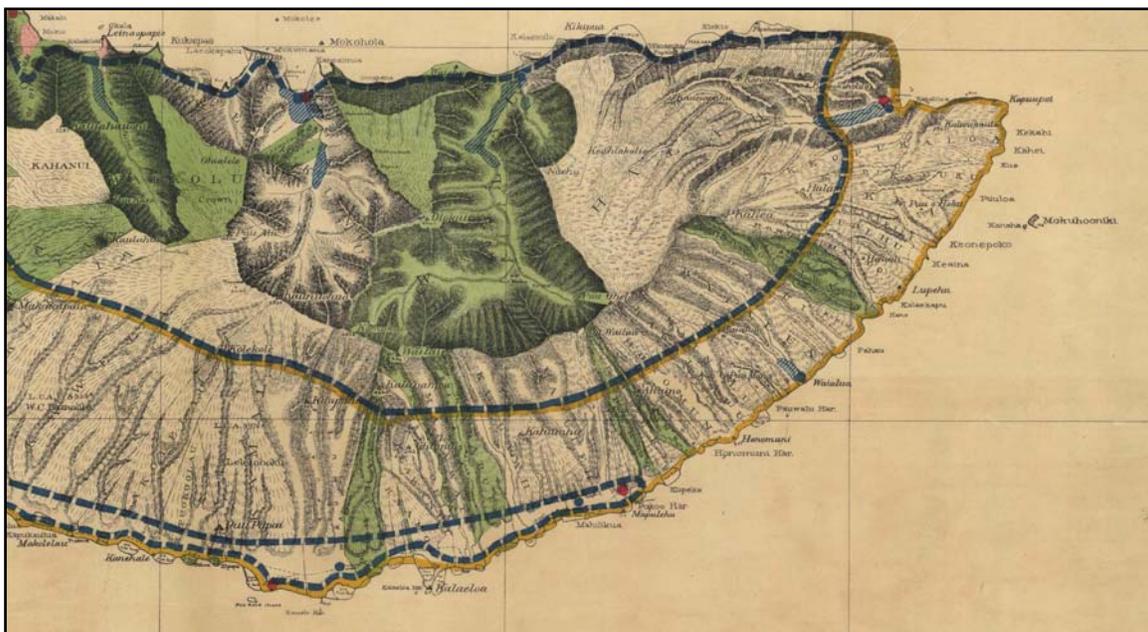


# MANA'E GIS MAPPING PROJECT

Departmental Draft, May 2008



Source: 1897 Hawaiian Government Survey Map of Molokai

Prepared For:  
The County of Maui &  
Mālama Pono o Ka 'Āina

Prepared By:  
Markline LLC



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# Acknowledgements

**Mālama Pono o Ka 'Āina**

**Mana'e Kupuna and Community Members**

**Maui County**

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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)**

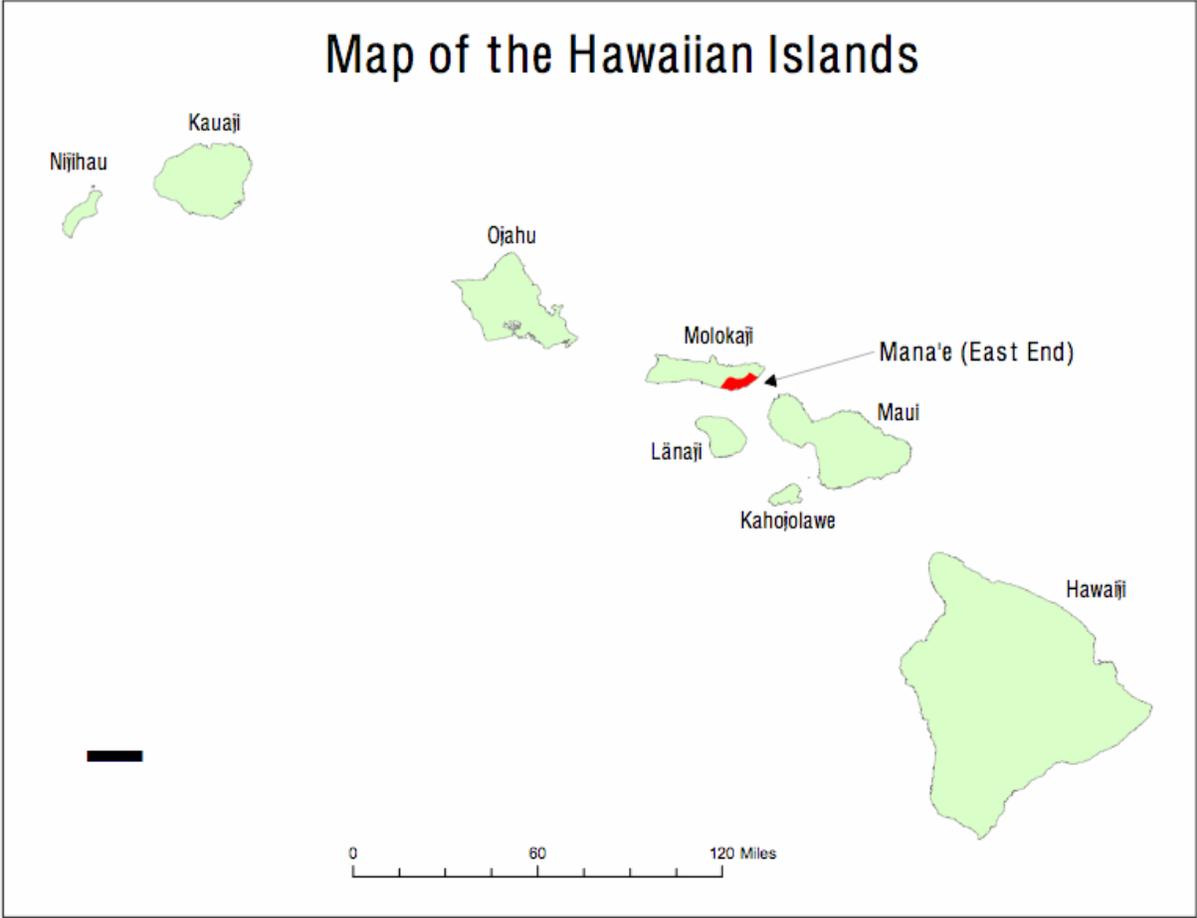
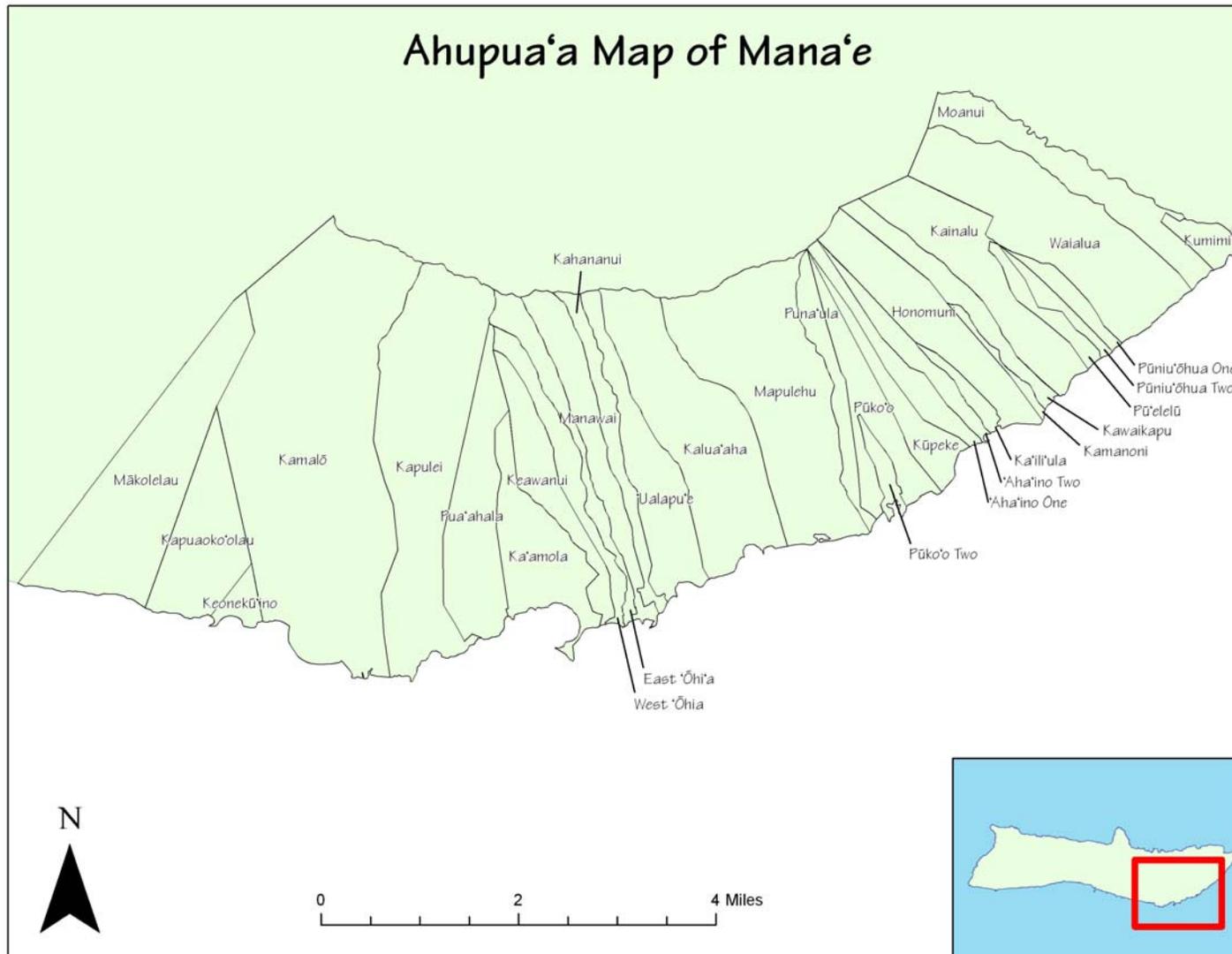


FIGURE 2: Ahupua'a Map of Mana'e (project area outlined)



### **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**
  - **'Ualapu'e Historic Land Uses** (Figure #11)
  - **Kalua'aha (Makai) Historic Land Uses** (Figure #12)
  - **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 22<sup>nd</sup> and 25<sup>th</sup>, 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
  - Preliminary Draft Report and Maps to MPOKA – March 13, 2008
  - Draft Report and Finalized Maps to MPOKA – April 10, 2008
  - 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)**
  - **'Ualapu'e Historic Land Uses** (Figure #11)
  - **Kalua'aha (Makai) Historic Land Uses** (Figure #12)
  - **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 #3: MANAE WETLANDS INVENTORY (MAP #1)**

**FIGURE #4: MANAE WETLANDS INVENTORY (MAP #2)**

## **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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**FIGURE #5: NATURAL & CULTURAL RESOURCES (MAP #1)**

**FIGURE #6: NATURAL & CULTURAL RESOURCES (MAP #2)**

## **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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**FIGURE #7: WETLANDS, NATURAL AND CULTURAL RESOURCES ON AERIAL  
IMAGERY (MAP #1)**

**FIGURE #8: WETLANDS, NATURAL AND CULTURAL RESOURCES ON AERIAL  
IMAGERY (MAP #2)**

## **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 (MAP #1)**

**FIGURE #10: BUILDING PERMITS (MAP #2)**

### **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 Use Map**

**FIGURE #12: Kalua'aha (Makai) Historic Land Use Map**

**FIGURE #13: Kalua'aha (Mauka) Historic Land Use Map**

**FIGURE #14: Mana'e Ahupua'a and Associate Lele in Wailau**

### **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.

Maly, Kepa for *Ka Hana Lawai'a Ame Na Ko'a O Na Kai 'Ewalu* (2003), Study of Traditional Hawaiian Fishing Practices.

UH Manoa, Department of Urban & Regional Planning (Luciano Minerbi – PI, 2005), *North Kohala Native Hawaiian Cultural & Natural Resource Study*.

UH Manoa, Department of Urban & Regional Planning (Luciano Minerbi – PI, 2005), *Papohaku Dunes Cultural & Natural Resource Preservation Plan*, Spring 2005 Planning Practicum.



## 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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- U.S. Fish and Wildlife Service. 1996. *Recovery Plan for the Molokai Plant Cluster*. Portland, Oregon.
- Wyban, Carol Araki. 1990. *Master Plan for 'Ualapu'e Ahupua'a: Blending Tradition & Technology*. For the Department of Business and Economic Development, Moloka'i Office, State of Hawai'i.

## Appendix D – DURP GPS Points Data Table

<b>DURP GPS Points</b>			
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	Ualapue
12	Kilohana School	School	Ualapue
13	Heiau at Auntie Tooichi	Heiau	Kahananui
14	Akutagawa	Wall	Ualapue
15	Aunty 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	Iliiliopae 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 Cultural 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:

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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. Tooch, 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 deciphere 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 Mana`e, 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.<sup>1</sup> The goal of the Act is to ensure that the nation’s waters are “fishable and swimmable.”<sup>2</sup> The CWA is administered by the Environmental Protection Agency (“EPA”)<sup>3</sup> 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.<sup>4</sup> The CWA’s principal enforcement mechanisms are pollutant discharge limits and permitting programs.<sup>5</sup>

The CWA has two enforcement provisions: sections 309 and 505. Section 309<sup>6</sup> 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.<sup>7</sup>

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’s<sup>8</sup> Water Quality Certification (“WQC”) is regulated by Water Quality Standards promulgated in Hawai`i 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)

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<sup>1</sup> See U.S. Environmental Protection Agency, <http://www.epa.gov/lawsregs/laws/cwahistory.html>.

<sup>2</sup> P.L. 92-500.

<sup>3</sup> 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](http://www.epa.gov).

<sup>4</sup> [www.epa.gov](http://www.epa.gov).

<sup>5</sup> [www.epa.gov](http://www.epa.gov).

<sup>6</sup> 33 U.S.C. §1318.

<sup>7</sup> 33 U.S.C. 1365.

<sup>8</sup> 33 U.S.C. §1341, [http://www.law.cornell.edu/uscode/33/usc\\_sec\\_33\\_00001341----000-.html](http://www.law.cornell.edu/uscode/33/usc_sec_33_00001341----000-.html).

limitations and water quality standards.<sup>9</sup> 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.<sup>10</sup> 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)<sup>11</sup>

Under Section 404 of the CWA,<sup>12</sup> the Army Corps regulates discharges of dredged or fill materials into the waters of the United States, including wetlands such as fishponds.<sup>13</sup> 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.<sup>14</sup>

### 2a. *Applicability*

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<sup>9</sup> See Hawai'i Department of Health ("DOH"), <http://hawaii.gov/health/environmental/water/cleanwater/forms/wqc-index.html#Water%20Quality%20Certification>.

<sup>10</sup> DOH, <http://hawaii.gov/health/environmental/water/cleanwater/forms/wqc-index.html#Water%20Quality%20Certification>.

<sup>11</sup> 33 U.S.C. § 1344, [http://www.law.cornell.edu/uscode/html/uscode33/usc\\_sec\\_33\\_00001344----000-.html](http://www.law.cornell.edu/uscode/html/uscode33/usc_sec_33_00001344----000-.html).

<sup>12</sup> 33 U.S.C. § 1344. See 40 CFR Part 122.2 for a more complete definition of waters of the United States.

<sup>13</sup> 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).

<sup>14</sup> Managing Your Environmental Responsibilities, [www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myer2\\_dredgeandfill.pdf](http://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](http://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.”<sup>15</sup> It further defines ‘dredged material’ as “material that is excavated or dredged from waters of the United States.”<sup>16</sup> 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.”<sup>17</sup> 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.”<sup>18</sup> 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 District<sup>19</sup> can be contacted to determine whether permits are required for any particular development project.<sup>20</sup>

## **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.

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<sup>15</sup> 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

<sup>16</sup> 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

<sup>17</sup> 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

<sup>18</sup> 33 CFR 323, available at <http://www.sac.usace.army.mil/permits/33cfr323.html>.

<sup>19</sup> <http://www.poh.usace.army.mil/>.

<sup>20</sup> <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.<sup>21</sup> Individual permits are usually required for activities with potentially significant impacts.

### ***2c. The Individual Permit Process***<sup>22</sup>

The following steps must be completed to obtain an individual permit:<sup>23</sup>

To receive a Section 404 individual permit, operators must complete an "Application for Department of Army Permit."<sup>24</sup> 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.<sup>25</sup>

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.<sup>26</sup>

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**

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<sup>21</sup> For a list of current Nationwide Permits (NWP) see [http://ceres.ca.gov/wetlands/permitting/NWP\\_table.html](http://ceres.ca.gov/wetlands/permitting/NWP_table.html).

<sup>22</sup> This information was taken from Managing Your Environmental Responsibilities at: [www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myer2\\_dredgeandfill.pdf](http://www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myer2_dredgeandfill.pdf).

<sup>23</sup> 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.

<sup>24</sup> This application is available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/eng4345a.pdf>.

<sup>25</sup> 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.

<sup>26</sup> [http://www.fws.gov/charleston/docs/404\\_permits.html](http://www.fws.gov/charleston/docs/404_permits.html).

In 1973, the Hawai`i State Legislature formally established a water pollution control program.<sup>27</sup> 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 pollutants<sup>28</sup> into waters of the state through uniform permitting procedures. Point sources are discrete conveyances such as pipes or man-made ditches.<sup>29</sup> 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.<sup>30</sup>

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 Program***<sup>31</sup>

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.<sup>32</sup> 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.<sup>33</sup>

### ***3b. Hawai`i's General Permits under the delegated NPDES Program***<sup>34</sup>

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

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<sup>27</sup> Act 100 was codified as Chapter 342, Hawai`i Revised States (HRS), "Environmental Quality."

<sup>28</sup> "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#](http://www.epa.gov/OWOW/invasive_species/invasives_management/cwa402.html#).

<sup>29</sup> <http://cfpub.epa.gov/npdes/>.

<sup>30</sup> <http://cfpub.epa.gov/npdes/>.

<sup>31</sup> The following is taken from <http://www.nasda.org/nasda/nasda/foundation/state/Hawaii.pdf>.

<sup>32</sup> 40 C.F.R. Section 122.3.

<sup>33</sup> 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).

<sup>34</sup> 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.<sup>35</sup> 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.<sup>36</sup> Under this section, no permit under section 1342 (402 permits) shall be issued unless it complies with guidelines EPA issues under section 403.<sup>37</sup>

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.<sup>38</sup> 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

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<sup>35</sup> Chapter 11-55 Appendix G(9), available at: <http://hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html#CWB-NOI Form G>.

<sup>36</sup> 33 U.S.C. 1343, available at: [http://www.law.cornell.edu/uscode/33/usc\\_sec\\_33\\_00001343----000-.html](http://www.law.cornell.edu/uscode/33/usc_sec_33_00001343----000-.html).

<sup>37</sup> 33 U.S.C. 1343(c).

<sup>38</sup> 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 1972<sup>39</sup> to encourage states to better manage coastal areas. The CZMA provides grants to states that develop and implement federally approved coastal zone management plans.<sup>40</sup> 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.<sup>41</sup> The Act requires all federal agencies to consider potential environmental impacts of proposed actions during the planning and decision-making process.<sup>42</sup>

NEPA requires that a detailed statement accompany all major federal actions significantly affecting the quality of the human environment.<sup>43</sup> Generally, the agency is required to first prepare an Environmental Assessment (“EA”).<sup>44</sup> If the agency determines that its actions will have no significant impact, a finding of no significant impact is prepared and an Environmental Impact

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<sup>39</sup> See <http://coastalmanagement.noaa.gov/>.

<sup>40</sup> <http://coastalmanagement.noaa.gov/>.

<sup>41</sup> 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.”<sup>41</sup> See <http://www.saj.usace.army.mil/restore/programs/NEPA.htm>.

<sup>42</sup> 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>.

<sup>43</sup> 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.

<sup>44</sup> 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”)<sup>45</sup> is not necessary. In the alternative, if the agency determines that there will be significant impacts, then an Environmental Impact Statement must be prepared.<sup>46</sup>

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.

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<sup>45</sup> 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.

<sup>46</sup> 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.<sup>47</sup> The four counties can then further regulate the districts under their land use code, except for the conservation district.<sup>48</sup> The Conservation District is administered solely by the State Department of Land and Natural Resources (“DLNR”), with minimal input from the counties.<sup>49</sup>

“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.”<sup>50</sup>

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.”<sup>51</sup> “The P subzone shall encompass... [l]ands and waters necessary for the preservation and enhancement of designated historic or archeological sites.”<sup>52</sup> Some of the identified land uses that are allowable in the protective subzone include work on fishponds,<sup>53</sup> kuleana uses,<sup>54</sup> and the limited construction of structures.<sup>55</sup> 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.”<sup>56</sup> Only seven Special subzones have ever been created.<sup>57</sup> It has been used for a college

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<sup>47</sup> 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](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>.

<sup>48</sup> Haw. Rev. Stat. § 205-5.

<sup>49</sup> Haw. Rev. Stat. § 205-5(a).

<sup>50</sup> “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>.

<sup>51</sup> Haw. Admin. Rule § 13-5-11(a) available at <http://www6.hawaii.gov/dlnr/occl/Rules.php>.

<sup>52</sup> Haw. Admin. Rule § 13-5-11(b2) (emphasis added).

<sup>53</sup> Haw. Admin. Rule § 13-5-22 (P-2).

<sup>54</sup> Haw. Admin. Rule § 13-5-22 (P-3).

<sup>55</sup> Haw. Admin. Rule § 13-5-22 (P-9, P-10).

<sup>56</sup> 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.<sup>58</sup> 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.<sup>59</sup> 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.<sup>60</sup>

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."<sup>61</sup> 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.<sup>62</sup> There were six final EAs prepared because of HEPA or NEPA for the restoration of fishponds between 1991 and 2007.<sup>63</sup> 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.<sup>64</sup>

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.<sup>65</sup> (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

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<sup>57</sup> 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.

<sup>58</sup> Haw. Rev. Stat. § 188-22.7.

<sup>59</sup> Haw. Rev. Stat. § 343-1.

<sup>60</sup> 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>.

<sup>61</sup> The Environmental Guidebook, supra note 47, at 13.

<sup>62</sup> Haw. Rev. Stat. § 183B-2.

<sup>63</sup> 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>.

<sup>64</sup> 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](http://www6.hawaii.gov/dlnr/occl/files/Subzones/12-05/molokai_conserv_subz2005.pdf).

<sup>65</sup> Website: Shoreline Setback Areas, County of Maui, available at <http://www.co.maui.hi.us/departments/Planning/czmp/ssa.htm>.

(shoreline) fishponds<sup>66</sup> 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."<sup>67</sup> 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.<sup>68</sup>

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.<sup>69</sup> 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.<sup>70</sup>

Any person can nominate a property for designation, not just the property owner.<sup>71</sup> If the property owner objects to the nomination, s/he may testify against it at the Hawai'i Historic Places Review Board meeting.<sup>72</sup> If unsatisfied by the result, the property owner can also demand a contested case hearing.<sup>73</sup>

In the 1970's, several properties including one fishpond were registered on the State list without the owner's receiving notification.<sup>74</sup> In part due to these actions, listing properties without notifying the owner has not happened since.<sup>75</sup> In general, if a property owner objects to designation, the property will not be listed.

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<sup>66</sup> 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).

<sup>67</sup> Haw. Admin. Rule § 13-222-16 (b)(7).

<sup>68</sup> 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).

<sup>69</sup> SHPD, DLNR, <http://hawaii.gov/dlnr/hpd/hpgrtg.htm>.

<sup>70</sup> 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](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.

<sup>71</sup> Haw. Admin. Rule § 13-198-3.

<sup>72</sup> Haw. Admin. Rule §13-198-4.

<sup>73</sup> Haw. Admin. Rule §13-198-6.

<sup>74</sup> Telephone interview with Susan Tasaki, Architecture Branch, SHPD, (Apr. 19, 2008).

<sup>75</sup> 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.<sup>76</sup> There are numerous fishponds on Molokai that are on the State registry; two are in the Kamalō area (Pahiomu Fishpond and Kipapa Fishpond).<sup>77</sup> There are additional historic sites mauka of the coast in the Mana`e area.<sup>78</sup>

#### **D. State Water Code**

Fresh water from streams and aquifers is managed by the Commission on Water Resource Management via the State Water Code.<sup>79</sup> 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.<sup>80</sup> 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.<sup>81</sup>

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.<sup>82</sup>

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.<sup>83</sup>

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<sup>76</sup> 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>.

<sup>77</sup> 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

<sup>78</sup> "Combined Map 1" and "Combined Map 2" from Harmonee

<sup>79</sup> Haw. Rev. Stat. Ch. 174C.

<sup>80</sup> Haw. Rev. Stat. § 174C-93.

<sup>81</sup> Ka Pa`akai v. Land Use Commission, 94 Haw. 31, 45 (2000).

<sup>82</sup> 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.<sup>84</sup>

## **2. Possible arguments that Native Hawaiians have the right to practice within private fishponds**

There are three requirements<sup>85</sup> 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.<sup>86</sup> 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."<sup>87</sup> With regard to constitutionally protected traditional and customary rights, any native Hawaiian regardless of blood quantum is entitled to these rights.<sup>88</sup> 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.<sup>89</sup> The Hawai`i Supreme Court in PASH declined to rule on this issue but has left the possibility open.<sup>90</sup>

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.<sup>91</sup> 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.<sup>92</sup>

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

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<sup>83</sup> This may be limited to discretionary permits only.

<sup>84</sup> 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").

<sup>85</sup> They are described as "factors" in Hanapi but are actually all mandatory.

<sup>86</sup> State v. Hanapi, 89 Haw. 177, 186 (1998).

<sup>87</sup> Hawai`i Constitution Article XII, § 7.

<sup>88</sup> PASH, 79 Haw. 425, 449.

<sup>89</sup> Pele Defense Fund v. The Estate of James Campbell, Civil No. 89-089, pg 26, 27, 34 (3rd Cir 1994) (hereinafter "PDF 3rd Circuit").

<sup>90</sup> PASH, 79 Haw. 425, 449 footnote 41.

<sup>91</sup> Kalipi v. Hawaiian Trust Company, LTD, 66 Haw. 1 (1982). See e.g., PDF, 73 Haw. at 616.

<sup>92</sup> 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.<sup>93</sup> However, other rights may exist even though the claimed right is not specifically enumerated in the Constitution or statutes.<sup>94</sup>

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.<sup>95</sup> In PDE, the plaintiffs sought to gather various items in the forest and hunt.<sup>96</sup> In PASH, the citizens sought to continue “food gathering and fishing for `ōpae, or shrimp, which are harvested from anchialine ponds.”<sup>97</sup> In Hanapi, the defendants sought to protect religious, gathering, and sustenance activities in and around fishponds.<sup>98</sup> 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.<sup>100</sup> 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.<sup>101</sup> 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.”<sup>103</sup>

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<sup>93</sup> Hanapi, 89 Haw. at 186.

<sup>94</sup> Hanapi, 89 Haw. at 186.

<sup>95</sup> Kalipi 66 Haw. at 13.

<sup>96</sup> PDE, 73 Haw. at 621

<sup>97</sup> PASH, 79 Haw., at 430.

<sup>98</sup> Hanapi, 89 Haw. at 178.

<sup>99</sup> Section 7 of the Kuleana Act. Act of Aug. 6, 1850, 2 Rev. Laws Haw. 2141-42 (1925).

<sup>100</sup> Jon M. Van Dyke, *Who Owns the Crown Lands of Hawai`i?*, pg 46 (2008).

<sup>101</sup> Haw. Rev. Stat. § 174C-101.

<sup>102</sup> 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.”

<sup>103</sup> 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.<sup>104</sup> 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.<sup>105</sup> (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.<sup>106</sup> Cases have explained that during the Māhele, fishponds were transferred as private property, generally to the konohiki of an area.<sup>107</sup> The Hawai'i Constitution allows for people to fish in State ocean waters but specifically excluded fishponds.<sup>108</sup> In addition, Hawai'i Revised Statutes explains that all fishing areas adjacent to government land except ponds shall be open to the public.<sup>109</sup> 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.<sup>110</sup> Essentially, he argues that courts have found and are attempting to reverse "unjustified losses of customary Hawaiian rights."<sup>111</sup> Combined with the idea that private property

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<sup>104</sup> Haw. Rev. Stat. § 174C-101(c).

<sup>105</sup> Hanapi, 89 Haw. at 187.

<sup>106</sup> Application of Kamakana, 58 Haw. 632, 640 (1978).

<sup>107</sup> Kamakana, 58 Haw. at 640.

<sup>108</sup> "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.

<sup>109</sup> 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.

<sup>110</sup> 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)

<sup>111</sup> 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.<sup>112</sup> 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.<sup>113</sup> 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.”<sup>114</sup> 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.<sup>115</sup> “[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.”<sup>116</sup> However, the Court has been reluctant to explain what less than fully developed means.<sup>117</sup> The limited clarification provided is that “fully developed” means “lands [are] zoned and used for residential purposes with existing dwellings, improvements, and infrastructure.”<sup>118</sup>

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.

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<sup>112</sup> “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)).

<sup>113</sup> Hlawati, *supra* note 96, at 667.

<sup>114</sup> Haw. Rev. Stat. § 187A-23 (b).

<sup>115</sup> *Hanapi*, 89 Haw. at 186.

<sup>116</sup> *Hanapi*, 89 Haw. at 186.

<sup>117</sup> *PASH*, 79 Haw. at 187.

<sup>118</sup> *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.<sup>119</sup> "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.'"<sup>120</sup> Thus far, only two areas (Miloli'i and Ha'ena) have been designated for community based subsistence fishing in Hawai`I by the legislature.<sup>121</sup> However, these areas differ from Mana`e in that they are in state marine waters rather than private fishponds.

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<sup>119</sup> Haw. Rev. Stat. § 188-22.6.

<sup>120</sup> 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>.

<sup>121</sup> 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 lo`i 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 lo`i 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.<sup>122</sup> Hawai`i Revised Statute Chapter 205A, sections 41 through 49, pertains to “Shoreline Setbacks.”<sup>123</sup> DLNR determines the shoreline,<sup>124</sup> which is generally delineated by the highest reach of the wash of the waves.<sup>125</sup> Counties may adopt rules that require shoreline setbacks established at greater distances<sup>126</sup> than those set by the State, which are not less than 20 feet and not more than 40 feet inland from the shoreline.<sup>127</sup> 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.<sup>128</sup> 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.<sup>129</sup>

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.<sup>130</sup> 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”

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<sup>122</sup> E-mail from Joseph Alueta, Administrator, Maui County Planning Department (Apr. 7, 2008).

<sup>123</sup> See generally HAW. REV. STAT. §§ 205A-41 to -49. The statute is available online, on the Hawai`i Capitol website, [http://www.capitol.hawaii.gov/hrscurrent/Vol04\\_Ch0201-0257/HRS0205A/](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.

<sup>124</sup> HAW. REV. STAT. § 205A-42.

<sup>125</sup> See generally In re Ashford, 50 Haw. 314 (1968); County of Hawaii v. Sotomura, 55 Haw. 176 (1973); Diamond v. State, 112 Hawai`i 161 (2006).

<sup>126</sup> HAW. REV. STAT. § 205A-45.

<sup>127</sup> HAW. REV. STAT. § 205A-43.

<sup>128</sup> See Moloka`i Planning Commission Rule § 12-4-6.

<sup>129</sup> Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008); Moloka`i Planning Commission Rule § 12-4-6.

<sup>130</sup> See Moloka`i 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.<sup>131</sup>

## **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.”<sup>132</sup>

Maui Code Chapter 20.08 (“Soil Erosion and Sedimentation Control”)<sup>133</sup> “preserve[s] and enhance[s] the natural environment” by “regulating and controlling grubbing and grading operations within the County.”<sup>134</sup> There are only limited exceptions to this chapter.<sup>135</sup> 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.<sup>136</sup> (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.

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<sup>131</sup> Telephone Interview, Clayton Yoshida, Maui Department of Planning (Apr. 14, 2008). The Planning Commission is not the authority that would enforce these violations.

<sup>132</sup> Maui Code § 20.08.020.

<sup>133</sup> 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.”

<sup>134</sup> Maui Code § 20.08.010.

<sup>135</sup> See generally Maui Code § 20.08.030 - .031.

<sup>136</sup> Maui Code § 20.08.040.

Grubbing or grading permits are valid for one year from the date of issue.<sup>137</sup> The permit may, however, be extended in “cases of hardship or for good cause.”<sup>138</sup> 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.<sup>139</sup>

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.”<sup>140</sup> The developer must also correct any damage caused by the grading, or post a performance bond to cover the cost.<sup>141</sup> 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.<sup>142</sup> 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.”<sup>143</sup> Importantly, a violation is considered a new offense for each day that it occurs.<sup>144</sup>

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.”<sup>145</sup>

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.<sup>146</sup>

### **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

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<sup>137</sup> Maui Code § 20.08.110.

<sup>138</sup> Maui Code § 20.08.110.

<sup>139</sup> Telephone Interview, Lance Nakamura, Maui Department of Public Works, Development Services Administration (Apr. 14, 2008).

<sup>140</sup> 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).

<sup>141</sup> Maui Code § 20.08.095.

<sup>142</sup> Maui Code § 20.08.120.

<sup>143</sup> Maui Code § 20.08.320.

<sup>144</sup> Maui Code § 20.08.310.

<sup>145</sup> Maui Code § 20.08.035.

<sup>146</sup> 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.<sup>147</sup>

HRS Chapter 205A is Hawai`i’s Coastal Zone Management program.<sup>148</sup> 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”;<sup>149</sup>
2. “protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources”;<sup>150</sup>
3. “stimulate public awareness, education, and participation in coastal management”;<sup>151</sup>
4. “promote the protection, use, and development of marine and coastal resources to assure their sustainability”;<sup>152</sup>
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”;<sup>153</sup>
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.”<sup>154</sup>

First, a geographic Special Management Area (“SMA”) is designated.<sup>155</sup> Before any development may occur within an SMA, a developer is required to get an SMA permit.<sup>156</sup> 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.”<sup>157</sup> 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.”<sup>158</sup>

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<sup>147</sup> See generally HAW. REV. STAT. §§ 205A-1 to -33.

<sup>148</sup> 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/](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.

<sup>149</sup> HAW. REV. STAT. § 205A-2(b)(2)(A).

<sup>150</sup> HAW. REV. STAT. § 205A-2(b)(3)(A).

<sup>151</sup> HAW. REV. STAT. § 205A-2(b)(8)(A).

<sup>152</sup> HAW. REV. STAT. § 205A-2(b)(10)(A).

<sup>153</sup> HAW. REV. STAT. § 205A-2(c)(1)(B)(ii) (emphasis added).

<sup>154</sup> HAW. REV. STAT. § 205A-2(c)(3)(B).

<sup>155</sup> 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.

<sup>156</sup> 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.”).

<sup>157</sup> HAW. REV. STAT. § 205A-22.

<sup>158</sup> 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.<sup>159</sup> Additionally, that person may be liable for fines up to \$10,000 per day.<sup>160</sup>

On Molokai, the SMA program is headed by the Molokai Planning Commission, which has passed Rules to regulate the program.<sup>161</sup> 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.

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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).

<sup>159</sup> HAW. REV. STAT. § 205A-32(a)(1)-(2).

<sup>160</sup> HAW. REV. STAT. § 205A-32(b).

<sup>161</sup> 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”)**<sup>162</sup>

The Wetlands Reserve Program (“WRP”)<sup>163</sup> 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.<sup>164</sup> 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.

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<sup>162</sup> 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/>

<sup>163</sup> United States Department of Agriculture, Natural Resources Conservation Service, available at: <http://www.nrcs.usda.gov/programs/wrp/>

<sup>164</sup> 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 (8<sup>th</sup> ed. 2004), easement. A conservation easement is a legal agreement restricting the development of a piece of property. See BLACK’S LAW DICTIONARY (8<sup>th</sup> 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/efrms/formsearchervlet>. 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 Act<sup>165</sup> 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.

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<sup>165</sup> 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.<sup>166</sup> 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.

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<sup>166</sup> 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).