OCS Study
BOEM 2017-023

A Guidance Document for Characterizing Native Hawaiian Cultural Landscapes

U.S. Department of the Interior
Bureau of Ocean Energy Management
Pacific OCS Region
August 18, 2017

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Cover image: Honua Consultants cultural landscapes workshop attendees, September 2015.

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Authors

H. Van Tilburg
T. Watson
K. Faria
K. Hoomanawanui
I. Ho-Lastimosa
W. Ritte
K. Maly
M. Naho‘opi‘i
K. Horcajo
K. Kaupiko
D. Ball

Prepared under BOEM Interagency Agreement M13PG00018
By Honua Consulting
4348 Wai‘alae Avenue #254
Honolulu, Hawai’i 96816

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DISCLAIMER

This study was funded, in part, by the US Department of the Interior, Bureau of Ocean Energy Management, Environmental Studies Program, Washington, DC, through Interagency Agreement Number M13PG00018 with the US Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries. This report has been technically reviewed by the ONMS and the Bureau of Ocean Energy Management (BOEM) and has been approved for publication. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the US Government, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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CITATION

Van Tilburg H, Watson TK, Faria K, Hoomanawanui K, Ho-Lastiama I, Ritte W, Maly K, Nahoopii M, Horcajo K, Kaupiko K, Ball D. 2017. A Guidance Document for Characterizing Native Hawaiian Cultural Landscapes. U.S. Department of the Interior, Bureau of Ocean Energy Management, Pacific OCS Region, Camarillo, CA. OCS Study BOEM 2017-023. 208 pages, with appendices.

ACKNOWLEDGMENTS

Note on Orthography and Translation

It is the practice of Honua Consulting to use diacritical markers when using the Hawaiian language as encouraged by our kūpuna (elders), enabling proper pronunciation and translation. When quoting historical sources, those sources are cited precisely as written, no diacritical markings are added if none are used in the original materials. Literal translations are liberally provided in this publication as this document is intended for a wide audience unfamiliar with the Hawaiian language. It should be noted the Hawaiian language is an official language of the State of Hawai‘i under the Hawai‘i State Constitution.

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Abbreviations and Acronyms

ACHP:	Advisory Council on Historic Preservation
APE:	Area of Potential Effect
BOEM:	Bureau of Ocean Energy Management
CEQ:	Council on Environmental Quality
CIA:	Cultural Impact Assessment
C.F.R.:	Code of Federal Regulations
CLA:	Cultural Landscape Approach
CM:	Centimeter
CSH:	Cultural Surveys Hawaii
DOI:	Department of the Interior
FAC:	Federal Advisory Committee
FL:	Fill Land
FONSI:	Finding of No Significant Impact
Ft:	Foot
HEPA:	Hawai‘i Environmental Policy Act
KM:	Kilometer
KIRC:	Kaho‘olawe Island Reserve Commission
M:	Meter
MFL:	Mixed Fill Land
Mi:	Mile
MOA:	Memorandum of Agreement
MOU:	Memorandum of Understanding
MPA:	Marine Protected Area
NEPA:	National Environmental Policy Act
NHCL:	Native Hawaiian Cultural Landscape
NHPA:	National Historic Preservation Act
NHO:	Native Hawaiian Organization
NOAA:	National Oceanic and Atmospheric Administration
NPS:	National Park Service
NRHP:	National Register of Historic Places
OCS:	Outer Continental Shelf
OHA:	Office of Hawaiian Affairs
OHR:	Office of Native Hawaiian Relations
ONMS:	Office of National Marine Sanctuaries
PA:	Programmatic Agreement
POCS:	Pacific Outer Continental Shelf [Office]

ROD:	Record of Decision
ROI:	Range of Influence
SHPD:	State Historic Preservation Division
SIHP:	State Inventory of Historic Places
TCP:	Traditional Cultural Property
TK (or TEK):	Traditional [Ecological] Knowledge
TMK:	Tax Map Key
UNESCO:	United Nations Educational, Scientific and Cultural Organization
U.S.C.:	United States Code
WIPO:	World Intellectual Property Organization

1 Background

In its November 2014 status report, the Hawai‘i State Energy Office provided the following overview:

> Hawaii is the only state that depends so heavily on petroleum for its energy needs. Whereas less than 1% of electricity in the nation is generated using oil, in 2012 Hawaii relied on oil for 71% and on coal for 15% of its electricity generation (DBEDT 2014) (Figure 1).

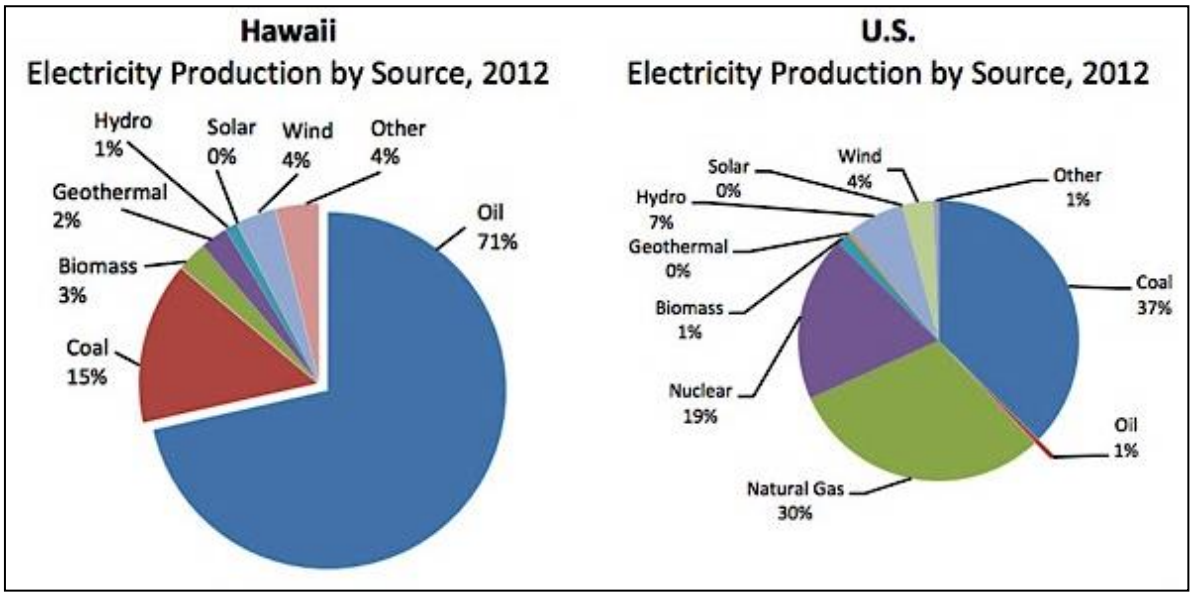

Figure 1: Electricity Production by Source, Hawaii Compared to the U.S., 2012 (Source: DBEDT 2014)

The report further emphasized, “Hawaii’s **electricity prices are three times higher** than the U.S. average” (Figure 2).

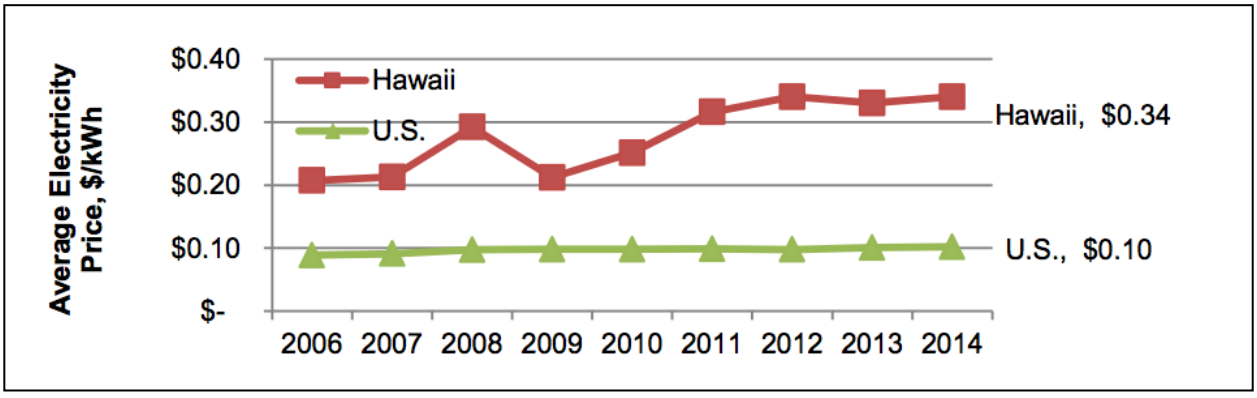

Figure 2: Average Electricity Price of Hawaii Compared to the U.S., 2006-2014 (Source: DBEDT 2014)

Developing renewable energy sources is critical for Hawai‘i, but there is no doubt that it must be done responsibly, sustainably and with community support. Fundamental to this approach is the development of guidelines that are rooted in a Native Hawaiian understanding of biocultural resources and a Native Hawaiian worldview.

2 PART 1: Working with Native Hawaiian Communities

Working with Native Hawaiian communities is a highly complex process. According to the U.S. Census, there are over 500,000 Native Hawaiians residing in Hawai‘i and across the United States. Approximately 250,000 live in Hawai‘i. Unlike many federal Indian tribes, there is no formal Hawaiian government with which a U.S. government agency can engage or consult at this time, but on October 14, 2016, the Department of the Interior (DOI) published a Final Rule on Procedures for Reestablishing a Formal Government-to-Government Relationship with the Native Hawaiian Community, 43 Code of Federal Regulations (C.F.R.) Part 50, through the Office of the Secretary (DOI 2016).

While the new Final Rule establishes procedures for reestablishing a formal government-to-government relationship with the Native Hawaiian community, there is no clear process or standard policy by which to engage Native Hawaiian communities. While Section 106 of the National Historic Preservation Act[1] (NHPA) requires federal agencies to consult with Native Hawaiian Organizations (NHOs) under its regulations, this process remains largely inefficient and ineffective. The Department of Defense has attempted to develop its own policies on consultations with the Native Hawaiian community with mixed results, as many individuals and organizations feel agency-driven processes result in the exclusion of the community and NHOs rather than inclusion of Native Hawaiian stakeholders (USDOD 2011).

To that end, the sources of information and methods by which information is gathered may vary slightly between locations and among NHOs. Individual NHOs, recognizing that multiple distinct groups may have an affiliation with a single landscape, should also define the format and type of information provided to agencies. Although opportunities for implementing this approach may ultimately be defined by federal legislation, areas of applicability are likely to be shared by Native Hawaiians and agencies. This Guide ultimately outlines a framework for implementation within current existing policy, illustrating the respective roles of agencies and Native Hawaiians in the process. Finally, this Guide also provides definitions for terms and topics that can assist agencies and project proponents in communicating appropriately and effectively with Native Hawaiians.

Native Hawaiians are recognized as “a distinct and unique indigenous people with a historical continuity to the original inhabitants of the Hawaiian archipelago,” citing the Native Hawaiian Health Care Improvement Act, 42 United States Code (U.S.C.) 11701(1). It is also stated that Native Hawaiians have a “special” “trust” relationship with the United States, citing 42 U.S.C. 11701(15), (16), (18), (20); 20 U.S.C. 7512(8), (10), (11), (12). When enacting bills for the benefit of the Native Hawaiian people, Congress expressly stated in their legislative findings that it was exercising its plenary power over Indian affairs: “The authority of the Congress under the

United States Constitution to legislate in matters affecting the aboriginal or indigenous peoples of the United States includes the authority to legislate in matters affecting the native peoples of Alaska and Hawaii", 43 C.F.R. Part 50, citing Native Hawaiian Health Care Improvement Act, 42 U.S.C. 11701(17); see H.R. Rep. No. 66-839, at 11 (1920). Yet, from a historical standpoint, Native Hawaiians have never been "tribal" in nature. Therefore, while there are similarities between laws and policies that are applied to Native Hawaiians and Native American tribes, there are critical differences between these communities that need to be understood when working with these unique groups.

From approximately 0 A.D. – 800 A.D., various high chiefs ruled across the islands. Around 800 A.D. the Oʻahu chief Māʻilikūkahi created the ahupuaʻa system, a geopolitical land tenure system whereby a high chief oversaw a heirachy of chiefs across a large amount of natural resources and populace. These chiefs were assigned various resources and a population to govern. This system successfully existed throughout the entire Hawaiian Island chain until the early 19th century when the high chief, Kamehameha, successfully unified the archipelago under his rule. His heirs converted the chiefdom into a formal Constitutional Monarchy that would successfully and actively reign until 1893 when a small band of European and American businessmen conspired with the American military men to overthrow the Kingdom. Kingdom law formally integrated numerous kānāwai (laws) specific to natural resource management; these kānāwai would be integrated into territorial law and eventually current state law. As a result, even without a formal Native Hawaiian government, Native Hawaiians today enjoy unique traditional and customary rights unique under Hawaiʻi State laws derived from Kingdom law (Forman and Serrano 2012).

The goals of this section are to:

- Articulate a Native Hawaiian Cultural Landscape;
- Outline Native Hawaiian Guiding Principles;
- Specify a Plan for Implementing a Native Hawaiian Cultural Landscape Approach.

2.1 Cultural Resources from a Native Hawaiian Perspective

2.1.1 Native Hawaiian Cultural Landscapes

Native Hawaiians hold a unique breadth and depth of understanding of the landscape(s) to which they are connected. This knowledge reflects generations of engagement and interaction with the landscape. In the Native Hawaiian context, these values – the "sense of place" – have developed over hundreds of generations of evolving "cultural attachment" to the natural, physical and spiritual environments. In any culturally sensitive discussion on land use in Hawaiʻi, one must understand that Native Hawaiian cultural knowledge evolved in close partnership with its' natural environment. Thus, Native Hawaiian culture does not have a clear dividing line of where culture ends and nature begins (Maly 2001).

Archaeological sites, burial grounds and traditional use areas are imbued with special meaning to Native Hawaiian and indigenous peoples, both past and present. These areas are inclusive of terrestrial lands, sky, and marine environments. Furthermore, these resources are tied to or

connected with a particular place, and this connection is important for, and often inseparable from, an indigenous community's cultural identity. This connection to place is a nearly universal concept held by indigenous groups throughout the United States and its territories and is embodied in the Native Hawaiian cultural landscape (NHCL) definition utilized during this project[2]:

> **NATIVE HAWAIIAN CULTURAL LANDSCAPE:** Any place in which a relationship, past or present, exists between a spatial area, resource, and an associated group of indigenous people whose cultural practices, beliefs, or identity connects them to that place. A Native Hawaiian cultural landscape is determined by and known to a culturally related group of indigenous people with relationships to that place.

The specifics of the relationship may vary from group to group and may be defined temporally or geographically through oral traditions and cultural practices. Distinct Native Hawaiian communities may hold knowledge and connections to the same place. In some instances, Native Hawaiians, specifically families, have been relocated due to displacement for various reasons, and may still be extant today in places other than where they originated. These connections, when viewed as NHCLs, enable agencies and project proponents to understand the greater context of a place, the complexity of indigenous identity, and how indigenous communities identify places and resources of importance.[3]

Two similar concepts worth differentiating from NHCLs already exist in guidelines for the National Register of Historic Places (NRHP): Traditional Cultural Properties (TCPs) and ethnographic landscapes as a type of cultural landscape (NPS 1990a, 1990b). A TCP is a property designation on the NRHP (buildings, structures, sites, historic districts, objects) that possesses traditional cultural significance, derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Any property is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Because a TCP must be a National Register property type, it must have a defined boundary.[4] There are no TCPs from Hawai‘i on the National Register, despite numerous cultural properties throughout the islands.

Regarding ethnographic landscapes, nuances of the National Park Service's (NPS) intent behind this concept are clearly laid out in an article in the NPS newsletter *CRM Bulletin* from 2001: ethnographic landscapes "do not depend on NRHP eligibility criteria for their existence, and importantly, are identified and defined by the cultural groups associated with them rather than by historic preservation professionals" (Evans et al. 2001). However, NPS has largely used this concept to include indigenous perspectives as only a small part of planning and management processes (Page et al. 1998).

2.1.2 Native Hawaiian Guiding Principles

Native Hawaiian values and principles can be divided into two categories for the purposes of this guidance document:

- Values and principles related to process (i.e., the way engagement is conducted)
- Values and principles related to content (i.e., the quality of the product and research)

2.1.2.1 Process Values and Principles

Throughout the Fall of 2014 and the Spring of 2015, a series of workshops and meetings were held to assist in developing a best-practices tool for characterizing indigenous cultural landscapes in Hawai‘i. Over the course of these events, the following values and principles were identified as being high priorities in any successful process:

- Integrity and honesty between partners
- Community engagement in research design and data collection
- Transparency throughout the process
- Equity or community power in decision-making (or management/clarity of expectations)
- Earliest possible engagement with Native Hawaiian community and stakeholders
- Community engagement in assessment and evaluation
- Accountability (i.e., including enforcement provisions)

2.1.2.2 Content Values and Principles

- Use of Native Hawaiian language resources
- Use of cultural practitioners
- Use of cultural experts and local experts
- Direct engagement with community members and kūpuna (elders)
- Data collection that includes Native Hawaiians and local researchers
- Community ownership and management over local knowledge
- Quality control of research by local experts

It seems it would be advisable for any new project in Hawai‘i to approach a community early and negotiate terms of engagement, potentially even establishing a Memorandum of Understanding (MOU) or other form of agreement, that defines how the consultation process will proceed. This seems the best way to manage expectations and avoid misunderstandings. On one hand, projects, particularly large-scale projects, are highly complex, and the regulations governing these projects are also complex. On the other hand, communities and landscapes are also highly complex. Therefore, it seems it would be beneficial to all parties to reciprocally educate each other and work out the ground-rules for consultation and collaboration before formal consultation even begins. This not only helps to specify details, but it also helps to preserve institutional memory should there be turnover in organizations over the course of a project, which is a common occurrence in long projects.

2.2 Implementing a Native Hawaiian Cultural Landscape Approach

In June 2011, the Advisory Council on Historic Preservation (ACHP) released a Handbook on Consultation with Native Hawaiian Organizations in the Section 106 Review Process (ACHP 2011). Since there is no Native Hawaiian government with whom to formally consult, the ACHP Handbook has served to provide some limited guidance on how agencies consult with Native Hawaiian Organizations. NHPA Section 106 is a federal statute that requires federal agencies to consult with Native Hawaiian entities. Often, when a federal action requires consultation under Section 106, an environmental review under the National Environmental Policy Act (NEPA) is also required. Therefore, it is assumed throughout this document that the NHPA and NEPA processes are coordinated. It is also further encouraged that when appropriate, any state processes, specifically compliance with Hawai‘i Revised Statutes 343, the Hawai‘i Environmental Policy Act, would also be coordinated into this process, specifically as it relates to compliance with the State of Hawai‘i’s cultural impact assessment requirement (as discussed in Part 2 of this document).

2.2.1 Data Collection, Management and Ownership

2.2.1.1 Data Collection

The following template outlines a method for Native Hawaiians to collect and retain information from appropriate summary results that can be provided to external parties.[5] Finally, Part 2 of this guide illustrates how the NHCL approach can be implemented within existing policy, the potential benefits for both land management and planning, and regulatory compliance processes.

I. Identify ahupua‘a (land division usually extending from the uplands to the sea) to include in consultation (done by agency)
    a. Based on area of potential effect (APE) or range of influence (ROI)
II. Identify NHOs and their kūpuna and leaders (done by agency)
    a. Based on NHO List plus search through community organizations
    b. Community engagement and cultivation of relationships with community
    c. Public notices
III. Determine consultation process (negotiated between community and agency)
    a. Establish mutually agreed to guidelines and processes with the community for consultation with the community
    b. Determine timelines (to manage expectations)
    c. Establish MOU between parties if necessary
IV. Joint research design
    a. Work with community to develop mutually beneficial research
    b. Work with community to avoid sensitive topics or misappropriation of sensitive data
    c. Proactivily identify management plan for data
V. Conduct information gathering based on consultation agreement[6]
    a. Intangible cultural heritage (ICH) (collected through oral and written resources)
        i. Akua (gods)
        ii. Ali‘i (chiefs)

iii. Other forms of ICH: hula (dances), kākau (writings), mele (songs), etc.

b. Tangible cultural heritage (TCH) (collected through oral and written resources)[7]
   i. Heiau (shrines, places of worship)
   ii. Iwi kūpuna (burials)
   iii. Other forms of TCH: cultural deposits, loʻi (irrigated terraces), kūʻula (stones used to attract fish), etc.

c. Natural heritage (NH) / flora / fauna (collected through oral and written resources)
   i. Native forests
   ii. Fisheries
   iii. Other forms of NH / flora / fauna: wildlife areas, marine habitats, etc.

VI. Develop a descriptive narrative of a Native Hawaiian Cultural Landscape based on information gathered.

VII. Conduct an assessment of impact(s) the project may have upon the landscape, specifically the integrity and/or significance of the cultural landscape.

VIII. Identify potential mitigation measures (including community benefits options), if any, for potential impact, or pursue decision-making authority options.

2.2.1.2 Application of Template to Case Studies

As part of this project, three case studies were completed. Although limited by time and resources, these case studies sought to work with Native Hawaiian communities to test this framework to a limited degree for efficacy, specifically on issues related to methology, data collection, and processes. These case studies are included in the appendices of this report.

The case studies took place in three different traditional Hawaiian land areas, Waikīkī, Waialua, and Lānaʻi. Each area was specifically selected based on being a different type of land area: Waikīkī is a single ahupuaʻa (land division usually extending from the uplands to the sea), Waialua is a moku (island district), and Lānaʻi is a mokupuni (island). In each case, community groups were identified to advise the case study; their role in the project varied based on the individual case study. There were no specific projects that the communities were responding to, therefore it was not possible to test all elements of the framework. The case studies were largely limited to effective methods, data collection, and processes for data collection.

The three case studies successfully demonstrate Native Hawaiian communities to be valuable partners in gathering and aggregating important cultural imformation. How involved agency staff or other professional staff needs to be may vary from community to community, but there is little doubt that communities have an impressive level of capacity that warrents the attention and respect of both the public and private sectors. This capacity, coupled with the extraordinary cache of Native Hawaiian language resources and primary historical documents, emphasizes that any project that ignores traditional and local knowledge and does not utilize local ethnographic experts may not adequately meet the "best data available" standard set forth under NEPA[8], or the "good and reasonable effort" standard required under Section 800.4 of the NHPA.

2.2.1.3 Management and Ownership

Indigenous peoples around the world have long encountered challenges related to the management and control of traditional knowledge (TK). Bodies like the World Intellectual Property Organization (WIPO) have worked with indigenous peoples globally to "prevent unauthorized or inappropriate use of TK by third parties beyond the traditional circle" (WIPO 2004). WIPO cautions that there is no single best method for protecting TK. Therefore, in Hawai‘i, where there is no centralized "tribal" government, decision-making as to how to gather, manage, control, and distribute local traditional knowledge would need to be left to the individual NHOs, families and knowledge holders. Specific considerations would need to include, but not be limited to:

- Free, prior and informed consent of any gathering of information prior to the gathering of information, i.e., do knowledge holders fully understand the purposes for which the information is being gathered?
- Determining beforehand in formal agreements how information is going to be managed, i.e., stored (including technology considerations like electronic copies and licensing of electronic copies), including:
  - Who gets to see the information?
  - Who gets to use the information and for what purposes?
  - Where it is going to be physically stored? Or electronically stored?
  - What, if anything, will be shared with the government? What are the implications of such action? (Does it become subject to Freedom of Information Act (FOIA)? Or public information?)
- Determining beforehand in formal agreements ownership and rights of information, including inheritance of ownership.
- Agreements beforehand as to how sensitive information, including information on burials, gathering places of traditional medicines, ceremonial sites, traditional fishing grounds, navigational lookouts, etc. would be coded if they could not be specifically detailed on documents or maps.

2.2.1.4 Addressing Culturally Sensitive Information

By offering guidance for agencies and project proponents as well as Native Hawaiians, the NHCL method enables appropriate treatment of culturally sensitive information, which may sometimes be publicly available, but should nonetheless be approached respectfully. The Consultation and Engagement Guidelines (see Appendix 2) are intended to assist agencies and proponents, not only consulting with cultural leaders for specific proposed undertakings, but models a holistic approach to building positive long-term relationships among agencies and Native Hawaiians who may need to work together over generations.

2.2.2 The Use of Facilitators and "Experts"

During the statewide meetings and in the workshop for this project, Native Hawaiian leaders repeatedly expressed a preference for facilitators and experts of Native Hawaiian descent or extensive experience with the Native Hawaiian communities, yet cautioned that it should not be

tantamount to tokenism either. The ideal scenario is to find individuals or groups who can serve to improve the existing consultation process to achieve the following goals:

- Work with agencies and developers, but advocate on behalf of the community;
- Improve communication on both sides;
- Explain the process and manage expectations for all parties;
- Ensure community input and data are incorporated into planning documents and decision-making processes (i.e., translate traditional knowledge into planning and management documents);
- Where possible, place community members into decision-making positions (with real authority, not just in advisory positions); and
- Accountability for the agencies and developers (i.e., if the project moves forward, there should be a long term plan for annual assessments and evaluations, community benefits, decommissioning, etc.).

Communities widely identified that processes failed when the following occurred:

- Consultation was started too late;
- The project was perceived as a "done deal" and the community was only approached to "check the box"; or
- Facilitators and experts were only "yes people" there to serve or "sell out" to the agencies (i.e., government) or developers and what the community said, thought, or presented did not matter.

When any of the above were present, conflict often resulted. Therefore, the following best management practices were identified in working with NHOs:

- Approach communities during the initial scoping process, i.e., at the earliest possible stage or at first consideration of bringing a project to an area.
- Create a group of elders and leaders as a steering committee and resource this effort to ensure they can comfortably do their work. Native Hawaiian communities are constantly asked to come to meetings and consult on projects for free, while agency and developers are paid for their time. This isn't equitable. Honor people's time and knowledge equitably.
- Build the capacity of the steering committee to help gather data about the area (with a team of planners, biologists, and other staff that the community is comfortable with) to build into any studies that inform decision-making. Hire people the community recommends as well, including people from the community. Research design and data collecting should be collaborative (as further specified in Part 2).
- Decision-making processes should be clear from the start and the community should have an opportunity to negotiate any issues about the process related to the project up front. Everyone should agree to the process to the extent possible, and dispute resolution mechanianisms should be identified early and possibly through an MOU at the onset of the project. Cultural dispute resolution mechanisms like ho'oponopono (a traditional Hawaiian dispute resolution mechanism) should be considered for codification into the agreement. There should also be a clear timeline and it should be honored.

3 PART 2: Participating in Federal Processes

3.1 A Cultural Landscape Approach for Integrated Resource Management

Federal agencies are largely driven by the interpretation of existing policy and procedures and sometimes have difficulty grasping the indigenous understanding of the interconnected and inseparable relationship between natural and cultural resources. Failure to adequately consider this holistic perspective can adversely impact the ability to address the complex issues of land management and regulatory undertakings. The NHCL model uses a holistic cultural landscape approach (CLA), which integrates environmental science with historical, archaeological, and traditional knowledge to provide a robust and cost-effective procedure to document places and resources of past and present significance to indigenous and tribal coastal communities (MPA FAC 2011). CLA recognizes that places and cultural heritage resources can have different or multiple meanings and levels of significance based on how people from different cultures, times, or backgrounds have interacted with the respective landscapes. Implementing this approach increases the likelihood that cultural heritage resources will be found, recognized, and appropriately considered as decisions are made about federal actions or undertakings.

3.2 Engaging with Existing Federal Processes

The greatest potential benefit of the NHCL approach is as part of an overall planning process under the National Environmental Policy Act (NEPA). The approach is also applicable under the Section 106 process of the NHPA. Indeed, the Council on Environmental Quality (CEQ) and the ACHP have recently published a Handbook illustrating how these two processes can be integrated (CEQ and ACHP 2013).

Adopting the NHCL approach lends itself effectively to the existing NEPA/NHPA processes, as it helps Native Hawaiian communities organized in such a manner to increase engagement and impact into decision-making processes that affect their communities, natural resources, culture, and economies.

By better organizing engagement, Native Hawaiian communities will be better empowered to dialogue with agencies, developers, and decision-makers at every step in the administrative processes. Native Hawaiian communities will also improve their capacity to understand what information agencies, developers, and decision-makers need and when they need it, so indigenous peoples are drawing from the rich cache of their traditional knowledge in a culturally sensitive manner to contribute to the body of information that comprises the “best data available” from which decisions are made.

Please see the following page for a side-by-side illustration of NEPA, NHCL, and NHPA processes (Figure 3).

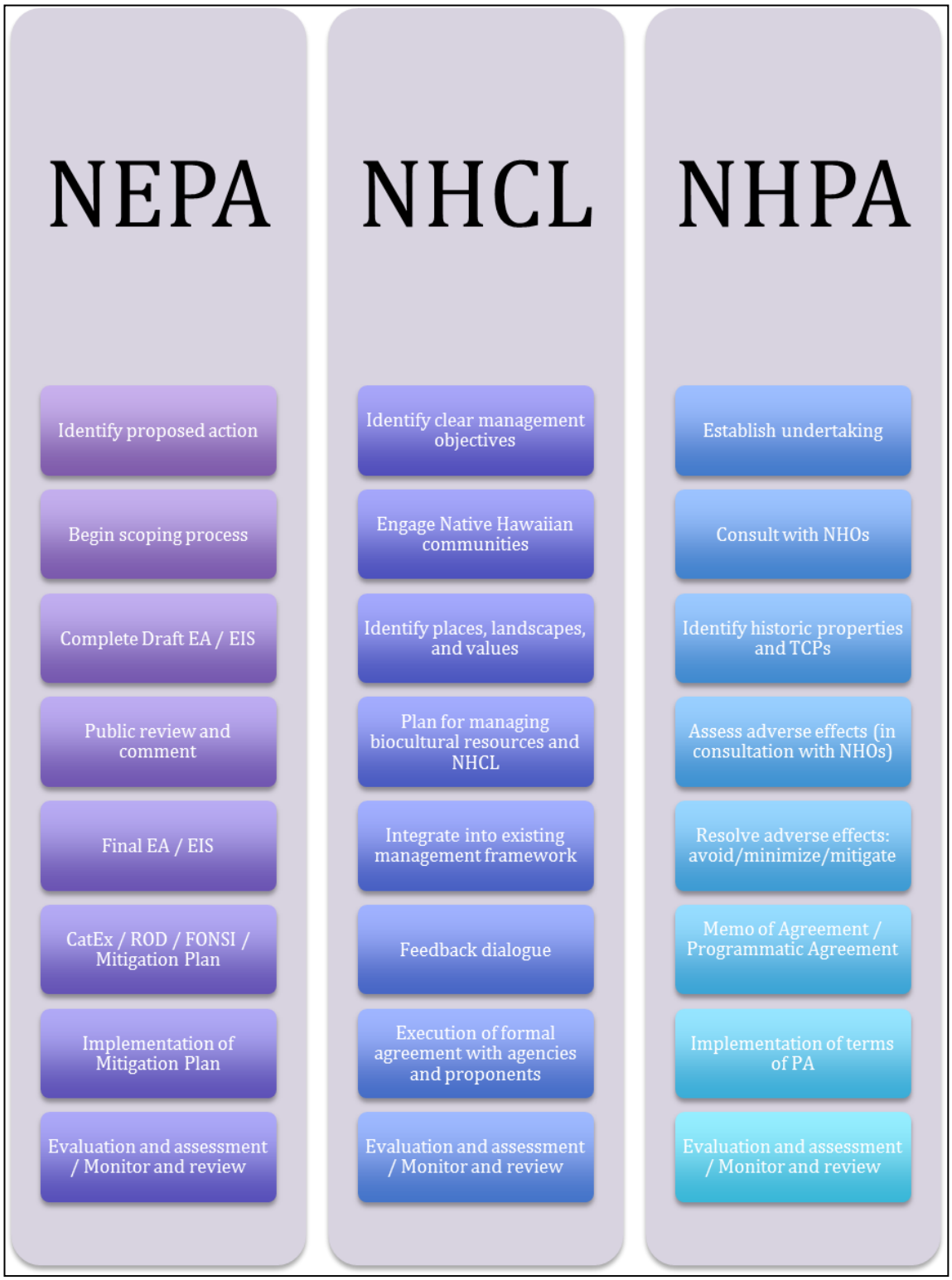

Figure 3: NEPA, NHCL, and NHPA Processes

4 Research Design and Project Planning Using the NHCL Approach

The NHCL approach represents a method for Native Hawaiian Organizations to record their own cultural resources and places and convey necessary information to agencies and project proponents for appropriate use in planning and regulatory compliance activities. The NHCL approach also provides a way for agencies and project proponents to be proactive in working with indigenous communities to identify areas of cultural significance that should be considered in planning and management processes.

4.1 Native Hawaiian Worldview

Cultural resources have suffered further from a lack of understanding for their place in the contextualized mosaic of a landscape. A Native Hawaiian worldview recognizes broad interconnections and does not consider a single site, single artifact or a single species as existing without complex relationships. The communities that inhabit and interact with cultural resources understand these types of complex locations, but most studies have a tendency to focus solely on the archaeological component, rendering the studies incomplete. Over-emphasis on material culture skews the understanding of a place by narrowly focusing on artifacts and potentially obscuring the cultural context of that place.

CLA represents an opportunity to integrate management of natural and cultural resources and to incorporate multiple voices and perspectives into procedures and practices. At its most basic, CLA is based on the understanding that humans are part of the landscape, both shaping and being shaped by it. Consequently, they have an intimate and historical knowledge of place and should be engaged to inform planning and future management. As an analytical framework, CLA considers cultural heritage and resources as part of the ecosystem and the broader landscape, and examines relationships among all the resources of a place and their environment over time. In this way, CLA integrates management of cultural and natural resources at the ecosystem and landscape level—similar and analogous to ecosystem-based management. Significantly, CLA can identify past and living cultural voices associated with a landscape, helping ensure the fullest possible public engagement in planning and management (MPA FAC 2011).

The following table is a comprehensive listing of the descriptive names that Native Hawaiians have utilizied for the various wao (realms) from the highest mountain peaks to the deepest places in the oceans, which is how the wao are listed in Table 1.[9] They also largely correspond with various ecozones, ecosystem functions, or natural heritage features.

Table 1: Listing of Hawaiian wao with definitions (compiled from Lucas 1996, Maly 2001, Malo 1951, and Pukui and Elbert 1986)

Feature Associated with the Wao	Descriptive Name of the Native Hawaiian Wao	Definition
Mountain	Wao lani	Mountain area believed to be occupied by gods.
	Kuahiwi	The top or summit of a mountain. Also identified as the mountains in the center of the island, called the kuahiwi, or the backbone (Malo 1951).
	Pane poʻo	1) The peak of a mountain. 2) Pinnacle, summit; topmost.
	Kualono	1) Kua and lono, to hear. The space on the top of a mountain; a place of silence, i.e., of hearing. 2) A knoll, small hill or protuberance on the top of a mountain. Malo (1951) defines these areas as the peaks or ridges, which form the summits of the kuahiwi.
	Palaheʻī	Region below kualono.
	Wao nahele	1) Area below kuahiwi region, where small trees begin to grow. 2) An inland forest region, jungle, desert.
	Lua pele	Rounded abysses beneath the kuahiwi and kualono, comprised of extinct craters.
	(Kua)-mauna	Mountain or the back of a mountain; Area below the kuahiwi region; Areas on the mountain, which at times cover over with fog and have great flanks behind and in front; a mountainous region.
	Ku(a)hea	A region on the side of a mountain below the kuamauna and where small trees grow.
	Wao kele	Rain belt, upland forest.
	Wao koa	Area where koa trees grow suitable for canoes.
	Wao lipo	Area below the wao nahele, where trees are taller.
	Wao ʻeiwa	1) Area below the wao lipo. 2) An inland region.
	Pili lāʻau	Edge of a forest.
	Wao maʻukele	1) Area in the wao region where trees grow taller. 2) Area where small trees grow.

Table 1: Continued

Feature Associated with the Wao	Descriptive Name of the Native Hawaiian Wao	Definition
Mountain (continued)	Wao akua	1) Area below the wao maʻukele where spirits are said to dwell. 2) Area where small trees grow; we have embodied the popular idea that gods and ghosts chiefly inhabit the waste places of the earth. 3) Uninhabited mountain region where ghosts reside. 4) A distant mountain region.
	Mau	1) Area below the wao akua region, inhabitable by man. 2) The region on the sides of the mountains.
	Kihi poʻohiwi mauna	Deep ravines in the side of a mountain.
	Piko	1) Summit of a hill or mountain. 2) The extreme corner or land boundary. 3) The end.
	Palipali	1) Many precipitous hills. 2) Precipitous, full of cliffs and hills.
	Poʻo huku	Top point of a hill, ridge.
	Pali paʻa maoli	Base of the mountain.
Land	Wao	1) General term for inland area usually not precipitous and often uninhabited and below the kuahea region. 2) Area where larger trees grow, any kind of wilderness, the abode of gods spirits and ghosts. 3) General term for inland region.
	Wao kanaka	1) Upland area below the wao akua where people may occasionally frequent or even reside. 2) Area below wao akua region an area where people cultivate food. 3) Area where the amau fern grows. 4) Area where koa trees grow suitable for canoes. 5) Inland region where people may live or frequent. 6) A region on the side of a mountain below the wao nahele; it is a region where people may live and vegetables may be cultivated.
	ʻĀpā	Land below the wao or wao kanaka regions.
	Kakaʻipali	A precipice or series of precipices enclosing or protecting the adjoining region; also known as kaolo.
	Pā pulupulu	A clearing within a hapuʻu forest at relatively low altitudes, as in Hilo and Puna districts on Hawaiʻi where taro was cultivated.
	Wao ʻamaʻu	Place where ʻamaʻu, an endemic genus of ferns (Sadleria), are found. Also known as maʻu.

Table 1: Continued

Feature Associated with the Wao	Descriptive Name of the Native Hawaiian Wao	Definition
Land (continued)	ʻĀpaʻa	Name of a region of country below the ma'u or waokanaka on the side of the mountains; also the name of a wind; i kuipeia e ka makani apaa, "he was knocked down flat by the wind ʻapaʻa." Malo (1951) postulates the name reflects that the region was hard, baked and sterile.
	Wao ʻilima	Area at a lower altitude than that called wao ʻamaʻu.
	Paheʻe	Name of the region on the side of the mountains below the wao ʻilima.
	Kula	Name of a region of a mountain near its base. A region where houses are built and people live. It extends to the kahakai region, or sea shore region.
	ʻĀpoho	Below the kula region near villages and other habitations of man.
	Papa lalo	Valley bottom, lower stratum.
Sea Shore	Kahakai	1) Sea shore. 2) Region of a country bordering on the sea.
	Pilikahakai	Shore, especially the area between high and low tides.
	Pilikai	Shore.
	Kākaha	1) Strip of barren land near the seashore; shoal. 2) Common name applied to strips of barren land along the sea shore
	ʻAe kai	Place where land and sea meet.
Ocean	Puʻeone	The place in the sea outside of where the surf breaks; also known as poana kai.
	Poʻina nalu or poʻina-kai	Where waves break, surf break.
	Kai-hele-ku or kai-papau	Area outside the poina-kai where there lay a belt of shoal water shallow enough for one to stand in.
	Kai-ohua	Area where the small fish ohua is found.
	Kai kohala	Shallow sea within the reef, lagoon. Malo (1951) notes that there were typically no puʻeone where there were kai-kohola.
	Kua-au	Belt where shoal water ended.
	Kai-au or ho-au	Area outside the kua au known for swimming.
	Kaiokilohe'e	Area known for spearing he'e (squid).
	Kai-he'e-nalu	Surfing area.

Table 1: Continued

Feature Associated with the Wao	Descriptive Name of the Native Hawaiian Wao	Definition
Ocean (continued)	Ākauka	Inland fishing grounds, identified by lining up with landmarks ashore.
	Kai lawai‘a	Fishing grounds.
	Kaihiaku	Sea for aku trolling.
	Kai kohola	Belt outside the reef. This belt was named for being the place where the whales (kohola) swim.
	Kai ma ka lae	1) Sea at a point or cape. 2) Area where waves dash against points of land.
	Kuanalu	1) Outer edge of the coral reef. 2) Coral reef. 3) Surf just before it breaks, wave crest. 4) The place in the outer surf just before it breaks; or the place where the waves break.
	Kai ‘ele	Black sea.
	Kaiuli	The dark blue sea, the deep sea; the name of the sea beyond the kohola (reef, lagoon); also sometimes called the kailuhe‘e.
	Kai pualena	Water when one cannot see the bottom.
	Kai pōpolohua-a-Kāne-i-Tahiti	The purplish-blue reddish-brown sea of Kāne.

4.2 Native Hawaiian Planning

Although the concept of CLA is not new (Sauer 1963; Westerdahl 1992), pathways for implementation have been lacking, particularly regarding inclusion of Native Hawaiian and local communities, resources, and places. The NHCL approach outlined here can be used by indigenous communities to help recognize and record places and resources of cultural importance.

This approach is intended to be transferable and support Native Hawaiians, agencies, and stakeholders to:

1. Properly engage with Native Hawaiian and local communities prior to the proposal of activities that may impact cultural resources and areas;
2. Involve Native Hawaiian and local communities in the identification of their own significant resources and areas of use; and
3. Elucidate Native Hawaiian and local interests in specific planning areas.

Native Hawaiians and, by extension, Native Hawaiian Organizations, have built their cache of cultural and ecological expertise over millennia. Their relationship with their environment is one of kinship, grounded by deep-seeded symbiosis and mutual respect. Figure 4 provides an illustration of some of these landscape regions (also described in Table 1).
The NHCL approach recognizes that the knowledge they safeguard is vital to ecological

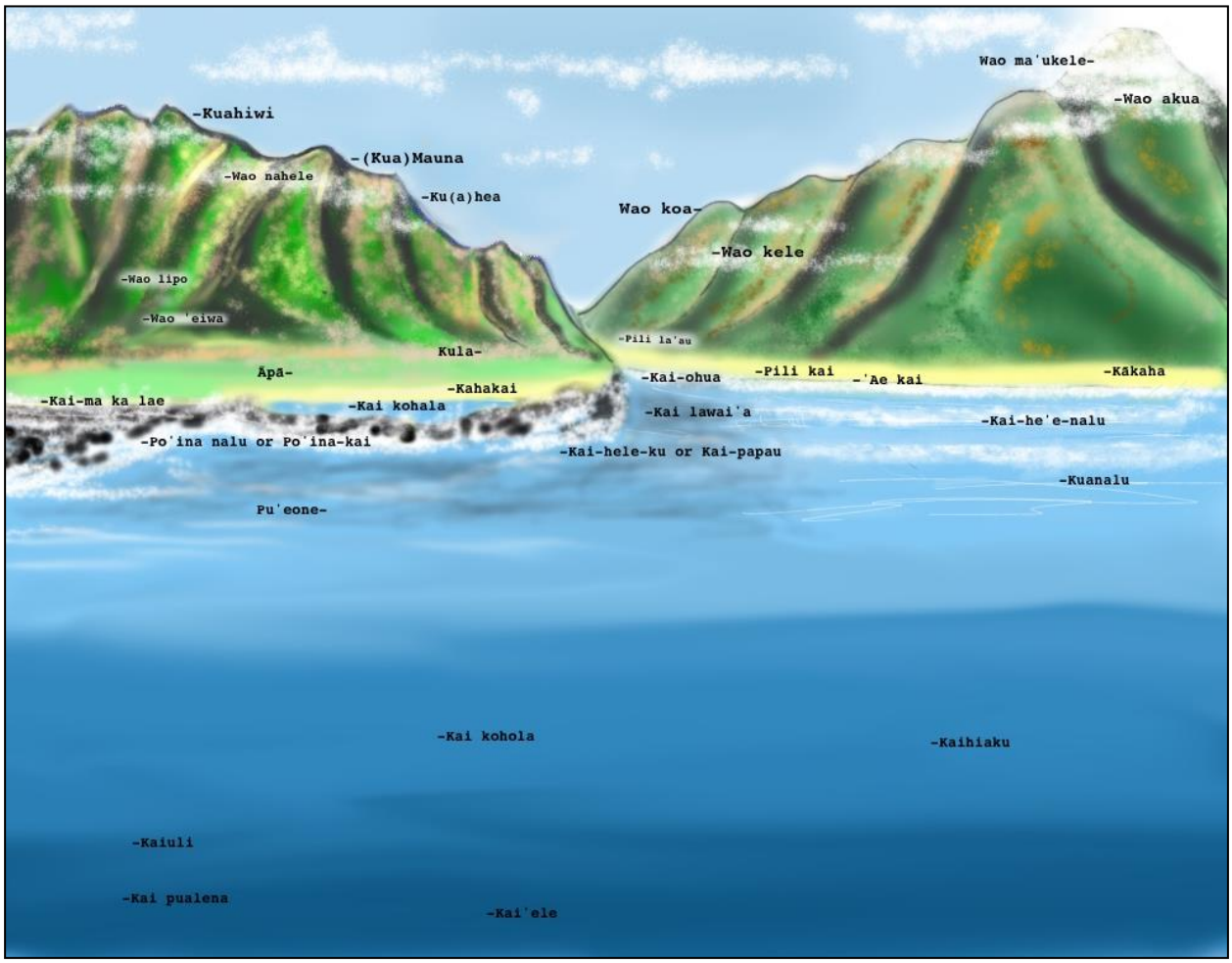

Figure 4: Traditional Hawaiian maritime cultural landscape with accompanying traditional terms identified in Table 1, above. © 2016 used with permission from Matthew Kawaiola Sproat

sustainability and cultural survival. The success of the NHCL process is necessitated by participation of Native Hawaiian and indigenous groups. The methodology can provide Native Hawaiian and local contextualization in a meaningful manner early in potential project processes, thus limiting delay and adverse impacts, and in turn reducing the need for mitigation measures.

Whereas non-indigenous spatial planning has been primarily two-dimensional (mapping the environment as a flat surface) and sometimes three-dimensional (inclusive of ocean depths or atmospheric elements), Native Hawaiian planning is five dimensional:

- The first and second dimensions, inclusive of the planar aspects of the ahupua‘a system,

surface ecosystems, and wao that run from the mountain peaks out into the sea;

- The third dimension, inclusive of the sky (atmosphere) and ocean depths, largely articulated in the traditional chant "He Mele No Kane" that outlines the traditional Native Hawaiian hydrologic cycle;
- The fourth dimension, which is temporal, as Native Hawaiians planned natural resource management activities with the lunar calendar, which impacted tidal activities, agricultural productivity, and the spawning cycles of species, all of which were expertly understood by Native Hawaiians and incorporated into their planning and management;
- The fifth dimension, which is spiritual, is essential to effective management and regulation, as spiritual mores are a foundational component of the kapu system—the key regulatory, political, and management system of natural resources in pre-contact Hawai‘i.

Therefore, data gathering in Native Hawaiian Cultural Landscapes would look something like the following table (Table 2).

Table 2: Data gathering in Native Hawaiian Cultural Landscapes

Dimension	Natural Heritage	Tangible Cultural Heritage	Intangible Cultural Heritage
First-Dimension (Point)	Example: True Kamani Tree (*Calophyllum inophyllum*) Rare kamani trees, significant in canoe making, have been protected in programmatic agreements.	Example: Ka Ule o Nanahoa (Moloka‘i) A culturally significant rock feature that has been provided regulatory protection.	Example: Ka leina o ka ‘uhane (Ka‘ena, O‘ahu) Location where souls were known to leap from the earth into the pō (afterlife).
Second-Dimensions (Planes and Boundaries)	Example: Laua‘e (*Polypodium phymatodes*) grove A fern commonly used by the Native Hawaiian community.	Example: Haleki‘i-Pihana Heiau State Monument This 10-acre heiau park includes a variety of archaeological sites and resources.	Example: Ke ahi o Kamaile The custom of throwing lit fire brands down the cliff at Kamaile (Kaua‘i), a legendary pastime of chiefs.

Table 2: Continued

Dimension	Natural Heritage	Tangible Cultural Heritage	Intangible Cultural Heritage
Third-Dimensions (Space and Depth)	Example: Haleakalā Mountain and National Park of great cultural importance to the Native Hawaiian people for its association with astrological features.	Example: Loko iʻa These are traditional Native Hawaiian aquaculture systems, and many include submerged features.	Example: Kaʻieʻiewaho Channel Channel between the islands of Kauaʻi and Oʻahu known for its great cultural and historical significance.
Fourth-Dimension (Time)	Example: Spawning seasons Flowering cycles Important fish species spawn during particular seasons, and flowering cycles spawn food producing crops, important for medicinal practices.	Example: Kukaniloko One of the most sacred sites for Hawaiian chiefs, it is believed to have astrological orientation.	Example: Sun and moon cycles Astronomical patterns These cycles are important for hula and other cultural practices, while the astronomical patterns are essential for navigation.
Fifth-Dimension (Spirit)	Example: Laka Goddess of forrest plants and canoe makers. Her kino lau (body forms) are the maile (*Alyxia olivaeformis*) and ʻieʻie (*Freycinetia arborea*).	Example: Kūʻulakai God of fishermen. The stone images and heiau erected by fishermen, called kūʻula, were named for this God and are kapu (taboo) to him.	Example: Hinaʻea Goddess of the sunrise and sunset.

4.3 Assessing Impact

In Hawaiʻi, all projects with a state nexus are required to conduct a cultural impact assessment (CIA) under Hawaiʻi Revised Statutes Chapter 343. The guidelines for those assessments[10] provide a good foundation for a parallel federal assessment, because 1) the Native Hawaiian community is already familiar with the CIA requirement and process, 2) any project that involves/impacts state resources is going to require a CIA, and 3) many of the elements of the CIA process integrate many of the proposed processes discussed in this document.

Cultural impact assessments are often carried out by local (Hawai‘i) consultants with expertise similar to that found in National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties (NPS 1990b), although there are currently no promulgated standards for cultural consultants. The following table (Table 3) provides some standard guidance on consultants in Hawai‘i.

Table 3: Standard guidance on consultants in Hawai‘i

Type of Work	Legal Requirement	Available List of Professionals
Cultural Impact Assessments	No permit required, but must follow State of Hawai‘i, Department of Hawai‘i, Office of Environmental Qualtity and Control (OEQC) guidelines.	List of self-identified providers maintained by OEQC
Archaeology Work	Archaeologists must be permitted in the State of Hawai‘i by the Department of Land and Natural Resources State Historic Preservation Division (SHPD).	List of permitted professional maintained by SHPD

Therefore, based on existing NEPA and NHPA standards, the statewide workshops, and the current state CIA standards, the proposed method for the NHO(s) to impact assessment is:

1. Gather the best information available:

   A. Gather historic and contemporary information from traditional knowledge and other sources (i.e., archaeological impact assessments, historical research, etc.) about the affected area in response to a proposed project, i.e., often referred to as the Area of Potential Effect or Range of Influence, to contribute to the “best data available” being considered in the decision-making process;

   B. Inventory as much information as possible that can be identified for as many known cultural, historic, and natural resources, including previous archaeological inventory surveys, cultural impact assessments, etc. that may have been completed for the possible range of influence;

   C. Update the information with interviews from cultural or lineal descendants or other knowledgeable cultural practitioners[11]; and

   D. Information should be used to determine a current baseline as to the significance and integrity of the landscape.

2. Identify potential impacts to natural and cultural resources:

Utilizing the NHPA standard, the NHO(s) should determine if the proposed activities will adversely alter, modify, or destroy the significance or integrity of the landscape, in whole or in part. The State of Hawai‘i parallel of this would be done through the SHPD for cultural and historic resources, other state agencies may assess various other resources. Cultural leaders or practitioners would be engaged through the CIA interviews required under those guidelines, although the quality of those interviews and how well they are integrated into the assessment and environmental impact statement or environmental assessment is largely dictated by the agency or firm leading the planning effort.

If the activity is found to potentially impact the landscape, in whole or in part, the activity shall undergo assessment for adverse effects as prescribed under the NHPA.[12]

3. Develop specific and reasonable alternatives for inclusion in the Environmental Impact Statement and/or involve the community and cultural experts in developing culturally appropriate mitigation measures to reduce potential impacts.

4. Develop specific best management practices (BMPs) that will be applied as conditions for future projects[13] and specific to environmental reviews.

5 Conclusion

From its inception, the NHCL process should involve indigenous communities in the identification of areas and types of resources that are important contributing factors to their continued identity and cultural practices. When communities can identify their own resources and places under the rubric of their cultural understanding, agencies can more appropriately plan large-scale management, and employ the information in continued consultation with the indigenous community during regulatory undertakings. As a result, the underlying NHPA and NEPA analyses of affected environment and cumulative impacts and synergies can be made more efficient and minimize conflicts, controversy, legal challenges and procedural delays.

The proposed definition of Native Hawaiian Cultural Landscapes represents a departure from the current historic preservation model. NHCLs (unlike TCPs) do not depend on strict boundary delineation, and emphasize indigenous self-determination of significance[14]. Additionally, NHCLs can expound the worldview of an indigenous group and enable consideration of contemporary cultural practices, thereby providing a clearer understanding of past and future use of a given area, in addition to the value it has to a community. The NHCL approach is grounded in guiding principles of indigenous autonomy, which can serve to strengthen NHO capacity in numerous ways, improve long-term relationships among agencies and Native Hawaiians, and ultimately better preserve and protect shared resources and landscapes.

As a variation of a cultural landscape approach (CLA), currently the subject of much discussion by historic preservation professionals, the NHCL approach integrates environmental science with historical, archaeological, and traditional knowledge to provide a robust and cost-effective procedure for communities to document places and resources of past and present significance to Native Hawaiian communities. This approach also represents an opportunity to integrate

management of natural and cultural resources, based on the understanding that humans are part of the landscape, both shaping and being shaped by it.

The NHCL approach has applicability as both parts of overall planning processes under NEPA and as part of regulatory compliance activities under NHPA. It would also potentially have applicability under the Hawai‘i Environmental Policy Act (HEPA) (Hawai‘i Revised Statutes Chapter 343 and Chapter 6E). The stepwise framework outlined in this Guide provides a method for values-based planning that has broad utility. This model shows how the NHCL approach can be feasibly implemented under existing federal policy, illustrating how the steps in the NHCL approach align with NEPA and NHPA processes and at what points they could be implemented. The NHCL approach can assist indigenous communities and agencies in communicating about areas of mutual interest to ensure that both parties have meaningful interactions concerning places and resources. Additionally, it can also allow indigenous groups to work with agencies to identify and work toward appropriate management of these places and resources.

6 Endnotes

[1] As of December 19, 2014, the NHPA has moved to title 54, and the provisions of the newly codified NHPA may be found starting at section 300101. Under the new NHPA, Section 106 is cited as 54 U.S.C. 306108.

[2] The definition was adopted from the definition developed by the tribal groups on the West Coast of the contiguous U.S., who are working on a parallel version of this project. It was determined that maintaining a consistent definition would be best for overall continuity.

[3] It should be noted that under the state law, administered by the State of Hawai‘i, Department of Land and Natural Resources, State Historic Preservation Division, Native Hawaiians and Native Hawaiian families can have themselves formally identified as recognized cultural or lineal descendants of an area.

[4] TCPs have had limited use and application in Hawai‘i and therefore are not discussed at length in this guide.

[5] This template is further detailed in Appendix 2.

[6] Who gathers this information and how would be determined on a project-by-project basis, based on project site and availability of funds, and potentially agreed to in an MOU.

[7] Note that the State Historic Preservation Division is required by law to be engaged on any activities related to historic and cultural resources, especially as related to the treatment of iwi kūpuna (human remains).

[8] For an analysis of the application of the “best data available” rule to the Department of Interior, see 43 C.F.R. Part 46, available at https://www.fws.gov/habitatconservation/DOI_NEPA_Regs.pdf.

[9] Table 1 contains the most pertinent terms for Native Hawaiian wao. A full listing of the essential Native Hawaiian Land Terms is included in Appendix III.

[10] The Guidelines of Cultural Impact Assessments can be found via the State of Hawai‘i Office of Environmental Quality and Control.

[11] If information is prepared under a Cultural Impact Assessment, the information is published as part of the State Environemtnal Impact Statement or Enviornmental Assessment and becomes public information.

[12] "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." Section 800.5(2) of NHPA.

[13] It is being noted here that the West Coast version of this project mentions tiered projects, which is also permissible under the NHPA. Tiered projects have faced legal challenges in Hawai‘i.

[14] Additional discussions on if the standard of "significance" should be modified from the NHPA standard will be further refined during the case studies.

References

ACHP (Advisory Council on History Preservation). 2011. Consultation with Native Hawaiian Organizations in the Section 106 Review Process: a Handbook [Internet]. Washington (DC): Advisory Council of Historic Preservation; [cited 2017 May 3]. Available from http://www.achp.gov/Native%20Hawaiian%20Consultation%20Handbook.pdf

CEQ and ACHP (Council on Environmental Quality and Advisory Council on Historic Preservation). 2013. NEPA and NHPA: a Handbook for Integrating NEPA and Section 106 [Internet]. Washington (DC): Council on Environment Quality and Advisory Council on Historic Preservation; [cited 2017 May 3]. Available from http://www.achp.gov/docs/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf

DBEDT (State of Hawaii Department of Business, Economic Development and Tourism), Hawaii State Energy Office. 2014. Hawaii energy facts and figures [Internet]. [cited 2017 May 3]. Available from http://energy.hawaii.gov/wp-content/uploads/2014/11/HSEO_FF_Nov2014.pdf

DOI (U.S. Department of the Interior), Office of the Secretary. 2016. Procedures for Reestablishing a Formal Government-to-Government Relationship with the Native Hawaiian Community. Washington (DC): U.S. Department of the Interior.

Evans MJ, Roberts A, Nelson P. 2001. Ethnographic landscapes. CRM [Internet]. [cited 2017 May 3]; 24(5):53-55. Available from http://www.webpages.uidaho.edu/css501/images/Readings/ethnographic%20landscapes.pdf

Forman DM, Serrano SK. 2012. Hoʻohana aku, a hoʻōla aku: a Legal Primer for Traditional and Customary Rights in Hawaiʻi. Honolulu (HI): Ka Huli Ao Center for Excellence in Native Hawaiian Law.

Lucas PFN. 1996. A Dictionary of Hawaiian Legal Land-terms. Honolulu (HI): University of Hawaiʻi Press. 183 p.

Maly K. 2001. Mālama pono i ka ʻāina – an Overview of the Hawaiian Cultural Landscape. Hilo (HI): Kumu Pono Associates LLC.

Malo D. 1951. Hawaiian Antiquities: Moʻolelo Hawaiʻi, second edition. Honolulu (HI): Bishop Museum Press. 302 p.

MPA FAC (Marine Protected Areas Federal Advisory Committee). 2011. Recommendations for Integrated Management Using a Cultural Landscape Approach in the National MPA System [Internet]. [cited 2017 May 3]. Available from

http://marineprotectedareas.noaa.gov/pdf/helpful-resources/mpafac_rec_cultural_landscape_12_11.pdf

NPS (National Park Service). 1990a. How to Apply the National Register Criteria for Evaluation. National Register Bulletin 15. Washington (DC): U.S. Department of the Interior.

NPS (National Park Service). 1990b. Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Register Bulletin 38. Washington (DC): U.S. Department of the Interior.

Page RR, Gilbert CA, Dolan SA. 1998. A Guide to Cultural Landscape Reports: Contents, Process and Techniques. Washington (DC): U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program. 174 p.

Pukui MK, Elbert SH. 1986. Hawaiian Dictionary. Honolulu (HI): University of Hawaii Press. 572 p.

Sauer C. 1963. The Morphology of Landscape. In: Leighly L, editor. Land and Life; a Selection from the Writings of Carl Ortwin Sauer. Berkeley (CA): University of California Press. p. 315-350.

USDOD (U.S. Department of Defense). 2011. Department of Defense Instruction Number 4710.03: Consultation Policy with Native Hawaiian Organizations [Internet]. Washington (DC): U.S. Department of Defense; [cited 2017 May 3]. Available from http://www.denix.osd.mil/na/hawaii/dodi471003/dodi-4710-03-consultation-with-native-hawaiian-organizations-nhos/

Westerdahl C. 1992. The Maritime Cultural Landscape. International Journal of Nautical Archaeology. 21(1):5-14.

WIPO (World Intellectual Property Organization). 2004. Intellectual Property Handbook [Internet]. [cited 2017 May 3]. Available from http://www.wipo.int/edocs/pubdocs/en/intproperty/489/wipo_pub_489.pdf

Appendix 1: Terminology and Topics for Project Proponents

This list of terms and topics is intended to enable agencies and project proponents to use appropriate terminology when communicating with indigenous communities, thereby increasing effectiveness of consultation and collaboration, and building relationships based on mutual trust and respect.

Associated Group: Indigenous people with a connection to a place or resource. This includes all native tribes and native indigenous communities, regardless of recognition status, which does not impact these groups' sovereignty, interests in ancestral territory and resources, or the validity of traditional knowledge and cultural practices.

Consultation: A deliberative process that aims to create effective collaboration and informed Federal decision-making. Consultation is built upon government-to-government exchange of information and promotes enhanced communication that emphasizes trust, respect, and shared responsibility. On October 14, 2016, the DOI published a Final Rule on Procedures for Reestablishing a Formal Government-to-Government Relationship with the Native Hawaiian Community, 43 C.F.R. Part 50, through the Office of the Secretary. No Native Hawaiian Government exists at this time. Agencies should contact the Office of Native Hawaiian Relations (U.S. Department of the Interior) at https://www.doi.gov/hawaiian for the most up-to-date information on Native Hawaiian consultation on the federal level.

Coordination and Collaboration: Essential for effective consultation, but they do not satisfy the requirement of legally-mandated government-to-government consultation.

Cultural Landscape Approach: A management approach that uses cultural landscapes as an analytical framework to understand places and their associated resources. This approach is analogous and complementary to ecosystem-based management, and examines the relationships among living and non-living resources and their environment. This approach enables a better understanding of the human connections to places and the important human influences on ecosystems over time.

Cultural Resources: The broad array of stories, knowledge, people, places, structures, and objects, together with their associated environment, which contribute to the maintenance of cultural identity and/or reveal the historic and contemporary human interactions with an ecosystem. This can include both tangible and intangible cultural heritage. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), tangible heritage includes buildings and historic places, monuments, artifacts, etc., which are considered worthy of preservation for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture. Intangible heritage includes the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.

Culturally Sensitive Information: Information that is culturally privileged or otherwise controlled or regulated, often by gender, age, or cultural norms. Sharing this knowledge with non-tribal members may be contrary to tribal practices. Even though culturally sensitive

information may sometimes be publicly available, respect for the nature of this information must be demonstrated when consulting with tribes.

Ethnographic Landscapes: One of four types of cultural landscapes according to NPS guidelines. It is a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, sacred religious sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components.

Indigenous Community/Group: Descendants of peoples who inhabited the area now encompassed by the United States and its territories at the time of Euro-American colonization, or the establishment of present political boundaries, and who retain some or all of their own social, economic, cultural and political institutions, irrespective of their legal status.

Means/Manner of Connection: It is the responsibility of the indigenous group to provide a contextual statement regarding connection to place. Connection is likely to be widely varied between and even within Native Hawaiian communities. For instance, it may be based on ancestral ties to prominent landforms, or to a relatively recent landscape dating to displacement, but which now holds multigenerational interactions and modified practices.

Memorandum of Agreement (MOA): A written agreement that describes in detail the specific responsibilities and actions to be taken by each of the parties so that their goals may be accomplished. In general, an MOA is legally enforceable.

Memorandum of Understanding (MOU): In general, a writing that describes a very broad concept of mutual understanding, goals, and plans shared by the parties. An MOU is usually not legally binding.

MOA and MOU (distinguishing between): Per DOI guidance, these terms are used interchangeably based on the preference of the parties. Some parties may differentiate between them, and preferred terminology should be clarified early in project planning.

Native Hawaiian Cultural Landscape (NHCL): Any place in which a relationship, past or present, exists between a spatial area, resource, and an associated group of indigenous people whose cultural practices, beliefs, or identity connects them to that place. A Native Hawaiian cultural landscape is determined by and known to a culturally related group of indigenous people with relationships to that place.

Native Hawaiian Organization: Any organization that serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of historic preservation that are culturally significant to Native Hawaiians. The term includes, but is not limited to, the Office of Hawaiian Affairs of the State of Hawai‘i and Hui Malama I Na Kupuna O Hawai‘i Nei, an organization incorporated under the laws of the State of Hawai‘i. The NHPA requires the agency official to consult with any Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking (36 C.F.R. § 800.2 and § 800.16).

Relationship: The way or manner in which people (e.g., indigenous group or others), things, actions and/or place are connected. This is most often based in practices held by a community. These practices are likely to have been modified or changed over time and are likely to continue to develop into the future.

Resource: A feature, material, or supply that can be drawn upon to enhance or contribute to life. This applies to purposes of sustenance and/or quality of life. Most often this encompasses tangible items of importance held by indigenous communities and could include but are not limited to: the flora and fauna of an area, as well as hunting, fishing, and gathering locations, archaeological sites, rock features, villages, and burial locations. However, intangible items are also important resources for indigenous communities and may include sacred spaces or places such as creation or prayer areas. Natural phenomena such as wind, water currents, lightning, and thunder are potential attributes associated with resources.

Spatial Area: An area of interest defined by an indigenous group. It is deliberately all-encompassing and intended to include the diverse and complex understandings of the world held by indigenous groups that pertain to airspace, land surface and below surface dimensions and can be defined by but not limited to: oral traditions, executive orders, statutes (federal or state), cultural use or based on historical documents.

Traditional Cultural Property (TCP): A property type on the National Register of Historic Places (buildings, structures, sites, historic districts, objects, landscapes) may possess traditional cultural significance, derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. That property would be eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Because a TCP is a National Register property type, it must have a defined boundary. This can apply to non-indigenous traditional groups.

Traditional [Ecological] Knowledge (TK or TEK): A cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission. It concerns the relationship of living beings (including humans) with one another and with their environment.

Appendix 2: Consultation and Engagement Guidelines

1 Introduction

Over the course of this project, meetings were held throughout the Hawaiian Islands in different communities to gather input on the development of a framework for consulting with Native Hawaiian communities, organizations, and stakeholders. Structured as informal focus groups, these meetings offered opportunities for local island community members to share their experiences with past consultations processes. Specifically, project leaders sought input on what past processes worked, which processes failed, and why.

In nearly every meeting, the DOI hearings on the Advanced Notice of Proposed Rulemaking for Procedures for Re-establishing a Government-to-Government Relationship with the Native Hawaiian Community (DOI 2014) and the development of the Comprehensive Management Plan for Mauna Kea (OMKM 2009) were seen as abject failures. The participants emphasized the resulting protests and conflict as evidence of the failed processes.

In addition to the individual island meetings, a large meeting was held on the island of O‘ahu in April 2015, during which individuals who had previously participated at the separate island meetings could come together to engage as one inter-island community. Whereas many projects have dealt with island communities separately, very few dealt with inter-island community issues. As off-shore wind projects are likely to be sited between islands, it was determined to address the relationships between island communities proactively.

The O‘ahu group offered Kamehameha Schools’ process used in the redevelopment of Hale‘iwa as a successful model (Kamehameha Schools 2008). A visual of their process is provided on the next page (Figure 5).

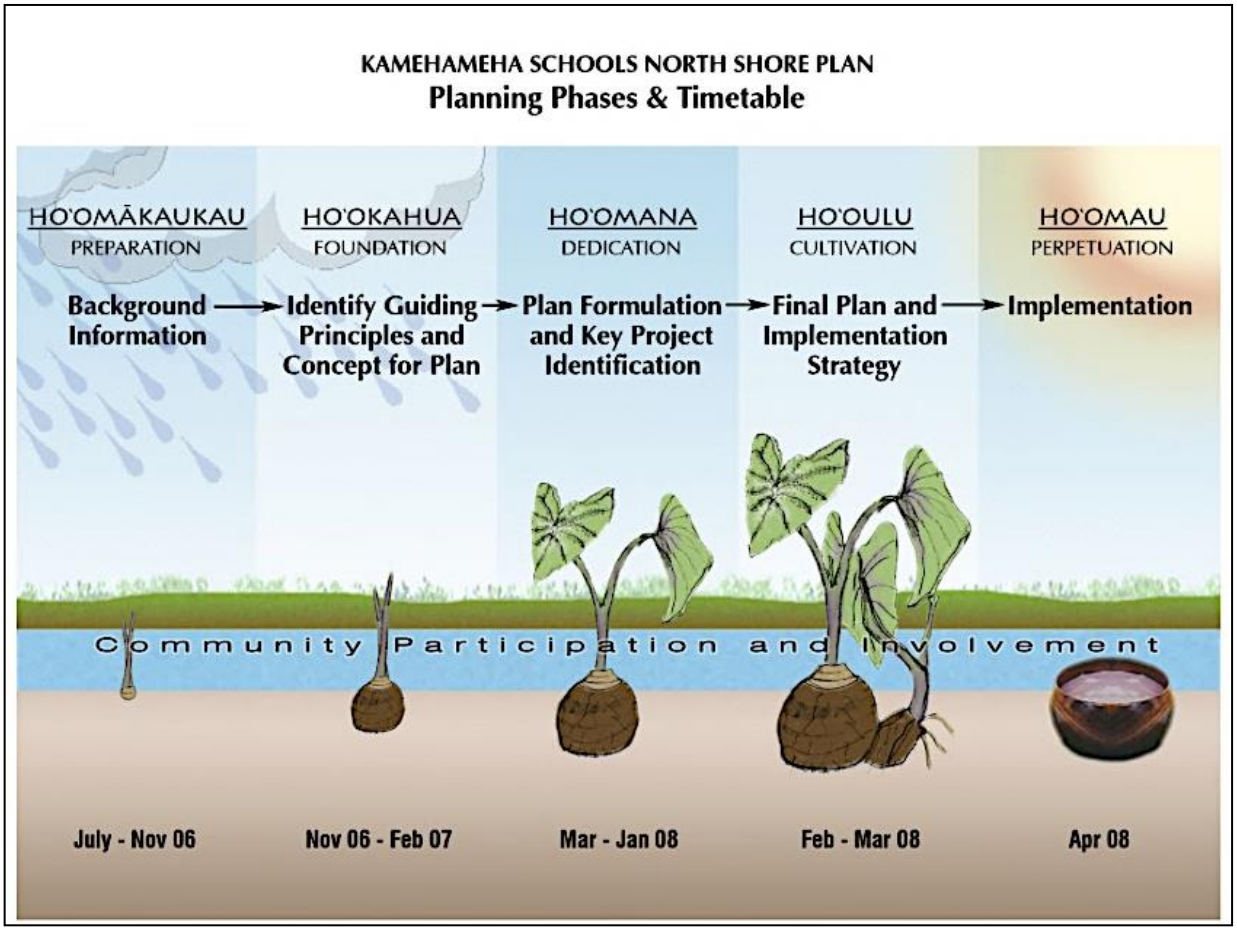

Figure 5: Visualization of the Kamehameha Schools North Shore Planning Process (Source: Kamehameha Schools)

Using the Kamehameha Schools North Shore planning model and the input gathered from the workshops, the following appendix outlines specific guidelines for consulting and engaging with NHOs and communities.

2 Pre-Consultation

One of the most critical issues repeatedly cited by communities is timing. Agencies and/or developers should notify NHOs, communities or families at the earliest possible opportunity when considering a project. Currently, consultation begins only when prescribed by law or regulation, so communities typically become aware of projects only by legal notice. This has proven insufficient and has led to conflicts and protests.

In order to improve cooperation between agencies and communities, communication needs to begin at a much earlier stage. Formal consultation does not need to begin at an earlier stage, but community leaders should be notified as soon as a project is considered in the area.[1] This informal communication at an early stage is a sign of respect to communities. Additionally, communities should be notified, if only informally, when formal applications or actions are

being prepared. Communities should never be caught entirely unaware of the submission of applications for permits or other permissions for activities that may have significant impact on their resources.

Even if "formal" consultation cannot begin until a later stage in the administrative process due to regulatory restrictions, communities often want to know about activities that impact their environmental and cultural resources at the earliest possible stage. In many cases, agency staff members have the discretion to informally work with communities through program building or capacity building opportunities prior to any formal consultation process. This may be one solution to this timing issue. There are surely others. Additionally, it should be noted that any agency or developer that invests in building a strong, healthy relationship with the local community early is going to benefit in the end.

Formal consultation should begin at the earliest possible stage in the process. Agencies and developers should do their best to provide sufficient financial resources to the consultation process, as this is an often under-resourced activity. Specific recommendations are provided in the following sections.

3 Identifying NHCLs and Impacted Communities

3.1 Identifying NHCLs

As previously specified, an NHCL is inclusive of the sky, land and sea. The most appropriate unit of measure is the ahupuaʻa, as it is historically and legally recognized throughout Hawaiʻi. Native Hawaiian mōʻī (high chiefs) were very strong advocates of geopolitical management. The ahupuaʻa system and the extensive cartography and surveying that took place during the Kingdom Era in Hawaiʻi reflects the Monarchy's dedication to mapping traditional boundaries and resources. Therefore, while Native Hawaiians are very capable of embracing temporal and spiritual dimensions in planning, they are also world-class experts in identifying geographic boundaries and have been for centuries. Historic maps and the Hawaiian language reflect this; Native Hawaiians mapped the sea, the land, and the sky.

Ahupuaʻa systems are just that: systems. They are defined by geopolitical boundaries and ecosystems. While they have changed in modern times, at their baseline, they are sustainable environmental and cultural systems. Therefore, consultation should be based on ahupuaʻa. The project should identify the area of potential effect (APE) or range of impact (ROI), and any ahupuaʻa impacted should be consulted. If the project is large enough to impact multiple ahupuaʻa, the entire moku should be consulted.[2]

The following section identifies how to find NHOs, community groups, and families from each ahupuaʻa.

3.2 Identifying Impacted Communities

As noted above, the most appropriate boundary, geographically, is the ahupua‘a. Within each ahupua‘a, there are numerous NHOs[3]. These can be identified through a range of mechanisms. The only entity currently established to serve as a quasi-governmental entity for the Native Hawaiian community is the Office of Hawaiian Affairs (OHA), which was established by the State of Hawai‘i through the State Constitution in 1978.[4] OHA can be contacted through their website: www.oha.org.

The Office of Native Hawaiian Relations[5], a federal office under the Department of Interior also maintains a list of Native Hawaiian Organizations (DOI 2016). The list is often utilized by agencies and developers for identifying organizations with whom to conduct consultations, but the organizations self-identify and the list is by no means comprehensive. Use of the list alone often results in the exclusion of many community organizations from the consultation process.

Additionally, local NHOs can typically be identified through the Association of Hawaiian Civic Clubs, the Department of Hawaiian Homeland Associations (DHHL 2017), hālau hula (Mele.com 2017), canoe clubs (e.g., the O‘ahu Hawaiian Canoe Racing Society), voyaging societies (e.g., Polynesian Voyaging Society), Hawaiian churches, Hawaiian charter schools, and practitioner groups (e.g., lo‘i, loko i‘a, mahi‘ai, lawai‘a, kākau, etc.). Additionally, there are the Royal Benevolent Societies, including ‘Ahahui Ka‘ahumanu, the Royal Order of Kamehameha, ‘Ahahui Māmakakaua, and Hale o Nā Ali‘i.

The following section provides an island-by-island geographic summary of Native Hawaiian communities and how to approach the different communities on each island. Each island is unique, and there is not a uniform way to approach the Native Hawaiian community. The summaries provided herein are based on past experience, the statewide meetings, and the input from the advisory group.

It is critical to remember that despite offices like OHA and the Office of Native Hawaiian Relations existing, geographically based grassroots organizations and local NHOs like those described above are going to remain the best sources of information about natural and cultural resources. They are essential to reach out to and form relationships with, and will not always be politically supportive of government sponsored entites. Therefore, it becomes necessary to think sensitively and strategically about how to first approach Native Hawaiian communities at the local level. These communities are politically astute; it is better to avoid social and cultural errors whenever possible.

4 Hawai‘i Island[6]

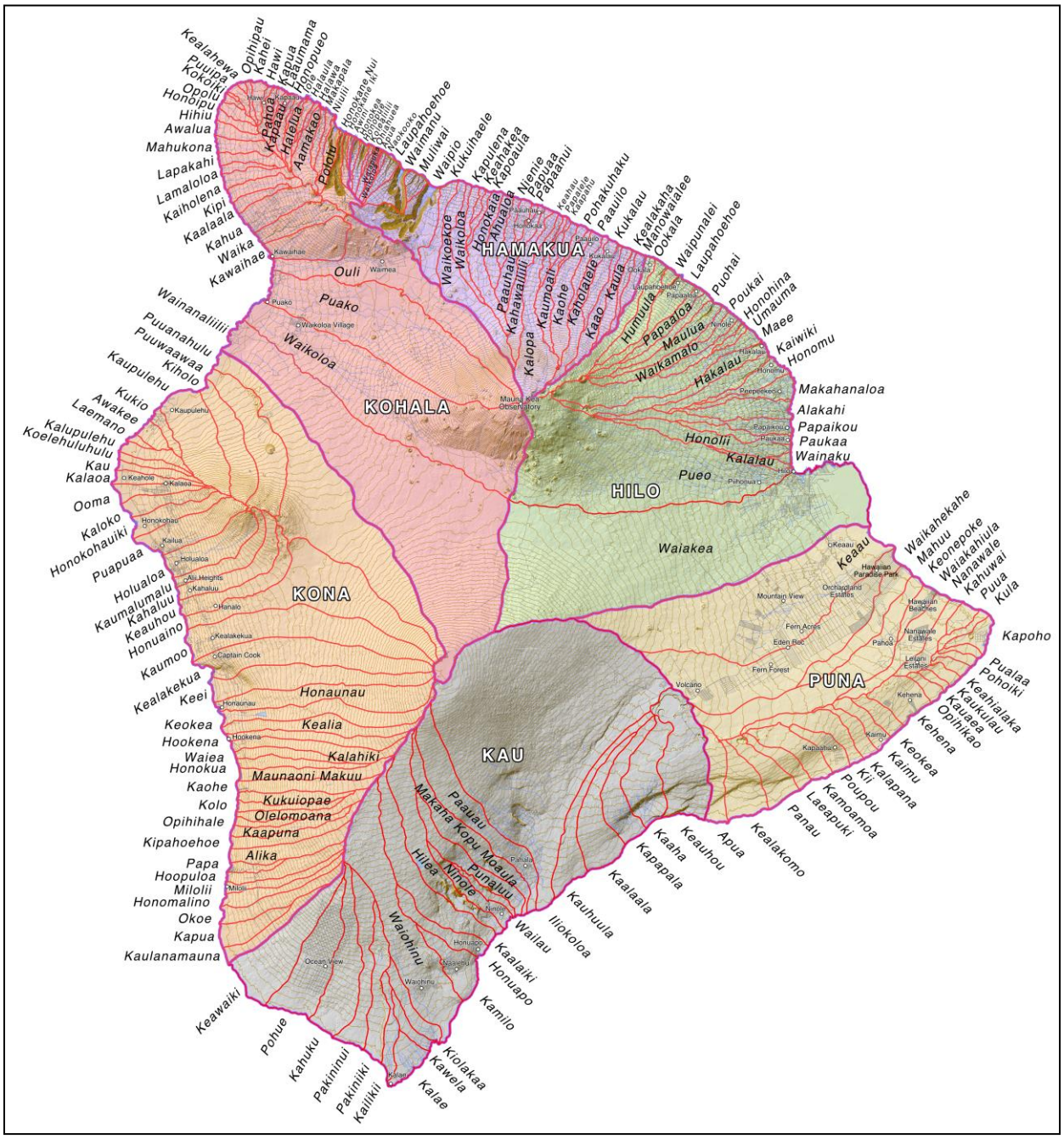

Figure 6: Land divisions of Hawai‘i Island (each moku is represented by a different color; red lines signify boundaries between ahupua‘a) (Source: IslandBreath.org)

Historically, Hawai‘i Island (Figure 6) is the birthplace of the unified Hawaiian Kingdom. During his eventual successful quest to bring all the islands together, Kamehameha I started with his own hānau (the sands of his birth). Initially, Kamehameha shared rule of Hawai‘i Island with two other chiefs: Keawema‘uhili and Keōuakuahu‘ula. Kamehameha ruled the region of his birth

and rearing, the Kona and Kohala regions. Keawemaʻuhili controlled Hilo. Keōuakuahuʻula controlled Kaʻū.

Coincidentally, Hawaiʻi Island today remains divided along those general lines: Hilo and Hamakua, or generally East Hawaiʻi, being one area; Kohala and Kona (mostly North Kona), or West Hawaiʻi, being another area; Puna, Kaʻū, and parts of South Kona, or the Southern, most rural parts of Hawaiʻi Island, being the third area.

Due to its rural nature, consultation with NHOs on Hawaiʻi Island requires additional resources and effort. Many organizations use newsletters or community bulletin boards. Social media, email, or other technology-based services are becoming more common, but should not be used exclusively. Internet service is simply not available in all areas. Many older members of the community still rely on telephone landlines, so community members should be notified by phone if they are expected to attend meetings. Alternatively, community members should be mailed notices of meetings.

Churches and community associations are particularly effective mechanisms of notifying communities in rural areas on Hawaiʻi Island, as they are often the best informed as to whom community leaders are and how to get in touch with them. This often requires physically driving considerable distances down into these kīpuka communities (areas surrounded by lava flows) to find local churches, community associations, fishing clubs, or canoe clubs.

Due to the size of the island, community engagement processes vary considerably on Hawaiʻi Island. Engagement in Miloliʻi would be very different from Kapoho. Also, due to the size of the island, it is rare to see the entire island engage on a single issue. It is more likely to see an ahupuaʻa engage, or at most a moku, depending on the size of the project.

Fishing is also a very important issue on Hawaiʻi Island, it is an important industry and there are many subsistence fishermen within the Native Hawaiian community. Activities that would have any impact on fishing traditions would need to be carefully considered, as there are many communities that rely heavily upon subsistence livelihoods.

5 Maui

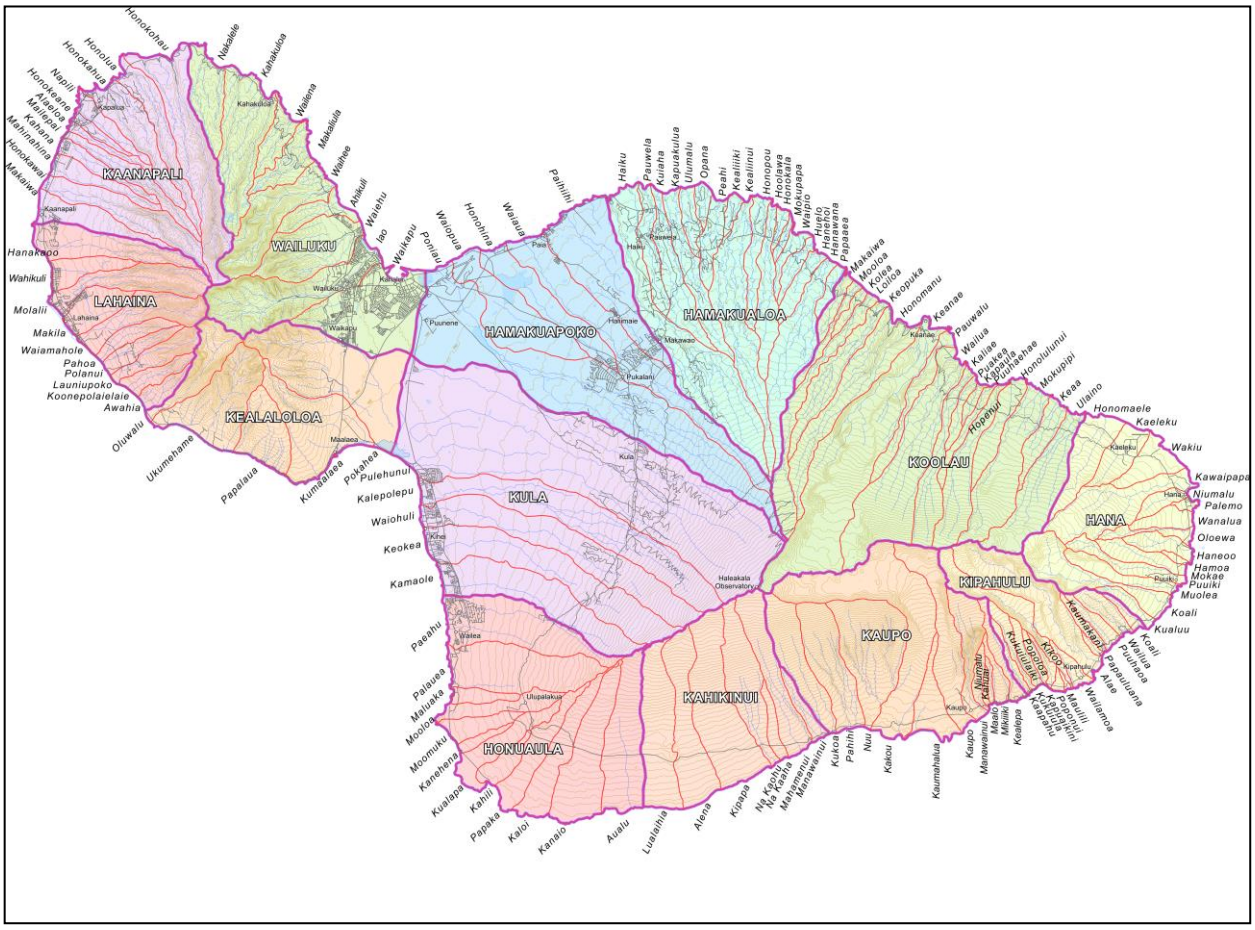

Figure 7: Land divisions of Maui (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

Maui (Figure 7) is the second most urbanized island with a population of 117,644 people highly concentrated in the population centers of Kahului, Wailuku, Kīhei and Lahaina. A popular destination island for visitors, Maui supports a booming tourism industry while maintaining its key "old Hawaiʻi" industries of sugar, pineapple, cattle and horses in its more rural areas. Maui's most famous landmark, the 3,055 m (meter) or 10,023 ft (foot) Haleakalā, towers above the island as the largest dormant volcano crater in the world.

As an island of contrasts, Maui encompasses the diversity of people and lifestyles found in Hawaiʻi. This diversity calls for a unique and varied approach for all consultation projects. OHA has assembled an advisory committee that represents a good distribution of organizations and interests across the island. In addition to OHA, the ʻAha Moku System, hālau hula (hula schools), immersion schools and Hawaiian Agencies and Organizations (HAO) should be consulted. Geographically isolated communities such as Hana and Kahakuloa have very strong community values and connections to the Native Hawaiian cultural landscapes of Maui and

should be targeted in particular to ensure proper consultation. In such areas, local community churches or community organizations are the best means of reaching community members.

6 Molokaʻi

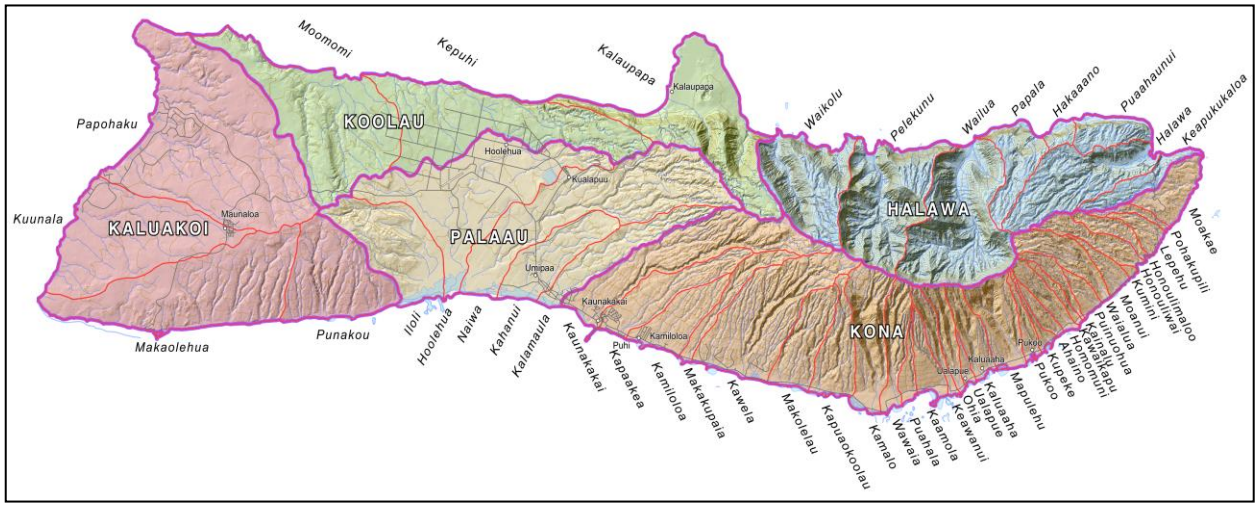

Figure 8: Land divisions of Molokaʻi (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

With a population of approximately 7,500, over 60% being of Native Hawaiian decent, Molokaʻi (Figure 8) developed a reputation in recent years for resisting development and other influence from outsiders. Unlike the more urbanized islands, the residents of Molokaʻi still largely rely on subsistence lifestyles, particularly hunting and fishing, which are commonly practiced on all parts of this small island (the entire island is only 673 km^2 (square kilometers) or 260 mi^2 (square miles); 61 km (38 mi) long and 16 km (10 mi) wide.

In part due to the small population, and in part due to the prevalence of the traditional lifestyle, the institution of the ʻAha Moku System has developed and worked well on the island of Molokaʻi. Each ahupuaʻa has a council, as does each moku. The groups are organized and information is disseminated efficiently. OHA, the Department of Hawaiian Homelands, and the Queen Liliʻuokalani Children's Center also maintain offices on the island and should be contacted regarding on-island activities. There is a large homestead population on the island. There are also a number of nonprofits on Molokaʻi that are leading advocates and stakeholders that should be engaged in community discussions.

While Kalaupapa is physically located on the north side of Molokaʻi, it is a politically separate county and the State of Hawaiʻi Director of Health serves as its Mayor. While the National Parks Service and Hawaiʻi Department of Health are often the most visible agencies, the Department of Hawaiian Homelands maintains partial ownership of the land in Kalawao and the patients and their families are largely represented by Ka ʻOhana o Kalaupapa, a nonprofit organization.

7 Lānaʻi

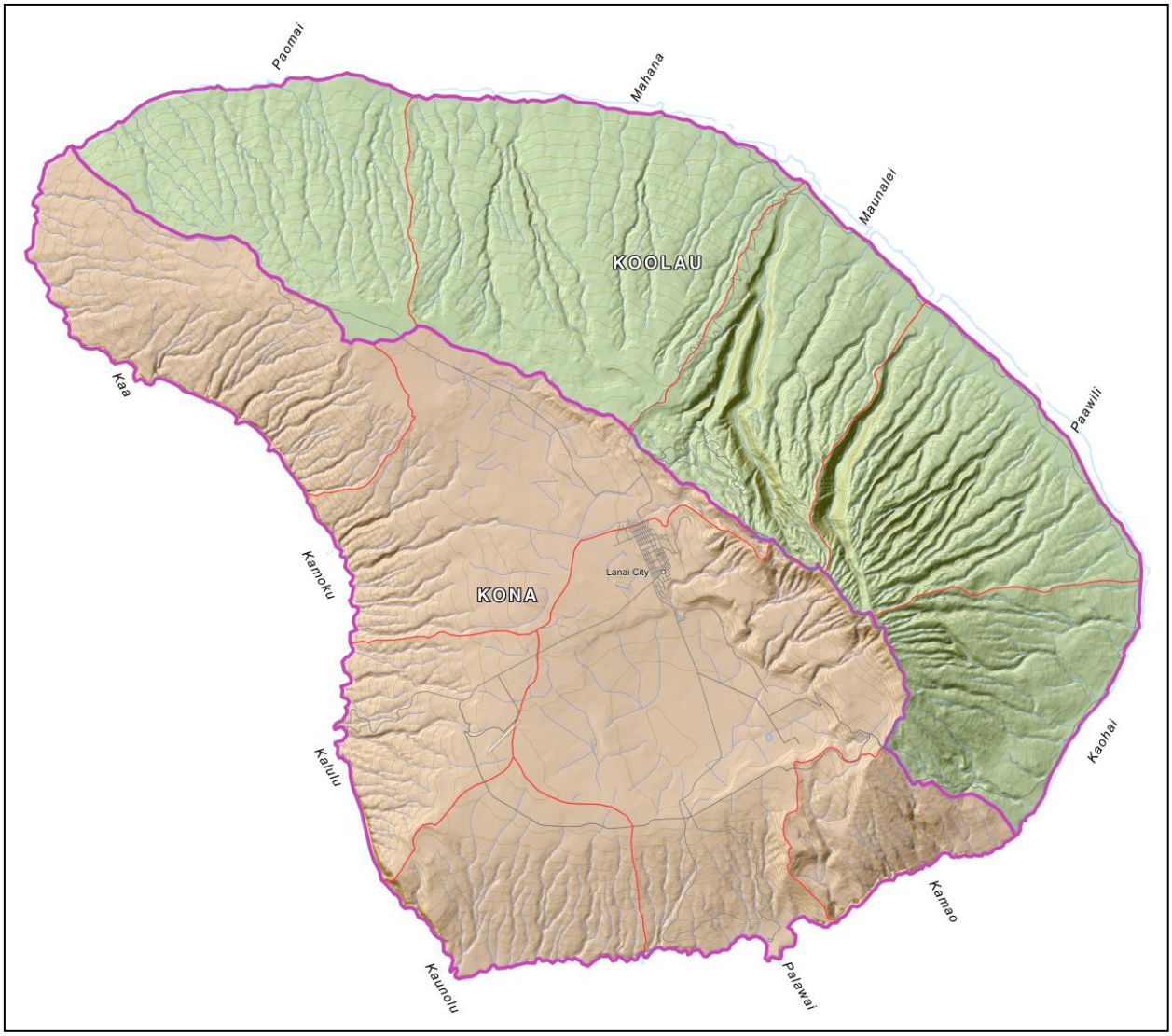

Figure 9: Land divisions of Lānaʻi (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

Lānaʻi (Figure 9) is sixth in size of the eight main Hawaiian Islands, containing some 363 km^2 (140 mi^2) of land. Lānaʻi is approximately 29 km (18 mi) long by 21 km (13 mi) wide, and in the present day rises 1,027 m (3,370 ft) above sea level. It appears that Lānaʻi was formed by one large volcano, and the Pālāwai Basin is the remains of the caldera that was the connection between island and hot spot. Scientists tell us that at one time (tens of thousands of years before the first Hawaiians settled the island), Lānaʻi, Maui, Kahoʻolawe, and Molokaʻi were once all connected by low land bridges. The melting of glaciers, rising of sea level, and the settling of heavy islands into the Earth's crust created the channels between the islands that filled with ocean water.

The residents of Lānaʻi are concentrated within the ahupuaʻa of Pālāwai, within the area known as Lānaʻi City. Therefore, any consultation would have to be essentially island wide, as the population of the island is currently about 2,700 residents. There are a number of NHOs and Native Hawaiian ʻohana (families) with long genealogical ties to the island who can be excellent consulting partners for projects. The best way to identify NHOs or ʻohana would be through the island newspaper, town bulletin board, and working with landowners.

8 Oʻahu

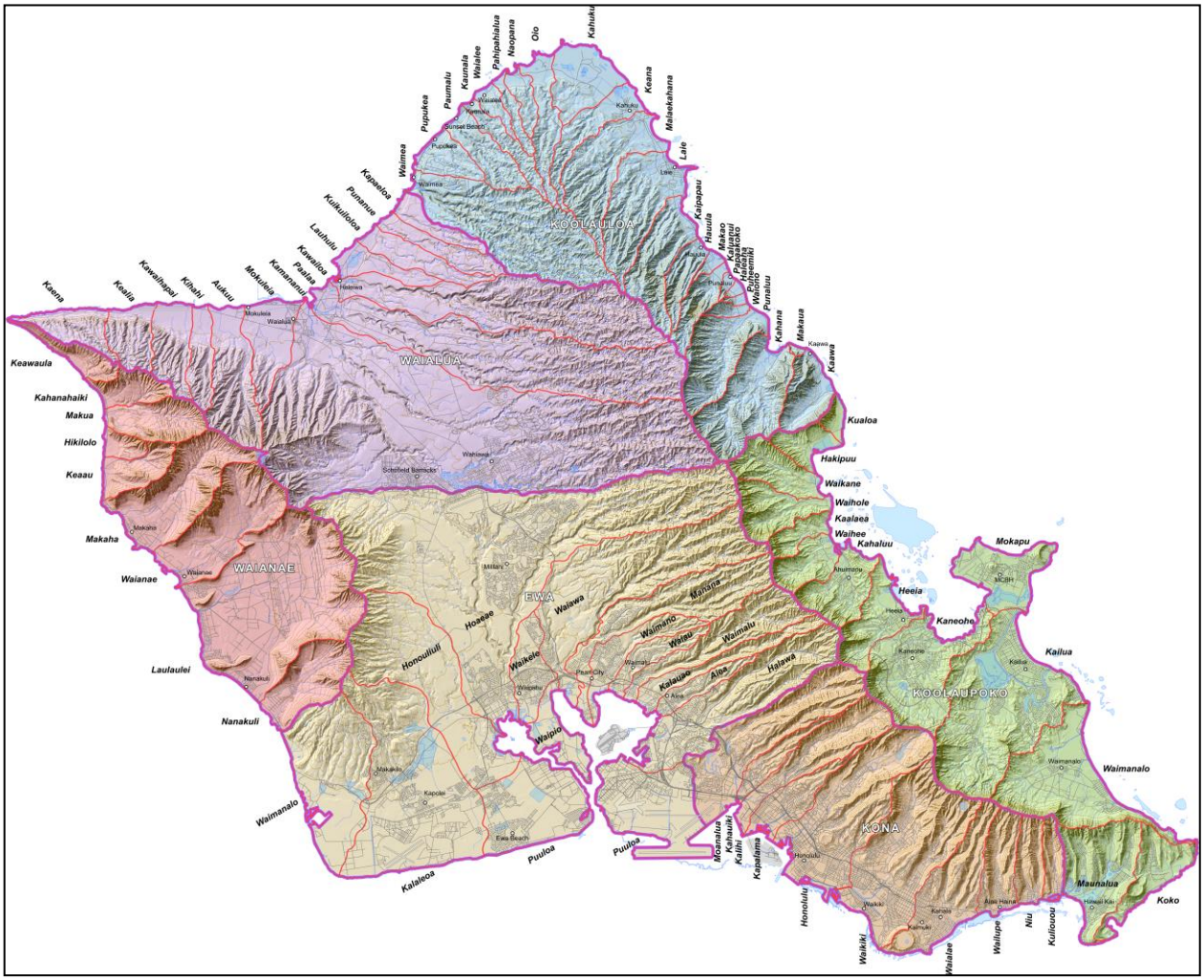

Figure 10: Land divisions of Oʻahu (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

As the most populated island, with nearly 1 million residents, consultation on Oʻahu (Figure 10) poses unique challenges. The island consists of six distinct moku (the colors next to the moku name correspond to their colors on Figure 10 above): Waiʻanae (red), Waialua (purple), Koʻolauloa (blue), Koʻolaupoko (green), Kona (orange) and Ewa (yellow). Each community is geographically, environmentally and culturally unique. Due to the size of the island, it is recommended that consultations on Oʻahu be generally divided into moku and ahupuaʻa. For

example, projects that come up on the North Shore are the responsibility of the Waialua Moku. Districts tend to not interfere with the business, or kuleana (responsibilities), of other districts. This was a fairly common sentiment across the larger islands. Similarly, other districts are willing to support decisions made by an individual moku on a project. So if the Waialua Moku opposed a project on the North Shore, the whole island would defer to the Native Hawaiians in the Waialua Moku and oppose the project island-wide. It's essentially a "home rule" concept.

The Hawaiian Civic Clubs are most organized on Oʻahu, and Prince Kūhiō formed the first civic club on Oʻahu in 1918. They are geographically and thematically based. The civic clubs are an important group of NHOs on Oʻahu, but also throughout Hawaiʻi. Additionally, there are the Royal Benevolent Societies, Hawaiian Homestead Associations, and other NHOs. Specific to coastal areas would also be paddling, sailing groups, and voyaging societies.

9 Kahoʻolawe

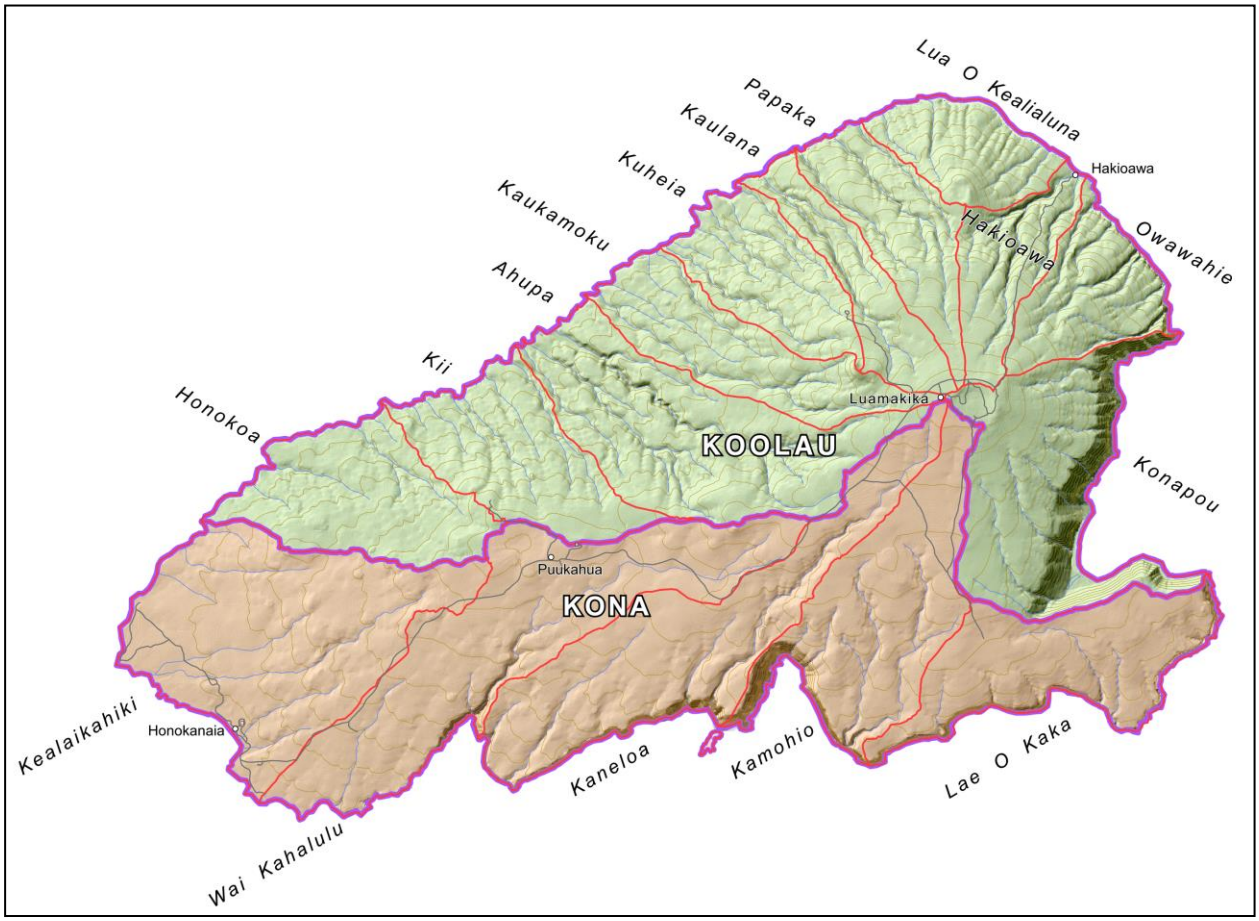

Figure 11: Land divisions of Kahoʻolawe (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

Dedicated to Kanaloa (the Hawaiian God of the ocean), Kahoʻolawe (Figure 11), also known as Kohemalamama o Kanaloa, serves as a navigational piko (center) for Hawaiʻi and the Pacific. There are no longer inhabitants on the island, as from 1941-1990, the United States actively used

Kahoʻolawe as a military bombing range. This caused significant devastation to all terrestrial and marine natural resources and severely compromised the estimated 3,000 archaeological and historical sites on the island.

After decades of protests and litigation, the U.S. Navy transferred access control of Kahoʻolawe to the State of Hawaiʻi in 2003. The Kahoʻolawe Island Reserve Commission (KIRC) maintains jurisdiction over the Kahoʻolawe Island Reserve, which includes the island's terrestrial area and surrounding marine area. The Reserve is held in trust for a future Native Hawaiian sovereign entity, but KIRC, which operates under the State of Hawaiʻi Department of Land and Natural Resources, currently manages the island. Kahoʻolawe is part of Maui County and the Moku of Kahikinui.

Issues related to Kahoʻolawe are directed to the KIRC, although other individuals and nonprofit groups, specifically those who were actively involved in the efforts to halt bombing on the island, should be considered stakeholders for activities on Kahoʻolawe and engaged accordingly.

10 Kauaʻi

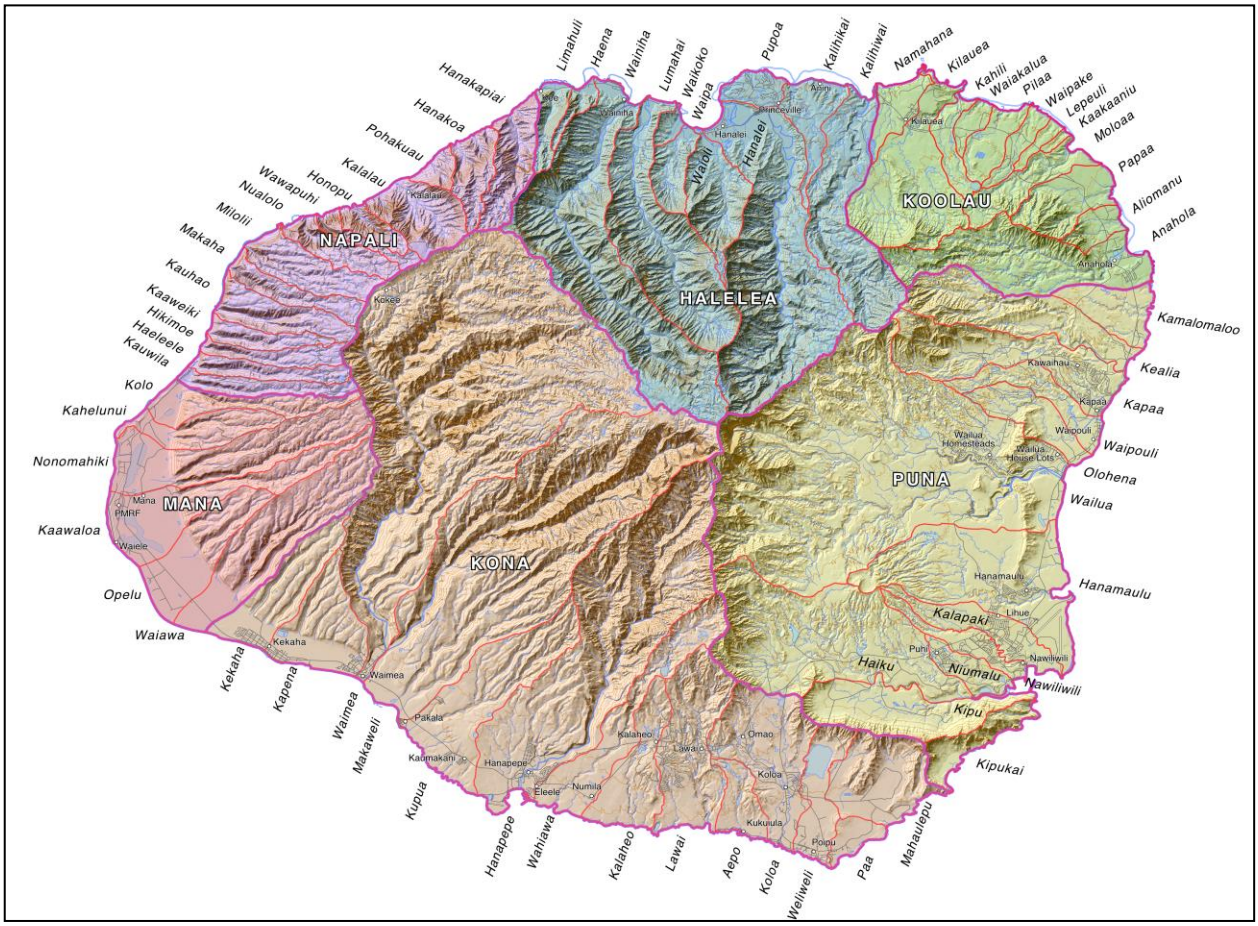

Figure 12: Land divisions of Kauaʻi (each moku is represented by a different color; red lines signify boundaries between ahupuaʻa) (Source: IslandBreath.org)

Famed for its ability to withstand repeated incursions from Kamehameha I, it is commonly said among Hawaiians, “Kaua‘i never conquered.” Well protected by the Kō‘ie‘ie Channel that lies between Kaua‘i and O‘ahu, the Ali‘i Aimoku of Kaua‘i, Kaumuali‘i, maintained Kaua‘i (Figure 12) as a separate and sovereign Kingdom until Kaumuali‘i and Kamehameha mutually and diplomatically resolved to have his territories of Kaua‘i, Ni‘ihau and Lehua Islands join Kamehameha’s Hawaiian Kingdom in 1810.

Today there are approximately 70,000 residents on Kaua‘i. While there are six moku on Kaua‘i, stakeholder engagement generally occurs along the modern legislative and/or school district boundaries. “North Kaua‘i” generally includes the areas from Hā‘ena to Kapa‘a; “Central Kaua‘i” generally includes Kapa‘a to Koloa; “West Kaua‘i” generally includes Koloa to Polihale. On Kaua‘i, the best mechanism to engage with the community is through local nonprofit and other community organizations, including the list of NHOs and ocean use groups described previously.

11 Ni‘ihau

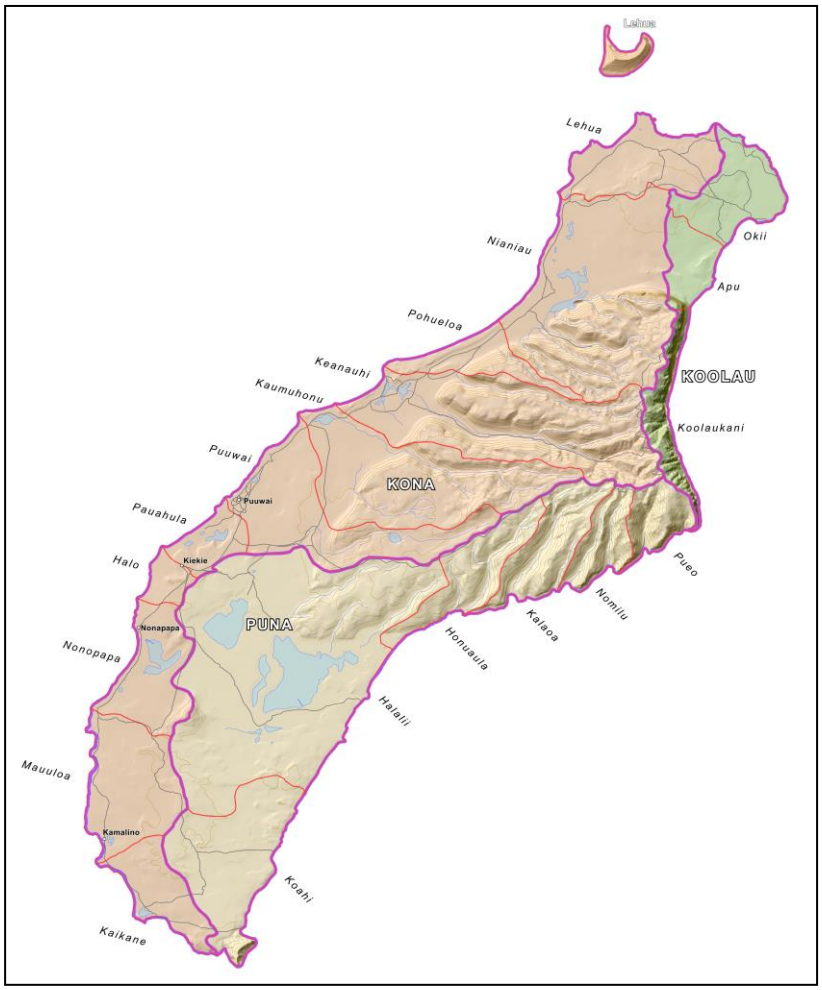

Figure 13: Land divisions of Ni‘ihau (each moku is represented by a different color; red lines signify boundaries between ahupua‘a) (Source: IslandBreath.org)

Niʻihau (Figure 13) is a gateway. Its unique ecological features make it a gateway to the vast Northwestern Hawaiian Islands, and its exceptional cultural and heritage resources make it a link to the greater Pacific. Protected by the Sinclair (now Robinson) family since it first came into their possession after its purchase from King Kamehameha V in 1864, this privately owned island is the last true stronghold of traditional culture and custom in Hawaiʻi. There are no stores, no cars, no roads, and no Internet on the island. The residents, of which there are now less than 150, speak a rare dialect of the Hawaiian language preserved by the Niʻihau people for generations. Fishing and hunting are essential to their survival.

While part of Kauaʻi County, Niʻihau's small population's interests are often not well represented by the political system considering the overwhelming number of voters that reside on the neighboring island of Kauaʻi. There is a history of conflict with non-Hawaiian fishermen from the west side of Kauaʻi who seek to encroach upon the fishing areas and coastal gathering areas traditionally utilized by the Niʻihau residents.

Consultation with the Niʻihau residents should be coordinated directly with the landowners, who provided input and access to residents throughout this process.

12 Additional Meeting Best Management Practices

12.1 Location and Time of Meeting

Meetings should be held in locations most convenient for communities, i.e., a local church, community hall, etc. It should be a place the community knows and in which the community feels comfortable. It should be accessible for the elderly, and friendly for families with young children. There should be food, drinks, and restrooms. Like with many native communities, sharing of food has cultural significance and value. Although typically not paid for by federal funds, anyone wanting to make a good impression on the community should find a way to have food available as a gesture of good will. It should be a comfortable environment, i.e., air conditioned if it's hot or covered if it's raining.

Meetings should be held at a time when people can attend, i.e. not during the work day. Communities are already over-burdened by community meetings. Ideally, they should be held during the week after work and kept short, no more than 2-3 hours if possible. Start meetings late enough that people have time to get their children home from school or take care of their afterschool or after-work obligations, but do not start so late that people will get home very late. The cardinal rule is that people want to know that their time is honored and respected.

If it is necessary to schedule a long meeting, hold it on a Saturday (with a selection of food and drinks available) because many people reserve Sundays for church. Give people enough notice (at least a month or more, if possible) to plan.

12.2 Agenda and Ground Rules Development

As seen in the case studies, individual communities have unique personalities and perferences. It is critical to have an understanding of those nuances prior to engaging with these communities. Agendas should be developed with an appreciation for community interests, potentially building the agenda cooperatively. The goal is to respectfully acknowledge native and local knowledge of cultural and natural resources, which outside agencies will likely lack. Agendas should also allow for ample discussion time and imput from community members. Community members should feel like it has been worth their time to attend. Meetings where agency officals do the majority of the speaking or presenting, or meetings in which community input is largely controlled (i.e., limited to a few minutes per participant) often leave participants feeling marginalized or disregarded. A quality engagement will engender both thoughtful dialogue resulting in quality data and healthy relationship with the local community. Therefore, how the agenda is built becomes a critical element to the quality of data and future relationship with the community.

Additionally, ground rules in meetings should also be communally and mindfully set. Local cultural protocols are important. Customs regarding the treatment of elders, children, food, and speaking can all differ based on culture. It is important for agency officials to appreciate those cultural customs prior to coming into the community, so they can anticipate any conflicts. This is also an important mechanism to helping community members collectively vest in how meetings will function. Community rules also help in the event that individual members choose to become disruptive. In such an occurrence, the whole group becomes responsible for enforcing the communally crafted rules.

12.3 Use of "Experts" and Community Facilitators

Another highly sensitive issue identified during the inter-island meetings is the use of the term "experts." In many cases, indigenous or native peoples have been historically marginalized from consultation processes by their lack of formal education and professional credentials. For example, the Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation Professional Qualification Standards (36 CFR Part 61) by in large do not take into consideration ancestral or traditional knowledge, even in matters that significantly impact native communities. The exception to this is National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties (NPS 1990), which identifies the following professional qualifications for an ethnographer:

> When seeking assistance in the identification, evaluation, and management of traditional cultural properties, agencies should normally seek out specialists with ethnographic research training, typically including, but not necessarily limited to:
>
> I. Language skills: it is usually extremely important to talk in their own language with those who may ascribe value to traditional cultural properties. While ethnographic fieldwork can be done through interpreters, ability in the local language is always preferable.
> II. Interview skills, for example:

- The ability to approach a potential informant in his or her own cultural environment, explain and if necessary defend one's research, conduct an interview and minimize disruption, elicit required information, and disengage from the interview in an appropriate manner so that further interviews are welcome; and
- The ability to create and conduct those types of interviews that are appropriate to the study being carried out, ensuring that the questions asked are meaningful to those being interviewed, and that answers are correctly understood through the use of such techniques as translating and back-translating. Types of interviews normally carried out by ethnographers, one or more of which may be appropriate during evaluation and documentation of a traditional cultural property, include:
  - semi-structured interview on a broad topic;
  - semi-structured interview on a narrow topic;
  - structured interview on a well defined specific topic; open ended life history/life cycle interview; and
  - genealogical interview.

III. Skill in making and accurately recording direct observations of human behavior, typically including:
- The ability to observe and record individual and group behavior in such a way as to discern meaningful patterns; and
- The ability to observe and record the physical environment in which behavior takes place, via photography, mapmaking, and written description.

IV. Skill in recording, coding, and retrieving pertinent data derived from analysis of textural materials, archives, direct observation, and interviews.

Proficiency in such skills is usually obtained through graduate and post-graduate training and supervised experience in cultural anthropology and related disciplines, such as folklore/folklife.

The Native Hawaiian Cultural Landscape process should integrate these qualifications into its process via the following mechanisms:

I. Language skills:
- The ability to communicate in native languages and/or local dialects, such that local communities are put at ease during consultation processes;
- Any written communications are also in native languages and/or local dialects, such that local communities have access to these communications and that they are true, accurate and complete as to the interactions that took place; and
- Native language caches are fully and appropriately utilized as a research resource when identifying the best data available from which to make decisions.

II. Knowledge of and experience with the local community:
- The ability to demonstrate a cooperative working relationship with the community;

- Extensive knowledge about the different stakeholder groups within the geographic area such that cultural or lineal descendants are not excluded from the process; and
- Subject matter expertise in that geographic area, or subject matter area as recognized by the Hawaiian community, which is not necessarily determined by a formal education or professional experience.

III. Background and expertise in natural heritage[7]
IV. Background and expertise in cultural heritage (both tangible and intangible)[8]

12.4 Decision-Making

Both in the focus groups and in the case studies, the importance of decision making was repeatedly emphasized. Communities and stakeholders frequently expressed frustration over a lack of authority in the actual decision making process or a lack of access to any agency official with the decision-making authority. Therefore, whatever process is designed must be clear as to where the decision-making authority lies and to create opportunity to share in the decision-making authority with the community or stakeholders, if possible. Community members and stakeholders were particularly vocal that they were not interested in participating in processes where they were part of just "checking a box," i.e., engaging in a community process if the decision was already made or if the project was going to be approved even if the community expressed legitimate opposition. This element simply emphasizes the role of the community as a genuine partner in projects, and embracing the community in decision making serves as the ultimate gesture of trust and shared respect.

12.5 Records and Information-Sharing

Traditional knowledge (TK) as viewed by indigenous people is a cultural resource belonging to or associated specifically with an individual or a group. In the Native Hawaiian culture, the boundaries of communities may not simply be "ancestral" (Hawaiian), but rather further refined (i.e., by island, moku, ahupua‘a, community, or family). For example, when a kupuna (elder) passes away, their stories or songs are culturally considered the property of their descendants and not the Native Hawaiian community at large. Native Hawaiians have become very mindful about sharing their knowledge and are very aware of its historical misuse and misappropriation. It is not common or public property to be shared in the information marketplace driven by the Internet or other media. The disposition of information about culture, past and present lifeways, and cultural practices is of paramount importance in negotiating consultation and project protocols.

Some types of Native Hawaiian or local information may be culturally privileged or otherwise controlled or regulated, often by gender, age, or cultural norms. Hence sharing knowledge with community members may be contrary to local practices. According to guidelines of the NRHP, "culture" is understood to mean the traditions, beliefs, practices, lifeways, arts, crafts, and social institutions of any community (NPS 1990). The sharing of knowledge of any of these types of information may be restricted to within the Native Hawaiian Community. Native Hawaiian culture, in general terms, is uniquely and inextricably tied to place; any of the items listed above may also imbue a place with special meaning. The traditional cultural significance of a historic

property is derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

Examples of such locations include:

- A location associated with the traditional beliefs of Native Hawaiians (i.e., origins or cultural history, or the nature of the world).
- A location where Native Hawaiian religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice.
- A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.
- A location that is intentionally avoided by an indigenous community, for example, because of its association with certain traditions, events, or revered beings/powers.

TK may be similarly privileged or otherwise controlled or regulated by gender, age, and other cultural constraints within the community (WIPO n.d.). Although the term Traditional Ecological Knowledge is commonly used, we use the term Traditional Knowledge synonymously, to avoid reinforcing the non-existent divide between cultural and natural resources. The non-indigenous definition of TK is "a cumulative body of knowledge, practice and belief evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment" (USFS 2011). Indigenous ways of knowing about the environment differ fundamentally from those of most non-indigenous or industrialized societies. The non-indigineous paradigm places humans at the top of a hierarchy of nature, implying that humans are separate from the environment. This leads to the treatment of other living things almost exclusively as resources to be used to meet human needs, wants, and desires. The indigenous paradigm tends to posit humans as inseparable from the environment, with responsibility to steward the environment for future generations.

Each ahupua‘a is unique, influenced by its local environment, as is its knowledge. Agencies' scientific and resource management responsibilities can be greatly enriched through the incorporation of traditional or local knowledge. This knowledge can be shared through the consultation process, as well as through less formal collaboration. These interactions can help agency staff identify individuals who hold such knowledge as well as the opportunities to ask whether and how this knowledge may be shared.

The roles of facilitators are critical. The reality is that any large project is likely to have multiple people "facilitating" on behalf of different groups. Each of those people become quite critical to the success of the project, as they each need to be able to successfully work through complex community issues. Should any one key "facilitator" fail to work effectively with the community or key stakeholders, he or she is likely to engender considerable opposition to the project.

The following table outlines the roles of different facilitators, organized by the employer of the facilitator. Table 4 includes the best practices and the practices to avoid in order to ensure efficient and successful facilitation.

Table 4: The roles of facilitators based on the agency of employment

Employed by	Best Practices	Practices to Avoid
Agency	• Manage expectations; • Allocate sufficient resources to meet, consult and research; • Work in a timely fashion; • Do not let government bureaucracy harm the community or the relationship with the community; • Memorialize understandings / consensus; • Be patient.	• Create unrealistic expectations; • Fail to hold project accountable; • Fail to listen to NHOs / Community; • Fail to address / redress serious issues immediately for fear of response; • Look to just "check off box" in consultation; • Antagonize community members unnecessarily.
Independent Contractor	• Possess subject matter expertise (preferably a cultural expert or some other qualified expert[9]); • Give clear explanation as to who funds their position; • Have experience with that area and community leaders in that area; • Be well respected in that community.	• Be over opiniated in the process; • Fail to be innovative in problem solving; • Fail to be a good guide to all the parties; • Fail to make the process an amicable one for all the parties.
Project	• Give clear explanation as to his/her position and role; • Manage expectations; • Build good working relationship; • Work community into decision-making as much as possible.	• Fail to follow through on commitments; • Make promises you cannot keep; • Fail to be proactive in communication.
NHO	• Work in good faith; • Communicate effectively; • Give clear explanation as to agenda, if any, of group.	• Fail to work in good faith; • Have a hidden agenda; • Fail to listen and work cooperatively.

In a small place like Hawai‘i, relationships and reputation are critical. Communication transmits differently through the community – very similarly to a small town – and a community's sentiment about a project will travel quickly. There really is not much of an opportunity to make a second impression in Hawai‘i. This is why selecting the right facilitator or the right consultants to work with the first time around are so critical. The majority of people in Hawai‘i dislike conflict, and if they see conflict early (which often happens as the result of the wrong facilitator), they are going to shy away from supporting a project. If the public pulls away, the State will pull

away. This is why reaching out to Native Hawaiian communities at the earliest possible time is essential.

Culturally sensitive information may sometimes be publicly available. However, respect for the nature of this information must be demonstrated when consulting with Native Hawaiians. It will not always be possible to know in advance what type of information is culturally sensitive, and Native Hawaiians will not necessarily be willing or able to speak of such information to agency representatives. While this poses challenges, awareness that there is likely to be culturally sensitive information, and respect for the privileged nature of this information will help foster productive relationships with Native Hawaiians (NOAA 2013).

The NHCL project deliberately stipulated community control over cultural information in all fundamental agreement documents and contracts. The project team incorporated confidentiality language into both the Interagency Agreement and the contracts.

13 Additional Considerations

Understand Native Hawaiian Culture Prior to Engagement:

1. Research the Native Hawaiian culture. "Culture" comprises how a group's worldview influences their behavior. This includes historical governance structure, food preferences, spiritual practices, natural resource values, wealth, family structure, education system, etc.

2. Research Native Hawaiian history and its current and historical relationship to the Federal government. Books, tribal newspapers, websites, and other documents can provide information on the Native Hawaiians' historical relationship with the Federal government. It is important to be aware of any relevant conflicts, wars, treaties, executive orders, case law, and statutes, and how these have evolved over the years.

3. Understand what is and what is not appropriate within Native Hawaiian culture. Observation, reading, and discussions with designated NHOs or communities can provide pertinent information about the Native Hawaiian culture and help minimize cultural missteps. An initial phone call to a point of contact (such as SHPD, local community representative, etc.) can provide a better opportunity for introductions and can help lay the groundwork for an initial formal meeting. Be aware of the decision-making process: not all Native Hawaiian communities use the same process to make decisions. Many elders may be passive in their approach and opposition may be shown by silence rather than through vocalizing opposition.

4. In meetings, be aware of protocols related to prayer, food, and gift-giving, and be prepared to act accordingly. Entrance or welcoming protocols, pule (prayer), food, makana (gifts, honorarium) and other protocols are very important in Native Hawaiian meetings. It is important to understand these prior to entering a community for the first time.

5. Understand the Native Hawaiian perceptions of time and allow enough time to form an ongoing relationship. Perceptions of time vary across cultures. The agency time rhythm is typically based on non-indigenous culture, which may differ from an indigenous time rhythm. Agency staff should be aware of differences and work to accommodate schedules when time horizons seem to be out of sync. Likewise, agency staff should be clear with contacts about any exigent circumstances driving the agency's timing for action. It may also be important to consider subsistence schedules and preparation times before consultation begins.

Project Planning:

1. Budget resources and time for building relationships before decisions are made. Establish the formal and informal preliminary contacts and the appropriate authorities needed for proceeding. In many federal-NHO interactions, this phase is typically overlooked in sets of procedures guiding the formation of working relationships. Take time to assess and define roles, organizational attributes, and explicit procedures.

2. Work toward building community capacity. Building institutional capacity should be a fundamental goal of the project within not only the office of the SHPD/NHOs, but also among the entire community and Hawai‘i's cultural and natural resource departments, and other partners. With this in mind, funding for the NHCL project accounted for necessary staffing, logistics, and supplies, as well as ongoing technical assistance necessary for the completion of the project.

3. Establish procedural neutrality when conducting meetings and workshops. Independent facilitators, personally and professionally qualified by their experience with Native Hawaiians, State Government and indigenous cultures, should be included as members of the project team in order to guide the process and facilitate meetings and workshops.

Consultation and Collaboration:

1. Understand Native Hawaiian authority and representation. In any situation, understanding both formal and informal authority is profoundly important. Representation and authority can be nested in many layers: Who speaks for "culture"? Who speaks with the legitimate authority of government? Who possesses culturally-appropriate credentials, whether from the culture of academe or the culture of an oral tradition? Who speaks for the past or the future?

2. Respect Native Hawaiian sovereignty, self-determination, and protocols. Native Hawaiians must maintain discretionary control over their means of reaching the project outcomes according to their own cultural values and norms.

3. Respect community representation of cultural interests and practices. Community leaders, cultural experts, and Native Hawaiian community members all legitimately represent community interests. The lack of formal U.S. political status often makes identifying Hawaiian "authority" figures in the Hawaiian community very challenging, and

identifying a "cultural" authority figure is even more challenging. In such cases, it is most advisable to seek out quality information than a quantity of information.

4. Keep agency leadership (or funding organization) apprised of developments. Agency representatives, often severely limited in their personal discretionary authority, need immediate and frequent access to managers, legal personnel, policy experts and signatory authorities. Decision-makers should be regularly briefed on project status, progress, and potential concerns.

5. Adapt current information in light of new information from Native Hawaiians. The engagement process should be refined when Native Hawaiian members and affiliates present information not typically used by agencies in decision-making. When community members and affiliates present divergent information to agencies, agency representatives should seek to clarify the divergent information with the governing body.

Endnotes

[1] "Area" should be defined as any ahupua‘a within the potential or prospective APE or ROI being considered for the project.
[2] It should be noted that both the state environmental impact assessment and archaeological impact survey laws are based on ahupua‘a, so this standard is not inconsistent with existing state law.
[3] Appendix I gives a full definition and qualifications of an NHO.
[4] In 1978, the Hawai‘i State Constitution was amended to include the following articles:

OFFICE OF HAWAIIAN AFFAIRS; ESTABLISHMENT OF BOARD OF TRUSTEES

Section 5. There is hereby established an Office of Hawaiian Affairs. The Office of Hawaiian Affairs shall hold title to all the real and personal property now or hereafter set aside or conveyed to it which shall be held in trust for native Hawaiians and Hawaiians. There shall be a board of trustees for the Office of Hawaiian Affairs elected by qualified voters who are Hawaiians, as provided by law. The board members shall be Hawaiians. There shall be not less than nine members of the board of trustees; provided that each of the following Islands have one representative: Oahu, Kauai, Maui, Molokai and Hawaii. The board shall select a chairperson from its members. [Add Const Con 1978 and election Nov 7, 1978]

POWERS OF BOARD OF TRUSTEES

Section 6. The board of trustees of the Office of Hawaiian Affairs shall exercise power as provided by law: to manage and administer the proceeds from the sale or other disposition of the lands, natural resources, minerals and income derived from whatever sources for native Hawaiians and Hawaiians, including all income and proceeds from that pro rata portion of the trust referred to in section 4 of this article for native Hawaiians; to formulate policy relating to affairs of native Hawaiians and Hawaiians; and to exercise control over real and personal property set aside by state, federal or private sources and transferred to the board for native Hawaiians and Hawaiians. The board shall have the power to exercise control over the Office of Hawaiian Affairs through its executive officer, the administrator of the Office of Hawaiian Affairs, who shall be appointed by the board. [Add Const Con 1978 and election Nov 7, 1978]

[5] The Office of Native Hawaiian Relations was established by Congress in PL 108-199 in 2004 and in PL 104-42 in 1995. The Office discharges the Secretary's responsibilities for matters related to Native Hawaiians.
[6] While for many years Hawai‘i Island has been referred to as "the Big Island," it is widely considered inappropriate, even hurtful, by Native Hawaiians to refer to Hawai‘i Island this way. The preferred term is "Hawai‘i Island" or "Moku o Keawe" (the Island of Keawe).
[7] There are a range of excellent resources on natural heritage available to build local capacity, such as the UNESCO World Heritage Natural Heritage Strategy (UNESCO 2006) or Washington State's Natural Heritage Program (DNR n.d.).
[8] Further information on cultural heritage can be found at the UNESCO Intangible Cultural Heritage website or at the NPS website on Tangible and Intangible Cultural Heritage.
[9] Some Section 106 Programmatic Agreements have begun to require contractors to be qualified under the Sectretary of the Interior's Professional Qualification Standards set forth at 36 C.F.R. part 61 for preservation professionals in the areas of history, archaeology, architectural history, architecture or historic architecture, and this requirement has been helpful in numerous cases in helping agencies meet their legal mandates while helping communities navigate complex federal regulations.

References

DHHL (Department of Hawaiian Home Lands). 2017. Homestead Associations [Internet]. [cited 2017 May 3]. Available from http://dhhl.hawaii.gov/homestead-associations/

DNR (Washington State Department of Natural Resources). n.d. Natural Heritage Program [Internet]. Olympia (WA): Washington Natural Heritage Program; [cited 2017 May 3]. Available from http://www.dnr.wa.gov/natural-heritage-program

DOI (U.S. Department of the Interior), Office of Native Hawaiian Relations. 2014. Advance notice of proposed rulemaking [Internet]. [cited 2017 May 3]. Available from https://www.doi.gov/hawaiian/reorg

DOI (U.S. Department of the Interior), Office of Native Hawaiian Relations. 2016. Native Hawaiian Organization List [Internet]. [cited 2017 May 3]. Available from https://www.doi.gov/hawaiian/NHOL

Kamehameha Schools. 2008. Moku o Waialua North Shore Plan: Paʻalaʻa to Kāpaeloa [Internet]. [cited 2017 May 3]. Available from http://www.ksbe.edu/nsplan/

Mele.com. 2017. Halau hula (hula schools) [Internet]. [cited 2017 May 3]. Available from http://www.mele.com/resources/hula.html

NOAA (National Oceanic and Atmospheric Administration). 2013. NOAA procedures for government-to-government consultation with federally recognized Indian tribes and Alaska native corporations [Internet]. [cited 2017 May 3]. Available from http://www.legislative.noaa.gov/policybriefs/NOAA%20Tribal%20consultation%20handbook%20111213.pdf

NPS (National Park Service). 1990. Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Register Bulletin 38. Washington (DC): U.S. Department of the Interior.

OMKM (Office of Maunakea Management). 2009. Mauna Kea Comprehensive Management Plan: UH Management Areas. Honolulu (HI): University of Hawaiʻi.

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2006. The UNESCO World Heritage Centre's Natural Heritage Strategy [Internet]. [cited 2017 May 3]. Available from http://whc.unesco.org/en/naturalheritagestrategy/

USFS (U.S. Forest Service). 2011. Traditional Ecological Knowledge: Sustaining Our Lives and the Natural World. Newtown Square (PA): U.S. Department of Agriculture.

WIPO (World Intellectual Property Organization). n.d. Traditional Knowledge [Internet]. [cited 2017 May 3]. Available from http://www.wipo.int/tk/en/tk/

Appendix 3: Native Hawaiian Land Terms

Glossary of Terms

The following glossary contains terms, ʻōlelo noʻeau (proverbs), and documents that are essential to understanding the complexity and depth of Native Hawaiian culture as well as interpreting Hawaiian land-conveyance documents of the past. This glossary was compiled using Lucas' *A Dictionary of Hawaiian Legal Land-Terms* (1996).

ʻAʻai	Erosion; the action of the surf at high tide when dashing to shore and then receding, thus wearing away the gravel.
Ahi ʻai honua	Volcano or volcanic fire.
Ahu	1) A pile of stones used as a marker. 2) Altar shrine cairn. 3) To store or collect; a head of stones as a way mark or memorial.
Āhua	1) Any place elevated in the manner of a high path; a bank in the sea; a bank formed by the sand at the mouth of a river; a ford; a place for passing a stream or river; a hillock. 2) A mound or small hill. 3) Heap of stones. 4) Smaller in size than a puʻu, a rise in the land or hillocks. 5) A high spot on a ridge.
Ahupuaʻa	1) Land division usually extending from the uplands to the sea, so called because the boundary was marked by a ahu (heap) of stones surmounted by an image of a puaʻa (pig), or because a pig or other tribute was laid on the altar as tax to the chief. The landowner or owner of an ahupuaʻa might be a konohiki. 2) The altar on which the pig was laid as payment to the chief for use of the ahupuaʻa land.
ʻAi ʻili loko	1) To control the interior land division of an ʻili (land section). 2) To have use of a fishpond. 3) To have or possess a division of land less than an ahupuaʻa; to have the use of sea fisheries or fishponds subject to haku ʻāina (land owner).
ʻĀina	1) Land. 2) The exposed surface of the earth as opposed to the oceans and seas, i.e. land; a county or district, large or small, i.e. a pasture, farm or field; land surrounded by water, i.e. and island; a continent or mainland, as distinguished from an island. 3) A farm or field. 4) Tract.
ʻĀina ʻāpuʻupuʻu	A hilly region.

ʻĀina hana paʻakai	Salt-making land.
ʻĀina hānai holoholona	Pastoral land.
ʻĀina hānai holoholona me mahiʻai	Pastoral agricultural land.
ʻĀina hānau	Native land, homeland.
ʻĀina kula	1) Field. 2) Flat, tillable land.
ʻĀina paʻa	Land lived on by an ʻohana (family) for several generations.
ʻĀina ulu lāʻau	Forest lands.
ʻĀina wai	Wet land.
Ala	A path, road, way or trail.
Alaʻalai	1) Type of taro patch built on artificial mounds, known near Hilo as Kipi. 2) Large hills or mounds for planting, in taro patches where the water and mud are deep.
Ala ʻau	A road or trail that goes through a stream.
Ala hele	1) Pathway. 2) Right of way.
Ala hula	1) A frequented and well-known path. 2) A thoroughfare or place much frequented. 3) A road made on a hill or precipice on which a stranger cannot go, only traveled by residents. 4) A place where it is necessary to swim past a cliff that intercepts the passage along the beach. 5) To make a road through one's house or farm by constantly passing through it. 6) To repair too often.
Alakai	A path where one must swim around a projecting cliff or bluff.
Ala kuʻukuʻu	Place for climbing a cliff, usually with ropes.
Alaloa	1) Main public pathway. 2) Belt road around an island, highway. 3) A road that extends all around an island or for a considerable distance. 4) Long road. 5) A highway; a path; a way open to the public; a main road.
ʻAlē	Marshy; marsh, swamp.
ʻAle	A wave; the crest of a wave.

‘Ale‘o	A place from which one looks out; a watch tower.
Ālialia	1) Salt drying. 2) A salt bed or salt-encrusted area; brackish, salty water area. 3) A bed where salt is dried; ground which is smooth, dry and barren, as that which is baked in the sun, or impregnated with salt.
‘Alihi	The horizon on the sea.
‘Alihilani	The horizon.
Alo lua	Facing one another, as cliffs on opposite sides of a valley.
‘Āluka moku	Group of irregularly lying islands.
Anapuni	1) Boundary, circumference, perimeter. 2) Encircle. 3) The boundary line of a circle, circumference; the bounding line of any plane figure; external boundary; perimeter.
Anemoku	Peninsula.
Ao akua	1) A lonely place, generally barren and secluded. 2) An unfrequented region supposed to be the haunt of spirits. 3) A desolate place. 4) An uninhabited or haunted locality. 5) A desert.
‘Ao‘ao	1) Boundary. 2) Side, boundary. 3) Any one of the bounding lines of a surface. 4) Party. 5) Defense; branch; positions. 6) A way, habit or manner peculiar to one’s life; a mode of living; a course of life.
‘Ao‘ao ‘ākau	Right or leeward side of an island.
‘Ao‘ao makani	Windward side.
‘A‘ole ho‘i e ho‘opō‘ino i ka ‘āina	Not to cause damage to the land.
‘A‘ole na‘e i mea kū‘ai i mea e waiwai ai ‘o ia	Not for sale or personal gain.
‘Āone	1) Sandy, sandy soil. 2) Loose earth, whether mixed with sand or not; fine dirt, resembling the grains of sand; fine rock material mixed with decayed vegetable or animal matter; loose soil.
‘Āpa‘a	1) A strong steady tradewind; name of a region or section of land on the side of the mountain below the wao kanaka (inland region where people live or occasionally frequent). 2) Land one has lived on for a long time; dry; arid land. 3) Area below the wao kananka region.

ʻĀpapa	1) Stratum, flat, especially of a coral reef. 2) A shallow place in the sea, usually a coral bed where fish abound.
Apoapo	To draw the earth about or over (plants) in mounds; to surround with earth; to hill up.
Au	1) A circular motion, such as cause by an eddy in a river or ocean; a continuous movement in the same direction in the midst of the ocean; a tide; a current. 2) Any area for taro cultivation. 3) A term applied to a tract of land inshore, suitable for cultivation, as distinguished from kākaha (a narrow strip bordering on a sea coast, usually barren land not adapted to food production); a place; a region; a district; a country. It is seldom used as a separate word, but generally as a prefix to some other qualifying or limiting word, e.g. he ʻauakua, a place of gods.
A uka	Up to the shore or land; to or as far as the shore or land; up to the interior of land; as far as inland; up to or toward the mountain; to or as far as the mountain.
Aukaka	1) Deep coral bed with overlapping ledges where fishes hide. 2) A definite locality or spot far out at sea, usually a coral bed with overlapping ledges where fish abound; a fishing ground in deep sea.
Aukanaka	1) Inhabited place; settlement. 2) A regular or settled place of living; one's dwelling place; a settlement; a cluster of houses in the country; a little village; a hamlet; an area of country inhabited by a group of people; a thickly populated locality.
Āukauka	Inland fishing grounds, identified by lining up with landmarks ashore.
Aukū	1) A road or path leading uphill. 2) A shallow stream.
Awa	1) Harbor. 2) Ocean channel or passage, as through a reef. 3) Cove. 4) A port or haven for ships; a landing place; a harbor; an entrance, as between two coral reefs, for canoes and other light craft.
Awāwa	1) Valley, gulch. 2) Any deep place lying lengthwise. 3) Ditch, furrow. 4) Any depression that extends inland. 5) A depression of the earth's surface; level or low lands between hills or mountains; a valley.
Buke kuleana o ke aupuni	Government land awards book (book which contains all of the parcels awarded by the Board of Commissioners to Quiet Land Titles).
Haʻakoaʻe	Cliffs where koaʻe (tropicbirds) nest; an inaccessible cliff.
Hāhā paʻakai	A salt bed or pool; a place where salt is produced by evaporation of the sun.

Hāho‘oili	Established people with inherited land.
Hakiona	Dry land patch cultivated by native tenant of an ahupua‘a smaller in size than a kō‘ele (a small land unit farmed by a tenant for the chief).
Hakupa‘a	A newly made wetland taro patch.
Hālelo	1) Jagged, rocky; rocks. 2) Jagged – having sharp protuberances like lava.
Halelua	A cave in the side of a hill used as an abode; a grave; a house over a grave or a vault for reception of the dead.
Hale pule	A prayer house; a house of worship; a meeting house.
Hale puna	House built of limestone or coral.
Hale pupupu	A makeshift house or dwelling place – as a shed, tree, hedge, lee side of a rock, etc.
Hāloko	1) Puddle, pool, pond. 2) A puddle or water standing after a rain; a small pool of water.
Hāloko i‘a	Small fishpond.
Hālokowai	A pool of fresh water; a small lake.
Hānonono	A small stream that overflows with water in the rainy season, but is dry in the summer.
Hāpapa	1) Shoal; shoal water, coral flat; rock stratum covered with thin earth. 2) Shallow – as earth above the rock.
Hāpuna	1) A shallow spring, which furnishes clear water; a pool of water fed by a spring. 2) Spring pool, puddle.
Hā wai	1) Aqueducts. 2) Water course, water trough or pipe, flume. 3) A trough or pipe for holding or conveying water.
Hena	Slope, as a hill.
He nalu	A surf; a rough sea.
Hoa ‘āina	1) Tenant residing within an ahupua‘a. 2) Native tenants. 3) Members of a hui (group).
Hoa hanauna	1) Relatives of one’s own clan, tribe or nation. 2) Relatives of one’s own generation.

Hōʻai ʻāina	To award land.
Hoalu	A gulch.
Holowai	Water ditch or course.
Home noho paʻa	Permanent home.
Hōnea	Mud or earth deposited by water.
Hono	1) Prefix for bay, gulch, and valley. 2) A place where the wind meets some obstruction and is reflected back; a cave or bay; a sheltered spot on the sea; a sheltered place. 3) A brow of a cliff. 4) A joining, as of mountains.
Honokaʻa	1) Place at or near the seashore provided with caverns, which serve as shelters from danger or distress. 2) Cavern, sea cave.
Honua	1) Flat land, not hilly. 2) Flat land, land of an even or level surface in distinction from hills and mountains. 3) In geography, the earth generally, including sea and mountains. 4) A foundation; a resting place. 5) The bottom of a deep place, as of the sea or pit; bed of a body of water.
Hoʻoʻauwaha	To plow; to make a long ditch; to dig a furrow.
Hoʻohalepapaʻa	To convert a structure into a storehouse; to arrange for a place to store goods or provisions.
Hoʻokahe	To water; to cause water to flow over land; to cause to flow, as a liquid; to irrigate.
Hulaʻana	1) A sheer cliff with the deep blue sea at its base. 2) Sheer cliff where the sea beats against it, usually necessary to swim around such cliff because it blocks such passage along a beach or coast. 3) A place where one must swim to pass a precipice that projects into the sea.
Hūpunawai	Standing water; a collection of water; the overflow of a spring.
Iho wai	Descent of water, as a stream.
Īkā	1) Sides of a taro patch. 2) Term used for boundaries marked along edge of a plot where grass and weeds are thrown out.
I kai	Towards the sea.

ʻIli	1) A subdivision of land. 2) A small district of land, smaller that of an ahupuaʻa (not necessarily all of one piece, but might consist of a number of detached lele or "jumps". 3) The total land area of a certain parcel. 4) Square, as in measurements.
ʻIli ʻāina	1) Land area; an ʻili land division whose chief pays tribute to the chief of the ahupuaʻa of which it is a part of rather than directly to the king. 2) A division of land smaller that of an ahupuaʻa; subdivided in turn into moʻoʻāina.
ʻIli honua	Surface of the earth.
ʻIli kai	Surface of the sea.
ʻIli ku	Contraction of ʻili kupono. A nearly independent ʻili or division of land within an ahupuaʻa, tributary directly to the king and not, or only slightly, to the chief of the ahupuaʻa.
ʻIli kūpono	A nearly independent ʻili land division within an ahupuaʻa, paying tribute to the ruling chief and not to the chief of an ahupuaʻa. Transfer of the ahupuaʻa from one chief to another did not include the ʻili kūpono located within its boundaries.
ʻIli lele	Portion of an ʻili land division separated from the main part of the ili but considered a part of it.
Ilina wai	Place where a stream goes underground.
ʻIli paʻa	An ʻili land division complete in one section as distinguished from an ʻili lele.
Kaʻele waʻa	Short pathways in gullies.
Kaha kaupale	Boundary.
Kaha one	Sandy beach.
Kahawai	1) Stream, ravine, streambed, wet or dry. 2) Area where water flows continuously. 3) A natural watercourse. 4) Brook. 5) Any deep place lying lengthwise. 6) Stream, creek, river, valley, ravine, gulch. 7) A brook, rivulet, a water course, any small stream; a ravine wet or dry; any channel formed by water or through which water flows.
Kāheka	Natural basin or shallow place on hardpan or rock; artificial basin or shallow pond where salt is evaporated from the salt water of the sea.
Kahenawai	Flowing of water; a brook; running water.

Kahi	1) Place, location. 2) Land.
Kahi e komo ai	Ingress; entrance.
Kahi koʻokahi	The same place or area.
Kahi kaʻawale	1) Unoccupied parts of land. 2) Empty space or place; secluded or isolated place.
Kahi malu	Shady or protected place.
Kahonua	The side or bank of a water course; the bank or footing on the border of a stream.
Kahu	1) Superintendent or caretaker. 2) Companion servant. 3) Trustee. 4) Guardian. 5) An honored or upper servant; a keeper; a provider. 6) A guardian or nurse for children.
Kahua	1) Prepared foundation of a house or an open space. 2) Foundation, base, site, locations, grounds, platform as of a house. 3) Bed of a stream.
Kahua hale	1) House lot, house foundation or site. 2) The foundation of a house; a town; a village; a cluster of houses.
Kahua kula	School site.
Kahu hānai	Guardian that cares for, raises and feeds an individual entrusted to him or her.
Kahu mālama	1) Custodian, caretaker. 2) Guardian; guardianship.
Kahuwai	1) One who has the charge or oversight of the division of water. 2) Water superintendent.
Kai	1) Sea or salt water; seawater; flood. 2) Area near the sea, seaside, lowlands.
Kai hāloko	Sea that extends inland and is almost surrounded by land.
Kai hī	1) Area where sea flows into a loko kai (lagoon). 2) Flowing sea, especially one that goes through a sluice gate into fishponds.
Kaikā	1. A cultivated piece of ground; on wetland, the word designates the border of taro patches 2. Cultivated patch; bank of a taro patch.
Kai kū ono	1) Sea that extends inland but is open on one side. 2) An inlet or bay. 3) A gulf, a creek, an inlet of water into the land.

Kai paʻakai Sea that evaporates in the sun.

Kai puhi A blowhole, where waves break in a cave or crevice and blow out forcibly.

Kai puhi lala Sea with meeting diagonal waves; sea blowing diagonally.

Kakapa 1) Edge, border. 2) A small strip of land adjoining a larger piece of land belonging to another person; the outside bank of taro patch.

Kalana 1) County. 2) Land division smaller than a moku, and this term appears to have only been used on certain islands. 3) The name of a division of an island synonymous with ʻokana (sub district, usually comprising several ahupuaʻa).

Kālawa 1) The curve of the seashore. 2) A place where a bend in the road comes again to a straight line. 3) Curve, as in the road or along a beach.

Kālawa kahaone Area near the sea, makai (seaward) of a village or a group of houses.

Kālua 1) Sinkhole, pit. 2) A path or road leading downhill; a slope; descent.

Kamaʻāina 1) Native. 2) Inhabitant. 3) Native born, one born in a place. 4) A native born in any place and continuing to live in that place; one belonging to a land and transferred with the land from one landholder to another; the present residents in a place; a citizen, especially one of long standing. 5) Acquainted.

Kanaka 1) People. 2) One who had the right and should participate in the disposition of property of an estate. 3) A man; the general name of men, women and children of all classes in distinction from the aliʻi (chiefs); people in general. 4) Human being, man, person, individual, party, mankind, population; subject, as of a chief; Hawaiian.

Kanaka maoli Indigenous.

Kanawai 1. Law; originally related to rules governing water. 2) Law, code, rule, statute, act, regulation, ordinance, decree, edict, legal. 3) An edict; a command of a chief; a legislative enactment; to put under the law; to forbid a thing to be done; to obey a law.

Kaolo Path, trail.

Kapa 1) A bank, a shore, the side of a river, pond or lake. 2) The side of a taro patch, the side of a wood or land. 3) The side of a road.

Kapahaʻi The limit or boundary.

Kauhale 1) A small cluster of houses; a village. 2) A house or residence of a person; a place where a house has been or where one is to be.

Kauhuhu Edge of a precipice.

Kaulike Equality, justice, to balance evenly.

Kīkeʻekeʻe A winding or crooked path.

Kilo 1) Spotter for akule (*Trachurops crumenophthalmus*) fishermen. 2) To watch or look earnestly at for the purpose of discovering something.

Kilo iʻa To look as a fisherman looks into the water for fish.

Kīpāpali Cliff, brink, small cliffs, hilly.

Kōʻele 1) Small land unit farmed by a tenant for a chief residing in an ahupuaʻa. 2) A piece of land seized by an aliʻi while under cultivation by a serf or peasant. The peasant was required to keep it under cultivation, but the land and the crops went to the aliʻi. The work devoted to its cultivation was called hana po ʻalima, because Friday was the day generally given up to work for the aliʻi. 3) Refers specifically to a plot reserved for the exclusive use of the aliʻi; can be both wet and dry land areas under cultivation. 4) Small land unit farmed by a tenant for the chief; also hakuone; a small pond, reserved for a chief, where fish could be kept alive until required.

Kololio 1) Water that rushes along a stream. 2) A section of rushing water. 3) Same as kokololio, rapid flowing water. 4) Rapid movement of water around or between barriers.

Konohiki 1) Land agent appointed by the chief. 2) Headman of an ahupuaʻa land division under the chief; granted land or fishing rights often called "konohiki" rights. 3) An agent who manages the chief's lands.

Kuaio 1) A border or raised earth that marks the separating line between taro patches or cultivated fields. 2) Border or bank as between taro patches or cultivated fields.

Kuakua 1) A broad embankment between two wet patches, which was kept under cultivation. 2) Dry land patch cultivated by native tenant, smaller in size than a hakiona. 3) A small section of land.

Kuamoʻo Road, trail, pathway, frequented path.

Kuapā Wall of a fishpond.

Kuāuna	1) Bank of an irrigated taro patch. 2) Taro patch bank. 3) The term is derived from the fact that the banks were made solid when built by beating with the butt ends of coconut leaf stems. 4) Bank or border of a taro patch; stream bank.
Kuʻemakapali	The brow of a hill.
Kuene	1) Steward, treasurer. 2) To supervise, put in order.
Kuhiʻalaea	A certain class of priest of Lono, whose office it was to mark the limits of lands with ʻalaea (plant used for coloring).
Kūhōhō	1) Bottom of a steep decline. 2) Deep ravine.
Kula	1) Dry. 2) Dry land, grassland. 3) Upland. 4) Land having no water rights. 5) Plains place suitable for habitation; open country. 6) The country in the rear of the seashore, the open country back from the sea; the name of the region of a mountain near its base.
Kulakula	Untillable land; land unfit for cultivation.
Kula mala	Cultivated field.
Kūlana	1) The location of a house. 2) A place where many things are collected together, as a village; a garden.
Kūlanahale	A house site; a village; a cluster of houses; a town; a city.
Kūlana kauhale	1) Group or cluster of houses; city. 2) Village, town, city.
Kula o ke aupuni	1) Public school. 2) School, a place of instruction.
Kuleana	1) Interest, right, privileges. 2) A part, portion or right in a thing; ownership, a right of property which pertains to an individual; one's appropriate business; a small land claim inside another's land, that is a reserved right in favor of some claimant. 3) Right, privilege, concern, title, property, estate, portion, interest, claim, ownership; small piece of property within an ahupuaʻa.
Kuleana ma ka wai o kahawai	Water right.
Kumu lāʻau	1) Tree. 2) Wood, trees, timber, a forest, a thicket of trees.
Kumu pali	The base or foot of a cliff.
Kupa ʻai au	Native born, long attached to a place.

Kūpono	1) To be true, to be just. 2) Equitable; reasonable. 3) Honest, decent, proper, appropriate, satisfactory, rightful, right, just, fair, suitable, advantageous. 4) Signify; competent; eligible.
Kupuna	1) Grandparent; grand-uncle; grand-aunt. 2) Relative of grandparents' generation; ancestor.
Kuʻuna	1) Slope of a hill. 2) To pass down; descend. 3) Tradition.
Lāʻau	Wood, timber, tree, plant.
Lāʻau ahina	A dry tree.
Lae one	1) Sand point, cape or promontory. 2) Mound.
Lae pōhaku	Rocky point.
Lapa	1) Ridge usually on a steep side between two ravines or depressions. 2) A ridge between two depressions; a ridge of land between two ravines; the steep side of a ravine. 3) A high place or ridge that is narrow. 4) Rounded ridges that extend from the mountains or ridgebacks or hills. 5) Ridge, slope, steep side of a ravine.
Lapalapa	1) Many ridges, a cluster of hillocks. 2) Steep-ridged, many-ridged. 3) Ridge; abounding in ridges; a sharp ridge between two valleys; a cluster of mounds or hillocks.
Lawai	Stream or pond full of water; many streams; an abundance of water.
Lawaiʻa	Fisherman; to fish.
Lele	1) Two ʻili parcels within an ahupuaʻa that are separated from each other. 2) A detached lot or parcel belonging to an ʻili. 3) Outlying portion of an ahupuaʻa.
Lepo	1) Dirt, soil. 2) Dirt precipice. 3) The dirt, ground, dust, earth.
Lihi kaʻe pali	Edge of a cliff.
Lihi kai	Place on land where waves break and spread.
Lihi kai maloʻo	Low tide mark.
Lipi	1) Sharp edge on the summit of a precipice between two depressions; thin edge. 2) Sharp mountain ridge.
Loʻi	1) A single irrigated taro flat. 2) Wetland taro patch. 3) Irrigated terrace, especially for taro, but also for rice; paddy.

Loʻi ʻai	Taro patch.
Loʻi kalo	Irrigated taro patch.
Loko	1) Fish pond. 2) Pond, lake. 3) Water surrounded by land. 4) A pond; a lake; a small collection of water. 5) Pool.
Loko iʻa	Fish pond.
Loko kai	A lagoon, sea surrounded by land.
Loko kuʻi	Man-made saltwater pond.
Loko liʻu	Salt pond.
Loko ʻume iki	Shore fishpond with lanes leading in and out of the pond used for trapping fish and probably only used on Molokaʻi.
Loko wai	A freshwater lake or pond.
Lua hohonu	A deep pit or ditch.
Lua pele	1) Extinct craters, area beneath. 2) Volcano, crater. 3) A puʻu (hillock) on the top of a mountain, especially if it has a cavity on the top. A volcano itself, either in action or extinct.
Lua wai	A well of water.
Luna	1) Land agent of the king. 2) Foreman. 3) Land agent. 4) A headman of a land or plantation who gives orders. An executive officer of any kind, qualified by the added word. 5) Superintendent of a hui. 6) Chief. 7) Above.
Luna ana ʻāina	Surveyor.
Maʻaweʻula	A path or road so much trodden as to cause the red or brown earth to appear.
Mahakea	1) Land which has been cultivated. 2) Cultivatable, naturally fertilized. 3) An uncultivated piece of land overgrown with grass; a jungle. 4) Wild; overgrown with weeds, grass, and bushes. 5) Fallow land.
Mahana puʻu	Double peak; twin peaks.
Māhele	1) To divide or apportion. 2) Division. 3) Land division. 4) The division of 1848. 5) Separate parcels. 6) Article. 7) A portion; name given to a section; a division; the act of dividing. 8) Distribute. 9) Lot.

Māhele ʻāina	1) Land division. 2) To divide land.
Māhele award	Awards issued by the Minister of the Interior pursuant to the acts of August 24, 1860 and December 6, 1892 to those chiefs who participated in the Māhele of 1848, but who failed to receive a Land Commission Award before 1855 when the Land Commission dissolved.
Mahi	1) Cultivate. 2) A farm, plantation, patch.
Mahiʻai	1) To cultivate land. 2) Farmer. 3) To farm, cultivate, agricultural.
Mahikō	1) Plantation. 2) Sugar plantation.
Mahinaʻai	1) General term for any land parcel, wet or dry land, under cultivation; not a land division term. 2) A field, either in a state of cultivation or prepared for it; a field, generally of larger size than kihapai where food is raised.
Mai ka uka a ke kai	From the mountain to the sea.
Makaʻāina	1) Toward the land; landward. 2) A resident.
Mākāhā	1) Outlet; sluice gate in a fishpond. 2) Passage for entrance and exit of an enclosure; gate at the outlet of a fishpond. 3) Entrance to or egress from an enclosure.
Makahakahaka	1) A deep pit or hole. 2) Open space, as a clearing in a forest or clear land in a lava flow.
Makai	1) Sea or seaward. 2) Seaward. 3) Below.
Makawai	Small outlets for water through the banks of taro patches; small waterway.
Makoa	A tract of land midway between the shore and interior where koa trees grow.
Māla	1) Garden, field. 2) A field or patch specifically used for cultivating sweet potatoes. 3) Garden, plantation, patch, cultivated field.
Mālua	1) Depression or cavity; a basin on a flat or plateau. 2) Hills dug up or places made for planting potatoes; a little spot dug up and prepared for planting. 3) To lower the surface of any portion of ground; to make a depression on the surface of anything.
Mana	Authority, authorization, power.

Mana‘o	1) Thought, idea, belief, opinion, theory, desire, want. 2) Wish, to will, to wish. 3) Intent; discretion, sentiment.
Manawa	Time; era.
Mānowai	Place where water is assembled for the purpose of leading it out in channels.
Maoli	Native; in distinction from fictitious; true; genuine.
Mauka	1) Towards the mountain. 2) Inland. 3) Mountain. 4) Upper part. 5) Above. 6) Westerly.
Mauna	1) Mountain or the back of a mountain. 2) Areas on the mountain, which at times cover over with fog and have great flanks behind and in front. 3) The overall term for the entire mountain. 4) The inland regions of an island; a mountainous region. 5) To waste; mistreat.
Māwae	A cleft; an open place or opening among rocks.
Mimilo	Area where the sea goes up and down within a crevice.
Moana	1) Ocean. 2) Broad; wide; extended.
Moanawai	A lake of fresh water.
Moku	1) District. 2) Island. 3) Section, forest, grove. 4) To cut across, divide, separate.
Moku ‘āina	1) District. 2) An island.
Moku kele	A single island standing in the ocean, to be reached by sailing.
Moku lā‘au	1) A stand or solitary grove of trees. 2) Grove.
Moku lua	Two islands together.
Mokuna	1) Boundary. 2) A division of a country; a coast or region. 3) Division boundary, border as of land.
Moku o loko	Full name for moku, a district not an island.
Mokupuni	An island.
Mokupuni ma waho	The outermost island.

Mo‘o	Narrow strip of land, smaller than an ‘ili; name given to any long narrow piece of land; a narrow path; a ridge.
Mo‘o ‘ai	Strip of land where taro was planted.
Mo‘o ‘āina	Narrow strips of land within an ‘ili.
Mo‘opuna	1) Lineal descendants, but can include both adopted children and collateral heirs. 2) Grandchild. 3) Great niece or nephew; relatives two generations later, whether blood or adopted; descendant; posterity.
Muliwai	1) River, river mouth; pool near mouth of a stream, as behind a sand bar, enlarged by ocean water left there by high tide; estuary. 2) Area where water joins the sea. 3) The opening of a stream into the sea; where currents meet the mouth of a stream. 4) Area where stream mingles with seawater. 5) Where water flows in a slow deep current.
Nā ‘āina	Farm lots.
Nā ‘āina o ke aupuni	The lands of the government.
Nahele	Uncultivated.
Nā kupa maoli o ka ‘āina	Aboriginal inhabitants.
Nana‘e	1) A small piece of land within a mo‘o ‘āina. 2) Small piece of land.
Nuku	1) Mouth or entrance, as of a harbor, river or mountain pass or gap. 2) Any area that is seaward.
Nuku kahawai	The mouth of a shallow rushing stream.
Nuku muliwai	Area where a slow moving stream meets the sea.
Nukuwai	The mouth of a stream of water.
Oeoe pōhaku	Tall stones set as markers to identify two boundaries of a moku.
‘Oia‘i‘o	1) Truth. 2) Original, genuine. 3) Validity.
O‘io‘ina	1) Point, peak, or cape. 2) A resting place for travelers such as a tree or rock. 3) A pile of stones. 4) An area along a path where people could rest.
‘Ōiwi	1) To project upward, as a mountain peak. 2) Native, native son.

ʻOkana	1) District or sub district comprising several ahupuaʻa. 2) Section smaller in size than a moku; this appears to have only been used on certain islands. 3) A division of a country of several precincts. 4) A portion.
Oki	To stop, finish, end.
ʻOki	To dissolve.
Okipuʻu	A forest clearing.
ʻŌlapalapa	1) Full of ravines, projections, cornices, ridges. 2) Rounded ridges that are larger in size than a lapa and which extend from the mountains or ridgebacks or hills. 3) Numerous lapa. 4) Rough; uneven; a ridge between two ravines; rough protuberances of a precipice.
ʻOlowai	A constant small flow.
Olowalu	A group of hills.
Olowalu puʻu	Hills that are jointed.
ʻŌpalipali	1) A place having many low precipices or cliffs; rocky hill or gulches.
Paʻa i lalo	The earth below.
Pā ʻāina	Wall or fenced land.
Paʻa iʻo ʻana	Due receipt of funds.
Paʻakai	Sea salt.
Paʻakea	Limestone, coral beds, as found on the leeward sides.
Paʻakō	Dry low land plain.
Pā ala	Water worn rocks that lie at the foot of a cliff on the sea coast.
Paheʻe	1) Cleared area, bare dirt, shallow hole or grave. 2) Slippery, probably because a peculiar grass that grows in such places.
Pāhoehoe	1) Smooth unbroken type of lava. 2) Name applied to several localities.
Pāhola	Area where waves spread over the land.
Paihī	1) Trickling water, down the face of a cliff. 2) Fault in bed of a ravine where water percolates.

Pākolokolo	Term used in land claims of the 1840s, probably a weir, dam or fence in the stream for taking fish.
Pā kukui	1) A clearing within a kukui grove in the lower forest zone, such as on the windward slopes of Hamakua, Hawai‘i where taro was cultivated. 2) Candlenut enclosure.
Pā lepo	Adobe wall.
Pale wai	Breakwater.
Pali	Cliff, precipice, side of a steep ravine or hill.
Pali ha‘akoa‘e	An inaccessible cliff where birds fly.
Palihanahanai	A slanting cliff.
Pali kahawai	Stream cliff.
Pali kū	Vertical cliff.
Pali ku‘i	Notched, toothed cliff.
Pali kūmolemole	A sheer cliff, usually when the side is straight up and down.
Pali lele koa‘e	1) A sheer place. 2) A place that slopes like a roof on one side and is sheer on the other. 3) Also known as pali mania.
Palipa‘a	Cliff.
Pāloa	Long fence or enclosure.
Pā loa	Stone wall holding pen for animals kept for long periods of time.
Pālolo	Clay, hard sticky mud.
Pana	Celebrated, noted or legendary place.
Panalā‘au	Colony, dependency, territory, province.
Pani kai	Levee, dike, seawall.
Pani wai	Dam, sluice, levee, dike.
Pao	Cave, pit, cavern.
Papa	Flat surface, stratum, plain layer, level.

Papa hola	Level pavement.
Papa huli honua	Experts who determined land boundaries.
Pāpāia	Place for offering.
Papaiao	Long reef.
Papa kea	White stratum, sand beach.
Papa keʻehina	Floor.
Papa kōlea	Plover flats.
Papakū	1) Foundation or surface, as of the earth. 2) Floor as of the ocean. 3) Bed as of a stream; bottom.
Papa paʻakai	Salt flat.
Pā pōhaku	Stone wall.
Pāpū	1) Fort, fortress. 2) A plain clear piece of ground.
Paʻu ahi	Black cindery sand or ash.
Paukeaho	One of the line islands.
Peʻapeʻa pōhaku	Heap of pebbles, as at the opening of an octopus burrow.
Pekepeke	Ridge.
Pene	To reside a long time in one place.
Penekū	To reside at a place for several generations.
Piʻikū	To climb a steep slope.
Piʻina	1) Climb, ascent, rise, incline. 2) An area along a path where it ascends steeply.
Piliʻāina	Shore; interisland.
Pōhākioloa	Stone used as a landmark and set to mark a division of land.
Pōhaku ʻaumakua	Stone believed to be possessed by an ʻaumakua.
Pōhaku hoʻokumu	Foundation stone.

Pōhaku nui	1) A large rock.
Pōhaku ʻoki ʻāina	1) Land dividing rock.
Poko	1) Further subdivision of an ʻokana. 2) Small division of a district.
Pono	1) Rights. 2) Use. 3) Faithful; proper; correct; accurate; privilege. 4) Property, resources. 5) Duty.
Poʻo wai	1) Water source, dam. 2) Spot from which water begins to flow.
Puʻe one	Sand dune.
Puʻewai	Area along a stream where the water is turbulent.
Pulapula	Offspring, descendants.
Puna kea	White coral, as cast ashore by the sea.
Puoho	To explode, as a lava flow.
Puʻu	1) Hill, cone or mound. 2) A mound or peak that stands high up in a given area. 3) Hills, any high place rising from the land.
Puʻuhonua	Place of refuge, sanctuary, a flat area.
Puʻu hoʻomaha	A resting place for travelers.
Puʻu lepo	Earth mound or heap.
Puʻu oʻioʻina	A roadside resting place consisting of a hillock; heap of stones, rock or mound.
Puʻuone	Pond near the shore as connected to the sea by a stream or ditch.
Puʻu pane	A hill that stands alone.
Uapo	Wharf, pier, quay, dock, bridge.
Ulukou	Kou (*Cordia subcordata*) grove.
Ulu lāʻau	Forest; grove of trees.
Ulu pali	Talus slope, transitional slope between cliffs and base.
ʻŪmalu pali	Area where the base of a cliff is recessed and the top projects beyond it.

Wahi	1) Place, location. 2) A situation, a space. 3) Some, a bit of.
Wahi lihi ʻāina	Strip of land.
Wahi nānā	Lookout.
Wai	1) A general name for what is liquid; fresh water in distinction from kai (salt water). 2. Water or liquid of any kind other than sea water, including liquor, juice, sap, honey, liquids discharged from the body as blood, semen, color dye, pattern. 3) To flow like water.
Waiau	A place where water runs continually; water where one can always bathe.
Wai ʻau ʻau	Bathing place or pool.
Waihae	Agricultural land term.
Wai hī	1) Water oozing from a precipice. 2) Sharp ridge from which water drips. 3) A sheer place. 4) A place that rises high mauka of a valley. 5) Water that falls over a cliff and divides.
Wailele	Waterfall.
Waina	Place with water.
Waiwai	1) Property, both real and personal. 2) Goods; property; assets; that which is possessed or owned; in distinction from money or cash. 3) Estate.
Wela	A new field; land cleared for planting by burning.
Wēlau	1) Tip, top, extremity; end. 2) The ridge or summit of a precipice; the extreme boundary of a country.
Wēlau ʻākau	North pole.
Wēlau hema	1) South pole. 2) Top edge or outer end of precipice overlooking lowlands.
Welelau	The end or extremity of a thing; the most distant part of a country.
Wiliwai	Area along a stream where the water eddies.

Reference

Lucas PFN. 1996. A Dictionary of Hawaiian Legal Land-terms. Honolulu (HI): University of Hawai‘i Press. 183 p.

Appendix 4: Lānaʻi Case Study

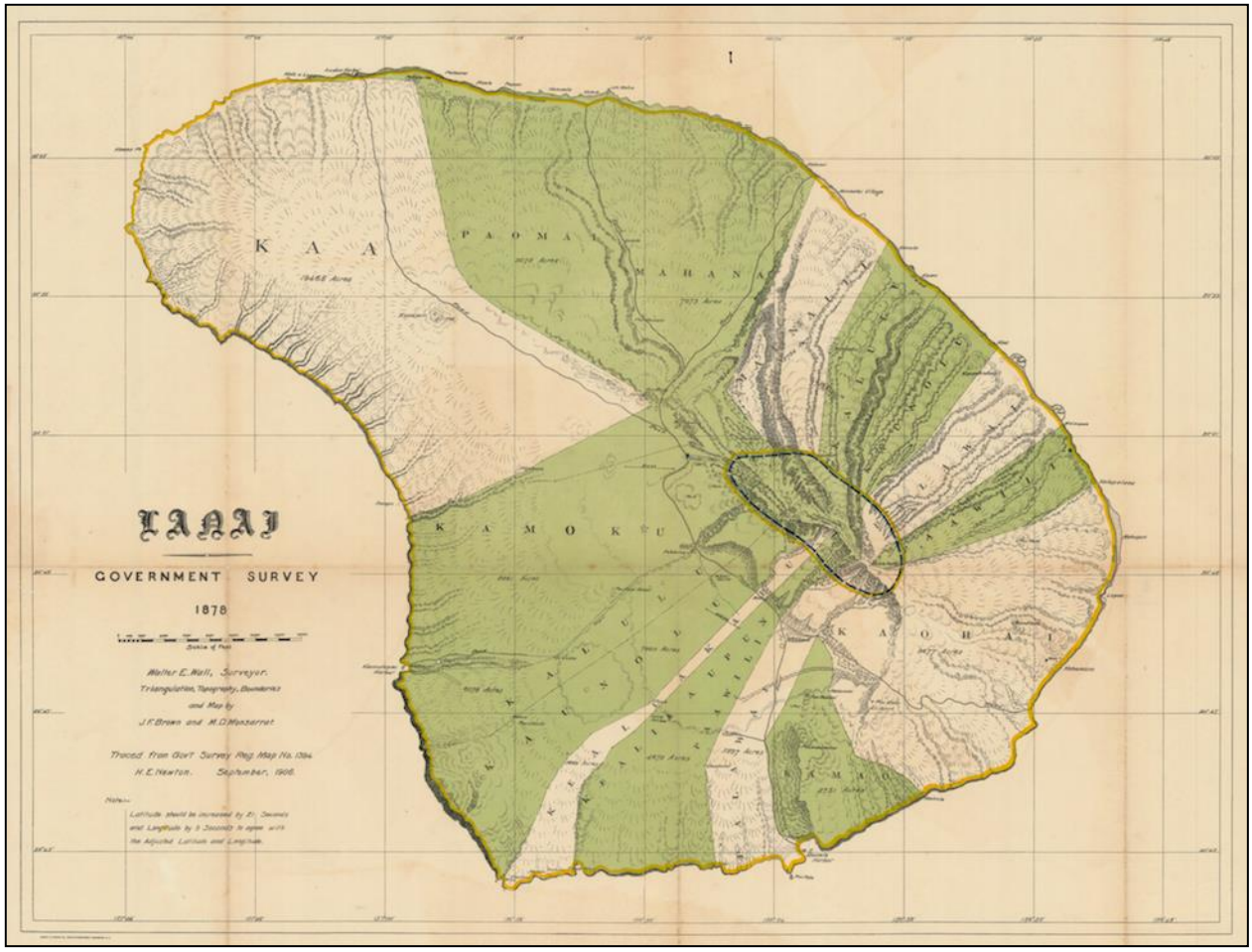

Figure 14: Map of Lānaʻi from the Government Survey of 1878, divided into traditional ahupuaʻa. (Source: University of Hawaiʻi Mānoa Library)

LĀNAʻI CASE STUDY
2015-2016

1 Introduction

Lānaʻi Island has been extensively researched thanks to its advanced community capacity. Its appreciation of intangible cultural heritage in the form of oral histories and wahi pana (sacred places) are well-established and documented through the resources made available and preserved by the Lānaʻi Culture & Heritage Center.

Due to the relatively small population and small developmental footprint on the island, there is limited impact from urbanization on heritage or cultural resources on the terrestrial areas of the island. Environmental degradation, however, has caused extensive impacts on the island's resources.

Lānaʻi has significant geographic proximity to other islands, a number of which are visible from parts of the island. These viewplanes inform the island's cultural history and natural heritage. A number of south Molokaʻi sites, visible from the north side of Lānaʻi, have been included in this case study as examples of the value of Lānaʻi's interisland viewplanes.

During the development of this case study, some participants expressed interest in having the entire island listed on the National Register of Historic Places as a traditional cultural property, based on the island's role as a center for Native Hawaiian cultural practices, traditions, arts and beliefs.

2 Project Summary

This case study identified a group of stakeholders on the island of Lānaʻi to contribute to the Characterizing Native Hawaiian Cultural Landscapes Draft Framework. The Lānaʻi Case Study Advisory Group cooperatively designed research and mapping based on existing data, revised reports based on data and experiences, and made recommendations for the mokupuni and the overall framework of the Guidance Document for Characterizing Native Hawaiian Cultural Landscapes.

This case study is intended to show the unique intricacies of working with the Native Hawaiian community in an island setting. Various verified user groups were contacted on the island to survey the full spectrum of activities and cultural practices. The advisory group, comprised of community leaders and practitioners, guided the discussions of cultural resources and contributed previous experiences in consultation. From these previous experiences, Honua Consulting compiled data to identify recommendations for future consultation projects. This case study is one of three case studies that shed light on the realities of Native Hawaiian consultation and give a window into these specific community relations.

3 Advisory Group

Honua Consulting invited members from over 20 community and user groups to the initial case study briefing. From these groups, individuals self-identified to become the advisory group for the Lānaʻi Case Study. Group members represent diverse interests within Lānaʻi's fishing, hula, canoe paddling, civic and government sectors.

3.1 Qualification of Members

The Characterizing Native Hawaiian Cultural Landscapes workshops and meetings identified the following values and principles as being high priorities in any successful consultation process:

- Integrity and honesty between partners
- Community engagement in research design
- Transparency throughout the process
- Equity in decision-making (or management/clarity of expectations)
- Earliest possible engagement with Native Hawaiian community and stakeholders
- Community engagement in assessment and evaluation
- Accountability (i.e., including enforcement provisions)

In order to achieve these principles in this case study, the following qualifications for all advisory group members were prioritized:

- Familiarity with Native Hawaiian language resources
- Cultural practitioners
- Local expertise
- Direct engagement with community members and kūpuna
- Data collection that includes Native Hawaiians and local researchers
- Quality control of research by local experts

3.2 Selection of Members

All members of the advisory group for the Lāna‘i case study were selected based on the priorities outlined above and their long-standing dedication to the mokupuni of Lāna‘i.

4 History of Lāna‘i

The island of Lāna‘i was formed over 1.5 million years ago and was once connected by lava flow to the islands of Kaho‘olawe, Maui, and Moloka‘i (Maly 2007). Lāna‘i is the sixth largest island in the Hawaiian archipelago, measuring 20.9 km (13 mi) wide by 22.1 km (13 ¾ mi) long, and literally translates to Day (Lā) [of] Conquest (Na‘i) (Maly and Maly 2007). Hawaiians began settling on Lāna‘i in the 1200s, and although this island was not as abundant in resources as Maui and Moloka‘i, lo‘i kalo (taro pond fields) were successfully cultivated in Maunalei Valley, and the estimated 6,000 residents in the late 1700s were able to sustain themselves with the island’s natural resources (Maly 2007). The leeward coast of Lāna‘i at Kaunolū, where the gods Kāne, Kanaloa, and Kāne‘āpua first stepped on the island, became a place of religious significance to the residents (Maly 2007).

In 1802, Wong Chun of China started cultivating sugar cane on Lāna‘i, but shut down operations and left the island in 1803. Within the next two years, over 2,000 residents of Lāna‘i and over when 150,000 total Hawaiians succumbed to the ma‘i ‘ōku‘u epidemic, which is believed to have been Asiatic cholera (Maly 2007). In the 1820s and 30s, missionaries arrived and built schools; pineapples, sheep and goats were then introduced to the island. By 1832, about 2,000 residents

were estimated to live on the island of Lānaʻi (Maly 2007). In 1848, the King of the Hawaiian Islands, Kamehameha III, divided the lands among the chiefs, government, and himself so that only a few lots were left for the people of Lānaʻi (Maly 2007). By 1850, the population of Lānaʻi dropped to approximately 600 people (Maly 2007).

In the late 1800s, a Mormon by the name of Murry Gibson began purchasing and leasing land from the government until only a fraction of land was left to the remaining residents. By 1890, the population was reduced to 200 farmers, shepherds, and fisherman (Maly 2007).

In the late 1890s, the Maunalei Sugar Company was established with the interest of raising sugar cane on the coast of Lānaʻi; efforts included building a warf and railroad system to support their mission (Kaye 1982). However, due to a variety of issues (e.g., a plague that hit the Japanese workforce and the excessive brackish water that was incompatible with sugarcane growth), the company quickly failed by 1901 (Kaye 1982; Maly 2007). Lānaʻi residents believed that the company failed because they used stones from an ancient sacrificial heiau (house of worship) for the railroad. Other crops such as alfalfa and cotton were also attempted, but failed primarily from the lack of available fresh water (Kaye 1982).

Cattle and sheep ranching were successful in the early 1900s in the population-dense coastal village of Keomoku, and as a result, many Lānaʻi residents formed deeper connections to the land as master cowboys (Kaye 1982). However, Dole began large-scale pineapple production in the early 1920s and ranching came to an end by 1954. The pineapple industry brought in an estimated 500 laborers a year at the peak of pineapple production in 1957, and many of the laborers were Mormons who cultivated the crops (Bartholomew et al. 2012). In the 1940s, Filipinos were also brought to Lānaʻi to labor for Dole (Kaye 1982). There was tension regarding Filipino fishing methods that involved casting huge nets to take as much as possible from the ocean, while traditional Native Hawaiians used, and continue to use, conservative fishing practices and only take what they need from the sea (Kaye 1982).

Pineapple was the primary economic generator for the island, and a single product for production would have been easier from a business standpoint. However, blights throughout history remind us that it is generally safer to have diverse revenue streams, especially if depending solely on a single luxury food item. Dole's parent company, Castle and Cooke, commenced huge development projects for two hotel complexes and housing to accommodate 10,000 people, which created an alternate revenue source for the island (Kaye 1982). Residents calmly questioned the Lanai Company at their many public meetings to ensure the company's answers were documented for the record; the private meetings were known to be much more heated (Kaye 1982). Pineapple production ended in 1992 after ownership of Castle and Cooke transferred to David Murdock, who shifted focus to the tourism industry.

Lānaʻi has a pace all its own. During the peak of Lānaʻi's pineapple production, sirens could be heard throughout the island, which signaled the start of the workday, end of the workday, and curfew at 8 p.m. (Kaye 1982). Today, a majority of businesses close at an early hour, and there are no traffic signals anywhere on the island. Lānaʻi's diverse population remains abundant, as immigrants (many still from the Philippines) come to work at the luxury hotels, which have increased with the increase of tourism. The future of Lānaʻi is still uncertain. As of 2012, 97% of

the land is under the control of one person, Larry Ellison, an American businessman and entrepreneur, while 3% remains under the ownership of the State of Hawai‘i.

5 Sites and Viewsheds of Lāna‘i

5.1 Sites of Lāna‘i

Lāna‘i has a wide variety of archaeological and traditional sites across the island. The following table (Table 5) lists an assortment of these important sites, including heiau, villages, ahupua‘a, beaches, and fishponds. These sites were compiled by Kepa Maly and Onaona Maly (2007), both residents and long-time advocates of Lāna‘i culture and heritage.

Table 5: Sites of Lāna‘i

Site Name	Notes
Anapuka	*Lit.* An arch. Rocky point with arch.
Awalua	*Lit.* Deep harbor. A bay in which livestock were sent out of Lāna‘i and the location of a traditional village (before 1892).
Awaluaiki	*Lit.* Little Awalua (see Awalua above).
Awehi	A coastal area/steep riverbank.
Ha‘alelepa‘akai	*Lit.* Discarded salt. Two fishermen discarded their salt on the Lana‘ihale summit, then believed the salt to be in the bed of the Palawai basin. However, the white bed turned out to be mist in the basin that evaporated in the sun by the time they arrived.
Haleolono	*Lit.* House of Lono. A location of a heiau (temple) and house of the god Lono.
Halepalaoa	*Lit.* A house of whale ivory. The pier the Maunalei Sugar company used to export products to Lahaina.
Haua	*Lit.* Snorting or puffing sound of the wind. The mouth of a valley or feature upon the shoreline. This is the site of a curved fish trap that extends 500 feet from the shore.
Hauola	*Lit.* Dew of life. A 23 foot by 32 foot heiau called Panipa‘a with a petroglyph wall on the south side.
Hi‘i	*Lit.* To treasure or put on a pedestal. An agricultural area with a plateau that overlooks the Pālāwai basin.
Honopu	*Lit.* Gathering together, scorched ground. Site of a former village. Possibly a bay with conch.

Table 5: Continued

Site Name	Notes
Honuaula	*Lit.* Red earth. A feature on the shoreline.
Hoʻokio	*Lit.* Spread out. This is the scene of a battle between Lanaians and King Kamehameha I's forces when they invaded Lānaʻi in 1777-1778. The Lanaians were presumably defeated because of their dwindling population size. This area includes a reinforced ridge with stones that were used for rolling down at enemies, sling stones, and hollowed out areas for sleeping.
Hoʻopulupuluamoa	*Lit.* Dampened by the moa (light-mist rain). Highland used for planting by the people of Kaʻā as the mist got caught in the over story. "Scratching, mulching of chickens." Chickens were cooked with the stones in the holes along the ridge here.
Huawai	*Lit.* Water gourd. Former bay site of salt pans and residents.
Hulopoʻe Bay	Hulopoʻe lived here.
Hulopoʻe	A traditional site that may have been named after a traditional tenant. Describes the churning motion of the sand.
ʻIliolono	Location of a heiau. The god Lono's spot on land.
Iwiʻole	*Lit.* Without bones. Named after a resident from the middle 1800s. No walls or bones found here.
Kaʻa	*Lit.* To roll. The site of a previous village and a point.
Kaʻā	*Lit.* The burning, the fire or rocky place. The largest ahupuaʻa on Lānaʻi.
Kaʻaloko	*Lit.* Pond of Kaʻa. The site of a village and Kaʻa fishpond.
Kaʻena	*Lit.* The wrath. Describes when large waves crash on the shore. Northern point of Lānaʻi with fish shrines and remnants of houses.
Kaʻenaiki	*Lit.* The little Kaʻena. A former village that includes a heiau. Location of one of the largest platforms in Lānaʻi.
Kahāʻulehale	*Lit.* The house falling. A beach with remnants of a house. Kaululāʻau stayed here while traveling the island.
Kāheʻa	*Lit.* Streaks of red (e.g., dawn, blood). Location of a strangling stone used for sacrifices. Important heiau in which the stones were removed to build the railroad for the Maunalei Sugar Company Rail.
Kahemano	*Lit.* Flowing with sharks. Place where sharks habitually run.

Table 5: Continued

Site Name	Notes
Kahilikalani	*Lit.* Brushing the heavens. Highest point in Palikaholo, closest to the heavens.
Kahokeo	*Lit.* A gourd used to carry fishermen's lines and hooks. A beach across from Keomoku school.
Kahokunui	*Lit.* A large star. May be location for a passing meteor.
Kahue	*Lit.* The gourd. The bay site of an ancient village and fishing heiau with petroglyphs and platforms.
Kaiholena	*Lit.* The iholena banana tree. A location with enough fresh water to grow crops, such as bananas.
Kaimuhoku	*Lit.* The star oven. A meteor created an indentation in which a freshwater spring was formed.
Kaiolohia	*Lit.* Choppy sea. Site of a shipwreck and former village with a sheltered cove used as a fishery.
Kaka'alani	*Lit.* Splitting alani wood; a breeze on Lāna'i. Describes the rolling clouds or heavens coming over the pali (cliffs).
Kalamaiki	*Lit.* The little torch.
Kalamanui	*Lit.* The big torch.
Kalulu	*Lit.* The shelter. An ahupua'a that crosses from the leeward over the mountains to the windward side.
Kamaiki	*Lit.* The small child. A popular former fishing camp frequented over many generations.
Kamakaopahulu	There is a 4-inch hole in the coral here that is important because it is believed to be Pahulu's eye that landed here.
Kamao	*Lit.* The ma'o (local hibiscus).
Kamoa	*Lit.* The fowl. A ghost chicken (rooster) was thought to have lived here.
Kamoku	*Lit.* The district. A boundary and ahupua'a.
Kanaele	*Lit.* The rocky cleft. The location of a village and beach.
Kaneapua	Kāne's younger brother. A fisherman's god. A rocky atoll in Kaunolu with a ritual figure.
Kanepu'u	*Lit.* Kāne's hill. A location that was used to pray for the safety of travellers.

Table 5: Continued

Site Name	Notes
Kaohai	A now rare legume plant that thrives in dry conditions, ʻŌhai. An ahupuaʻa.
Kapalaoa (Palaoa)	*Lit.* Whale or ivory. Located near the lighthouse, this was the location of a traditional village.
Kapano	*Lit.* The darkness. The vale between Hiʻi and Lālākoa.
Kapihaʻā	*Lit.* Fragments of driftwood. An important ancient village, and the place where the rocks begin after the sand ends at Hulopoʻe Bay.
Kapihaʻā Village	Preserved ancient Hawaiian village.
Kapoʻiliʻili	*Lit.* Pebbles of Kapo, the goddess of priests and hula.
Kapoho	Location of a heiau. Describes a sunken area.
Kapokōhōlua	*Lit.* Sled pulled by Kapo.
Kauakoi	Site of a former village and adze pit.
Kauhale & Pāpaʻi	Temporary habitation sites and shelters.
Kauluāʻau	*Lit.* Forest grove. The beach with a heiau dedicated to Kāne. The Kauluāʻau killed all of the spirits on the island, which enabled people to be able to settle on Lānaʻi.
Kaumālapaʻu	The site of a village and bay area. Ash was put into the fields here.
Kaupakuea	*Lit.* Uplifted ridgepole. The middle of Manele Bay and gulley.
Kaūnōlū	An ahupuaʻa that reaches from the coast, over the mountains, to the other coast. A bay with evidence of common and chiefly residents and a very large heiau.
Keahiʻāloa	*Lit.* The long burning fire. Where Kawelo burnt Lanikāula's (priest of Molokaʻi) sorcery.
Keahiakawelo	*Lit.* Kawelo's fire. Kawelo was a priest who protected the people of Lānaʻi from the priest of Molokaʻi's prayers to harm Lanaians. Includes a few assemblages of piled stones for safe travels.
Kealiaʻapuni	*Lit.* Salt bed for the people. An ahupuaʻa.
Kealiakapu	*Lit.* The sacred salt pans. An ahupuaʻa and location of a former sanctuary and controlled salt bed.
Keananoio	*Lit.* The tern cave. A cave that terns used; sea cavern.
Keomoku	*Lit.* White ship. A significant ancient village and former capital of Lānaʻi.

Table 5: Continued

Site Name	Notes
Keone	*Lit.* The sand.
Keonehe‘ehe‘e	*Lit.* The sliding cinders. Maluhie is the name of the small heiau here.
Kihamāniania	*Lit.* To sneeze and shudder. A place connected to priests and where warriors may have practiced.
Kō‘ele	*Lit.* Black or darkness drawn down. Refers to the dense fog and clouds in the valleys.
Ko‘i	A stone quarry where chisels were made and used to construct adzes.
Ko‘olāna‘i	*Lit.* Brace of Support of Lāna‘i. A pathway from the shoreline to Lāna‘ihale.
Ko‘a	Fisherman’s shrine and triangulation station
Koiahi	*Lit.* Fire adze.
Koloiki	*Lit.* Little kolo (crawl). A crest amid Kō‘ele and Maunalei.
Kolokolo	*Lit.* Grumbling. Describes the sound of the waves crashing in a cave in this area.
Kou	*Lit.* The Cordia tree.
Kuahulua	*Lit.* Two alters.
Lae Wahie	Fragments or firewood along the rocky coastal point.
Laehi (Kalaehi)	*Lit.* The flowing point. There is a fishing shrine and point of coral here. There is a cave here where Kauluā‘au fished and hid from ghosts before killing them.
Lālākoa	*Lit.* Koa tree branch. Previously this was a forested area.
Lāna‘i	*Lit.* Day of conquest.
Lāna‘ihale	*Lit.* House of Lāna‘i. Lāna‘ihale’s summit where Kauluā‘au killed the final ghosts of Lāna‘i. There is also a nearby spring named Nāna‘ihale, and Nānai is an alternate pronunciation for Lāna‘i.
Lāna‘ika‘ula	*Lit.* Lāna‘i of Ka‘ula. There is a nearby important heiau. This beach was named after Kaula-wahine, the goddess and mother of Lāna‘i.
Lapaiki	*Lit.* Little ridge. This is a small residential area and valley.
Leinohaunui	*Lit.* Leaping place of Haunui.

Table 5: Continued

Site Name	Notes
Lōpā	*Lit.* A tenant farmer. This is the location of two heiau, petroglyphs, a fishpond, and a former village.
Luahiwa	*Lit.* Dark or black pit. The heiau of Luahiwa was used to influence rain and sits in a field of large dark rocks. There are petroglyphs on 20 of these large boulders across 3 acres.
Mahana	*Lit.* Warmth. An ahupuaʻa in Lānaʻi.
Makaiwa	*Lit.* Mother of pearl eyes. A beach area.
Makalau	*Lit.* Four hundred eyes. This is where Kauluāʻau defeated the final ghosts on the islands by blinding them with the gum of breadfruit.
Malauea	May be translated to "raising from the calm." This is where Pehe was killed by waves when waiting for Makakēhau.
Malulani	*Lit.* Sheltered heavens. Named after Pele's sister who settled here.
Māmaki	*Lit.* The Pipturus plant. This is the site of a heiau, village, and stone trail with petroglyphs.
Mānele	*Lit.* A sedan chair, stretcher, or litter. A bay site with a heiau and former village.
Maunalei	*Lit.* Mountain wreath, relating to the cloud rings that form on the mountain. Also the name of an ahupuaʻa, the location for a former village and important heiau, and the site of a freshwater spring.
Maunalei Valley	Historic village and location of taro agriculture
Maunaoʻumi	*Lit.* Mountain of Umi, who was a former chief of Hawaiʻi.
Miki (Puʻuomiki)	*Lit.* Adept (hill of the adept one).
Moenauli	*Lit.* Dark covering. A 4 foot tall heiau measuring 30 feet by 36 feet.
Moku Noio	*Lit.* Tern island. A small isle.
Naha	*Lit.* Bent or curved. Refers to Alanui Aupuni (government road) paved with stones.
Nanahoa	*Lit.* Look upon a friend. This site includes four sea towers in Hōnopu Valley. One tower represents the male and another represents the female.
Nininiwai	*Lit.* Pouring water. An agricultural area formerly used by Lanaians and later used to plant pineapple.

Table 5: Continued

Site Name	Notes
Pahulu	*Lit.* Nightmare. This was the king of the ghosts killed by Kauluāʻau.
Pālāwai	Moss found in freshwater. One of three land divisions that goes from the windward cost over the mountains to the leeward coast. Also the name of the crater basin in central Lānaʻi.
Palikaholo	*Lit.* The moving cliff. The coast between Kaholo and Kaumālapaʻu.
Paomai	*Lit.* Sick Pao. An ahupuaʻa named after a chief who became sick after paddling across the channel.
Pawili (Paʻawili)	Referring to the winds ability to "to blow and twist." Although this ahupuaʻa reaches the windward and leeward coasts, it is detached.
Poaiwa	*Lit.* Ninth night, mysterious night. The location of some residences and petroglyphs.
Pohakuo	*Lit.* Calling rock. A spirit that calls out to passers-by from a stone.
Polihua	*Lit.* Cove of eggs. Refers to the many sea turtle eggs. Pele was believed to have eaten the turtles here.
Poʻopoʻo	*Lit.* Hollows, nooks and crannies. An atoll.
Poʻopoʻopilau	*Lit.* Dirty (defiled holes) and crevices. Depressions where sullied items are left. A ridge in Kaʻa.
Puʻuʻuala	*Lit.* Sweet potato hill. An area on the south edge of the Pālāwai basin where sweet potatoes were planted.
Puʻuaʻali	*Lit.* ʻAʻaliʻi (Dodonea) plant hill.
Puʻualeʻaleʻa	*Lit.* Hill of pleasure. Site where games were played by warriors.
Puʻumahanalua	*Lit.* Twin hills.
Puʻumakani	*Lit.* Wind hill. Has a view of the Palawai region, Waiakeakua, Hawaiʻi, Maui, and Kahoʻolawe.
Puʻunānāihawaiʻi	A hill overlooking Hawaiʻi.
Puʻuomiki	*Lit.* Hill of Miki.
Puʻupehe	*Lit.* Hill or mound of Pehe. Possibly named after a woman buried in a platform on this atoll.
Puʻupehe Rock	Also known as "Sweetheart Rock."

Table 5: Continued

Site Name	Notes
Pūloʻu	*Lit.* Covered, hidden out of sight. A freshwater spring in the high elevations of Pālāwai.
Waiaʻōʻopea	*Lit.* Water of the shrimp. The location of a fish trap with a shallow wall.
Waiakaʻahu	*Lit.* Water (spring) of the alter.
Waiakeakua	*Lit.* Water spring of the ghosts or gods.
Waiapaʻa	*Lit.* Firm—steady water, or spring.
Wāwaeku	*Lit.* Footprint. This is a hill that overlooks Maunalei City.

5.2 Viewsheds of Molokaʻi

Native Hawaiians recognize remarkably distinct and separate elements of earth, sea, and sky, while engaging fluidly and seamlessly across them. Thus, nā ʻikena ma kai (seaward viewsheds) embody all three: a point on land where the ocean is visible through the atmosphere. The connection between kanaka (human) and all three elements is critical in certain Native Hawaiian cultural practices, such as traditional land and resource management.

Prior to the arrival of the American Calvinist missionaries in 1820, there was no indigenous written language in Hawaiʻi.[1] Thus, traditional Hawaiian knowledge (THK) of place was carefully memorized and consciously transferred from one generation to the next, mapped through oli (chants), mele (songs), moʻolelo (stories), inoa ʻāina (place names), and ʻōlelo noʻeau (proverbs).

The ocean and shore is a critical environment for Native Hawaiians, an important source of sustenance, recreation, transportation, inspiration, spiritual practice, and healing. Therefore, ʻikena kai (viewsheds) are important to recognize and protect, as unobstructed views are extremely important.[2] The following table (Table 6) lists the archaeological sites found along the south shore of Molokaʻi that are visible from the north shore of Lānaʻi. These sites were compiled using Catherine C. Summer's "Molokaʻi: A Site Survey," and the sites mostly consist of important ponds and pools that are present along the southern shore of Molokaʻi (Summers 1971). The site name, location of the site, and important notes about the site are included in the table.

Table 6: Viewsheds of Molokaʻi

Site Name	Moku (M) or Ahupuaʻa (A)	Notes
Koʻa at Keawakalai	Kaluakoʻi (M)	Includes a natural pile of large rocks with bits of added coral and pebbles to attract fish and please the akua. Includes a phallic representation that also symbolizes a common fishgod.
Kihapiʻilani Hill	Kaluakoʻi (M)	There was once a fertility spring on the east side of the hill that is now dry. A heiau was reported northwest of the hill.
Kahalepohaku Heiau	Kaluakoʻi (M)	This heiau is 10 feet from the edge of a high cliff overhanging the sea. This 2-foot high terrace measures 35 feet by 16 feet.
Canoe Hālau	Kaluakoʻi (M)	A 43-foot by 16-foot enclosure with 3-foot wide walls; the opening on the southern side is 3 feet wide.
Kalalua Heiau	Kaluakoʻi (M)	This heiau is 100 feet from the sea adjoining the dry stream that runs up to Puʻu Hakina. Most likely used to mark the seasons.
Hale o Lono	Kaluakoʻi (M)	A fishing station, hill and former village site. This site contains various koʻa.
House Site of Pakaʻa	Kaluakoʻi (M)	A small house site to the east of a streambed that may have been a canoe heiau. There are a number of nearby house sites built to accommodate guests.
Naninanikuʻekuʻe Pond	Kaluakoʻi (M)	This 22-acre pond had 8 outward lanes, one of them closed. The walls were made of basalt and coral.
Petroglyph at Kukuku	Kaluakoʻi (M)	On the face of a large boulder about 8 feet high, a single figure representing a human being was incised 20 inches high.
Piko Stone	Kaluakoʻi (M)	The largest of an outcrop of rocks on a hill 0.75 miles northeast of ʻAmikopala. This stone measures 6 feet high.
Kaʻana	Kaluakoʻi (M)	The site of a school for hula dancing.
Pakanaka Pond	ʻIloli (A)	This 69-acre pond had about 20 lanes, all leading outward. A large portion of the pond was overgrown with mangrove with badly damaged walls.
Pohoʻele/Palaʻau Pond	Palaʻau (A)	The largest of the Molokaʻi fishponds with an estimated size between 200 - 500 acres. The pond was said to have 27 lanes, all leading outward.

Table 6: Continued

Site Name	Moku (M) or Ahupua‘a (A)	Notes
Punalau Pond	Kahanui (A)	This 20-acre pond was used commercially in 1901, but is now completely filled.
‘O‘o‘ia Pond	Kahanui (A)	Translated to “dug with ‘o‘o,” this pond was 15 acres in 1901. It is now filled with mud.
Kukuiohapu‘u Heiau	Kahanui (A)	Located at the top of the cliff near the trail to Kalaupapa, this heiau was 100 feet by 60 feet, and was the place for signal fires to O‘ahu in times of war. Said to have been destroyed by Kamehameha V.
Trail at ‘Ili‘ilika	Kahanui (A)	This trail went down to the Kalaupapa Peninsula.
Kahokai or Kakokahi Pond	Kalama‘ula (A)	Formerly 20 acres in area, but is now filled with mud.
‘Ohaipilo or ‘Ohi‘apilo Pond	Kalama‘ula (A)	Formerly 39 acres in area, but is now filled with mud.
‘Opae‘ula Heiau	Kalama‘ula (A)	This heiau was about 700 feet from the sea, but was destroyed in 1899.
Pu‘upapai Heiau	Kalama‘ula (A)	Originally had three enclosures, but was torn down for its stones, which were used in the building of a pier.
Petroglyphs at Waihi Gulch	Kalama‘ula (A)	Four or five petroglyphs are located 6 feet above the stream bed.
Kamalae Heiau	Kaunakakai (A)	Located behind Kaunakakai village, this site is located at the foot of the median ridge. The heiau is entirely destroyed, but was once a site of human sacrifice.
Kapa‘akea Pond	Kapa‘akea (A)	This pond extended from the seashore to the road, but is now filled. The springs that once fed this pond are now clogged or dried up.
Kaloko‘eli Pond	Kamiloloa (A)	This pond had an area of 27.6 acres in 1901, and the walls were broken.
Ali‘i Pond	Makakupaia (A)	This pond has an area of 25.8 acres and had one gate, which is now broken.
Kanoa Pond	Kawela (A)	The walls of this pond were approximately 2,860 feet long with two gates on the eastern side.

Table 6: Continued

Site Name	Moku (M) or Ahupua‘a (A)	Notes
Pu‘uhonua or Pu‘ukaua	Kawela (A)	Located on the ridge separating west and east Kawela Gulches at an elevation of 450 feet. The structures suggest that this site could have been used as a refuge or stronghold.
Uluanui Pond	Makolelau (A)	This inland pond was 6.5 acres, but was filled. In 1937, the pond was used for growing taro.
Panahana Pond	Makolelau (A)	This pond had 17 lanes that extended 3,150 feet.
Kanukuawa Pond	Kapuaoko‘olau (A)	This pond is now in ruins, but once had 14 lanes. The walls extended 2,300 feet.
Kamahu‘ehu‘e Pond	Kamalo (A)	This pond was 37 acres and used commercially, but the walls have now been broken. There were two gates.
Olepelepe Heiau	Kamalo (A)	This heiau overlooks one of the Kamalo gulches situated at the edge of the bluff.
Pu‘uomo‘o Heiau	Kamalo (A)	Located at the mouth of the main Kamalo gulch.
Kalokoiki Pond	Wawaia (A)	The walls of this pond are 1,500 feet long, and is partially filled in.
Paialoa Pond	Pua‘ahala (A)	This pond was 35 acres with walls 2,200 feet long, but the pond has now filled with mud.
Kaina‘ohe Pond	Ka‘amola (A)	The area of this pond is 17 acres with walls 1,770 feet long. There were two gates, but both were destroyed.
Hualele Heiau	Keawanui (A)	Located on the isthmus between Keawanui and Mikiawa Ponds.
Kukui Heiau	‘Ohi‘a (A)	This site is a collection of enclosures and low platforms. The area was 170 by 120 feet.
Halemahana Pond	‘Ualapu‘e (A)	This small pond was 3.3 acres and used commercially, but is now destroyed.
‘Ualapu‘e Pond	‘Ualapu‘e (A)	This pond was originally 22.25 acres and used commercially. It was considered one of the best fishponds on Moloka‘i.
Kalua‘aha Pond	Kalua‘aha (A)	This pond was 13 acres with four gates. The wall is now destroyed with only the foundations remaining.

Table 6: Continued

Site Name	Moku (M) or Ahupua‘a (A)	Notes
Ka‘ope‘ahina Pond	Kalua‘aha (A)	This pond was 20.5 acres, but it has been severely damaged by tsunamis.
Ke Ana o Hina	Kalua‘aha (A)	“The cave of Hina” is a shallow cave located beneath a projecting ledge of lava on the eastern side of Moloka‘inuiahina Gulch.
Pipi‘o Pond	Mapulehu (A)	This pond was 14 acres, with a 1,156-foot long wall, which is now broken.
Puko‘o Pond	Puko‘o (A)	This pond was 25 acres with a wall built out of basalt and coral. This wall is broken in several places and is not used commercially anymore.
Kupeke Pond	Kupeke (A)	This fishpond is 33.83 acres and was built by connecting two sides of a bay. The pond was still being used commercially in 1960, and was known as one of the three best fishponds in all of the Hawaiian Islands.
Nahiole Pond	Aha‘ino (A)	This inland pond was 1 acre and used commercially.
Kihaloko Pond	Aha‘ino (A)	This “lizard’s pond” is 5.23 acres and was used commercially until 1958.
Kula‘alamihi Pond	Honomuni (A)	This fishpond was 6 acres and used commercially, but is now filled with mud.
Paikahawai Taro Patch	Honomuni (A)	This patch was situated at the entrance to Honomuni Valley, but is now full of weeds.
‘Ipuka‘iole Pond	Kainalu (A)	This fishpond was 3.2 acres with a 590-foot long wall, which is now destroyed.
Kainalu Pond	Kainalu	This 19-acre pond has a 2,160-foot long wall, but has now been completely destroyed.
Pakaikai	Waialua (A)	Located at the head of Waialua Valley, this site is noted as the place where Kamehameha-nui was raised.
Kahinapohaku Pond	Moanui (A)	This fishpond was 4 acres, but only the foundation stones remain today.
‘Ohalahala Pond	Kumimi (A)	This 1.5-acre pond has now been destroyed.
Ko‘a	Honoulimalo‘o (A)	This shrine was a square structure of stones.

Table 6: Continued

Site Name	Moku (M) or Ahupua‘a (A)	Notes
Kaho‘onoho Heiau	Pohakupili (A)	This heiau is located at the edge of the sea on the eastern side of the bay of Pohakupili Gulch.
Pohakuhawanawana Stone	Pohakupili (A)	This “whispering stone” is located at Pohakupili Gulch. It is a tall upright stone of rectangular shape.
Moku Ho‘oniki Island	Moakea (A)	This small island is to the east of Moakea. This island has a cave which is said to have had a canoe in it. There was also mention of a fishing ground off the island.

6 Discussion

Thanks to the capacity and research of Kepā Maly and the Lāna‘i Culture & Heritage Center, the sites and resources of Lāna‘i have been extensively identified. Therefore, this was the easiest community in which to aggregate sites and resources. This was also the easiest community in which to pull the community together, thanks to the small population of the island. Community members were largely opposed to any potential offshore developments, but this appeared to be in large part to a contentious history with terrestrial land development projects. The Hawaiian Islands Humpback Whale National Marine Sanctuary completely encircles the island, creating additional regulations around the island. From certain locations, numerous islands are also visible, creating significant viewsheds from multiple places on the island.

Endnotes

[1] The missionaries of the ABCFM (American Board of Commissioners for Foreign Missions) were the first to create a written alphabet (lexicon) and enact a system of teaching literacy (reading and writing) in the Hawaiian language. For more information, see Kimura, "Native Hawaiian Culture." *Native Hawaiian Study Commission Report*, 1983, pgs. 173-224.

[2] The interconnectedness of kanaka, ʻāina, and kai (people, land, ocean) came into full public view in 1997 with *Public Access Shoreline Hawaiʻi v. Hawaiʻi County Planning Commission.* Public Access Shoreline Hawaiʻi (PASH), a group comprised primarily of Native Hawaiian cultural practitioners, legally challenged the county of Hawaiʻi government over permits issued to Nansay Hawaiʻi to develop a sprawling resort slated to cover over 450 acres of shoreline at Kohanaiki, north Kona. In part, the development of the resort would cut off access to a significant portion of the shoreline, critical to accessing customary fishing grounds. It was a socio-political-cultural revolution where kumu hula (hula masters), fishermen and other Hawaiian practitioners came together to demand access to the ocean and its paramount male deity, Kanaloa. The Hawaiʻi Supreme Court ruled in PASH's favor, "effectively elevat[ing] the rights of native Hawaiians to gather in traditional and customary ways to the same level of legal importance as the most basic and fundamental concepts in Western property law."

References

Bartholomew DP, Hawkins RA, Lopez JA. 2012. Hawaii Pineapple: the Rise and Fall of an Industry. J Am Soc Hortic Sci. 47(10):1390-1398.

Kaye R. 1982. Lanai Folks. Honolulu (HI): University of Hawaii Press. 120 p.

Maly K. 2007. Historical Summary of Key Events in Lānaʻi's History [Internet]. [cited 2017 May 3]. Available from http://www.lanaichc.org/historic-summary.html

Maly K, Maly O. 2007. E ʻike hou iā Lānaʻi to know Lānaʻi once again: a historical reference and guide to the island of Lānaʻi. Lānaʻi City (HI): The Lānaʻi Culture & Heritage Center.

Summers CC. 1971. Molokaʻi: a Site Survey. Honolulu (HI): Pacific Anthropological Records, Department of Anthropology, Bernice P. Bishop Museum. 241 p.

Appendix 5: Waikīkī Case Study

Figure 15: Aerial view of the case study area, Ahupua‘a of Waikīkī (Source: Google Earth © 2016 Google Data USGS)

WAIKĪKĪ CASE STUDY
2015-2016

1 Introduction

This case study demonstrates the vast complexity of traditional maritime cultural landscapes and their resources. Using the ahupuaʻa model, a case study of the Waikīkī ahupuaʻa attempted to aggregate information on natural heritage resources, intangible cultural heritage resources, and (tangible) cultural heritage resources. This information was gathered from a range of sources, including but not limited to oral histories, previous archaeological studies, Hawaiian language newspapers, and mele.

This case study illustrates the range of data that are available and not available. Archaeological studies are available from the Department of Land and Natural Resources State Historic Preservation Division. Land Commission Awards are also available, but like Hawaiian language newspapers, require translation. Information about intangible cultural heritage is available from a range of resources, but needs to be aggregated. Natural heritage information is also available from a range of different studies and resources.

Maritime cultural data are far harder to obtain. This is available primarily from cultural practitioners, mainly navigators, paddlers, hula masters and others. Recent advancements in technology have allowed for better data collection related to traditional navigational paths and racing routes. Some of these are included herein. These are important to Native Hawaiians and other Pacific Island communities. Unlike other Native Indian or Native Alaskan communities, which have may have archaeological evidence of their existence within outer continental shelves, Hawaiian settlements are newer and potential register eligibility of maritime cultural landscapes derive primarily from traditional usages (i.e., navigational routes and viewplanes) rather than historic archaeological settlements. Therefore, the values of Native Hawaiian cultural landscapes are primarily intangible in nature and are best documented through ethnographic methods.

2 Project Summary

This case study tested the draft framework within the ahupuaʻa of Waikīkī. The Waikīkī Case Study Advisory Group worked with the Honua Consulting team to design research and mapping based on existing data, revise draft framework, report based on data and experiences, and make recommendations for the ahupuaʻa and the overall framework.

This case study is intended to show the unique intricacies of working with the Native Hawaiian community in an urban setting. We contacted various verified user groups in the ahupuaʻa to survey the full spectrum of activities and cultural practices. The advisory group, comprised of community leaders and practitioners, guided our discussions of cultural resources and contributed previous experiences in consultation. From these previous experiences, Honua Consulting compiled data to identify recommendations for future consultation projects. This is one of three case studies that shed light on the realities of Native Hawaiian consultation and give a window into these specific community relations.

3 Methodology

The approach to developing this case study was as follows:

1. Gather Best Information Available
    a. Gather historic cultural information from stories and other oral histories about the affected area to provide a cultural foundation for the report;
    b. Inventory as much information as can be identified about as many known cultural, historic, and natural resources, including previous archaeological inventory surveys, consultations etc., that may have been completed for the possible range of areas;
    c. Update the information with interviews of cultural or lineal descendants or other knowledgeable cultural practitioners.
2. Identify Potential Impacts to Cultural Resources
    a. Determine if the proposed activities will adversely alter, modify, or destroy the significance or integrity of the landscape, in whole or in part.
    b. Engage with cultural leaders and practitioners through interviews to determine the potential impacts and effects to cultural resources.
3. Develop Reasonable Mitigation Measures to Reduce Potential Impacts
    a. Involve the community and cultural experts in developing culturally appropriate mitigation measures;
    b. Develop specific best consultation practices (BCPs) that will serve as conditions for future tiered off projects and specific to tiered environmental reviews.

3.1 Research Parameters

This case study was limited in time and resources; decisions were therefore made to collect data in three categories:

- Tangible and intangible cultural resources across the whole ahupua‘a
- Previously identified archaeological studies from within the Waikīkī coastal area
- New information collected from community members

Due to time and resource constraints, no field studies were conducted. Information was primarily aggregated from community sources (both primary and secondary) and other secondary sources. Also excluded from this study are the Land Commission Awards, which confirm the claim of an individual to a parcel of land, and are the foundation of some private land titles in Hawai‘i. The Land Commission Awards should be included in the event that the full area undergoes a study of this nature.

4 Advisory Group

Honua Consulting invited members from over 100 community and user groups to the initial case study briefing. From these groups, individuals self-identified to become the advisory group for the Waikīkī Case Study. Group members represent diverse interests within the Waikīkī Ahupuaʻa from fishing, hula, canoe paddling, civic and government sectors.

4.1 Qualification of Members

The Characterizing Native Hawaiian Cultural Landscapes workshops and meetings identified the following values and principles as being high priorities in any successful consultation process:

- Integrity and honesty between partners
- Community engagement in research design
- Transparency throughout the process
- Equity in decision-making (or management/clarity of expectations)
- Earliest possible engagement with the Native Hawaiian community and stakeholders
- Community engagement in assessment and evaluation
- Accountability (i.e., including enforcement provisions)

In order to achieve the principles in this case study we prioritized the following qualifications for all advisory group members:

- Familiarity with Native Hawaiian language resources
- Cultural practitioners
- Local expertise
- Direct engagement with community members and kūpuna
- Data collection that includes Native Hawaiians and local researchers
- Quality control of research by local experts

4.2 Selection of Members

All Advisory Group Members were selected based on the priorities outlined above and their long-standing dedication to the ahupuaʻa of Waikīkī.

4.3 Member Responsibilities

- Members attend Waikīkī Advisory Group Meetings on a monthly basis
- Contribute to the cultural and natural resource database
- Liaise with relevant community groups and consult fellow community members
- Review all documents produced through this case study

5 Moʻolelo of Waikīkī

Waikīkī ahupuaʻa is located on the Kona side of Oʻahu. “Kona includes the present-day city of Honolulu. The District of Waikīkī is one of the most populated areas in Hawaiʻi. [Historically,] a favorite place for chiefs because of the good surfing, good weather, extensive loʻi in Pālolo and Mānoa and the fishponds at Kaʻalawai” (Sterling and Summers 1978).

Traditionally, Waikīkī was a population center with extensive inland agricultural fields and a fertile fringing reef. Waikīkī is translated to “spouting water”, said to be named for the springs that once flowed through the wetlands (Pukui et al. 1974). Multiple streams flowed from the valleys of Makiki, Mānoa, and Pālolo, which provided fresh water that fed irrigated loʻi constructed throughout the lowlands, which supported other crops like bananas and sugar cane. The coastal areas were drier than inland zones and therefore, the irrigation systems provided the means for wetland agricultural complexes throughout the plains of Waikīkī. Inland fresh springs were available in Mōʻiliʻili and Punahou. The coast of Waikīkī had coconut groves, fishponds, abundant marine resources, and excellent surfing. Inhabitants of Waikīkī lived near the coast, on the fringes of lowland fields, and in the inland valleys. The bounty of Waikīkī made it a popular area traditionally, historically, and through to the modern era. However, with post-contact (post 1778 AD) advances in trade with foreign vessels, changes to agricultural practices, land reclamation activities, and commercialized development, Waikīkī underwent vast changes.

Depending on the era and other factors, maps, moʻolelo, and mōʻī (high chiefs) identify the boundaries of the Waikīkī ahupuaʻa differently. Generally, the ahupuaʻa consisted of a single, expansive watershed, including the stream systems from Makiki, Mānoa, and Pālolo Streams, which emptied into the waiwai (rich) ʻĀpuakēhau Stream, which ran through Waikīkī. This case study utilized those boundaries, extending from Laeʻahi[1] (Diamond Head) to Ala Moana Beach Park, back to ʻAkaʻaka Ridge in Mānoa Valley. The following image depicts the boundaries of the Waikīkī ahupuaʻa, where Laeʻahi is the southernmost point, Ala Moana Beach Park is westernmost, and ʻAkaʻaka Ridge is along the northern boundary (Figure 16).

ʻAkaʻaka Ridge is part of the Koʻolau Mountains and runs above Waiakeakua, also known as “the water of the gods.” Like many of the landforms of Mānoa, ʻAkaʻaka was also known to have a human form. ʻAkaʻaka was married to Nalehuaʻakaʻaka, whose natural resource form was lehua blossoms that could be found along ʻAkaʻaka Ridge. It was said that ʻAkaʻaka and Nalehuaʻakaʻaka conceived twins: a boy, Kahaukani, and a girl, Kauakuahine. The parents allowed Kolowahi and his sister Pōhakukala, both first cousins of ʻAkaʻaka, to adopt the twins. Kolowahi raised Kahaukani, the boy twin, and Pōhakukala raised Kauakuahine, the girl twin.

When the twins were grown, their adoptive parents decided to unite them in marriage. This union would have been considered a nīʻau-piʻo relationship[2], which was a highly respected and ranked union intended to protect the mana (power) of the aliʻi class. The marriage between Kahaukani and Kauakuahine became a powerful one and produced a beautiful daughter, Kahalaopuna.

Figure 16: The boundaries of the Waikīkī ahupuaʻa on a current map, in red. (Source: Google Earth © 2016 Google Data USGS)

As the children of ʻAkaʻaka and Nalehuaʻakaʻaka, Kahaukani and Kauakuahine also had kino pāpālua (dual body forms). Kahuakani was the wind of Mānoa and Kauakuahine was the rain of Mānoa. Their daughter, Kahalaopuna, developed the kino pāpālua of the rainbow. Kahalaopuna was said to be an extraordinary beauty. It is said she lived at Kahaiamano on the route to Waiakeakua, a location in Waikīkī (Nakuina 1907).

While Waiakeakua originates in Mānoa, its waters flow all the way to the ocean and out through Waikīkī. Waikīkī was a place frequently enjoyed by both gods and chiefs. It is said that traditional moʻo (lizard) guardians protected the many loko iʻa (traditional Hawaiian fishponds) that fed the people throughout Waikīkī. Hawaiian historian George Kanahele recounts traditional moʻolelo about some of these guardians:

> Waikīkī's earliest moʻo god was probably Kamōliʻiliʻi (literally, the pebble lizard) who was slain by Hiʻiaka, Pele's sister. The legend related that Hiʻiaka and Wahineʻōmaʻo were escorting Lohiʻau (Pele's lover-Prince) back to Pele on the island of Hawaiʻi. During the return journey, they left their canoe at Waikīkī and walked up toward Kamōliʻiliʻi. When they arrived at that particular spot (said to be where the old stone church stood in the 1920s), a heavy gust of wind blew, and Wahineʻōmaʻo and Lohiʻau felt invisible hands pulling their ears back. They

called to who did it and told the other gods to keep closely behind her. A short distance away they met Kamōliʻiliʻi, who wanted to fight. Hiʻiaka removed her outsider skirt which concealed her bolts of lightning and struck him with them. His body was cut to pieces and the pieces turned into the long, low hill across from Waikīkīʻs Kūhiō School (Kanahele 1995; Sterling and Summers 1978).

Figure 17: An aerial view of Waikīkī looking into Mānoa (Source: Ahupuaʻa o Palolo)

6 Natural Environment

The coastal zone of Waikīkī is approximately 1.5 m (5 ft) above mean sea level. Average rainfall in this area is between 38-51 cm (centimeters) or 15-20 inches per year, with temperatures ranging from 70 to 85 degrees Fahrenheit (U.S. Climate Date 2016). There is no natural vegetation in the Waikīkī commercial district, however many exotic trees can be found in the vicinity, including Banyan (*Ficus benghalensis*), MacArthur Palm (*Ptychosperma macarthuri*), Alexander Palm (*Ptychosterma elegans*), Manila Palm (*Adonidia sp.*), Date Palm (*Phoenix dactylifera*), Coconut (*Cocus nucifera*), Plumeria (*Plumeria rubra*), and Opiuma (*Pithecellobium dulce*). The natural soil of this area was originally Jaucas sand, which developed from natural erosion of the nearby coral reef. In some coastal areas of Waikīkī, the sand was naturally covered with alluvium washed down from the uplands. Soil Series data indicates that the case study area

is located with Fill Land (FL), which "consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills" (Foote et al. 1972). Mixed Fill Land (MFL) occurs in areas around Pearl Harbor and Honolulu near the ocean, and is typically used for urban development.

In the late 1800s, attempts were made to cultivate rice and coffee in Mānoa Valley (pictured above in Figure 17). These commercial enterprises were unsuccessful, and agriculture in the valley was again devoted almost exclusively to taro (Rosendahl 1998). Both Pālolo and Mānoa Valleys were venues in which activities associated with the Rebellion of 1895 were carried out. After having their efforts thwarted at Laeʻahi, a group of about 50 Royalists retreated to Pālolo Valley and then through a pass into Mānoa Valley, where they holed up in an area referred to as "The Pen" above Aihualama Stream (Rosendahl 1998). All of the members of this group were eventually killed, captured, or surrendered to the National Guard. By the 1930s, only 100 terraces in Mānoa Valley, no more than a tenth of the arable land, were under cultivation.

Extending beyond the agricultural plains is the bay of Waikīkī. Created by the stream waters of the three inland valleys, Pālolo, Mānoa and Makiki and below Laeʻahi, Waikīkī Beach is home to some of the most prized land and surf spots of Hawaiʻi. Waikīkī means "spouting water" a reference to the springs that flowed abundantly throughout the wetlands of Waikīkī (Kanahele 1995). Although most of the springs were filled during reclamation projects, spring water still surfaces in the ocean off Waikīkī in the shallow reefs along the beach, especially during the winter and spring, and during periods of heavy rains in the inland valleys.

The wetlands of Waikīkī provided essential water and space for agriculture in the densely populated area. "The wetlands supported more than a dozen fishponds, where stocks of fish were kept and caught as needed. Several streams flowed out of the wetland and crossed the shoreline, including Kukaeunahi, ʻĀpuakēhau, and Piʻinaio. The fresh water running into the ocean was vital in helping to support marine resources" (Clark 2011). Many edible seaweeds in Hawaiʻi flourish in areas where fresh water mixes with salt water, and these seaweeds grew in abundance in Waikīkī. They were the beginning of the food chain, which provided shelter for small fish, crabs and shrimps, which attracted larger fish that fed on the smaller ones and on the seaweed, and so on up the chain to the largest species.

Noted for its prosperous community and abundant natural resources, Waikīkī was an important social center favored by Hawaiian royalty. Due to this historical prominence, Waikīkī is often mentioned in legends and early historical accounts.

7 History of Waikīkī

Long favored by Aliʻi and Akua alike, Waikīkī claims a rich history. Extensive moʻolelo, some of which have already been shared, tell of chiefs who could become the winds and the rains. Blessed with an extensive natural fresh water supply, Waikīkī enjoyed extensive traditional agricultural activities throughout its ahupuaʻa.

Archaeological research and traditional moʻolelo differ as to when Polynesians settled Hawaiʻi and which island was settled first. Archaeology points to Oʻahu being settled first, with the most

recent data indicating Waimanalo and Kailua as being the first settled (Kanahele 1995). Some moʻolelo highlight the journey of Kumukahi from Kahiki, to Hawaiʻi Island, to the eastern most point of the island, then to the peninsula that now bears his name, marking this as the first point of settlement (Pukui et al. 1974).

What is perhaps most important to understand about the history of Hawaiʻi is that both the Wā Akua (Time of the Gods) and Wā Kānaka (Time of Man) significantly shaped and impacted the environment. Wā Akua developed many of the natural heritage features that still grace the islands today, while Wā Kānaka developed the stories that gave those features their significance. More recently, humans have also adversely impacted many of those same features, degrading them from their original condition.

While it is unclear as to the exact date when kānaka settled the Waikīkī ahupuaʻa, it is clear that the ahupuaʻa was an early favorite of makaʻāinana (commoners) and aliʻi alike. Numerous aliʻi spent time in Waikīkī, including Lāʻie-lohelohe, daughter of Kalamakua and Kelea, who was born in Helumoa and raised at Kaluaokau in Waikīkī (Kamakau 1993). She married the high chief of Maui, Piʻilani. Their marriage was a very significant political union between the chiefs of Oʻahu and Maui. Lāʻie-lohelohe returned to Oʻahu to give birth to the last of their four children, a son, Kiha-a-Piʻilani. He was born at ʻĀpuakēhau in Waikīkī and a stone was placed to mark the location of this royal birth (Kamakau 1993).

After his birth, Kiha-a-Piʻilani was taken by kahuna (royal advisors) to be raised at the heiau at Kamōʻiliʻili.[3] This heiau was known as Mauʻoki, and it was a well-known and revered place. Traditional Native Hawaiian historians believed that Menehune (mythical beings) built this heiau, as well as many additional heiau and fishponds across Oʻahu.

> Ka-hānai-a-ke-akua was reared in Waolani; Ka-hihi-kū-o-ka-lani was another name for him. Kahano-a-Newa was the one who reared him. Kahano was the one who stretched his hands out to the Pillars of Kahiki, and on his arms came to the people called the Menehune. They were brought to be workers for Ka-hihi-kū-o-ka-lani. It is said that they were the makers of the kuapā fishponds of Oʻahu and of the heiau Mauʻoki, Kaheiki, Kawaʻewaʻe, ʻEku, Kamōaliʻi, and Kuaʻōkala. Kū-leo-nui was their public crier.
>
> The Menehune lived at Kailua, and Kū-leo-nui called to them from above Mānoa. This was his call: "O Menehune of Kailua – to work!" "What is the work?" "To build a house; the bones of birds to be the posts, the bones of the birds to be the rafters, the bones of the birds to be the thatching sticks, the intestines of birds to be the thatching cords." They answered, "That is not a big job; that is quickly done by uniting of effort" (Kamakau 1993).

Historians noted that it was the great Oʻahu chief Maʻilikūkahi, the creator of the ahupuaʻa system born at Kūkaniloko, who established Waikīkī as a center of power for the Kona district on Oʻahu, which included the areas of Moanalua, Kahauiki, Kalihi, Kapālama, Honolulu (Nuʻuanu and Pauoa), Waikīkī (Makiki, Mānoa, and Pālolo), Waialae Nui, Waialae Iki, Wailupe, Niu, Kuliouou, and Maunalua (Handy and Handy 1972; Sterling and Summers 1978).

Oʻahuʻs greatest period of prosperity was under the Maʻilikūkahi family dynasty, which lasted for several hundred years until the time of Kamehameha. Prior to Maʻilikūkahi, descendants of the Kumuhonua family line had ruled Oʻahu. Maʻilikūkahi was chosen to be King by a complex process held by high-ranking chiefs and priests who were unsatisfied with the reign on the current King, Haka. Haka was removed from power for the poor treatment of his people and put to death. Maʻilikūkahi was installed as King in his place.

Upon becoming King, Maʻilikūkahi moved his court to Waikīkī, where he established his center of power, created the ahupuaʻa system and distributed responsibility for managing lands to his subjects. While an unprecedented move, it proved to be a tremendously successful one that persists to this day and began an era of unparalleled prosperity for the island. Maʻilikūkahi would become a beloved mōʻī. His people thrived under his rule and his descendants had many famed stories in Waikīkī.

Historical accounts of the Mānoa and Pālolo valleys and the floodplain at the base of Koʻolau Range emphasize the quantity of agricultural fields. The area between Mānoa Valley and the sea was one continuous spread of taro land and fishponds (Rosendahl 1998). “In localities like…Mānoa on Oahu, where there was extensive and continuous taro cultivation of contiguous loʻi, houses were not far apart, land holdings were interlocking and the systems of waterways were controlled and serviced collectively” (Handy and Handy 1972).

In 1825, Andrew Bloxam described several hundred fishponds extending a mile inland from the shore (Rosendahl 1998). By 1901, only 14 fishponds were in use in the area. A quarter century later, McAllister observed that, “all of this land has been drained and filled: neither fishponds or taro lands have survived” (Rosendahl 1998).

In 1845, Honolulu became the capital of Hawaiʻi, and as political activities focused on Honolulu and businesses in the immediate coastal-harbor zone grew, the inland valleys began to experience rapid changes in settlement to support the growing community (Rosendahl 1998). The Māhele of 1848 also represented a turning point in Hawaiian land use, as the Māhele allowed the outright purchase of land. Testimony from the Land Commission Awards indicated that wetland taro production dominated the coastal plain and valleys (Rosendahl 1998).

Historical accounts provide a broader perspective on the patterns of land use and occupation in the area. Pālolo Valley was the site of extensive wetland taro cultivation, with irrigated terraces along both sides of the stream and below the end of the valley. Terraces were also located along the steep slopes in the upper reaches of Pālolo Valley, along the Waiʻōmaʻo and Pūkele Streams (Handy and Handy 1972; Rosendahl 1998). In upper Mānoa, all level land in the valley bottom was developed into broad taro flats. The terraces extended along Mānoa Stream as far as there was suitable land for irrigating (Handy and Handy 1972).

Other historical developments relevant to the case study area are associated with the Kanewai area. Kanewai Pool is a significant feature in Native Hawaiian legend and history, although the exact location of the underground pool is unknown.

> Kanewai was the name of a large underground pool on the inland side of King Street, near what is now the quarry. Its waters, the "healing waters of Kane", were much sought by the Hawaiians. Queen Liliuokalani was much interested in the pool. The ancient Hawaiians said that wise fish from the sea used to swim up to this pool, over hear the plans of the native fishermen, who frequented the vicinity and then float back to the ocean to warn their finny friends (Sterling and Summers 1978).

Kamakau mentions the lands of Kamoku while telling the story of how Kamehameha came to build the temple of Puʻukohola at Kawaihae in Kohala. Kapoukāhi was a renowned priest of the Hulihonua (diviners) class; he was originally from Kauaʻi, but when Kahekili added Kauaʻi and Oʻahu to his kingdom, this great prophet came to live on Oʻahu with Kahekili (Kamakau 1961). Kapoukāhi was living at Kamoku when Kamehameha sent out his aunt, Haʻaloʻu, to ask Kapoukāhi what Kamehameha must do to achieve his goal of unifying the islands under his rule. Kapoukāhi instructed Kamehameha to build a great house for his god at Puʻukohoā: "If he makes this house for his god, he can gain the kingdom without a scratch to his own skin" (Kamakau 1961).

Waikīkī has long been a residence of Hawaiian royalty (Beckwith 1970; Fornander 1996). The Legend of Kalaunuiahua describes the waring chief of Kauaʻi and land reforms conducted to strengthen power of the aliʻi and stabilize control over the growing population (Beckwith 1970). Several "wise and just" chiefs of Oʻahu ruled from Waikīkī.

> With Mailikukahi, Waikiki became the ruling seat of chiefs of Oahu. He carried out strict laws, marked out land boundaries, and took the firstborn son of each family to be educated in his own household. He honored the priests, built heiaus [temples], and discountanced human sacrifice (Beckwith 1970).

The renowned John Papa ʻĪʻī was born in Kawehewehe, Waikīkī and he recounted the setting during his early years.

> Kamehameha's houses were at Puaaliilii, Makai of the old road, and extended as far as the west side of the sands of Apuakehau. Within it was Helumoa, where Kaahumana went to while away the time. The king built a stone house there, enclosed by a fence; and Kamalo, Wawae, and their relatives were in charge of the royal residence. Kamalo and Wawar were the children of Luluka and Keaka, the childhood guardians of Kamehameha. This place had long been a residence of chiefs. It is said that it had been Kekuapoi's home, through her husband Kahahana, since the time of Kahekili (ʻĪʻī 1959).

A traditional trail system through Honolulu, Mānoa Valley, and Waikīkī was described by ʻĪʻī (1959). The trail stretched from Kawaiahao (in Honolulu) through coconut groves, along fishponds, "then through the center of Helumoa of Puaaliilii, down to the mouth of the Apuakehau stream; along the sandy beach of Ulukou to Kapuni, where the surfs roll in" (ʻĪʻī 1959).

8 Previous Archaeological Research

Archaeological evidence of the extensive usage of Waikīkī by Native Hawaiians prior to contact still exists. While providing all of the archaeological information for the entire case study area is not practical, a selection of the archaeological studies conducted within coastal Waikīkī and their findings are provided. The purpose of this information is two-fold: first, to give individuals unfamiliar with Hawai‘i’s cultural resources a sense of the type of archaeological findings typically found in traditional coastal areas, and second, to demonstrate how tangible cultural resources can be used in concert with intangible cultural resources and natural resources to develop a thorough narrative of this vast cultural landscape, utilizing a range of disciplines and evidentiary methods.

Whereas Native Hawaiian Organizations and/or community groups may have knowledge as to locations of historic events or valued resources, for the purposes of Section 106 of the National Historic Preservation Act or the National Environmental Policy Act, it is important to pair this community knowledge with discourses that possess the prerequisite methodology and means of sufficiently evidencing the resources so that the data may be properly collected and utilized as needed.

Multiple archaeological studies have been conducted within Waikīkī and numerous sites have been documented. Documented sites in the near vicinity include multiple human burials, ‘auwai (irrigation ditch), agricultural sediments, previously disturbed and intact buried cultural layers, historic trash pits, and other feature types. Previous archaeological studies are discussed below, listed by date of the study.

Griffin 1987

Agnes Griffin and Albert Ah Nee investigated the inadvertent discovery of human burial remains, MOA-1, found in Waikīkī Ahupua‘a along Kalakaua Avenue. The bones were already bagged and removed prior to arrival of archaeologists. Remains consisted of fragmented and nearly complete skeletal elements. No state site number was given to the findings.

Simons et al. 1988

In 1988, Jeannette A. Simons conducted archaeological monitoring and data recovery excavation for the Waikīkī Moana Hotel Historical Rehabilitation Project. During excavation, 8 human burials were encountered, “4 of which were in situ traditional tightly flexed Hawaiian burials” (Simons et al. 1988). Despite the detailed descriptions stated for each of the burials in the final report, no state site number was given for these burials.

Davis 1989

In 1989, the Bernice P. Bishop Museum conducted archaeological excavation and monitoring during construction of the new Halekūlani Hotel. Archaeological fieldwork included nine exploratory trenches and four existing construction trenches, as well as monitoring and laboratory analysis. A total of 48 historic and prehistoric features were excavated at the Halekūlani Hotel including human remains, a small whole pig, refuse pits, postholes, and historic artifacts. No site numbers were assigned for the findings.

Chiogioji and Hammatt 1991

In 1991, Cultural Surveys Hawaii (CSH) conducted a preliminary archaeological assessment of two parcels within the current case study area. Further background research indicated that a portion of the present study parcel was formerly a corner of the ʻĀinahau estate as well as a possible former ʻauwai, taro, and rice field.

Kennedy 1991

In 1991, Archaeological Consultants of Hawaiʻi, Inc, (ACH), conducted archaeological monitoring for the IMAX Theater Construction Project. The project area was a 24 m by 41 m (79 ft by 135 ft) parking lot in the heart of Waikīkī. No significant cultural artifacts, features or human remains were encountered during the monitoring project.

Paglinawan 1995 and 1996

In 1995 and 1996, Richard Paglinawan prepared a report providing information on the "Wizard Stones of Waikīkī" (State Inventory of Historic Places (SIHP) #50-80-14-60) during the development of a historic walking trail. The report summarized a timeline of the stones and where they had been previously located throughout Waikīkī.

McDermott et al. 1996

In 1996, CSH conducted an Archaeological Inventory Survey. Subsurface testing consisted of 14 backhoe trenches. During the project, buried remnants of an ʻauwai and loʻi were encountered and assigned SIHP #50-80-14-5459. In addition, one Native Hawaiian burial was encountered and designated SIHP #50-80-14-5460.

Winieski and Hammatt 2001

In 2001, CSH prepared an Archaeological Monitoring Report for the Public Baths Waste Water Pumping Station Force Main Replacement. Archaeological monitoring involved excavation of eleven 6 m (20 ft) diameter pits within the project area to accommodate for underground machinery. A partial human burial, previously disturbed cultural layer, and intact historic dog burial were encountered and assigned SIHP #50-80-14-5797. An old "A" horizon and small pit feature found nearby were assigned SIHP #50-80-14-5883. Based on the project and previous projects in the area, CSH confirmed that any future subsurface construction within the nearby vicinity should be accompanied by an archaeological monitor.

Elmore and Kennedy 2001

In 2001, Archaeological Consultants of the Pacific (ACP) investigated the inadvertent discovery of an in situ human burial, SIHP #50-80-15-5937, and conducted archaeological monitoring during construction work at the Royal Hawaiian Hotel. SIHP #50-80-15-5937 was an in situ burial uncovered at the base of a shallow trench. Additional human remains were uncovered during monitoring. Artifacts uncovered included several shell buttons, a drilled dog tooth, and a copper penny. All cultural materials were reinterred with Site-5937.

Cleghorn 2001a

In 2001, Pacific Legacy, Inc. conducted archaeological mitigation of an inadvertent burial discovery, SIHP #50-80-15-586, at the construction site of Burger King on ʻŌhua Avenue and

Kalakaua Avenue in Waikīkī. The remains were found in a primary context within a burial pit and were the remains of an adult individual in an extended position. The burial pit was in a dark cultural layer and contained moderate to heavy amounts of charcoal and pieces of volcanic glass. Four test excavation trenches were conducted but only test unit 4 uncovered cultural deposits consisting of a small hearth, a small pit with midden sand deposits, and charcoal.

Cleghorn 2001b

Later in 2001, Pacific Legacy, Inc. conducted additional archaeological mitigation of the inadvertent discovery of human remains uncovered near the construction site of Burger King on ʻŌhua Avenue and Kalakaua Avenue in Waikīkī, adjacent to St. Augustine Church. Four test units were excavated with numerous bone fragments uncovered. The burials were found in a previously disturbed context and were subsumed under state site number 50-80-15-5681. Historical artifacts found included three buttons (wood and two plastic), a 1957 U.S. one cent coin, animal bone, metal, glass, and ceramic fragments including one blue-on-white ware, a bottle neck with cork, and a clear glass button-shaped disk.

Mann and Hammatt 2002

Under contract with the Board of Water Supply of the City and County of Honolulu, CSH conducted archaeological monitoring for the installation of 20 cm (8 inch) and 30.5 cm (12 inch) water mains on Uluniu Avenue and Liliʻuokalani Avenue. Archaeological monitoring resulted in the inadvertent discovery of five burials (SIHP #50-80-14-5859 and SIHP #50-80-14-6369) and two historic trash pits (SIHP #50-80-14-6372 and SIHP #50-80-14-6398). SIHP #50-80-14-6369 was located at the Kalākaua-end of Uluniu Avenue and consisted of a primary in situ burial. SIHP #50-80-14-5859 was a heavily disturbed burial located at the Kalākaua-end of Liliʻuokalani Avenue and consisted of two individuals: one adult and one sub-adult. Three inadvertent burial finds were also encountered on Uluniu Avenue, CSH Burial 1-09/18/01, CSH Burial 2-1003/01, and CSH Burial 4-11/19/01. All the burials show multiple post mortem fractures which indicated disturbances in the burials.

SIHP #50-80-14-6372 (trash pit) was located mauka (inland) of the intersection of Uluniu Avenue and Prince Edward Street. The artifacts recovered within the refuse pit dated from the early 1900s to post 1950s. SIHP #50-80-14-6398 (trash pit) was located at the Kalākaua-end of Liliʻuokalani Avenue and consisted of historic soda bottles and porcelain ceramic pieces dating from the late 1800s to the 1950s.

Winieski et al. 2002

In 2002, CSH conducted archaeological monitoring for the installation of a 41 cm (16 inch) water main on an approximately 915 m (0.57 mi) long portion of Kalakaua Avenue between Kaʻiulani and Monsarrat Avenues associated with the Kuhio Beach Extension/Kalakaua Promenade project. Several sites were recorded including a buried cultural layer (SIHP #50-80-14-5940), a historic trash pit (SIHP #50-80-14-5941), a light gauge trolley rail (SIHP #50-80-14-5942), ponded sediments (SIHP #50-80-14-5943), and human remains from 44 individuals (SIHP #50-80-14-5856 thru 5862). It was recommended that archaeological monitoring take place within the project area for any future subsurface construction within the project area.

Bush et al. 2003

In 2003, CSH performed archaeological monitoring for the installation of a new sign at the International Marketplace. The project included the excavation of two holes for the installation of two large sign posts. Archaeological fieldwork resulted in two cow bone fragments and predominately modern trash including aluminum Pepsi cans, paper trash, and aluminum foil. No site numbers were assigned for these findings.

Kailihiwa and Cleghorn 2003

In 2003, Pacific Legacy, Inc. conducted archaeological monitoring for the Waikīkī Water System Improvement Project, Part IV, Units 1 and 2. Monitoring activities took place on Lauʻula Street, Royal Hawaiian Avenue and Seaside Avenue in Waikīkī. No significant archaeological features or artifacts were found.

Tome and Dega 2003

In 2003, Scientific Consultants Services (SCS) conducted archaeological monitoring for construction at the Waikīkī Marriot Hotel. During excavation, one bone fragment was encountered, but the fragment was unidentifiable. No additional significant features or remains were encountered and therefore no site numbers were assigned during the project.

Chiogioji and Hammatt 2004

In 2004, CSH conducted an archaeological assessment of the 2.5 hectare (6.3 acre) Royal Hawaiian Shopping Center parcel. The project bordered Kalakaua Avenue, the Royal Hawaiian Hotel, Lewers Street, and the Outrigger Hotel. No significant archaeological features, burials or artifacts were encountered during field inspection. However, background research indicated that pre-contact and historical burials are possible along with additional archaeological sites and features. No excavation was conducted.

Chiogioji et al. 2004

In 2004, CSH conducted an archaeological inventory survey with subsurface testing in Waikīkī. The project was conducted for an eight-story apartment complex and surface parking lot with associated utility installation, landscaping and subsurface ground disturbance. The archaeological fieldwork consisted of excavation of 14 backhoe trenches throughout the project area and documentation of sediment profiles and archaeological features. Overall, four stratigraphic layers were identified within the project area that varied distinctly between the northeast and southwest halves of the project area. Based on CSH research, at least a portion of the ʻĀinahau Estate and the Archibald Cleghorn Estate were within the project area. Aside from this, fine-grained terrigenous alluvial deposits, structural features related to loʻi, a portion of the ʻĀpuakēhau Stream, and fragmentary human skeletal remains were documented. The skeletal remains were previously disturbed and brought onto the project area as part of historic fill layers. No site numbers were given.

Havel and Spear 2004

In 2004, Scientific Consultant Services (SCS), Inc., conducted archaeological monitoring at the ABC Store (No. 21). No significant deposits or artifacts were found.

Esh and Hammatt 2006a

In 2006, CSH conducted archaeological monitoring for a portion of the Kuhio Avenue Improvements Project, from Kalākaua to Kaʻiulani in Waikīkī. Archaeological fieldwork uncovered one in situ dog (*Canis familiaris*), but the remains were re-deposited in a different location. Excluding the faunal remains, no additional cultural or significant archaeological materials and artifacts were uncovered.

Esh and Hammatt 2006b

In 2006, CSH carried out archaeological monitoring for the Ala Wai Boulevard Improvements Project. The project included improvements along the mauka (inland) and makai (seaward) sides of Ala Wai Boulevard between McCully Street and Kapahulu Avenue. Aside from the faunal bones uncovered during monitoring at the intersection of Ala Wai Boulevard and Seaside Ave, no additional archaeological findings were uncovered.

Hammatt and Shideler 2007

In 2007, Sheraton Hotels contracted CSH to conducted archaeological monitoring for the Sheraton Moana Surfrider Hotel. The project consisted of installing a grease interceptor on the east side of the Sheraton Moana Hotel at a depth of 2.4 m (7.9 ft). Monitoring resulted in no human burials, traditional Hawaiian artifacts, or features. A few historical artifacts such as small metal fragments and ceramic tile fragments were found.

Tulchin and Hammatt 2007

In 2007, CSH prepared an Archaeological Data Recovery Report for the Tusitala Vista Elderly Apartments. Four historic properties were documented which included a buried A horizon associated with the Cleghorn Estate (SIHP #50-80-09-6682), a habitation site (SIHP #50-80-09-6705), human remains (SIHP #50-80-09-6706) in disturbed sediment associated with the ʻĀpuakēhau Stream, and a stone retaining wall (50-80-09-6707). Suggested mitigation measures included an archaeological monitoring program and archaeological data recovery for SIHP #50-80-09-6707, which were approved by the State Historic Preservation Division.

Groza et al. 2007

In 2007, CSH completed a literature review and field check for an approximate 0.4 hectares (1 acre) parcel within the Waikīkī Ahupuaʻa. The project was bounded by Kuhio Avenue to the north, ʻŌhua Avenue to the east, and Kealohilani Avenue to the west. A field inspection did not find any historic properties. Based on the literature review, the study area was suggested to have potential remnants of both prehistoric and historic sites and features ranging from wet and dryland agriculture fields, habitation and activity sites, and historic features such as trash pits, as well as both prehistoric and historic human burials.

Pammer and Hammatt 2007

In 2007, CSH conducted archaeological monitoring at the Perry's Smorgy Restaurant for the installation of a grease trap and kitchen sewer lines. One trench was dug during the archaeological monitoring and resulted in no significant findings or artifacts.

Hazlett et al. 2008a

In 2008, CSH conducted archaeological monitoring for a 0.4 hectare (1 acre) parcel. The parcel is known as "The Center of Waikīkī", located at 2284 Kalakaua Avenue. A 2005 inventory survey conducted by CSH within the project area resulted in the inadvertent discovery of burial remains (SIHP #50-80-15-6819). During the project's monitoring no artifacts or additional human remains were found. However, a bulk sample of encountered wetland sediment was collected and radiocarbon dated to AD 1400 to 1460.

Hazlett et al. 2008b

CSH conducted archaeological monitoring at the request of the Festival Companies for the Royal Hawaiian Shopping Center Project. The project measured a total of 2.5 hectares (6.3 acres). The project found post 1920s fill materials associated with the construction of the Ala Wai Canal. No significant archaeological findings or features were observed.

Runyon et al. 2008

In 2008, CSH conducted an archaeological assessment for renovations to be made at the Sheraton Waikīkī and Royal Hawaiian Hotel. Archaeological testing was conducted in two locations that were expected to have archaeological significance. The project consisted of two phases, and during the first phase no historic or traditional materials were encountered due to the abundance of thick fill sediments. The second phase consisted of excavation of two test units, which revealed a heavily disturbed cultural layer with pre-contact to modern materials and disarticulated human skeletal remains. No site number was designated.

Thurman and Hammatt 2008

In 2008, CSH prepared an Archaeological Monitoring Report for the Geotechnical Testing at the Royal Hawaiian and Sheraton Waikīkī hotels. While research suggested the likelihood of encountering cultural resources, no significant materials were encountered during this project.

Thurman et al. 2009

In 2009, CSH conducted an Archaeological Inventory Survey for the proposed Diamond Head Tower Redevelopment Project. During fieldwork, 8 trenches were excavated where 2 historic properties were encountered including a cultural layer (SIHP #50-80-14-7068) and a large historic trash pit (SIHP #50-80-14-7069). In addition, a human skeletal fragment was encountered. The human fragment was reburied in the west end of the trench.

Yucha et al. 2009

In 2009, CSH conducted an Archaeological Inventory Survey for the Proposed Waikīkī Shopping Plaza Redevelopment Project. Archaeological fieldwork involved ground penetrating radar and excavation of nine backhoe trenches. During the project a previously identified historic property was encountered (SIHP #50-80-14-5796). The site consisted of organic materials sediments containing four historic artifacts found in Stratum IIIa and IIIb. Samples of the site were collected and radiocarbon dated. The sample collected from Stratum IIIa was calibrated with a 2-sigma date range of A.D. 1440 -1640 while the sample from Stratum IIIb was calibrated with a 2-sigma date range of A.D. 1390 -1490 confirming that both samples were within the Pre-Contact period.

Runyon et al. 2010

In 2010, CSH prepared an Archaeological Inventory Survey for the proposed Princess Kaʻiulani Redevelopment Project. The project included a surface survey of the approximately 1.7 hectare (4.16 acre) property, use of ground penetrating radar to select locations for trenches, subsurface testing and additional supplementary testing. Archaeological fieldwork resulted in the excavation of 22 test trenches, which encountered an in situ burial, several disarticulated burial remains, prehistoric and historic artifacts, and cultural layers. Three historic properties were documented including the former Kawaiahaʻo Waikīkī Branch Church and Cemetery lot (SIHP #50-80-15-7065) containing disarticulated human remains, one in situ burial located in the eastern portion of the project area (SIHP #50-80-15-7067), and a well-defined cultural layer (SIHP #50-80-15-7066) containing charcoal, fire effected rocks, midden materials, and intact subsurface features. The cultural layer was dated to A.D. 1725 to A.D. 1815.

Yucha et. al. 2013

In 2013, CSH conducted an Archaeological Inventory Survey for the St. Augustine-by-the Sea Master Plan Project. Fieldwork involved the use of Ground Penetrating Radar and subsurface testing of 11 test trenches. During excavation, a cultural layer was encountered (SIHP #50-80-14-7135) and within the cultural layer 2 post-contact human burials (SIHP #50-80-14-7136) were identified. In addition, a total of 63 artifacts were collected, 10 of which were traditional Hawaiian tools and 53 were historic consisting of glass, ceramic and metal fragments.

Pammer et al. 2014

In 2014, CSH conducted an Archaeological Inventory Survey at 2139 Kuhio Avenue. A total of 26 backhoe test trenches were excavated revealing a "cultural modified land surface" (SIHP #50-80-14-5796). Two samples of wetland and former pond sediments were collected from the cultural layer. The samples yielded 2-sigma calibrated date ranges of A.D. 1790-1950 confirming pre-contact to post-contact activity within the site.

Inglis et al. 2014

In 2014, CSH conducted an Archaeological Inventory Survey for the 133 Kaʻiulani Street. The project proposed redeveloping the King's Village Shopping Center and two adjacent apartment buildings in Waikīkī. Archaeological fieldwork consisted of 16 trenches, resulting in the recovery of several historical and traditional Hawaiian artifacts, faunal remains, and two historical properties (SIHP #50-80-15-7598 and SIHP #50-80-15-7599). SIHP #-7598 was a disturbed culturally-enriched A horizon with 12 associated features. SIHP #-7599 was a single human vertebra found in fill material. Aside from SIHP #-7598 and -7599, a burnt trash layer was also identified but no state site number was given.

Burke 2014

An End of Fieldwork report letter to Susan Lebo was found regarding archaeological data recovery for the proposed Princess Kaʻiulani Redevelopment Project in Waikīkī. The project area already had undergone an Archaeological Inventory Survey, which uncovered three historical sites: Kawaiahaʻo Waikīkī Branch Church and Cemetery lot (SIHP #50-80-15-7065) containing disarticulated human remains, one in situ burial located in the eastern portion of the

project area (SIHP #50-80-15-7067), and a well-defined cultural layer (SIHP #50-80-15-7066) (Runyon et al. 2010). For the data recovery, four new archaeological trenches were dug and three historic properties were documented as relating to one of the previously documented sites, SIHP #50-80-15-7066. Additionally, several pieces of isolated human skeletal remains were identified in association with SIHP #-7066 and -7067.

Manirath et al. 2015

In 2015, CSH conducted an Archaeological Inventory Survey for the Waikīkī Trade Center. Excavation took place at several locations within the project area that were associated with the proposed installation of an escalator pit, new structural columns, and utility hook-ups as well as several holes for the planting of coconut trees. A foundation slab and debris layer containing brick and concrete (SIHP #50-80-14-7813) was encountered during excavation of one of the pits. The site was confirmed as being the remains of a former demolished apartment building. There were no additional artifacts or features recorded within the project area.

Morriss and Hammatt 2015

In 2015, CSH conducted an Archaeological Inventory Survey for the Beachwalk Wastewater Pumping Station Project located along the coast. The proposed construction project involved the installation of a 30.5 cm (12-inch) sewer line, the removal of an existing line, and landscaping the northwestern portion of the project area. During the Archaeological Inventory Survey, one previously recorded wetland layer was encountered (SIHP #50-80-14-5796) and no other significant features were identified or recorded.

Runyon et al. 2015

In 2015, CSH conducted Archaeological Monitoring for Improvements of the Royal Hawaiian and Sheraton Hotels. Renovation involved installation of construction infrastructure, demolition of several existing concrete structures, and the reworking of a swimming pool and entryways. Several sites were encountered during monitoring including a previously recorded in-situ human burial (SIHP #50-80-14-5937), one extended burial, likely of Native Hawaiian descent (SIHP #50-80-14-7041), a cultural layer containing charcoal, midden, and pit features (SIHP #50-80-14-7118), and a disturbed "A" horizon containing pit features and disturbed human remains (SIHP #50-80-14-7119).

The following table summarizes the Archaeological Studies conducted in the coastal Waikīkī area discussed previously. This table provides the author, type, location/tax map key (TMK), and significant findings of each study. The TMK is a property identification system in Hawai‘i written as (x) x-x-xxx:xxx, where (x) is the island code. In Table 7, all studies took place on O‘ahu (which has the island code 1), and all TMK identifiers therefore begin (1) x-x-xxx:xxx, so the (1) is included in the table heading to prevent redundancy in TMK listing.

Table 7: Summary of the previous archaeological studies in the coastal Waikīkī area

Author	Type of Study	Location/TMK: (1)	Findings
Griffin 1987	Investigation of an inadvertent burial	Along Kalakaua Avenue 2-6-001:002	No site number assigned
Simons 1988	Archaeological Monitoring and Data Recovery Excavation	Moana Hotel 2-6-001:13	8 human burials encountered, however no SIHP number was assigned
Davis 1989	Archaeological Excavation and Monitoring	Halekūlani Hotel 2-6-002 and 2-6-006	No site numbers assigned
Chiojioji and Hammatt 1991	Archaeological Assessment	2 parcles: one being on ʻĀinahou Estate 2-6-024:065-068 and 080-083 2-6-024:043-040 and 042-045	Confirmed the project area as a possible ʻauwai, loʻi and rice field
Kennedy 1991	Archaeological Monitoring	IMAX Theatre 2-6-022:014	No sites found
Paglinawan 1995 and 1996	Information on the "Wizard Stones"	2-6-001:008	SIHP #50-80-14-60, wizard stones of Waikīkī
McDermott et al. 1996	Archaeological Inventory Survey	2-6-024:065-068 & 080-083 2-6-024: 034-040 and 042-045	Remnants of the ʻauwai and loʻi (SIHP #50-80-14-5459) and one likely Hawaiian burial (SIHP #50-80-14-5460)
Winieski and Hammatt 2001	Archaeological Monitoring Report	Public Baths 2-6-025, 026 and 027 3-1-031 and 043	A partial human burial, previously disturbed cultural layer and intact historic dog burial (SIHP #50-80-14-5797) and an old "A" horizon with pit feature (SIHP #50-80-14-5883)
Elmore and Kennedy 2001	Archaeological Monitoring	Royal Hawaiian Hotel 2-6-002:005	SIHP #50-80-15-5937, in situ human remains
Cleghorn 2001a	Archaeological Mitigation of inadvertent burial and testing	Burger King on ʻŌhua Avenue 2-6-026:013	SIHP #50-80-15-5681 (human burial), during additional testing a cultural layer with pit features was found
Cleghorn 2001b	Archaeological Mitigation of the inadvertent burial	Burger King on ʻŌhua Avenue 2-6-026:013	Additional excavation found more skeletal fragments associated with SIHP #50-80-15-5681 (human burial)

Table 7: Continued

Author	Type of Study	Location/TMK: (1)	Findings
Mann and Hammatt 2002	Archaeological Monitoring	Uluniu Avenue and Lil‘uokalani Avenue 2-6-023 and 2-6-026	Inadvertent discovery of 5 human burials SIHP #50-80-14-5859 and -6369, and two historic trash pits, SIHP #50-80-14-6372 and -6398
Winieski et al. 2002	Archaeological Monitoring	Kuhio Beach Extension/Kalakaua Promenade project 2-6-001 2-6-002 2-6-023 2-6-027 3-1-043	Buried cultural layer (SIHP #50-80-14-5940), historic trash pit (SIHP #50-80-14-5941), light gauge trolley rail (SIHP #50-80-14-5942), ponded sediments (SIHP #50-80-14-5943), humans remains from 44 individuals (SIHP #50-80-14-5856 through -5862)
Bush et al. 2003	Archaeological Monitoring	International Marketplace 2-6-002:038	Cow bone and modern trash, no site number assigned
Kailihiwa and Cleghorn 2003	Archaeological Monitoring	Water System Improvements 2-6-018:019 and 022	No sites found
Tome and Dega 2003	Archaeological Monitoring	Waikīkī Marriot Hotel 2-6-26:35-38	No sites found
Chiogioji and Hammatt 2004	Archaeological Assessment	Royal Hawaiian Shopping Center 2-6-002:18	Surface survey and background research, no sites found
Chiogioji et al. 2004	Archaeological Inventory Survey	Between Ala Wai and Tusitala Street 2-6-024:070 and 071	Alluvial deposits, structural features related to loʻi, a portion of the ʻĀpuakēhau Stream, and fragmentary human skeletal remains were documented, no site numbers assigned
Havel and Spear 2004	Archaeological Monitoring	ABC Store No. 21 2-6-021:101	No sites found
Esh and Hammatt 2006a	Archaeological Monitoring	Kuhio Avenue 2-6-015 to 022: various parcels	No sites found
Esh and Hammatt 2006b	Archaeological Monitoring	Ala Wai Blvd. 2-6-014, 015, 016, 017, 020, 021, 024, 025, 028, 029	No sites found

Table 7: Continued

Author	Type of Study	Location/TMK: (1)	Findings
Hammatt and Shideler 2007	Archaeological Monitoring	Sheraton Moana Surfrider Hotel 2-6-001:012	A few historical and traditional artifacts but no SIHP number assigned
Tulchin and Hammatt 2007	Archaeological Data Recovery Report	Tusitala Vista Apartments 2-6-024:070, 071, and 089	Four historic properties: A buried "A" horizon associated with the Cleghorn estate (SIHP #50-80-09-6682), a habitation site (SIHP #50-80-09-6705), human remains (SIHP #50-80-09-6706) in disturbed sediment associated with the ʻĀpuakēhau Stream, and a stone retaining wall (50-80-09-6707)
Groza et al. 2007	Literature Review and Field Check	2-6-026:009	No sites found
Pammer and Hammatt 2007	Archaeological Monitoring	Perry's Smorgy Restaurant 2-6-021:114	No sites found
Hazlett et al. 2008a	Archaeological Monitoring	Kalakaua Avenue 2-6-22:009	Inadvertent discovery of burial remains, SIHP #50-80-15-6819
Hazlett et al. 2008b	Archaeological Monitoring	Royal Hawaiian Shopping Center 2-6-002:018	No sites found
Runyon et al. 2008	Archaeological Assessment Report	Sheraton Waikīkī and Royal Hawaiian Hotel 2-6-002:005 and 006	No site numbers given for remains or artifacts
Thurman and Hammatt 2008	Archaeological Monitoring	Sheraton Waikīkī and Royal Hawaiian Hotel 2-6-002:005, 006, and 026	No sites found
Thurman et al. 2009	Archaeological Inventory Survey	Moana Hotel Diamond Head Tower 2-6-001:012	A cultural layer (SIHP #50-80-14-7068) and a historic trash pit (SIHP #50-80-14-7069)
Yucha et al. 2009	Archaeological Inventory Survey	Waikīkī Shopping Plaza 2-6-019:056 and 061	Historic property consisting of organic material and 4 historic artifacts (SIHP #50-80-14-5796)

Table 7: Continued

Author	Type of Study	Location/TMK: (1)	Findings
Runyon et al. 2010	Archaeological Inventory Survey	Princess Kaʻiulani Hotel 2-6-021 and 2-6-024	Kawaiahaʻo Waikīkī Branch Church and Cemetery lot (SIHP #50-80-15-7065), one in situ burial (SIHP #50-80-15-7067), and a cultural layer (SIHP #50-80-15-7066)
Yucha et al. 2013	Archaeological Inventory Survey	St. Augustine-by-the Sea Parish 2-6-026:012 and 015	Historic cultural layer (SIHP #50-80-14-7135) and 2 post-contact human burials (SIHP #50-80-14-7136)
Pammer et al. 2014	Archaeological Inventory Survey	2139 Kuhio Avenue 2-6-018:043, 045-048	Cultural Layer (SIHP #50-80-14-5796)
Inglis et al. 2014	Archaeological Inventory Survey	King's Village Shopping Center 2-6-023:029, 037, and 076	Two historical properties identified: SIHP #50-80-15-7598 (disturbed culturally enriched layer) and SIHP #50-80-15-7599 (a single human vertebra); a burnt trash layer was also identified but no site number was given
Burke 2014	End of Fieldwork Report for Archaeological Data Recovery	Princess Kaʻiulani Hotel 2-6-022:001 and 041	Data recovery of three previously documented historical sites: SIHP #50-80-15-7065, -7066, and -7067
Manirath et al. 2015	Archaeological Inventory Survey	Waikīkī Trade Center 2-6-022:031	Foundation slab and debris layer (SIHP #50-80-14-7813)
Morriss and Hammatt 2015	Archaeological Inventory Survey	Waikīkī Beachwalk Pumping Station 2-6-018:011	Former Wetland Layer (SIHP #50-80-14-5796)
Runyon et al. 2015	Archaeological Monitoring	Royal Hawaiian and Sheraton Waikīkī Hotels 2-6-002:005, 006, and 026	One extending burial, likely of Native Hawaiian descent (SIHP #50-80-14-7041), a cultural layer (SIHP #50-80-14-7118) and a disturbed "A" horizon containing pit features and disarticulated human remains (SIHP #50-80-14-7119)

9 Areas of Cultural Significance Within the Waikīkī Ahupua‘a

9.1 Place Names in the Coastal Area

The following table (Table 8) provides a brief list of significant place names identified within the Waikīkī coastal area, with a translation and description of the place name also included. It should be noted that most of these locations are no longer in existence, or the sites have since been urbanized into hotels and other commercial buildings.

Table 8: Place names within the Waikīkī coastal area

Place Name	Translation	Description	Source
‘Āpuakēhau Stream	basket of dew	Old stream near present Moana Hotel; most likely named for a rain	Pukui et al 1974
Hamohamo Stream	rub gently (as the sea on the beach)	Area near ‘Ōhua Avenue, once belonging to Queen Lili‘uokalani	Pukui et al 1974
Helumoa	chicken scratch	Old land division near present Royal Hawaiian Hotel; chickens scratched to find maggots in victims bodies after being sacrificed at a heiau in this location; supernatural chicken flew here from Ka‘au Crater in Pālolo	Pukui et al 1974
Ka‘ihikapu	the taboo sacredness	Street name; also the name of a fishpond at Māpunapuna	Pukui et al. 1974
Kālia	waited for	Stream and large land section in Waikīkī	Pukui et al. 1974
Kaluaokau	Kaluakau = the elevated pit	Residence of William C. Lunalilo, followed by Queen Emma	Pukui et al. 1974; Hibbard and Franzen 1986
Kamanolepa	the numerous pennants	Land section on O‘ahu	Parker 1922
Kamookahi	the first land division	Land section on O‘ahu	Parker 1922
Kawehewehe	the removal	Reef channel at Grey’s Beach just east of Halekūlani Hotel; the sick were bathed here	Pukui et al. 1974
Loko Mo‘o	lizard pond	No description provided	Soehren 2010
Mo‘okahi	single strip of land	Land section on O‘ahu	Parker 1922

Table 8: Continued

Place Name	Translation	Description	Source
Pua‘ali‘ili‘i	little pig	Beach between ‘Āpuakēhau Stream and Helumoa; Kamehameha I had houses here	Pukui et al. 1974
Uluniu	coconut grove	Residence of King Kalākaua and Queen Kapi‘olani	Pukui et al. 1974; Hibbard and Franzen 1986

9.2 Wahi Pana (Sacred Places) and Historical Sites

In the uplands of Pālolo, at 758 m (2,486 ft) above sea level, is a crater lake named Ka‘au. On a ridge between Pālolo and Wai‘alae nui, at the 340 m (1,116 ft) level, is a promontory called Ka-lepe-a-moa (Rosendahl 1998). These two place names are associated with kupua (deities with multiple body-forms) and the sovereign rule of O‘ahu’s famed chief, Kakuhihewa (c.1500-1600s). The following is a paraphrased account concerning the goddess Lepe-a-moa, for which the promontory is named.

> Lepeamoa was born in the form of an egg to a high ranking ali‘i of Kaua‘i. Lepeamoa’s grandmother, Pālama, and grandfather, Honouliuli, retrieved their unusual grandchild from Kaua‘i and raised her at Kapālama. Lepeamoa hatched and assumed the form of a beautiful multicolored hen. As she grew, Lepeamoa’s goddess ancestress, Ke-ao-melemele, taught her how to use her supernatural powers and assume various body forms.
>
> After some time, Ka-u‘ilani, Lepeamoa’s brother, came from Kaua‘i in search of his sister. Upon their meeting, the two youths heard of difficulties in which the chief Kakuhikewa had become involved at his compound in Waikīkī, below Pālolo. Kakuhihewa‘s sister, Wailuku, had married the high chief Maui-nui of Maui Island. As was the custom of the two chiefs, they participated in contests over the years and wagered their various resources on the outcome of the events. On this particular visit, Maui-nui came to O‘ahu with his prized fighting rooster, who was called Ka‘auhelemoa. Now unknown to Kakuhihewa, this rooster was a kupua who possessed numerous body-forms and was victorious in all contests.
>
> Kakuhihewa had been tricked into wagering his kingdom and life in these contests, and things looked bleak for the chief. Understanding the true nature of Ka‘auhelemoa, Lepeamoa and Kau‘ilani appeared before Kakuhihewa and told him that Ka‘au could be defeated if Lepeamoa was allowed to fight in place of the chief’s prized rooster. The final contests were arranged and Ka‘au entered the arena mocking the little hen who stood before him.
>
> A great battle took place, and each time Ka‘au changed his body-form to a different bird and attacked Lepeamoa, she changed her body-form to that of a bird

> of greater strength. It was in this way that Kaʻau was killed and Kakuhihewa retained his kingdom and life. Kaʻauhelemoa's spirit fled from his body and landed at the site in upper Pālolo that now bears his name. Maui-nui, the greedy land snatching chief of Maui, was spared through Kakuhihewa's generosity, and Kakuhihewa's reign continued peacefully (Westervelt 1963).

The following are anecdotes concerning place names and events within Waikīkī Ahupuaʻa:

Pālolo (clay or hard sticky mud)

The chief Kakuhihewa had a compound at Mauʻumae, in Pālolo; there were also two heiau of the same name in the area. The association of one of Oʻahuʻs most famed chiefs with the valley of Pālolo indicates that there was a sizable population in the district. Because of the royal compound and its requirements for support, it can be assumed that the valley floor and lower walls were extensively cultivated (Sterling and Summers 1978).

Ka-lua-ʻolohe (the pit of ʻOlohe)

ʻOlohe (an expert fighter or thief) was a chief who lived at ʻĀpuakēhau, Waikīkī, and he kept the people of the region in continual fear for their lives and possessions. He met in battle with one challenger who pitied the people, and was defeated with one blow that sent him flying into the site now called Kaluaʻōlohe. The chief's hard landing made a pit in the ground, and this is how it came to be named the pit of ʻOlohe (Sterling and Summers 1978).

Ka-imu-kī (the ti oven)

The lands in the eastern Waiʻalae portion of Pālolo and toward Hahaʻione were subject to periodic droughts. The place name Ka-imu-kī, which is interpreted as the ti oven, recalls one such drought during which large quantities of ti root were gathered and cooked in an imu (underground oven) to provide food for the population (Sterling and Summers 1978).

Pāhoa (dagger) and Pōhaku Kikēkē (bell stone)

These places were named for two of the many moʻo who lived in this region at one time. When Hiʻiaka, the young sister of Pele, was returning to Hawaiʻi from Kauaʻi in the company of Lohiau and Wahine omaʻo, they were confronted by numerous moʻo deities. Pāhoa attempted to attack Hiʻiaka and was turned into the stone hillock of Pāhoa. Below this rise was the stone bell form of Pōhaku Kikēkē, who also tried to attack Hiʻiaka and her companions (Sterling and Summers 1978).

Pōhaku Kikēkē

Pōhaku Kikēkē was located on the lower side of Waiʻalae Avenue, near 5th Avenue, but when the road was widened, the stone was broken. Some of the pieces of the stone are said to be preserved at the King's Daughters Home at 4th and Waiʻalae (Sterling and Summers 1978).

Ka-Mōʻiliʻili (the pebble lizard)

Mōʻiliʻili was named for another moʻo diety, which attacked Hiʻiaka when she and her companions passed through this district. Hiʻiaka struck the lizard with her super natural lightning

skirt, and Kamōʻiliʻili was turned into a low hill across from Kūhiō School (Sterling and Summers 1978).

Petroglyphs

On a bluff forming the north bank of Pālolo Stream, approximately 122 m (400 ft) east of the St. Louis Street Bridge, are several groups of petroglyphs. On the slope that divides Mānoa and Pālolo was the ancient temple of Mauʻoki. It is said that this temple was built with stone brought from Waiʻanae by the menehune (a legendary race of small people). It was destroyed in 1883 and the stones were used for construction of the road (Sterling and Summers 1978).

Ka-moku (the segments or district)

Perhaps descriptive of pond-field divisions.

Kaūmana (the moist branch – ridge projection)

Kaūmana is one of the lower ridges between Pālolo and Mānoa; it is above the intersection of Waiʻalae and Kapahulu. Kaūmana was named for a demi-god that came to live on Oʻahu from Maui. Following the advice of a kahuna, Kaūmana sacrificed his youngest son. The sacrifice greatly troubled Kaūmana and he went on a rampage killing many of his family members and attendants. Kaūmana spared only five attendants, and with these five he went to live on the ridge between Pālolo and Mānoa. Kaūmana's attendants were the rains named Waʻahila, Polihala, Kuahine, and Lililehua. From his vantage point, Kaūmana then caused great rains to fall and this greatly affected all of the people living on lowlands and at the shore.

The heavy rains destroyed one of Kakuhihewa's chiefs at this time living at Ulukou fishponds. One of Kakuhihewa's kahuna sent offerings to Kaūmana urging him to give up his grief. Kaūmana sensing that his end was near turned to stone. The five attendants took up permanent residence, in the form of pali (cliffs) above Mānoa and Pālolo Valleys. The locations of these pali are presented in the account for all but Waʻahila (Sterling and Summers 1978).

Mānoa (broad, expansive)

Like Pālolo, Mānoa was a popular residence of aliʻi and was one of the dwelling sites of Kaʻahumanu while she lived on Oahu. Mānoa was divided into two sections, Mānoa-aliʻi for the aliʻi and Mānoa-Kānaka. Mānoa-Kānaka was the portion of Mānoa that spread between Puu-o-Mānoa and the ridge that divides Mānoa from Pālolo (Sterling and Summers 1978).

Kumulae Spring

The Kumulae Spring is an inland fresh water loko iʻa. These ponds were created by traditional residents exclusively for raising fish and were known for their easy upkeep. They were often loko wai (fresh water ponds) which were either naturally occurring features or natural depressions that kānaka would enlarge to suit their family's subsistence needs. Many existed in the Mōʻiliʻili area (Kanahele 1995).

Kumulae Spring was a healing spring and subject of an old legend about an enchanted princess, who was kapu to the desires of men. The princess would frequent the spring, often bathing and chanting with her ipu (gourd) there (Kanahele 1995).

Kānewai Spring

Affiliated with Queen Liliʻuokalani, area residents believed Kānewai Spring to possess healing powers. Located near the University of Hawaiʻi athletic complex, the spring was actually a karst, a large underground pool. It was said that fish would swim from the sea up to the pool to listen to the plans of native fishermen, then warn other ocean creatures as to their upcoming plans (Kanahele 1995).

Papaenaena Heiau

Papaenaena Heiau was a luakini heiau (a sacred temple where ruling chiefs would pray and offer human sacrifices) associated with Kamehameha I (McAllister 1933). Historian John Papa ʻĪʻī wrote of the Papaenaena Heiau:

> Keopuolani, mother of the young chief Liholiho, was taken seriously ill then, just as the period of the kapu loulu [(a ritual for the god Lono)] drew near. The king remained with the young chief for ten days at Laeahi (Leahi, or Diamond Head) for the ceremonies, at which time all the chiefs, including Keeaumoku, father of Kaahumanu, separated from their women and gathered in their heiau [Papaenaena] there to seek peace and prosperity for the kingdom. The king was not feeling very well in those days, and it was decided that the best thing for him was to sleep where they were. The house in which they dwelt was called the Hale Pahu, for that was where the drums of the gods were kept. These drums, which were sounded every morning at dawn, were kept in the gods' houses by their keepers, who did the drumming. It was also said that the drums were sounded in the Hale Pahu when the king did not utter the ʻamama prayer (ʻĪʻī 1959).

ʻĪʻī continues on to tell a very significant story of how Liholiho would win away the kingdom from his brother, Kinau. Therefore, it was at Papaenaena that the future and fate of the Hawaiian Kingdom was determined at this time period.

9.3 Surfing Sites

Recognized world-wide for its origins in Hawaiʻi, surfing has a long and deeply embedded history throughout the Hawaiian Islands and nowhere more so than Waikīkī, the famed surf haven for royalty and watermen alike. During the 1800s, Native Hawaiian and non-Native Hawaiian writers described surfing as a "national pastime," a phrase that denotes the prominence surfing held in Native Hawaiians lives. Surfing was an activity everyone enjoyed and was beloved by the Native Hawaiian people, as "[was] evident in many early observations of the sport, especially those by non-Hawaiians such as William Ellis, a Christian missionary who visited Hawaii in 1822 and Nathaniel Emerson, a noted historian in the late 1800's" (Clark 2011).

Ellis observed on his first trip to Hawaiʻi that "Sometimes the greater part of inhabitants of a village go out to this sport [surfing], when the wind blows fresh towards the shore and spend the greater part of the day in the water. All ranks and ages appear equally fond of it" (Ellis 1963).

Historian Nathaniel Emerson, in his translation of David Malo's *Hawaiian Antiquities*, noted, "Surf riding was one of the most exciting and noble sports known to the Hawaiians, practiced equally by king, chief, and commoner. It is still to some extent engaged in, though not as formerly, when it was not uncommon for a whole community, including both sexes and all ages, to sport and frolic in the ocean the livelong day" (Emerson 1951).

Surfers in Hawai'i today ride waves at more than five hundred surf sites across the eight major islands, and it is likely that Native Hawaiians surfed at most, if not all, of these spots (Clark 2011). Native Hawaiian surfers, like the surfers of today, named surf spots for landmarks, physical features and characteristics of the waves. Their names were reflections of the surfers themselves and the surf culture of the day when the names were given (Clark 2011). Waikīkī is famous for four major surf sites: Kalehuawehe, 'Aiwohi, Maihiwa, and Kapuni. As non-Hawaiians started surfing, they began to rename sites with English names. These changes happened first in Waikīkī, where these four sites came to be known as Castles, Publics, Cunnahs, and Canoes, respectively.

As one of the greatest concentrations of surf spots in Hawai'i, Waikīkī was and continues to be the natural amphitheater for ocean sports. Nestled between Le'ahi and the extensive wetland that once stood behind Waikīkī beach, Waikīkī provides idyllic conditions for surfing. Its appeal was apparent to Native Hawaiians and non-Native Hawaiians alike, and in 1940, E.S. Craighill Handy and Elizabeth Green Handy explained Waikīkī's appeal to Native Hawaiian surfers: "On O'ahu, Waikīkī and adjacent localities with Pālolo, Mānoa and Nu'uanu Valleys lying inland offered ideal conditions for early settlement. Here the chiefs had their residence near the now famous beach and the offshore waters with conditions were ideal for their prized sport of surf riding" (Handy and Handy 1972).

As Clarke explains, "The Waikīkī wetland, with its springs, fishponds and flowing streams, not only sustained life in Waikīkī but helped create a unique site for ocean recreations. The fresh water flowing into the ocean in the lee of Diamond Head shaped the bay and influenced the development of its channels and reefs, which in turn created a series of exceptional surf sites…Kalehuawehe (Castles) is a deep water, big-wave spot that only breaks on the biggest south swells and Hawaiians regarded it as the epitome, the Holy Grail, of surfing" (Clark 2011). This magical spot is part of what drew the traditional surfing community, including Hawaiian royalty, to the shores of Waikīkī for hundreds of years.

9.4 Navigation and Paddling

9.4.1 Hawaiian Star Names and Navigation

Native Hawaiians are deeply connected to their surrounding ocean environment. Navigation was a mastered traditional science that allowed for the settlement of the Hawaiian Islands by Polynesians and allowed Native Hawaiians to move frequently among the Hawaiian Island chain (Johnson et al. 2015).

The following is an excerpt written by J. Waiamau in the Hawaiian Language newspaper "Ka Nupepa Kuokoa" and published on September 16, 1865. In this article, Waiamau discusses the

religious rites required before setting sail on long journeys and the different star and wave names that must be known and understood by Native Hawaiian navigators (Waiamau 1865).

Ka Hoʻomana Kahiko
Helu 20

Nā ʻoihana hoʻomana a me ke kilokilo ʻana i ka hoʻomākaukau ʻana e holo lōʻihi ma ka moana e like me ka holo ʻana mai Hawaiʻi a ʻo Oʻahu a Kauaʻi paha.

He nui wale ke ano o nā ʻoihana hoʻomana a me ke kilokilo ʻana a kō Hawaiʻi nei poʻe hoʻoholo waʻa i ka wā kahiko; he okoʻa no ka kekahi poʻe, a he okoʻa no hoʻi ka nā [a]liʻi; a he okoʻa no hoʻi ka nā makaʻāinana; e like me ka nui lehulehu wale o nā akua o lākou, pēlā no hoi nā ʻoihana hoʻomana e pili ana ilaila.

Akā hoʻi, ʻaʻole au i kauohaʻia mai e wehewehe pakahi aku i nā ʻoihana hoʻomana a me ke kilokilo ʻana o kēlā holo waʻa kēia holo waʻa. Me he mea ʻla o ke ano nui o nā ʻoihana hoʻomana, a me ke kilokilo ʻana o ka poʻe holo waʻa o Hawaiʻi nei, kai koi mai hoʻi iaʻu e hōʻike aku; A eia iho no ia. "Nā ʻoihana hoʻomana a me ke kilokilo ʻana i ka hoʻomakaukau ʻana e holo loʻihi ma ka moana, e like me ka holo ʻana mai Hawaiʻi a o Oʻahu a Kauaʻi paha."

Penei ka hana: I ka hoʻomākaukau ʻana e holo loʻihi ma ka moana, i Oʻahu, a i Kauaʻi paha; aia ma ke ahiahi ka hāpai ʻana i kēia hana. Penai ka hana ʻana, e mama ka ʻawa, kalua ka puaʻa, a wali ka ʻawa, moʻa no hoʻi ka puaʻa, a pau i ka ʻokiʻokina a waiho ma nā pā laʻa i hoʻohinuhinuʻia a kū no hoʻinā ʻapu ʻawa.

A mākaukau kēia mau mea, alaila, o ka pule no ʻia o ke kahuna i ke akua o ka poʻe holo waʻa, a pau ka puleʻana, ʻai no hoʻi a pau ka

Ancient Religion
No. 20

Religion rites and incantation in preparing for a length of sailing at sea as from Hawaiʻi and Oʻahu to perhaps Kauaʻi.

There were many forms of religious rites and incantations [practices] by Hawaiʻi's seafarers in ancient times. Some belonged to independent people; some belonged wholly to commoners, like the great many of their gods. [It] was that way with the religious rites concerned there.

On the other hand, I have not been entrusted to explain every religious rite and incantation of each canoe run. It is as though the great importance of the religious rites and incantations of Hawaiʻi's seafarers was to implore me to explain [them]. Here, below, then, is "The Religious rites and incantations in preparing for a length of sailing at sea from Hawaiʻi and Oʻahu to perhaps Kauaʻi."

The activity was like this: In preparing for a lengthy sail at sea from, perhaps Oʻahu to Kauaʻi, this activity was encouraged in the evening. This was the activity of chewing the ʻawa [Piper methysticum]; [preparing] the pig for an underground oven; mixing the ʻawa; baking the pig; and when the cutting into pieces was complete, [it] was left on wooden dishes to show off until [it] was ready to be drunk with ʻawa.

And when all these things were prepared, then [it was time] for the priest to pray to the god of the seafarers. When the prayer was completed,

ʻai ʻana, nana aku ke kahuna i ke aouli, inā i kū ke anuenue a i piʻo mamua o ka waʻa, a o ka pūnohu paha, alaila, ʻī aku ke kahuna, ʻaʻole e pono ke holo o make auaneʻi ma ka moana; a inā hoʻi i nana aku ʻoiai ka ʻopua, ʻaʻole he kū maikaʻi mai, ua lele ʻino ke ao, ua lele ʻino ke ao, ua moku moku liʻiliʻi nā opu ai ka lewa; ʻōlelo hou no ke kahuna ʻaʻole e holo o make no.

[they] ate until all was consumed. The priest observed the vault of heaven. If there was a rainbow that arched ahead of the canoe, and perhaps [if it was] misty, then, the priest said, "It is not good to sail lest you perish soon at sea." If he observed billowy clouds [with] violent winds, [or] small fragmented clouds here and there in the sky, the priest said again, "Don't sail lest you perish."

Akā hoʻi, inā e nānā ke kahuna a i kū ka pūnohu mahope o ka waʻa, neʻe hoʻi ka ua koko, pio ke anuenue, a maikaʻi hoʻi ke kū ʻana mai o nā opua, alaila; ʻī aku ke kahuna, ae,ua maikaʻi, ʻaʻole no he mea nāna e keakea mai; akā, hoʻokahi mea i koe, inā e moe au a i loaʻa ka moe maikaʻi, alaila, holo leʻa loa ka holoʻana. Moe iho la ke kahuna a ala mai la me ka ʻī mai, Ua loaʻa iho nei iaʻu ka moe maikaʻi, nolaila, e holo ʻoukou ʻaʻole ʻoukou e pilikia. A ma ia wahi, pau kā ke kahuna ʻōlelo, o kā ka hoʻokele ka mea i koe a kākou e ʻōlelo hou ai.

However, if the priest observed that the mist rose aft of the canoe; a rainbow-hued rain moving along [with] an arched rainbow, and clouds rising well, then the priest said, "You, It's good. There is nothing that opposes, but one more thing remains. If I lay down to sleep and I have a good dream, then, the sail will be a happy trip." The priest lay down to sleep and when he woke up he said, "I have just received a good dream; consequently, you [should] sail; you will not have [any] problem[s]". The priest's utterances ended there, and the navigator was the one left of whom we will speak more.

Ka holo ʻana. —He ʻelua manawā e holo ai ka poʻe holo waʻa, i ka pō kekahi ai [sic; a i] ke ao no hoʻi kekahi. Inā i ka pōe holo ai, alaila, o ka manawā holo, ʻo ka wā e puka mai ai ka Hōkū-kauʻōpae, ʻoia hoʻi ka Hōkū-hoʻokelewaʻa e ʻōlelo ia nei; a puka mai ia hōkū, alaila, e mākaukau ʻē no ka hoʻokele, a me nā mea ʻē aʻe ā pau maluna o ka hoʻokele, a me nā mea ʻē aʻe ā pau maluna o ka waʻa, a ʻo ka holo aku la no ʻia. A ma is holo ʻana, he ʻelua mea nui a ka hoʻokele e nānā ai, ʻo ka ʻale kekahi, a ʻo nā hōkū hoʻi ke kahi. I ka nānā ʻana hoʻi o ka hoʻokele i nā hōkū, he ʻelua {ma}u hōkū anā e nānā nui ai, ʻoia hoʻi ka Hōkū-hoʻokelewaʻa, ʻo ka (hope ʻia o ka) iha ʻia o ka waʻa, a ʻo ka Hōkūpaʻa ʻĀkua, ʻoia ka (hope ihu) o ka waʻa. Pēlā no e holo ai ā kāhi e pae aku ai.

Sailing. – There are two times when people who sail travel, one is at night and the other is during the day. If [they] sail at night, then the sailing is when Hōkū-kauʻōpae appear. This is when the navigators say, "When the canoe-guiding star appears, [we] must prepare everything, everything on board the canoe for sailing." It is the [time of] decision, and the time to decide the two important things the navigator must observe. One is the crest of the waves, and the other is the stars. When the navigator observes the stars, there are two stars he often observes: the navigation star [Hōkū-hoʻokelewaʻa] at the bow of the canoe, and the fix north star [Hōkūpaʻa ʻĀkua] at the after end of the canoe. That was how they sailed to a place where [they] would land.

Akā hoʻi, inā i nānā aku ka hoʻokele i nā hōkū ma ka ʻAkau, ʻehiku ia poʻe hōkū, a ua

However, if the navigator observed seven stars in a group in the north they called [them] Nā

kapaʻia mai lākou ʻo nā hiku, aia malaila kekahi wahi hōkū uʻuku. Inā i nānā aku ka hoʻokele, a e ʻimoʻimo pinepine ana is wahi hōkū, alaila, e ʻī aku no ʻoia i ka poʻe hoe waʻa me ke kena aku. ʻO ka pa ʻo ka hoe, aia ka pono o ka pae i ka ʻāina, no ka mea, he makani ka hope. Ua ʻike ʻē no ka hoʻokele i ka ʻino.

Hiku. There were few stars there. If the navigator observed that place with the stars twinkling often, then he would give a command to the paddlers, "The sails [and] paddlers [will] make landing on land successful because the wind is behind." The navigator already knew of the storm.

K{a}[ ]lua, ʻoia hoʻi ka ʻale. ʻO ka ʻale, o kekahi mea nana ʻia ā ka hoʻokele. He ʻelima no ʻale, a eia hoʻi kō lākou mau inoa: ʻAle-kūloko, ʻoia ke ale i ʻike ;ole ʻia a ke hoʻokele, a ua kapaʻia mai ʻoia he ʻōpuʻu; ʻAle-ʻuweke, a ʻoia hoʻi ka ʻale e nahā ai ka waʻa; ʻAle-panui, ʻoia ka ʻale mahope mai; ʻAle-māʻali no hoʻi, a ʻoia no hoʻi ka ʻale nui ma waho mai o ka waʻa.

The second [thing to observe] is the waves. The wave was something that was observed by the navigator. There are five [kinds of] waves, [and] here are their names: the kūloko [local] is the wave not indicated by the navigator and was called an ʻōpuʻa [a large swell]; the ʻuweke [opening] is a wave that would smash a canoe in bits; the niau [a moving billow] is a wave that is immediately ahead of the canoe; the panui [large wall [of water]] is the wave that is behind [the canoe]; and the māʻali [furrowed] is a large wave just beyond the canoe.

A inā hoʻi i ke ao e holo ai, alaila, ʻa ʻohe hoʻi he ʻōlelo ana no ia, akā, inā i pōʻeleʻele i ka moana, e nana aku ka hoʻokele i ka Hōkūahiahi, o ka ihu ʻia o ka waʻa, a ua kapaʻia mai is hōkū ʻo Mānanalo, ʻo ka ihu no ia o ka waʻa ā pae wale i ka ʻāina. ʻOkahi moʻoʻōlelo iho la no ia o nā mea i loaʻa mai iaʻu.

If they sailed in daylight, then they would make no statement. But if it were a dark night at sea, the navigator would observe the evening star [Hōkūahiahi], at the nose of the canoe which was called Mānanalo. [It] was kept on the nose until the canoe touched land. It's a star [passed] down from people who obtained it from me.

J. Waiamau

J. Waiamau

As articulated in this text, the navigators' ability to read the waves and the stars was critical to traditional navigation techniques. Any obstructions to these natural features could impact the perpetuation of this important tradition.

9.4.2 Outrigger Canoe Paddling

Outrigger canoes were an important part of everyday life for Native Hawaiians. Canoes were used as fishing vessels, transportation, war craft and sport. David Malo documents that "the Hawaiian waʻa (canoe) was made of the wood of the koa tree… The building of a canoe was an affair of religion" (Malo 1951). When a man found a fine koa tree, he went to the kahuna kalai waʻa (canoe builder) to determine if the tree would make a good canoe. Once it was determined

the tree was not rotten, preparations were made accordingly to go into the mountains to hew the tree into a canoe. Following the kahuna's instruction, craftsmen would hew the massive trees into a more manageable shape before the people came to haul the canoe to the hālau ("long house" where canoes were stored) by the ocean.

In the hālau, the fashioning of the canoe resumed over the course of many days. Upon completion, the canoe was blessed by the kahuna for safe voyage and the canoe would be furnished with carvings, paddles, seats and a bailer. There were many varieties of waʻa, and its use was determined by its size. If the canoe was a kialoa (a sharp and narrow canoe), it would be used expressly for racing. "The racing canoes would paddle far out to sea and then they would pull for the land" (Malo 1951). Whichever canoe touched the beach first was the victor. Ancient Hawaiians were very fond of betting on canoe races based on whom they deemed the strongest crew.

Six-man Outrigger canoe racing continues to be a popular sport throughout Hawaiʻi to this day. Paddling tests the limits of physical strength, endurance, determination and team work, which is epitomized in the iconic Molokaʻi Hoe Race from Molokaʻi to Oʻahu. This prestigious race began on October 12, 1952, when three Koa outrigger canoes launched through the surf at Kawakiu Bay on Molokaʻi's west side (OHCRA 2015). Powered by six paddlers, each of the canoes was bound for Oʻahu across more than 61 km (38 mi) of open ocean in the Kaʻiwi Channel. Eight hours and 55 minutes later, the Molokaʻi canoe, Kukui O Lanikaula, landed on the beach at Waikīkī in front of the Moana Hotel (OHCRA 2015).

Since this first race, the Molokaʻi Hoe has become one of the longest running annual team sporting events in Hawaiʻi, second only to football. With recent GIS tracking technology, we can now see the exact path of the waʻa across the Kaʻiwi Channel and into the Bay of Waikīkī (Figure 18).

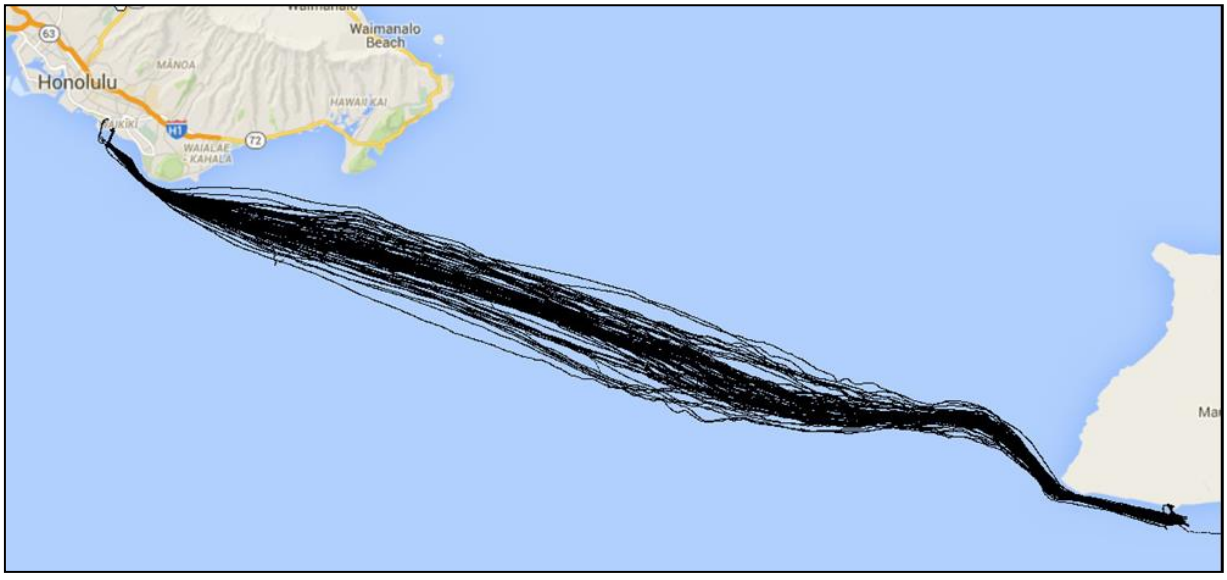

Figure 18: Molokaʻi Hoe raw GIS data mapping (Source: Oʻahu Hawaiian Canoe Racing Association (OHCRA) 2015)

9.5 Farming

Since poi was the staple food for Native Hawaiians, it was of the utmost priority for the first settlers to establish loʻi. Taro's prominence in the Hawaiian diet derived from its nutritional value, but even more so from its mythological significance. According to Hawaiian mythology, man was born out of the taro plant.

> The first born son of Wakea and Papa was of premature birth and was given the name Haloa-naka. The little thing died, however, and its body was buried in the ground at one end of the house. After a while, a taro plant shot up from the child's body, the leaf of which was named lau-kapa-lili, quivering leaf; but the stem was given the name Haloa.
>
> After that another child was born to them, whom they called Haloa, from the stalk of the taro. He is the progenitor of all the peoples of the earth (Malo 1951).

The ahupuaʻa of Waikīkī, dominated by marshlands, was an ideal location for loʻi. It is likely that their first step was planting taro cuttings along streams, which they eventually named the Mānoa, Apuakehau, Kuekaunahi and Piʻinaio. Other cuttings may have been planted around the many springs in the area, all of which provided the constantly flowing fresh water required for proper cultivation. In the deeper sections of the marsh, the ancient farmers most likely practiced kuawehi: "They gathered wild ʻilima shrubs, pōhuehue leaves, grasses and other plants that were lashed into bundles, tying them with the pōhuehue vines that grew abundantly on the beach, and then deposited them at the edge of the marsh" (Kanahele 1995). Wrapping bulrushes around their heads as protection against the mud and sun, and naked except for their malo (loincloth), they then waded into the marsh and set the ʻilima bushes upright in circles, binding them together with four or five lengths of the pōhuehue vines. Within these circles they piled their bundles of detritus to form a foundation, heaping mud on top of them, which they threw in over the side. The result of which was a firm mound in a circle of ʻilima bushes upon which they could plant new cuttings.

Of the 2,000 acres in Waikīkī, the farmers probably worked no more that 20 or so acres due to the high yield of taro plants. With over 350 days of sun and constant water flow from the perennial streams of Mānoa and Pālolo, Waikīkī was an ideal place for farming.

9.6 Na Pōhaku Ola Kapaemahu a Kapuni (The Healing Stones of Kapaemahu)

Sometime around the last wave of Polynesian migration from the South Pacific, between the eleventh and thirteenth centuries, four legendary visitors from Tahiti arrived in Waikīkī: Kapaemahu, the leader of the quartet, Kahaloa, Kapuni and Kinohi. They were all soothsayers from the court of the Tahitian King. Though regal and manly in stature and bearing, they shared a peculiar physical characteristic: hermaphroditism.

Legend holds that they were also powerful healers known for their marvelous cures. Though their work centered in Waikīkī, their fame spread over Oʻahu "from headland to headland." They

were welcomed everywhere by the people because of their kind, and courteous demeanor (Kanahele 1995).

In appreciation of these healing wizards' work, the people erected "four monuments out of stone from the bell rock at Kaimukī, two to be placed at their residence in Ulukou and two in their favorite bathing spot in the sea. The rocks were so heavy that 'thousands' of people had to transport them from the quarry in Kaimukī, which was about a mile away" (Thrum 1998).

The stones were properly placed with solemn ceremonies over the course of a full moon, accompanied by the sacrifice of a virtuous young chiefess whose body was placed beneath one of the stones. During the ceremonies, the four healers transferred their names and mana to the stones and vanished, never to be seen again in Waikīkī.

The stones were "rediscovered" in the late 1800s on the Princess Likelike-Governor Cleghorn property, part of which is located in Ulukou, and are "Na Pohaku Ola Kapaemahu a Kapuni" enshrined at Kūhiō Beach today (Kanahele 1995).

9.7 Mele, Oli and Hula

Mele and oli were essential means for Native Hawaiians to transmit their knowledge about a wahi pana. There are countless mele and oli about the Waikīkī ahupuaʻa.

The following mele by James K. Iʻi is a traditional song that is still very popular among Native Hawaiians, and tells of an island that was located off of Waikīkī prior to its urbanization (Iʻi n.d.). The island was located west of the current Honolulu Zoo, in the area now occupied by the zoo's parking lot. "Makee" was named for Captain James Makee (1812-1879). Sources described the island as being off shore from the original location of Kapiʻolani Park, where the fresh water stream (like ʻĀpuakēhau Stream) flowed into the Pacific Ocean. Sources also describe a bridge that went across this stream and beautiful lilies that floated in the water.

Makee ʻAilana

Makee ʻailana ke aloha lā	I love Makee island
ʻĀina i ka ʻehuʻehu o ke kai	Land freshened by the sea spray
ʻElua ʻekolu nō mākou	There were two or three couples with us
I ka ʻailana māhiehie	On this charming island
Ka leo o ka wai kaʻu aloha	I love the sound of the water
I ka ʻī mai ē anu kāua	When it speaks, we two are chilled
Inā ʻo you me mī nei	I wish you were here with me
Noho ʻoe i ka noho paipai	Sitting in the rocking chair
Haʻina ʻia mai ana ka puana	The story is told of
Makee ʻAilana huʻe ka manaʻo	Makee ʻAilana, with its fond memories

Mele like “Makee ʻAilana” are highly valuable in helping to reconstruct an understanding of Waikīkī’s landscape and resources prior to modernization. While many of the natural heritage features of this area have been lost over time, mele, hula, and other traditional practices help to keep the relationships between Native Hawaiians and their wahi pana alive. It has been recorded on at least seven different occasions and is commonly performed by Hawaiian musicians and hālau hula.

There are numerous other mele for the area: “Waikīkī Hula”, “Lēʻahi”, “Kaimana Hila”, “Kaimukī Hula”, “Rain Tuahina o Mānoa”, “ʻĀinahau”, “Royal Hawaiian Hotel”, “Haʻaheo Kaimana Hila”, “Henehene Hou Aka”, “Pālolo”, “Kuʻu Pua I Paoakalani”, and “Ka Beauty aʻo Mānoa”. Each of these mele speaks of a particular landmark, event, or resource. As one of the most beautiful places in Hawaiʻi, Waikīkī is known as a place of spirit and inspiration.

Mele are still composed today for Mānoa, like “Hanu ʻAʻala (Ka Hanu Lehua O Mānoa)”, composed by Puakea Nogelmeier and released in 2013 on the Grammy nominated CD by musician and Kumu Hula Kamaka Kukona. This mele was written to commemorate the opening of his hālau in Mānoa and the hula was performed at the 2016 Merrie Monarch Festival in Hilo, Hawaiʻi by Hālau O Ka Hanu Lehau, pictured below (Figure 19).

Figure 19: Hālau O Ka Hanu Lehau (Kumu Hula Kamaka Kukona) performing Hana ʻAʻala at the 2016 Merrie Monarch Festival (Source: Merrie Monarch Festival)

9.8 Rain and Wind Names

Akana and Gonzalez in *Hānau Ka Ua: Hawaiian Rain Names* explain the significance of the wind and rain in Native Hawaiian culture:

> "In the mind...of our Hawaiian kūpuna, every being and every thing in the universe was born. Our kūpuna respected nature because we, as kānaka, are related to all that surrounds us – to plants and creatures, to rocks and sea, to sky and earth, and to natural phenomena, including rain and wind. This worldview is evident in a birth chant for Queen Emma, "Hānau ke aliʻi, hānau ka ua me ka makani" (The chiefess was born, the rain and wind, too, were born). Our kūpuna had an intimate relationship with the elements. They were keen observers of their environment, with all of its life-giving and life-taking forces. They had a nuanced understanding of the rains of their home. They knew that one place could have several different rains, and that each rain was distinguishable from another. They knew when a particular rain would fall, its color, duration, intensity, the path it would take, the sound it made on the trees, the scent it carried, and the effect it had on people" (Akana and Gonzalez 2015).

9.8.1 Rains of Waikīkī Ahupuaʻa

To the Native Hawaiians, no two rains are ever the same. Rain can be distinguished based on its intensity, the way it falls, and its duration, among other things. The following are a collection of rains that occur within Waikīkī ahupuaʻa and their associated moʻolelo. The rain name is first presented, followed by a brief description of the locations in which these rains are typically found. Moʻolelo, ʻōlelo noʻeau, mele, oli, etc., associated with the particular rain name are also provided to give insight into the importance and cultural significance that the different types of rains have to the Native Hawaiian people.

9.8.1.1 Kuahine Rain

Kuahine, or Tuahine, is rain associated with Mānoa, but is also found on other parts of Oʻahu (Akana and Gonzalez 2015).

<u>Rain of Mānoa, Oʻahu</u>

Ka ua Kuahine o Mānoa. *The Kuahine rain of Mānoa.*

A traditional saying. Pukui notes how the kuahine rain is the most famed rain of Mānoa, which is the valley located in the mauka area of the Waikīkī ahupuaʻa. Moʻolelo persists of the tale of Kahalaopuna, the goddess of Mānoa Valley, who was said to be the daughter of Kuahine, wife to chief Kakaukani. Kahalaopuna was said to be the daughter of Kuahine, the rain, and Kakaukani, the wind, which is was why a rainbow appeared wherever Kahalaopuna moved throughout Mānoa. There are many versions of the famed tale of Kahalaopuna (Pukui 1983; Pukui and Elbert 1986).

Huli aku ke alo i Mānoa lā	*The front turns to Mānoa*
I mehana i ka a Kuahine lā	*To be warmed by the Kuahine rain*

The phrase above originated in a mele inoa (name chant) for Mānoanoa (Lihau 1862).

He ua Kuahine, ua nō i ke kakahiaka a awakea mālie, hoihoi ka manaʻo i ka pau koke ʻana o ka ua, ʻoliʻoli ke kanaka ma laila i kapa ʻia aku ai kēia inoa, ua Kuahine o Mānoa, kaena ai ko Mānoa poʻe kahiko, penei: "E hoʻi ka uʻi o Mānoa ua ahiahi, ka ua ʻĀpuakea." No ka hoʻihoʻi ʻana o ka poʻe kahiko i ka ua i luna pono o Pōhākea e ua ai, ma ka ʻōlelo ʻana aku penei: "Ma uka ka ua, ma kai ka ua; kiola, kiola ka ua i Pōhākea." Ua hoʻolohe nō ka ua i ka ʻōlelo ʻana, ua hoʻokō nō. No laila i kapa ʻia ai kēia inoa, ka ua ʻĀpuakea o Mololani.

A Kuahine rain, a morning rain that moderates at noon, the mind is joyous at the early ceasing of the rain, man is happy whereby [he has] given it this name, Kuahine rain of Mānoa, boasted by the old peole of Mānoa, thusly: "The comely youth of Mānoa goes home it is evening, the ʻĀpuakea rain." For the old people turned the rain right over Pōhākea, it is spoken of in this way: "Above is the rain, below is the rain, throw, throw the rain to Pōhākea." The rain hears the saying and obeys, therefore is given this name, the ʻĀpuakea rain of Mololani.

From a letter to the newspaper *Kuokoa* regarding famous rains, the above passage contains several references that relate to the legend of Kahalaopuna. "Pōhākea" in this case refers to a peak in the Waiʻanae Mountains, which is where Kahalaopuna was taken to be killed by her jealous betrothed (Thrum 1998; Akana and Gonzalez 2015).

Hoʻohipo i Mānoa ka ua Kuahine, ʻeā	*Romancing in Mānoa is the Kuahine rain*
He ua lī ʻaʻe lehua no Kahoʻiwai, ʻeā	*A rain of Kahoʻiwai that brings a chill over the lehua*

From a mele mākaʻikaʻi (travel chant) for ʻEmalani Kaleleonālani by Kuhea (Nogelmeier 2001).

Na ka ua Kuahine o Mānoa	*It was the Kuahine rain of Mānoa*
I kono mai iaʻu e naue aku	*That invited me to go*
ʻIke i ka nani lā o ia uka	*See the beauty of this upland*
Kāhiko ʻia e ka uhiwai	*Adorned by the uhiwai mist*

From the mele "Kupaa ka manao me Liliu," also know as "Kupaa oiaio me ka lahui," for "ka poe i aloha i ka aina" (the loyal people who love the land) (Olepau 1895).

Aia i ka luna aʻo Mānoa	*There in upper Mānoa*
Ke aloha ʻāina e luana nei	*Lovers of the land are at leisure*
ʻOiai mākou e walea ana	*As we relax*
Hone ana e ka ua Kuahine	*The Kuahine rain sounds softly*

Mehe lā nō a e ʻī mai ana	*As if to say*
ʻImi ʻia e ka pono o ka ʻāina	*Seek the well-being of the land*

From the mele "Hele malihini ia Mānoa" by J.W. Kamali (Hawaiian Historical Society 2003).

Ua naka nā hulu o ke kōlea	*The feathers of the kōlea quivered*
Ka uahi poepoe pūpanapana	*Round smoke from a pistol*
Nāna i kiani aku e ka lono	*Signals the news*
Hiolo ai hoʻi nā ʻenemi	*The enemies have been defeated*
Lilo ai lākou a i mea ʻole	*They have become insignificant*
Ī ka ua Kuahine aʻo Mānoa	*In the Kuahine rain of Mānoa*

From the patriotic mele inoa "Wehi ohu no Wilikoki" for Robert Wilcox by J.P.Kina (Hawaiian Historical Society 2003).

Ua nani Mānoa i kaʻu ʻike	*Beautiful is Mānoa in my view*
I ka loku a ka ua Kuahine	*In the downpour of the Kuahine rain*

From the mele "Hawaii i ka ehuehu" by Home Kauwila (Hawaiian Historical Society 2003).

Kuʻu hoa o ka iʻa lauahi lima o Kālia	*My companion of the fish of Kālia that is caught by quick hands*
Hoa nana i ka ua Kuahine o Mānoa	*Companion who observes the Kuahine rain of Mānoa*
Mai ka ua Hāliʻipili o ʻUalakaʻa	*From the Hāliʻipili rain of ʻUalakaʻa*
Auē kuʻu kāne ē	*Pity for my dear husband!*

From a kanikau (lament) for J. Henry (Kahinawe 1862).

Ka ua Kuahine o Mānoa ē, me ka ua Līlīlehua o Pālolo, a me ka ua Kūkalahale ē, me nā ua kaulana o ua ʻāina nei a ka ʻeʻepa nui wale, ua pau ko ʻoukou hoʻo-pulu hou ʻana i ka ʻili waianuhea o Aunty.

The Kuahine rain of Mānoa, the Līlīlehua rain of Pālolo, the Kūkalahale rain, and the famous rains of this extraordinary land, you will never again moisten Aunty's sweet skin.

From a eulogy for Mrs. Kaiawe Helelani Punohu (Craig and Alexander 1925).

A waho o ka nuku aʻo Māmala	*Outside the harbor entrance of Māmala*
Hū mai ke aloha i ka ʻāina	*Love for the land wells up*
Huli aku e ke alo a i Mānoa	*Turning to face Mānoa*

Ka nene‘e mai a ka ua Kuahine	*The Kuahine rain creeps forth*

From the mele “Ma‘i korela ma Honolulu” by S. Kanalu (Hawaiian Historical Society 2003).

Rain of Kānewai, O‘ahu

E *Ka Hae Hawaii*—aloha ‘oe	*O* Ka Hae Hawaii—*greetings*
Ko mākou makamaka,	*Our intimate friend,*
mai ka hale malu a ke ao	*the peaceful dwelling in the clouds*
Mai ka ua Kuahine o Mānoa	*From the Kuahine rain of Mānoa*
Ke ho‘opiha a‘ela a piha ‘o Kānewai	*That fills Kānewai to capacity*

From a farewell mele for the newspaper *Ka Hae Hawaii* (Lohiau 1862).

Rain of Wa‘ahila, O‘ahu

Na ka ua Kuahine o Wa‘ahila e noho ha‘anipo lā i ka wao.
By the Kuahine rain of Wa‘ahila (Mānoa, O‘ahu) that dwells in love with the uplands.

From an oli (Pukui and Elbert 1986).

9.8.1.2 Kūkalahale Rain

Kūkalahale rain is associated with Honolulu and the larger Kona district of O‘ahu. This rain name translates to “standing under the eaves of the house” or “announcing to the homes,” depending on how the phrase is broken up (Akana and Gonzalez 2015).

Rain of Honolulu, O‘ahu

He aloha nō ‘o Honolulu i ka ua Kūkalahale	*Dearly loved is Honolulu in the Kūkalahale rain*
Ka nuku a‘o Māmala ‘au a‘e nei ma hope	*The entrance of Māmala Bay fares on behind*

From the mele “He aloha nō ‘o Honolulu” by Lot Kauwē (Wilcox et al. 2003).

E nā keiki o ka ua Kūkalahale, noho ua Ki‘owao o Luakaha—no ‘oukou ka ‘olelo ‘ia: “hō‘ā ke ahi, kō‘ala ke ola, ‘o nā hale wale nō kai Honolulu; ‘o ka ‘ai nō kai Nu‘uanu, ‘o ka i‘a nō kai laila.” E kiu, e holo, e ho‘i ka u‘i o Mānoa, ua hāli‘i ka ua Līlīlehua i nā kahawai, ke ōpū maila ka ua Kuahine i ka pua o ka ‘ōhia—he lualaʻi lua Kaho‘iwai na Kanaloaho‘okau. Ho‘waha kamali‘i o Pālolo, ua pulu ‘elo i ka ua Puanaiea, he mau wāhine noho i ka lā ‘o Ku‘ialauahi me Huewa.

Children of the Kūkalahale rain, dwelling in the Ki‘owao rain of Luakaha—it is for you that it is said: “Light the fire; in cooking there is life. There are only houses in Honolulu; the food is in Nu‘uanu, even the fish are there.” Look ahead, get going, return home, young beauty of Mānoa. The līlīlehua rain has spread over the valleys; the Kuahine rain is opening the flowers of the

ʻōhiʻa trees. Kahoʻiwai is a splendid repose for Kanaloahoʻokau. The children of Pālolo talk excessively and are drenched by the Puanaiea rains. Kuʻialauahi and Huewa are women who dwell in the sun.

From an article by Samuel Mānaiakalani Kamakau about his publication of "Ka moʻolelo o Kamehameha I" (the story of Kamehameha I) (Kamakau 1867a).

9.8.1.3 Lehua Rain

The lehua rain is associated with Hawaiʻi, Maui and Oʻahu, but is also the name of a wind and of the ʻōhiʻa lehua tree and its blossoms (Akana and Gonzalez 2015).

Rain of Mānoa, Oahu

Punihei hoʻi au iā ia ala lā	*I am entranced by it*
I ka leo o ke kai leo nui lā	*By the sound of the loud-voiced sea*
Ke wāmailai Kālia lā	*Roaring at Kālia*
Alia kāua e naue lā	*Let us wait before moving on*
I ka ua Lehua i nā pali lā	*As the Lehua rain is over the cliffs*
Ke noe maila i Mānoa lā	*Misting over Mānoa*

From mele inoa for Erisapeka (Kaholomoku 1862).

9.8.1.4 Līheʻelehua Rain

Rain of Mānoa Valley, Oʻahu, that falls on lehua flowers (Akana and Gonzalez 2015).

9.8.1.5 Līlīlehua Rain

Rain associated with Kāʻanapali, Maui, and with Pālolo, Oʻahu, and found in other areas. Also the name of a wind. "Līlīlehua" means "lehua blossom chill" or "tiny drops on the lehua blossom" (Akana and Gonzalez 2015).

Rain of Kaʻau, Pālolo, Oʻahu

Kuʻu keiki mai ka hale kanaka nui	*My beloved child from the home with many people*
Kuʻu keiki mai ka ua Līlīlehua rain of Kaʻau	*My dear child from the Līlīlehua rain of Kaʻau*

From a kanikau for Kapela (Pauahi 1862).

Rain of Lēʻahi (Diamond Head), Oʻahu

Kuʻu hoa i ka ua Līlīlehua	*My companion in the Līlīlehua rain*
Ka ua nihi mai ma Lēʻahi	*The rain that tiptoes upon Lēʻahi*

From a kanikau for Hina (Kaakopua 1861).

Rain of Pālolo, Oʻahu

ʻO kēia Pōhakukīkēkē, he moʻo wahine ia. He wahine uʻi kēia moʻo. ʻAʻole naʻe ʻo Pōhakukīkēkē kona inoa mua akā, ʻo Kaualīlīlehuaopālolo kona inoa mai kona mau mākua mai.

Pōhakukīkēkē was a moʻo woman, and she was quite beautiful. Pōhakukīkēkē was not her original name, for her parents had named her after the Līlīlehua rain of Pālolo, Kaualīlīlehuaopālolo.

ʻOiai ua ʻono loa ko Pāhoa puʻu i ka uʻi uwaʻuwali a me ka maikaʻi ʻuneʻinehe o ka uʻi o ka "ua Līlīlehua o Pālolo," no laila, mīʼala mau lao ua Pāhoa nei ma kēlē āhua e hoʻomomoni ai i ka ʻae o kona pʻu i kā haʻi mea i hānai ai a nui nepunepu a puʻipuʻi hoʻi.

Hungering for the soft loveliness and tender beauty of this young girl of Pālolo's Līlīlehua rains, Pāhoa would always hasten out to that hill, where he would salivate over this girl who had been raised to be so plump and succulent.

From the legend of Hiʻiakaikapoliopele (Hoʻoulumāhiehie 2006).

Kaimukī Shopping Center, which was once the King's Daughter's Home, sits on a mound that was the back of a moʻo, a legendary reptile. This moʻo loved Lilīlehua, who lived in Pālolo Valley. Līlīlehua fell in love with another person, and the moʻo became jealous. Līlīlehua was turned into a rain that does not pass Waiʻalea Avenue, thus avoiding the moʻo.

From an email sent to the author by Kimo Alama Keaulana on April 4, 2013. "King's Daughter's Home" was established to care for elderly Caucasian women in Hawaiʻi (Akana and Gonzalez 2015).

9.8.1.6 Luahine Rain

Rain associated with Mānoa, Oʻahu. Also the name of a hill in Mānoa. "Luahine" means "old woman" (Akana and Gonzalez 2015).

The Luahina rain starts at Paliluahine on the eastern corner of Mānoa. It moves very slowly, like an old lady, along the Woodlawn side of Mānoa. Then it tires and ends at Kauhi, or a rock known as "sleeping giant," along Waʻahila Ridge.

From an email sent by Kimo Alama Keaulana on April 4, 2013 to Collette Leimomi Akana (Akana and Gonzalez 2015).

9.8.1.7 Makahuna Rain

Rain associated with Oʻahu (Akana and Gonzalez 2015).

Rain of Pālolo, Oʻahu

ʻO ʻoe ia, e Pāhoa	*It is you, O Pāhoa*
Wahine noho ua Makahuna o Pālolo	*Woman who dwells in the Makahuna rain of Pālolo*
Hoʻolono mai ana ʻo ka leo	*Listening to the voice*
Leo ualo a kama hele	*The beckoning call of the traveler*

From a mele by Hiʻiakaikapoliopele calling out to the moʻo woman Pāhoa (Hoʻoulumāhiehie 2006).

Rain of Waikīkī, Oʻahu

Kuʻu kāne i ka makani Hauālia	*My husband of the Hauālia wind*
ʻO ka Makahuna i Hāwāwā ē	*The Makahuna rain at Hāwāwā*
Wā ihola, ke wā wale maila nō	*Boisterous, making an uproar*
Ka ua hilahila moe awakea	*The shy rain that settles down at midday.*

From a mele by Hiʻiakaikapoliopele on hearing the clamor of people in the house she has just left in Waikīkī (Hoʻoulumāhiehie 2006).

9.8.1.8 Makaʻūpili Rain

Rain associated with Haleleʻa, Kauaʻi. Also found on Maui and Oʻahu. Also the name of a wind. "Maka ʻūpili" means "eyes shut tight" (Akana and Gonzalez 2015).

Rain of Lēʻahi, Oʻahu

Nani Lēʻahi ke kuahiwi o Kaimanahila	*Beautiful is Lēʻahi, the peak of Diamond Head*
I pili aloha lāua me ka ua Makaʻūpili	*That lovingly joins the Makaʻūpili rain*
I hoʻi e pili me ka ua Līlīlehua	*Which returns to join the Līlīlehua rain*
I hoʻomakua i ka ua Kuahine o Mānoa	*That fosters the Kuahine rain of Mānoa*
I nā ʻauamo kiʻi a ka ua Nāulu i ke kula	*With the carrying poles of the Nāulu rain of the plains*
I loku ʻia e ka ua ke Kulaokahuʻa	*Kulaokahuʻa is poured upon by the rain*
I nā ʻauamo kiʻi a ka ua ʻAwaʻawa	*By every last drop of the ʻAwaʻawa rain*
Pūpū ka lāʻau a ka ua Hōliʻo	*The trees of the Hōli'o rain huddle together*
Ua maʻū i ka wai a ka ua Kiʻowao	*Moistened by the water of the Kiʻowao rain*

From a mele inoa for Heneri W. Auld (Hoopai 1865).

9.8.1.9 Nāulu Rain

This rain is a sudden shower associated with Kawaihae, Hawai‘i, and with Ni‘ihau, and found in other areas. Also the name of a shower cloud and a wind (Akana and Gonzalez 2015).

Rain of Mānoa, O‘ahu

Nu‘uanu ē, Nu’uanu ho‘i	*Nu‘uanu, Nu‘uanu indeed*
Anu hewa i ka uka a‘o Mānoa	*Menacingly cold in the uplands of Mānoa*
Ua anu ē, ua anu ho‘i	*So cold, so very cold*
Pulu ‘elo i ka wai a ka Nāulu	*Soaked by the waters of the Nāulu*

From the mele “Leahi i Daimana Hila” for Lili‘uokalani by Ani Peahi (Hawaiian Historical Society 2003).

9.8.1.10 Puanaea Rain

Same as Puanaiea, Puananaiea and Puaneiea. This rain is associated with Pālolo, O‘ahu (Akana and Gonzalez 2015).

He mau wāhine noho i ka ua Puanaea, ‘o Ku‘ialauahi me Huewa.
Ku‘ialauahi and Huewa are women who dwell in the Puanaea rain.

From a letter to the newspaper *Kuokoa* by Samuel Mānaiakalani Kamakau (Kamakau 1867b).

9.8.1.11 Tuahine Rain

Same as Kuahine, this rain is associated with Mānoa, O‘ahu.

Ke ‘ai nei ‘o Kalani	*The royal one is dining now*
I ka ‘ōpae māhikihiki	*On the mākahikihiki shrimp*
Ki‘ina ‘ia e Fancy Lauli‘i	*Caught by Miss Fancy Dainty*
O ka ua Tuahine o Mānoa	*From the Tuahine rains of Mānoa*

From the mele “He ‘ai na ka lani” (Lili‘uokalani 1999).

Kui ‘ia kō lei	*Your lei will be strung*
I ko‘olua no ia uka	*As a companion for these uplands*
Ia uka ‘iu‘iu	*These lofty uplands*
Lanakoi a ka makemake	*The desire is so keen*
Ho‘opē ‘ia	*Drenched*
E ka ua Tuahine	*By the Tuahine rain*

From the mele “Sunday Mānoa” by Mrs. Eliza Holt (Holstein 2003).

‘O ‘oe a ‘o wau i laila	*You and I there*
I ka rain Tuahine o Mānoa	*In the Tuahine rain of Mānoa*
‘O ka nihi a ka ua i Wa’ahila	*The soft creeping of the rain at Wa’ahila*
Kāhiko maila i Mānoa	*Adorning Mānoa*
Ua pono ‘oe, e ka ua tilihune	*You are needed, O fine, delicate tilihune rain*
I ka hone a ka wai o Pualoke	*In the sweet waters of Pualoke*

From the mele “Ka uka i Waahila” by Joe and Eliza (Holstein 2003).

He beauty i ka ua Tuahine o Mānoa	*A beauty is the Tuahine rain of Mānoa*
Pā aheahe ka makani	*Engulfed in the breeze*
I ke ‘ala o ka laua‘e	*Bringing the sweet scent of the laua‘e*
Ke onaona o nā pua	*And the fragrance of the flowers*
Māhiehie i ka wao	*Elegance in the forest*

From the mele “Ka beauty a‘o Mānoa” by Tony Conjugacion (Wilcox et al. 2003).

9.8.1.12 Uhiwai Rain

Associated with Mānā, Hawai‘i and with Mānoa, O‘ahu and found in other areas. This rain is a heavy fog, a mist that is heavier than the noe, ‘ohu, ‘ehu and ‘ehuehu. “Uhi wai” means “water covering.” It is both the name of a specific rain and a generally descriptive term; its various usuages are determined by the context (Akana and Gonzalez 2015).

Mist of Mānoa, O‘ahu

Pa‘a mai Mānoa i ka uhiwai	*Mānoa is steadfast in the uhiwai*
Ha‘aheo i ka uka lāo Kupanihi	*Revered for the uplands of Kupanihi*

From the mele “Hawaii i ka ehuehu” by Home Kauwila (Hawaiian Historical Society 2003).

9.8.1.13 Wa‘ahila Rain

Same as Wa‘ahia. This rain is associated with Nu‘uanu, O‘ahu, and found on other parts of O‘ahu. Also the name of a wind and of a ridge between Mānoa and Pālolo. The Wa‘ahila rain is found in the area of the University of Hawai‘i-Mānoa, especially where the Kamakakūokalani Center for Hawaiian Studies building stands. Kauawa‘ahila (the Wa‘ahila rain) and Kauaki‘owao (the Ki‘owao rain) were brother and sister, respectively (Akana and Gonzalez 2015).

Rain of Mānoa, O‘ahu

Pu‘ipu‘i ka ua Wa‘ahila o Mānoa.	*Stocky the Wa‘ahila rain of Mānoa.*

From a mele (Pukui and Elbert 1986).

Rain of Waikīkī, Oʻahu

Kuʻu kāne i ka ua noe	*My husband of the misty rains*
Noe hāliʻi a ka Waʻahila	*Blanketing fall of the Waʻahila showers*
Hoʻohila ka manaʻo, wehi i ka lau	*Abashed, yet adorned by the outpour*
Lau a ke aloha e piʻi ana i ka liko	*An outpouring of love, rising to brightness*
Wā ihola, ke wā wale maila nō	*Boisterous, an uproar*

From a mele by Hiʻiakaikapoliopele as she was leaving a house with noisy people playing the game of kilu in Waikīkī (Hoʻoulumāhiehie 2006).

As one can see from the extensive preceeding section, the rains of the Waikīkī ahupuaʻa were a significant element of its natural heritage. The subject of song and story, Native Hawaiians honored their elements through composition. This tradition continues today.

9.8.2 Winds of Waikīkī Ahupuaʻa

"The Wind Gourd of Laʻamaomao," from which the following chant is excerpted, tells the story of Pakaʻa and his son Kuapakaʻa, descendants of the wind god Laʻamaomao. They control the winds of Hawaiʻi through a gourd, which contains the winds and chants each wind by name. Each wind name is associated with an ahupuaʻa or place and represents the characteristic or most famous wind of that area. Figure 20, below, depicts the wind names next to the cooresponding name places within Waikīkī. Memorizing the dozens of wind names and associated place names would have been part of the training of a navigator.

In the moʻolelo, Pakaʻa seeks revenge against his enemies at court and passes on the gourd and chants to his son. When Pakaʻa's enemies arrive at Molokaʻi from the Hawaiʻi Island, Kuapakaʻa chants the names of all the winds of Hawaiʻi and tells the chief Keawenuiaʻumi to come ashore on Molokaʻi, because the winds will destroy his fleet of canoes if it continues on to Oʻahu. Keawenuiaʻumi doesn't heed the warning, and his canoe fleet is swamped in the Kaiwi channel. The following is the chant naming the winds of Oʻahu, starting at Hanauma Bay in the ahupuaʻa of Maunalua in the district of Koʻolaupoko; proceeding clockwise around the island; and ending at Makapuʻu, also in Maunalua (Nakuina 1990):

> There are our clouds, my father's and mine,
> Covering the mountains;
> The clouds rise with a sudden shower,
> The whirling winds blow,
> The source of the storm of the keiki,
> Ku a e-ho is at sea,
> From the sea, the storm comes sweeping toward shore,
> The windward Kui-lua wind churns up the sea,
> While youʻre fishing and sailing,
> The ʻIhiʻihilauakea wind blows,
> It's the wind that blows inside Hanauma,

A wind from the mountains that darkens the sea,
It's the wind that tosses the kapa of Paukua,

Puʻuokona is of Kuliʻouʻou,
Ma-ua is the wind of Niu,
Holouha is of Kekaha,
Maunuunu is of Waiʻalae,
The wind of Leʻahi turns here and there,
ʻOlauniu is of Kahaloa,
Waiʻomaʻo is of Pālolo,
Kuehu-lepo is of Kahua,
Kukalahale is of Honolulu,
ʻAoʻaoa is of Mamala,
ʻOlauniu is of Kapalama,
Haupeʻepeʻe is of Kalihi,
Ko-momona is of Kahauiki,
Hoʻeʻo is of Moanalua.

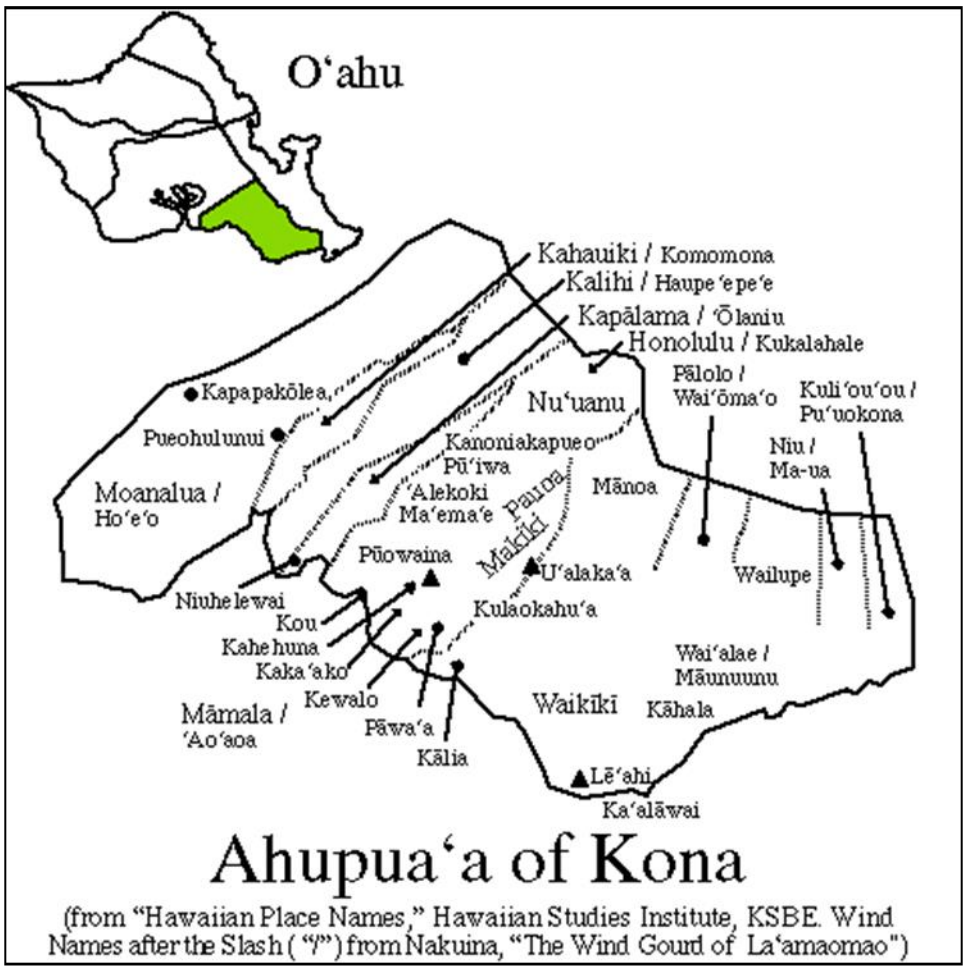

Figure 20: Ahupuaʻa and Wind Names of Kona (Source: Kamehameha Schools)

9.9 Hunting and Fishing

When the first pioneer families arrived in Waikīkī, the marshland and the valleys had no food resources except for native berries, such as ʻōhelo, roots of the hapuʻu fern and the edible birds. Until mahiʻai (farmers) could prepare the land for the kalo (taro), niu (coconut), ʻuala (sweet potato) and maiʻa (banana) they had brought, they mostly relied on the fish in the streams and sea. The fact that fishermen were the first providers of food helps to explain why, in the history of kanaka settlement, early Native Hawaiians regarded fishing as the oldest and most prestigious of professions (Kanahele 1995). They naturally settled on the coastline, as close as possible to this main food source, mostly fishing within a one-half mile radius.

Following their success in kalo production, settlers began to raise fish as well. Loko iʻa proliferated throughout Waikīkī due to its abundance of fresh water springs and streams. One type of pond was the loko wai which were either in existing or natural depressions that the Native Hawaiians widened or deepened (Kanahele 1995). Either could be fed by canals or connected to springs or streams. The ponds were about an acre in size, and concentrated in Moʻiliʻili.

The other type of inland fishponds were loko puʻuone, which were "isolated inshore ponds formed by the development of a barrier beach that created a single, elongated puʻuone or sand dune, parallel to the coast. All ponds were connected to the sea by an ʻauwai locked by a mākāhā (lock or stationary sluice)" (Kanahele 1995). The mākāhā was a technological breakthrough for Waikīkī and all other Native Hawaiian aquaculturalists that allowed water and small fish to flow into the pond while retaining larger fish and reducing silting and stagnation. Compared to rudimentary sluice gates previously used, this innovation represented a marked improvement to the functionality of loko iʻa and instigated the proliferation of fishponds throughout Waikīkī.

In addition to the fishponds described, Waikīkī inhabitants utilized technology such as kahe (fish traps), paniwai (dams), umu (artificial fish shelters) and koʻa (sacred fishing shrines). Fish traps were sieve-like and used to trap ʻoʻopu, while dams were built across streams to capture ʻōpae (shrimp). The umu was a mock structure used to attract fish built of rock and coral with space to grow seaweed. Such shelters were common across the islands, even without comparable proof in Waikīkī, given the sandy, coral-less bottom around the estuaries of ʻĀpuakēhau and Kuekaunahi, it is quite plausible that umu were used extensively. Finally, the koʻa were a vital part of fishing technology since shrines guarantee an abundance of fish (Kanahele 1995). Each koʻa was made of coral or stone and accompanied by a stone image of Kūʻula, the fish god.

9.10 Additional Sites in the Waikīkī Ahupuaʻa

The table below (Table 9) lists a variety of sites within the Waikīkī Ahupuaʻa, from past archaeological sites to current surfing spots/beaches. The table includes the location (if known) and notes about the site.

Table 9: Additional Sites throughout the Waikīkī Ahupua'a

Name	Source	Latitude	Longitude	Notes
'Aiwohi (Publics)	Clark 2011	21°16'0.90" N	157°49'32.92" W	Surf break; 'Aiwohi translates to "royal ruler."
Ala Wai Canal	Clark 2011	21°17'13.39" N	157°49'52.23" W	An inland waterway 9,700 feet long and 250 feet wide.
Ala Wai Golf Course	DLNR and USACE 2015	21°16'48.39" N	157°49'10.99" W	A flat course located on the perimeter of Waikīkī along the Ala Wai Canal, with views of Diamond Head and the Ko'olau Mountain Range.
'Āpuakēhau	Clark 2011	21°16'36.20" N	21°16'36.20" W	One of several streams that flowed out of the wetlands of Waikīkī into the ocean.
Date Street Bridge	DLNR and USACE 2015	21°17'05" N	157°49'14" W	Slab bridge over Mānoa Pālolo Stream.
Duke Kahanamoku Statue	Clark 2011	21°16'31.87" N	157°49'31.17" W	A 14-foot bronze statue of the Hawaiian surfing legend that stands in the center of Waikīkī Beach.
Elks Club	Clark 2011	21°15'40.87" N	157°49'15.54" W	Elks Lodge 616 was established April 15, 1901.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Kaʻalāwai	Clark 2011	21°15'25.79" N	157°47'55.62" W	A beach, channel, fishing ground, spring and residential community on the shoreline of Diamond Head.
Kāhala	Clark 2011	21°9'41.04" N	157°27'46.80" W	Surf spot in the vicinity of the Royal Hawaiian Hotel.
Kahaloa	Clark 2011	21°9'50.04" N	157°29'42" W	Beach in the center of today's Waikīkī Beach. Hawaiian surfers congregated at Kahaloa to ride the waves at Kapuni on surfboards and in canoes.
Kaʻiulani Avenue	Clark 2011	21°16'39.68" N	157°49'28.63" W	Named for Princess Kaʻiulani (1875-1899), who never became queen.
Kalae Pōhaku Ridge	Clark 2011	21°10'50.52" N	157°28'33.24"W	Approximate elevation of this ridge is 260 meters (853 feet) above sea level.
Kalākaua Avenue	Clark 2011:430	21°16'41.52" N	157°49'40.47" W	Runs the entire length of Waikīkī and named for King David Kalākaua.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Kalehuawehe (Castles)	Clark 2011:430	21°15'49.3" N	157°49'35.3" W	Surf spot with the biggest south shore wave breaks.
Kalia	Clark 2011:437	21°16'49.33" N	157°50'28.73" W	Land division, fishing ground and surfing area at the west end of Waikīkī.
Kaluāhole	Clark 2011	21°9'9.7194" N	157°29'25.08" W	Land division, channel, and surf spot at the east end of Waikīkī.
Kanewai Park	DLNR and USACE 2015	21°10'28.92" N	157°29'7.44" W	Facilities include a multi-purpose building, swimming pool, outdoor volleyball and basketball courts, tennis courts and fields.
Kapaemāhū	Clark 2011	21°16'32.65" N	157°49'32.12" W	The “wizard stones” that represent four healers who lived for many years in Ulukou, Waikīkī.
Kapi‘olani	Clark 2011	21°9'38.88" N	157°29'30.48" W	Largest park on the shoreline of Waikīkī, not developed with high-rises.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Kapua (Old Man's)	Clark 2011	21°9'15.48" N	157°29'26.88" W	Now known as Kaimana Beach. Waves here are long lefts with forgiving, rolling shoulders that end in Kapua Channel.
Kapuni (Canoes)	Clark 2011	21°16'28.36" N	157°49'42.17" W	The spot where the waves roll into the beach at Ulukou, and is the best place in Waikīkī for outrigger canoe surfing.
Kawapopo Heiau	McAllister 1933	Unknown	Unknown	Small heiau said to have been torn down prior to 1850.
Kawehewehe	Clark 2011	21°16'37.54" N	157°49'53.29" W	Shoreline area including Gray's Beach and the Halekūlani Hotel. Known as a place of healing, where people who were sick would go to bathe in the ocean as a treatment.
Kea'ua'u	Clark 2011	21°15'1.77" N	157°48'31.82" W	Fishing grounds at the base of Diamond Head.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Koa Avenue	Clark 2011	21°16'33.03" N	157°49'27.74" W	Named for Prince David Kawānanakoa who was one of the first surfers on the mainland.
Kūhiō Avenue	Clark 2011	21°16'43.58" N	157°49'31.36" W	Named for Prince Jonah Kūhiō Kalaniana‘ole.
Kuilei Cliffs	Clark 2011	21°9'8.9994" N	157°28'55.92" W	Beach Park with three lookouts on Diamond Head’s sea cliffs.
Kūkaeunahi	Clark 2011	Unknown	Unknown	Stream prior to the dredging of the Ala Wai Canal that flowed out of the wetlands of Waikīkī.
Kūpikipiki‘ō (Black Point)	Clark 2011	21°15'18.44" N	157°47'32.50" W	The southern most tip of O‘ahu.
Lē‘ahi (Diamond Head)	Clark 2011	21°9'14.75" N	157°28'54.12" W	Important viewshed and heiau.
Lē‘ahi Heiau	Clark 2011	21°9'14.76" N	157°28'54.12" W	Temple that once stood on the site of La Pietra School at the base of Diamond Head.
Maihiwa (Cunhas)	Clark 2011	21°15'47.53" N	157°49'36.57" W	One of the four major surf sites in Waikīkī.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Makiki Stream	DLNR and USACE 2015	21°17'22.71" N	157°50'3.73" W	Approximate elevation is 12 meters (39 feet) above sea level.
Moana Hotel	Clark 2011	21°16'35.42" N	157°49'35.77" W	The oldest and largest hotel on Waikīkī Beach. Opened on March 11, 1901, and is known today as the Sheraton Moana Surfrider Hotel.
Mānoa Stream	DLNR and USACE 2015	21°18'31.98" N	157°48'27.32" W	Approximate elevation is 5 meters (16 feet) above sea level.
Mauʻumae Compound	Clark 2011	21°11'32.99" N	157°27'21.24" W	6.6 mile trail with an elevation gain of 3,300 feet.
Mauoki Heiau	McAllister 1933	Unknown	Unknown	Luakini heiau; erected according to tradition by Menehune. Torn down around 1883 by the Minister of Interior for street work.
ʻŌlauniu	Clark 2011	21°16'30.10" N	157°49'31.39" W	Wind at Kahaloa, the center of Waikīkī Beach.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Outrigger Canoe Club	Clark 2011	21°15'42.52" N	157°49'15.79" W	Formerly located adjacent to the Moana Hotel, now located at the east end of Kalākaua Avenue
Pākī Street	Clark 2011	21°16'0.70" N	157°48'59.28" W	Borders the east side of Kapiʻolani Park that was named for Abner Pākī, the father of Bernice Pauahi Bishop.
Pālolo Stream	DLNR and USACE 2015	21°17'37.80" N	157°48'14.65" W	Approximate elevation of 5 meters (16 feet).
Pālolo Stream Petroglyphs	McAllister 1933	21°10'47.99" N	157°28'24.96" W	These petroglyphs were destroyed by a bridge on the stream and featured two groups of indistinct and crude figures.
Papaʻenaʻena Temple	Clark 2011	21°15'40.66" N	157°48'57.65" W	Temple on the west side of Diamond Head where La Pietra School for Girls stands today.
Papanui	Clark 2011	21°16'8.06" N	157°49'43.58" W	Deep water surf spot outside of Cunha's that was named by Duke Kahanamoku.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Pi‘inaio Stream	Clark 2011	Unknown	Unknown	One of several streams that flowed out of the wetlands in Waikīkī and into the ocean.
Pōhaku Kikēkē	Sterling and Summer 1978	21°16'33.07" N	157°49'32.18" W	A bell stone formerly near 5th and Waialae Avenue. Fragments may be in front of the King’s Daughters Home and Sacred Hearts Academy.
Populars	Clark 2011	21°16'21.18" N	157°49'58.06" W	Surf spot off the Sheraton Waikīkī Hotel that is a popular place to surf.
Prince Edward Street	Clark 2011	21°16'34.40" N	157°49'26.13" W	Named for Prince Edward Keli‘iahonui who was one of the first surfers on the mainland.
Puehu - Blowhole	Clark 2011	21°16'27.36" N	157°49'47.65" W	Surf break where the water “boils” prior to a big swell.
Pūkele Stream	DLNR and USACE 2015	21°18'46.47" N	157°47'8.28" W	Approximate elevation of 64 meters (210 feet).
Queen’s Surf	Clark 2011	21°16'22.54" N	157°49'35.10" W	One of two famous surf spots in the center of Waikīkī.

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Royal Hawaiian Hotel	Clark 2011	21°16'38.70" N	157°49'44.67" W	One of the oldest hotels in Waikīkī, which was once the home of Hawaiian royalty.
Seaside Avenue	Clark 2011	21°16'49.00" N	157°49'37.43" W	Named for the former Seaside Hotel, which was demolished in 1925 to make way for the Royal Hawaiian Hotel.
Tongg's	Clark 2011	21°15'29.79" N	157°49'14.68" W	Surf spot at the east end of Waikīkī; named for Ruddy Fah Tongg, an island businessman.
Ulukou	Clark 2011	21°16'35.53" N	157°49'35.71" W	Shady grove of trees formerly where the Sheraton Moana Surfrider Hotel stands today.
Waʻaloa Stream	DLNR and USACE 2015	21°11'40.92" N	157°28'28.56" W	Approximate elevation of 108 meters (354 feet).
Waiakeakua Stream	DLNR and USACE 2015	21°19'49.41" N	157°47'37.54" W	Approximate elevation of 93 meters (305 feet).

Table 9: Continued

Name	Source	Latitude	Longitude	Notes
Waihi Stream	DLNR and USACE 2015	21°19'49.00" N	157°48'14.00" W	Approximate elevation of 81 meters (266 feet).
Waikīkī Bay – Kai and Waena	Clark 2011	21°9'39.96" N	157°29'38.04" W	Land divisions of Waikīkī, where Waikīkī Kai was from the beach to the Ala Wai Canal, while Waikīkī Waena was from the Ala Wai Canal to Dole Street above the H-1 Freeway.
Woodlawn Ditch	DLNR and USACE 2015	21°11'7.8" N	157°28'53.4" W	Located in Mānoa.

10 Interviews and Consultations

10.1 Oral Histories and Past Studies

Numerous oral histories have been collected by past studies done in the Waikīkī Ahupuaʻa. Those histories were collected and reviewed for relevant information.

The goal of this research and analysis was to identify any data gaps in the oral histories, and then specifically tailor interviews conducted for this study to fill those data gaps. Based on expertise and recommendations from members of the community, six individuals were invited to provide interviews for this study:

10.2 Interviews

Honua Consulting interviewed three individuals with lineal and cultural ties to the Waikīkī Ahupua‘a and its surrounding areas. These individuals have generously shared their knowledge of regional biocultural resources, potential impacts to these biocultural resources and previous consultation efforts to mitigate or minimize these impacts.

The interviewees were informed about BOEM’s role in offshore renewable energy development and presented with information on unsolicitied wind energy project proposals that have been received by the agency. Kalani Ka`ana`ana asked them about their thoughts and concerns about the effects of offshore wind energy development. The interviewees also expressed some recommendations and objections they have based on their fields of interest.

1. Interview with Billy Richards

Date of Interview: January 9, 2016
Interviewee: Billy Richards
Interviewer: Kalani Ka‘ana‘ana
Location: University of Hawai‘i’s Marine Education Training Center, Honolulu, HI

Biography:
William “Billy” Richards has been involved with Hawai‘i’s voyaging community since 1975 as a member of the maiden voyage crew of Hokule‘a. He also served aboard the voyaging canoes Hokule‘a, Hawai‘iloa, Makali‘i and Hokualaka‘i throughout the Pacific and, most recently the Atlantic as part of the World Wide Voyage. Mr. Richards is the Director of Communications for the Partners in Development Foundation, a public non-profit company that serves the Native Hawaiian community through social and educational programs. Prior to that, he held management positions in both the public and private sector, primarily in the field of aquaculture. He spent close to two decades at The Oceanic Institute, a private non-profit research organization.

Mr. Richards serves as a director on several public service, Native Hawaiian and educational boards, including Paepae O He‘eia, Bishop Museum Association Council, and ‘Aha Kāne. He also presently sits as President of “The Friends of Hokule‘a and Hawai‘iloa” and serves as co-chair of ‘Ohana Wa‘a, a round-table collaborative of voyaging organizations from all of the Hawaiian Islands.

Overview:
Mr. Richard’s major concerns about offshore renewable energy include:

- Bird kills, because the near shore birds are indicators used in navigation.
- Light pollution emanating from the wind turbines, which could impede navigation.
- Will offshore wind turbines alter the path of the winds in the space around them, and if so how?
- The obstruction of the view plane.

Mr. Richards also spoke to the fact that offshore wind development plans pose a dilemma: "If we [Polynesian Voyaging Society] are going to sail around the world on the Malama Honua worldwide voyage and we encourage use of renewable energy, how do we make this work in our own backyard." Mr. Richards also asked for more specifics concerning the offshore energy projects. He closed the interview and let Mr. Kaʻanaʻana know that he will be taking the information he learned from the interview to the Polynesian Voyaging Society navigators to consider.

2. Interview with Luana Froiseth

Date of Interview: January 9, 2016
Interviewee: Luana Froiseth
Interviewer: Kalani Kaʻanaʻana
Location: Keʻehi Lagoon, Honolulu, HI

Biography:
Luana Froiseth was born on August 16, 1954 at The Queen's Medical Center. She was born, raised and continues to live in her family home in Kaimukī. Her father, Wally Froiseth, was a well-known canoe builder, pioneer big wave surfer and all-around waterman. Like her father, she was always at the beach and as a young girl learned much about the ocean, surfing and canoe paddling. At the age of 10, Ms. Froiseth began canoe paddling and even won her first surf contest, the Haleiwa Seaspray. In her professional life she is a carpenter and accomplished canoe builder, another skill learned from her father. Together they built the *Tutu*, a 45-foot long koa racing canoe in 1995. She made the inaugural crossing of the Na Wahine o Ke Kai canoe race in 1975 with the club her father helped to found, Waikīkī Surf Club. She went on to make the crossing another 26 times in as many years. She has also served as the International Vaʻa Federation Hawaii Area Coordinator and is the current President of the Oʻahu Hawaiian Canoe Racing Association and her family canoe club, Waikīkī Surf Club; the club's members of 1948 are picture below (Figure 21).

Overview:
Ms. Froiseth's major concern is that future offshore renewable energy projects not interfere with the Molokaʻi Hoe and Na Wahine o Ke Kai canoe races. She expressed a desire to have the Molokaʻi Hoe listed on the National Register to protect the racecourse taken by the crews. She too was concerned with more details and requested to see a proposal. Mr. Kaʻanaʻana shared with her that he did not have them and that he could get them to her when they become available. She also shared that she is not opposed to offshore wind, so long as it does not interfere with Native Hawaiian Cultural practices.

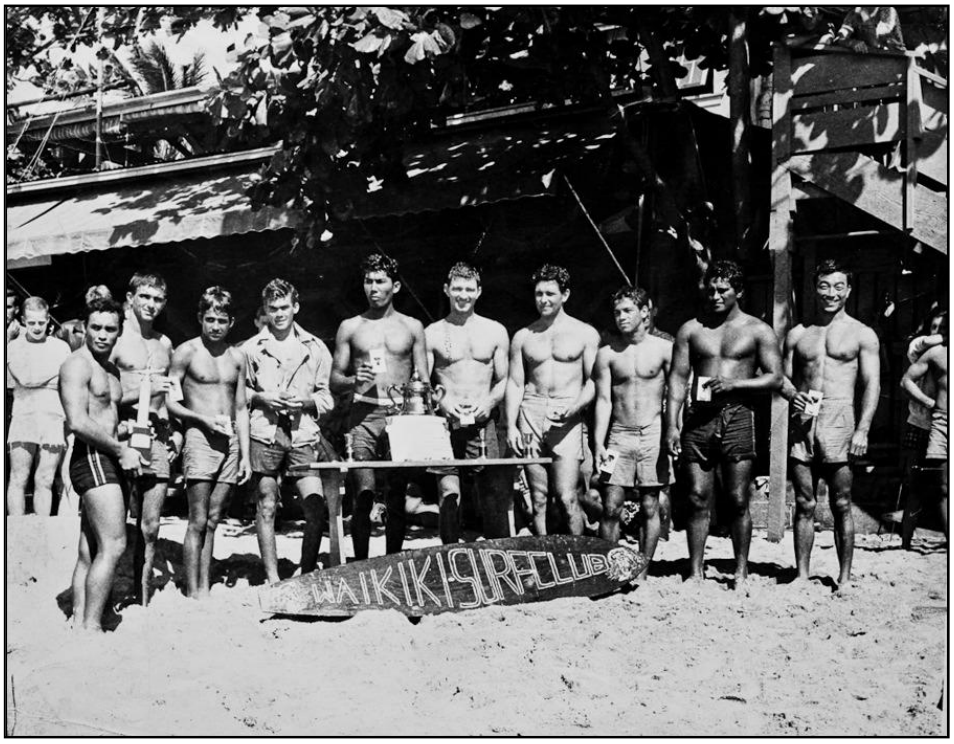

Figure 21: Waikīkī Surf Club, 1948 (Source: Ian Lind)

3. Interview with Nappy Napoleon

Date of Interview: January 9, 2016
Interviewee: Nappy Napoleon
Interviewer: Kalani Kaʻanaʻana
Location: Via Phone, Honolulu, HI

Biography:
Joseph "Nappy" Napoleon was born on May 9, 1941 and was raised in Kapahulu on the outskirts of Waikīkī. His proximity to the water led him to the shores of Waikīkī where he would go with his family as a young child. At the age of eight, he was introduced to Hawaiian outrigger canoe paddling. Nappy learned to paddle from a who's-who list of legendary, now-deceased Waikīkī watermen like Steamboat Mokuahi and Blue Makua.

In 1958, at 17, he first entered the 41-mile Molokaʻi-to-Oʻahu channel race that is regarded as the world championship of long-distance outrigger canoeing—and his crew won. Mr. Napoleon holds the unequaled record of 57 consecutive Molokaʻi races and is still a very competitive participant in both one man and six-man outrigger canoe races. He is regarded in the worldwide paddling community as one of the greatest paddlers of all time.

In the '80s, he and his wife Anona founded Ānuenue Canoe Club, for which he still serves as head coach. He has traveled much of the Pacific as both a racer and a teacher, giving informal paddling clinics everywhere from California to Fiji and beyond. In 1999, he narrated and starred

in an instructional video—One Paddle, Two Paddle: Techniques of Hawaiian Outrigger Canoe Paddling—that was honored with a national "Telly" award for sports videography. Mr. Napoleon continues to communicate his love for the sport and his love for his ocean playground. Mr. Napoleon was inducted into the Hawai'i Sports Hall of Fame in 2008.

Overview:
Mr. Napoleon made it clear that he is not "ma'a [(accustomed)] to this kine things" when discussing offshore renewable energy facilities. He did mention that he would prefer that the facilities not be visible from shore because it would "not be good for us guys...[and] we have something special and that would ruin it." He also had concerns about potential spills of oil, gas, etc. from the platforms. He said he thinks if it will bring some good to O'ahu and if it does more good than harm, then it is "not too bad."

11 Discussion

While Waikīkī has more Native Hawaiians and Native Hawaiian Organizations per capita than any other area studied, it is also the most urbanized area studied. Although research showed there to be an abundance of cultural resources throughout the project area, many of these resources have been significantly degraded or destroyed by development. To some degree, this degradation and destruction is irrelevant, as strong cultural traditions like surfing, music, and hula keep cultural practices and relations perpetuated through the entire Waikīkī cultural landscape. The extensive presence of paddling groups, hālau hula, and other Native Hawaiian organizations demonstrate a deep commitment to the continuation of cultural traditions that extend back centuries. The greatest concern for impact of any ocean activity would be on impacts to cultural practitioners (i.e., fishermen, hula practitioners, etc.), paddling groups, and navigators. The best mechanism for working with groups would be through community liaisons who are familiar with the various organizations in the community. These liasons should be able to help navigate community groups and community leaders through any future processes.

12 Conclusion

Waikīkī proved to be the most difficult area with which to work, despite the large number of organizations and individuals. The information was not readily available, and due to the nature of an urban environment, much of it was not easily accessible from resources or community members. The over-development of Waikīkī makes identification of and access to the remaining practitioners more challenging than in rural areas, where they are more easily identifiable in smaller communities. It is likely this would also be the case in other urban areas throughout Hawai'i, like Honolulu.

Endnotes

[1] Lae‘ahi is the traditional name of Lē‘ahi. Mo‘olelo tells of Hi‘iakaikapoliopele, the younger sister of Pele, comparing this natural feature to the brow (lae) of the ‘ahi fish, hence the name Lae‘ahi (Pukui et al. 1974).

[2] Sometimes known as a nīnau-pi‘o. See Kapiikauinamoku’s *The Story of Hawaiian Royalty* (1955) for more information on these unions.

[3] This area is today known as Mō‘ili‘ili.

References

Akana CL, Gonzalez K. 2015. Hānau ka ua: Hawaiian Rain Names. Honolulu (HI): Kamehameha Publishing. 327 p.

Beckwith M. 1970. Hawaiian Mythology. Honolulu (HI): University of Hawaii Press. 575 p.

Burke KL. 2014. End of fieldwork report for archaeological data recovery for the proposed Princess Kaʻiulani redevelopment project, Waikīkī ahupuaʻa, Honolulu district, Oʻahu, TMK: [1]2-6-022:001 and 041 (prepared for Kyo-ya Hotels and Resorts, LP). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Bush AR, McDermott M, Hammatt HH. 2003. Archaeological monitoring report for excavations for the new international market place sign project, Waikīkī, Oʻahu. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Chiogioji R, Hammatt HH. 1991. An archaeological assessment of two parcels (TMK:2-6-24:65-68 & 80-83 and TMK: 2-6-24:34-40 & 42-45) in Waikiki ahupuaʻa, Oʻahu, Hawaiʻi (prepared for Barbara Moon, Land Use Consultant). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Chiogioji R, Hammatt HH. 2004. Archaeological assessment for the Royal Hawaiian shopping center. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Chiogioji R, Rainwalter U, Freeman SDM, Hammatt HH. 2004. Archaeological inventory survey for the Tusitala Vista elderly apartments in Waikīkī, ahupuaʻa, Kona district, Oʻahu island, TMK:2-6-24:70, 71 (prepared for Kusao & Kurahashi, Inc.). Kailua (HI): Cultural Survey Hawaiʻi, Inc.

Clark JRK. 2011. Hawaiian Surfing: Traditions from the Past. Honolulu (HI): University of Hawaii Press. 512 p.

Cleghorn P. 2001a. Archaeological mitigation of Waikīkī burger king construction (prepared for Hawaiʻi CIMMS). Kailua (HI): Pacific Legacy, Inc.

Cleghorn P. 2001b. Archeological mitigation near Waikīkī burger king construction site (prepared for Hawaiʻi CIMMS). Kailua (HI): Pacific Legacy, Inc.

Craig, Mr. And Mrs. Alexander. 1925. He puolo waimaka aloha, no kuu aunty heleloa Mrs. Kaiawe Helelani Punohu. Ka Nupepa Kuokoa, buke 64, helu 10 (Maraki 5): 5.

Davis BD. 1989. Subsurface archaeological reconnaissance survey and historical research at Fort DeRussy, Waikīkī, island of Oʻahu, Hawaiʻi (prepared for U.S. Army Engineer District, Pacific Ocean Division). Honolulu (HI): International Archaeological Research Institute, Inc.

DLNR and USACE (Department of Land and Natural Resources and the U.S. Army Corps of Engineers). 2015. Ala Wai canal project Oahu, Hawaii feasibility study with integrated environmental impact study. Honolulu (HI): State of Hawaiʻi Department of Land and Natural Resources.

Ellis W. 1963. The Journal of William Ellis. Honolulu (HI): Advertiser Publishing Company, Ltd. p. 267-268.

Elmore M, Kennedy J. 2001. A report concerning the inadvertent discovery of human remains at the Royal Hawaiian Hotel, (TMK: (1)2-6-02:5, in Waikiki ahupuaʻa, Honolulu district, island of Oʻahu). Haleiwa (HI): Archaeological Consultants of Hawaii, Inc.

Emerson N. 1951. Hawaiian Antiquities. Malo D, translator. Honolulu (HI): Bishop Museum Press.

Esh KS, Hammatt HH. 2006a. An archaeological monitoring report for Kūhio Avenue (Kalākaua to Kaʻiulani) Waikīkī ahupuaʻa, Honolulu district, Oʻahu island, Hawaiʻi TMK: [1]2-6-015 to 022:various parcels (prepared for Hawaiian Dredging Construction Company). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Esh KS, Hammatt HH. 2006b. Archaeological monitoring report for the Ala Wai Boulevard improvements, Waikīkī ahupuaʻa, Kona district, island of Oʻahu TMK: [1] 2-6-Plats 14, 15, 16, 17, 20, 21, 24, 25, 28, 29 (Ala Wai Boulevard) (prepared for Mr. Sean Enos, IDEAL Construction Inc.). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Foote DE, Hill EL, Nakamura S, Stephen F. 1972. Soil survey of the islands of Kauaʻi, Oʻahu, Maui, Molokaʻi and Lanaʻi, State of Hawaiʻi. Washington (DC): U.S. Department of Agriculture, U.S. Government Printing Office.

Fornander A. 1996. Ancient History of the Hawaiian people to the Times of Kamehameha I. Honolulu (HI): Mutual Publishing. 432 p.

Griffin A. 1987. Kalākaua Avenue gas pipe excavation burial recovery, Waikīkī, Honolulu, Oʻahu (TMK: 2-6-01:12). Honolulu (HI): Department of Land and Natural Resources.

Groza R, Borthwick D, Hammatt HH. 2007. Literature review and field check due diligence for the Waikīkī Marriot project, Waikīkī ahupuaʻa, Honolulu (Kona) district, island of Oʻahu, TMK: [1] 2-6-026:009 (prepared for Wilson Okamoto Corporation). Kailua (HI): Cultural Surveys Hawaiʻi Inc.

Hammatt HH, Shideler DW. 2007. Archaeological monitoring report for a grease interceptor at the Sheraton Moana Surfrider Hotel, Waikīkī ahupuaʻa, Kona District, Oʻahu TMK: [1] 2-6-001:012. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Handy ESC, Handy EG. 1972. Native Planters in Old Hawaii: their life, lore, and environment. Bernice P. Bishop Museum Bulletin 233. Honolulu (HI): Bishop Museum Press. 640 p.

Havel B, Spear RL. 2004. Archaeological monitoring report for ABC Store No. 21 Waikīkī, Waikīkī ahupuaʻa, Honolulu district, Oʻahu island, Hawaiʻi [TMK 2-6-21:101]. Honolulu (HI): Scientific Consultant Services, Inc.

Hawaiian Historical Society. 2003. Buke Mele Lahui. Honolulu (HI): Hawaiian Language Reprint Series. 182 p.

Hazlett A, Chiogioji R, Borthwick D, Hammatt HH. 2008a. Archaeological monitoring report for a 1-acre parcel, 2284 Kalākaua Avenue, Waikīkī ahupuaʻa, Honolulu district, island of Oʻahu TMK: [1]- 2-6-22:009. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Hazlett A, Esh K, Hammatt HH. 2008b. Monitoring report for the Royal Hawaiian Shopping Center parcel, Waikīkī ahupuaʻa, Kona district, Oʻahu, TMK: [1] 2-6-002:018. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Hibbard D, Franzen D. 1986. The View from Diamond Head: Royal Residence to Urban Resort. Honolulu (HI): Editions Limited. 221 p.

Holstein EC, compiler. 2003. Ka buke mele o nā himeni Hawaiʻi (the lyric book of Hawaiian choral songs). Honolulu (HI): Bishop Museum Press.

Hoopai. 1865. He inoa no Heneri W. Auld. Ke Au Okoa, buke1, helu 10 (Iune 26, 1865): 1.

Hoʻoulumāhiehie. 2006. Ka moʻolelo o Hiʻiakaikapoliopele. Nogelmeier P, editor and introduction. Honolulu (HI): Awaiaulu Press.

ʻĪʻī JP. 1959. Fragments of Hawaiian History. Honolulu (HI): Bishop Museum Press.

Inglis D, Kay A, McDermott M. 2014. Archaeological inventory survey report for the 133 Kaʻiulani project, Waikīkī ahupuaʻa, Honolulu (Kona) district, Oʻahu TMK: [1] 2-6-023:029, 037, and 076. Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Johnson RK, Mahelona JK, Ruggles C. 2015. Nā inoa hōkū: Hawaiian and Pacific Star Names, revised edition. Honolulu (HI): Ocarina Books. 272 p.

Kaakopua. 1861. He kanikau no Hina. Ka Hae Hawaii, buke 6, helu 2 (Aperila 10, 1861): 8.

Kahinawe H.M. 1862. He kanikau aloha no J. Henry. Ka nuepepa Kuokoa, buke 1, helu 20 (Aperila 12, 1862): 4.

Kaholomoku A. 1862. He inoa no Erisapeka. Ka Hoku o ka Pakipika, buke 1 helu 29 (Aperila 10, 1862): 4.

Kailihiwa SH III, Cleghorn PL. 2003. Archaeological monitoring of Waikīkī water system improvements, (part IV, units 1 and 2) on portions of Lauʻula Street, Waikolu Way, and Royal Hawaiian Avenue, Waikīkī, island of Oʻahu (TMK: 2-6-018, 019, 022). Kailua (HI): Pacific Legacy, Inc.

Kamakau SM. 1867a. Aloha ke kaha o Palaau. Ka Nupepa Kuokoa, buke 6, helu 4 (Ianuari 26 1867): 3.

Kamakau SM. 1867b. Nani halo i ka ua Waahila. Ka Nupepa Kuokoa, buke 6, helu 45 (Novemaba 9, 1867): 3.

Kamakau SM. 1961. Ruling Chiefs of Hawaiʻi. Honolulu (HI): Kamehameha Schools Press.

Kamekau SM. 1993. Tales and Traditions of the People of Old, nā moʻolelo a ka poʻe kahiko. Pukui MK, translator. Barrere DB, editor. Honolulu (HI): Bishop Museum Press.

Kanahele GS. 1995. Waikīkī 100 B.C. to 1900 A.D.: an Untold Story. Honolulu (HI): The Queen Emma Foundation.

Kapiikauinamoku. 1955. The story of Hawaiian Royalty, Parentage Established Degrees among Alii-kapu. The Honolulu Advertiser.

Kennedy J. 1991. Archaeological monitoring report for the proposed IMAX theater project. Haleʻiwa (HI): Archaeological Consultants of the Pacific.

Lihau M. 1862. He inoa no manoana [sic]. Ka Nupepa Kuakoa, buke 1, helu 29: 4.

Lohiau S. 1862. He mele no ka nuepepa hae Hawaii. Ka Nuepepa Kuokoa, buke 1, helu 7 (Ianuari 11, 1862): 3.

Malo D. 1951. Hawaiian Antiquities, Moʻolelo Hawaiʻi, second edition. Honolulu (HI): Bishop Museum Press.

Manirath L, Shideler DW, Hammatt HH. 2015. Final archaeological inventory survey report for the Waikīkī Trade Center redevelopment Waikīkī ahupuaʻa, Honolulu district, Oʻahu, TMK: [1]2-6-022:031 (prepared for WTC Oahu Property LLC). Kailua (HI): Cultural Surveys Hawaiʻi Inc.

Mann M, Hammatt HH. 2002. Archaeological monitoring report for the King Street rehabilitation project, Honolulu ahupuaʻa, Kona district, island of Oʻahu (TMK 2-1 por. and 1-7 por.). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

McAllister JG. 1933. Archaeology of Oahu. Bernice P. Bishop Museum Bulletin 104. Honolulu (HI): Bishop Museum Press.

McDermott M, Chiogioji R, Hammatt HH. 1996. An archaeological inventory survey of two lots (TMK: 2-6-24:65-68 & 80-83 and TMK: 2-6-24:34-40 & 42-45) in Waikiki ahupuaʻa, Oʻahu, Hawaiʻi (prepared for Okada Trucking Co., Ltd). Kailua (HI): Cultural Surveys Hawaiʻi Inc.

Morriss V, Hammatt HH. 2015. Final archaeological inventory survey report for the beachwalk wastewater pumping station project, Waikīkī ahupuaʻa, Honolulu (Kona) district, Oʻahu, TMK: [1] 2-6-018:011 (prepared for PACREP 2 LLC). Kailua (HI): Cultural Surveys Hawaiʻi, Inc.

Nakuina EMB. 1907. Hawaiian Folk Tales. Thrum TG, compiler. Chicago (IL): A.C. McClurg.

Nakuina MK. 1990. The Wind Gourd of Laamaomao. Mookini EK, Nakoa S, translators. Honolulu (HI): Kalamaku.

Nogelmeier MP. 2001. He lei no ‘emalani: chants for Queen Emma Kaleleonalani. Pukui MK, Kelsey T, Nogelmeier MP, translators. Honolulu (HI): Queen Emma Foundation and Bishop Museum Press.

OHCRA (Oahu Hawaiian Canoe Racing Association). 2015. Race history [Internet]. [cited 2017 May 3]. Available from http://www.molokaihoe.com/index.html

Olepau W. 1895. Kupaa ka manao me liliu. Ka Makaainana, buke 3, helu 11 (Mei 20, 1895): 1.

Paglinawan R. 1996. Information on the wizard stones of Waikiki. Honolulu (HI).

Pammer M, Hammatt HH. 2007. Final archaeological monitoring report for the Perry’s Smorgy Restaurant project Waikīkī ahupua‘a, Honolulu district, island of O‘ahu, TMK:[1] 2-6-021:114 (prepared for Fordable Construction, LLC). Kailua (HI): Cultural Surveys Hawai‘i Inc.

Pammer M, Shideler DW, Hammatt HH. 2014. Final archaeological inventory survey report for the 2139 Kūhio Avenue project, Waikīkī ahupua‘a, Honolulu (Kona) district, O‘ahu, TMK: [1] 2-6-018:043, 045-048 (prepared for R.M. Towill Corporation). Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Parker HH. 1922. A Dictionary of the Hawaiian Language. Prepared under the Direction of the Commissioners of the Public Archives of the Territory of Hawaii. Honolulu (HI): The Board.

Pauahi DW. 1862. He kanikau no kapela. Ka Nupepa Kuokoa, buke 1, helu 45 (Okatoba 4, 1862): 2.

Pukui MK. 1983. ‘Ōlelo no‘eau: Hawaiian Proverbs and Poetical Sayings. Honolulu (HI): Bishop Museum Press. 368 p.

Pukui MK, Elbert SH. 1986. Hawaiian Dictionary. Honolulu (HI): University of Hawaii Press. 572 p.

Pukui MK, Elbert SH, Mookini ET. 1974. Place Names of Hawaii: revised and expanded edition. Honolulu (HI): University of Hawaii Press. 289 p.

Rosendahl PH. 1998. Cultural impact assessment study: identification of Native Hawaiian cultural practices associated with Wa’ahile Ridge, HECO Kamoku-Pukele 138-kV transmission line project technical report for environmental impact study. Honolulu (HI): Hawaiian Electric Company, Inc.

Runyon R, O’Hare C, Shideler D, Hammatt HH. 2008. Archaeological assessment for improvements to the Royal Hawaiian and Sheraton hotels Waikīkī, Kona district, O‘ahu, TMK: [1] 2-6-002:005, 006 & 026. Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Runyon R, Shideler DW, Hammatt HH. 2015. Final archaeological monitoring report for improvement to the Royal Hawaiian and Sheraton hotels, Waikīkī ahupua‘a, O‘ahu, TMK:

[1]2-6-002:005 and 026 (prepared for Kyo-ya Hotels and Resorts, LP). Kailua (HI): Cultural Surveys Hawai‘i Inc.

Runyon R, Yucha T, Shideler D, Hammatt HH. 2010. Final archaeological inventory survey report for the Princess Ka‘iulani redevelopment project, Waikīkī ahupua‘a, Kona district, O‘ahu, TMK: [1] 2-6-022:001 and 041. Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Simons JA, Antonio-Miller S, Trembly D, Somer L. 1988. Archaeological monitoring and data recovery at the Moana Hotel historical rehabilitation project, O‘ahu, Waikiki. Honolulu (HI): Applied Research Group, Bishop Museum.

Soehren LJ. 2010. Hawaiian Place Names. Ulukau, the Hawaiian Electronic Library.

Sterling EP, Summers CC. 1978. Sites of O‘ahu. Honolulu (HI): Bishop Museum Press. 352 p.

Thrum TG. 1998. Hawaiian Folk Tales. Honolulu (HI): Mutual Publishing. 288 p.

Thurman D, Hammatt HH. 2008. Archaeological monitoring report for geotechnical testing at the Royal Hawaiian and Sheraton Waikīkī hotels Waikīkī, Kona district, O‘ahu, TMKs: (1) 2-6-002:005, 006, and 026. Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Thurman D, O’Hare CR, Runyon R, Shideler DW, Hammatt HH. 2009. Final archaeological inventory survey report for the proposed Diamond Head Tower redevelopment project Waikīkī ahupua‘a, Kona district, O‘ahu, TMK: [1] 2-6-001:012, por. Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Tome G, Dega M. 2003. Archaeological monitoring report for construction work at the Waikiki Marriot, Waikiki, Manoa ahupua‘a, Honolulu district, O‘ahu island, Hawai‘i. Honolulu (HI): Scientific Consultant Services.

Tulchin J, Hammatt HH. 2007. Final archaeological data recovery report for SIHP No. 50-80-08-6707, at the Tusitala Vista elderly apartments, Waikīkī ahupua‘a, Kona district, O‘ahu, TMK: [1] 2-6-024:070, 071, & 089 (prepared for Tusitala Vista L.P.). Kailua (HI): Cultural Surveys Hawai‘i Inc.

U.S. Climate Data. 2016. Climate Honolulu-Hawaii [Internet]. [cited 2017 May 3]. Available from http://www.usclimatedata.com/climate/honolulu/hawaii/united-states/ushi0026

Waiamau J. 1865. Ke kilohana pookela no ka lahui Hawaii. Ka Nupepa Kuokoa, buke iv, helu 37 (sepatemaba 16, 1865).

Westervelt WD. 1963. Hawaiian Legends of Old Honolulu. Rutland (VT): Charles E. Tuttle.

Wilcox C, Hollinger V, Hussey K, Nogelmeier MP. 2003. He mele aloha: a Hawaiian Songbook. Honolulu (HI): ‘Oli‘Oli Productions.

Winieski J, Hammatt HH. 2001. Archaeological monitoring report for the public baths waste water pumping station force main replacement, Waikiki Honolulu, O‘ahu, Hawai‘i, TMK:2-

6-25, 26, 27, and 3-31, 43 (prepared for Delta Construction Corporation). Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Winieski J, Perzinski M, Souza K, Hammatt HH. 2002. Archaeological monitoring report, the Kuhio Beach extension/Kalakaua Promenade project, Waikīkī ahupua‘a, Kona district, island of O‘ahu (TMK 2-6-25, 26, & 2, and 3-1-31, 43). Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Yucha TM, Borthwick DF, Hammatt HH. 2009. Final archaeological inventory survey report for the proposed Waikīkī Shopping Plaza redevelopment project, Waikīkī, Kona district, O‘ahu, TMK: [1] 2-6-019: 056, 061. Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Yucha TM, Yucha JM, Hammatt HH. 2013. Final archaeological inventory survey for the St. Augustine-by-the-Sea master plan project, Waikīkī ahupua‘a, Honolulu (Kona) district, island of O‘ahu, TMK: [1] 2-6-026:012 & 015 (prepared for Helber Hastert & Fee Planners, Inc.). Kailua (HI): Cultural Surveys Hawai‘i, Inc.

Appendix 6: Waialua Case Study

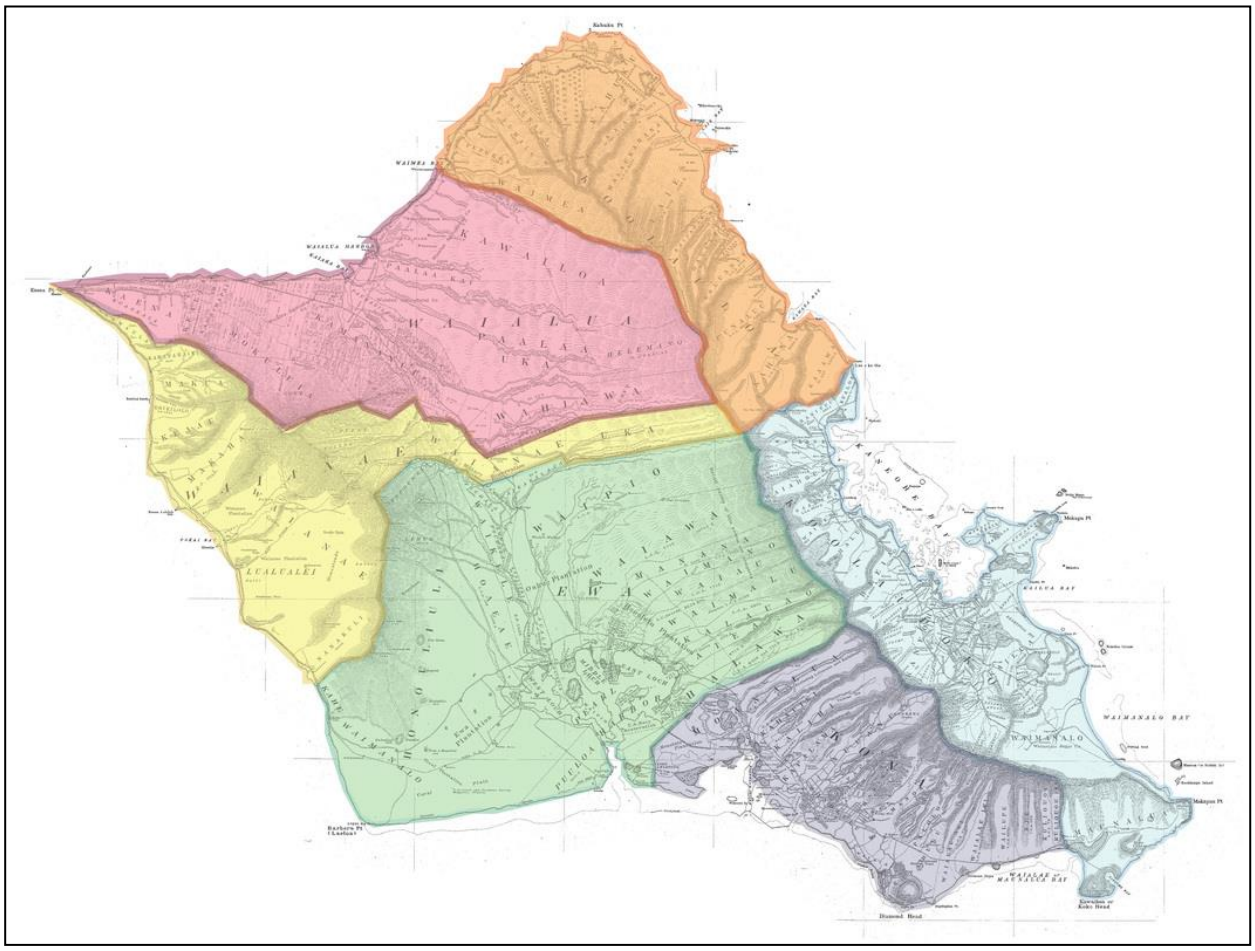

Figure 22: Map of Oʻahu depicting the various moku, with Waialua in red (Source: AVA Konohiki)

WAIALUA CASE STUDY
2015-2016

1 ʻŌiwi (Native) Physiography in Connection to Waialua

A Hawaiian description of nature and place.

According to the Ancestral Hawaiian worldview, an individual's identity and character are intimately linked to the ʻāina (land) (Handy and Pukui 1999). Everything from the breaks of the waves, the strength of the breeze, the categories of plant and wildlife, and of course the physical landscapes of one's homeland play a crucial role in shaping their unique disposition to the rest of the world. Each section of land in Hawaiʻi contains rains, winds, ridges, pools, tides, and other natural phenomena that are particular to the place, existing as unique singularities that are anchored to the geographical location in which they exist. This not only shows the keen and detailed natural observations made by our kūpuna, but the individualized manner in which they understood their homes. Every aspect of the land, whether as obvious as a cliff or as subtle as a breeze, was named and appreciated for its uniqueness. As a result of this ancestral, detailed view of the land, indigenous Hawaiians continue to derive meaning in their lives from the natural setting, understanding ourselves not as landowners who exist above the ʻāina, but as extensions of the land's all pervading, all loving power. Defining and differentiating the specifics of a place is thus an important step in anchoring oneself to the space-based reality of Kānaka Maoli (Native Hawaiian) life. To blur the lines our ancestors clearly drew in delineating their homelands, is to culturally disengage from that home altogether. Native Hawaiians therefore continually find profound connections between themselves and their surroundings, applying no limits to how our culture may affix us to our unique island home (Kanahele 2011).

The Waialua district of Oʻahu was and remains a special and sacred place to many Native Hawaiian people. At one point in time, this moku was the setting of numerous heiau, several koʻa, one of Oʻahu's only leina (place where spirits leap into the netherworld), and many other spaces of great significance. Traditionally, Waialua was a moku where many chiefs were raised, and several place and landscape names still reflect so today. One such example is the ahupuaʻa Paʻalaʻa, which means firm or secured ("paʻa") in sacredness or consecration ("laʻa"). Multiple heiau in Paʻalaʻa, such as Kapukapuākea, were important sites where chiefs would be consecrated, undergoing the necessary rituals for their rule. Along with being home to the young chiefs of Oʻahu, the Waialua moku is also typically discussed in high regard in moʻolelo, such as the Hiʻiakaikapoliopele epic by Hoʻoulumāhiehie (2006), which offers multiple chants honoring the moku.

The moku of Waialua is broken off into multiple ahupuaʻa which include: Kaʻena, Keālia, Kawaihāpai, Mokulēʻia, Kamananui, Paʻalaʻa, Kawailoa, and Kāpaeloa (depicted in Figure 23, below). Each ahupuaʻa contains significant points of interest, pertinent moʻolelo, and specific natural phenomena that work together to create a cohesive yet complex idea of home. For example, the ahupuaʻa Kaʻena is home to the breeze named Koholālele, describing the way this wind blows up sea spray, mimicking the aftermath of a whale's breach. Kaʻena is the western most point of the Waialua moku, and is a frequent visiting spot to the Koholā (humpback whale), showing that the wind name also recognizes the wildlife of the area. A native to the ahupuaʻa can thus find several immediate connections between different aspects of the natural world by simply feeling and noting the gust of a particular wind.

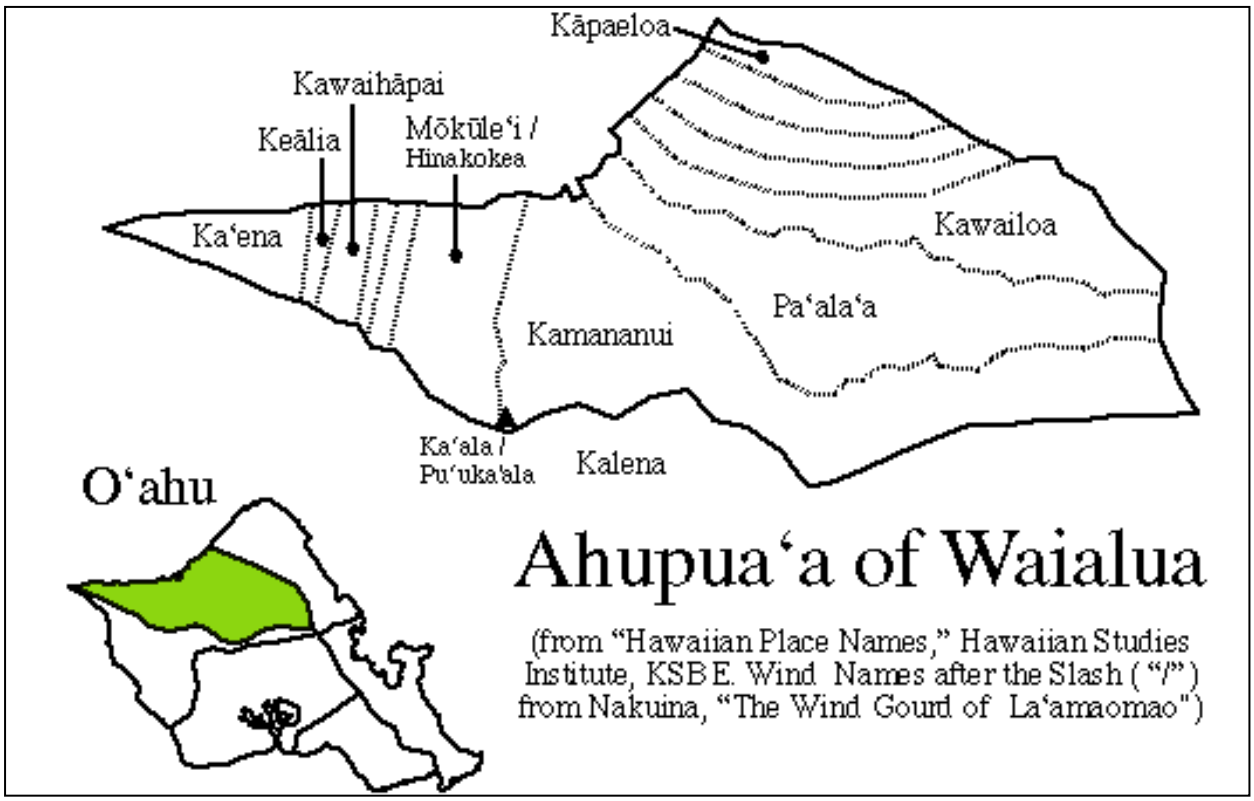

Figure 23: The Ahupuaʻa of Waialua (Source: Kapiʻolani Community College)

While the ʻāina and its numerous connecting factors are clearly of great rank to indigenous Hawaiians, it is important to note that the surrounding waters of one's homeland were seen as just as crucial. Within the ahupuaʻa system there is not a dividing point between the land and sea, but rather a continuum between the two interconnected spaces (Oliveira 2014). When Hawaiians began the privatization of land, the awarded segments did not end where the water began, but rather, extended to the end of the nearest reef. The ocean is therefore seen as an extension of the ʻāina, and thus an extension of one's home. Similarly, the ocean was not understood as a barrier between islands, but was seen as a path connecting each landmass to the next, transforming a chain of several islands into a single homeland. Just as the ʻāina is carefully studied, nurtured, and particularized in Hawaiian society to create an intimate idea of home, so too is the extending seascape, rendering the vast ocean a place much closer to the heart.

While specific channels, currents, and beach fronts were of particular fame and significance in Hawaiian society, the entire expanse of the sea was and is immensely sacred to us. The ocean was not only one of our most important food sources, but is traditionally known to be the source of life within the Hawaiian universe. Religious creation chants such as the Kumulipo credit the sea as the primordial womb from which our entire world came to being (Beckwith 1981). Before mankind walked the earth, before plants and animals felt the warmth of the sun, before the gods came to animate the Hawaiian world, it was the sea that brought forth life. Along with being an important source in this regard, the ocean is also home to several oceanic deities, of which Hoʻomana Hawaiʻi (Hawaiian religion) has countless, and is itself the divine realm of the god Kanaloa, one of the four major Hawaiian deities. Kānaka Maoli remain an ocean-faring, ocean-

dependent people today, and even over centuries of colonial change we have not lost our deep connection to moananuiākea (the great expanse of the sea).

Traditionally, Native Hawaiians mapped the sea by giving names to different levels of depth, specific currents and breaks, noting even the slightest nuances to better understand the sea as a resource vital to survival. Names of seascapes, like landscapes, often served as clues, telling ʻŌiwi (natives) specifics of a place that were pertinent to know. One such example in Waialua is the name Māeaea (literally meaning to stink or stench), which is the traditional name of the makai (towards the sea) side of Haleiwa. Off Puaʻena point to the right of the beach, law breakers and other offenders of kapu who were put to death would be laid at the sea point Kahakakaukanaka until sharks came to claim their dead bodies. The name of the beach thus reflects the foul smell of the point, and utilizes the common Hawaiian theme of naming a beautiful or sacred object something unpleasant to ward off unwanted attention or attack (Handy and Pukui 1999). Because the moku was home to chiefs, the name Māeaea, as well as the physical smell from the bodies, likely served this deflective purpose, perhaps also being a warning to those unfamiliar to the area that the place was significant.

Other crucial seascapes in the Waialua moku include the Kaʻieʻie channel, which connects the islands Oʻahu and Kauaʻi, beginning at Kaʻena point and ending in Kapaʻa near Waiʻaleʻale. The channel is noted for its strong currents and winds, having a reputation as a dangerous place of travel, though it was also a main route to Kauaʻi in traditional times. Moʻolelo also tell of specific deities that dwell in the channel's depths, such as the god Moananuikalehua, a relative of the volcano god Pele (Hoʻoulumāhiehie 2006). Other Waialua seascapes noted in moʻolelo include the wave breaks Pekue, Kapapale, and Kauanui which are mentioned in a version of Punaʻaikoaʻe, as well as the cove Kīlauea, which is said to have once been home to the supernatural boulder Pōhakuloa, before it was moved by the god Hiʻiakaikapoliopele (Hoʻoulumāhiehie 2006).

The information that follows this brief introduction to the space-based reality of Kānaka life, was compiled by interviews, physical tours, and in-depth research of both English and Hawaiian language resources. Certain pieces of information were collected but deemed too sensitive to include in the case study. Out of respect to those who wish to retain their family knowledge, such information was chosen to be left out of the landscape. Furthermore, the advisory committee of this venture has decided the cultural landscape will be an on-going project, and will be continually researched and added to as new information is located. Please see the following material as a resource that not only tells where the Waialua moku's points of significance are located, but also tells what natural phenomena count as "significant" to the Native Hawaiian mind. By working together in this regard, advancements can be made to help the earth in a way that is not merely acceptable to Native Hawaiians, but meaningful to us. Mahalo.

2 Advisory Group

Honua Consulting held statewide meetings to discuss the initial Case Study briefing. The results were taken back to the North Shore community, and individuals were identified to become the advisory group for the Waialua Case Study. Group members represent diverse interests within the case study area.

2.1 Qualification of Members

The Characterizing Native Hawaiian Cultural Landscapes workshops and meetings identified the following values and principles as being high priorities in any successful consultation process:

- Integrity and honesty between partners
- Community engagement in research design
- Transparency throughout the process
- Equity in decision-making (or management/clarity of expectations)
- Earliest possible engagement with Native Hawaiian community and stakeholders
- Community engagement in assessment and evaluation
- Accountability (i.e., including enforcement provisions)

In order to achieve these principles in this case study we have prioritized the following qualifications for all Advisory Group members:

- Familiarity with Native Hawaiian language resources
- Cultural practitioners
- Local expertise
- Direct engagement with community members and kūpuna
- Data collection that includes Native Hawaiians and local researchers
- Quality control of research by local experts

2.2 Selection of Members

All Advisory Group members were selected based on the priorities outlined above, and their long-standing dedication to Waialua.

The Advisory Group members were tasked with information gathering and community consultation regarding the study. They met monthly to report, interpret, and advise on issues related to the study and to review and evaluate the case study as it continues.

These characteristics, in addition to long standing Waialua civic and community activism, led to the following list of members:

Kupuna Elizabeth ‘Betty‘ Jenkins
Kupuna Dorothy ‘Kanani‘ Awai
Kupuna Galdys ‘Honey‘ Lenox-Awai
Kupuna Kamahu‘ilani Kawananakoa
Moana Bjur
Thomas Shirae
Keone Nunes
Walt Mahealani Keale
Keli‘i Makua
Kawika Au
U‘ilani Au
Lokomaika‘ikeakua Au

3 Archaeological Sites within the Waialua Moku

The following list of archaeological sites and events were compiled by the Advisory Group members. These sites are arranged by their locations within Waialua, and the selected sites are known throughout the Waialua moku as culturally significant and important to Kānaka Maoli.

1. **Puaʻakanoahoa**: Puaʻakanoahoa is the name of a koʻa located at Kaʻena Point beneath Puaʻakanoa ridge. The koʻa consisted of a 10 square foot platform built up about 3-4 feet high, slightly elevated above shore. It was noted that for a koʻa there were surprisingly few coral pieces found in the architecture (Sterling and Summers 1978).

2. **Pohā**: Pohā cave was said to house nine different water courses (mostly fresh water) that were carried through the ground out into the center of the Kaʻieʻiewaho Channel, located between Oʻahu and Kauaʻi. When fishing, Native Hawaiians would get drinking water by diving down into the ana (cave) with ipu to collect fresh water. The opening/exit to Pohā Cave was called Kilawea (Kīlauea) and is located underwater near the end of the reef at Keawaʻula. It is believed that Pohā Cave is also called Keawaʻula Cave which was discussed in Ka Hae Hawaii in 1860 by a person called Kamahina from Waialua. Kamahina states that the cave was rediscovered in October of 1859 during the construction of a new home. A man removed one of the three flat stones covering the entrance to the cave and eventually revealed the enitre opening. It was reported that a hōkeo (storage gourd for fishing or cooking) was found inside the cave still covered in netting (Sterling and Summers 1978).

3. **Kīlauea**: Kīlauea awa (cove) is supposed to be located in Keawaʻula near Pōhā. It is heavily discussed in a section of the epic tale of Hiʻiakaikapoliopele when Hiʻiaka travels on foot from Kaʻena point to Kīlauea in Keawaʻula. Here she finds a large group of men, women, and children, all adorned, sitting near a resting spot and avoiding the diving area. Hiʻiaka inquires as to why no one was swimming on such a hot day, and the locals of Keawaʻula explain that when they arrived this morning to swim, a large boulder had appeared standing permanantly in their diving spot. The people of Keawaʻula described this boulder as being supernatural as it came suddenly from nowhere. Hiʻiaka then witnesses a young girl dive into the pool and hit the large boulder. She died on impact and as her body drifted out to sea, Hiʻiaka jumps in to save the girl and revives her. After this great feat, Hiʻiaka claims that she will remove the "human boulder" from the diving spot. Hiʻiaka says that this boulder's name is Pōhakuloa and he is a kupua (supernatural being) of the seas who smashes canoes and humans in its path. It is also stated that this kupua has multiple forms including a shark and other sea creature forms. Hiʻiaka battles this kupua first in its sea creature form, and upon her victory she throws the rock over Kulaokalā ridge. Pōhakuloa lands at Kaʻena in Waialua and remains there today, a long and jagged stone with a famed name. After this great battle Hiʻiaka reminds the people of Keawaʻula to bathe the revived girl in fresh water 5 times a day, to which a man replied that there is not a lot of fresh water in this region of the island. Hiʻiaka says, "This is a land of water" and explains that there is much fresh water to be found. Hiʻiaka shows the people "the water of your ancestors who inhabited this land, Keawaʻula." Hiʻiaka tells them that this water must be gathered with ipu after they break through the sand base and

dig down to the kumu wai (spring). Hiʻiaka also uses her godly powers to break the earth and make a mouth in the kumu wai so they can retrieve water. She departs Keawaʻula just after explaining that the particular course of water emerges in the middle of the Kaʻieʻie channel, where the waters of the four valleys of Kaʻena meet. From the point of Kīlauea, one can see the head of the moʻo Koeahi.

4. **Ke Ana Moe o Kaʻena**: Ke Ana Moe o Kaʻena is the name of a cave located in Keawaʻula. The cave was supposedly an ala (trail) between Makua and Waialua that travellers frequently used to cross the mountain range. Kaʻena was the name of a famed chief of Waiʻanae. The name of this site perhaps elludes to his resting place (Sterling and Summers 1978).

5. **Hōlua**: Hōlua is the name of a koʻa that was located on the Keawaʻula side of Kaʻena Point. The koʻa was allegedly destroyed during railroad construction in 1899. The ahupuaʻa of Keawaʻula was a fishing spot famed for aku and ahi. Papa Aila was questioned about his favorite fishing grounds and recalled that along with being known for good fishing, Kaʻena had once had heʻe hōlua (sledding courses down the side of the hill). He could not remember the name of the one located on the Waialua side, but recalled that the one on the Waiʻanae side near the koʻa was called Kepoʻookahōlua (Sterling and Summers 1978).

6. **Kaiāulu**: Kaiāulu is the name of the makani (breeze) in Keawaʻula, Waiʻanae near the point. The Kaiāulu breeze is a light and gentle one that simply stirs the palms of trees. Hiʻiaka teaches this to her aikāne (friend) in the epic of Hiʻiakaikapoliopele (Hoʻoulumāhiehie 2006).

7. **Koholālele**: There is a specific makani that blows out at Kaʻena Point named Koholālele. This wind name describes the jumping of the Koholā (humpback whale) which creates a swift breeze as his tail slaps the water's surface (Sterling and Summers 1978).

8. **Ka Lae o Kaʻena**: Ka Lae o Kaʻena, or Kaʻena Point, was a fishing site as well as a location for ʻuhane (spirits) to depart this earth; this location is also known as a leina. Ka Lae o Kaʻena houses Leinakaʻuhane where certain spirits would depart with their ancestral dieties upon death, as well as Pōhaku o Kauaʻi, a koʻa, and heiau. This wahi pana is also a wahi kaʻao (a legendary place) as it was once heavily visited by aliʻi and akua alike. Moʻolelo state that Kalaeokaʻena was once a relative to Pele and had come with her to Hawaiʻi from Kahiki and decided to reside at Ka Lae o Kaʻena. This is supposed to be one reason that Kaʻena was so heavily visited by Pele and her ʻohana (family). Other moʻolelo declare that Pōhakuokauaʻi is either grandfather or brother to Pele and her ʻohana. In Pukui's *ʻŌlelo Noʻeau*, several porverbs contain referece to Kaʻena. ʻŌlelo Noʻeau number 1287 states, "Kaha Kaʻena me he manu la i ka mālie. *Kaʻena poises as a bird in the call*" (Pukui 1983). This ʻōlelo noʻeau was first uttered by Hiʻiaka in a chant she composed and offered to the wahi pana. ʻŌlelo Noʻeau number 1521 refers to Ka Lae o Kaʻena and its sacred nature stating, "Kapu ʻehu kai o Kaʻena na ka makani. *Kaʻena is adorned with a garment of sea sprays by the blowing of the wind*"

(Pukui 1983). This ʻōlelo noʻeau describes the famous sea spray of Kaʻena as being kapu to the winds of Kaʻena. Another interpretation could include the notion that it is the wind that exclusively adorns Kaʻena with ʻehu kai (sea sprays).

9. **Waiʻauʻau**: Kaʻena Point had a piko (navel) that signified its significance as a wahi pana. This piko was named Waiʻauʻau, to bathe or cleanse in fresh water.

10. **Kealaikamenehune**: There is supposedly an ala out that was traversed by the menehune in ancient times. Many moʻolelo concerning menehune occur at Kaʻena Point and its surrounding ahupuaʻa, making "the trail to menehune" an appropriate name for this ala. It is noted that from Haleʻiwa Bay in Paʻalaʻa, people used to claim that one could see the "menehune lights" at night. Locals spoke of regularly spotting a progression of lights travelling up the mountain over by Kawaihāpai and Kaʻena (Sterling and Summers 1978).

11. **Kaʻieʻie**: The Kaʻieʻie kōwā (channel) runs between the islands of Kauaʻi and Oʻahu. The channel extends out at Kaʻena and carries out to Kapaʻa on Kauaʻi near the Waiʻaleʻale mountain range. The kōwā is famous in moʻolelo as it is very strong and is not easily sailed or crossed. However, this kōwā was the quickest way to reach Kauaʻi from Oʻahu. In the epic of Hiʻiakaikapoliopele, Hiʻiaka and her aikāne build a canoe at Kaʻena and must cross the kōwā to get to Waiʻaleʻale where Lohiʻau has been taken. While Hiʻiaka and her companion use much of their strength to sail across the channel, the goddess has a premonition in the middle of the channel that Lohiʻau has died. As they pass the treacherous channel out at Kaʻena, they sail to Kauaʻi knowing that only a spirit awaits them. Later in the moʻolelo upon Hiʻiaka's return to Oʻahu from Kauaʻi with her aikāne and the newly revived Lohiʻau, Hiʻiaka stops in the channel to greet relatives. She explains that when her family migrated to these islands, Pele left two elder cousins in the deep sea of the Kaʻieʻie channel where the point of Kaʻena can be seen. These sisters are named Moananuikalehua and Kūmūnuiʻaikalehua and are described as sea-creatures. Hiʻiaka apologizes to her cousins saying that it makes her sad that they were all supposed to reside together, yet here they are, living in the deep sea alone (Sterling and Summers 1978; Hoʻoulumāhiehie 2006).

12. **Ponuahua**: Ponuahua is said to be the name of the koʻa near the point of Kaʻena on the Waialua side. It is not known today which group of stones may have been the koʻa (Sterling and Summers 1978).

13. **Kauanāulu**: Kaʻena sometimes experiences a sudden downpour from an ua (rain) named Kauanāulu, literally meaning, "the sudden downpour" or "the rain that vexes." This particular rain name appears on multiple islands where the phenomenon of a downpour in a dry place occurs (Sterling and Summers 1978).

14. **Leinakaʻuhane:** Leinakaʻuhane is the name of the pōhaku (rock) that served as the leina at Waialua. Kamakau writes that the leina on the Waialua side of Kaʻena was close to the point near a descending boundary road called Keaokuʻukuʻu. The boundary of the leina was designated and is called Kahoiʻhoʻinawākea, extending slightly below

Kakaheʻe in Keawaʻula. It was here that upon nearing death, the ʻuhane of a person would be greeted by their ʻaumākua (ancestral deities). This leina was not for all ʻuhane, but was designated for the select few who had ʻaumākua waiting for them. Few were aided by their ʻaumākua and few were allowed to make the soul's leap into a rough sea that eventually lead to endless night. If one did not have an ʻaumākua to greet them, then they would be able to leap into a depression in the seafloor rather than off the leina and into the endless night. This is where unaided spirits were left, on the seafloor in an endless night with Milu, god of the death realms. The leina is described as being terraced with small black pebbles with the top covered in white sandstone (Sterling and Summers 1978).

15. **Leinahonua**: According to Hoʻoulumāhiehie, there was another section to Leinakaʻuhane called Leinahonua. Hiʻiaka describes this area to her aikāne stating that "the low rise here is Leinahonua; when we reach that stone mound, the gap underneath it is the leaping place of the spirits. Leinahonua is the upper section, Leinaʻuhane is below" (Hoʻoulumāhiehie 2006).

16. **Pōhaku o Kauaʻi**: Pōhaku o Kauaʻi is one feature that makes Kaʻena Point such a legendary place. Moʻolelo vary, but there are many redactions of the tale of Maui attempting to unite Oʻahu and Kauaʻi during his task of rearranging the Hawaiian islands. Moʻolelo state that standing out at Kaʻena Point in Waialua, Maui cast his supernatural fish hook, Manaiākalani, far out to sea towards the visible island of Kauaʻi. When he felt that he had a good hold he pulled the line and Pōhaku o Kauaʻi, a huge boulder, came flying over from Kauaʻi, landing at his feet. Other versions of this moʻolelo say that there were many men pulling on Manaiākalani in order to unite the islands, but one disobeyed orders and looked as Kauaʻi was nearly attached, causing Kauaʻi to return and leaving Maui and his companions with only a piece. There are many other moʻolelo pertaining to this pōhaku. Some moʻolelo tell of two chiefs, Kaʻena of Oʻahu and Pōhakuokauaʻi of Kauaʻi, who flee from each other at Kaʻena where a rock was named after this event and the pursuing chief. Another moʻolelo tells of a Kauaʻi chief named Hāʻupu who has great strength that he uses when angered. When Hāʻupu is irked by Kaʻena, he hurls Pōhaku o Kauaʻi at the point, killing Kaʻena. This pōhaku is also noted in moʻolelo as being a relative (either a grandfather or older brother) to Pele. In Hoʻoulumāhiehie's version of the moʻolelo of Hiʻiakaikapoliopele, he states that Pōhakuokauaʻi and Kalaeokaʻena (Kaʻena) are the names of Hiʻiaka's brothers who live out at Kaʻena in Waialua. Hiʻiaka and her companion, Wahineʻōmaʻo, are in need of a canoe to sail to Kauaʻi, but her brothers do not help her in the slightest, causing Hiʻiaka to refer to Oʻahu as "Oʻahu maka ʻewaʻewa" or Oʻahu with indifferent eyes. This statement pertains to the unhelpful and lazy nature of Hiʻiaka's brothers and the people of Oʻahu (Sterling and Summers 1978; Hoʻoulumāhiehie 2006).

17. **Kuaokalā**: Kuaokalā (Kuakalā, Mokaʻena) is the name of a heiau that was once located at Kaʻena Point , as well as the name of the kualono (ridge) overlooking the point. Moʻolelo state that goatfish (*Parupeneus porphyreus*) were once very large and one day, Maui caught a very large one out at Kaʻena and dragged that huge fish from Pōhaku o Kauaʻi to the heiau, Kuaokalā (Mokaʻena) where the fish was placed. The menehune

discovered Maui's large goatfish and cut it into small pieces. Shortly after this, a flood known as Kaikahinali‘i occured, covering all of the islands with water. The pieces of fish came to life and returned to the sea as newly formed goatfish. Goatfish have been smaller fish since this event. Hi‘iaka and her aikāne restore life to a ghost woman named Ka‘aniau on the Kuaokalā ridge, who then used her power to ensure that Hi‘iaka and her aikāne reached Kaua‘i safely with plenty of sunlight. This ridge also housed the Moka‘ena heiau. This heiau is also known as Kuaokalā and Kuakalā heiau, and is the highest heiau on the island of O‘ahu. This heiau is believed to have been a place for sun worship and is supposed to be one of two heiau on O‘ahu dedicated to the sun. The entire heiau consists of three divisions, two upper and one lower terrace with dirt floors and low walls. It is said to have been built by Kaua‘i migrants to O‘ahu. The heiau is no longer there and is believed to have been destroyed by the U.S. military at some point (Sterling and Summers 1978; Ho‘oulumāhiehie 2006).

18. **Waiaka‘aiea**: Ka‘ena is known for its lack of shade and extreme heat. Waiaka‘aiea is a wahi pae (landing place) for canoe and was known for being a resting place for travellers. Ka‘ena has a rocky and rough sea, making it a difficult place to swim or land canoes. This place was a safe swimming and landing site. Here it was said travellers could rest while being greeted by the cooling Moa‘e wind (Sterling and Summers 1978).

19. **Nenele‘a**: Nenele‘a is the name of the pali (cliffs) at the point of Ka‘ena near Pōhaku o Kaua‘i. In the mo‘olelo of Keaomelemele, the goddess Paliuli arrives to O‘ahu at Ka‘ena and despite being on an important journey, she and her companion take the time to gaze at the beauty of Nā Pali o Nenele‘a at Ka‘ena. When Hi‘iaka is with her brother, Pōhaku o Kaua‘i, at Ka‘ena, she too takes special notice of the cooling, enjoyable pali of Nenele‘a (Sterling and Summers 1978).

20. **Moanawaikaio‘o:** While at Ka‘ena seeking a canoe to sail for Kaua‘i, Hi‘iaka takes the time to teach her aikāne about the wahi pana of Ka‘ena. Hi‘iaka states that the name of the kai (sea) at Ka‘ena is Moanawaikaio‘o. Hi‘iaka also acknowledges that this particular sea is a course that reaches Kahiki Kū and Kahiki Moe, the pillars of the divine firmaments. She explains that upon reaching that point, they will turn their canoe to Ka‘ie‘ie and sail for Kaua‘i (Ho‘oulumāhiehie 2006).

21. **Moa‘e**: Moa‘e is the name of the wind that blows at Ka‘ena. This breeze was known for cooling the hot travellers out at the hot, dry point. This cool and strong breeze blows from the Ka‘ie‘ie Channel throughout the Ka‘ena land section (Sterling and Summers 1978).

22. **Keālia**: Keālia is the name of an ahupua‘a in Waialua which also houses a trail with the same name. This trail was a path one could take from either Wai‘anae to reach Waialua, or from Waialua to reach Wai‘anae. Most of our islands have a Keālia ahupua‘a or ‘āina that also allows them to travel leeward to windward. Wauke (*Broussonetia papyrifera*) used to grow predominantly at the peak of the trail up Ka‘ala, as well as the native hibiscus. Many native plants and birds flourished here. The summit of this trail, where one can see Wai‘anae, is called Hakakoa Peak (Sterling and Summers 1978).

23. **Kamae**: In the moʻolelo of the Hīnālea fish basket, it is stated that the aliʻi Punaʻaikoaʻe follows the moʻo Kalamainuʻu to her ana in Mokulēʻia by ascending up Kuaokalā, where they begin traveling across the ridges of the ahupuaʻa, hitting the ridge named Kamae next (Sterling and Summers 1978).

24. **Kawaihāpai**: Kawaihāpai is an ahupuaʻa where kalo was traditionally grown. Unlike other ahupuaʻa in this area, Kawaihāpai once had many terraces going up the mountain where loʻi kalo could flourish without upwelling of salt water from below. This part of Waialua is known for being extremely dry, making Kawaihāpai an exception where loʻi could actually be maintained (Sterling and Summers 1978).

25. **Kaipukalo**: Kaipukalo is the next named ridge that Punaʻaikoaʻe and Kalamainuʻu travel upon their short journey to Mokulēʻia (Sterling and Summers 1978).

26. **Kawaikumuʻoleikapali**: A moʻolelo states that two old kahuna lived at Kawaihāpai at the time of drought when everyone left because it had no water. These two kahuna watched a cloud drifting over from Kahuku and prayed it would travel to Kawaihāpai and rain so that they may have a fresh water source. The cloud traveled to the pali and it rained so much that everyone could return to their homes. Because the water came down from the cliffs, the kumu wai of Kawaihāpai became known as Kawaikumuʻoleikapali, the water from the cliffs without a source (Sterling and Summers 1978).

27. **Puʻu o Hekili**: On the beach at Kawaihāpai, there was once a koʻa called Puʻu o Hekili. This koʻa was said to be heaped or humped, rather than angular, as most koʻa were (Sterling and Summers 1978).

28. **Kawailoa**: Kawailoa Heiau was said to be a large heiau at the base of Kaʻala, but only two terraces were ever discovered. There were houses at the heiau for kahuna to reside in named Pāweo or Pāweu (Sterling and Summers 1978).

29. **Nā Wai Kumuʻole**: Hiʻiaka in her many moʻolelo frequently discusses the "hidden water sources" out at Kaʻena and Kawaihāpai. In most moʻolelo, Hiʻiaka is denied water by old inhabitants of Kawaihāpai and therefore calls upon these hidden water sources and brings them forth. The names of these waters are Ulunui, Koheiki, Ulehulu, and Waiakaʻaiea. Another moʻolelo speaks of the hidden water source called Kuilaʻau o Kealia, but its location is unknown. The four main kumu wai, however, were all considered to be water without a source, because they seemingly came from nowhere, often randomly shooting out of pali or pōhaku with no major water source. In Native Hawaiian manaʻo (beliefs), Nā Wai Kumuʻole were usually thought of as gifts or knowledge recieved from akua who had the mana to bring forth water where there was none (Sterling and Summers 1978).

30. **Makaleha**: The ahupuaʻa of Mokulēʻia was known for being abundant in food and water, thus the name, "district of abundance." This ahupuaʻa housed the awāwa (valley) named Makaleha where wild kalo would grow alongside terraces of cultivated kihi and

lapa varieties of kalo. Makaleha was also a name given to the kahawai (stream) that flowed through Makaleha Valley. It is believed that Makaleha Valley housed a kauhale (living sites) where a large community once lived, as many old rock remains suggest vast housing and living structures. There is also note that a heiau might have once been located near the outskirts of the valley where other rock terraces have been discovered. The moʻolelo of the Hīnālea fish basket states that Makaleha Valley is the home of the great ancestral moʻo akua, Kalamainuʻu (Sterling and Summers 1978).

31. **Waileʻa**: In the moʻolelo of the Hīnālea fish basket, Kalamainuʻu lives in Makaleha Valley in the western kahawai named Waileʻa. This is perhaps another name given to Makaleha Stream. On the west side of the kahawai was Kalamainuʻu's cave, which faced east and included a back exit toward the mountain that overlooked a place called Puʻuhale, or Makapuʻuhale. It should be noted that kahawai are literally the areas where the flow of fresh water has kaha (scratched or carved) the land. Kahawai, therefore, are not just streams, but also often considered to be valleys and gulches (Sterling and Summers 1978).

32. **Makapuʻuhale**: Makapuʻuhale, or Puʻuhale, is a site that houses several heiau of Mokulēʻia. These heiau are named in the moʻolelo of the Hīnālea basket as Hīnale, Hinalepoloa, and ʻĀikilolo, although the nature of these heiau are not stated (Sterling and Summers 1978).

33. **Kōlea**: The koʻa called Kōlea was once located on the beach directly in front of where the Dillingham Stables are today. This was said to be a large koʻa measuring about 4.5 by 9 m (15 by 30 ft) or larger. In front of the koʻa out in the sea was a large stone called Mokupaoa. This stone was considered to be a part of the koʻa (Sterling and Summers 1978).

34. **Puʻukapele**: The final kualono that Punaʻaikoaʻe and Kalamainuʻu reach before descending to her home is named Puʻukapele. This ridge overlooks the Waileʻa kahawai and the moʻoʻs ana in Makaleha Valley where she resides (Sterling and Summers 1978).

35. **Pekue**: Pekue is the famous Mokulēʻia surf site where aliʻi Punaʻaikoaʻe is reminded of his favorite surf spots at home (Sterling and Summers 1978).

36. **Kumalaekawa**: Kumalaekawa is the name of the sea given in the moʻolelo of the Hīnālea basket that is located in the proximity of Mokulēʻia (Sterling and Summers 1978).

37. **Puʻu Kaupakuhale**: The ahupuaʻa boundary between Mokulēʻia and Kamananui was a puʻu (hill) called Kaupakuhale (Kaupokuhale). This puʻu sits near the Kaumoku awāwa where many heiau were once located (Sterling and Summers 1978).

38. **Onehana**: East of Puʻu Kaupakuhale was where the heiau Onehana was located. Not much is known about this heiau accept that it was of the poʻokanaka class (class of heiau involving human sacrifice) and most likely a luakini. This poʻokanaka was said to be

very large, perhaps 18 by 30 m (60 by 100 ft), and was attached to Kalakikī heiau (Sterling and Summers 1978).

39. **Kalakiki (Kalakikī):** Adjoined to Onehana heiau was another poʻokanaka heiau dedicated to the shark diety of Waialua, Kalakikī (sometimes called Keanini). This poʻokanaka was also a very large heiau with at least two large terraces. It is said that Native Hawaiian superstition directed lawaiʻa (fishermen) not to announce their desire to fish near the heiau, lest all of their fish be eaten by Kalakikī before they set out to fish. Other rules pertaining to the heiau forbade kamaʻāina (natives) to build their homes within the range of the heiau and the sea where Kalakikī resides unless their doorways face the puʻu rather than the sea. If this kapu was broken, then sickness and death would take over the household. The general rule was to keep your house from blocking the path of Kalakikī to the heiau dedicated to him. Other citizens from this area have claimed that the kamaʻāina of this ʻāina would recite their prayers in front of the seaward side of the heiau to the shark deity daily (Sterling and Summers 1978).

40. **Nanāulu**: Nanāulu was the name of another shark deity of Waialua. Kamaʻāina of Mokulēʻia have spoken of a heiau north of Kalakikī heiau that was dedicated to Nanāulu named Ka Heiau o Kaunu. Nanāulu is believed to be an ʻaumakua to certain people of Mokulēʻia (Sterling and Summers 1978).

41. **Puʻuiki**: Puʻuiki is a smaller puʻu east of Puʻu Kaupakuhale. Many accounts claim that Puʻuiki on to Kaumoku Gulch was an area where kamaʻāina would frequently kanu (bury) the bones of their deceased. Many skeletal remains have been found near Puʻuiki and Kaumoku Gulch, often hidden in ana (Sterling and Summers 1978).

42. **Kaukonahua**: Kaukonahua is the name of the kahawai that flows from Wahiawā into Waialua where the kahawai becomes a muliwai (stream that meets the ocean) at Kaiaka Bay. Kaukonahua is also the name frequently given to the awāwa that the stream runs through, although others refer to this awāwa as Keawāwaihe. This kahawai once had kauhale on both sides of the stream and the remains of these sites indicate that they were once very large living sites. There is also a report of an un-named heiau that was located near the end of the stream (Sterling and Summers 1978).

43. **Kahakahuna**: Kahakahuna was the name of a heiau located in Kamananui near the awāwa of Kaheʻeka and Kemoʻo and the kahawai of Poamoho (Sterling and Summers 1978).

44. **Kawai**: Kawai is the name of the heiau once located near the kahawai of Poamoho and the awāwa of Kaheʻeka and Kemoʻo. This heiau was built on a slight elevation and it is noted that this was one of the first heiau on Oʻahu to be destroyed (Sterling and Summers 1978).

45. **Kemoʻo**: Kemoʻo is the name of the kahawai located in Kamananui near the Paʻalaʻa ahupuaʻa. Kemoʻo was named after the moʻo akua who lived in Waialua serving under

Laniwahine, Waialua's great moʻo akua. This stream is connected to Poamoho (Sterling and Summers 1978).

46. **Poamoho**: Poamoho is the name of the kahawai that runs through Kamananui near many kauhale and heiau. As the kahawai travel seaward, it is considered to be Kemoʻo kahawai (Sterling and Summers 1978).

47. **Kaheʻeka**: Kaheʻeka is the name of another kahawai in Kamananui near Poamoho (Sterling and Summers 1978).

48. **Keawāwaihe**: The awāwa that Kaukonahua runs through is called Keawāwaihe, the valley of spears (this awāwa is also called Kaukonahua at times). In traditional times, the young aliʻi of Waialua were trained in warfare in this valley. It was named the valley of spears so that travellers from other moku would be warned of the potential dangers of travelling through such a valley (Sterling and Summers 1978).

49. **Helemano**: Helemano, otherwise known as Halemano or Halemanu, is a kahawai that runs down from Paʻalaʻa to Kaiaka Bay where the kahawai becomes a muliwai. Helemano is also the name of the ʻāina just outside of Paʻalaʻa on the outskirts of the Wahiawā moku. This ʻāina is famous for its moʻolelo about Pā ʻAikanaka and the chief Kealiʻiʻaikanaka, a supposed cannibal of Waialua. Many rumors claim that the people of this area practiced cannibalism, although many dispute this claim. Other moʻolelo say that Halemano was a great chief of this area and son to Wahiawā and Kūkaniloko (Sterling and Summers 1978).

50. **ʻŌpaeʻula**: ʻŌpaeʻula is the third kahawai of Waialua that becomes a muliwai at Kaiaka Bay. Kaukonahua, Helemano, and ʻŌpaeʻula all end at the mouth of the muliwai at Kaiaka and enter the sea. The fourth major stream of Waialua, Kawailoa, becomes Anahulu Stream and reaches the sea at Waialua Bay between Māeaea Beach (Aliʻi) and Puaʻena Point. Once ʻŌpaeʻula reaches the seaward side of Paʻalaʻa nearing Kaiaka, it is met by another stream that flows into it called Laukīʻaha (Laukīaha) (Sterling and Summers 1978).

51. **Hekili**: South-east of Kaiaka Bay is the former site of a heiau called Hekili. It is believed that this was once a luakini as well as a puʻuhonua (a place of refuge) in traditional times (Sterling and Summers 1978).

52. **Kaʻohe**: Near Hekili heiau it was said there was once a koʻa called Kaʻohe. This site is very close to the sea, making a koʻa nearby very plausible (Sterling and Summers 1978).

53. **Punakai**: The area in Kaiaka that housed Hekili heiau and the koʻa Kaʻohe was supposedly refered to as Punakai, and was supposedly a kauhale for kahuna. The kahuna Puʻukāne was said to live here at Punakai. This kahuna was known for having the ability to chant and cause poi to overflow any container in which it had been placed in. In this way, no one would go hungry (Sterling and Summers 1978).

54. **Kukuiula**: At Punakai there was once an unu (alter or heiau erected specifically for Lono or lawaiʻa) that was named Kukuiula. Not much is known about this unu, except that it is an alter erected for fishing, rather than any old kuahu (altar) (Sterling and Summers 1978).

55. **Kapukapuākea**: Kapukapuākea was a heiau that was once located on the East side of Kaiaka Bay. In the genealogical chant "Kapawa," it states that Kapawa's piko was buried at Kapukapuākea. This great kanaka went on to erect Kūkaniloko in Wahiawā so that his child could be born and consecrated there. Kapukapuākea predates the Kapukapuākea on Hawaiʻi Island built by Paʻao upon his arrival from Kahiki, by nearly 18 generations. Many people believe that before Paʻao came to Hawaiʻi bringing the new religion and practices of human sacrifice, other Polynesian people, perhaps from Raʻiatea, landed at Waialua, Oʻahu and erected Kapukapuākea. This heiau was not built out of stone like most Hawaiian heiau, but rather out of kauila wood, which suggests it was built long ago, perhaps by other Polynesians. Some claim that this heiau was built by menehune, who often constructed alters with wood. The notion that other Polynesians built this heiau is supported by its materials as well as its age. If this is true, then Kapukapuākea ia a pan-Pacific heiau of many Pacific peoples, making it very significant to Hawaiʻi. Great Oʻahu Mōʻī, Māʻilikūkahi, was born at Kūkaniloko to his parents, Puaʻakahuoi and Nononui. At the time of his birth, he was not the succeeding aliʻi ʻai moku (ruling chief) so he was consecrated as an akua, rather than Mōʻī, at Kūkaniloko. According to Kamakau, Māʻilikūkahi was an Aliʻi o Pōkano, a classification of aliʻi who have an unblemished moʻokūʻauhau (genealogy) from the time of the realm of the gods, and have earned the right to rule a moku without rebelling or waging war. Haka, a very stingy and neglectful aliʻi, was the Mōʻī of Oʻahu before Māʻilikūkahi, but was killed for being such an awful ruler. The kahuna of Waialua then asked Māʻilikūkahi, now almost 30, to take over as Mōʻī. He agreed, with the desire to restore peace and protocol to all of Oʻahu. Māʻilikūkahi was taken to Kapukapuākea to be consecrated. Because he was 29 years old at this time, he could not be consecrated by the burying of the piko, which was already at Kūkaniloko. After the completion of the ceremony and the reciting of the ʻUlonokū prayer, Māʻilikūkahi was taken inside the heiau where he underwent ʻoki poepoe (subincision of the penis) to be cleansed and consecrated. Upon his consecration he ended human sacrifice on Oʻahu, turning all luakini into non-sacrificial heiau, and forbidding Hawaiians from erecting poʻokanaka heiau. Māʻilikūkahu is famous for ending human sacrifice on Oʻahu and for stating that this particular practice is the way of the Kūkaniloko aliʻi. While Māʻilikūkahi was made kapu at Kūkaniloko, he obviously considered his consecration at Kapukapuākea a kind of re-birth that made him distinct and separate from the aliʻi of old (Sterling and Summers 1978; Kamakau 1993).

56. **Pōhaku o Lānaʻi**: Near the former site of Kapukapuākea, there remains the stacked stones known as Pōhaku o Lānaʻi, or Pōhaku Lanaʻi. There are many differing accounts as to what these pōhaku were for and how they came to be. Some say that the pōhaku remain from an earlier geological age when the sea covered this part of the island, and that the large waves caused the rock to wear. Many Native Hawaiians believe that this pōhaku floated here from Kahiki and was once very significant to the people of the area,

although its purpose here is unknown. Other kamaʻāina say that the pōhaku was used in part with the koʻa nearby as a lookout for shoals of fish. The kilo iʻa (fish-seer) would stand on the elevated pōhaku and when the fish came into the bay, it is said he would alert the lawaiʻa by yelling out or hitting a wooden club against the large pōhaku on which he stood. Pōhaku o Lānaʻi is said to be located inland of the North-Eastern point of Kaiaka which is called Kalaeoʻiupaoa, or the point of odoriferous sacredness. This place name is significant in that this point is very much ʻiu (sacred/consecrated) as many heiau including Kapukapuākea are located here. Paoa means unpleasantly smelly, and is a common place name throughout Paʻalaʻa, which was known for being smelly due to Kahakakaukanaka, a place at Puaʻena where bodies were left to rot (Sterling and Summers 1978).

57. **Puʻupilo**: Paʻalaʻa, like most ahupuaʻa, is divided into sections known generally as Paʻalaʻa Kai (the seaward area), Paʻaloa (the mid-land section), and Paʻalaʻa Uka (the upland area). In Paʻaloa, behind the Waialua Court House in Haleʻiwa, there is a slight elevation in the land with a singular coconut tree growing on the puʻu. This area is near the Awai family property where they once had many loʻi kalo. People used to go by way of what is now Walikanahele Road to reach this heiau. There are other accounts of there being a pūnāwai (water spring) at the end of Walikanahele road where aliʻi would swim. The nature and purpose of this heiau is not known, however, its name, Puʻupilo (stinky hill) is another Waialua place name heavily associated with the smell of death and decay that the wind carried throughout Haleʻiwa from Puaʻena (Sterling and Summers 1978).

58. **Kepūwai**: There is note of another heiau in Paʻaloa that was located where the cemetery of the Queen's Church is today. The name of this heiau means the sounding of the pūwai alarm, an alarm used in war with the pū (conch shell). The name suggests that perhaps this heiau was one dealing with war (Sterling and Summers 1978).

59. **Kawaipūʻolo**: Kawaipūʻolo is one of at least two springs that were once located in Paʻalaʻa. The pūnāwai was said to be near Haleʻiwa Hotel, South of Anahulu, but it is believed to be covered up now. This pūnāwai was famous for having the coolest, freshest water. Some say that in ancient times the kamaʻāina of this area would always offer the water of Kawaipūʻolo to tired travelers and passersby in a "kalo-leaf cup," thus the name meaning "bundle of water." Historians have made note that at one time this pūnāwai "disappeared" for a short time before reappearing. Moʻolelo tell us that a kilo (seer) at Kaʻena stood on top of a puʻu which also had the name Kawaipūʻolo, and it was conveyed to him through his prophetic sight that the menehune of Kaʻala had hidden the pūnāwai with bundles of laukī and lau kalo (leaves of ti and taro). Some attribute this moʻolelo to the naming of Kawaipūʻolo pūnāwai (Sterling and Summers 1978).

60. **Waipao**: The second pūnāwai of Paʻalaʻa is Waipao. Waipao was a smaller, less known, and less impressive pūnāwai that was not "as good to look at" as Kawaipūʻolo. Waipao is translated as "water dug from the side," however this may be the name given to the pūnāwai when it was discovered in the 1860-1870s by a white man cleaning out the pipes near Anahulu. As he dug, he discovered the old pūnāwai on the Eastern side of the kāhāwai of Anahulu (Sterling and Summers 1978).

61. **Kamani**: Kamani heiau was located where the Haleʻiwa Hotel was built. It was a luakini heiau dedicated to a high ranking aliʻi that was destroyed for the construction of the hotel. This luakini was near Anahulu on the rear slopes leading down to the water. Many Native Hawaiians believed that the Haleʻiwa Hotel failed and shut down because of the destruction of the Kamani luakini. It is said that the heiau disappeared long ago but its sounds still remain. On the nights of the Kāne moon phase, the old drum beats and the sounds of nose flutes can be heard in the breeze when one is passing the former site of Kamani heiau (Sterling and Summers 1978).

62. **Anahulu**: Anahulu is a very famous kahawai in Waialua. As mentioned before, the other three major kahawai of Waialua (ʻŌpaeʻula, Helemano, and Kaukonahua) all reach the sea at Kaiaka. The fourth major kahawai of Waialua is Kawailoa, a kahawai that the adjacent ahupuaʻa is named after, which becomes Anahulu Stream. This kahawai reaches the sea and becomes a muliwai at Waialua Bay between Māeaea Beach (Aliʻi) and Puaʻena Point. Kawailoa and Anahulu feed the loko iʻa of the Kawailoa ahupuaʻa as well. Kawailoa and Anahulu mark the ahupuaʻa boundary from Paʻalaʻa into Kawailoa, making it our last stop on this journey (Sterling and Summers 1978).

The following table (Table 10) summarizes all of the sites listed above, with the inoa (name), inoa ʻēaʻe (alternative name), kahi (location), ʻano (type of site) and kakaha (source) of the information.

Table 10: Wahi pana and archaeological sites of the Waialua moku

Inoa	**Inoa ʻēaʻe**	**Kahi**	**ʻAno**	**Kakaha**
1. Puaʻakanoahoa	No inoa ʻēaʻe recorded	Keawaʻula, Waiʻanae	Koʻa	Sterling and Summers 1978
2. Pohā	Pohā Cave, Keawaʻula Cave	Keawaʻula, Waiʻane	Ana, Kumu Wai	Sterling and Summers 1978
3. Kīlauea	Kīlauea cove, Kilauea, Kilawea	Keawaʻula, Waiʻane	Awa, Kumu Wai	Hoʻoulumāhiehie 2006
4. Ke Ana Moe o Kaʻena	Fisherman's Cave	Keawaʻula, Waiʻanae	Ana, Ala	Sterling and Summers 1978
5. Hōlua	Kepoʻookahōlua	Keawaʻula, Waiʻane	Koʻa	Sterling and Summers 1978
6. Kaiāulu	No inoa ʻēaʻe recorded	Keawaʻula, Waiʻane	Makani	Hoʻoulumāhiehie 2006
7. Koholālele	No inoa ʻēaʻe recorded	Keawaʻula, Waiʻane/ Kaʻena, Waialua	Makani	Sterling and Summers 1978
8. Ka Lae o Kaʻena	Kaʻena, Kaʻena Point, Kalaeokaʻena	Kaʻena, Waialua	Leina, Wahi Kaʻao	Sterling and Summers 1978 Pukui 1983

Table 10: Continued

Inoa	Inoa ʻē aʻe	Kahi	ʻAno	Kakaha
9. Waiʻauʻau	Waiauau	Kaʻena, Waialua	Piko	Sterling and Summers 1978
10. Kealaikamenehune	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Ala	Sterling and Summers 1978
11. Kaʻieʻie	Kaʻieʻiewaho, Kaʻieʻie Channel	Kaʻena, Waialua	Kōwā	Sterling and Summers 1978 Hoʻoulumāhiehie 2006
12. Ponuahua	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Koʻa	Sterling and Summers 1978
13. Kauanāulu	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Ua	Sterling and Summers 1978
14. Leinakaʻuhane	Laina Kahuna, Leinaʻuhane, White Rock, The Soul's Leap	Kaʻena, Waialua	Leina	Sterling and Summers 1978
15. Leinahonua	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Leina	Hoʻoulumāhiehie 2006
16. Pōhaku o Kauaʻi	Pōhakuokauaʻi	Kaʻena, Waialua	Pōhaku, Akua, Aliʻi	Sterling and Summers 1978 Hoʻoulumāhiehie 2006
17. Kuaokalā	Kuakalā, Kuaakalā, Kulaokalā, Mokaʻena Heiau	Kaʻena, Waialua/ Kuaokalā, Waialua	Heiau, Kualono	Sterling and Summers 1978 Hoʻoulumāhiehie 2006
18. Waiakaʻaiea	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Wahi pae	Sterling and Summers 1978
19. Neneleʻa	Nenelea, Nā Pali o Neneleʻa	Kaʻena, Waialua	Pali	Sterling and Summers 1978
20. Moanawaikaioʻo	No inoa ʻē aʻe recorded	Kaʻena, Waialua	Kai	Hoʻoulumāhiehie 2006
21. Moaʻe	Kamoaʻe	Kaʻena, Waialua	Makani	Sterling and Summers 1978
22. Keālia	Hakakoa Summit	Keālia, Waialua	Ala, Ahupuaʻa	Sterling and Summers 1978
23. Kamae	No inoa ʻē aʻe recorded	Keālia, Waialua	Kualono	Sterling and Summers 1978
24. Kawaihāpai	No inoa ʻē aʻe recorded	Kawaihāpai, Waialua	Ahupuaʻa, Loʻi kalo	Sterling and Summers 1978
25. Kaipukalo	No inoa ʻē aʻe recorded	Kawaihāpai, Waialua	Kualono	Sterling and Summers 1978
26. Kawaikumuʻole-ikapali	No inoa ʻē aʻe recorded	Kawaihāpai, Waialua	Kumu wai	Sterling and Summers 1978

Table 10: Continued

Inoa	Inoa ʻē aʻe	Kahi	ʻAno	Kakaha
27. Puʻu o Hekili	No inoa ʻē aʻe recorded	Kawaihāpai, Waialua	Koʻa	Sterling and Summers 1978
28. Kawailoa	Pāweo, Pāweu	Kawaihāpai, Waialua	Heiau	Sterling and Summers 1978
29. Nā Wai Kumuʻole	Ulunui, Koheiki, Ulehulu, Waiakaʻaiea	Kawaihāpai, Waialua	Kumu wai, Kahawai	Sterling and Summers 1978
30. Makaleha	No inoa ʻē aʻe recorded	Mokulēʻia, Waialua	Awāwa, Kahawai, Kauhale	Sterling and Summers 1978
31. Waileʻa	Makaleha Stream	Mokulēʻia, Waialua	Kahawai	Sterling and Summers 1978
32. Makapuʻuhale	Puʻuhale, Hīnale, Hinalepoloa, ʻĀikilolo	Mokulēʻia, Waialua	Heiau	Sterling and Summers 1978
33. Kōlea	Mokupaoa	Mokulēʻia, Waialua	Koʻa	Sterling and Summers 1978
34. Puʻukapele	No inoa ʻē aʻe recorded	Mokulēʻia, Waialua	Kualono	Sterling and Summers 1978
35. Pekue	No inoa ʻē aʻe recorded	Mokulēʻia, Waialua	Wahi Kai Poʻi (surf site)	Sterling and Summers 1978
36. Kumalaekawa	Kumalaekawā, Kumalaekāwā	Mokulēʻia, Waialua	Kai	Sterling and Summers 1978
37. Puʻu Kaupakuhale	Kaupakuhale Kaupokuhale	Kamananui, Waialua	Puʻu	Sterling and Summers 1978
38. Onehana	No inoa ʻē aʻe recorded	Kamananui, Waialua	Heiau, Poʻokanaka	Sterling and Summers 1978
39. Kalakiki	Kalakikī, Ka Heiau o Kalakiki	Kamananui, Waialua	Heiau, Poʻokanaka	Sterling and Summers 1978
40. Nanāulu	Nanaulu, Ka Heiau o Kaunu	Kamananui, Waialua	Heiau	Sterling and Summers 1978
41. Puʻuiki	No inoa ʻē aʻe recorded	Kamananui, Waialua	Puʻu, Kanu	Sterling and Summers 1978
42. Kaukonahua	No inoa ʻē aʻe recorded	Kamananui, Waialua	Kahawai, Awāwa, Kauhale	Sterling and Summers 1978
43. Kahakahuna	No inoa ʻē aʻe recorded	Kamananui, Waialua	Heiau	Sterling and Summers 1978
44. Kawai	No inoa ʻē aʻe recorded	Kamananui, Waialua	Heiau	Sterling and Summers 1978

Table 10: Continued

Inoa	Inoa ʻē aʻe	Kahi	ʻAno	Kakaha
45. Kemoʻo	No inoa ʻē aʻe recorded	Kamananui, Waialua	Kahawai	Sterling and Summers 1978
46. Poamoho	No inoa ʻē aʻe recorded	Kamananui, Waialua	Kahawai	Sterling and Summers 1978
47. Kaheʻeka	Kaheeka	Kamananui, Waialua	Kahawai	Sterling and Summers 1978
48. Keawāwaihe	Keawawaihe, Keawawaihi	Kamananui, Waialua	Awāwa	Sterling and Summers 1978
49. Helemano	Halemano, Halemanu	Paʻalaʻa, Waialua	Kahawai	Sterling and Summers 1978
50. ʻŌpaeʻula	Opaeula	Paʻalaʻa, Waialua	Kahawai	Sterling and Summers 1978
51. Hekili	No inoa ʻē aʻe recorded	Paʻalaʻa, Waialua	Heiau	Sterling and Summers 1978
52. Kaʻohe	Kaohe	Paʻalaʻa, Waialua	Koʻa	Sterling and Summers 1978
53. Punakai	No inoa ʻē aʻe recorded	Paʻalaʻa, Waialua	Kauhale	Sterling and Summers 1978
54. Kukuiula	Kukuiʻula	Paʻalaʻa, Waialua	Unu	Sterling and Summers 1978
55. Kapukapuākea	Kapukapuakea, Taputapuatea, Paʻalaʻa Heiau	Paʻalaʻa, Waialua	Heiau	Sterling and Summers 1978 Kamakau 1993
56. Pōhaku o Lānaʻi	Pohaku Lanai	Paʻalaʻa, Waialua	Pōhaku	Sterling and Summers 1978
57. Puʻupilo	Puʻu Pilo	Paʻalaʻa, Waialua	Heiau	Sterling and Summers 1978
58. Kepūwai	Kepuwai	Paʻalaʻa, Waialua	Heiau	Sterling and Summers 1978
59. Kawaipūʻolo	Kawaipuolo	Paʻalaʻa, Waialua	Pūnāwai	Sterling and Summers 1978
60. Waipao	No inoa ʻē aʻe recorded	Paʻalaʻa, Waialua	Pūnāwai	Sterling and Summers 1978
61. Kamani	No inoa ʻē aʻe recorded	Paʻalaʻa, Waialua	Heiau, Luakini	Sterling and Summers 1978
62. Anahulu	Kawailoa	Paʻalaʻa, Waialua	Kahawai	Sterling and Summers 1978

References

Beckwith M. 1981. The Kumulipo: a Hawaiian Creation Chant. Honolulu (HI): University of Hawaii Press.

Handy ES, Pukui MK. 1999. The Polynesian Family System in Kaʻu, Hawaiʻi. Honolulu (HI): Mutual Publishing.

Hoʻoulumāhiehie. 2006. The Epic Tale of Hiʻiakaikapoliopele. Nogelmeier P, Fukushima S, Kuwada BK, translators. Honolulu (HI): Awaiaulu.

Kamakau, SM. 1993. Tales and Traditions of the People of Old: nā moʻolelo a ka poʻe kahiko. Honolulu (HI): Bishop Museum Press.

Kanahele PK. 2011. Ka Honua Ola. Honolulu (HI): Kamehameha Publishing.

Oliveira KA. 2014. Ancestral Places. Corvallis (OR): Oregon State University Press.

Pukui MK. 1983. ʻŌlelo noʻeau: Hawaiian Proverbs and Poetical Sayings. Honolulu (HI): Bishop Museum Press.

Sterling EP, Summers CC. 1978. Sites of Oʻahu. Honolulu (HI): Bishop Museum Press.

Appendix 7: Glossary of Hawaiian Terms

The following list of terms were used frequently throughout this report. All definitions were compiled using Pukui and Elbert's *Hawaiian Dictionary* (1986).

Ahupua‘a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua‘a), or because a pig or other tribute was laid on the altar as tax to the chief.
‘Āina	Land, earth.
Akua	1. God, goddess, spirit, ghost. 2. Divine, supernatural, godly.
Ala	Path, road, trail.
Ali‘i	1. Chief, chiefess, ruler, monarch. 2. Royal, regal. 3. To act as chief, reign.
Ali‘i ‘ai moku	Chief who rules a moku (district).
Ana	Cave, grotto, cavern.
‘Ano	Kind, variety, nature, type.
‘Aumakua	Family or personal gods, deified ancestors who might assume the shape of sharks, owls, hawks, dogs, plants, etc. A symbiotic relationship existed; mortals did not harm or eat them, and the ‘aumakua warned or reprimanded mortals in dreams, visions, and calls.
‘Aumākua	Plural of ‘aumakua.
‘Auwai	Irrigation ditch, canal.
Awa	1. Port, harbor, cove. 2. Channel or passage, as through a reef.
Awāwa	Valley, gulch, ravine.
Hālau	1. Long house, as for canoes or hula instruction; meeting house. 2. Large, numerous; much.
Hānau	1. To give birth, to lay (an egg), born, offspring, child, childbirth. 2. Productive, fertile.

Heiau Pre-Christian place of worship, shrine. Some heiau were elaborately constructed stone platforms, other simple earth terraces.

Hoʻoponopono 1. To correct. 2. An ancient Hawaiian practice of reconciliation and forgiveness.

Hula A Polynesian dance form accompanied by chant or song.

Inoa Name, term, title, namesake.

Inoa ʻāina Place names.

Inoa ʻē aʻe Alternative or different name.

Ipu 1. The bottle gourd (*Lagenaria siceraria*), a wide-spreading vine, with large-angled or lobed leaves, night blooming flowers, and smooth green and mottled or white fruits varying widely in shape and size. Hawaiians have long used gourds as receptacles or for rattles for dances and drums.

2. General name for vessel or container, as dish, mug, calabash, pot, cup, utensil, urn, bowl, basin, pipe.

ʻIu Lofty, sacred, revered, consecrated.

Iwi kūpuna The bones of ancestors; Native Hawaiian ancestral human remains.

Kaha 1. To scratch, mark, chew, draw, sketch, cut, cut open or slice lengthwise, as fish or animals. 2. Place (often followed by a qualifier, as kahakai, kahaone, kahawai); in legends, a hot dry shore.

Kahawai 1. Stream, creek, river. 2. Valley, ravine, gulch, whether wet or dry.

Kahi Place, location.

Kahuna 1. Priest, sorcerer, magician, wizard, minister, expert in any profession. 2. Royal advisor.

Kai 1. Sea, sea water, area near the sea. 2. Tide, current in the sea.

Kakaha 1. Source. 2. Notes, as taken during a lecture.

Kākau 1. To write, sign. 2. Writing.

Kalo Taro (*Colocasia esculenta*), a kind of aroid cultivated since ancient times for food, spreading widely from the tropics of the Old World. In Hawaiʻi, taro has been the staple from earliest times to the present, and here its culture developed greatly, including more than 300 forms. All parts of the plant are eaten, its starchy root principally as poi, and its leaves as lūʻau.

Kamaʻāina 1. Native-born, one born in a place, host. 2. Native plant. 3. Acquainted, familiar.

Kanaka Human being, man, person, individual, party, population.

Kānaka Plural of kanaka.

Kānāwai 1. Law, code, rule, statute, act, regulation, ordinance, decree, edict. 2. Legal, to obey a law, to be prohibited, to learn from experience.

Kanikau 1. Dirge, lamentation, chant of mourning, lament. 2. To chant, wail, mourn.

Kanu To plant, bury; planting, burial.

Kapu 1. Taboo, prohibition. 2. Special privilege or exemption from ordinary taboo. 3. Sacredness, prohibited, forbidden, sacred, holy, consecrated. 4. No trespassing, keep out.

Kauhale Group of houses comprising a Hawaiian home, formerly consisting of men's eating house, women's eating house, sleeping house, cook-house, canoe house, etc. Term was later used even if the home included but a single house, and is sometimes used for hamlet or settlement.

Kilo 1. Stargazer, reader of omens, seer, astrologer, necromancer. 2. Kind of looking glass. 3. To watch closely, spy, examine, look around, observe, forecast.

Kilo iʻa A man who observes fish movements from a high place and directs fishermen; to so act.

Kino lau Many forms taken by a supernatural body, as Pele, who could at will become a flame of fire, a young girl, or an old hag.

Kino pāpālua To have a dual form.

Kīpuka An area of land surrounded by one or more younger lava flows.

Koʻa 1. Fishing ground, usually identified by lining up with marks on shore. 2. Shrine, often consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies as to make fish multiply; also built on bird islands, and used in ceremonies to make birds multiply. 3. Coral, coral head.

Kōwā 1. Channel, canal, strait, gulch. 2. Separated, as by a passage or channel.

Kuahu Altar.

Kualono 1. Region near the mountaintop, ridge. 2. To overturn, as an unfinished canoe.

Kuleana Right, privilege, concern, responsibility, title, business, property, estate, portion, jurisdiction, authority, liability, interest, claim, ownership, tenure, affair, province.

Kumu wai Source of a stream, spring.

Kupua Demigod or culture hero, especially a supernatural being possessing several forms.

Kupuna Grandparent, ancestor, relative or close friend of the grandparent's generation, grandaunt, granduncle.

Kūpuna Plural of kupuna.

Kūʻula Any stone god used to attract fish, whether tiny or enormous, carved or natural, named for the god of fishermen. Heiau near the sea for worship of fish gods, hut where fish gear was kept with kūʻula images so that gear might be impregnated with kūʻula mana, usually inland and very taboo.

Lawaiʻa 1. Fisherman, fishing technique. 2. To fish, to catch fish.

Leina 1. Spring, leap, bound. 2. Place to leap from. 3. Place where the spirits leaped into the nether world.

Loʻi Irrigated terrace, especially for taro, but also for rice and paddy.

Loʻi kalo Ponds for wetland taro that are enclosed by banks of earth.

Loko iʻa Traditional Hawaiian fishpond.

Loko wai Fresh-water pond or lake, fountain.

Luakini heiau Temple, church, cathedral, tabernacle. Large heiau where ruling chiefs prayed and human sacrifices were offered.

Makaʻāinana 1. Commoner, populace, people in general. 2. Citizen, subject.

Mākāhā Sluice gate, as of a fish pond; entrance to egress from an enclosure.

Makana 1. Gift, present, reward, award, donation, prize. 2. To give a gift, donate.

Makani 1. Wind, breeze. 2. Windy, to blow.

Mana 1. Supernatural or divine power, miraculous power. 2. To place in authority, empower, authorize. 3. To worship; religion, sect.

Manaʻo	1. Thought, idea, belief, opinion, theory, thesis, intention, meaning, suggestion, mind, desire, want. 2. To think, estimate, anticipate, expect, suppose, mediate, deem, consider.
Mele	1. Song, anthem, or chant of any kind. 2. Poem, poetry. 3. To sing, chant.
Mele inoa	Name chant, chant composed in honor of a person, as of a chief.
Menehune	Legendary race of small people who worked at night, building fish ponds, roads, temples. If the work was not finished in one night, it remained unfinished.
Mōʻī	King, sovereign, monarch, majesty, ruler, queen.
Moku	1. District, island, islet, section, forest, grove, clump, fragment. 2. To be cut, severed, amputated, broken in two.
Mokupuni	Island.
Moʻo	Lizard, reptile of any kind, dragon, serpent.
Moʻokūʻauhau	Genealogy.
Moʻolelo	Story, tale, myth, history, tradition, literature, legend, journal, log, yard, fable, essay, chronicle, record, article.
Muliwai	River, river mouth, pool near mouth of a stream.
Nā ʻikena ma kai	Seaward viewsheds.
Nīʻau-piʻo	Offspring of the marriage of a high-born brother and sister, or half-brother and half-sister.
ʻOhana	Family, relative, kin group, related.
ʻŌiwi	Native, native son.
ʻŌlelo noʻeau	Proverb, wise saying, traditional saying.
Oli	Chant that was not danced to, especially with prolonged phrases chanted in one breath, often with a trill at the end of each phrase; to chant thus.
Pali	Cliff, precipice, steep hill or slope.
Piko	1. Navel, navel string, umbilical cord. 2. Summit or top of a hill or mountain, crest, crown of the head.

Pō	1. Night, darkness, obscurity. 2. The realm of the gods, pertaining to or of the gods, chaos, or hell.
Pōhaku	Rock, stone, mineral, tablet.
Poʻokanaka heiau	Large heiau used for human sacrifices.
Pule	1. Prayer, magic spell, incantation, blessing, grace, church service, church. 2. To pray, worship, say grace, ask a blessing, cast a spell.
Pūnāwai	Water spring.
Puʻu	Any kind of a protuberance from a pimple to a hill. Hill, peak, cone, hump, mound, bulge, heap, pile, portion, bulk, mass, quantity, clot, bunch.
Puʻuhonua	Place of refuge, sanctuary, asylum, place of peace and safety.
Ua	Rain, to rain, rainy.
ʻUhane	1. Soul, spirit, ghost. 2. Dirge or song of lamentation. 3. Spiritual.
Umu	A heap of rocks placed in the sea for small fish such as the manini to hide in: this was surrounded by a net and the fish were caught.
Unu	Altar, heiau, especially a crude one for fishermen or for the god Lono.
Wā Akua	Time of the gods.
Wā Kānaka	Time of man.
Waʻa	Canoe, canoemen, paddlers.
Wahi kaʻao	A place of legend.
Wahi pae	A landing place where one could come ashore.
Wahi pana	A sacred and celebrated/legendary place.
Waiwai	1. Goods, property, assets, valuables, value, worth, wealth, importance, benefit, estate, use. 2. Useful, valuable, rich, costly, financial.
Wao	1. Realm. 2. A general term for inland region usually forested but not precipitous and often uninhabited.

Reference

Pukui MK, Elbert SH. 1986. Hawaiian dictionary. Honolulu (HI): University of Hawai‘i Press. 572 p.

Appendix 8: Author and Contributor Biographies

David Ball – BOEM Representative

Dave grew up near Berkeley, CA. He received a BA in anthropology from Sonoma State University in 1992 and a MA in anthropology from Florida State University in 1998. Since that time, he has led terrestrial and underwater projects throughout the United States. Dave has been involved with documenting a number of historic shipwrecks in the Gulf of Mexico, including the remains of a 200-year-old vessel in 4,000 feet of water, known as the Mardi Gras Shipwreck Project; and the Deepwrecks Project, an analysis of the artificial reef effect on World War II vessels in deepwater. Today, he works for the Bureau of Ocean Energy Management as the Pacific Region Preservation Officer and the Pacific Region Tribal Liaison Representative.

Hans Van Tilburg – NOAA Representative

Hans Van Tilburg's mother was born in Honolulu to a large Chinese family, and his father is of Dutch extraction from Indiana. Hans was a geography major and diver at the University of California Berkeley (BA 1985), worked in the diving safety office while in East Carolina University's Maritime History and Nautical Archaeology program (MA 1995), and ran a graduate program in maritime archaeology and history while at the University of Hawai‘i studying Asian and Pacific maritime history (PhD 2002). Those field courses were the first of their kind for Hawai`i, and continue today as active NOAA/UH collaborations in support of Maritime Heritage Program goals. Hans has served as an expert consultant for UNESCO's intangible cultural heritage program, and instructor for Underwater Cultural Heritage Foundation courses in Thailand and Jamaica.

Kahea Faria

Originally from Ni‘ihau, Kahea provided unique insight into Native Hawaiian education for the University of Hawai‘i. She has presented to several conferences on the impact of immersion and language programs for Native Hawaiians. Today she serves as Assistant Specialist in the College of Education at the Univerity of Hawai‘i at Mānoa. Ms. Faris also serves as the Secretary for the Ni‘ihau Island Council and its designated representative on the Native Hawaiian Education Council.

Kuualoha Hoomanawanui

Kuualoha is a Kanaka Maoli scholar, poet, artist, and mālama ‘āina advocate. She is an Associate Professor of Hawaiian literature at University of Hawai'i, specializing in traditional Hawaiian literature, Oceanic literature, and indigenous perspectives on literacy. Her research interests focus on place-based literature, literacy and learning culminating in the development of Digital Indigenous Humanities projects. She is a founding and current Chief Editor of *‘Ōiwi: A Native Hawaiian Journal* and has published critical essays and creative writing in Hawai‘i and abroad. She was honored as a Ford Foundation Fellow in 2001-2005 and Mellon Hawai'i Post-Doctoral Fellow in 2009-2010. Her first book, *Voices of Fire--Reweaving the Lei of Pele and Hi‘iaka Literature* was published by the University of Minnesota Press in May 2014.

Ilima Ho-Lastimosa

Ilima is a proud third-generation, Native Hawaiian resident of Waimanalo, Hawaii. A strong proponent of food sovereignty and sustainability, she is passionate about giving Pacific Island

communities the tools, knowledge and skills they need to grow food in their backyards. Towards that goal, Ilima became a certified Master Gardener and an aquaponics expert and has spent the last four years teaching aquaponics throughout the Pacific. Ilima has raised nearly $400,000 for programs benefiting Pacific Islanders. Ilima holds a BA in Hawaiian Studies from the University of Hawaii and is pursuing an M.S.W. at the Myron B. Thompson School of Social Work. She co-founded Ho'oulu Pacific in the hopes that the organization will bring food sovereignty and holistic health to Waimanalo and other native communities throughout the Pacific and the world.

Walter Ritte

Walter began his activism on Molokai reclaiming access to coastlines and as one of the "Kahoʻolawe Nine," a group of activists who were the first to land on the island of Kahoʻolawe in January 1976 in opposition to the military bombing that was then taking place on the island. Due to his effective protest, the island was eventually returned to the State of Hawaiʻi for stewardship by native Hawaiians. Walter is a leader in the Hawaiian community, coordinating community efforts including for water rights, opposition to land development, and the protection of marine animals and ocean resources. Today, Walter resides in Hoʻolehua, Molokai where he remains an advocate for the Hawaiian people.

Kepa Maly

For thirty-five years, Kepa has devoted himself to learning and documenting Hawaiian traditions and practices from many kūpuna. As a young boy, Kepa learned the Hawaiian language, as well as cultural practices and values, from native kūpuna. In 1995, Kepa and his wife Onaona formed Kumu Pono Associates LLC, with a focus on researching and writing historical documentaries; conducting detailed oral histories; developing preservation and resource management plans, and writing interpretive plans for a variety of state projects. They live on the island of Lanaʻi, where their dedication to cultural preservation extends to their own backyard. Currently, Kepa and Onaona serve as the Executive Director and Information Technology expert, respectively, of the Lanaʻi Culture & Heritage Center where they are developing plans to ensure long-term management of Lanaʻi's cultural and natural resources.

Michael Nahoʻopiʻi

Mike has been involved with Kahoʻolawe from virtually every perspective in its recent history. A long-time Protect Kahoʻolawe ʻOhana (PKO) member and former US Navy Officer-in-Charge of Kahoʻolawe during the conveyance of the island to the State of Hawaiʻi, he was a senior manager during the early Model Cleanup and the later Navy Unexploded Ordnance (UXO) clearance project. He now serves as the Executive Director of Kahoʻolawe Island Reserve Commission. Born in Honolulu, Nahoʻopiʻi graduated from the Kamehameha Schools in 1982. He received his BS in Electrical Engineering from the US Naval Academy at Annapolis and was commissioned an ensign in 1986, serving as a nuclear-trained submarine officer until his assignment to Kahoʻolawe. Nahoʻopiʻi is certified as a Quality Manager and Quality Engineer by the American Society for Quality, and holds the designation of Project Management Professional from the Project Management Institute. He and his family reside in Kapahulu, Oʻahu.

Kainoa Horcajo

Born and raised on the island of Maui, Kainoa Horcajo is a passionate, lifelong student of Indigenous Cultures, specifically Kanaka Maoli culture and practices. Currently, Horcajo is a partner in Hana Pono, where they provide Cultural Studies and Impact Assessments. He is also a certified alakaʻi (leader) of the Native Hawaiian Hospitality Association's Ola Hawaiʻi, conducting culture-based training for Hawaiʻi companies. Prior to this, Horcajo worked with the Office of Hawaiian Affairs, collaborating with State Senators and Legislators, Kupuna and community leaders. He earned a BA in International Relations from the University of San Diego and is currently studying the ancient art of Lua from ʻOlohe Po'okela Mitchell Eli under Ka Pa Ku'i A Holo and the Royal Hawaiian Academy of Traditional Arts. He is active in the Maui community, doing volunteer work in Olowalu, Auwahi, and Kipahulu, when he's not busy working on family land in Iao. He is a board member of Maui Recycling Group, DeBolt Gardens Foundation, and an advisory board member to Maui Tomorrow.

Kaimi Kaupiko

Kaimi Namaielua Kaupiko is a native son of the Last Hawaiian Fishing Village of Miloliʻi where he has worked with youth educational programs for the past 15 years. He works with the Miloliʻi Hipuʻu Virtual Academy a program of Kua o ka La Public Charter School. His educational background includes receiving his Associates from Heald College in Accounting, and a Bachelor of Business Administration from the University of Hawaiʻi at Mānoa focusing on Management information Systems. Currently, Kaimi is working towards his Master of Business Administration with a focus in Management from Wayland Baptist University. Kaimi's goal is to provide educational opportunities for all learners. He hopes that by striving for this goal he will lift up the Miloi'i community.

Leimana Damate – Executive Director, ʻAha Moku Advisory Committee

Leimana Damate is Executive Director of the ʻAha Moku Advisory Committee. Her life has been a commitment to helping the voice of kūpuna (elders) be heard by policy-makers. Towards the end of his life, John Kaʻimikaua drew Leimana into a small circle of people who would help restore the ʻAha Moku system. Leimana's experience in public service allowed her to help bring the ʻAha Moku concept to state legislature. On July 9, 2012 Act 288 (12) was signed into law by Governor Abercrombie recognizing the ʻAha Moku Advisory Committee in an official capacity. The ʻAha Moku model recognizes each of the traditional moku (districts) within ka pae ʻāina (Hawaiian Islands). The concerns of the people within the moku and ahupuaʻa are brought to the poʻo (head) of their island, which in turn are communicated to Leimana on a daily basis. Leimana meets regularly with different divisions within the Department of Land and Natural Resources to share the manaʻo of kūpuna from each island. One of the most vital elements of a sustainability system is that the wisdom of those with generational knowledge of ʻāina (land), wai (water) and kai (sea) is part of the decision-making process.

Daniel Nahoʻopiʻi – Director of Tourism Research, The Hawaiian Tourism Authority

With two decades of experience in research, Daniel oversees the production, organization and interpretation of data related to Hawaiʻi's visitor industry; leads the statewide Tourism Strategic Plan process and the performance monitoring and evaluation of the HTA's efforts; conducts workshops, seminars and meetings to provide visitor statistics, analyses and other information relating to the visitor industry and supervises the HTA's tourism research team. Prior to joining

the HTA, Daniel worked at Kamehameha Schools, SMS Research & Marketing Services, Hawaii Visitors and Convention Bureau and Hawaiian Electric Company.

Kainoa Daines – Director of Sales, Hawaii Visitors and Conventions Bureau

Kainoa is Director of Sales of the Oʻahu Visitors Bureau, a subsidiary and Island Chapter of the Hawai'i Visitors & Convention Bureau. He also serves as Cultural Advisor for the HVCB, statewide. With a background in Waikīkī hotel sales, Kainoa has a passion for the culture of Hawaiʻi and combines the two areas within Hawaiʻi's visitor industry. In Kainoa's spare time, he chairs the King Kamehameha Celebration Floral Parade, is an active member of the Royal Order of Kamehameha I and sits on numerous other boards. In March of 2011, Kainoa was recognized by Hawaii Business magazine as "20 for the next 20," designed for individuals whose intelligence, energy and vision make them people to watch over the next two decades. A resident of Honolulu, Kainoa is a graduate and active alumnus of the Kamehameha Schools and holds a Bachelorʻs degree from the University of Nevada, Las Vegas' William F. Harrah College of Hotel Administration.

Kalani L. H. Kaʻanāʻanā – Coordinator of the Native Hawaiian Health Program, Queens Medical Center

Kalani is the Coordinator of Clinical Health and Community Programs for the Native Hawaiian Health Program at The Queen's Health Systems. The Queen's Health Systems is the corporate organization that includes The Queen's Medical Center, Molokaʻi General Hospital, The Queen's Medical Center – West O'ahu, and North Hawaiʻi Community Hospital. His role includes supporting clinical initiatives, healthcare training, health disparities translational research, and community outreach to Hawaii's diverse population. He also manages the Queen's Heritage Collection, which includes artifacts and information from the founding of The Queen's Medical Center. He graduated with distinction from the Hawaiʻinuiākea College of Hawaiian Knowledge at the University of Hawaiʻi at Mānoa in 2010 earning a dual Bachelor of Arts degree in Hawaiian Language and Hawaiian Studies. Kalani currently serves on the boards of the Oʻahu Hawaiian Canoe Racing Association and Kai Oni Canoe & Athletic Club. He is also the head coach of Kai Oni Canoe & Athletic Club and the Kailua High School Paddling Team. His ʻohana comes from Kaʻaiheʻe, Kailua, Oʻahu.

Honua Consulting

Honua Consulting has an extraordinary team of local, Native Hawaiian professionals (below) who add depth, experience and innovation to any project. Honua Consulting is one of a handful of Native Hawaiian woman-owned small businesses in Hawaiʻi. Honua Consulting is an environmental and cultural consulting firm founded and based in Hawaiʻi that focuses on innovative approaches to marrying indigenous community and cultural needs with conservation realities.

Trisha Kehaulani Watson, JD, PhD – Project Management / Senior Consultant

Dr. Trisha Kehaulani Watson is the owner of Honua Consulting. Dr. Watson is qualified under the Secretary of Interior's Professional Qualification Standards for Archeology and History Preservation and holds a law degree with a specialization in environmental law. In addition to having completed an Environmental Law Certification from the William S. Richardson School of Law's nationally ranked Environmental Law Program, she has also worked extensively on

environmental compliance and administrative law. Her education, combined with her background as a trained mediator, and experience with sensitive cultural issues provides Honua Consulting with an exemplary ability to develop plans to help clients manage complex and sensitive environmental and cultural issues.

Leilani Doktor – Staff

Born and raised on Oʻahu, Leilani Doktor has over six years of experience working with the Hawaiian community on education, sustainability, and public policy issues. In May 2014, she earned a BA in International Comparative Studies from Duke University in North Carolina. Before attending Duke, Leilani spearheaded research on the connection between sustainable farming, cultural knowledge, and high school graduation rates in teenage Pacific Islanders. At Duke, she continued to explore the connection between practice-oriented education and vulnerable populations through the Literacy Through Photography project and as a Teaching Assistant at Durham Public Schools. She also has a passion for public policy, cultivated during her internship at the U.S. Senate in Washington, D.C. where she practiced community outreach and policy making. Today, she has shifted her focus to environmental policy and law in the Pacific. She joined Honua Consulting in February 2015, specializing in policy and law issues.

Elmer Kaʻai – Administration

Elmer K. Kaʻai Jr, a graduate of the University of Hawaiʻi at Mānoa, was raised on the island of Oʻahu. It is clear from both his current and past positions that he takes pride in his home and the many different communities that flourish in Hawaiʻi. Mr. Kaʻai is the Director of Advancement for Communications at the University of Hawaiʻi at Mānoa and serves directly under the UH Mānoa Chancellor. Prior to the University of Hawaiʻi, Mr. Kaʻai worked at the Department of Hawaiian Homelands for over 18 years in many capacities, which includes land title research, government and community relations, and program planning policies. Elmer has dedicated his time and aloha to groups ranging from the Hula Preservation Society where he served as a President, to the Hui Kāko'o ʻĀina Hoʻopulapula. He is currently the Chair of the Kamehameha Celebration Commission and was appointed to the Commission by former Governor Neil Abercrombie. His commitment to Hawaiʻi can easily been seen through the wealth of programs he has supported to maintain, protect, and honor Hawaiʻi's interests, both cultural and natural.

Kulani Boyne – Staff

Kulani Boyne was born and raised in Kaimukī on the island of Oʻahu, and joined the Honua Consulting team in July 2016. She graduated with a B.S. in Biology from the University of California, Los Angeles in June 2016, with an emphasis on evolution and ecology. She plans to further specialize in the biological sciences in her future studies. She is able to provide insight regarding life sciences and biological issues to the Honua team.

The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under US administration.

The Bureau of Ocean Energy Management

As a bureau of the Department of the Interior, the Bureau of Ocean Energy Management's (BOEM) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS) in anenvironmentally sound and safe manner.

The BOEM Environmental Studies Program

The mission of the Environmental Studies Program (ESP) is to provide the information needed to predict, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments.