fight with a large but humble shark from Lahaina (Wight in Curtis n.d.). The boastful shark did not fare well in the altercation and his blood spilled as he swam home. Small fish drank his blood, thus when small fish are eaten from the area, nightmares will occur.

In 1854 the French botanist Jules Remy visited Kamalō and commented on the weaving industry.

Soon afterwards we reached the village of Kamaloo... There I saw a half dozen women occupied, some with weaving hats and mats from pandanus leaves, others making finer hats, more elegant, in the shape of Panama hats, out of the stems of a cyperaceae (sedge) common to the marshes nearby.

(Remy 1893:35)

Legends of a lava tube running through the central part of Moloka‘i persist to this day.

In the land of Kamalo (not on ranch property), it is said that there is a lava tube going through the island from Kamalo gulch to Pelekunu. The story is that it was used in the very early days by the Chief of the island, who communicated by runners between the leeward and windward sides of the island.

(Cooke 1949:99)

Land Use

Kamalō has been used for taro, sweet potato, and sugar cultivation as well as livestock farming. In the recent past, Kamalō was the site of a quarry, and the large excavations have left their signature on the landscape. Today the land in the survey area sits idle but is occasionally used for hunting.

When Handy visited Kamalō in 1931 he witnessed a remarkable method of agriculture in which soil was mounded 3-4 ft. high and 3 ft. wide in swampy terrain (Handy 1940:101). The mounds are surrounded by standing water in ditches, and taro was planted at the base and sweet potato grown on top. This is the only reference to traditional agriculture in Kamalō that could be found.

In the historic era, sugar cane fields dominated the Kamalō landscape. Plantations in Kamalō were owned and operated by the McCorristons and Moanui and operated by Eugene Bal (Cooke 1949:3). A sugar mill was operated by the McCorristons, although it burned down shortly after it was built (Meyer 1982:13). It has been noted that plantation owner George Trimble transported his cane to the mill in an unusual fashion, using draft animals to tow the cane on a small barge along the shore from his Kawela fields to the Kamalō mill (Cooke 1949:87-88). Meyer provides more information on the McCorriston family of Kamalō:

Otto [Meyer] Maggie Ann McCorriston on December 11, 1889 in a gala celebration that lasted a whole week. This was the biggest celebration ever held on Molokai at the time as related by Frank Foster, a brother-in-law of Maggie. Every day for one week a new imu (underground oven) was prepared to feed all the people. Maggie was the daughter of Daniel and Ann McCorriston of Kamalo, Molokai. Daniel and his brother, Hugh McCorriston, came to Oahu in 1863 from Ireland, but they did not go to Molokai until 1873, when they started the Kamalo plantation. This plantation was burnt down in 1875. From the record of the Honolulu Advertiser dated Sunday, March 20, 1927, this article of Dan McCorriston was published. "Dan McCorriston passed away at his Molokai residence at Kamalo where he made his home with his large family 54 years, only moving perhaps a few feet in that length of time. ... In 1873 he and his brother, Hugh, landed on Molokai where they started a small sugar plantation that only lasted a few years as the mill burned down completely. The two brothers then went into ranching."

(Meyer 1982:130-131)

Cattle and hog ranching also took place in the historic era in Kamalō, and the Kamehameha V wall was constructed to control the herds of cattle. Cooke (1949) provides more information on the wall, which is also illustrated on the TMK map of Kamalō (J.A.K. 1934):

...Later, Kamehameha V imported a herd of Longhorn cattle. Since the animals on Molokai must have belonged to the Chief, they were kapu and so roamed the island without being disturbed.

There was a stone wall extending from the valley of Kawela to the valley of Kamalo above the flat land bordering the sea. This was constructed by men and women under the Chief's orders to prevent the destruction by wild cattle of crops on the cultivated coastal land.

(Cooke 1949:45)

Meyer (1982) describes the cattle and hog ranching activities of Theodore Meyer:

Theodore [Meyer] spent most of his life at Kamalo where he ran a very successful hog and cattle ranch. After the Kamalo Sugar Plantation burned down in 1875, he leased all of the Kamalo lands from the Bishop Estate. He raised over 3,000 hogs and a large herd of cattle. He planted most of the feed for his hogs right there at Kamalo.

(Meyer 1982:173)

Previous Archaeology

In 1971 Catherine Summers published "Molokai: A Site Survey" which was a compilation of archaeological sites on Moloka'i from a variety of sources and included sites for Kamalo. Seventeen years later Stephan Clark conducted a 75-ac. reconnaissance survey on the coastal plain near the base of the slope west of Kamalo Gulch and recorded a number of previously unknown sites (1988). In July 2001, The Society for Moloka'i Archaeology sponsored a demonstration project in basic archaeological survey and mapping techniques for community members, in which a number of newly discovered sites were recorded (Cordy and Cordy 2001).

Summers (1971)

Summers referred to Stokes' 1909 survey, which listed two *heiau* in Kamalo (1971:100). Olepelepe Heiau was recorded as being at the edge of a small bluff overlooking one of the smaller Kamalo gulches and was described by Stokes as, "A natural formation of large boulders called a heiau" (Stokes in Summers 1971:100). There was no sign of any "artificial work" (Stokes in Summers 1971:100). Pu'u o Mo'o Heiau was located at the mouth of the main Kamalo gulch, and the following description was given by Stokes:

...A small L-shaped platform, with the ledge running around its southern side, where the ground is lower. The main interest of this heiau...is the remarkably smooth flooring of the upper surface, being made of selected flat river stones to be found in the gulches nearby. The north-east corner has suffered through depredations.

(Stokes in Summers 1971:100)

Ka'apahu peak has been reported to be an old fort, a *pu'u kauwa*, or *heiau*, although no evidence of structures or walls have been found. That Ka'apahu was used as a fort or place of defense seems likely because sling stones have reportedly been found there and the flat top with steep sides would have been easily defendable. It is interesting to note that the naturally water worn sling stones found on Ka'apahu were strikingly similar to those found on the ridge at Kawela. (Summers 1971).

Clark (1988)

Stephan Clark and Roland LaPierre, of the Applied Research Group, Bishop Museum conducted a reconnaissance survey and limited subsurface testing over the course of two days in January 1988. The survey was done on a 75 ac. parcel and identified eight previously unrecorded sites and three “areas,” two of which were considered especially sensitive due to an abundance of sites that were not thoroughly surveyed and recorded due to time limitations.

Except for two isolated cultural deposits exposed in fallen tree roots, one with associated boulder alignments, to the east of the stream and in the coastal plain, the main pre-contact sites were along the two sides of Kamalō Stream as it entered the coastal plain.

West of the stream there is a 13.5 by 5.0 m enclosure with a low terrace wall identified as Site T4 and mapped. Also in the area to the west of the stream is an earthen platform identified as a possible house site, a C-shaped enclosure, two irregularly shaped enclosures, four large terrace walls, five mounds and ten modified outcrops. Clark noted that “it was not possible to ascertain an accurate record of how many and what kinds of structures were present in these densely vegetated areas” (1988:16).

Along the stream bank east of Kamalō Stream, Clark identified a stretch of about 300 meters that he deemed archaeologically “sensitive” because he was unable to sufficiently cover the area. He did, however, record a circular mound 3.2 m in diameter, a roughly rectangular mound about 4.5 by 4 m and a rectangular platform 4.0 by 3.0 m with a fairly level surface.

Cordy and Cordy (2001)

Cordy and Cordy recorded nine new historic sites, four in Clark’s “Area 1” on the coastal plain and five in the lower valley west of the stream. The sites on the coastal plain included two rectangular platforms, three rectangular terraces and three rectangular enclosures all interpreted as permanent habitation sites. Also identified in this area were mounds, soil clearings and short terraces thought to be dryland agricultural fields, as well as three high oval mounds identified as clearing mounds for sugarcane cultivation. Dryland gardens, a field shelter, permanent habitations, a shrine, a possible grave and a small *heiau* were found in the lower valley survey area.

To summarize, very little archaeological work has been conducted in Kamalō, although many surface features have been recognized. Stokes identified two *heiau* and a hilltop fort in 1909 (Summers 1971), and a number of other surface features have been recorded on recent surveys (Clark 1988; Cordy and Cordy 2001). These surveys cover very little of the *ahupua‘a*, however, and much of the archaeology of Kamalō remains undocumented.

2. METHODS

The 2004 work took place in lower Kamalō on TMK:(2)5-5-001:006, while the 2005 session focused on a portion of upper Kamalō on TMK:(2)5-5-002:018 (Figure 2.1). The main goal of the 2004 session was to follow up on recommendations for further work made by Cordy and Cordy (2001) after their field training course. The first objective was to locate previously identified site 50-60-04-2458 and complete the description of features and a scaled plan map of the complex. A rough sketch map of the site had been previously drawn, and the site was described as a large habitation complex that was quite worthy of further investigation (Cordy and Cordy 2001: 12, 13).

To relocate the site, a systematic pedestrian survey was conducted, with transects oriented east-west. Potential cultural features were flagged, and many of these were cleared and found to be natural rather than cultural. The main wall identified in the earlier sketch map was relocated, and additional features were identified and given letter designations. Ten features were cleared and mapped in detail with tape and compass, providing a clear example of the cultural remains of site 50-60-04-2458, although this does not represent the full extent of the site.

The 2005 session examined an upland area where no previous archaeology had been conducted. The goal of this session was to identify and document any cultural features that might occur there. An arbitrary survey area was designated, and a systematic pedestrian survey was carried out, with transects running east-west and students spaced 5 m apart. A total of 18 features were identified, and these were given a single new site number, 50-60-04-2471. Individual features were given number designations from 1 to 18. The 18 features may or may not be associated or contemporaneous with one another, thus site 2471 simply represents the cultural remains found within the arbitrary survey area in upper Kamalō. The survey boundaries and all features were mapped with sub-meter accuracy Global Positioning Systems (GPS) units, and selected features were cleared and mapped in detail with plane table and alidade. No subsurface testing was conducted during either phase of fieldwork.



Figure 2.1: Topographic map of Kamalō, with survey areas shaded in gray. The lower area was surveyed in 2004 (site 2458), while the upper section was examined in 2005 (site 2471).

3. RESULTS

FALL 2004 RESULTS

The 2004 survey area encompassed roughly 6,000 m² on the low-lying flat adjacent to Kamalō Stream. A long wall follows the stream on the west bank and curves to bisect the survey area on the south side (Figure 3.1). Terraces and stone mounds surround this wall to make up site 50-60-04-2458, and additional features that were not mapped surround the complex. A total of 10 features were cleared, mapped, and described. These were given letter designations A through J. The land within the survey area is rocky and relatively level. Vegetation is heavy, consisting of *kiawe* trees, lantana, *koa haole*, wild basil, and tall grass.

Feature A is a complex of two terraces located on the southwest side of the survey area (see Figure 3.1). The north wall of both terraces is part of the long wall that bisects the site (feature G) and is composed of stacked large stones and small boulders. The other terrace walls are less defined and made up of large stones and small boulders either piled or in a single alignment. The north wall that comprises the largest terrace is 19.5 m long and runs at an orientation of 270°. The east and west walls are perpendicular to the north wall and measure 9.4 m and 9 m respectively. The west wall is 17.35 m in length. The smaller terrace occurs on the northwest corner of the larger one. The north wall of the smaller terrace is 6 m long, the east wall 4.5 m, the south wall 5.9 m, and the west wall 5.3 m in length. The north wall of both terraces is in good condition, although the remainder of the feature is poorly defined.

Feature B is a terrace adjacent to feature A on the south. It measures 13.8 m in length, and 11.2 m in width on the west and 4.5 m in width on the east. It is composed of piled large stones and small boulders and is in poor condition.

Feature C is a multi-component feature made up of three soil-filled terraces divided by two low walls. This feature is located at the bend of the long wall (feature G). A 31.5 m section of the feature G wall forms the north border of this feature. This segment of the wall is bi-faced with single boulders and filled with cobbles, roughly 80 cm tall and 1 m wide. The east and south perimeters of the feature are bordered by a single alignment of boulders. A low wall divides the east and west terraces. This is composed of large boulders stacked two courses high, filled with smaller stones and cobbles. It runs northeast for 6 m and is up to 70 cm tall. The west terrace abuts the feature G wall on its north side and is outlined by a single alignment of boulders on the west. The west terrace is also defined by a single alignment of boulders. A low loosely-stacked wall parallels the feature G wall and defines the north terrace. This is 5.5 m long, up to 80 cm high, and 80 cm wide. This feature is in fair condition.

Feature D is a series of four rough terraces with a C-shaped structure on the west side. These are located just west of features A and B. The largest terrace, feature D-1 is on the south and is defined by an 8 m-long boulder alignment. Three smaller terraces occur on

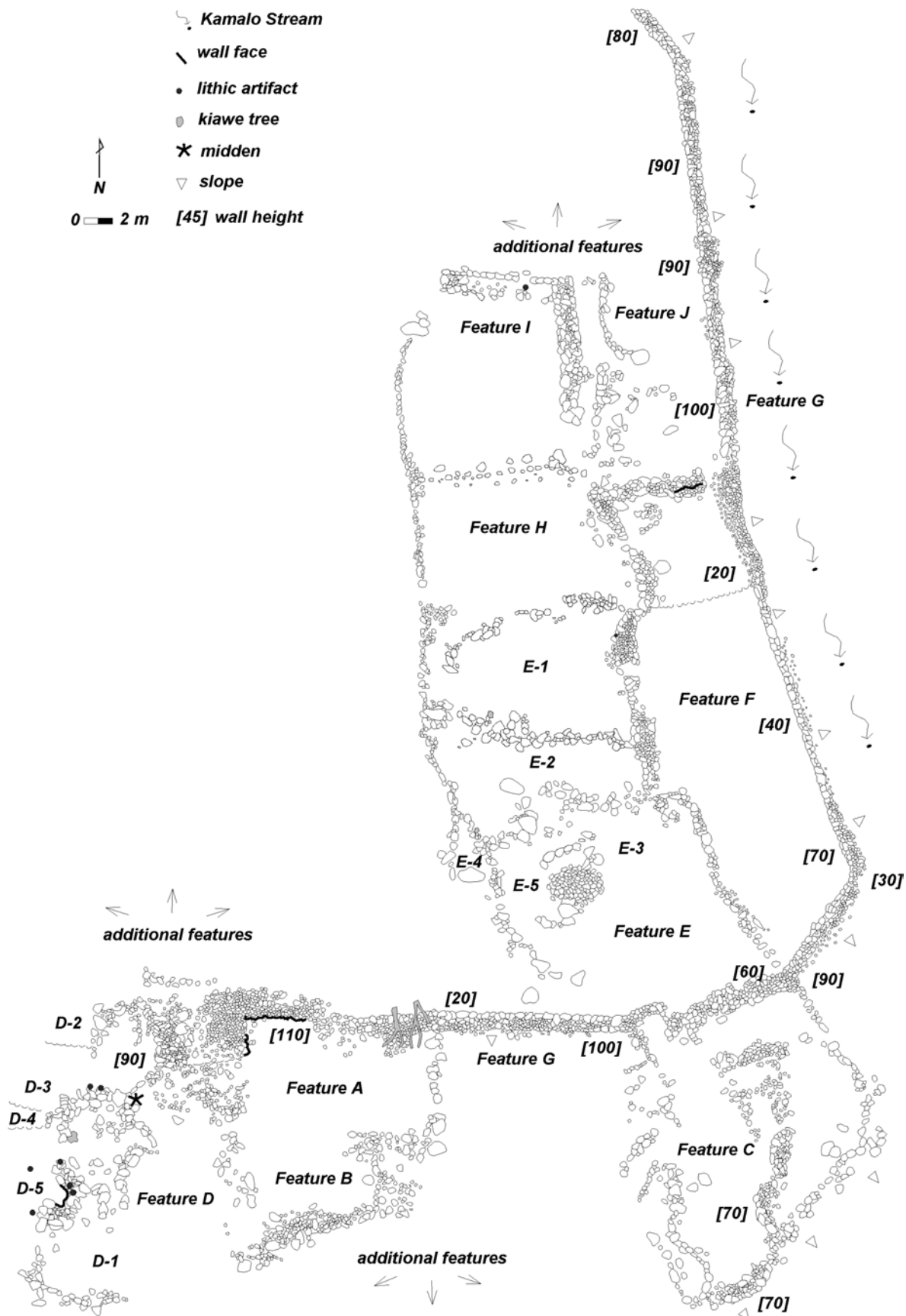


Figure 3.1: Site 2458 plan view drawing.

the north, all defined by single boulder alignments. The northernmost, feature D-2 is defined by a 3.6 m-long wall on the south. The central terrace, D-3, exhibits an 8.4 m-long wall, and the lower terrace, D-4 has a southern wall measuring 3.0 m in length. A basalt core, a hammerstone, and shell midden were found along the central terrace wall. The C-shape, feature D-5, is located just below feature D-4, along the west wall of feature D-1. It is composed of a curved 6 m-long wall that is up to 1.6 m wide and made up of boulders stacked three courses to a height of 70 cm (Figure 3.2). The opening of the C-shape is to the west. Three hammerstones, a whetstone, and a basalt core were found in the vicinity. The C-shape is in good condition, while the terraces are in fair to poor condition.



Figure 3.2: Feature D-5, a C-shaped structure, facing northeast. The scale is marked in 10 cm increments.

Feature E is a multi-component feature consisting of four terraces, a C-shaped structure, and a stone mound, covering an area of 24 x 14 m. This complex is located 15 m northwest of feature C. Feature E-1 is the northernmost terrace. Its north wall is 14 m long and is oriented at 82°, while its east wall is 9.2 m long and runs at a 348° orientation. A basalt core was found on top of the east wall, near the northeast corner of the feature. Terrace E-2 is adjacent to the south. The north wall of this feature is 14 m long and oriented at 82°, and the west wall is 9 m and oriented at 344°. Terrace E-3 is adjacent on the south. Its north wall runs at 320° for 17.1 m, and its east wall runs at 68° for 13 m. Feature E-4 is a small triangular terrace just west of features E-2 and E-3. Its maximum length is 3.5 m and maximum width is 2.4 m. Feature E-5 is a C-shape with a stone mound in the center, located within the feature E-3 terrace. The maximum diameter of feature E-5 is 4 m, and the C-shape opens to the west. All terraces and the C-shape are composed of a single alignment of boulders, roughly stacked with stones and cobbles in places, and the mound is made up of piled stones and cobbles. This complex is in fair condition, affected by erosion and fallen trees.

Feature F is a large terrace located along the west side of the feature G wall and adjacent to the feature E complex on the east. Retaining walls enclose the terrace on the north and west, and the east and south sides are bounded by the feature G wall. The north wall is a

fine example of core-filled bi-face construction. It is 11 m long, 1.6 m wide, and 90 cm tall. The east wall is 26.7 m long and 1.3 m wide. One or more single alignments run east to west within the feature, dividing the terrace into multiple sections. The perimeter retaining walls are curvilinear and not straight as represented in Cordy and Cordy (2001:13). Different methods of wall construction suggest multiple building episodes. The west wall, for example, is constructed with a single alignment of boulders in one segment, then jogs to the west and exhibits two courses of stacked boulders and cobbles; it then becomes a bi-faced core-filled low wall. The feature as a whole is in fair condition, while the north wall is in good condition.

Feature G is a long wall that runs east to west through site 2458 and curves north to form the eastern boundary of the site along Kamalō Stream. The east-west segment of the wall is 36 m long, and the north-south segment is 65.6 m long. The total length of the wall, including the curve, is 130.9 m. Construction is mainly bi-faced and core filled, although some areas are stacked and one section is a single boulder alignment (Figures 3.3 and 3.4). The maximum height of the wall is 1.24 m, and the maximum width is 1.25 m. This feature is in fair to good condition, with some segments of the wall affected by erosion, but most segments remain intact.



Figure 3.3: Feature G facing north, with feature A terrace in foreground. The scale is marked in 10 cm increments.

Feature H is a large terrace adjacent to feature E on the north. A single stone alignment defines the feature on the north side. This terrace is part of a large complex of terraces including feature E on the south and feature I on the north, and an unknown number of uncleared terraces that continue beyond feature I. The terrace measures 16.9 m on the south, 16.8 m on the east, 15 m on the north, and 16 m on the west. The terrace is in fair to poor condition, with jumbled boulders in many places.

Feature I is a terrace adjacent to feature H on the north. Two parallel single stone alignments define the north side of the feature. These alignments are 1 m apart and run for 8 m to meet a bi-faced core-filled wall that runs perpendicular for 10.5 m to form an *L* shape at the northeast corner of the feature. A basalt rubbing stone was found between the two parallel alignments (see Figure 3.1). The west side of the feature is defined by a single 16 m-long stone alignment. The feature is in good condition, although it has been affected by erosion, and the western alignment is poorly defined and overgrown.



Figure 3.4: Close-up of wall construction, feature G, west face. The scale is marked in 10 cm increments.

Feature J is a terrace adjacent to feature I on the east and feature G on the west. Aside from the feature G wall, which forms the eastern boundary of the terrace, the only visible architecture is a short curved wall segment on the west. This wall is 7.1 m in length. The feature appears in good condition, although it could not be cleared in its entirety.

In sum, ten features of site 50-60-04-2458 were examined during the 2004 phase of fieldwork. Many of these consisted of multiple components, and additional features of the site remain undocumented. The site 2458 complex was found to be larger than originally defined (Cordy and Cordy 2001:7, 12), and additional features were mapped in detail (see Figure 3.1). It was also determined that this site was not a habitation complex, as previously suggested (Cordy and Cordy 2001:7) but rather an agricultural complex with terraces and walls constructed to form an integrated agricultural area next to Kamalō Stream. Only one small habitation shelter was identified (feature D-5), which contained surface artifacts and midden.

SPRING 2005 RESULTS

The 2005 survey area encompassed 18,000 m² on a slope above the Kamalō Quarry. A dirt road marks the western extent of the survey, and a steep cliff designates the eastern boundary (Figure 3.5). The northern boundary is demarcated by a long stone wall known as the Kamehameha Wall, and the southern boundary of the survey area was arbitrarily drawn. A fenceline runs from north to south, bisecting the survey area on the west side.

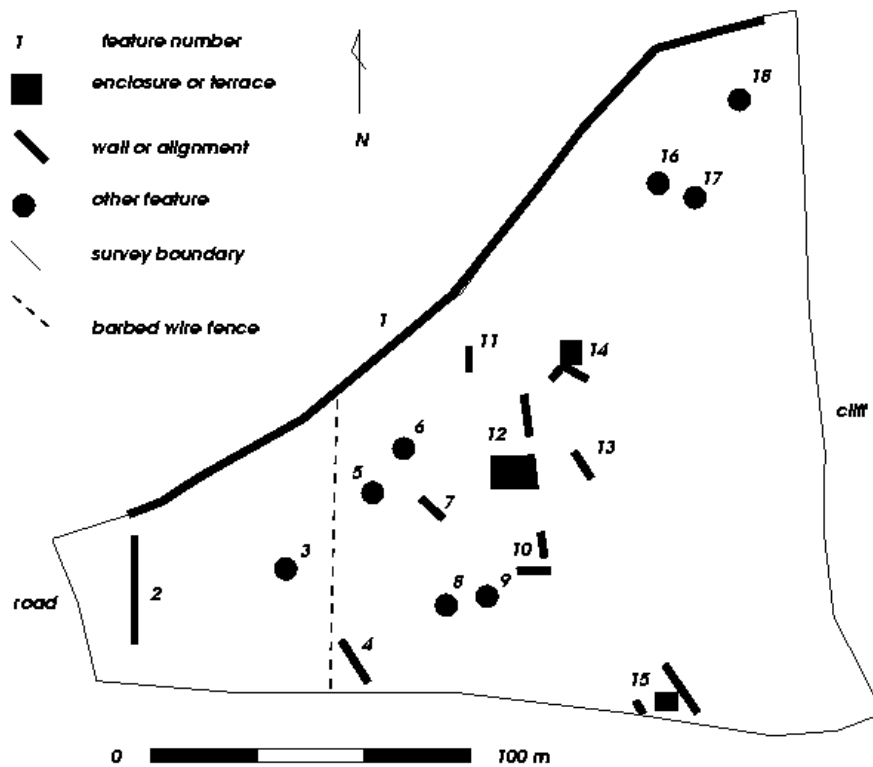


Figure 3.5: 2005 survey area showing 18 features of site 50-60-04-2471.

The land within the survey area is rocky and gently sloping to the south. Vegetation is heavy, consisting of tall grass and *kiawe* trees.

A total of 18 features were identified in the survey area. There were five stone walls, one with a petroglyph at its base, another petroglyph, one terrace, two stone mounds, a boulder alignment, a modified bedrock outcrop, and six multiple-component features.

Feature 1 is the Kamehameha Wall. It runs along the north boundary of the survey area from the dirt road for 250 m toward the cliff. It is composed of boulders, stones, and cobbles stacked and piled up to 90 cm high. The wall continues west outside the survey area and is in fair to good condition. It is approximately 2 m wide and runs at an orientation of 25°. Remnants of wooden fence posts and barbed wire are evident in segments of the wall. A petroglyph was observed on a boulder at the base of the wall, 12 m from the east end (Figure 3.6).

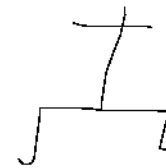


Figure 3.6: Sketch of petroglyph at feature 1. Not to scale.

Feature 2 is a stone wall that runs along a gully on the west side of the survey area (Figure 3.7). The largest wall segments occur on the east side of the gully, 6-8 m east of the dirt road, and smaller segments occur along the west side of the gully. The longest



Figure 3.7: Feature 2, stone wall, facing north. The segment shown is on the east side of the gully at the south edge of the survey area. The scale is marked in 10 cm increments.

segments are 15 m long and 12.4 m long, on the north and south sides of the survey area. The wall segments are composed of stones stacked 2-3 courses atop boulders (Figure 3.8). They reach a maximum height of 1.2 m and are typically 90 cm wide. The wall segments run roughly north-south, at an orientation of 330° and appear to continue both north and south outside the survey area. This feature is in good condition.

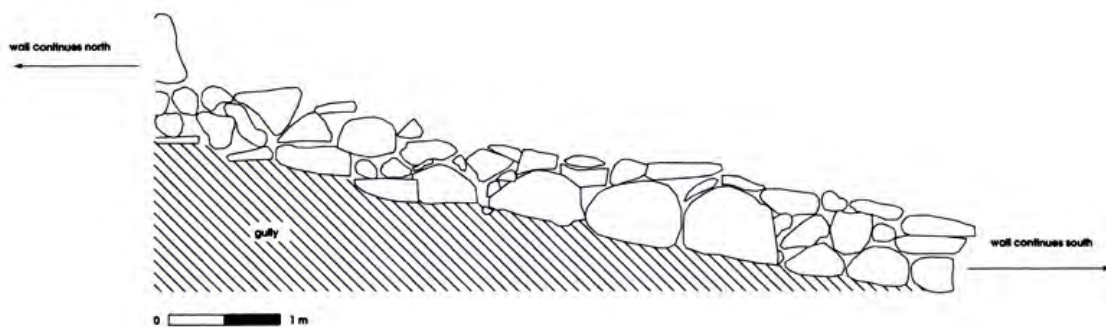


Figure 3.8: Feature 2, stone wall, east profile. The segment shown is on the east side of the gully at the south edge of the survey area.

Feature 3 is a modified bedrock outcrop located 40 m east of feature 2. It consists of stones and cobbles piled for a length of 10 m along a 1 m-high stand of bedrock. It is possible that this is a natural feature, but portions of the outcrop appear modified by humans. The feature is in fair condition.

Feature 4 is a possible boulder alignment located 2 m west of the fenceline. It is composed of a single alignment of boulders averaging 60 cm in diameter with a few stones interspersed in the alignment. The alignment runs northwest to southeast at an orientation of 318° for 16 m. It is 70 cm tall, 90 cm wide and in fair condition.

Feature 5 is a C-shaped structure and wall located 12 m east of the fenceline. Feature 5a, the C-shape, measures 3 m east to west and 2.8 m north to south, and is open to the southwest (Figure 3.9). The C-shape is made up of stones averaging 20 cm in diameter, piled to 50 cm high. Some stacking is apparent on the inside face, and the south end is marked by an embedded upright. Feature 5b, the wall, is just south of the C-shape and is composed of piled stones and boulders. It runs at an orientation of 80° for 5 m and is 50 cm tall. The wall and C-shape are in good condition, although a large tree is growing on the east face of the C-shape.



Figure 3.9: Feature 5a C-shaped structure facing north. The scale is marked in 10 cm increments.

Feature 6 is a terrace located 9 m northeast of feature 5. The terrace is rectangular in plan and measures 4 m long, 1.5 m wide and 90 cm high, with its long axis oriented at 130° (Figure 3.10). It is composed of stones and boulders 30 cm in diameter and larger, stacked 3 courses high, with smaller stones piled on top. The feature is built on the slope, so that the east side is level with the ground surface. The terrace is in good condition.

Feature 7 is an eroded retaining wall located 12 m east of feature 5. It runs west for 7.6 m at an orientation of 295° . It is composed of small stones roughly piled on natural boulders to a height of 60 cm. The ground surface on the north side is level with the top of the wall. This feature is in poor condition because of severe erosion.



Figure 3.10: Feature 6 terrace, facing east. The scale is marked in 10 cm increments.

Feature 8 is a stone mound located 30 m east of the fenceline. The mound is composed of small stones and cobbles piled to a height of 31 cm. It is triangular in plan, measuring 1.86 m, 1.91 m, and 1.89 m on each side. One of the stones at the northern apex of the triangle appears to have been worked (Figure 3.11). This feature is in good condition.



Figure 3.11: Feature 8, showing worked stone in foreground. Orientation is to the south. The scale is marked in 10 cm increments.

Feature 9 is a stone mound located 6.5 m northeast of feature 8. The mound is irregular in plan and is composed of piled stones and cobbles with a few small boulders at the base. It measures 4 m long, 2 m wide and 1 m tall. The mound is in good condition.

Feature 10 is composed of two retaining walls located 12 m northeast of feature 9. The first wall, feature 10a, runs north to south for 8 m. It is 1 m wide and composed of stones and cobbles stacked four courses to a height of 85 cm. The south end has an extension of embedded uprights that runs for 2 m (Figure 3.12). The north end of the wall has a 2.1 m-long perpendicular extension (Figure 3.13). This wall aligns with the feature 12b wall and these two segments are likely part of a single long wall (Figure 3.14). The second wall, feature 10b is located on the slope below feature 10a. It runs east to west for 9.9 m. It is composed of piled boulders, stones, and cobbles. A large coral fragment is incorporated into its construction on the east end. Feature 10a is in good condition, while feature 10b is in fair to poor condition, heavily overgrown and eroding downslope.



Figure 3.12: Feature 10a embedded uprights at south end of wall, facing west. The scale is marked in 10 cm increments.



Figure 3.13: Feature 10a, north end, facing east. The scale is marked in 10 cm increments.

Feature 11 is a slightly curved wall segment located 18 m northwest of feature 12. Its length is 8 m, width is 1.7 m, and height is 40 cm. It is composed of piled stones and cobbles and oriented directly north-south. This feature is in fair condition and heavily overgrown.

Feature 12 consists of an enclosure (feature 12a) and associated wall (feature 12b), located 20 m east of feature 6, on the west side of a small gully. Feature 12a, the enclosure, is on the south and



Figure 3.14: Feature 10a, foreground, feature 12b, background center of photo. The two walls may be segments of a single longer wall. Orientation is to the north. The scale is marked in 10 cm increments.

feature 12b on the north (Figure 3.15). The enclosure is 9.6 m in length, and 6.3 m in width, and up to 70 cm in height, composed of stacked and piled large stones, with smaller stones and cobbles on top. The enclosure is square in plan, with two clearly defined walls. Triangular uprights occur on both ends of the western wall, and three possible cupboard features are evident. Feature 12b, a wall, lies just upslope (north) of feature 12a. It runs north for 13.6 m and has two westward extensions, measuring 4.5 m and 5.7 m in length. The wall is composed of large stones, stacked and piled to a maximum height of 1.1 m. Two uprights occur at the south end and another near the north end. Two adze blanks, surface midden and a possible fallen upright were observed near the center of the wall. Both the enclosure and wall are in good condition.

Feature 13 is a stone wall 15 m east of feature 12. The wall runs at an orientation of 155° for 9 m and consists of two courses of stacked and piled stones, 44 cm tall and 1.3 m wide. This feature is in good condition.

Feature 14 lies 15 m northeast of feature 12. This is an enclosure and two walls, one with a small C-shape on the south end. Feature 14a, the enclosure is irregular in plan and composed of stones piled to a height of 85 cm. The interior dimensions are 1.5 m by 1.3 m, while the structure measures 8.3 m by 8 m in its entirety. The walls, features 14 b and



Figure 3.15: Feature 12 plan view drawing.

c, extend south and east from the south end of the enclosure. They are 3 m long, and up to 2.4 m wide, and composed of stones piled to a height of 85 cm. A C-shaped structure at the end of feature 14b (the southern wall) measures 1.1 m at its longest dimension and is composed of stones roughly stacked and piled to a height of 75 cm (Figure 3.16).



Figure 3.16: Feature 14b small C-shaped structure, facing north. The scale is marked in 10 cm increments.

Feature 15 is a multiple-component feature composed of a substantial stone wall (feature 15a), an adjacent terrace (feature 15b) and two smaller wall segments to the west (features 15c and d) (Figure 3.17). Feature 15 is located at the southern boundary of the survey area, 50 m south of feature 10. Feature 15a is a stone wall that runs northwest-southeast for 18 m. It is composed of stones stacked eight courses to a height of 1 m. The wall is 1.1 m wide and the ground surface on the east is level with the top of the wall so that it is 1 m higher than on the west. The wall is in good condition. Feature 15b is a terrace that extends out of the center of the wall. It is composed of two perpendicular walls, one running for 8.5 m, perpendicular to feature 15a, and another running for 4.5 m, parallel with feature 15a. The terrace is composed of stones stacked to 60 cm high. The terrace walls are 60 cm wide, and the terrace surface is relatively flat. A hollow stone sitting on the wall may have been used as a bowl (Figure 3.18). The terrace is in excellent condition, although it is overgrown. Features 15c and d are eroded wall segments on the west side of the complex. They are both 5 m long and 1 m wide and run parallel to feature 15a. They are composed of small boulders and large stones roughly piled to a height of 40 cm. The wall segments are in poor condition.

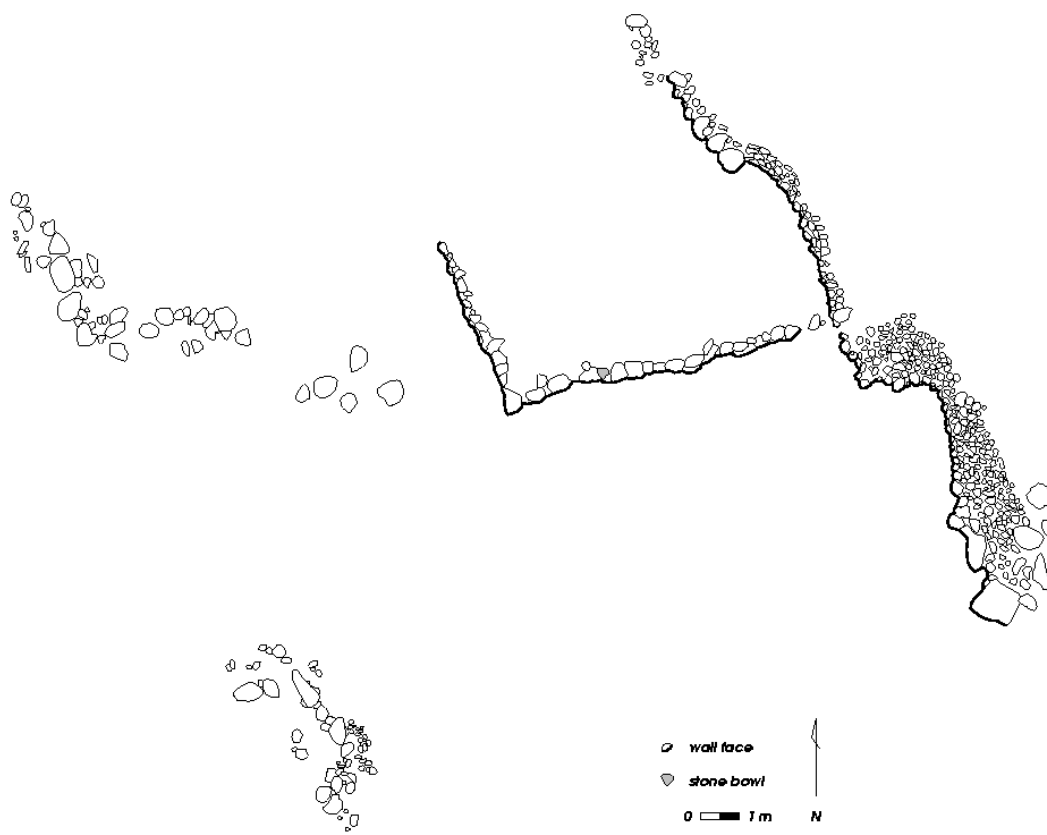


Figure 3.17: Feature 15 plan view drawing.



Figure 3.18: Feature 15b, facing north. The bowl-shaped stone sits atop the terrace in the center right of the photo, above the scale. The scale is marked in 10 cm increments.

Feature 16 is a multi-component feature composed of four or more small terrace segments (feature 16a) and a low wall or alignment (feature 16b). These are located near the northeast survey boundary, 40 m south of feature 1 and 50 m northeast of feature 14. Feature 16a is a set of at least four terrace segments that are each roughly 2 m in length. They are composed of stones and cobbles piled to a height of 40 cm and are severely eroded. Feature 16b is a low wall or alignment that runs east to west for 15 m between the terraces. It is composed of one to two courses of stacked small boulders, stones and cobbles (Figure 3.19). The complex encompasses an area of roughly 15 by 10 m and is in poor condition.



Figure 3.19: Feature 16b, low wall or alignment, facing northeast. The scale is marked in 10 cm increments.

Feature 17 is a modified bedrock outcrop located 10 m southeast of feature 16. The outcrop is enhanced with piled stones to form a rough rectangle, 7.3 m in length and 4.8 m in width. The piled portion extends 80 cm high, and a worked basalt cobble was found on top. This feature is in fair condition.

Feature 18 is a petroglyph located on a boulder 20 m south of feature 1 and 20 m west of the cliff. It depicts a human figure with a circular head and stick figure body (Figure 3.20). The petroglyph is in fair condition.



Figure 3.20: Sketch of feature 18 petroglyph. Not to scale.

In sum, 18 archaeological features were found in the survey area, and many of these consist of multiple components. These were designated site 50-60-04-2471, although the function of the features and their relationship to one another cannot be confirmed at this time. It is likely that multiple activities took place at the site, including cattle ranching (feature 1), water management/agriculture (feature 2), habitation and tool making (feature 12, where midden and adze blanks were found), and ritual (features 5 and 12, which exhibited uprights, feature 10, which contained coral and uprights, and feature 15 where a possible medicine bowl was found). Furthermore, it is not likely that all features are contemporaneous. Feature 1, the Kamehameha Wall was likely constructed and/or used during the historic era and may post-date the surrounding features, which are consistent with traditional Hawaiian architecture. If development is proposed for this area in the future, additional research, including subsurface testing is recommended.

4. Discussion and Conclusion

This research has documented significant archaeological features in both lower and upper Kamalō. Site 50-60-04-2458, in lower Kamalō, was originally defined as a habitation area (Cordy and Cordy 2001:7) but is now thought to represent an agricultural complex. Ten features were examined, including terraces, a long wall, C-shaped structures, and a stone mound (Table 1). These features were mapped in detail, and subsurface testing was not conducted. This site is evaluated as significant under criterion *d* of § 13-275-6(b) for the information it may yield on Hawaiian history and prehistory. If development is proposed for this area in the future, further investigation of this site is recommended. This should include subsurface testing and more extensive survey.

Table 1: Feature descriptions for site 50-60-04-2458 and 50-60-04-2471.

Site	Feature	Description
2458	A	Two Terraces
	B	Terrace
	C	Three Terraces
	D	Four Terraces and C-shaped Structure
	E	Four Terraces, C-shaped Structure, Stone Mound
	F	Terrace
	G	Wall
	H	Terrace
	I	Terrace
	J	Terrace
2471	1	Kamehameha Wall and Petroglyph
	2	Wall
	3	Modified Outcrop
	4	Boulder Alignment
	5	C-shaped structure and wall
	6	Terrace
	7	Wall
	8	Stone Mound
	9	Stone Mound
	10	Two Walls
	11	Wall
	12	Enclosure and Wall
	13	Wall
	14	Enclosure and Two Walls
	15	Terrace and Three Walls
	16	Four Terraces and Wall
	17	Modified Outcrop
	18	Petroglyph

Site 50-60-04-2471 is a previously unidentified complex in upper Kamalō. Eighteen features were documented, including terraces, walls, stone mounds, alignments, enclosures, petroglyphs, and a C-shaped structure (see Table 1). Three features were mapped in detail, and subsurface testing was not conducted. The site is evaluated as significant under criterion *d* of § 13-275-6(b) for the information it may yield on Hawaiian history and prehistory. Feature 1 of site 50-60-04-2471 may also be significant under criterion *b* of § 13-275-6(b) because it may be associated with Kamehameha V, a significant personage in Hawaiian history. Subsurface testing is recommended to determine the age and function of the features, and the land adjacent to the survey area on the north, west, and east should be surveyed for additional cultural remains.

In conclusion, Kamalō has a rich history, but very little archaeological research has been conducted in the *ahupuaʻa*. This project has documented 28 archaeological features in both upper and lower Kamalō, making a significant contribution to our knowledge of traditional and historic use of the area.

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Appendix H Relevant Hawai'i State Constitutional
Provisions (Art. XII, § 7 and XI, § 1) and
Statutes (Haw. Rev. Stat § 1-1 and 7-1)

West's Hawai'i Revised Statutes Annotated
The Constitution of the State of Hawaii (Refs & Annos)
Article XII. Hawaiian Affairs
Traditional and Customary Rights

Const. Art. 12, § 7

Section 7

[Currentness](#)

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 the right of the State to regulate such rights.

Credits

Added by 1978 Const. Con., ratified Nov. 7, 1978.

[Notes of Decisions \(71\)](#)

Const. Art. 12, § 7, HI CONST Art. 12, § 7

Current with amendments through Act 329 of the
2012 Regular Session.**End of Document**

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C

West's **Hawai'i** Revised Statutes Annotated [Currentness](#)

The **Constitution** of the **State** of **Hawaii**([Refs & Annos](#))

↗ [Article XI](#). Conservation, Control and Development of Resources

↗ Conservation and Development of Resources

→ **Section 1**

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect **Hawaii's** natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

All public natural resources are held in trust by the State for the benefit of the people.

CREDIT(S)

1978 Const. Con., ratified Nov. 7, 1978.

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West's Hawai'i Revised Statutes Annotated
Division 1. Government
Title 1. General Provisions
Chapter 1. Common Law; Construction of Laws

HRS § 1-1

§ 1-1. Common law of the State; exceptions

[Currentness](#)

The common law of England, as ascertained by English and American decisions, is declared to be the common law of the State of Hawaii in all cases, except as otherwise expressly provided by the Constitution or laws of the United States, or by the laws of the State, or fixed by Hawaiian judicial precedent, or established by Hawaiian usage; provided that no person shall be subject to criminal proceedings except as provided by the written laws of the United States or of the State.

Credits

Laws 1892, ch. 57, § 5; Laws 1903, ch. 32, § 2; R.L. 1925, § 1; R.L. 1935, § 1; R.L. 1945, § 1; R.L. 1955, § 1-1; H.R.S. § 1-1.

[Notes of Decisions \(123\)](#)

H R S § 1-1, HI ST § 1-1

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West's Hawai'i Revised Statutes Annotated
Division 1. Government
Title 1. General Provisions
Chapter 7. Miscellaneous Rights of the People

HRS § 7-1

§ 7-1. Building materials, water, etc.; landlords' titles subject to tenants' use

Currentness

Where the landlords have obtained, or may hereafter obtain, allodial titles to their lands, the people on each of their lands shall not be deprived of the right to take firewood, house-timber, aho cord, thatch, or ki leaf, from the land on which they live, for their own private use, but they shall not have a right to take such articles to sell for profit. The people shall also have a right to drinking water, and running water, and the right of way. The springs of water, running water, and roads shall be free to all, on all lands granted in fee simple; provided that this shall not be applicable to wells and watercourses, which individuals have made for their own use.

Credits

C.C. 1859, § 1477; R.L. 1925, § 576; R.L. 1935, § 1694; R.L. 1945, § 12901; R.L. 1955, § 14-1; H.R.S. § 7-1.

Notes of Decisions (54)

H R S § 7-1, HI ST § 7-1

Current with amendments through Act 329 of the
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MAUNALOA POLICY

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. The community welcomes correction and/or updating to the guidelines in this respect only, through the various steps this plan takes to adoption. That the main direction and goals of this statement remain intact to preserve and reflect the spirit under which it was prepared and the consensus of the *West End* Community Plan.

West End is defined as: to the *West* - a direction.¹ 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.²"

The boundaries are from *Papohaku* to *Waiakane* on the South Shore of the West and from *Kawahiau* to *Naaukahihi* on the North Shore of the West; and from *Kawahiau* to *Papohaku* on the West Shore; and from *Kawailoa* to *Naaukahihi* on the East Shore of the West.³

The *West End* presently, is a fragile, narrow, coastal community, serving as residences. Land ownership for the largest portion is under Molokai Ranch control. The three main differences distinguishing from the rest of Molokai are her geography, her environment, and her people. To these values can be added statistical figures showing over 376⁴ households, averaging 3.7 persons each (approximately 1,504 population),

¹ United States Department of the Interior Geological Survey Map, Island of Molokai, 1952.

² Pukui, Hawaiian Dictionary, 1971, University of Hawaii Press.

³ 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.Kanakanui.

⁴ Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm.

with median incomes of \$39,000.00⁵ per year, which includes wealthy owners in Kaluakoi.

The median income for the majority of Maunaloa community's population is \$8,000.00 to \$15,000.00.⁶ 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 Molokai 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 is to improve and enrich the lives of the *West End* residents.

II. SUBSISTENCE:

Molokai 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.⁷ Apart from Ni'ihau, the island is home to the highest percentage of Native Hawaiians. Molokai, unlike the rest of the state, has also continued to retain a substantial amount of available lands and resources for traditional and customary and subsistence practices. Such traditions and customs are actively practiced and evolving. Many Molokai 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, Molokai is thus an "[oasis] from which traditional Native Hawaiian culture can be regenerated and revitalized."⁸

⁵ Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm.

⁶ <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.

⁷ 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 POMAIIKA', MCGREGOR, NA KUA'AINA: LIVING HAWAIIAN CULTURE, UNIVERSITY OF HAWAII'I, PRESS 8, 12 (2007).

⁸ Id.

The ability of Native Hawaiians on Molokai to continue traditional and customary practices may play a critical role in maintaining our island's cultural integrity across Ka Pae 'Aina o Hawai'i (the Hawaiian Archipelago). Ensuring continued access to, and the health of Molokai's natural and cultural resources, is critical for the perpetuation of traditional and customary practices, including fishing, gathering, cultivating lo'i, 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. Subsistence hunting, one hunts for game when food is needed. Hunting opportunities should be limited to Molokai residents. In the past generations working in harmony with lessees of Molokai 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. Bottom line, 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:

1. When hunting for subsistence to feed their families, Maunaloa hunters should be given priority for hunting passes.

2. Current lessee should be held in compliance by Molokai Ranch to permit Maunaloa hunters to their gathering rights for subsistence.

B. Implementing Hunting Management Plan:

1. A two (2) Buck Tag System Pass of a group of ten (10) hunters will be issued to them in which they will be responsible for hunting unlimited does but an overall limit of hunting two (2) bucks that day. The deer controlled management hunting should be maintained between Molokai Ranch and Maunaloa residents. 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. Tag system 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 (2) 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 2 Buck Tag system per ten (10) hunters unlimited does, but allowed to shoot 2 bucks that day. 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 a proper hunting management. The challenge is to get knuckleheads to comply.

C. Fishing:

Fishing is also done for subsistence. Sustainability is for all future generations of Molokai. There are three (3) fish ponds around Waikane Gulch that is 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. Fish ponds are the life of the people and part of the 'aina. 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 'aina. 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 Molokai 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:

A. Clean and Restore:

1. The three (3) fish ponds around Waikane Gulch be restored, cleaned, and maintained. Access will remain under Molokai Ranch control. Molokai Ranch to provide needed supplies for the restoration and cleanup of the fish ponds. The Maunaloa residents 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 use common sense. Leave the area better than when you arrived. Bring opala (rubbish) in, take rubbish 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 Molokai are extensive and require careful treatment. Working in harmony with Molokai Ranch is crucial for a win-win situation.

III. CONTAMINATED WATER CONCERN:

Maunaloa residents this 2015 year received a mail 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 purchases water for her

students refusing to allow them to drink from the water faucet. There are many keiki and kupuna 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 Molokai Ranch. The article is in the Molokai Dispatch, noting that this water transport and quality issue has existed a number of years. "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".⁹

According to the Molokai Dispatch the Molokai Irrigation System, MIS, was last improved in 1960. **"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."¹⁰

According to the Molokai Dispatch, September 10, 2007, **"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."¹¹

From Molokai Dispatch February 28, 2011. "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

⁹ <https://themolokaidispatch.com/ranch-seeks-to-renew-water-permit/>. Molokai Dispatch, 7/29/2012, by Eileen Chao, **Ranch Seeks to Renew Water Permit**

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

¹¹ <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**

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 End¹²

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.
3. Test for contaminates every two (2) months. Have results validated by a third-party, such as Abbey Lab.
4. Department of Health and University of Hawaii to do separate testing of water.
5. Test for contaminants at the residential faucets of seven (7) homes quarterly.
6. 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.
7. Lower water rates. Maunaloa pays highest rates in the nation¹³ 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 *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.

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

¹² <https://themolokaidispatch.com/molokai-ranch-water-wars/>. Molokai Dispatch, by Molokai Dispatch Staff
Molokai Ranch Water Wars

¹³ <https://themolokaidispatch.com/appeal-of-ranch-water-rates-denied/>. Molokai Dispatch, 7/1/2012, by Eileen Chao, **Appeal of Ranch Water Rates Denied**

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. Kupuna (elders) have made a request for a Molokai crematorium.

GOALS AND ACTION:

A. Build a Community 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 this community 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 *Kaluakoi*. 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.

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.

Molokai'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 Molokai Ranch.

GOALS AND ACTION:

A. Fix Roads and Access Paths to Beaches:

1. Repave Kaluakoi road, it is in bad need of repair. Both Molokai 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:

West End's environment, rich in natural resources, balances on a sensitive ecological system 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 Molokai'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 the Hawaii 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.¹⁴ Recent court decisions have affirmed that state and county

¹⁴ 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).

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 Department of Hawaiian Home Lands, 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 Molokai'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.¹⁵

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 stand being eaten to the roots and trampled upon, necessitating careful management of pasture and *Kula* lands.¹⁶ Because of overgrazing, the runoff mud goes into the fish ponds 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 as well as 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.

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 Hawaiian's under the Hawaiian Homes Commission Act, the Hawai'i Constitution, the State Water Code, and court decisions. Protect, restore, and enhance surface and subsurface water sources.

¹⁵See *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.

¹⁶Hawaiian 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.

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 Department of Hawaiian Homelands.¹⁷
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.¹⁸

B. Control Erosion:

1. Control deer population.
2. Control cattle grazing.
3. Replant areas with indigenous plants.
4. The possibility of growing marijuana as a medicinal crop would fertilize the soil and boost Molokai'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 *West End* are subject to tidal surges. Commercial development as multi-family or resort, with their corresponding sewage disposal problems can irreparably damage this ground water 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.

¹⁷ 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 HAWAII (2009), available at <https://www.law.hawaii.edu/files/content/news/18470/WaterPrimer.pdf>.

¹⁸ 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 ...").

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 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 how 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*** plan 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 the Hawaiian State Constitution, Chapter 12, Section 7, 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.¹⁹ Under this framework, agencies must identify 1) the scope of valued cultural, historical, and natural resources in the area, including the extent to which traditional and customary rights are exercised; 2) the extent to 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 Hawaii’s environmental review process, HRS Chapter 343, should include a consideration of the effects of proposed action on cultural practices.²⁰ 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 Aina*, Land Care (malama the ‘aina) 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 (ahupua ‘a) and *ohana*. *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,

¹⁹ 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).

²⁰ Act 50 (2000).

economic, political and environmental conditions of Molokai, the relative integrity of the *West End* area's cultural resources of over 200 cultural sites²¹ 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 his survival, plays a major role for *West End* residents. The concept of *aloha aina* 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 *kupuna* (elders).

Throughout Molokai'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 Molokai. The health of Molokai's natural and cultural resources, and access to these resources by Native 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 Molokai 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 Molokai. 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.

²¹ Halona Ka'opu'iki possesses photos of these cultural sites.

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 HRS 188-22.6 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 and nuclear power plants are disallowed.

B. Survey and Document:

1. Survey and documentation all archaeological sites with immediate efforts toward preservation of the cultural integrity of such 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. 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 State of Hawaii, Department of Land and Natural Resources 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 be done.
2. Reinforce the surrounding fence to protect replanting from deer and cattle.
3. Access to Mount Ka'ana be provided by permission from Molokai Ranch. This area should not be promoted by the visitor's industries. *Mount 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. Mount

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

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:

1. A profound concern for the land and the care it deserves, for the support it can provide.
2. An avid interest in the ocean for its recreational value as well as for the bountiful sustenance it can provide.
3. A deep respect for Hawaiian cultural remnants of the past in the numerous *heiaus*, activity areas, and the grave sites **West End** contains.
4. A strong sense of community, more particularly, **West End** community, and the common activities it comprises, such as sports, educational programs, and growth.
5. A firm belief in lifestyle and *aloha* for *West End* it portrays.

To these values can be added statistical figures showing over 376²² households, averaging 3.7 persons each (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 \$15,000.00²³. The reason being that the great majority is in federal and state funded housing. The a 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.

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

²² Data from 2013 www.city-data.com/city/Maunaloa-Hawaii.htm

²³ <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

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.

Molokai 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 is currently existing. This would generate employment providing island wide benefit to residents and tourist alike. These derelict buildings are a potentially great economic resource. This is a quote from 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 of Maui 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 institute adult and student education programs through the University of Hawaii, Department of Education, Kamehameha School/Bishop Museum, and private industry.
6. Investigate and initiate Aquaculture programs for the following industries on Molokai:
 - a. marine sea turtle hatchery;
 - b. Pacific spiny lobster hatchery;
 - 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 *West End*. Consider the growing of medicinal Marijuana 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 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 Molokai Ranch to restore with the help of the City and County. 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 the *West End* residents and the Molokai Ranch.
2. Create driving range and mini golf course. This creates employment opportunity as well as serve tourist interests. 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 n Pop restaurants that deliver to *West End* residents. Due to exorbitant costs of maintaining a business on Molokai, the Mom n Pop stores are a more reasonable alternative. Whether there is a number or simply one (1)

that rotates menus remains to be seen. Delivery of meals is an enhancement to the business.

5. Provide fishing net manufacturing plant. A plant that produces nets at a reasonable cost would be beneficial Island wide. This segues into the people's love of the 'aina and their traditional lifestyle and subsistence living.
6. Reconstruct a camp area for utilization by the Molokai community for conference meetings and large events. This would be a win-win for Molokai community and Molokai Ranch. Provide Island wide education for use and maintenance.

The opportunities for alternative economic growth are unlimited in *West End* and these 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. *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, city and county, state, and Molokai 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 on 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 Maui County to fix tax laws to actual use rather than general area use or potential value use. The depressed economic standard on Molokai should be considered in rendering taxes. 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 n Pop businesses).
3. In reference to "commercial development", fix what already exists and make 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 of Hawaii and the County of Maui 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 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 "land-locked" 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 take an active part in proposed development. Where responsible community concern exists over the impact of a proposed development, and these concerns are in conflict with 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 interview shall become part of the application and be used in determining its approval, denial, or provisional changes/additions.
- a. Subdivision of ahupua 'a into "ag lots" shall be made to a size that reflects soil type, soil quality and land slope, which will 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 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 HRS 343 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 actual 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. 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 it's worth balanced against human need and environmental alteration. Periodic maintenance and/or clearing by 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 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 Molokai 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. Land owners 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 *West End* and reduce consequent resident displacement in many cases.
- Traditionally valuable lands should be given a separate and distinct category under the State of Hawaii Land Use Commission District Boundaries to read: Urban, Rural, Agricultural, Traditional and Conservation.
- All fishponds and *taro* lands shall be designated Traditional. This would elevate viable agricultural and aquacultural lands from Conservation to Traditional, and apply only traditional methods to traditional 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 of Maui, 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 Molokai.
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 *West End* unique for ourselves, our children, and generations yet 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:²⁴

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, 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.

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."²⁵

²⁴ 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.

²⁵ 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)
_____)

**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

**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