

State of Hawai'i
Department of Land and Natural Resources
Kealakekua Stewardship Area Management Plan

January 2009

Land Division

Division of State Parks

Historic Preservation Division

Division of Aquatic Resources (DAR)

Division of Forestry and Wildlife (DOFAW)

Division of Boating and Ocean Recreation (DOBOR)

Division of Conservation and Resources Enforcement (DOCARE)

The general purpose of the Department of Land and Natural Resources' Action Plan for the Kealakekua Integrated Resource Stewardship Area on the Island of Hawai'i is to implement the management goals and strategic actions articulated in the 2006 Hawaii Ocean Resources Management Plan (ORMP). The specific goal of this plan is to recommend actions within the Stewardship Area to achieve long-awaited management goals, envisioned for over 40 years, for Kealakekua Bay and its surroundings. Our purpose is to protect the resources by recognizing factors both within and outside the Department of Land and Natural Resources' (DLNR) jurisdiction that affect those areas under our management authority. Within our areas of jurisdiction, this will include establishing managed levels of public and commercial use through the integrated efforts of our multiple DLNR divisions. For those areas outside DLNR's jurisdiction but within our Stewardship Area, it is imperative that DLNR provide support to managing agencies and landowners, strengthen existing partnerships, continue to engage directly with communities and acknowledge the "downstream" effects of our decisions. Our approach is consistent with the constitutional mandate of the Department of Land and Natural Resources (DLNR) to protect and conserve natural resources of the State of Hawai'i for the benefit of present and future generations.

Each of the divisions participating in this integrated resource stewardship effort (Parks, DAR, DOBOR, DOCARE, DOFAW, Historic Preservation and Land) has recognized the commonality of our values and each has made a “pact” with the other to extend, to the extent possible given existing or anticipated administrative rules, a cooperative approach in managing this area. In particular, we have found that the purpose and values expressed by the Division of State Parks for Kealakekua Bay State Historical Park provide an overall framework for uniting each division’s particular concerns about natural, cultural and historical resources, recreation, and social well-being. These values stem largely from the historic significance of Kealakekua as expressed in the 1973 nomination of the Kealakekua Bay Historical District (Site 50-10-47-7000) to the National Register of Historic Places, an area that includes both the land and water. We support a unified DLNR management effort that emphasizes preservation of the historical and cultural integrity of the Kealakekua area by limiting actions that have the *potential* to adversely affect this important site and all the resources found within it, either directly or indirectly. We believe this approach is a logical way to finally integrate all previous agency and community recommendations into workable, testable solutions.

Kealakekua Stewardship Area

The initial task of the Kealakekua Integrated Resource Stewardship Group (KIRSG) was to define the geographic area pertinent to the management of resources under DLNR’s jurisdiction. The emphasis is regional and focused primarily on the interrelatedness of the mountain to sea, or *mauka-makai* ahupua’a construct that is integral to traditional Hawaiian resource management. Therefore, we selected five watersheds that drain into the ocean, including Kealakekua Bay and Honaunau Bay to the south. These are the Keopuka, Ka’awaloa, Kealakekua, Ke’ei and Honaunau watersheds encompassing the coastal stretch from Keawekaheka Bay on the north and just south of Honaunau Bay (Fig. 1). These watersheds encompass approximately 300 square miles of land extending from the ocean to the summit of Mauna Loa at 13,680 feet above sea level. These watersheds do not support perennial streams or rivers, however, basal groundwater enters the ocean along the entire Kona coast and some intermittent stream channels have developed. Particularly noteworthy are the substantial subsurface flows of fresh water into

Kealakekua Bay (Fig. 2). These have significant ramifications in terms of terrestrial impacts on the waters and reefs of the Bay.

Kealakekua Bay is one of the priority sites selected with the Division of Aquatic Resources (DAR) serving as the lead agency. Although the Stewardship Area encompasses a vast land area, two embayments and a significant length of coastline, the primary focus of the KIRSG's efforts is Kealakekua Bay and the adjacent land areas of the State Historical Park. These are areas with substantial management challenges that have resisted resolution for many years and of particular concern among the general public.

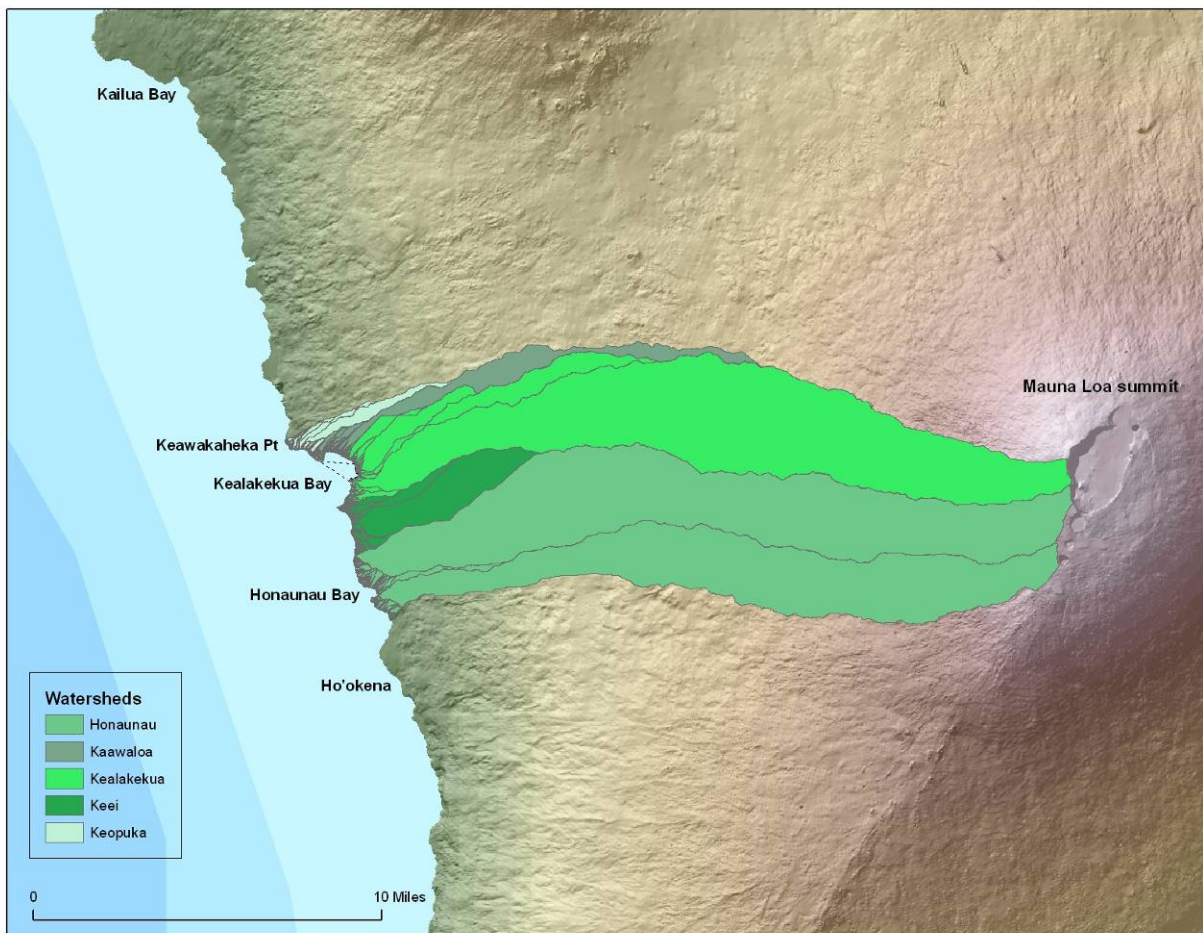


Figure 1. Kealakekua Integrated Resources Stewardship Area

The specific purpose of this effort is to achieve measurable management goals consistent with DLNR's constitutional mandate to protect and conserve the natural resources of the State for the

benefit of present and future generations. Restoration of confidence in DLNR, health and unity in the community, we hope, will be among the outcomes of our effort and in turn will boost our management efforts. We propose to meet this goal by establishing reasonable, predictable, and regulated levels of use on the land and water that are prioritized to protect resources first, then public use, and then commercial activities, with commensurate levels of interpretation, education and services.

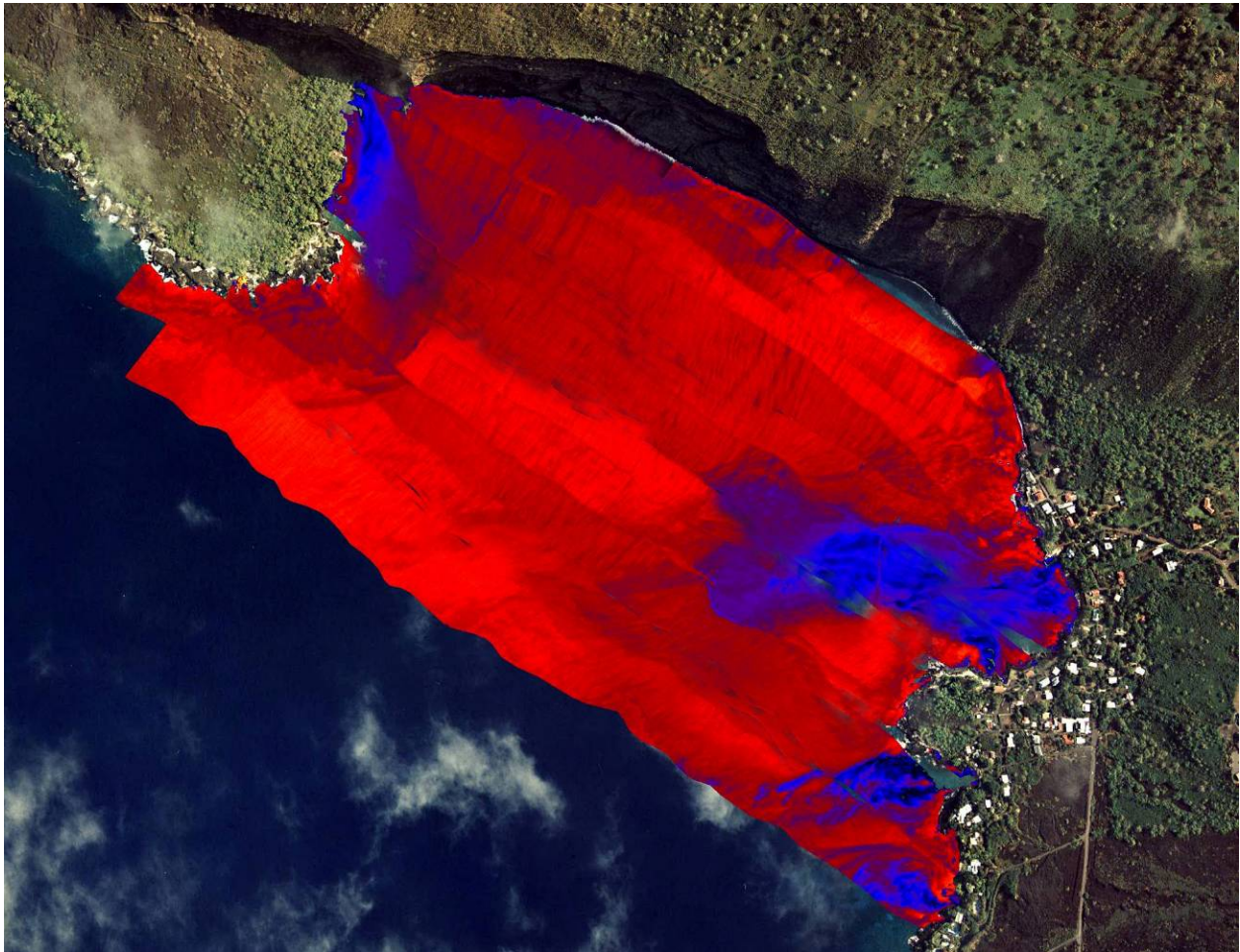


Figure 2. Infrared aerial imagery of Kealakekua Bay. Red color represents warmer ocean while blue color indicates cooler fresh water seeping into the Bay. Photo: Craig Glenn, University of Hawai'i Mānoa.

Physical Environment

Climate within the Stewardship Area follows the Kona pattern of winter-dry, summer wet, the opposite of windward Hawai'i Island and the remainder of the main Hawaiian Islands. Hawai'i island's land mass is great enough that land-sea breezes exert more influence than the northeasterly tradewinds, so afternoon rain-showers prevail in Kona rather than morning and evening tradewind showers. Mean annual rainfall is greatest at approximately 3000 feet elevation within the Stewardship Area, at 2000 mm per year, with coastal areas receiving about 1000 mm. From 3000 feet and above, rainfall tapers to less than 500 mm per year.

The soils in the Stewardship Area are comparatively young soils developed on lavas from Mauna Loa volcano. They fall into several broad classifications by the USDA Soil Conservation Service (Sato et. al, 1973), either Histosols or Incepticols, depending on whether they developed from the lava flows themselves or from ash deposits on the lava flows. All of the soils within our area are extremely rocky or stony, or are still young lava flows. The range of these stony soils from silt to clay correlates to the rainfall, with muckier soils located within the rainier areas.

Vegetative cover changes with rainfall and elevation. The seaward portion up to about 600-700' is dominated by kiawe and lowland shrubs such as lantana and koa haole. Between 600 and about 2500' the area is primarily composed of macadamia nut and coffee farms, with some scattered stands of unaltered native ohia forest. Between 2500 feet and 7000 feet, ideally, mixed open forest, ohia lehua rainforest and open koa forest would predominate, but this is also the band in which cattle ranching and dairy farming has altered the landscape and promoted pasture grasses. Above 7000 feet, open mamane-naio stands, if unaltered by livestock, would predominate. Above 10,000 feet, dry alpine desert plants predominate.

Cultural and Political Geography

Kealakekua is located 12 miles south of Kailua-Kona in the district of South Kona. The community of Captain Cook is situated above Kealakekua Bay along the Hawai'i Belt Highway (Highway 11) at about 1200 feet in elevation, and consists of residential and commercial development, and small coffee and macadamia nut farms, much of it on land leased from

Kamehameha Schools. The town area called Kealakekua is actually situated north of Kealakekua ahupua'a on Highway 11 and outside of our Stewardship Area. However, both communities serve as the commercial rental source for the vast majority of ocean-based recreation activities currently affecting Kealakekua Bay.

The communities of Napo'opo'o and Ke'ei, both within the Stewardship Area, are situated on the south side of Kealakekua Bay and are primarily composed of small residential parcels and *kuleana*, with numerous vacation rentals and limited parking areas. These communities are reached either via the narrow, winding Napo'opo'o Road (Lower Government Road) or along the Old Government Road that connects along the coastline to Honaunau. The southern portion of Kealakekua Bay State Historical Park lies directly adjacent to the Napo'opo'o residential area, at a turn-around loop where the Old Government Road (Napo'opo'o Beach Road) ends at Hikiau Heiau. Ka'awaloa Flat, the land area situated on the north side of Kealakekua Bay is entirely within the State Historical Park and is legally accessible only by water or hiking. Ka'awaloa Road and the coastal Cart Road are accessed fairly regularly by 4-wheel drive vehicles but are not designated as vehicular roadways within the State Historical Park.

The Stewardship Area includes several traditional land divisions, with the largest, Keauhou 2nd, located in the upper elevation zones. This expansive *ahupua'a* does not touch the ocean in our Stewardship Area, but instead stretches like a broad band over the upper elevations of Mauna Loa, where it truncates the *mauka* ends of several of South Kona ahupua'a. The entirety of the Keopuka, Kaawaloa and Kealakekua *ahupua'a*, from mountain to sea, are included in the Stewardship Area, as well as the smaller land divisions of Kiloa, Waipunaula, Kalamakumu, Ililoa, Kalamaumi, Kalamakowali Homesteads, Kalamakapala, Kalamawaiawaawa, and Kahauloa 1st and 2nd. A corner portion of Ke'ei 1 is contained within the Stewardship Area. In addition to the large *ahupua'a* or *'ili* divisions around Kealakekua Bay, numerous *kuleana*, or parcels awarded during the *Mahele* to individuals are found in concentrations at Ka'awaloa, Napo'opo'o and Ke'ei.

The landscape within the Stewardship Area between sea level and approximately 4000 feet shows the imprint of traditional Hawaiian agriculture in the interrelated complex of walls, mounds and terraces identified by Newman in 1968 (SIHP site 50-10-47-6601), commonly referred to as the Kona Field System. This complex is protected on numerous properties, such as the Amy B.H. Greenwell Ethnobotanical Garden, but in other instances has been destroyed by ranching or intensive 20th century agricultural or residential uses.

The Stewardship Area also contains the entirety of National Register Site 50-10-28-7000, established in 1973 and otherwise known as the Kealakekua Bay Historic District. The boundaries of this site do not correlate to existing boundaries or landmarks, but instead were established to connect four latitude-longitude points to form a rectangular area stretching from Keopuka 2nd, on the northern boundary, to Mokuakae Bay and Ke'ei 1 (with a small portion of Ke'ei 2nd) at the southern end (Fig 3). Its mauka boundary lies makai of Hawai'i Belt Hawai'i and Napoopoo Road (Lower Government Road) but includes its junction with and a small portion of Middle Ke'ei Road. All of Napo'opo'o Road from the Middle Ke'ei junction down to Kealakekua Bay is included in the district, as are the clustered small agricultural and residential properties of Napoopoo and Ke'ei.

Land Ownership, Land Use and Zoning

The majority of the land within the Stewardship Area is under private ownership (Fig. 4). The *mauka* portions of the watershed, situated above the community of Captain Cook are owned by Kamehameha Schools (100,000 acres) and Kealakekua Ranch (11,500 acres) and zoned under the Agriculture-20 classification. Land is held in small residentially or commercially zoned parcels less than an acre in ribbon created by the highway. Above and below this ribbon, in the rainfall band below the ranchlands and above the arid shore, small mostly lease-hold macadamia nut or coffee orchards with the Agricultural-5 designation are common. The portion of the Stewardship Area under State ownership is the Kealakekua Bay State Historical Park and the submerged lands within Kealakekua Bay and the Marine Life Conservation District (MLCD).

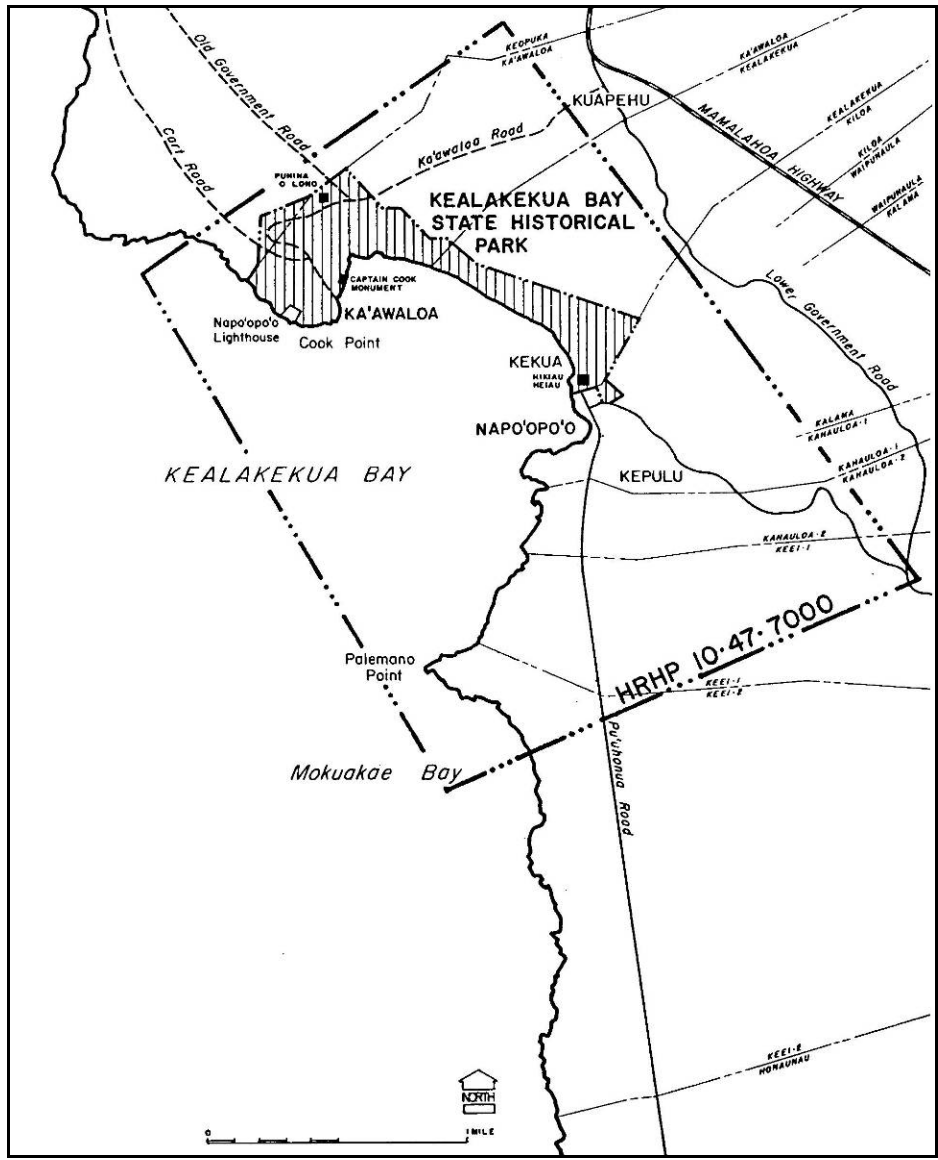


Figure 3. Map of Kealakekua Bay State Historical Park

The 217.88 acre park includes Ka'awaloa Flat, the *pali* above Kealakekua Bay, and the Napo'opo'o section where Hikiau Heiau and the former County park are located. The entire park is zoned for Open Conservation and contained within the boundaries of the Kealakekua Bay Historic District. The 315-acre MLCD includes all the water area inland of the line between Cook Point on the north and Manini Beach, an area within the village of Napo'opo'o.

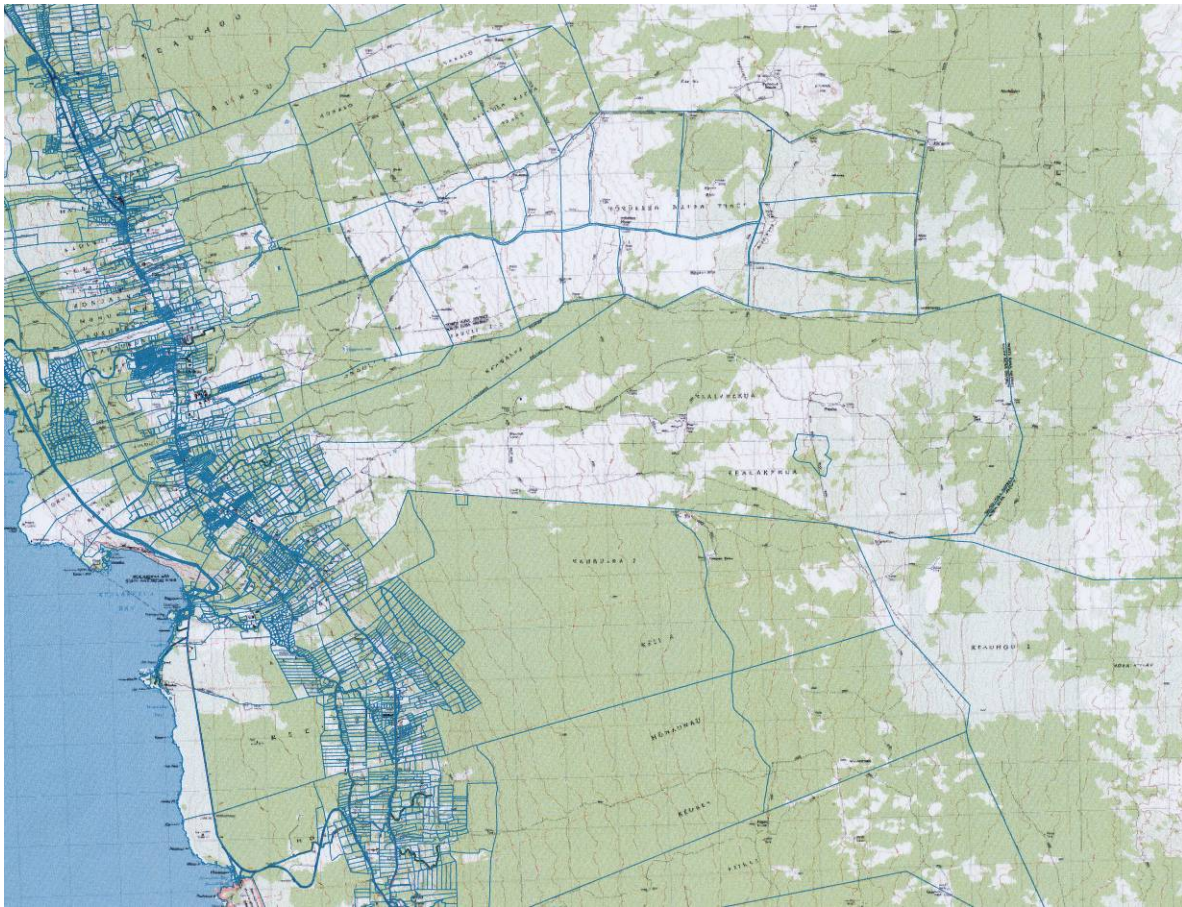


Figure 4. Map of Kealakekua Stewardship Area showing multitude of privately owned parcels

Management Zones and Regulatory Authority within the Stewardship Area

The watersheds portion of our Stewardship Area does not include State forest reserves, but DLNR nonetheless has a management role. This area is managed cooperatively within the Three Mountain Alliance area, a larger area in which private landowners and public agencies cooperatively manage the activities within watersheds under the terms of the Memorandum of Understanding (MOU) dated 5/3/07. The DLNR Division of Forestry and Wildlife participates on behalf of DLNR in this agreement. The other participants are the National Park Service, U.S.G.S. Pacific Island Ecosystems Research Center, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, U.S. Forest Service Institute of Pacific Islands Forestry, State of Hawai'i Department of Public Safety, The Nature Conservancy and Kamehameha Schools (Fig. 5).

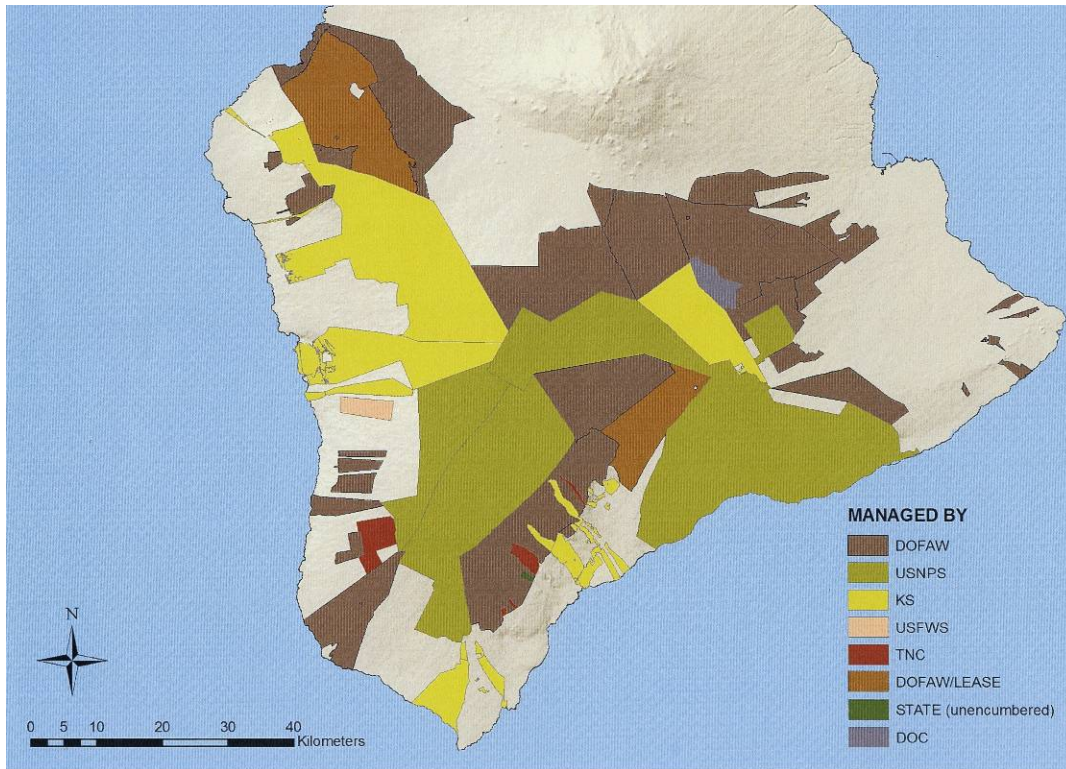


Figure 5. Management entities in the *mauka* of the Kealakekua Bay Stewardship Area. Map courtesy of Three Mountain Alliance

Watershed management in the privately owned lands outside of the Three Mountain Alliance area is largely the concern of the Natural Resources Conservation Service (NRCS) with whom private landowners voluntarily initiate cooperative agreements. The County of Hawai'i Departments of Public Works maintains authority over land development activities that could affect soil erosion and sedimentation and the State Department of Health implements the Clean Water Act through issuance of NPDES permits. The County of Hawai'i Planning Department has jurisdiction over land uses and zoning.

DLNR has no management authority in the lands between the Three Mountain Alliance cooperative management area and the Kealakekua Bay State Historical Park and Marine Life

Conservation District, in essence, the midsection of the Stewardship Area that includes multiple ahupua`a and multiple small land owners. The exception, however, is on the State-owned trails within the Stewardship Area including the *mauka-makai* Ka'awaloa Road, and the two lateral trails: the Old Government Road (OGR) and the Cart Road (CR). Both of these lateral trails are included in the Stewardship Area to the extent that they are ribbons of direct DLNR management within the private lands situated to the north of the park.

Within the Kealahou Bay State Historical Park, State Parks is the managing agency. For the MLCD, the Divisions of Aquatic Resources and Boating and Ocean Recreation have authority. At one time, this area was designated as an Underwater Park under the jurisdiction of State Parks, but that designation was removed with the transfer of jurisdiction in 1992. The Division of Conservation and Resources Enforcement (DOCARE) has authority within the Kealahou Bay State Historical Park, the Marine Life Conservation District, Napo'opo'o Wharf, and trails under the Na Ala Hele Program.

The 315 acre Kealahou Bay MLCD extends from the highwater mark seaward to a line from Cook Point to Manini Beach point (Figure 6). Removal or alteration of coral, sand, or other geological features is not permitted anywhere within the MLCD nor is recreational fish feeding. Commercial activities such as water skiing, jet skiing, para-sailing, and motorboat racing are likewise prohibited.

A line from Cook Point to the north end of Napo'opo'o divides the District into Subzone A to the north and B to the south. In Subzone A, all fishing, taking or injuring of marine life (including eggs) is prohibited as well as anchoring or mooring of boats except at locations or moorings designated by DLNR. In Subzone B it is permitted to fish for, take or possess any finfish by hook-and-line or thrownet. Additionally, any legal fishing method, except traps, may be used to take akule, opelu, and crustaceans. Anchors may be dropped in the sand in Subzone B if coral damage is avoided.

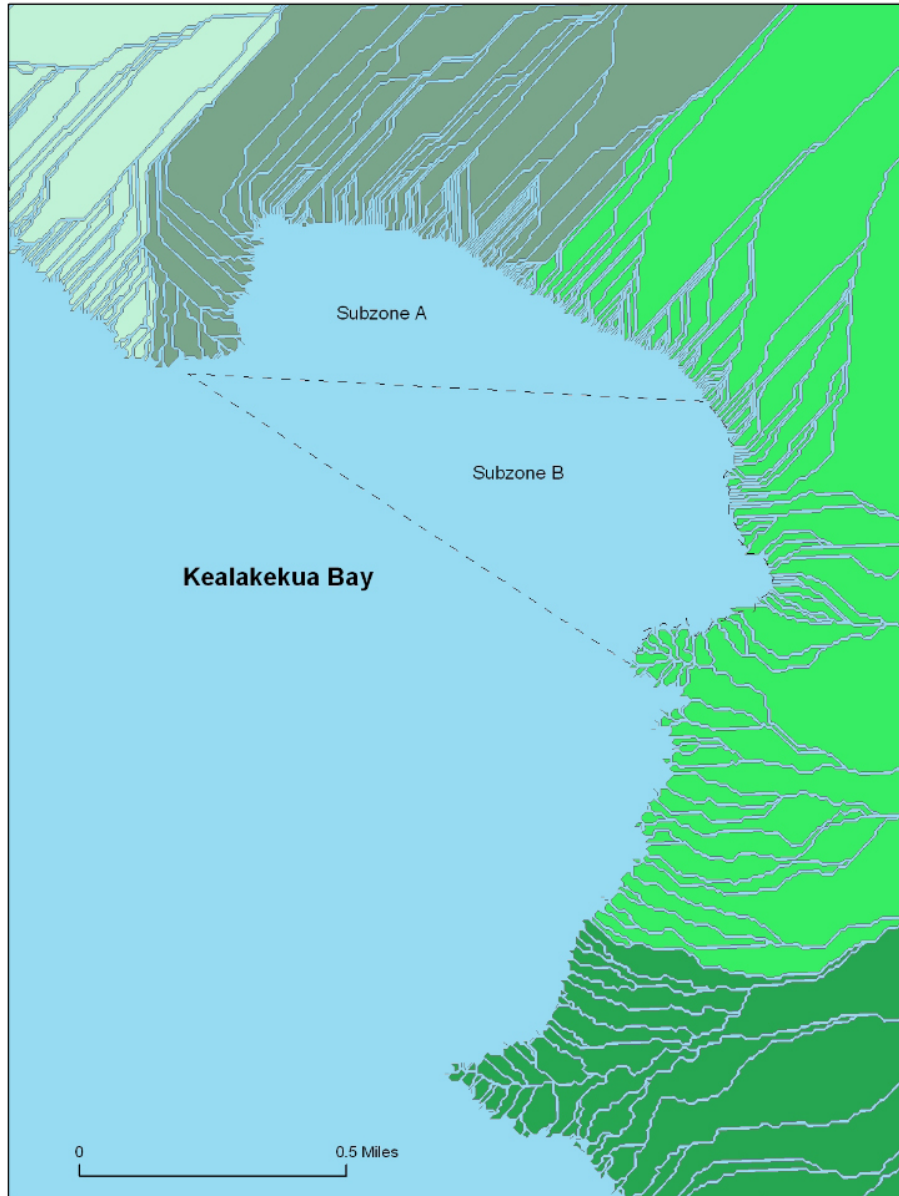


Figure 6. Map of Kealakekua Bay MLCD showing Subzones A and B.

Any person violating the rules of the MLCD shall be guilty of a petty misdemeanor. The punishment, in addition to any other penalties, shall be a fine of not less than: \$250 for a first offense; \$500 for a second offense; and \$1,000 for a third or subsequent offense. The specified fines shall not be suspended or waived.

Stewardship Group “Areas of Concern” for Indirect Impacts of Management

Situated south of the Stewardship Area, Honaunau Bay is included as an “area of concern” under our decision-making model. Honaunau Bay is heavily used by residents and visitors and lies directly adjacent to the Pu’uhonua o Honaunau National Historical Park. Much of the use centers on the boat ramp, which accommodates fishing boats, six-man outrigger canoes, one-man outrigger canoes, kayaks, and the occasional jet-ski, as well as *keiki* swimmers and beachgoers on the tiny beach by the ramp. The other main focus is the highly popular entry point into the bay called “Two-Step” where snorkelers and swimmers flock above the reef. All these activities coincide with frequent large family gatherings at the several *kuleana* at the bay and the St. Benedict’s church lot, as well as the Keoua Honaunau Canoe Club lot that accommodates large seasonal canoe racing events.

Any changes to the management of Kealakekua Bay will almost certainly spill over to Honaunau Bay. Should kayak or other vessel launchings increase at Honaunau, conflicts will increase. Honaunau Bay’s many users have, over the years, tended to self-regulate through the natural staggering of uses, with the fishermen launching and landing toward the beginning of the day, and canoe paddling later in the day. However, as the total volume has increased, the self-regulating atmosphere of mutual respect could erode and the quality of life could deteriorate for residents and visitors. Many feel strongly that this is already taking place. The historical and cultural integrity of the Pu’uhonua o Honaunau National Historical Park is also at stake. A proposed part of our action plan, therefore, is not to impose on areas outside of our management authority, but to propose strategies that could be adopted by neighboring communities with ease, and to communicate with private and government entities who manage the Honaunau area.

Historical Background

Kealakekua Bay and the surrounding land area have been recognized as one of the most, if not the most, significant historical places in Hawai’i. By the 1600s, Hawaiian culture had become complex with social stratification and a ruling *ali’i* class, a state religious system marked by the construction of large *heiau*, an economy based on extensive agricultural fieldsystems, and rapid population growth throughout the islands. This cultural complexity led to the development of

chiefly royal centers and warfare for control of districts and islands. Kealakekua was one of the seven chiefly royal centers of Kona and was a seat of power where important Hawaiian *ali'i* and *kahuna* resided. Supported by the abundance of agricultural products from the upland Kona fieldsystem and the rich marine resources of the bay, the Kealakekua area became a densely populated settlement and a religious-political center marked by the *ali'i* residence at Ka'awaloa, Hikiau Heiau, a priestly compound at Napo'opo'o, and chiefly burials in the *pali*. Kalaniopu'u was the *ali'i nui* residing at Ka'awaloa in 1779 when the Resolution and Discovery under the command of Capt. James Cook arrived in Kealakekua Bay. Kamehameha was residing at Napo'opo'o at this time and would rise to power soon after the death of Kalaniopu'u in 1782.

Kealakekua was also the site for the first extended contact between Hawaiians and Western explorers, specifically Captain James Cook in 1779. It is from the month of cultural interaction that we have the most extensive record of Hawaiian culture at the time of contact. The journals, maps, and drawings from the Cook expedition, along with the intact archaeological sites provide a unique opportunity to interpret the cultural history of Kealakekua. Cook's expedition estimated the population of Kealakekua to be around 2,000. Ka'awaloa was recorded as a thriving village of 300-500 houses where some of the highest chiefs of the kingdom resided. On the other side of the bay, Napo'opo'o was reported to consist of the priestly compound at Hikiau Heiau and several villages containing the houses of commoners and lesser chiefs. Capt. Cook returned to Kealakekua with a broken mast soon after departing and was killed at Ka'awaloa on February 14, 1779 making it an important site in both Hawaiian and British history.

Kealakekua remained a significant place after contact, playing a major role in the early history of the Protestant missionaries in Hawai'i. One of the first missions was established at Ka'awaloa in 1824, but was moved to Napo'opo'o in 1837. Kealakekua Bay became a major port for explorers, whalers, and interisland shipping. But by the 1840s, the population was declining and many inhabitants moved upland, but small fishing communities remained at both Ka'awaloa and Napo'opo'o. During the Great *Mahele* of 1848, Keohokalole, mother of King Kalakaua and Queen Lili'uokalani claimed most of the lands around Kealakekua. As ranching expanded into South Kona, much of Keohokalole's land was purchased by the Paris and Greenwell families.

Cattle were herded down to Kealakekua Bay where they were loaded onto ships for transport to the slaughterhouses. The wharf at Napo'opo'o retained its importance for shipping into the early 1900s.

The continuity of occupation from the pre-contact period to the present makes Kealakekua an ideal site to study and share the history of Hawai'i. The settlements at Ka'awaloa and Napo'opo'o at the time of Western contact are some of the most thoroughly documented in accounts from 1780 to 1820. Eyewitness accounts include references to the houses of prominent figures in early Hawaiian history. One of the unique aspects of archaeology at Kealakekua is the possibility of linking sites to specific individuals and events recorded in the journals and drawings. The relative political and economic isolation during the 19th century protected many of the cultural and historical sites from destruction which makes this opportunity available to archaeologists today.

The historical and cultural significance of Kealakekua was recognized in the establishment of the Kealakekua Bay Historical District and the listing of this district on the National Register of Historic Places in 1973. Its significance is based on the following criteria:

- Associated with events that made significant contributions to broad patterns of history. In the pre-contact period, Kealakekua was representative of the chiefly royal centers in Kona, but it was the arrival of Capt. James Cook at Kealakekua Bay in 1779 that marked one of the most significant historic events in Hawaiian history. Western contact forever changed the traditional culture of Hawai'i and its people.
- Associated with lives of persons significant in our past. Prior to Western Contact, Kealakekua was a royal center associated with renowned *ali'i*, such as Keawenui-a-Umi, Lonoikamakahiki, Kalaniopu'u, and Kiwalao. At the time of contact, Kalaniopu'u was high chief who resided part-time at Ka'awaloa and Kamehameha I was residing at Napo'opo'o. After contact, high ranking Hawaiian *ali'i* continued to reside at

Kealakekua, including Naihe and Kapi'olani. Kealakekua is also associated with significant Europeans, especially Capt. James Cook and Capt. George Vancouver.

- Distinctive characteristics of a type, period, or method of construction. The relative abundance of historic and cultural sites remaining at Kealakekua demonstrate typical dry rock construction and a diversity of site types, from the large platform of Hikiau Heiau and the massive “Great Wall” at Napo’opo’o to the paved house platforms of Ka’awaloa. Together, these sites represent a continuity of cultural occupation from the chiefly royal center to the post-contacting fishing villages and ranching features.
- Site yields information important in prehistory or history. Archaeological mapping has documented the abundance and diversity of sites dispersed over the cultural landscape of Kealakekua and representative of a chiefly royal center. Limited archaeological excavations have documented the presence of subsurface deposits dating from the occupation of the royal center, ca. 1600, and into the post-contact period.

Decision Making Framework

The Kealakekua Integrated Resource Stewardship Group employed a Protected Area Visitor Impact Management (PAVIM) Framework (Farrell and Marion 2002) to develop its management recommendations. This model departs from frequently sought-after “carrying-capacity thresholds” as the baseline for management decisions, and instead provides a framework we believe is more balanced and appropriate for the intensity of environmental, cultural and social issues related to Kealakekua Bay, its *mauka* lands, and its surrounding communities. A similar approach has recently been proposed by a study team lead by Dr. Brian Szuster of the University of Hawai’i Mānoa, to develop a management-by-objectives framework for Molokini and Kealakekua Bay MLCDs. Unfortunately with regard to Kealakekua Bay, this proposal has not yet been funded and additionally the proposed completion date of 2010 is beyond the time frame of the current effort.

The PAVIM Framework is a flexible, six-step process which relies on the collective experience and expertise of both the public (local residents, stakeholders, visitors, etc.) and ‘experts’ with particular and in-depth knowledge of the issues and problems (managers, scientists, agency representatives, etc.). Experts can certainly include local residents as well. The six steps in the process are outlined below (After Farrell and Marion 2002):

Step 1: Identify area purpose, values and management zones

The intent of this step is to describe the area’s purpose and significance, characterize its natural, cultural, historical, recreational and other values, and detail management zones wherever present.

Step 2: Specify management objectives

This step describes what is perceived to be desired conditions and management objectives that the plan is working towards. In one sense it is a vision statement of the management conditions that the effort is striving to achieve.

Step 3: Identify and prioritize impact problems

The purpose of step 3 is to identify and ultimately prioritize the existing problems in the area that are judged to violate the desired social, resource and managerial conditions expressed in the stated management objectives of Step 2.

Step 4: Conduct problem analyses

Problem analysis proceeds from identifying and evaluating the problem to identifying and evaluating the strategies and tactics to address the problem. This step draws heavily on the experts’ knowledge of the impact problems and/or their experience in resolving similar types of problems.

Step 5: Select and implement management actions

This step directly addresses the variety of problems facing the area by recommending specific management actions and strategies. The spectrum of actions and strategies can include, but are not limited to; reducing use of the entire area, reducing use of problem areas, changing the location of use within problem areas, changing the timing or type of use, changing visitor behavior and expectations, increasing the resistance of the resource, and maintaining or rehabilitating the resource.

Step 6: Assess effectiveness of actions

At the most basic level this step would entail a review by management of the implemented actions to assess their effectiveness in resolving targeted resource and social problems. Monitoring of use and resource health should be undertaken to permit adaptive management to new threats or altered conditions.

As envisioned in the PAVIM framework steps 1-3 are primarily accomplished by means of public participation and input. The Kealakekua Integrated Resource Stewardship Group is a DLNR intradepartmental working group and has not directly sought public input for its current analyses and recommendations. This does not mean that such input has been lacking or not considered in our efforts. On the contrary, substantial public input on Kealakekua Bay issues has been provided and documented over a period spanning several decades by virtue of numerous public meetings, workshops, working groups and academic studies. This input was fully weighed and considered by the KIRSG in its deliberations and recommendations. An overview of previous actions relevant to Kealakekua management follows. It is critically important for all to understand and fully appreciate the vast amount of effort and input contributed over the years by community members, government agencies, commercial operators, consultants and academic researchers that has laid the groundwork for the development of this management plan. Our task is to bring these efforts to fruition.

Annotated Chronology of Kealakekua Bay Management

1962 *Mauka Makai Study*

This report by the U.S. National Park Service, U.S. Department of the Interior, concluded that State and regional reports have found Kealakekua Bay to have outstanding potential as a State park which merits full Federal support.

1968 *The Island of Hawaii: A Resource Study and Master Plan*

Prepared by the National Park Service this report concluded that although Kealakekua Bay is not included in the National Park system its historic, archaeological, scenic, recreation and marine resources should be preserved through State and County efforts.

1968 *The South Kona Coast Historic and Recreation Area, Island of Hawaii*

Contracted by the Department of Land and Natural Resources, this study by Thomas H. Creighton and George S. Walters represents one of the first works dedicated specifically to developing planning recommendations for the Kealakekua historic area. The major points of the study included the following:

- Designation of the Kealakekua Bay area as a special conservation district, stressing preservation and restoration of the major historic sites in this area.
- Preservation and restoration of the north shore of Honaunau Bay to protect its ancient relationship to the City of Refuge (now known as Pu'uhonua o Honaunau)
- Development of private lands adjacent to Ka'awaloa and Napo'opo'o so that they complement and benefit from the historic value of the sites.

1968 *Biological and Physical Features of Kealakekua Bay, Hawaii*

This study by Maxwell Doty and other researchers primarily from the University of Hawai'i was significant in providing an overview of the resources of Kealakekua Bay and the nearshore physical processes affecting the Bay. It also provided the background and justification for the establishment of the Marine Life Conservation District one year later. Among their significant findings were:

- Kealakekua Bay still presents a largely "pristine" atmosphere with little evidence of visible human exploitation
- The Bay is in a state of delicate ecological balance
- The physical and biological characteristics of the Bay make it extremely vulnerable to ecological change brought by human alterations.

1969 Kealakekua Bay Marine Life Conservations District (MLCD)

Kealakekua Bay was designated the second Marine Life Conservation District in the state two years after Hanauma Bay. As stated in the DLNR public hearing press release, the specific rationale for the MLCD designation was based on the findings of the University of Hawai'i study on the biological and physical features of Kealakekua Bay (Doty 1968) and the historical significance, esthetic appeal, and academic and scientific values of the Bay. The specific reference to the historical significance of the area is particularly noteworthy and makes the Kealakekua Bay MLCD unique with regard to other MLCDs located around the state.

A total of 76 residents and 8 DLNR staff attended the March 21, 1969 public hearing held at the University Extension Service office in Kainaliu, Kona, Hawai'i. Of 55 oral and written testimonies submitted to DLNR on the proposed MLCD designation, 44 (80%) were in favor.

1971 Executive Order 02550

This EO designated the Kealakekua Bay Marine Life Conservation District for park purposes and transferred control and management of the MLCD to the Division of State Parks. The Kealakekua Bay MLCD thus became the State's second "underwater park" with Hanauma Bay on O'ahu being the first.

1973 Designation of the Kealakekua Bay Historical District

The National Register of Historic Places, kept by the National Park Service, encompasses significant properties nominated by State and Federal agencies, historic areas in the National Park System and all National Historic Landmarks. It is the official list of the country's cultural resources. On December 12, 1973 the Kealakekua Bay area was designated as the Kealakekua Bay Historical District (District w/multiple sites) Site #10-47-7000 and placed on the National Register of Historic Places.

1985 Report on Kealakekua Bay State Historical Park

A 12 member advisory committee, including 8 native Hawaiians, was formed under the aegis of State Parks to provide planning guidance and recommendations for the establishment of a Kealakekua Bay State Historical Park. Recognizing the significance of Kealakekua Bay in the

course of events both in the Hawaiian Islands and internationally, the committee recommended that the establishment and development of the Kealahou Bay State Historical Park should be a high priority of the people of Hawai'i and its government. Proposed administrative rules for the proper use, management, government and protection of persons, property and natural and cultural resources within the Park were also developed.

1988 A Statewide Ocean Recreation Management Plan

The 13th State Legislature requested the Department of Transportation to formulate an Ocean Recreation Motorcraft Management Plan to reduce conflicts among motorized watercraft and other ocean recreation users. The report, compiled by Aotani & Associates, Inc. recommended the establishment of 8 ocean recreation areas on four islands, from the high water mark to 1000 yards offshore. The highest priority statewide management concern was the lack of enforcement of rules and regulations. Recommendations for Kealahou Bay in the Kona ocean recreation area focused on the establishment of six (6) day use mooring buoys at Cook's point.

Ocean Recreation Management Areas (ORMAs) were formally established in 1994 based upon earlier (1988) Ocean Recreation Managements Rules and Areas. ORMAs are administered by the Division of Boating and Ocean Recreation (DOBOR) and are established primarily to:

- Provide for increased public access
- Reduce user conflicts
- Promote overall public safety
- Avoid possible adverse impacts on humpback whales or other protected marine life

Designated ORMA areas also are established to control certain commercial activities to specifically designated locations and time periods as well as place limits on equipment types. Kealahou Bay is within the West Hawai'i ORMA, one of ten such areas around the islands.

1991 Historical Overview: Kealahou Bay State Historical Park and Surrounding Area, South Kona, Island of Hawaii

This State Park's report by Marc Smith provided background information for management and interpretation of the park's cultural resources. It assisted in identifying primary and secondary

interpretive historical themes which, in turn, contributed to the development of the later (1997) Kealakekua Bay State Historical Park Conceptual Plan.

1991 CDUA permit for Fair Wind mooring

Fair Wind Cruises is a unique commercial ocean recreation entity in Kealakekua Bay. Operating a 60-foot vessel, Fair Wind II, with a capacity of 125 passengers, The Board of Land and Natural Resources (BLNR) approved a Conservation District Use Permit (CDUP) on January 25, 1991 for an exclusive use commercial mooring within Kealakekua Bay. Previously Fair Wind had been issued a permit through State Parks for use of the Bay. In the CDUP, which has been renewed annually, Fair Wind is required to adhere to 36 specific conditions such as donating 500 tickets/year to public school students, removing litter from Ka'awaloa four times a year and limiting operations to the Bay to two trips per day with a vessel capacity not to exceed 149 people. For many years Fair Wind has also been required to pay a fee of 0.5 % of gross receipts for use of the mooring.

1993 Restoration Plan, Hikiau Heiau, Kealakekua Bay State Historical Park, Napo'opo'o, Kealakekua, South Kona, Island of Hawai'i

This plan by the Hawaii Division of State Parks (M. Yent) provided information on the historical background of the *heiau*, a summary and evaluation of previous restoration efforts and proposed work to restore and stabilize the northwest corner of the *heiau* platform to its pre-1977 condition.

1994 Posting of No Commercial Activities signs by Land Division at Napo'opo'o wharf

In 1994, Land Division posted "No Commercial Activities" signs at the Napoopoo wharf in an effort to control the commercial kayak activities occurring from the wharf and the Napoopoo side of the bay. DOBOR assumed jurisdiction of the wharf in 1997.

1997 Executive Order 3706

Executive Order #3706 transferred control and management of the Kealakekua Bay Marine Life Conservation District and Napo'opo'o Wharf from State Parks to the Division of Boating and

Ocean Recreation (DOBOR). Jurisdiction of the marine resources remained with the Division of Aquatic Resources (DAR).

1997 Kealakekua Bay State Historical Park Conceptual Plan

The Conceptual Plan presented a vision for the Historical Park and provided a detailed guide for its future development. Aided by planners from State Parks, the proposal was developed through a complex process which included community meetings, community interviews, historical research, on-site observations, general planning research and physical design studies. The overall mission of the park was to: 1) Interpret Kealakekua's role in the history & development of Hawai'i and its people; 2) preserve the natural and historical resources for future generations; 3) place park development within the larger context of Hawaiian history and 4) accommodate recreational opportunities which do not conflict with historic park concepts or degrade the natural resources within the Park or MLCD.

1998 DLNR Policy for Commercial Activities on State Managed Lands & Waters.

In January 1998, the Board of Land and Natural Resources adopted a policy and directed the Department of Land and Natural Resources to implement the following hierarchy of uses.

The Department, when considering commercial activity proposals or management actions on state owned lands and waters will use the following hierarchy of priorities:

- The Natural or Cultural Resource - The highest priority should go to the conservation of the resource. Only if an activity can be done in a way that does not unduly damage the resource, should it be allowed.
- The General Public - If use or activity by the public can be done without undue damage to the resource, it should be the next priority.
- Commercial Activities - Commercial activities should be considered only if their impacts do not impinge on the resource or use by the general public.

If public and commercial activities are occurring, and resource impacts indicate that restrictions or controls need to be imposed, these should first be levied on commercial

operators. The general public is the last group to have restrictions and controls imposed on them.

1998 West Hawaii Regional Fishery Management Area (FMA)

The West Hawaii Regional FMA was established in 1998 and is regulated by the Division of Aquatic Resources. The FMA, on the west coast of Hawai'i Island, extends from Ka Lae, Kau (South Point) to Upolu Point, North Kohala, but not including Kawaihae commercial harbor.

The purpose of the FMA is to:

- Ensure the sustainability of the State's nearshore ocean resources;
- Identify areas with resource and use conflicts;
- Provide management plans as well as implementing regulations for minimizing user conflicts and resource depletion, through the designation of sections of coastal waters in the West Hawai'i regional fishery management area as fish replenishment areas where certain specified fish harvesting activities are prohibited, and other areas where anchoring and ocean recreation activities are restricted;
- Establish a system of day-use mooring buoys in high-use coral areas and limit anchoring in some of these areas to prevent anchor damage to corals;
- Identify areas and resources of statewide significance for protection;
- Carry out scientific research and monitoring of the near-shore resources and environment and
- Provide for substantive involvement of the community in resource management decisions for this area through facilitated dialogues with community residents and resource users.

1999 Amended Community Plan

This stakeholder driven plan developed a number of recommendations specific to Kealahou Bay. There were recommendations to:

- Establish an “off limits” zone for commercial activities
- Prohibit all commercial activities on Sunday
- Establish a speed limit for all motorized vessels

- Establish a Ranger/Docent program
- Create and distribute standardized educational materials
- Require ecotourism operations to educate visitors and provide brochures
- Establish an Ecotourism Advisory Council
- Require commercial activity permit for all commercial activities
- Limit number of guided tour companies operating at any one time to two (2)
- Limit number of people in guided tours to six(6) guests and two (2) guides
- Require a minimum of three (3) years experience in Hawai'i for tour owners or lead guides
- Limit number of commercial kayak rental companies to four (4)
- Limit number of rental kayaks operating in the Bay to forty (40)
- Require each rental kayak to have a decal
- Limit number of commercial activity permits for commercial recreational vessels to the number of companies currently operating

1999 DOBOR establishes a ceiling for commercial ramp permits

The issuance of commercial ramp use permits by DOBOR provides one means of controlling visitation and the boat traffic in Kealakekua Bay. It does not however address commercial vessels which operate from slips in existing harbors or are on established moorings. While a ceiling for ramp permits was established in 1999, there has been no subsequent evaluation of this ceiling relative to an acceptable level of use in Kealakekua Bay.

1999 DOBOR draft Hawaii Administrative Rules

DOBOR held numerous meetings with the Kona community members and commercial boating and kayak rental operators during 1999 and 2000 to develop draft amendments to Chapter 13-256, Hawaii Administrative Rules regarding boating and ocean recreation activities in Kealakekua Bay. Proposed amendments included:

- Establishment of a no vessel zone (Zone C) along the base of Pali Kapu O Keoua. SCUBA, snorkeling and swimming are allowed in this zone.

- Establishment of a Zone D within the bay that controls the number of commercial recreational vessels through permitting. A maximum number of permits were to be established and permits specified a maximum capacity for each vessel. These permits also required commercial and rental vessels to have a guide. These permits would apply to manually propelled vessels and kayaks.
- Requiring a permit from DLNR to land at Ka'awaloa from the ocean waters of Kealakekua Bay.
- Requiring that commercial permittees establish an education program that addresses the cultural and natural resources of Kealakekua, the rules pertaining to the protection of these resources, and the ecological significance of the area.

Further action on DOBOR's draft amendments to their Administrative Rules did not occur.

2000 Diver Impacts on coral reef at Kealakekua Bay, Hawai'i

The report by UH Hilo professors Brian Tissot and Leon Hallacher on diver impacts investigated SCUBA diving activities and their effects on Kealakekua Bay during the period 1996-1997. The study compared the incidence of bleached and broken coral in an area of high diver activity to those in an adjacent low diver activity area. The percentages of bleached and broken corals were higher in the high use area but this difference was not statistically significant. The report indicates that divers may be having an impact to the reef but over a one year period these changes are too small to distinguish from natural changes in coral abundance, bleaching and breakage.

2000 DLNR intradepartmental working group

This working group was created by Dickie Nelson, who was the Governor's Liaison in Kona, to address DLNR management issues in Kealakekua Bay. The group, consisting of DLNR Kona staff from DOBOR, DAR and DOCARE, developed management recommendations and proposed rules for the Bay. Discussions by the working group also addressed implementation and enforcement issues associated with these recommendations. Many of the following recommendations were incorporated in DOBOR's draft of their Hawaii Administrative Rules regarding the recreational use of Kealakekua Bay.

- Establish an ocean recreation zone (zone C) where all vessels and commercial activities are prohibited
- Require a commercial activity permit for all commercial activities in other areas (zone D) within Bay
- Prohibit disembarking passengers or vessels operators from Zone D into Zone C
- Prohibit anchoring in Zone D
- Require a permit to come ashore at Ka'awaloa
- Establish a maximum of eight (8) day use moorings on north side of Zone D for kayaks and canoes
- Establish a maximum of three (8) day use moorings on south side of Zone D recreational vessels
- Prohibit all commercial activities other than those conducted from vessels
- Prohibit all commercial activities daily from sunset to sunrise and on Sundays
- Limit number of commercial guided kayak tours to four (4)
- Limit number of people within a guided kayak tour to eight (8)
- Guided kayak tours must reserve use periods via a reservation system and pay a user fee
- Guided kayak tours must shuttle passengers to and from Napo'opo'o landing
- Limit number of commercial off-site kayak rental permits to four (4)
- Limit number of kayaks per off-site rental permit to ten (10)
- Limit number of commercial activity permits for commercial motorized vessels to six (6)
- Limit vessel length of commercial motorized vessels to 30'
- Limit number of passengers per commercial motorized vessel to 20
- Require commercial motorized vessels to tie up to a day-use mooring and turn off engines before disembarking passengers
- All recreational groups exceeding 10 people shall require a special use permit
- Require all commercial activity permittees to establish an educational program

- Existing commercial moorings (2) and vessel owners may maintain their commercial activity and mooring permits until ownership is transferred or the dissolution of the commercial operation

2000 *Comparative Survey of Live Coral Cover at Ka'awaloa, Kealakekua Bay, South Kona, Hawaii to Assess Potential Impacts at a Proposed Kayak Landing Site*

Prepared by Belt Collins (Samantha Whitcraft & David Robichaux) for DLNR, this study found that live coral colonies were potentially impacted at Ka'awaloa by kayakers, swimmers and snorkelers. Impacts to corals were most apparent at the base of the Cook Monument which is used as an entry/exit point for swimmers and snorkelers. Coral survey results indicated that the shoreline at the end of Ka'awaloa Road may be a preferred location for an officially designated kayak landing site. Recommendations also suggested establishing limits on the numbers of people accessing the reef, rotational and periodic closure of the area, establishment of an entry permit system and education of users.

2001 *Commercial Operators Recommendations*

In 2001 the Kealakekua Operators Association consisting of representatives from Captain Zodiac, Sea Quest Ltd., Fairwind and Hawaii Cruises, Pack and Paddle Kayaks, Dolphin Discoveries and Ocean Safaris Kayaks offered the following recommendations to better manage commercial ocean recreation activities within Kealakekua Bay.

- Require commercial activity permits for commercial operators that use the Bay on a regular basis (≥ 4 times/week)
- Establish permit categories: Moored vessels, Drift and kayaks
- Issue a Kealakekua Bay Commercial Use Permit (KBCUP) to all current commercial users (2 moored vessels, 3 kayak companies, 3 drift companies w/ total of 10vessels)
- Do not issue new permits for a period of 3-5 years
- Require decals for all applicable vessels, except moored permittees
- Establish a monthly fee for KBCUP of ½% of gross revenues

- Commercial users who currently have a Kealakekua Bay Mooring Permit shall be exempt from the fee
- Permit commercial users who do not have a KBCUP shall be allowed access to the Bay at times of high surf and strong winds up to a maximum of eight (8) times a year. Such vessels must tie up to a day use mooring before disembarking passengers
- Require KBCUP holders to establish and fund an on-the-water Docent program to be managed by a non-profit, non-governmental organization
- Allow commercial SCUBA and SNUBA activities to continue at present levels
- Permit evening snorkel cruises by written request
- Limit the length of commercial drift vessels to 30'
- Limit the number of commercial drift vessel passengers to 18 per vessel
- Limit the time commercial drift vessels can remain in the snorkeling area to two (2) hours from first entering the Bay
- Require all companies with a Drift Permit to have motors that meet the 2006 EPA requirements
- Create a vessel exclusion zone, no wake zone, no anchor zone
- Install day use moorings and kayak mooring buoy

2001 *Report To The Twenty-First Legislature, 2002 Regular Session, Requesting An Investigation Of The Impacts Of Increased Public Access On Kaawaloa And Kealakekua Bay, Island Of Hawaii*

Senate Concurrent Resolution No. 139 requested the DLNR to conduct an investigation of the impacts of increased public access at Ka'awaloa and Kealakekua Bay. The Resolution recognized the historical and cultural significance of Kealakekua, the diverse marine resources of Ka'awaloa Cove and the recreational opportunities available to hikers, horseback riders, fishermen, boaters and tour operators.

In December 2001 the department submitted a report to the Legislature on activities in Kealakekua Bay that outlined amendments and recommendations for management of the Bay. The consensus of DLNR staff was that the current level of visitation to Ka'awaloa should be

capped and not allowed to increase until current studies and data analysis were completed. Recommendations included:

- Establish a sanctuary where the dolphins rest
- An education program for Bay guests
- A natural and cultural briefing for Bay guests
- Installation of interpretive signage
- Promotion of guided tours
- Vessel exclusion area
- Permits for commercial operators
- Staggered commercial activity
- No landing at Ka'awaloa
- "Ambassador" presence

2002 County of Hawaii General Plan

The County of Hawai'i's General Plan was updated in 2002 and is the policy document for the long-range comprehensive development of the island of Hawai'i. The County places great value in Kealakekua Bay and its surrounding communities and the plan cites specific areas of Kealakekua Bay for special concern and action:

Historic Sites

- Encourage the development of a historic park at Kealakekua Bay and protect historic sites and scenic aspects of the area. Provide a conservation buffer around Kealakekua Bay.

Public Utilities

- Continue to work with the Departments of Health and DLNR to preserve the Class AA water quality of Kealakekua Bay.

Recreation

- Establish buffers on undeveloped lands around Kealakekua Bay to assure preservation of the region's unique environment and cultural resources.

Natural Beauty

- Kealakekua Bay from Ka'awaloa Road and Lower Government Road including Keopuka, Ka'awaloa, Ka'awaloa, and Kealakekua are listed in the Plan as sites of natural beauty in the District of South Kona.

2002 *Hazard Assessment and Recommendations for Napo'opo'o Landing at Kealakekua Bay Island of Hawaii*

Prepared by consultant Ralph Goto for DOBOR, this document briefly outlines the issues of landings and use of the Napo'opo'o wharf and provides several recommendations to improve safety and general use. The recommendations included the installation of interpretative and warning signs, the establishment of a docent program and the development of an emergency response plan.

2003 *Human Activities in Marine Protected – Impact on Substrates Final Report*

This report by Kim Holland and Carl Meyer of the Hawai'i Institute of Marine Biology investigated and compared how human activities such as snorkeling and SCUBA activities affect various MPAs across the state. Kealakekua Bay was one of the four MPAs studied. Within the Bay, Ka'awaloa Cove was the most intensively used area and snorkeling was the dominant activity. The estimated average number of snorkeler per day (283) was substantially higher than at 28 other sites around the world and at any MPA in Hawai'i with the exception of Hanauma Bay MLCD.

The majority (>75%) of substrate contacts observed at Ka'awaloa Cove occurred where shore-based snorkelers entered and exited the water at the monument and kayak landing site. Substrate contact was relatively uncommon even in high use reef habitats presumably because many people simply remain above the bottom without contacting it. The results of the study suggest that the concentration of SCUBA and snorkel activities within these areas does not necessarily exacerbate impact on reef habitats beyond that caused by the simple presence of people in the water column. A single pre-dive briefing has been shown to significantly reduce diver coral

damage in other areas and should be mandatory on all commercial snorkel and SCUBA diving tours within the Bay.

It was also recommended that a significant increase in the number of SCUBA divers visiting Kealakekua be avoided as it will likely result in higher rates of damage to susceptible coral species. At the time of the study the average number of SCUBA divers per day in the Ka'awaloa cove area was slightly less than four (4).

2005 Effects of Human Traffic on the Movement Patterns of Hawaiian Spinner Dolphins, *Stenella longirostris*, in Kealakekua Bay, Hawaii

This Master of Science thesis by Greg Timmel employed theodolite tracking to assess responses of dolphin pods to human traffic within Kealakekua Bay. Data suggest that there has not been any significant change in pod size or Bay occupancy relative to the numbers documented by earlier studies. There is a suggestion that areas occupied by the resting dolphins may have changed somewhat from that of 40 years ago (Doty 1968).

It was observed that when dolphins are present, kayakers spend a significant amount of time following and attempting to observe and interact with them. Small commercial tour vessels likewise often approach the dolphin pod either prior to or after allowing their passengers to snorkel in Kaawaloa cove. Increasing levels of human activity had a limited measurable effect on the movement patterns of the spinner dolphin pods in the Bay. Due to limitations in the study, the author cautions that these results should not be interpreted to mean that human activities in Kealakekua Bay do not have an effect on the spinner dolphins present there. Further work is necessary.

2005 DLNR Kealakekua Bay submittal to the BLNR

The September 23 BLNR submittal addressed a variety of ocean recreation issues and the need to better manage these activities to assure protection of Kealakekua Bay's resources. The recommendations of the submittal focused on the Land Board's priority of protecting natural and cultural resources. Over the years there has been concern that the Bay's resources were being impacted due to increasing human use. There have been a number of attempts to better manage the area in the past and through this submittal DLNR was indicating that it was time to take

action. The submittal included the following recommendations which were subsequently approved by the BLNR.

- Establish a “kapu” area, to be identified as Zone C. The area will be closed to all users and uses.
- Work with kayak operators and community to develop a designated kayak landing site and entry/exit procedures at Ka’awaloa. Develop appropriate signage for the area.
- Prohibit introductory/training SCUBA within Kealakekua Bay.
- Install kayak mooring buoys (within Zone A) near Ka’awaloa for all kayak users, recreational and commercial.
- Investigate and implement culturally appropriate composting facilities, or alternatives, for restroom facilities at Ka’awaloa.
- Construct additional parking on the State Historical Park parcel along Lower Government Road.
- Install ladders at Napo’opo’o Landing for safer ingress/egress for boaters, swimmers, kayakers and other users.
- Initiate, with appropriate partners, a “Makai Watch” program.
- Fund (through commercial fees) an on-site Ranger(s) to help monitor and manage uses and activities.
- Reconvene the intradepartmental working group at least once a year to discuss commercial permits, level and quality of visitation, the status of the resources, and enforcement/management concerns. Incorporate all appropriate DLNR divisions in the discussions and include community representatives, Bay users, cultural practitioners, permittees and others.
- Negotiate permit agreements, with terms less than one year, with commercial kayak operators, that include permit fees of \$5 per guest per day. Permit revenue was to be prioritized as follows:
- Cover costs and expenses related to on-site Ranger(s), kayak mooring buoy maintenance and operation and maintenance of portable toilets. Remaining balance to be divided $\frac{1}{4}$ - $\frac{1}{4}$ - $\frac{1}{4}$ between DAR, DOBOR, Parks and DOCARE.

- Permittees are required to conduct safety and natural & cultural resource briefings at Napo'opo'o Wharf.
- Assess a fee of \$5 per kayak of offsite rental kayaks that are used in the Bay.
- Negotiate permit agreements, with terms less than one year, with commercial drift-in snorkel and scuba operators, that include permit fees of \$3 per guest per day. Permit revenue to be divided as follows: Cover costs and expenses related to on-site ranger(s), kayak mooring buoy maintenance and operation and maintenance of portable toilets, Remaining balance to be divided $\frac{1}{4}$ - $\frac{1}{4}$ - $\frac{1}{4}$ - $\frac{1}{4}$ between DAR, DOBOR, Parks and DOCARE.

Permittees are required to conduct safety and natural & cultural resource briefings prior to guests entering the water at Kealakekua Bay.

- Evaluate existing permit for Fair Wind Cruises and other moorings within the Bay.
- Negotiate with the Hawaii Island Kayak Association to provide daily services at Napo'opo'o wharf including safety and resource briefings, launching/landing assistance, monitoring of wharf use and agency coordination.
- Work with commercial operators to establish an appropriate number of users in the bay at any given time. Monitor and make immediate adjustments to the number of users as necessary to protect resources and mitigate user conflicts.
- Have DLNR report back to the BLNR periodically to update the Board on the status of Kealakekua Bay and, if necessary, provide additional recommendations including amendments to the recommendations proposed in this submittal.
- Any other commercial ocean recreation activity within the Bay is subject to BLNR approval.
- The dispositions and rule changes of these recommendations are contingent upon approval by the Attorney General's Office.
- Work with the SNUBA operator in Kealakekua Bay to develop proper protocols to ensure activities do not negatively impact the Bay's resources.

2005 Community working groups recommendations

In October of 2005 DLNR convened 3 stakeholder working groups to address Kealakekua Bay management issues. The DLNR tasked the groups to identify relevant issues, consider DLNR priorities of use and formulate recommendations with specific action steps. A December 2006 deadline was established for submission of the group's final recommendations. Due to the complexity and contentiousness of the issues and the short timeline, only a few recommendations were offered by the groups. These included:

- Complete the new state parking lot to accommodate commercial and long term parking
- Install ladders (or improve stairs) at the Napo'opo'o wharf for the safety of kayakers and swimmers
- Include all interested parties and stakeholders in the Makai Watch Program
- Prohibit introductory SCUBA classes and diving by non-certified divers
- Establish a "kapu" area to be closed to all users and use.

2006 Ocean Resources Management Plan (ORMP)

A Hawai'i Ocean Resources Management Plan (ORMP) was first developed in 1991 by a multi-agency, cabinet-level council which included private sector and non-governmental representatives. The ORMP set forth guiding principles and recommendations for the State of Hawai'i to achieve comprehensive and integrated ocean and coastal resources management.

The State Legislature adopted the ORMP in 1994 and legislation passed in 1995 designated the Coastal Zone Management (CZM) Program, under the State Office of Planning (OP), as the agency responsible for the overall implementation of the ORMP.

A review of the ORMP was conducted in 1998, revealing a need for a revised ORMP to address declining funds and personnel, changing priorities and new concerns relating to ocean resources management. Chapter 205A-62 of the Hawaii Revised Statutes charges OP with the review and periodic update of the ORMP, as well as coordination of overall implementation of the plan.

The development of the 2006 ORMP involved an extensive outreach and input-gathering process with the participation of various stakeholder groups, governmental agencies and the public over a

period of eighteen months. This culminated in the December 2006 submittal of the revised, updated ORMP to the Hawai'i State Legislature. The updated plan replaces the first ORMP's sector-based approach with an integrated, place-based approach to management of ocean resources, based on land – sea links and the role of human activities and improved collaboration in governance. Each of the primary framing perspectives is accompanied by concrete management goals and strategic actions to address them in five-year implementation phases over the next 30 years. These perspectives include the following:

Perspective 1: Connecting Land and Sea

Strategic actions recommended by the plan include reducing soil erosion and pollutant loads, developing beach management plans and protecting priority coastal areas and communities from coastal hazards.

Perspective 2: Preserving Our Ocean Heritage

Management goals for this perspective emphasize the improvement of coastal water quality, strengthening marine protected area management, enhancing the ability of communities to restore and operate Hawaiian fishponds, and promoting sustainable ocean-based tourism.

Perspective 3: Promoting Collaboration and Stewardship

This perspective highlights the need for community participation in cultural and natural resources management, and the exploration of place-based approaches including traditional principles of the traditional Hawaiian *ahupua'a*.

2007 Archaeological Inventory Survey Report For Proposed Commercial Kayak Tour Permits at Ka'awaloa

Prepared by State Parks in anticipation of the issuance of a limited number of commercial kayak tour permits for Ka'awaloa landings, this report utilized existing archaeological and historical information as well as on-site field work. The field work was aimed primarily at augmenting existing information on known historic properties, evaluating their condition, determining the presence and nature of subsurface cultural features and assessing potential mitigation measures. The report indicated that the inventory survey was able to more explicitly portray the

significance of particular places within the project area and they are still capable of conveying the setting in which significant historical events occurred or important individuals lived. A number of mitigation measures related to kayak tours were proposed and ongoing threats to the site were detailed. Of particular relevance to kayak use is the concern that the integrity of the historic district and its setting could be visually diminished if overly bright colors are used on equipment or if excessive noise is generated by the tours. In addition to the scrape marks left by brightly colored kayaks which deface the traditional landing sites, such visual and auditory effects are sufficient to diminish the ability of a park user to appreciate the cultural and historical significance of Ka'awaloa.

2008 *A multivariate assessment of the coral ecosystem health of two embayments on the lee of the island of Hawai'i.*

This research paper, (Parsons, Walsh, et.al, Marine Pollution Bulletin), was a joint project of the University of Hawai'i Hilo and the Hawai'i Division of Aquatic Resources (DAR). One of the bays examined was Kealakekua Bay. While corals in the bay were found to be, for the most part healthy, the north side of the Bay (Ka'awaloa) exhibited elevated nutrient concentrations and was the most impacted of all sites investigated in the study. While there were statistical relationships that suggested nutrients are playing at least an indirect role in reducing coral cover and health, a bigger concern is that nutrient concentrations have increased dramatically over the last several decades. If coral are being exposed to and affected by chronic stressors, recovery from future acute disturbances might be at risk and it is likely that future degradation is imminent. It is recommended that future management action should focus on reducing nutrient inputs to the Bay in order to lower the risk to the coral ecosystem.

2008 DLNR Integrated Stewardship Project

The overall purpose of this project is to implement the management goals and strategic actions articulated in the 2006 ORMP. Four stewardship management priority areas around the state were selected based on serious management concerns and the potential for DLNR integration of respective resource management functions. In addition to Kealakekua stewardship areas were initiated at Hā'ena State Park (Kaua'i), Ka'ena Point State park (O'ahu) and Ahihi-Kina'u (Maui).

Stewardship Area Purposes

The Department of Land and Natural Resources is mandated to maintain and enhance our natural resources while providing for sustainable use of the land and its resources. Kealakekua Bay watershed management is necessary to maintain and improve the watershed to protect Kealakekua Bay's water quality.

Kealakekua was a culturally significant destination for ancient Hawaiians traveling along the shoreline. It is still being used by Hawaiians of today for travel, commerce and agricultural uses. The landscape is rich in history, and the physical integrity of these features is substantial. The lands that each trail traverses are different in nature. The Old Government Road travels at mid elevation overlooking the sea coast. The Old Cart Road travels along the shoreline and terminates at Kealakekua Bay. Kaawaloa Road intersects all the other trails, creating a pedestrian loop system. By creating a natural setting along these trails, we will preserve the integrity of this historic use for future generations to enjoy. To accomplish this we must conduct archeological inventory surveys, develop and implement interpretive and protective signage, and control access at entry points.

Kealakekua Bay State Historical Park was established to preserve the natural and cultural resources of the bay and surrounding land area for future generations, tell the story of Kealakekua Bay and its role in the development of Hawai'i and its people, develop facilities for public health and safety, and accommodate recreational opportunities that do not conflict with historic park concepts or degrade natural resources within the park boundaries or the bay.

Marine Life Conservation Districts (MLCDs) were introduced to Hawaii in the fall of 1967 with the establishment of the Hanauma Bay MLCD on O'ahu. Kealakekua Bay MLCD was established two years later in 1969. The general purposes of MLCDs are to maintain and restore marine life populations, biodiversity, essential habitat and ecosystem integrity. As stated in a March 13, 1969 DLNR press release, the specific rationale for the Kealakekua Bay MLCD designation was based on the findings of the University of Hawai'i study on the biological and

physical features of Kealakekua Bay (Doty 1968) and the historical significance, esthetic appeal, and academic and scientific values of the Bay. The specific reference to the historical significance of the area is particularly noteworthy and serves to distinguish the Kealakekua Bay MLCDD from other MLCDDs located around the state.

Marine Life Conservation Districts are designed to conserve and replenish marine resources. MLCDDs allow only limited fishing and other consumptive uses, or prohibit such uses entirely. Hawaii's recent history has shown that the state's growing population can have an adverse effect on nearshore fish populations. Protecting this important resource for the enjoyment of future generations is therefore essential. Ideally, management of the resource balances the needs of diverse user groups, while maintaining the welfare of the marine environment on which its inhabitants depend is kept as the most important consideration.

Stewardship Area Values

Effective management of the mauka watersheds provides for more controlled runoff during heavy rains, better timing of water release from the lands above, less siltation and turbidity and improved ground water recharge. Along the way, the trails can provide convenience facilities, safety signage, and cultural interpretation to preserve the integrity of the historic trails. When completed, this trail system would be one of the most significant public access and historic trail opportunities in the State. By creating a natural setting along these trails, we preserve the integrity of this historic use for future generations to enjoy.

Kealakekua is culturally significant as one of the royal centers of Kona associated with important Hawaiian personages and extensive, intact archaeological and historical sites remain at Napo'opo'o and Ka'awaloa from this pre-contact period. It is historically significant as the site of the first extended contact between Western explorers and Hawaiians when the ships Resolution and Discovery under the command of Capt. James Cook sailed into Kealakekua Bay. Other archaeological and historical sites relate to the post-contact history of Kealakekua Bay (missionaries, fishing, ranching, shipping, etc.). It is these historical and cultural values that resulted in the designation of Kealakekua as a historical park.

The journals, maps, drawings, photographs, and archaeological sites provide a wealth of resources for future research about the early settlement of Kealakekua, the social-political center that developed in the 1600s and 1700s when important chiefs lived here, and the social, economic, and religious changes that came with Western contact and evolved into land use patterns evident in the 20th Century. Archaeological and historical research conducted at Kealakekua has only scratched the surface and there is a unique opportunity to learn more about Hawaiian culture at the time of Western contact through additional research. The archaeological resources of Kealakekua include both surface structures and subsurface deposits that must be protected and preserved for their cultural and historical values, research potential, and interpretive opportunities. The management and protection of these resources is critical to insuring that these values are maintained.

The land area of the park provides access to the bay and the significant reef resources at Ka'awaloa Cove. But the bay is also a critical element of the cultural landscape and is part of the history of the place. The large, protected bay provides one of the best anchorages along the western coastline of Hawai'i Island. This made Kealakekua an important economic center in the pre-contact period, as well as a major shipping port in the 1800s and 1900s.

Foot trails linked Kealakekua to the other settlements and royal centers along the Kona Coast. The steppingstone trail along the coast provided a route from Kona to Ka'awaloa Flat. This trail is called the Cart Road, reflecting the modifications made in the 1800s to accommodate horses and carts. Another route with curbed sides ran on the upper slope and over the pali to Napo'opo'o. Now called the Old Government Road, the alignment on the pali has been lost in sections due to ranching and other sections enter private property. A third route ran mauka-makai to connect the uplands of Ka'awaloa and Kealakekua with the settlement at Ka'awaloa Flat. Known as the Ka'awaloa Road, this trail was improved by the missionaries to accommodate horse travel to their mission at Ka'awaloa Flat. Today, these trails provide recreational opportunities within the historical context of the park and the use and maintenance of these trails will be a coordinated effort of State Parks and the Na Ala Hele program.

The physical and scenic resources of the park illustrate the dynamic volcanic and geological history of the leeward slopes of Mauna Loa. Lava flows in the park date between 10,000 and 50,000 years old. The most recent flow is at Ka'awaloa where barren lava is still evident and the shoreline is pahoehoe. The coastline around Kealakekua Bay has been shaped by landslides, tsunami, and surf. The 600-foot vertical pali in the center of the bay is a volcanic scarp created by landslides and wave action. Kealakekua Bay was the site of a submarine volcanic eruption in 1877 that was preceded by a severe earthquake. Lava tube openings are visible in the pali face while other openings have been covered by landslides. Major earthquakes and landslides occurred in 1950, 1951, 1983, and most recently in 2006.

The Kealakekua Bay MLCD provides fish and other aquatic life with a protected area in which populations can increase and individuals can attain full adult size and longevity. Since they are not hunted to any great extent, fishes in most MLCDs are relatively tame and often show little fear of humans. The abundant, diverse and accessible fish populations in the Kealakekua Bay MLCD offer excellent opportunities to see reef fish in more natural, less disturbed, environment and thus make the MLCD an extremely popular site for snorkeling and diving. The MLCD provides opportunities for scientific research, environmental education and compatible marine wildlife viewing activities that foster appreciation, understanding and enjoyment of the Bay's ecosystem. Additionally, enhanced reproductive output and the ranging of fish out of the MLCD's boundaries provide benefits to areas outside the district and to the people who utilize these resources.

The Kealakekua Bay MLCD offers visual beauty, open space, quietude, clean water, abundant marine life, wilderness viewing and public enjoyment of a natural marine environment while also providing insurance against future environmental and anthropogenic changes. Importantly and uniquely, the MLCD sustains and protects the historical, cultural and spiritual values of the area and contributes to the well-being of visitors and the community as a whole.

Stewardship Area Objectives

Kealakekua Bay water quality shall be maintained and enhanced to sustain the Bay's marine ecosystem. Most of Kealakekua Bay watershed is privately owned mandating that we work with the landowners to help manage their lands to sustain the watershed and their interest in the lands. One way is work through the Three Mountain Alliance watershed partnership that includes over 1,000,000 acres of which Kamehameha Schools is a member. This alliance helps members through collaborative efforts to manage their lands for better watershed protection. Kealakekua Ranch membership would help to better manage the watershed. Other objectives include having in place a fire management plan for the Kealakekua Bay watershed with adjacent surrounding lands. A fire plan in place will help to reduce the occurrence of fires and keep fires that do start as small as possible. This will help to maintain a healthy watershed. Having appropriate land zoning rules will help to further protect valuable watershed lands. This would include cave systems to better manage the caves from siltation and other effects.

A managed pedestrian trail system from Hokulia to Kealakekua Bay and back using the Old Government Road, Old Cart Road, and Ka'awaloa Road would provide the exact route that ancient Hawaiians used. Along the way, the trails will provide convenience facilities, safety signage, and cultural interpretation to preserve the integrity of the historic trails. When completed, this trail system would be one of the most significant public access and historic trail opportunities in the State.

Recognizing that Kealakekua is one of the most significant historic sites in Hawai'i, the 218 acres of Kealakekua Bay SHP shall be developed and managed to protect and preserve the cultural and natural resources within the context of the natural and cultural landscape for future generations. The park shall be a place where residents and visitors can come to learn about the historical events that occurred here and experience the sites within a natural and cultural setting that brings this history to life. The historical character of Kealakekua can be preserved through the stabilization and restoration of the cultural sites, the restoration of the historical setting by removing alien vegetation landscaping with native and Polynesian introduced plants, the

establishment of buffers that separate the cultural site from modern facilities, and restrictions on recreational and commercial activities.

To foster the goal of a establishing a visitor experience within a historical setting, interpretive programs and facilities shall be designed to promote an understanding, awareness, appreciation, and respect for these resources and history of Kealakekua. Resource management programs shall be implemented to monitor and assess potential impacts of visitors on the sensitive and unique resources of Kealakekua. Limiting visitor access to sensitive historical areas of the park will promote the long-term protection of these resources. The built environment of the park shall be minimized and facilities shall be designed to accommodate desired levels of visitation. Structures shall be designed to enhance the historical setting which might involve the reconstruction of historical buildings such as the Gaspar Coffee Mill and Hackfeld Store at Napo'opo'o and the Barrett Hotel at Ka'awaloa.

The park shall be preserved, interpreted, and managed within the larger context of Kealakekua Bay and the surrounding land area to maintain a sense of place. Preserving and maintaining the cultural landscape and historical setting of Kealakekua shall be a primary consideration for all the divisions of DLNR and a concerted effort must be made by all divisions to integrate planning, development, and management of the Kealakekua management area.

Recreational uses of the park and bay shall be evaluated in the context of the cultural landscape and historical setting. As a historical park, the recreational uses of the park shall only be promoted when they complement the historical setting and do not pose an adverse effect to the cultural resources. Whenever possible, alternative sites for recreational activities shall be sought. Commercial operations and concessions in the park shall only be permitted when they assist with the implementation of park programs and meet visitor needs that cannot be addressed through another venue.

Park programs and facilities shall be developed to promote public health and safety. Facilities shall be designed and located to complement the historical setting and not impose on the view

planes that are critical to interpreting the cultural and natural history of Kealakekua. Safety zones and no build areas shall be designated within the park and adjacent areas of the bay as required by the geological nature of Kealakekua, including natural hazards such as rock fall and tsunami.

Recognizing that the park is located within a small residential community that has a long history and many families have ties to the place that go back many generations, the potential impacts of park development and visitation on the community shall be assessed and mitigated. Concerns such as traffic, parking, and recreation become major community issues when a variety of activities and land uses are confined to a small area with limited infrastructure. Mitigation measures shall be taken to minimize the impacts to the community to the greatest extent possible.

Kealakekua Bay Marine Life Conservation District shall be managed to protect, enhance and emphasize a native healthy marine ecosystem in which recreational, land and commercial activities are kept at a level that do not have deleterious effects on the Bay. The conservation of the area's historical, cultural and natural resources will be the highest management priority. If general public use can be accommodated without undue damage to the resources, it shall be given the next priority. Commercial activities will only be considered if their impacts do not impinge on the Bay's resources or use by the general public.

The historical significance and biological integrity of Kealakekua Bay shall be restored and maintained to strengthen community identity and stewardship. Kealakekua Bay's aquatic resources will be managed as a legacy for future generations, to be treasured, in perpetuity, by a community that appreciates and protects its historical inheritance and valuable natural resources.

Kealakekua Bay will be a model for marine ecosystem sustainability, conservation and management by using sound conservation principles coupled with the application of the precautionary approach when available information is deficient or lacking. The Bay's marine ecosystem health will be restored, maintained and protected at a level that allows the Bay to be

resilient in the event of natural disturbances and to recover from the impacts of prior human usage.

Kealakekua Bay shall be managed with an ecosystem approach to protect essential marine habitat, diverse natural gene pools and resident aquatic organisms from invasive species, disease and other unforeseen anthropogenic and natural impacts. Marine flora and fauna, habitats and water quality will be maintained in a natural non-degraded condition to support a healthy ecosystem. The Bay will be managed to ensure the environment maintains the ability to act as a nursery and to provide refuge for fish and other marine life to become abundant and to grow large thus increasing spawning stock biomass, enhancing the production of offspring and creating a spillover effect to improve fish populations in adjacent areas. The Bay will be managed to include all essential fish habitats and ranges of highly mobile reef organisms and serve as a marine biological reference site.

Management regulations will be appropriate, easily understood, effectively enforced, and will enhance resource protection. Kealakekua Bay will have a zoning scheme and reservation system that will respect and preserve the fragile nature of this marine ecosystem while reducing vessel traffic, minimizing conflict between commercial and public users and enhancing vessel operational safety. Only the highest quality nature appreciation and recreational opportunities that are visually unobtrusive and compatible with ecosystem protection and cultural history will be sanctioned. All use will be ecologically sustainable and conducted in a way that eliminates resource depletion and prevents over-use of this public trust resource. The Bay will provide opportunities for scientific research, environmental education and compatible marine wildlife-dependent recreational activities that foster appreciation, understanding and enjoyment of the Bay.

Development around Kealakekua Bay shall follow best environmental management practices and be designed to respect and protect the cultural and biological integrity of the marinescape features that are of historic significance. Changes in land use shall not impact the Bay, must

protect mauka watersheds from contaminants and preserve important marine scenic vistas and corridors.

Overall, the objective of the Kealahou Bay Marine Life Conservation District, a globally significant historical and biological marine resource, is to preserve a unique region to be passed on to future generations as it should be – an outstanding part of Hawaii’s biological and cultural heritage cared for by Hawaii’s people for the benefit of all.

Stewardship Area Problems & Recommendations

I) PROBLEM: Need mechanism to manage watersheds on privately owned lands

Recommendation:

1. Work through the Three Mountain Alliance to add Kealakekua Ranch to the watershed working group to help them better manage their lands through collaborative efforts of the Alliance. IM (= Immediate implementation).

II) PROBLEM: Need to have lower private watershed management area lands better managed

Recommendations:

1. Work with local Natural Resources Conservation Service and Soil and Water Conservation to contact landowners on agriculture lands to assist with land management. 1-2 Yrs. (Implementation).
2. Meet with the County of Hawaii Planning Department to see how land use rules can be modified to better protect the watershed on these privately owned parcels and see what can be done to better protect our cave systems. 1-2 Yrs.
3. Hire planner to work with County Planning Department, DOFAW and legislature to support Three Mountain Alliance Efforts. 1-2 Yrs. \$65,000.
4. Develop fire management plan for the Kealakekua Bay watershed and all adjoining lands and contract out plan. 1-2 Yrs. \$30,000.
5. Hire ground crew to help private land owners do the watershed work through the Three Mountain Alliance which may include fence construction and invasive species control. 1-2 Yrs. Budget: 1st year \$100,000 and 2nd year \$60,000.

III) PROBLEM: Need more manpower on the ground to do the field work

Recommendation:

1. Develop additional work crew to do the watershed management activities such as invasive species control, fire break establishment, trail management, fencing and habitat restoration. This would be a crew of four with vehicle and operational expenses. 3-5 Yrs. 1st year \$250,000 with 2nd and 3rd years \$200,000.

IV) PROBLEM: Need to keep watershed management work effort going

Recommendation:

1. Continue funding crew to carry on the watershed management projects needed for the area. LT. \$200,000 per year

V) PROBLEM: Final documentation and sustainable management of the Old Government Road (OGR), Old Cart Road (OCR) and the Ka’awaloa Road.

State ownership of trails is subject to the Highways Act of 1892 and agreement by the respective private landowners. The State has confirmed public ownership of the OGR and OCR in both TMK: 8-1-7-45 (Coupe) and TMK: 8-1-7-55, 54 (Keopuka). Unlike many other historic trails, both the OCR and OGR are depicted on the TMK maps from Hokulia to Ka’awaloa flats – further documenting government ownership. Additionally:

- Keopuka (Pacific Star Company) acknowledged public ownership of the OGR in July 25, 2000 during the proposed subdivision of the Keopuka Land Project and the OCR in 2006 when the lower portion of the parcel was placed under a conservation easement (Hawaiian Island Land Trust).
- The Coupe family has been notified of public ownership in two letters dated August, 2007 and a subsequent phone discussion on public use of the OCR and OGR.
- Ka’awaloa road qualifies as a government road but the upper section that provides the only vehicular access to homes and property may still be considered an unimproved County road.

Recommendations:

1. Conduct and document a field survey of cultural and archaeological resources in conjunction with Na Ala Hele (NAH), State Parks (SP) and Historic Preservation staff. Clarify the historic width of the trails that may be claimed by the State. IM.
2. Conduct a metes and bounds survey to document ownership of the trails in perpetuity and thus eliminate legal ambiguity associated with location. IM.
3. Execute two Quitclaim Deeds (QD) acknowledging the State's interest and signed by respective private landowners. Note: Quitclaim Deeds may need to reflect the need for easements for the adjacent private landowners. 1-2 Yrs.
4. Coordinate with the County to confirm if the entire portion of the Ka'awaloa road falls under DLNR jurisdiction or have DLNR assume legal interest at some point makai. Note: This may require a third QD.
5. Discuss and confirm with SP placing the portion of Ka'awaloa road that connects the OGR to the OCR under NAH jurisdiction for regulatory and management purposes. If feasible this section should also be non-motorized except for management and emergency vehicles. IM.
6. Upon completion of the above tasks trail management from Hokulia to Kealakekua Bay should be initiated to include trail improvement, directional, interpretive and safety signage. LT.

VI) PROBLEM: Limited staffing to manage trail resources and provide resident and visitor services

Recommendations:

1. Coordinate archaeological inventory surveys of Old Government Road (OGR), Old Cart Road (OCR), and Ka'awaloa Road with State Park's or HP archaeologists and collaborate on a cultural resource management plan as needed. 1-2 Yrs.
2. Amend the SP Master Plan for this area to include planning services necessary for the OCR, OGR and Ka'awaloa road. IM.
3. Conduct a metes and bounds survey of the OCR and OGR and as needed of the Ka'awaloa road. IM.

4. Eliminate motorized access except for management and emergency vehicles on Ka'awaloa Road. IM.
5. Determine if either commercial or public equestrian use is acceptable on these roads and regulate if necessary. IM.
6. In coordination with Land Division execute QD's with landowners and add features to NAH jurisdiction via BLNR approval. IM.
7. Hire a "Trail Technician" for trail maintenance and upkeep. LT. \$10,000/yr.

VII) PROBLEM: Lack of directional signs and interpretive devices

Recommendations:

1. Install interpretive signs identifying trailheads and direction of travel in/out of Kealakekua Bay. 1-2 Yrs. \$2,000.
2. Work with County to install signage for directing hikers and explaining rules and regulations. IM. \$1,000
3. Install interpretive signs that share the cultural history & promote respect for the cultural sites at Napo'opo'o and Ka'awaloa. Signs are recommended at Hikiau Heiau, Ka'awaloa Flat, and Puhina O Lono Heiau. 1-2 Yrs. \$8,000.
4. Install interpretive kiosk with visitor orientation information at developed park at Napo'opo'o. 1-2 Yrs. \$15,000.
5. Work with County to place directional signs along roadways to the park. 1-2 Yrs. \$1,500.
6. Relocate park name sign at Napo'opo'o and, using existing sign, install park name signs along Ka'awaloa Road and Cart Road (entry points to Ka'awaloa). 1-2 Yrs. \$1,500.
7. Install regulatory signs at Napo'opo'o and Ka'awaloa. IM. \$500.

VIII) PROBLEM: Limited staffing to manage park resources and provide visitor services

Recommendations:

1. Initiate an archaeological inventory survey of Ka'awaloa by State Parks archaeologists with assistance by Halemua, the curator organization. 1-2 Yrs. \$37,500 for each of 2 years.
2. Develop and implement a resource monitoring program for State Historical Park. IM.

3. Discontinue all motorized and non-motorized vessel landings (including kayaks) and post “no landing without special use permit” signs (as per HAR §13-146-13) along the Ka’awaloa shoreline. IM. Note: Commercial guided tour landings may be permitted at some future time when infrastructure and facilities are in place and in accord with Park Master Plan.
4. Conduct educational campaign to inform users and kayak rental operators of no landing rule at Ka’awaloa. IM.
5. Eliminate Ka’awaloa landing provision for two pending commercial guided kayak tour permits. IM.
6. Fill the existing “Park Ranger” position. 1-2 Yrs. \$42,000 salary/fringe and \$15,000 equipment.
7. Establish a second “Park Ranger” position. 1-2 Yrs. \$42,000 salary/fringe and \$15,000 equipment.

IX) PROBLEM: Lack of sanitation facilities at Ka’awaloa

Recommendations:

1. Purchase and install a composting toilet at Ka’awaloa. 1-2 Yrs. \$150,000.
2. Request DOH regularly monitor water quality at Ka’awaloa Cove. IM.
3. Request a second caretaker position for Kealakekua Bay SHP. 1-2 Yrs. \$45,000 salary/fringe and \$65,000 equipment and vehicle.

X) PROBLEM: Traffic congestion and lack of parking at Napo’opo’o

Recommendations:

1. Request funding for striping and bollards to designate parking stalls at the end of Napo’opo’o Beach Road. 1-2 Yrs. \$15,000.
2. Design parking lot for 50 cars as part of the park plan and EIS with entry off the Lower Government Road. 3-5 Yrs. \$300,000.
3. Retain parking at Napo’opo’o Wharf until other parking options are available. IM.

XI) PROBLEM: Uncontrolled access to State Historical Park

Recommendations:

1. Install a gate on the Cart Road at the Ka'awaloa-Keopuka boundary. 1-2 Yrs. \$10,000.
2. Install a gate on the Ka'awaloa Road at the *mauka* park boundary. 1-2 Yrs. \$10,000.

XII) PROBLEM: Degradation of significant cultural resources

Recommendations:

1. Restore the pond at Napo'opo'o. 3-5 Yrs. \$150,000.
2. Remove and relocate the waterline, plumbing and pipes alongside Hikiau Heiau. IM. \$2,500.
3. Initial vegetation trimming and selective removal to protect cultural sites from damage due to roots and falling branches. 1-2 Yrs. \$100,000.
4. Establish and maintain adequate buffers around the cultural sites. 1-2 Yrs.

XIII) PROBLEM: Lack of a park master plan and EIS for development

Recommendations:

1. Prepare a park master plan and EIS. 1-2 Yrs. \$500,000.
2. Prepare phased development plans for the various sections of the park, design facilities proposed in Phase I of the plan, and request construction funds. 3-5 Yrs. \$2,000,000.

XIV) PROBLEM: Concerns for public health and safety in the park

Recommendations:

1. Erect Act 82 signs along Ka'awaloa Road. IM.
2. Prepare a fire protection plan. 1-2 Yrs.
3. Establish procedures for emergency medical response. IM.

XV) PROBLEM: Poaching in MLCD and lack of oversight, supervision and enforcement in MLCD, adjoining State Historical Park and at Napo'opo'o wharf

Recommendations:

1. Create a Bay Ranger program, funded by commercial ocean recreation fees, to provide oversight of the Stewardship Area. IM, \$45,000 each Ranger salary/fringe, \$25,000 supplies/equipment. Note: This is a BLNR recommendation of 9/23/05.
2. Utilize commercial ocean recreation user fees for expenses related to the Bay Ranger program and other direct management expenses in the Bay(s). IM.
3. Create legislatively mandated subaccount at DOBOR to manage user fee revenue for Bay Ranger program. IM.
4. Bay Rangers should have flexible working hours (including some night hours) and have enforcement capability (e.g. volunteer DOCARE officer, issuance of warning slips). IM.
5. Institute per person fee of \$5 for commercial kayak operations to support Bay Ranger program and other direct management expenses in the Bay(s). IM. Note: This is a BLNR recommendation of 9/23/05.
6. Institute per person fee of \$5 for all other commercial ocean reaction operations (drift snorkel/Fairwind, etc.). IM. Note: BLNR recommendation of 9/23/05 was for \$3 fee per person
7. Close Subzone A of the Kealakekua Bay MLCD and Ka'awaloa State Historical Park section from 1 hour after sunset to sunrise. Entries during these times by DLNR special use permit only. IM.
8. Restrict vehicle access by installing gate on road and trail leading into Ka'awaloa. IM.
9. Periodic patrols of Stewardship Area by DOCARE via vehicle, vessel and at night. IM.
10. Work with County and private land owners to request easement to ensure DOCARE and State Parks have ready land access to Ka'awaloa. IM.
11. Conduct educational/outreach program regarding fishing/MLCD rules for recent immigrant groups (e.g. Micronesians). IM.

XVI) PROBLEM: Possession of prohibited fishing gear in MLCD, enforcement hampered by HAR limitations

Recommendation:

1. Amend Kealakekua Bay MLCD HAR, specifically §13-29-2, to prohibit the possession of any prohibited fishing gear within Subzones A and B and on the immediate shoreline adjacent. Fishing gear on any vessels entering MLCD must either be stowed or unrigged (i.e. no terminal tackle on rods). IM.

XVII) PROBLEM: Possession of bang stick, power head or CO₂ injector within MLCD permitted by HAR

Recommendation:

1. Amend Kealakekua Bay MLCD HAR, specifically §13-29-3, by removing these items from permitted activities. IM.

XVIII) PROBLEM: Inexperienced SCUBA and SNUBA divers impacting corals especially in high use areas

Recommendations:

1. Amend Kealakekua Bay MLCD HAR, specifically, to prohibit introductory/training or uncertified SCUBA diving in Subzone A. This is a BLNR recommendation of 9/23/05. 1-2 Yrs.
2. Work with SNUBA operator to develop operational guidelines and protocols. This is a BLNR recommendation of 9/23/05. IM.
3. Limit SNUBA to a single permitted operator. IM.

XIX) PROBLEM: Disturbance and harassment of spinner dolphins in resting area

Recommendations:

1. Amend HAR §13-29-1, §13-29-2, §13-244-30 and add §13-256-165 to establish a no entry “kapu” area, to be identified as Zone C. This is a BLNR recommendation of 9/23/05. IM.

2. Base coordinates for “kapu” area upon the 11/30/2005 working group’s recommendations with slight modifications to accommodate swim lane and earthquake buoys. IM.
3. Establish a “kapu area” swim lane of 5m width just makai of earthquake buoys. IM.

XX) PROBLEM: Non-commercial (i.e. personally owned) kayak activities resulting in habitat impacts, and incompatibility and diminishment of historical and cultural values

Recommendations:

1. Register non-commercial kayaks with DOBOR for use in the Kealakekua Bay MLCD. Kayak owners must, agree to conditions of entry and use and affix a numbered Kealakekua Bay MLCD decal to the kayak. IM.
2. Limit registration of non-commercial kayaks to one per person and registration is nontransferable. IM.
3. Non-commercial kayaks with MLCD decals must be reregistered if ownership is transferred. IM.
4. Prohibit the rental of non-commercial kayaks with a Kealakekua Bay MLCD decal to other individuals for entry into the MLCD. IM.
5. Discontinue all kayak landings and post “no landing without special use permit” signs (as per HAR §13-146-13) along the Ka’awaloa shoreline. IM. Note: Non-commercial kayak landings may be permitted at some future time when infrastructure and facilities are in place and in accord with Park Master Plan. IM.
6. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
7. Close Subzone A of the Kealakekua Bay MLCD and Ka’awaloa State Historical Park section to all use from 1 hour after sunset to sunrise. Entries by DLNR special use permit only. IM.
8. Permit only Hawaiian style outrigger canoes to enter Subzone A of the MLCD After January 1, 2018. Note: A similar provision is presently in effect for the Manele-Hulopoe MLCD on Lāna’i (HAR §13-244-35). LT.

XXI) PROBLEM: Commercial kayak activities resulting in overuse, habitat impacts, area dominance and incompatibility and diminishment of historical and cultural values. Note: Commercial kayaks include those in guided tours and those rented from other individuals or legal and illegal businesses.

Recommendations:

1. Entry into Subzone A of the MLCD of permitted commercial kayak companies *only* by means of a guided tour. IM.
2. Require all commercial guided tour kayaks to have a Kealakekua Bay MLCD decal or other distinctive markings as specified by DLNR. IM.
3. Issue commercial guided kayak tour permits only to companies meeting DLNR qualifications relating to revocable permits for commercial kayak tour operations. IM.
4. Limit each commercial guided kayak tour to a maximum of 8 customer kayaks and 1 guide kayak with a maximum of 13 people total. IM.
5. Develop and implement an on-line reservation system for commercial kayak guided tour time slots. After establishment of the on-line reservation system only commercial guided kayaks tours will be permitted within the MLCD. IM.
6. Limit number of permitted commercial guided kayak tours to a total of four (4) tours for each of two (2) 3 ½ hour time slots (7AM-10:30AM and 11AM-2:30PM). Maximum number of commercial guided tour kayaks in the Bay at any one time will thus be 36 with up to 52 associated people. IM.
7. Assess each commercial guided kayak tour customer a \$5 Environmental Management Charge (EMC), payable at the time of reservation, to support the Bay Ranger program and associated Bay(s) management costs. (12X\$5=\$60/reservation). IM.
8. Prohibit commercial guided kayak tours within the MLCD on weekends or state holidays. IM.
9. Discontinue all commercial guided tour kayak landings and post “no landing without special use permit” signs (as per HAR §13-146-13) along the Ka’awaloa shoreline. IM. Note: Commercial guided kayak tour landings may be permitted at some future time when infrastructure and facilities are in place and in accordance with Park Master Plan.

10. Commercial guided kayak tour permits shall contain provisions to ensure safety of passengers and minimize impacts to the Bay and State Historical Park. An orientation briefing shall be required. IM.
11. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
12. Passengers of commercial guided kayak tours must be shuttled to and from the launching area at Napo'opo'o wharf. IM.
13. Continue and strengthen cooperative agreement with Kayak Alliance of the Islands (KAI) to provide wharf attendant program at Napo'opo'o wharf. IM.
14. Close Subzone A of the MLCD and Ka'awaloa State Historical Park section at night to all use. Entries by DLNR special use permit only. IM.
15. Permit only manually propelled Hawaiian outrigger canoes to enter Subzone A of the MLCD after January 1, 2018. Note: A similar provision is presently in effect for the Manele-Hulopoe MLCD on Lāna'i (HAR §13-244-35). LT.

XXII) PROBLEM: Non-commercial (i.e. personally owned) vessel activities contributing to area overuse, habitat impacts, incompatibility and diminishment of historical and cultural values

Recommendations:

1. Non-commercial vessel users wishing entry into the MLCD must register the vessel with DOBOR, agree to conditions of entry and use and affix a numbered non-commercial Kealakekua Bay decal to their vessel. IM.
2. Only one non-commercial vessel can be registered by its owner and registration is nontransferable. IM.
3. Non-commercial vessels with MLCD decals must be reregistered if ownership is transferred. IM.
4. Non-commercial vessels shall not be rented to other individuals for entry into the Kealakekua Bay MLCD. IM.
5. Establish a no entry zone for motorized vessels fronting Ka'awaloa cove and Cook's monument. IM.

6. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
7. Close Subzone A of the MLCD and Ka'awaloa State Historical Park section are at night for all use. Entries by DLNR special use permit only. IM.
8. Prohibit anchoring in Subzone B of MLCD. IM.
9. Permit only Hawaiian style outrigger canoes to enter the MLCD After January 1, 2018. Note: A similar provision is presently in effect for the Manele-Hulopoe MLCD on Lāna'i (HAR §13-244-35). LT.

XXIII) PROBLEM: Commercial snorkel vessel (aka drift-in vessel) activities resulting in overuse, habitat impacts, area dominance and incompatibility and diminishment of historical and cultural values

Recommendations:

1. Entry into the MLCD by commercial snorkel vessels allowed *only* by DOBOR permit. IM.
2. Limit number of permitted commercial snorkel vessels to a total of four (4) vessels for each of three (3) two (2) hour time slots (8:30AM-10:30AM, 11AM-1PM and 1:30PM-3:30PM). There will thus be a maximum of 12 commercial snorkel vessels permitted per day. IM.
3. Time slots will be secured via an on-line pre-paid reservation system. IM.
4. Limit commercial snorkel vessels to a maximum length of 30' and maximum passenger carrying capacity of 18. The maximum number of commercial snorkel vessels in the Bay at any one time will be 4 vessels carrying a maximum of 72 customers.
5. Commercial snorkel vessels must utilize one of the two dedicated moorings to be installed west of Captain Cook's Monument. Drifting is not permitted. Rafting of two vessels on one mooring will be standard practice. Mooring buoys can be used by the public on weekends and holidays. 1-2 Yrs. \$\$.
6. Establish a no motorized vessel entry zone directly offshore of Cook's monument (Exceptions for management and emergency vessels).
7. Prohibit landing onshore at Ka'awaloa for commercial snorkel customer. IM.

8. Commercial snorkel vessel permits will contain provisions to ensure safety of customers and minimize impacts to the Kealakekua MLCD and State Historical Park. An orientation briefing is required. IM.
9. Assess each commercial snorkel customer a \$5 Environmental Management Charge (EMC) to support the Bay Ranger program and associated Bay(s) management costs. IM.
10. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
11. Prohibit other commercial vessels carrying customers for hire (e.g. Charter fishing vessels) to enter MLCD. IM.
12. Prohibit commercial snorkel operations within the MLCD on weekends or state holidays. IM.
13. Close Subzone A of the MLCD and Ka'awaloa State Historical Park section at night for all use. Entries by DLNR special use permit only. IM.
14. Prohibit anchoring in Subzone B of MLCD. 1-2 Yrs.
15. Permit only Hawaiian style outrigger canoes to enter the MLCD After January 1, 2018. Note: A similar provision is presently in effect for the Manele-Hulopoe MLCD on Lāna'i (HAR §13-244-35). LT. At that time the dedicated moorings will be removed. LT.

XXIV) PROBLEM: Commercial Fair Wind vessel activities resulting in overuse, habitat impacts, area dominance and incompatibility and diminishment of historical and cultural values. Lack of coral recovery in area surrounding existing dedicated mooring

Recommendations:

1. Relocate existing mooring out of Ka'awaloa cove to new location approximately 50 yds. south of present location. IM. \$\$.
2. Prohibit landing onshore at Ka'awaloa for Fair Wind customers. IM.
3. Assess each Fair Wind customer a \$5 Environmental Management Charge (EMC) to support the Bay Ranger program and associated Bay(s) management costs. IM.
4. Eliminate Fair Wind's ½% of gross revenue requirement in lieu of the \$5 per passenger EMC. IM.

5. Include provisions in the CDUP to limit number of SCUBA divers, minimize impacts to the Bay and address safety concerns. Require an orientation briefing. IM.
6. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
7. Limit the size of possible Fair Wind replacement vessel to present size and customer capacity. IM.
8. Prohibit commercial use of dedicated mooring on weekends or state holidays. IM.
9. Close Subzone A of the MLCD and Ka'awaloa State Historical Park section at night for all use. Entries by DLNR special use permit only. IM.
10. Permit only Hawaiian style outrigger canoes to enter the MLCD After January 1, 2018. Note: A similar provision is presently in effect for the Manele-Hulopoe MLCD on Lāna'i (HAR §13-244-35). At that time the dedicated mooring will be removed. LT.

XXV) PROBLEM: Reef habitat degradation by snorkelers and divers

Recommendations:

1. Amend Kealakekua Bay MLCD HAR, §13-29-2, to specifically prohibit standing on the bottom anywhere within Subzone A of the MLCD except for the designated kayak landing site as denoted in DLNR special use permit. IM.
2. Based upon the findings of Holland & Meyer's 2003 study, limit the number of commercial SCUBA divers in Subzone A of the Kealakekua Bay MLCD to 4 per day.
3. Prohibit commercial SCUBA or snorkeling activities on weekends and state holidays. IM.
4. Close Subzone A of the MLCD and Ka'awaloa State Historical Park section at night for all use. Entries by DLNR special use permit only. IM.

XXVI) PROBLEM: Discord and conflict at Napo'opo'o Wharf regarding commercial ocean recreation activities and commercial solicitation

Recommendations:

1. Enforce existing requirement for all commercial kayak operators (including rental kayaks) launching from wharf to have a DOBOR permit. IM.

2. Work with County to stop existing illegal commercial kayak rental operations in residential and agricultural areas in the Kealakekua Bay Stewardship Area. IM
3. Limit all commercial kayak activity (including use of individual rentals) to guided tours only. IM.
4. Prohibit all commercial activities and solicitation on wharf. IM.

XXVII) PROBLEM: Safety concerns for swimmers and kayakers at Napo'opo'o Wharf

Recommendations:

1. Renovate ocean access area of wharf. IM. \$.
2. Install swim ladder(s) at wharf as per BLNR 9/23/05 recommendation. 1-2 Yrs. \$.
3. Install interpretative signage at wharf to inform users and provide safety information. Utilize standardized warning signs wherever possible. IM. \$2000.
4. Utilize Kayak Alliance of the Islands (KAI) members, neighborhood watch members and Makai watch volunteers to act as docents at Napo'opo'o wharf and beach. IM.
5. Develop an emergency response plan for volunteer first responders, provide emergency telephone or radios for EMS notification, and provide basic on-site life saving and first aid equipment and supplies. IM. \$.

XXVIII) PROBLEM: Discord and conflict at Honaunau regarding overuse and commercial ocean recreation activities

Recommendations:

1. Prohibit commercial ocean recreation activities within Honaunau Bay. IM.
2. Prohibit anchoring within Honaunau Bay. IM.
3. Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals. IM.
4. Work with County to address parking issues on shoreline road adjacent to the bay and limit parking to residents and boat trailer parking only. IM.

XXIX) PROBLEM: Rules pertaining specifically to Kealakekua Bay and Adjoining State Historical Park are difficult to access and are located in multiple Divisions’

Administration Rules

Recommendation:

1. Consolidate all Administrative Rules pertaining specifically to Kealakekua Bay and SHP in a single Administrative Rule. Produce a booklet outlining the rule provisions.

Kealakekua Stewardship Area Management Priorities

I. RECOMMENDED ACTIONS THAT CAN BE DONE NOW – NO MONEY NEEDED		
	Problem	Rank
Create a Bay Ranger program, funded by commercial ocean recreation Environmental Management Charges (EMC), to provide oversight of the Stewardship Area	XV	1
Discontinue all motorized and non-motorized vessel landings (including kayaks) and post “no landing without special use permit” signs (as per HAR §13-146-13) along the Ka’awaloa shoreline P = DLNR permit related activity	VIII	2
Work with County to stop existing illegal commercial kayak rental operations in residential and agricultural areas in the Kealakekua Bay Stewardship Area	XXVI	3
Assess each commercial guided kayak tour customer a \$5 Environmental Management Charge (EMC), payable at the time of reservation, to support the Bay Ranger program and associated Bay(s) management costs P	XXI	4
Assess each commercial snorkel customer a \$5 Environmental Management Charge (EMC) to support Bay Ranger program and associated Bay(s) management costs P	XXIII	5
Enforce existing requirement for all commercial kayak operators (including rental kayaks) launching from Napo’opo’o wharf to have a DOBOR permit P	XXVI	6
Assess each Fair Wind customer a \$5 Environmental Management Charge (EMC) to support the Bay Ranger program and associated Bay(s) management costs P	XXIV	7
Prohibit all commercial activities and solicitation on Napo’opo’o wharf	XXVI	8

Amend Kealakekua Bay MLCD HAR, specifically §13-29-2, to prohibit the possession of any prohibited fishing gear within Subzones A and B and on the immediate shoreline adjacent. Fishing gear on any vessels entering MLCD must either be stowed or unrigged (i.e. no terminal tackle on rods)	XVI	9
Close Subzone A of the Kealakekua Bay MLCD and Ka'awaloa State Historical Park section from 1 hour after sunset to sunrise. Entries at night by DLNR special use permit only P	XV	10
Eliminate Ka'awaloa landing provision for two existing commercial guided kayak tour permits P	VIII	11
Utilize Kayak Alliance of the Islands (KAI) members, neighborhood watch members and Makai watch volunteers to act as docents at Napo'opo'o wharf and beach	XXVII	12
Eliminate motorized access except for management and emergency vehicles on Ka'awaloa Road	VI	13
Conduct educational campaign to inform users and kayak rental operators of no landing rule at Ka'awaloa P	VIII	14
Continue and strengthen cooperative agreement with Kayak Alliance of the Islands (KAI) to provide wharf attendant program at Napo'opo'o wharf	XXI	15
Prohibit the rental of non-commercial kayaks with a Kealakekua Bay MLCD decal to other individuals for entry into the MLCD	XX	16
Amend HAR §13-29-1, §13-29-2, §13-244-30 and add §13-256-165 to establish a no entry "kapu" area, to be identified as Zone C	XIX	17
Register non-commercial kayaks with DOBOR for use in the Kealakekua Bay MLCD. Kayak owners must, agree to conditions of entry and use and affix a numbered Kealakekua Bay MLCD decal to the kayak	XX	18
Commercial guided kayak tour permits shall contain provisions to ensure safety of passengers and minimize impacts to the Bay and State Historical Park. An orientation briefing shall be required P	XXI	19
Work with local Natural Resources Conservation Service and Soil and Water Conservation to contact landowners on agriculture lands to assist with land management	II	20
Create legislatively mandated subaccount at DOBOR to manage EMC revenue for Bay Ranger program	XV	21
Entry into MLCD by commercial snorkel vessels allowed <i>only</i> by DOBOR permit P	XXIII	22
Work with County to address parking issues on shoreline road adjacent to the bay and limit parking to residents and boat trailer parking only	XXVIII	23

Work with County and private land owners to request easement to ensure DOCARE and State Parks have ready land access to Ka'awaloa	XV	24
Prohibit landing onshore at Ka'awaloa for Fair Wind customers P	XXIV	25
Work through the Three Mountain Alliance to add Kealakekua Ranch to the watershed working group to help them better manage their lands through collaborative efforts of the Alliance	I	
Meet with the County of Hawaii Planning Department to see how land use rules can be modified to better protect the watershed on these privately owned parcels and see what can be done to better protect our cave systems	II	
Conduct and document a field survey of cultural and archaeological resources in conjunction with Na Ala Hele (NAH), State Parks (SP) and Historic Preservation staff.	V	
Conduct a metes and bounds survey to document ownership of the trails in perpetuity and thus eliminate legal ambiguity associated with location	V	
Clarify the historic width of the trails that may be claimed by the State	V	
Execute two Quitclaim Deeds (QD) acknowledging the State's interest and signed by respective private landowners	V	
Coordinate with the County to confirm if the entire portion of the Ka'awaloa road falls under DLNR jurisdiction or have DLNR assume legal interest at some point makai	V	
Discuss and confirm with SP placing the portion of Ka'awaloa road that connects the OGR to the OCR under NAH jurisdiction for regulatory and management purposes	V	
Upon completion of the above tasks trail management from Hokulia to Kealakekua Bay should be initiated to include trail improvement, directional, interpretive and safety signage	V	
Coordinate archaeological inventory surveys of Old Government Road (OGR), Old Cart Road (OCR), and Ka'awaloa Road with State Park's or HP archaeologists and collaborate on a cultural resource management plan as needed	VI	
Amend the SP Master Plan for this area to include planning services necessary for the OCR, OGR and Ka'awaloa road	VI	
Conduct a metes and bounds survey of the OCR and OGR and as needed of the Ka'awaloa road	VI	
Determine if either commercial or public equestrian use is acceptable on these roads and regulate if necessary	VI	
In coordination with Land Division execute QD's with landowners and add features to NAH jurisdiction via BLNR approval	VI	

Develop and implement a resource monitoring program for State Historical Park	VIII	
Initiate an archaeological inventory survey of Ka'awaloa by State Parks archaeologists with assistance by Halemua, the curator organization	VIII	
Request DOH regularly monitor water quality at Ka'awaloa Cove	IX	
Retain parking at Napo'opo'o Wharf until other parking options are available	X	
Establish and maintain adequate buffers around the cultural sites	XII	
Prepare a fire protection plan	XIV	
Establish procedures for emergency medical response	XIV	
Erect Act 82 signs along Ka'awaloa Road	XIV	
Conduct regular DOCARE patrols of Stewardship Area by via vehicle, vessel and at night	XV	
Conduct educational/outreach program regarding fishing/MLCD rules for recent immigrant groups (e.g. Micronesians)	XV	
Amend Kealakekua Bay MLCD HAR, specifically §13-29-3, to prohibit possession of bang stick, power head or CO2 injector within MLCD	XVII	
Amend Kealakekua Bay MLCD HAR, specifically, to prohibit introductory/training or uncertified SCUBA diving in Subzone A	XVIII	
Work with SNUBA operator to develop operational guidelines and protocols P	XVIII	
Limit SNUBA to a single permitted operator P	XVIII	
Establish a "kapu area" swim lane of 5m width just makai of earthquake buoys	XIX	
Encourage use of organic sunscreens and those using physical sunblocks (i.e. zinc oxide, etc.) instead of sunscreens with UV blocker chemicals	XX	
Non-commercial vessel users wishing entry into the MLCD must register the vessel with DOBOR, agree to conditions of entry and use and affix a numbered non-commercial Kealakekua Bay decal to their vessel	XXII	
Commercial snorkel vessel permits will contain provisions to ensure safety of customers and minimize impacts to the Kealakekua MLCD and State Historical Park. An orientation briefing is required P	XXIII	
Eliminate Fair Wind's ½% of gross revenue requirement in lieu of the \$5 per passenger EMC P	XXIV	
Amend Kealakekua Bay MLCD HAR, §13-29-2, to specifically prohibit standing on the bottom anywhere within Subzone A of the MLCD except for the designated kayak landing site as denoted in DLNR special use permit	XXV	

Consolidate all Administrative Rules pertaining specifically to Kealakekua Bay and SHP in a single Administrative Rule. Produce a booklet for public outlining the rule provisions	XXIX		
II. RECOMMENDED ACTIONS REQUIRING CIP FUNDS/OTHER COSTS			
	Problem	\$\$	Rank
Equipment for Park Ranger position	VIII	15,000	1
Equipment for Bay Ranger position	XV	25,000	2
Equipment for second Park Ranger position	VIII	15,000	3
Prepare a park master plan and EIS	XIII	500,000	4
Design parking lot for 50 cars as part of the park plan and EIS with entry off the Lower Government Road	X	300,000	5
Install gate on the Cart Road at the Ka'awaloa-Keopuka boundary	XI	10,000	6
Purchase and install a composting toilet at Ka'awaloa	IX	150,000	7
Install a gate on the Cart Road at the Ka'awaloa-Keopuka boundary	XI	10,000	8
Install a gate on the Ka'awaloa Road at the <i>mauka</i> park boundary	XI	10,000	9
Initial vegetation trimming and selective removal to protect cultural sites from damage due to roots and falling branches	XII	100,000	10
Install swim ladder(s) at wharf as per BLNR 9/23/05 recommendation	XXVII	?	11
Install regulatory signs at Napo'opo'o and Ka'awaloa	VII	500	12
Install interpretive kiosk with visitor orientation information at developed park at Napo'opo'o	VII	15,000	13
Equipment & vehicle for second caretaker position for Kealakekua Bay SHP	IX	65,000	14
Renovate ocean access area of Napo'opo'o wharf	XXVII	?	15
Install interpretative signage at wharf to inform users and provide safety information. Utilize standardized warning signs wherever possible	XXVII	2,000	16
Restore the pond at Napo'opo'o	XII	150,000	17
Develop fire management plan for the Kealakekua Bay watershed and all adjoining lands and contract out plan	II	30,000	18
Work with County to place directional signs along roadways to the park	VII	1,500	19

Install interpretive signs identifying trailheads and direction of travel in/out of Kealakekua Bay	VII	2,000	20
funding for striping and bollards to designate parking stalls at the end of Napo'opo'o Beach Road	X	15,000	21
Prepare phased development plans for the various sections of the park, design facilities proposed in Phase I of the plan, and request construction funds	XIII	2 mil	22
Remove and relocate the waterline, plumbing and pipes alongside Hikiau Heiau	XII	2,500	23
Install interpretive signs at Hikiau Heiau, Ka'awaloa Flat, and Puhina O Lono Heiau	VII	8,000	24
Relocate park name sign at Napo'opo'o and, using existing sign, install park name signs along Ka'awaloa Road and Cart Road (entry points to Ka'awaloa	VII	1,500	25
Vehicle and equipment for additional watershed work crew	III	50,000	
Work with County to install signage for directing hikers and explaining rules and regulations	VII	1,000	
Develop an emergency response plan at Napo'opo'o wharf for volunteer first responders, provide emergency telephone or radios for EMS notification, and provide basic on-site life saving and first aid equipment and supplies	XXVII	?	
III. RECOMMENDED ACTIONS REQUIRING FUNDS FOR NEW PERSONNEL/POSITIONS			
	Problem	\$\$	Rank
Hire Bay Ranger to be funded by commercial ocean recreation Environmental Management Charge (EMC)	XV	45,000	1
Fill the existing "Park Ranger" position	VIII	42,000	2
Establish a second "Park Ranger" position	VIII	42,000	3
Hire a second caretaker position for Kealakekua Bay SHP	IX	45,000	4
Hire a "Trail Technician" for trail maintenance and upkeep	VI	10,000?	5
Hire ground crew to help private land owners do the watershed work through the Three Mountain Alliance which may include fence construction and invasive species control	II	100,000	6

Hire planner to work with County Planning Department, DOFAW and legislature to support Three Mountain Alliance Efforts	II	65,000	7
Develop additional work crew to do the watershed management activities such as invasive species control, fire break establishment, trail management, fencing and habitat restoration	III	200,000	8
IV. RECOMMENDED ACTIONS DEFERRED PENDING PUBLIC INPUT			
			Problem
Permit only Hawaiian style outrigger canoes to enter Subzone A of the MLCD After January 1, 2018 P			XX
Entry into Subzone A of the MLCD of permitted commercial kayak companies <i>only</i> by means of a guided tour P			XXI
Require all commercial guided tour kayaks to have a Kealakekua Bay MLCD decal or other distinctive markings as specified by DLNR P			XXI
Issue commercial guided kayak tour permits only to companies meeting DLNR qualifications relating to revocable permits for commercial kayak tour operations P			XXI
Limit each commercial guided kayak tour to a maximum of 8 customer kayaks and 1 guide kayak with a maximum of 13 people total P			
Develop and implement an on-line reservation system for commercial kayak guided tour time slots. After establishment of the on-line reservation system only commercial guided kayaks tours will be permitted within the MLCD P			XXI
Limit number of permitted commercial guided kayak tours to a total of four (4) tours for each of two (2) 3 ½ hour time slots (7AM-10:30AM and 11AM-2:30PM). Maximum number of commercial guided tour kayaks in the Bay at any one time will thus be 36 with up to 52 associated people P			XXI
Prohibit commercial guided kayak tours within the MLCD on weekends or state holidays P			XXI
Discontinue all commercial guided tour kayak landings and post “no landing without special use permit” signs (as per HAR §13-146-13) along the Ka’awaloa shoreline P			XXI
Passengers of commercial guided kayak tours must be shuttled to and from the launching area at Napo’opo’o wharf P			XXI
Establish no entry zone for motorized vessels fronting Ka’awaloa cove and Cook’s monument P			XXII
Prohibit anchoring in Subzone B of MLCD			XXII

Limit number of permitted commercial snorkel vessels to a total of four (4) vessels for each of three (3) two (2) hour time slots (8:30AM-10:30AM, 11AM-1PM and 1:30PM-3:30PM). There will thus be a maximum of 12 commercial snorkel vessels permitted per day P	XXIII
Limit commercial snorkel vessels to a maximum length of 30' and maximum passenger carrying capacity of 18. The maximum number of commercial snorkel vessels in the Bay at any one time will be 4 vessels carrying a maximum of 72 customers P	XXIII
Commercial snorkel vessels must utilize one of the two dedicated moorings to be installed west of Captain Cook's Monument. Drifting is not permitted. Rafting of two vessels on one mooring will be standard practice P	XXIII
Commercial snorkel vessel mooring buoys can be used by the public on weekends and holidays	XXIII
Prohibit landing onshore at Ka'awaloa for commercial snorkel customer P	XXIII
Prohibit other commercial vessels carrying customers for hire (e.g. Charter fishing vessels) to enter MLCD	XXIII
Prohibit commercial snorkel operations within the MLCD on weekends or state holidays	XXIII
Relocate existing mooring out of Ka'awaloa cove to new location approximately 50 yds. south of present location P	XXIV
Include provisions in the Fair Wind's CDUP to limit number of SCUBA divers, minimize impacts to the Bay and address safety concerns P	XXIV
Limit the size of possible Fair Wind replacement vessel to present size and customer capacity P	
Prohibit all commercial use of Fair Wind mooring on weekends and state holidays P	XXIV
limit the number of commercial SCUBA divers in Subzone A of the Kealakekua Bay MLCD to 4 per day	XXV
Prohibit commercial SCUBA or snorkeling activities on weekends and state holidays	XXV
Limit all commercial kayak activity (including use of individual rentals) on Napo'opo'o Wharf to guided tours only	XXVI
Prohibit commercial ocean recreation activities within Honaunau Bay	XXVIII
Prohibit anchoring within Honaunau Bay	XXVIII