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Cover and Title Page

Hardy Spoehr

Executive Summary

The photographs in the Executive Summary are intended to provide an impression of some of the people, landscapes, and environmental problems of Kaho`olawe Island.

P. 2:	Hardy Spoehr
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This report is typeset in a contemporary electronic rendering of the classic Palatino face. Display type is set in Americana, with type for tables drawn from Helvetica fonts and initial capitals set in Optima. Page formatting and typesetting were accomplished on an Apple® Macintosh® computer system using Aldus® Pagemaker® software. Film conversion was provided by AlphaGraphics® Printshops of the Future.

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those technologies; and an action plan for eliminating the threat of unexploded ordnance and associated costs—Ballena Systems Corporation, Alameda, California, with assistance from Donaldson Enterprises, Kaneohe, Oahu, undertook this project.

- A survey of the numbers and differing species of plants and animals, including birds, currently on the island—The Nature Conservancy of Hawaii, Honolulu, Hawai`i, served as the consultant for this project.
- An analysis of the types and quantities of native plant species on the island, from ancient times to the present—International Archaeological Research Institute, Honolulu, undertook this project.
- An analysis of soil characteristics and rainfall patterns to determine their impacts on the island's erosion problems—Dr. Thomas W. Giambelluca, of the University of Hawaii at Manoa, Honolulu, and Dr. Keith Loague, of the University of California at Berkeley, undertook this effort.
- The translation of existing data on the island, particularly data related to the environment and historic sites, into a format suitable for mapping analysis—Geographic Decisions Systems International, Honolulu, with the assistance of the Office of State Planning of the State of Hawai`i, undertook this project.

Since March 1991, KICC members have also met at least monthly in public sessions; conducted public hearings throughout the State of Hawai`i; participated in numerous workshops; and visited the island of Kaho`olawe.

KICC's findings, recommendations, and comments are the embodiment of all of these activities.

This report is organized into an Executive Summary and five parts. Part I provides a history of Kaho`olawe, from prehistory to today; Part II reviews aspects of Kaho`olawe's land history that affect its current status; Part III reports on public perceptions of issues surrounding Kaho`olawe; Part IV includes the findings and recommendations of the Commission; and Part V discusses future directions for the island.

The Commission's repository will be available for review at the National Archives in Washington, D.C., the State of Hawai`i Archives, and the Office of State Planning in Honolulu, Hawai`i.

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List of Maps

Lua	Hole, pit
Ma`o	Hawaiian cotton plant (*Gossypium tomentosum*)
Mo`o	Lizard
Nai`a	Porpoise or dolphin (*Stenella longirostris*)
Na`ulu	Type of rain; sudden showers or misted rain with no visible clouds
`Opae `ula	Red shrimp (*Halocaridina rubra*)
`Opihi	Limpet (*Cellana sp.*)
Papa	Creation force for the world, or earth, with female affiliations; similar to "Mother Earth" in Western thought
Pu`u	Any kind of protuberance; a hill, peak
Pu`uhonua	Place of refuge, sanctuary, asylum
Wahi Pana	Legendary place; special place
Wai	General term for fresh water
Wakea	Mythical ancestor of all Native Hawaiians

Note: Translations have been taken from: Mary Kawena Pukui and Samuel Elbert. *Hawaiian Dictionary* (University of Hawaii Press: Honolulu, HI, 1986).

This report calls upon the United States government to return to the people of Hawai`i an important part of their history and culture, the island of Kaho`olawe. The island is a special place, a sanctuary, with a unique history and culture contained in its land, surrounding waters, ancient burial places, fishing shrines, and religious monuments.

Its origins arising in the mists of prehistory, its beauty and religious significance celebrated in legend and sung in ancient chants, Kaho`olawe today is a valuable but fragile resource. That resource, is founded in natural beauty, which decades of abuse have failed to destroy, and in rich marine resources and rare and endangered plants and animals, has inspired a reawakening to the values of the past—a Hawaiian Renaissance— which is manifested in the arts, writings, dance, music, and politics of today.

Since before World War II, the island has been used by the U.S. military primarily as a weapons range. In 1953, President Dwight D. Eisenhower promised that the U.S. government would return the island to the people of Hawai`i when its usefulness for military training was ended. In anticipation of that event, the Congress in 1990 established the Kaho`olawe Island Conveyance Commission to recommend the terms and conditions for the return of the island to the State of Hawai`i.

Kaho`olawe Island and the Struggle for Control

Kaho`olawe Island is one of the eight major Hawaiian Islands. It lies nestled between Maui, Lana`i, and Moloka`i. Unlike any of the other Hawaiian Islands, Kaho`olawe was named for one of the primary Native Hawaiian deities, Kanaloa. Today, the island retains its cultural significance as a place for the practice of traditional and contemporary Hawaiian culture, including religion. Kaho`olawe possesses numerous unique archaeological, historical, cultural, and environmental resources.

Military use of Kaho`olawe began in the early 1930s. In 1953, the Secretary of the Navy officially became the administrator for the island through President Eisenhower's Executive Order No. 10436 (Appendix 1). This Executive Order was issued after extensive discussions between officials of the federal and territorial governments. There was a mutual understanding, which is reflected in the Executive Order, that the island would be restored to a usable condition and returned to local control when it was no longer needed for military purposes.

Public sentiment for Kaho`olawe's return to local control has grown since President Eisenhower signed the Executive Order and reflects the combined efforts of many individuals and Hawaiian organizations.

On October 13, 1976, a civil suit, *Aluli* v. *Rumsfeld* (Civil No. 76-0380), was filed in the U.S. District Court for the District of Hawai`i, seeking compliance by the U.S. Navy with environmental, historic preservation,

residents of the state had the opportunity to contemplate the return of the island to state control, recommend uses of the island that comply with state and local rather than federal needs, and plan a future for the island based on cultural and historic values. KICC has gone to great pains to make this report an expression of widespread public sentiment. Embodied in Commission findings and recommendations are the countless thoughts and aspirations of Hawai`i's citizenry, including: fishermen and farmers; government officials; youth, adults, and seniors; academicians and students; Native Hawaiians and non-natives; military professionals; researchers; and people from all walks of life who call Hawai`i home.

Recommendations to the U.S. Congress and the Federal Government

The Commission's recommendations necessarily begin with federal action, which is required to convey title to Kaho`olawe Island back to the State of Hawai`i. Federal action is also required to fulfill certain responsibilities that the federal government has already assumed or should assume. All of the recommended federal action is necessary to bring about the results envisioned by the Commission; selective or piecemeal federal action shall be avoided.

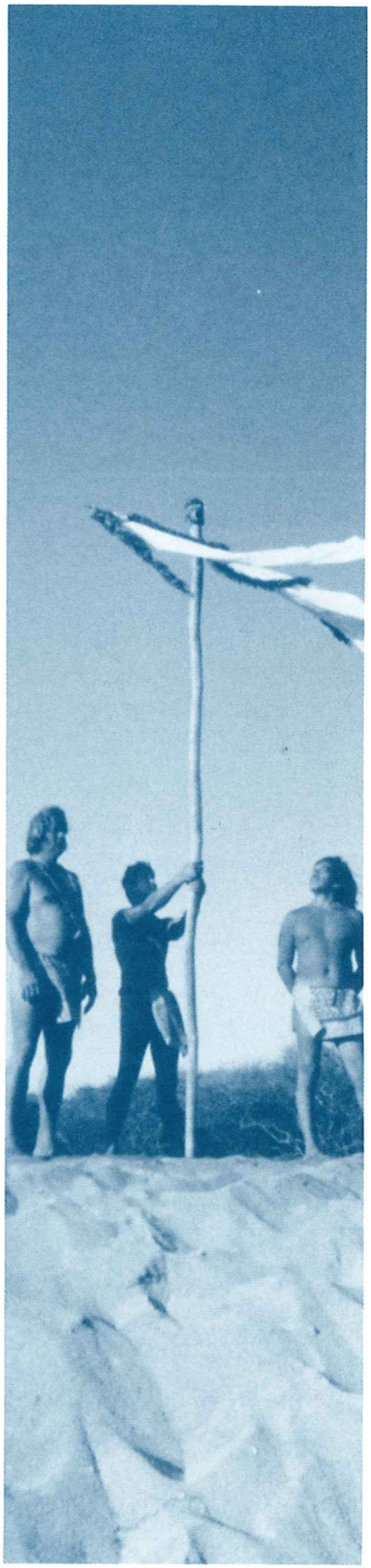
Terms and Conditions for the Return of Kaho`olawe to the State of Hawai`i

Existing federal statutes and regulations specify how state lands that have been used for military purposes are ordinarily returned to state control. Kaho`olawe, however, is not an ordinary case. Executive Order No. 10436 and other stipulations surrounding the taking of Kaho`olawe by the federal government for military purposes present unique circumstances that require a different approach for return of the island to the State of Hawai`i.

Recommendation 1.1. The island of Kaho`olawe shall be returned to the State of Hawai`i in as expeditious a manner as possible through special legislation stipulating the following:

- **Title to the island of Kaho`olawe shall be returned to the State of Hawai`i without conditions or reverter.**
- **The United States shall bear all costs and liability for, and take responsibility for, the clearance and removal of unexploded ordnance and related solid waste and other hazardous and toxic wastes, should they be found, as required by Executive Order No. 10436, until the island of Kaho`olawe and its surrounding waters have reached a condition reasonably safe for human habitation and human use in accordance with safety standards mutually agreed on by the State of Hawai`i and the United States.**

  If additional items or materials are located and were deposited by actions of the federal government, additional funds shall be appropriated to ensure their removal, and all remedial actions



Recommendation 1.2. The United States Congress shall insert the following language in all military appropriation measures until such time as special legislation is enacted regarding Kaho`olawe's return to the State of Hawai`i: "None of the funds made available by this Act shall be available for any Military Department of the United States to conduct bombing training, gunnery training, or similar munitions delivery training on the parcel of land known as Kaho`olawe Island, Hawai`i."

Unexploded Ordnance and Related Solid Waste Removal

Executive Order No. 10436 specifically requires the federal government to restore the island once it is no longer required for naval purposes. It is the Commission's position that the island needs to be restored to a condition safe for human habitation and human use. Unexploded ordnance (UXO) and its related solid waste are located on the island as well as in its surrounding waters. It is the Commission's firm belief that the entire island of Kaho`olawe and its surrounding waters can be made safe for the purposes identified in this report and in S. 3088.

Recommendation 1.3. Onsite safety standards for the clearance and removal of unexploded ordnance and related solid waste from Kaho`olawe and its surrounding waters shall be established on the basis of human habitation and other specified human uses and be implemented utilizing the highest state-of-the-art detection techniques and devices.

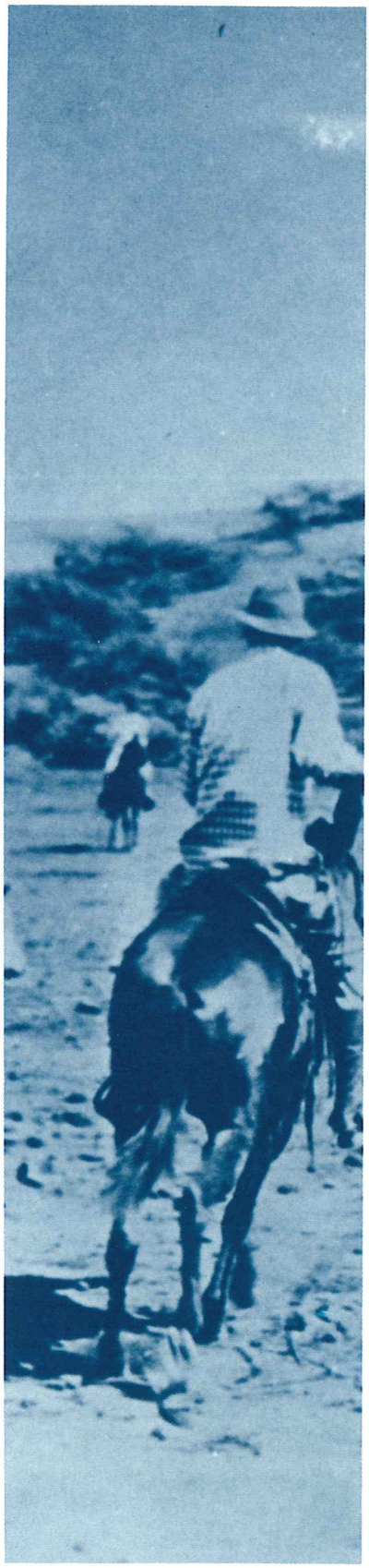
Restricted Access and Entry

Since 1941, the military has controlled access to Kaho`olawe. With the change in jurisdiction from federal to state control, the Commission believes that the Protect Kaho`olawe `Ohana's rights to access Kaho`olawe and to enter its surrounding waters for cultural and educational purposes should be maintained.

Recommendation 1.4. Access to Kaho`olawe shall remain controlled and supervised. Upon conveyance of Kaho`olawe to the State of Hawai`i, access to and use of the island and its surrounding waters shall be under the jurisdiction of the State of Hawai`i, and access by the Protect Kaho`olawe `Ohana shall be continued.

The appropriate agency(ies) responsible for the removal of unexploded ordnance and hazardous and toxic waste, should any be found, shall have authority to promulgate rules and regulations regarding access to such portions of the island deemed to be necessary for protection against loss of life, bodily injury, or property damage. Any rules and regulations promulgated in furtherance of this recommendation shall be designed to maximize the public use of the island and its surrounding waters for traditional and contemporary cultural practices, and for educational and scientific purposes.

Such rules and regulations shall require the approval of the State of Hawai`i by its Governor or his designee, and shall have the force and effect of law. The state shall not arbitrarily or capriciously withhold



remains; for soil conservation and plant reforestation and revegetation activities; and for the enhancement and study of native plant and animal habitats and communities. Commercial activity and exploitation of resources for commercial development are not appropriate on the island or in its surrounding waters and shall be prohibited.

Administration

The Commission believes that a new body within state government must be established, whose sole purpose is the administration and management of Kaho`olawe Island, its surrounding waters and its diverse resources. This new body must have the ability to: develop and maintain programs, including programs that focus on Native Hawaiian culture, education, and research; hire appropriate staff; and enforce applicable state laws on Kaho`olawe and in its surrounding waters. A staffing model has already been developed for Kaho`olawe.

Recommendation 2.2. The State of Hawai`i shall establish an oversight commission, or public authority, to ensure compliance with this Commission's recommendations, ensure their prompt implementation and completion, and administer and oversee activities on the island and in its surrounding waters. This new administrative body shall be provided adequate financial resources to carry out its mandate and to provide financial assistance for professional training and technical assistance for individuals and organizations involved with managing, monitoring, interpreting, or protecting Kaho`olawe's cultural, archaeological, historical, and environmental resources.

The new administrative body shall be convened by the Governor of the State of Hawai`i and shall consist of representatives from the State of Hawai`i, Protect Kaho`olawe `Ohana, Office of Hawaiian Affairs, County of Maui and the Native Hawaiian community. Representatives from appropriate federal agencies may be asked to participate in advisory capacities.

Return of Land Surrounding the Kaho`olawe Light

Since 1928, land on the island has been set aside for a federally maintained lighthouse. In 1987, a new, simple light was constructed. This new light requires only about 800 square feet for its operation and servicing.

Recommendation 2.3. The State of Hawai`i shall enter into negotiations with the U.S. Department of Transportation (U.S. Coast Guard) to seek return, in as expeditious a manner as possible, of all lands not required for the continued operation of the Kaho`olawe light.

Regulation of Island Airspace

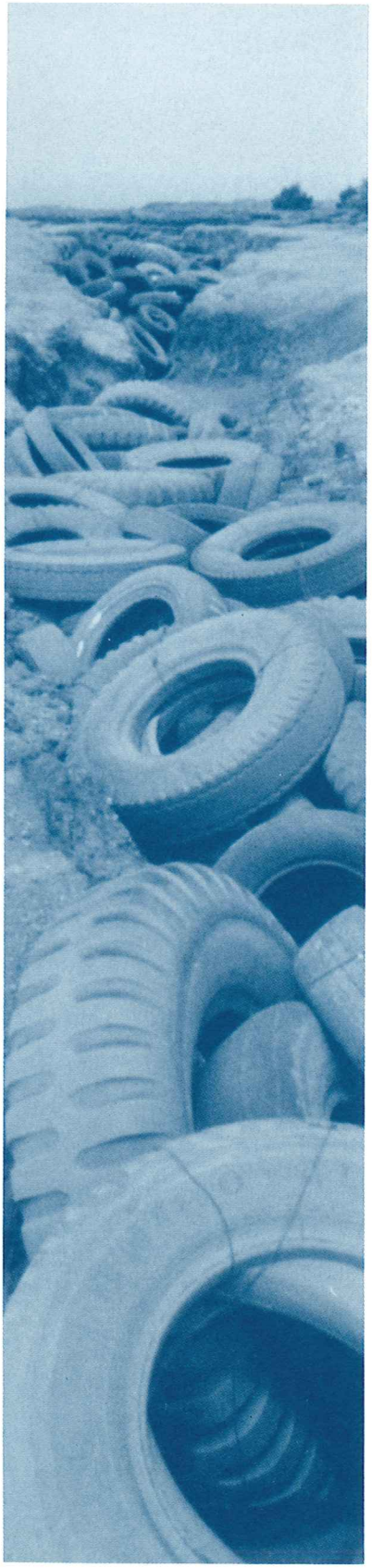
Recommendation 2.4. The State of Hawai`i shall discuss with the federal government how best to maintain the current air space restrictions on commercial flights above Kaho`olawe, and how to ensure that such restrictions remain in effect—except for authorized or emergency flights.

Recommendation 2.7. The State of Hawai`i, as part of its effort and responsibilities in utilizing federal "restoration" funds for Kaho`olawe, shall work in cooperation with the Native Hawaiian community to develop and maintain an ongoing historic preservation program for Kaho`olawe that includes:

- **Research focusing on oral histories from individuals who have specific knowledge about the resources of Kaho`olawe;**
- **Research and translation of primary resource materials that are written in the Native Hawaiian language and relate to Kaho`olawe;**
- **Return and reinterment of all human remains removed from Kaho`olawe—in accordance with existing federal and state laws—and specification that the Protect Kaho`olawe `Ohana continues to serve as the island's burial council;**
- **Review and update of the existing inventory of archaeological and historical resources on the island and in its surrounding waters, utilizing consistent standards and state-of-the-art equipment and including the undertaking of intensive surveys at significant or endangered sites, such as Pu`u Moiwi;**
- **Petrographic analysis of Pu`u Moiwi materials and stone implements from throughout the state to attempt to determine dispersal patterns of materials taken from the site;**
- **Stabilization and interpretation of the MacPhee-Baldwin complex at Kuheia Bay and the penal colony settlement area at Kaulana Bay. A restored ranch house at Kuheia could serve as a gateway for some types of visits to the island and as a museum and depository for Kaho`olawe archaeological and historical materials;**
- **Manage, monitor, and protect the island's archaeological and historical resources by having (1) professional staff with adequate financial resources assigned solely to Kaho`olawe and (2) on-island rangers interpreting these resources and enforcing historic preservation laws; and**
- **Additional research on the cultural, archaeological, and historical aspects of Kaho`olawe and use of that research to initiate and maintain interpretive and educational programs on and off the island.**

Environment

Kaho`olawe is an island. As such, its environment is fragile and sensitive to change. Changes have affected the island's environment with ever-increasing speed. Despite the legacies of the past two centuries, Kaho`olawe retains unique and special environmental resources. Kaho`olawe's flora and fauna are characteristic of Pacific islands located in the lee of larger islands such as Ni`ihau. The Nature Conservancy's recent survey of Kaho`olawe identified 20 rare plant and animal species, including 2 of 8 natural plant communities, 13 native plant species, and 5 animal species. A number of these species are listed on the federal government's threatened and endangered species list.



Recommendation 2.9. The State of Hawai`i shall, as part of its efforts and responsibilities in utilizing federal "restoration" funds for Kaho`olawe, work in cooperation with the Native Hawaiian community to undertake an active soil erosion abatement program that:

- **Focuses on soil retention activities by expanding reforestation and revegetation efforts, particularly in the hardpan area, and utilizing a strategy based on prioritizing and stabilizing individual watersheds;**
- **Uses check dams and other appropriate erosion control measures to reduce or eliminate gullying; and**
- **Realigns and engineers roadways and other access routes either to minimize or eliminate water runoff or to capture flowing water for soil conservation activities, similar to the Mauna Kea access road system.**

Water (Wai). Rainfall is the major source for fresh water on Kaho`olawe. Ground water and desalinization offer other sources. Water is needed for soil conservation and other activities.

Recommendation 2.10. The State of Hawai`i, as part of its efforts and responsibilities in utilizing federal "restoration" funds for Kaho`olawe, shall work in cooperation with the Native Hawaiian community to undertake a water resource program that includes initiation, development, and maintenance of appropriate projects in water resource development, including rainfall harvesting (catchment), ground water development, and desalinization to provide water needed for soil conservation and other related activities.

Reforestation and Revegetation. The key to environmental stabilization of the island is the reestablishment of its vegetative cover, particularly in the hardpan area.

Recommendation 2.11. The State of Hawai`i, as part of its efforts and responsibilities in utilizing federal "restoration" funds for Kaho`olawe, shall work in cooperation with the Native Hawaiian community to undertake an active reforestation and revegetation program that:

- **Uses native plant species wherever possible, including developing nurseries for captive propagations of Kaho`olawe plant species and other viable native plant species for the island;**
- **Continues and expands grass replanting schemes in priority watershed areas in the hardpan;**
- **Continues and expands windbreak planting with appropriate plants; and**
- **Replaces exotics where and when appropriate with native plant species (priority areas for species replacement will be in natural native plant communities).**

Total Expected Costs (In Millions of Dollars)

Unexploded Ordnance and Solid Waste Clearance			
Clearance and Removal	$72.0		
Infrastructure	$15.0		
Site Characterization Study	$ 1.0		
Total			$88.0
Soil Conservation Activities			
Soil Erosion Abatement			
Check Dam/Terracing Activities	$ 3.0		
Reforestation/Revegetation	$ 7.0		
Total		$10.0	
Water Resource Development			
Rainfall Harvesting	$5.2		
Groundwater Development	$1.4		
Desalinization Facility Development	$ 0.6		
Total		$7.2	
Historic Preservation			
Historic Preservation Program	$ 3.0		
Total		$ 3.0	
Biological Critical Habitat			
Enhancement			
Total		$ 1.4	
Total Soil Conservation		$ 21.6	$21.6
Fencing and Signage			
Fencing Materials and Installation	$ 0.185		
Fence Maintenance (5 years)	0.090		
Signage and Installation	0.100		
Sign Maintenance (5 years)	0.025		
Total		$ 0.400	$0.4
TOTAL FOR ALL PROJECTS			**$110.0**

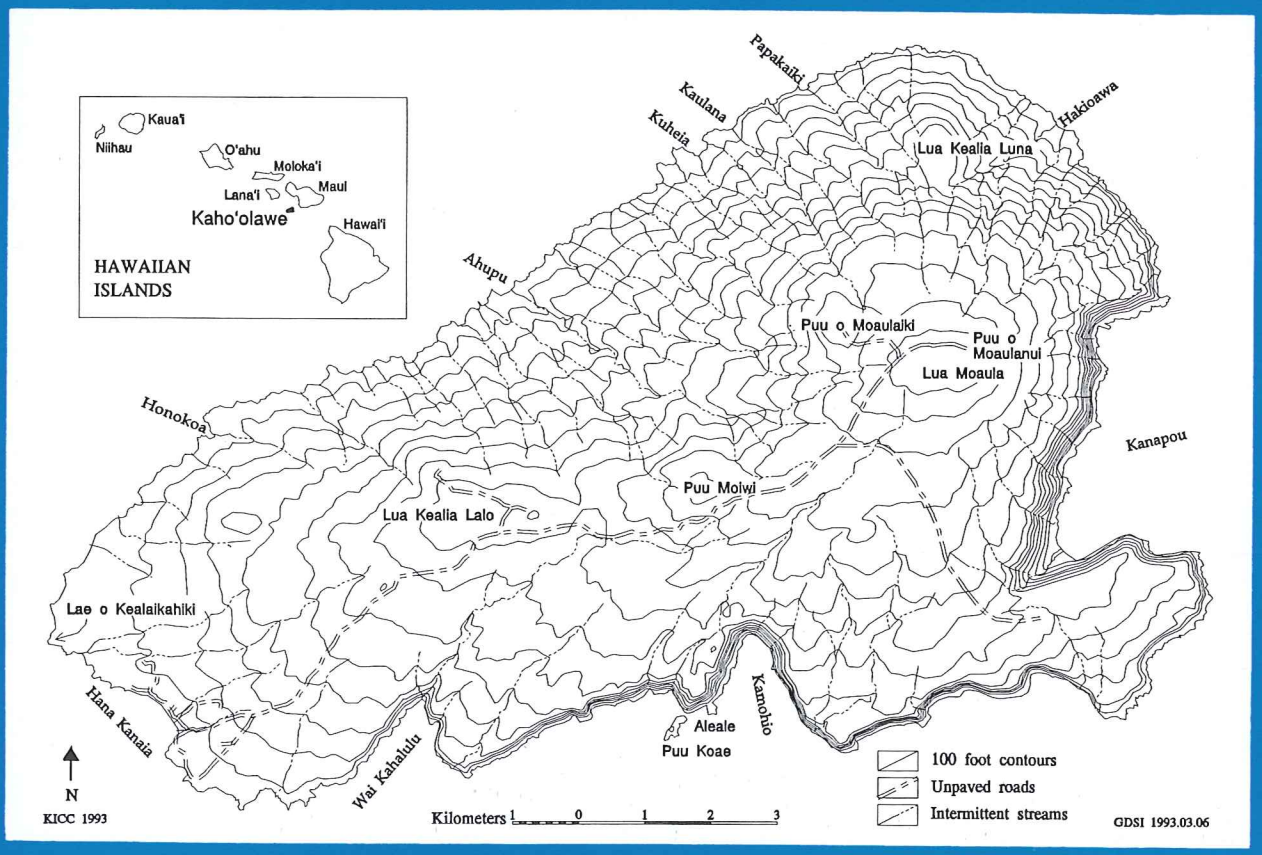
Nestled between the islands of Lana`i, Moloka`i, and Maui and but seven miles offshore from Maui's resort city of Kihei, the Hawaiian Island of Kaho`olawe casts a looming shadow on the near horizon for visitors and residents alike.

Kaho`olawe is 11 miles long and 7 miles wide, with a total area of about 45 square miles—or 28,600 acres. (See Map 1) The highest point on Kaho`olawe, Pu`u Moaulanui, an elevation that reaches 1,477 feet, is part of the original caldera complex of the island. Secondary eruption sequences have resulted in smaller *pu`u* (hills) and *lua* (pits) visible around the island—including Lua Kealialuna, Lua Kealialalo, Pu`u Moiwi, and Pu`u Moaulaiki.[1]

Kaho`olawe's southern and eastern coasts are characterized by steep sea cliffs, while its north and west coasts give way to gently sloping ridges with inland bays. The more than 30 bays and beaches around the island have served as habitat and work sites for island residents from ancient times to today. Some of these bays have gleaming white sands with treacherous reefs, lava extrusions, and plentiful marine life. Others give sad prominence to impacts of long-term soil erosion.

Scientists believe that Kaho`olawe ascended from the ocean depths to become one of the major Hawaiian Islands, along with Ni`ihau, Kaua`i, O`ahu, Moloka`i, Lana`i, Maui, and Hawai`i, about 1.5 million years ago.[2] The geological history of

Map 1. Kaho`olawe Island



Dr. Gordon T. Bowles collects adz fragments from Kaho`olawe's major stone quarry, Pu`u Moiwi, in 1939
(Photo Courtesy of the Bishop Museum)

recorded a different version of Kaho`olawe's creation. Fornander wrote that all of the Hawaiian islands, except Kaho`olawe came from the relationship between Wakea—the mythical ancestor of all Native Hawaiians—and Papa and that Kaho`olawe came from the Hawaiian goddess Hina, famous for her affiliations with another Hawaiian island, Moloka`i.[9]

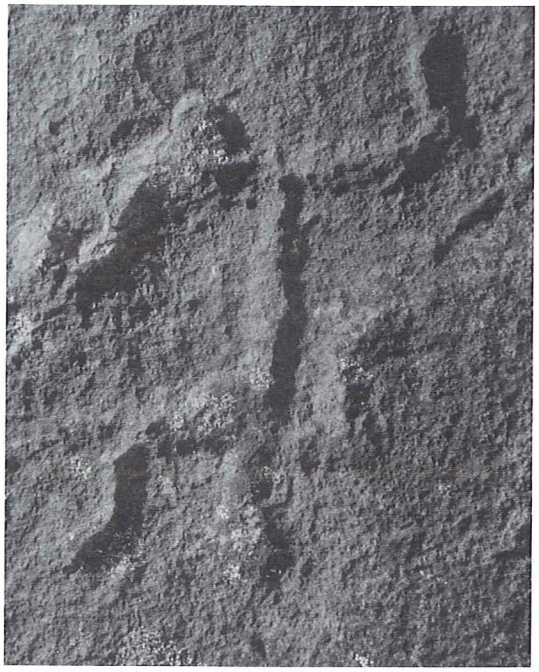
Pele, Hawai`i's fire goddess, also played a predominant role in Kaho`olawe's legends. The 19th century Hawaiian historian, Kepelino, recounts how Pele brought forth the sea around Hawai`i from Kaho`olawe.[10] It had been given to her by her parents, and she brought it to Hawai`i, to Kaho`olawe, where she emptied it onto the land and created the oceans around the islands.

According to Hawaiian legends, as each of the Hawaiian islands was discovered and settled by humans, the spirits fled to other uninhabited islands. After its creation, Kaho`olawe was a place where only gods, goddesses, and spirits dwelt. It became the last bastion for dwellers of the spirit world. Traditional literature abounds with other references to Kaho`olawe in relation to the exploits of many of Hawai`i's other gods, goddesses, and spirits.[11]

Kaho`olawe's prehistory concludes with the arrival of Polynesian voyagers and settlers, who landed in Hawai`i in about 200 A.D., but continued to travel between their homeland and the Hawaiian Islands for centuries. These first settlers sailed across thousands of miles of open seas with only their knowledge of ocean currents, winds, stars, and other heavenly bodies to guide them. Archaeological evidence indicates that they first came from islands in the Marquesas; however, voyagers from islands in Samoa, Tahiti, and other islands in southern Polynesia may also have come. Kaho`olawe seems to have been settled about 1000 A.D. Small communities were established along its coastline. Inland areas were not settled with any sort of permanency, however, until about 1300 A.D.; and even then, such populations were small. [12]

Between 1200 A.D. and 1400 A.D., a second influx of voyagers and voyaging occurred—this time between Hawai`i and the Society Islands, probably Raiatea and its neighboring Tahiti-nui. Included among these voyagers was Ariki nui Pa`ao, who brought with him the strict Ali`i System of Tahiti, which integrated social, political, and religious systems into one structured society.

During this era, Kaho`olawe seems to have come into prominence as a navigational aid. The island's western-most point, Kealaikahiki, served as a directional aid for voyagers leaving Hawai`i and is referred to in the voyaging exploits of Moikeha, his son Kila, La`amaikahiki, Tahitinui, and Wahanui. Archaeological evidence visible on the summit of



Petroglyph found on a slope of Pu`u Moaulanui
(Photo Courtesy Meleana Meyer)

to unify all the islands into one kingdom. The population of Kaho`olawe was most certainly affected. Thus, by the time European and American seafarers observed Kaho`olawe, the impacts of war may have accounted for the island being almost void of a permanent population. Moreover, the Hawaiian family system generally kept members together in specific localities; hence, the elimination of individual family members living on Kaho`olawe may have resulted in the elimination of entire families with ties to the island.

Hawaiian *ali`i nui* continued to journey to Kaho`olawe. During the latter part of the 18th century, *ali`i* Ke`eaumoku fled to Kaho`olawe from Maui to escape the conquering armies of a Maui *ali`i*, Kahekili, in his battles with Kalaniopu`u. Almost 100 years later, another *ali`i nui*, King David Kalakaua, traveled to Kaho`olawe for spiritual reasons. An account of the trip was published in the Hawaiian language newspaper *Ka Lahui Hawaii*.[17]

In 1793, Captain George Vancouver gave Kahekili a parting gift of goats and, as the story is told, Kahekili sent the goats to Kaho`olawe to grow and

> *They saw petroglyphs of a man and a dog. There were human bones, some so small they were determined to be those of a stillborn infant . . . proof that Kaho`olawe had been home for some Hawaiians, rather than just a summer fishing spot, as some people have suggested.*
>
> **Honolulu Star Bulletin**, *April 27, 1981*

multiply. Those goats were the forebears of the thousands of goats that would roam and denude Kaho`olawe of its vegetation for almost two centuries to follow.[18]

By the late 1700s, the Hawaiian Islands were undergoing extreme political changes. In 1795, Kamehameha I extended his rule from Hawai`i by conquering Maui, Lana`i, Kaho`olawe, and O`ahu. In 1810, the *Ali`i Nui* Kaumuali`i submitted Kaua`i and Ni`ihau to Kamehameha I's rule, thereby bringing all of the islands under one central government.

The death of Kamehameha I in 1819 precipitated a political crisis for the High Chiefs who had allied with Kamehameha and were part of his government. Rival chiefs, claiming ritual authority to rule under traditional Hawaiian religion, rallied around *Ali`i Nui* Kekuaokalani and rebelled against the central government. It became necessary for the central government to suppress this challenge by abolishing the institution that gave it credence, the traditional religion. In November 1819, Kamehameha II held a gathering with his *ali`i nui* at Kailua, Kona. He had a feast prepared with two tables set, one for men and one for women—men and women were not permitted to eat together. When all was ready, Kamehameha II sat with the women and ate. By this action, the King had broken the covenants of traditional Hawaiian religion. The traditional restrictions imposed on society were lifted. This event is known as the *`Ai Noa*. It is interesting that one of the wives of Kamehameha I, Keopuolani, associated the rebellion of the ritual chiefs with Kaho`olawe. She is recorded as having referred to Kekuaokalani, the leader of the rebellious

Sheepshearing on Kaho`olawe in the 1890s
(Photo Courtesy Bishop Museum)

Budd later reported that there were 15 convicts on Kaho`olawe, and that "the settlements consist[ed] of 8 huts and an unfinished adobe church. One or two other houses inhabited by old women are said to be located on the north end of the island."[28]

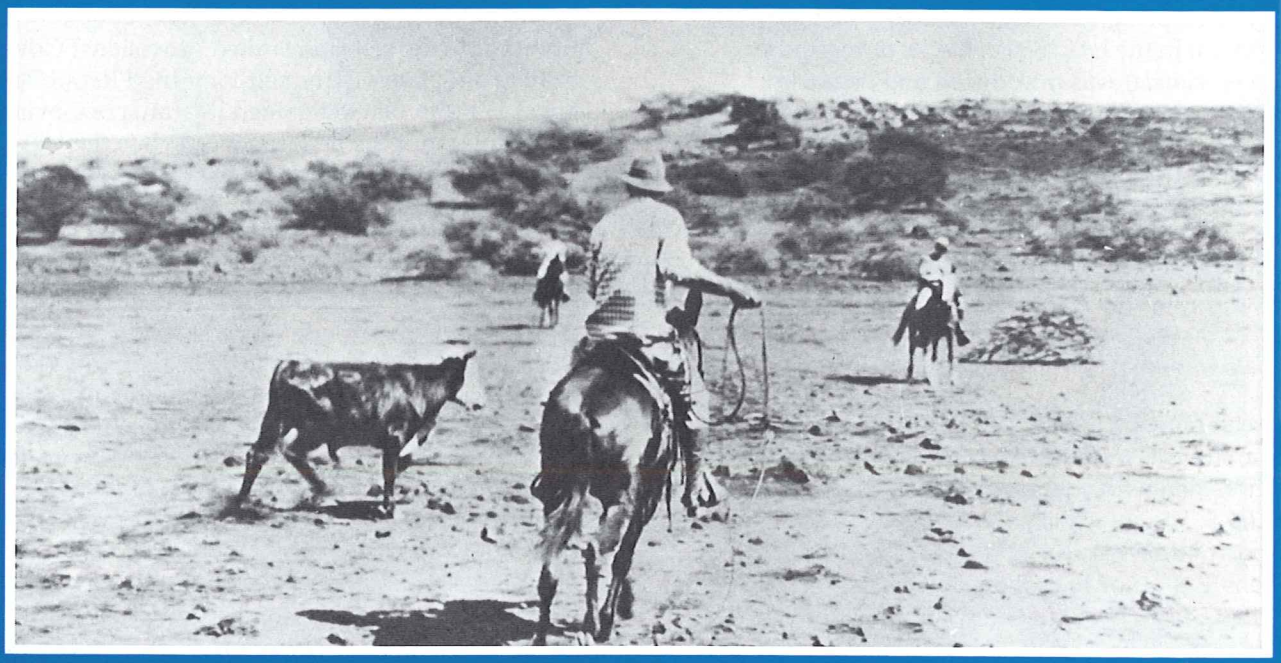
Early Ranch Period (1853-1910)

During Kaho`olawe's Early Ranch Period, Hawai`i continued to undergo extensive political and social change. In 1848, King Kamehameha III initiated a land reform package known as the Great Mahele—its impact proved to be momentous. Under this reform, the traditional Native Hawaiian concept of land stewardship was replaced with the Western legal concept of ownership. Ownership of lands was divided between the King and his a*li`i*, with portions set aside for government use. Processes were also established for the award of lands to private individuals.[29] It was as a result of this land reform package that Kaho`olawe became "government land"—a status it has maintained until today, although there have been periodic offers for its purchase since 1849. One such offer came from Maui resident Zorobabela Kaawai, a member of the first Land Commission, and C.C. Harris. Their offer of $400.00 was refused by the King's Privy Council, which preferred to lease the island.

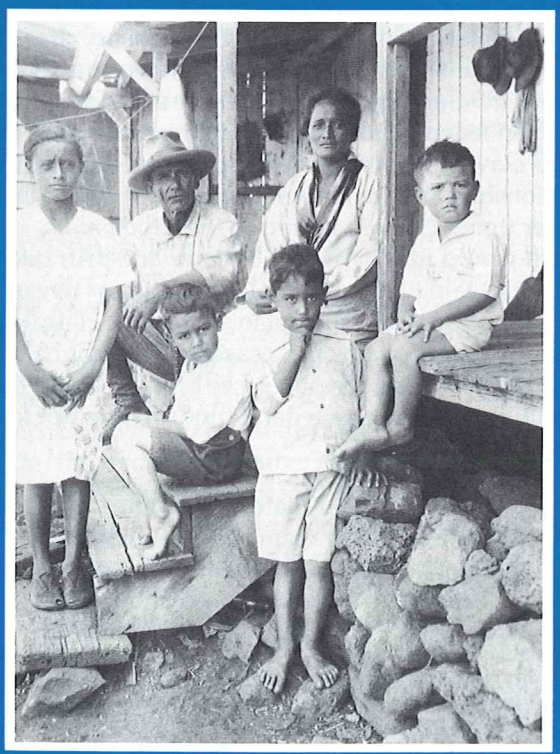
In 1857, Kamehameha V sent Maui Governor P. Nahaulelua and Loane Richardson to survey Kaho`olawe. Their report, and a second survey by William F. Allen in 1858, are the first known comprehensive written descriptions of the island.[30] Following the survey, the government issued the first of four leases for Kaho`olawe. Signed on April 1, 1858, the lease called for the payment of $505.00 per year for use of the island. The lessee was Robert C. Wyllie.

Wyllie introduced sheep to the island and developed a large ranching operation. When his sheep became infected by a form of scabies in 1859, he transferred his lease to other ranchers.

Over the remainder of this period, successive leases and subleases were let for a variety of ranching operations (Appendix 6). As a result, by 1884, more than 9,000 goats and 12,000 sheep grazed on the hills and in the gullies of Kaho`olawe.[31] Over-grazing soon began to take its toll—soil erosion became a



Cattle ranching in the 1900s—roundup time
(Photo Courtesy Hawaii State Archives)



The Manuel Pedro family
(Photo Courtesy Bishop Museum)

island to 200 head, and undertake revegetation efforts using *kiawe*. The lease was let to Maui businessman Angus MacPhee in December 1918. Within two years, MacPhee joined forces with another Maui businessman, Harry Baldwin, to form the Kahoolawe Ranch Company. Their lease continued until 1952.

During this period, ranch headquarters were established at Kuheia Bay, a water system based on cisterns and reservoirs was constructed, and the island's goat population was reduced. Ranch operations were ably directed by a Portuguese immigrant from Kohala, Hawai`i, named Manuel Pedro. Pedro called Kaho`olawe home. He, and his Native Hawaiian wife, Hattie Ko`opua, lived and raised a family on the ranch until 1941, when war forced its closure.

The first Army aviation unit arrived in Hawai`i in July 1913. By 1925, inter-island flights were quite common. Kaho`olawe came under the military's eye in the late 1920s when air power was just beginning to develop in Hawai`i. In those days, military planes operated under the command of the Army Air Corps.

Sailor's Hat
(Photo Courtesy Ray Mains)

At war's end, Kaho`olawe returned to a relatively peaceful existence, serving as an occasional site for joint operations for naval shore bombardment and air support from fighter planes.

As the termination date for the Kahoolawe Ranch lease approached, military leaders in Hawai`i became increasingly concerned over whether they would be allowed to continue to use the island for military training. As early as 1947, Territorial government officials raised issues concerning the military's continued presence; identified a number of other uses for the island, including human habitation; and expressed a need to undertake extensive soil conservation measures to begin addressing ongoing erosional problems. Fearing condemnation, Territorial officials eventually agreed to continued military use of the island. That agreement was finalized with President Dwight D. Eisenhower's signing of Executive Order No. 10436 in 1953. The Order "reserved Kaho`olawe . . . for the use of the United States for naval purposes," placing it under the jurisdiction of the Secretary of the Navy.[42]

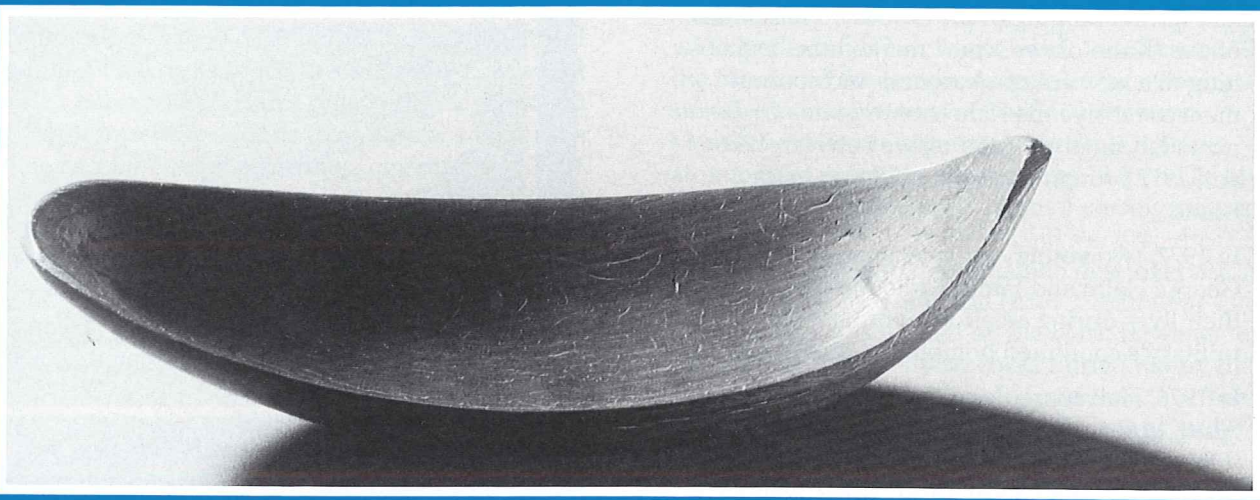
When Hawai`i became a state in 1959, provisions of the Statehood Admission Act specifically addressed how lands such as Kaho`olawe were to be handled. Kaho`olawe was part of a larger corpus of former Crown and Government Lands ceded to the United States in 1898. As a result of Executive Order No. 10436, Kaho`olawe remained under military jurisdiction, continuing to serve as a military training facility during the Korean and Vietnamese conflicts.

One of actions of the military during the Vietnam era resulted in a crater that is approximately 100 feet wide and extends below sea level. In February 1965, the Navy and the former Atomic Energy Commission detonated 500 tons of TNT at a site near Hanakanaia Bay to simulate the effects that an atomic blast would have on nearby ships. The blast was detonated with three manned vessels moored at varying distances from the island's shore: the *U.S.S. Atlanta* at 2,000 feet; the Canadian destroyer *R.C.N. Fraser* at 3,000 feet; and the *U.S.S. Cochrane* at 4,000 feet. No one was injured by the blast; however, one sailor reported that flying rocks hurled out by the explosion were a major hazard and that ". . . The force of the blast shoved the moored ships aside, but except for that it was just one more big boom. . . . "[43] The crater created by the blast, measuring 100 feet in diameter and 15 feet deep, has been named Sailor's Hat. Today, it is an anchialine pond that serves as habitat for the endangered shrimp species `opae `ula (*Halocaridina rubra*).[44]

Territorial officials continued to raise the issue of the return of Kaho`olawe to local control after statehood, but to no avail.[45] Kaho`olawe's environment continued to degenerate; goat populations remained unchecked, and all revegetative efforts ceased—despite the requirements of Executive Order No. 10436.

By 1970, efforts on behalf of Kaho`olawe's return to state control gained strength.

- In September 1970, U.S. Senator Hiram Fong requested that the U.S. Navy halt bombing on Kaho`olawe within two years.[46]
- In 1971, Maui Mayor Elmer Cravalho and Life of the Land—a local environmental organization—filed suit in U.S. District Court for the District of Hawai`i to stop the bombing of Kaho`olawe and to require compliance with environmental law by preparing an Environmental Impact Statement (EIS) for military activities on the island. Although the case was eventually dismissed, federal Judge Nils Tavares ordered the Navy to complete an EIS.[47]
- In February 1973, Charles Maxwell, then of Aloha Association, a newly formed Hawaiian organization, proposed the return of Kaho`olawe to Native Hawaiians.[48]
- In January 1976, a group of nine Native Hawaiians and sympathizers ventured across the Alalakeiki Channel to Kaho`olawe to show



The `Awa Cup
(Photo Courtesy of the Berne Historical Museum)

Kane and *Ku* came to the forefront. Kaho`olawe was excluded from the mainstream of political and religious activity, but continued as a place where those loyal to *Kanaloa* could go and practice. This continued even after 1820 and the *`Ai noa*. Shortly thereafter, the King and the Council of Chiefs ordered the destruction of the *heiau* and the burning of godly images. Despite these actions, traditional religious practices continued in the rural communities and settlements in the Kingdom and on Kaho`olawe. Although Native Hawaiian religion ceased to have the official sanction of the King and his *Ali`i-nui*, it continued but was "hidden" and practiced in secret by many Native Hawaiian families. Kaho`olawe served as a sanctuary, a *pu`uhonua*, for the traditional religion. It is noteworthy that in 1827, the wife of Maui's *ali`i*, Hoapiliwahine, journeyed to Kaho`olawe and returned with an *`awa* cup and a wooden image—both indications that the traditional religion continued to be practiced on the island.[55]

The *Kuhina nui* of the Kingdom under Kamehameha II, Ka`ahumanu, who many also identify as the force behind the *`Ai noa*, also was responsible for making Kaho`olawe a penal colony. Her selection of Kaho`olawe for that purpose was not accidental. Ka`ahumanu eagerly converted to Protestant Christianity. Her issuance of the Edict of 1929, which basically adopted the Ten Commandments into the laws of the Kingdom, was a testament to that conversion. Her aversion to those who practiced the old ways was just as strong as her aversion to those who practiced other forms of Christianity. Thus, in her view, banishment to Kaho`olawe was a just punishment for those who did not hold her beliefs. And yet, by this action, Kaho`olawe again served as a *pu`uhonua*, a sanctuary, for those sent there.

In 1874, another Hawaiian King, David La`amea Kalakaua, ascended the throne. Unlike his predecessors, Kalakaua looked to the traditional ways for guidance. He restored the hula and brought into the palace many of the traditional practitioners. It was appropriate, then, that Kaho`olawe would figure into his life. Earlier that year, Hawai`i's first elected King, William Charles Lunalilo, died and was interred at Mauna `Ala, the Royal Mausoleum. Lunalilo had not wanted to be buried there and in 1875, Kalakaua moved him to his final resting place at Kawaiahao Church. Once the reinterment was completed, Kalakaua's *kahuna* suggested that he visit Kaho`olawe to cleanse himself. In December 1875, the Royal party departed for Kaho`olawe:[56]

> At 4:30 a.m. . . . the steamer left Lahaina bearing to the east slightly south on Kahoolawe where there is a harbor; and at 7:00 a.m. We entered the harbor of Hokokoa, which is near the famous cape . . . Kealaikanhiki. The paddlers on both

Hawai`i has a land history unlike any other state in the United States. This history stems from the development of a traditional Hawaiian land tenure system, its incorporation into a Western system, and the islands' relationship with the United States during the past 150 years. Aspects of this land history have specific bearing on the current status of Kaho`olawe. Some of the information provided below has been briefly covered in Part I of this report. It is developed here, in greater depth, to provide a better understanding of Kaho`olawe's progression from an island in the Kingdom of Hawaii to a possession of the United States; and of the legal responsibilities of the United States Government regarding the island's restoration and revegetation and its return to state management and control.

From Ceded Land to U.S. Government Property

At the turn of the 18th century, Hawai`i emerged on the world scene as an independent Kingdom governed by a monarchy headed by Kamehameha I. All lands in the Kingdom belonged to the King who held them in trust for his subjects. This remained the case until 1848, when King Kamehameha III initiated a series of land reform acts that recognized the concept of fee title and divided land ownership in the Kingdom between the Crown, the chiefs, the government, and "commoners"—a process that continued over a 20-year period.[57]

The Annexation of Hawai`i

Prior to 1848, Kaho`olawe was an integral part of the Kingdom; in 1848, however, when the Kingdom's lands were divided, the island was declared "government land." It remained so for the next 50 years. In 1898, when the U.S. Congress annexed Hawai`i by resolution, the Joint Resolution of Annexation (30 Stat. 750)—more commonly known as the Newlands Resolution—all former government and Crown lands were ceded to the United States. These lands were then combined into the Public Land Trust. Kaho`olawe, therefore, became part of this land trust. The Hawaii Organic Act (31 Stat. 141) passed by the Congress in 1900, recognized the special status of this Public Land Trust and affirmed that management responsibility for the trust would reside with the Territorial Government of Hawai`i. This arrangement continued until 1959 when Hawai`i was admitted to the Union.

Executive Order No. 10436

President Eisenhower's Executive Order No. 10436, signed in 1953, placed Kaho`olawe under the jurisdiction of the Secretary of the Navy and reserved its use for naval purposes. The order also specified that the Navy must eradicate all "cloven-hoofed animals;" and when the island was no longer needed by the United States, ". . . notify the Territory of Hawaii, and shall, upon seasonable request of the Territory, render such area, or such portions thereof, reasonably safe for human habitation, without cost to the Territory."

The Act of Statehood

The Hawai`i Admission Act of 1959 (Public Law 86-3, 73 Stat 4) provided that, as part of the statehood compact, the United States Government would return to the new Hawai`i state government all ceded lands except those set aside by any:

- Act of Congress;
- Executive Order;
- Presidential Proclamation;
- Gubernatorial Proclamation; or
- Written or verbal permit, license, or permission from the Territory.

The Act further provided that these lands and the income and proceeds derived from them were to be held by the state as a public trust for five distinct purposes benefiting two distinct beneficiary classes: members of the general public and Native Hawaiians, as defined in the Hawaiian Homes Commission Act of 1920. In addition to the betterment of conditions of Native Hawaiians, these lands and their income and proceeds were to be used to support public schools and other educational institutions; develop farm and home ownership; make public improvements; provide land for public use.[58]

Court Decisions

Because Kaho`olawe has been under federal control for the past 50 years, territorial and state courts have not been involved with issues concerning the island. During the past 20 years, however, a number of important federal court actions and decisions have had a dramatic impact on Kaho`olawe and the U.S. Navy's relationship with Hawai`i's local community. Many of these actions and decisions grew from civil disobedience by Native Hawaiians and other members of the general public protesting the U.S. Navy's continued presence on Kaho`olawe. Among these decisions, which are listed in Appendix 9, is a partial summary judgment issued by U.S. District Judge Dick Yin Wong in 1977, and the Consent Decree and Order issued by U.S. District Judge William W. Schwarzer in 1980, in *Aluli* v. *Brown*. It is particularly noteworthy that Native Hawaiians, a good portion of Hawai`i's general public, and numerous public and private institutions have formed alliances over the legal issues surrounding Kaho`olawe. These alliances were strengthened and tempered by the loss of two Native Hawaiians who died in 1977 while protesting continued federal control of the island. These alliances remain intact today.

When the U.S. Congress acts on recommendations presented in this report, the half-century era of federal government control of Kaho`olawe will close. In retrospect, the events and the resulting forces occurring at all levels of government during this era clearly indicate the direction towards which the island has been moving. A new chapter in the island's story is about to be written.

In recent times, few issues of land control, management, and use have brought so many in Hawai`i together toward a common goal. The future of Kaho`olawe Island is one. Countless residents of the State of Hawai`i—Native Hawaiians and others who call Hawaii home—have devoted time, energy, and financial resources to the resolution of the issues surrounding this island.

Public testimony presented at Kaho`olawe Island Conveyance Commission (KICC) hearings, together with results from public opinion polls conducted in 1992, speak to the importance residents of Hawai`i attach to Kaho`olawe.

Testimony to the Commission

From April 1991 to May 1991, KICC held eight public hearings throughout the State of Hawai`i. The public was invited to attend and welcomed to address, in written or oral form, five issues concerning Kaho`olawe.

- Significant cultural history
- Restoration and rehabilitation
- Future use
- Military use
- Title to and jurisdiction over

Two hundred and fifty-two people, including members of the Hawaii Congressional Delegation, representatives of the various military services, the State of Hawai`i, and the County of Maui, presented testimony at the public hearings. The majority of presenters spoke as individuals or as representatives of their constituencies. An additional 26 testimonies were received through the mail, including 2 petitions with 360 signatures. An analysis of the information presented shows that of those who participated in the hearings:

- 68 percent believe that Kaho`olawe has historic, cultural, and religious significance for the people of Hawai`i;
- 67 percent believe that Kaho`olawe must be restored and rehabilitated through reforestation, revegetation, erosion control, alien plant and animal eradication and the reintroduction of native plant species;
- 60 percent believe that commercialism should be banned on the island and in its surrounding waters;
- 73 percent believe that Kaho`olawe should be designated as a cultural and educational center;
- 77 percent believe that all bombing and military use should cease;
- 77 percent believe that the military should clean up the island in accordance with Presidential Executive Order No. 10436;
- 77 percent believe that the federal government must fund the cost of ordnance removal;
- 78 percent believe that Kaho`olawe should be returned to the people of Hawai`i; and
- 79 percent believe that Kaho`olawe should be given into the stewardship of the Protect Kaho`olawe `Ohana and held by the State of Hawai`i until some form of sovereignty for Native Hawaiians is recognized.

Public Opinion Polls

Various public opinion polls also show strong support for the early return of Kaho`olawe to the State of Hawai`i and for the end of military use and federal control.

In January 1992, the Governor of Hawai`i's Office of State Planning conducted a statewide sample survey to ascertain public opinion on issues surrounding Kaho`olawe. More than 1,200 residents statewide were selected at random and interviewed for this survey. Its findings were as follows.[62]

- Of all Hawai`i residents, 65 percent are aware that the federal government controls access to Kaho`olawe.
- Of all Hawai`i residents, 84 percent favor the temporary halt to the bombing of Kaho`olawe as declared by the federal government.
- Of all Hawai`i residents, 71 percent favor a permanent stop to all military use of Kaho`olawe. Most of the remaining 29 percent who favor continued military use do so with restrictions being placed on military activity:

This report is a unique and historic document. No other federal study of the future of Kaho`olawe Island, authorized by the U.S. Congress, has ever been undertaken. Never before have Native Hawaiians and other residents of the state had the opportunity to contemplate the return of the island to state control; recommend uses of the island that comply with state and local rather than federal needs; and plan a future for the island based on cultural and historic values.

The Kaho`olawe Island Conveyance Commission (KICC) has gone to great pains, as indicated in Part III, to make this report an expression of widespread public sentiment. In addition to the public surveys reported on in Part III, KICC circulated its draft findings and recommendations for public comment—and received many helpful public responses. Thus, embodied in Commission findings and recommendations are the countless thoughts and aspirations of Hawai`i's citizenry, including: fishermen and farmers; government officials; youth, adults, and seniors; academicians and students; Native Hawaiians and non-natives; military professionals; researchers; and people from all walks of life who call Hawai`i home.

Part IV of this report is divided into three sections.

- **Recommendations to the U.S. Congress and the Federal Government:** Terms and conditions that the Commission deems appropriate for the return of Kaho`olawe to the State of Hawai`i, future use of Kaho`olawe for military training purposes, and the removal of unexploded ordnance and solid waste from the island and its surrounding waters.
- **Recommendations to the State of Hawai`i:** Proposals for the island's use, management, and the development of its resources base.
- **Estimated expenditures for restoration:** Funds that will be required, from a variety of sources, to make the island reasonably safe for human habitation and use and to enhance its environmental stabilization processes.

hazardous and toxic wastes, should they be found, as required by Executive Order No. 10436, until the island of Kaho`olawe and its surrounding waters have reached a condition reasonably safe for human habitation and human use in accordance with safety standards mutually agreed on by the State of Hawai`i and the United States.

If additional items or materials are located and were deposited by actions of the federal government, additional funds shall be appropriated to ensure their removal, and all remedial actions required to make the island and its surrounding waters safe for prescribed uses shall be promptly undertaken by the federal government.

- **The United States shall provide for the restoration of Kaho`olawe as required in Executive Order No. 10436 by providing funding for soil conservation activities, including erosion abatement, revegetation, and reforestation; water resource development; archaeological and historical site stabilization, restoration, and interpretation; removal and destruction of non-native plant and animal species; and fencing with adequate and appropriate signage.**
- **The United States shall provide funds to cover all costs for the clearance and removal of unexploded ordnance and related solid waste and other hazardous and toxic wastes, should they be found, and for the restoration of Kaho`olawe. These funds shall come from the general funds of the United States and shall not be a sharing in special funds set aside for similar purposes on a priority basis, such as CERCLA or SARA funds. The funds shall be made available by the United States Congress to the United States Department of Defense. The United States Department of Defense shall grant to the State of Hawai`i, for implementation of activities on Kaho`olawe, the portion of funds required for soil conservation and the related activities noted herein. The portion of funds required for the clearance and removal of unexploded ordnance and related solid waste and other hazardous and toxic wastes on Kaho`olawe and in its surrounding waters shall be granted to the appropriate agency(ies) of the federal government. Such agency(ies) and pertinent federal statutes and regulations shall be identified in the special legislation. The appropriate agency(ies) shall be directed to act with all deliberate speed to begin clearance and removal of unexploded ordnance and related solid waste from Kaho`olawe and its surrounding waters.**
- **The United States shall retain responsibility for the removal, or disarming and removal, of all unexploded ordnance and related solid waste and any other hazardous or toxic waste exposed or located due to erosion or other causes on Kaho`olawe or in its surrounding waters subsequent to the certification of Kaho`olawe and its surrounding waters as meeting the clean up standards mutually agreed to by the State of Hawai`i and the federal government.**

Munitions Training Prohibition

Since 1990 and the formation of KICC, all military departments have been restricted from using Kaho`olawe "to conduct bombing training, gunnery training, or similar munitions delivery training." This restriction has been included in military appropriations legislation and will remain in effect through the 1993 federal fiscal year. It is anticipated that enactment of special legislation for Kaho`olawe will not be completed before the munitions restriction expires.

Recommendation 1.2. The United States Congress shall insert the following language in all military appropriation measures until such time as special legislation is enacted regarding Kaho`olawe's return to the State of Hawai`i: "None of the funds made available by this Act shall be available for any Military Department of the United States to conduct bombing training, gunnery training, or similar munitions delivery training on the parcel of land known as Kaho`olawe Island, Hawai`i."

Unexploded Ordnance and Related Solid Waste Removal

In 1953, when Kaho`olawe was placed under the jurisdiction of the Secretary of the Navy through Executive Order No. 10436, territorial officials, after protracted discussions with federal officials, came to an agreement that the island would be restored to a condition usable by future populations in Hawai`i,

Table 1. Clearance Standards and Associated Risks

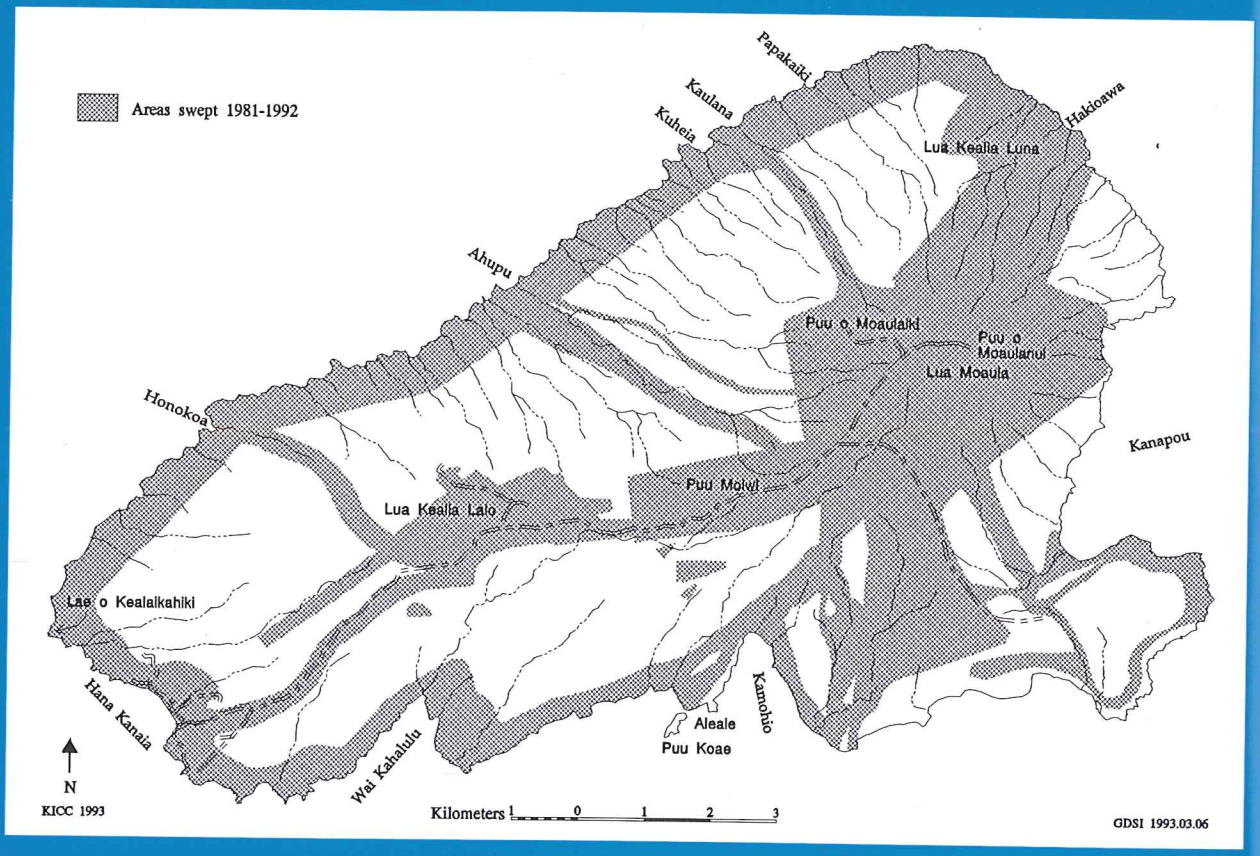
END USE	CLEARANCE STANDARD	RISKS
Restricted game refuge, disposal site, firing range, restricted area. Acceptable land uses may change depending on time.	Fence and post.	Encroachment. Possible future clearance requirement before natural processes render ordnance safe.
Wilderness parks, livestock grazing, limited human foot traffic depending on hazards.	Surface clearance.	Depending on clearance effectiveness and ordnance type, some hazards may exist from shallowly buried items. On inert or practice ordnance targets, the risks are minimal.
Limited agriculture, tree farming, limited recreational vehicle use and foot traffic, parking areas, hunting, fishing.	Surface and shallow subsurface clearance to 18".	If land is disturbed or eroded, there exists the possibility of exceeding the clearance depth and exposing ordnance.
Unlimited agriculture, tree farming, recreation. Limited construction, i.e., sheds, temporary buildings, pipelines.	Clearance to a minimum depth of 10'.	If land is disturbed or eroded, there exists the possibility of exceeding the clearance depth and exposing ordnance.
Large structures, drilling, mineral exploration, mining, etc. may be performed in areas cleared.	Remove all ordnance.	A hazard of encountering an ordnance item would exist during the excavation or construction. There exists little chance of an explosive incident caused by a deeply buried ordnance item from surface activity.

Source: Naval Explosive Ordnance Disposal Technology Center, Range Clearance Technology Assessment-Final Report, March 1990.

in 1971. Various aspects of the problem have been reviewed since that time.[65] The Commission has also conducted its own study of the unexploded ordnance and solid waste problem.

It is the Commission's firm belief that the entire island of Kaho`olawe and its surrounding waters can be made safe for the purposes identified in this report and in S. 3088 (Table 2 provides estimates of unexploded ordnance densities).

Map 2. Areas Swept by Military Personnel (1981-92)



Unexploded Ordnance and Related Solid Waste on the Island

The 1980 Consent Decree reached in the settlement of *Aluli* v. *Brown* ordered the U.S. Navy to begin a program of unexploded ordnance clearance and removal for Kaho`olawe. Between fall 1981 and November 1992, the U.S. Navy estimates that more than 14,000 acres were surface swept—some two or more times (Map 2).[66]

The KICC consultant estimates that the total densities of potentially hazardous surface and subsurface items of unexploded ordnance remaining on Kaho`olawe, in those areas swept, are: approximately one item per acre in the eastern end of the island, in what was known as the Troop Safety Zone; two items per acre in the western Troop Safety Zone; and three items per acre in the former central portion of the island, which served as the main target area in recent times. This equates to approximately 6,000 potentially hazardous items of unexploded ordnance on or below the island's surface in those swept areas. Most of the remaining subsurface ordnance is within one foot of the surface. Other studies tend to confirm these findings, although areas yet to be swept by the military probably have much higher densities of unexploded ordnance. Types of ordnance that may be present are listed in Appendix 10.

The KICC consultant also found that, between 1986 and 1990, more than 300 tons of scrap and inert ordnance were collected on Kaho`olawe and still need to be removed. It is estimated that more than 1,200 tons of scrap and inert ordnance, about 85 pounds per acre, must still be collected on the island.[67]

- The waters from Makaalae to Lae o Kukui, which were used by a wide variety of ships for live fire exercises.

Recommendation 1.3. Onsite safety standards for the clearance and removal of unexploded ordnance and related solid waste from Kaho`olawe and its surrounding waters shall be established on the basis of human habitation and other specified human uses and be implemented utilizing the highest state-of-the-art detection techniques and devices.

Restricted Access and Entry

Since 1941, the military has controlled access to Kaho`olawe. The 1980 Consent Decree issued in *Aluli* v. *Brown* recognized the Protect Kaho`olawe `Ohana's right to access the island. With the change in jurisdiction from federal to state control, the Commission believes that the PKO's rights to access Kaho`olawe and to enter its surrounding waters for cultural and educational purposes should be maintained. This does not, however, detract from the inherent dangers that unexploded ordnance and related solid wastes on Kaho`olawe and in its surrounding waters pose to unsuspecting visitors from the general public. Access to Kaho`olawe and use of its surrounding waters by the general public must, therefore, be controlled and supervised.

Recommendation 1.4. Access to Kaho`olawe shall remain controlled and supervised. Upon conveyance of Kaho`olawe to the State of Hawai`i, access to and use of the island and its surrounding waters shall be under the jurisdiction of the State of Hawai`i, and access by the Protect Kaho`olawe `Ohana shall be continued.

The appropriate agency(ies) responsible for the removal of unexploded ordnance and hazardous and toxic waste, should any be found, shall have authority to promulgate rules and regulations regarding access to such portions of the island deemed to be necessary for protection against loss of life, bodily injury, or property damage. Any rules and regulations promulgated in furtherance of this recommendation shall be designed to maximize the public use of the island and its surrounding waters for traditional and contemporary cultural practices, and for educational and scientific purposes.

Kaho`olawe military supply ship leaving
(Photo Courtesy Hardy Spoehr)

Such rules and regulations shall require the approval of the State of Hawai`i by its Governor or his designee, and shall have the force and effect of law. The state shall not arbitrarily or capriciously withhold such approval or consent. The state may at its own discretion terminate or abolish such rules and regulations when it deems they are no longer applicable.

Executive Order No. 10436 Termination

Executive Order No. 10436 provides the legal basis for many of the Commission's findings and recommendations. It shall be terminated only after all appropriate legislation has been enacted and agreements have been executed with the federal agencies tasked with conducting the work needed to comply with Commission recommendations.

Recommendation 1.5. All military use of Kaho`olawe shall cease. Presidential Executive Order No. 10436, dated February 20, 1953, which takes and reserves Kaho`olawe for military use under the jurisdiction of the Secretary of the Navy, shall be terminated upon enactment of special legislation that would transfer to the appropriate federal agency(ies) all the obligations to clean up and restore Kaho`olawe, contained in said Executive order, together with such additional requirements as are recommended by this Commission and as the Congress finds appropriate.

Contemporary Native Hawaiian ceremony at Hakioawa.
(Photo Courtesy Rowland Reeve)

Contemporary Native Hawaiian ceremony at Hakioawa
(Photo Courtesy G. Brad Lewis)

that the integrity of the island is preserved and protected for future generations. The entire island of Kaho`olawe qualifies as a park under existing state law.

If Kaho`olawe is to be preserved and protected, the State of Hawai`i must pass legislation that specifies the types of activities considered appropriate for the island. The Commission strongly believes that any commercialization of the island or its surrounding waters is inappropriate.

Recommendation 2.1. The State of Hawai`i shall pass legislation that guarantees in perpetuity the use and management of Kaho`olawe and its surrounding waters exclusively for the study and practice of traditional and contemporary Native Hawaiian culture; for the study and preservation of archaeological and historical sites, structures, and remains; for soil conservation and plant reforestation and revegetation activities; and for the enhancement and study of native plant and animal habitats and communities. Commercial activity and exploitation of resources for commercial development are not appropriate on the island or in its surrounding waters and shall be prohibited.

Administration

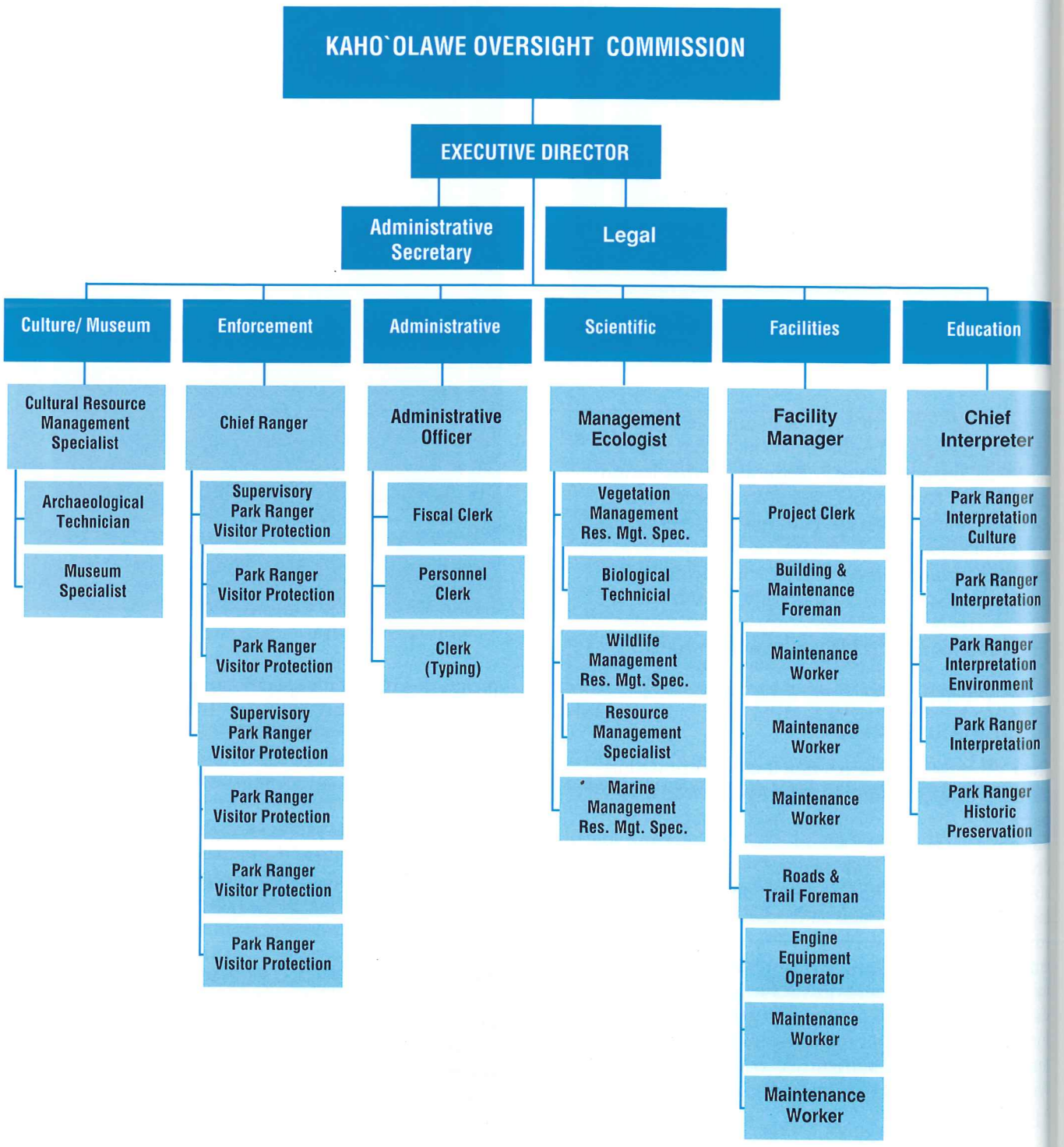
As part of the Public Land Trust and the requirements of Executive Order No. 10436, the Commission concurs that Kaho`olawe be returned to the State of Hawai`i. The Commission also notes, however, that the Native Hawaiian community and the Hawai`i community at large are engaged in serious discussions on topics relating to self-determination including types of sovereignty models that might be appropriate for Native Hawaiians in the future. Many believe that Kaho`olawe and its surrounding waters could become part of a future sovereign Native Hawaiian land base. The return of Kaho`olawe to the State of Hawai`i at this time does not preclude the transfer of Kaho`olawe to a Native Hawaiian sovereign entity in the future. This option must be preserved for future action by the State of Hawai`i.

Currently, Native Hawaiians are recognized in federal and state legislation as having special status.[70] Most recently, the state courts have affirmed Native Hawaiian rights to access resources.[71] The implications of this as it relates to Kaho`olawe are important, as the island may become the first tangible land base for a self-determining Native Hawaiian Nation.

Revegetation and Reforestation Activities

Although a number of federal and state agencies and private organizations have been involved with past efforts on Kaho`olawe, the Protect Kaho`olawe `Ohana has been particularly active in the areas of soil conservation and native plant revegetation and reforestation. The Commission believes that the Protect Kaho`olawe `Ohana is the private entity best suited to continue to perform these activities on the

Table 3. Administrative Staffing Model



A wooden image found by J.F.G. Stokes at a fishing shrine in Kamohio Bay in 1913.
(Photo Courtesy of the Bishop Museum)

access will be carefully controlled and supervised, preclude the need for permanent fences. In rare instances, however, temporary fencing may be required to identify eroding archaeological and historical sites and endangered plant species or to warn of hazardous areas. KICC estimates that a total of six miles of moveable, two-strand wire fence will be needed to alert visitors to areas of archaeological or historic fragility, environmental sensitivity, or hazards on the island. Equally important as fences is having appropriate and adequate signage throughout the island and along the coast providing adequate information, be it for education or for warning purposes.

Resource Management

Kaho`olawe and its surrounding waters harbor unique cultural, archaeological and historical, and environmental resources that provide opportunities for scientific learning as well as practicing traditional and contemporary Native Hawaiian culture. The Commission has attempted to identify these major island and marine resources, to present respective findings about each, and to make recommendations for future implementation.

Culture

Kaho`olawe serves as a cultural resource, particularly for Native Hawaiians, because it links past traditions with contemporary practices. It is a place where cultural practices, including religious ceremonies, continue to be observed and where legends and traditions continue to survive, often in place names and the oral traditions relating to the island.

Traditional and Contemporary Cultural Practices. The past 20 years have brought a resurgence of Native Hawaiian cultural practices. These practices include increasing use of the Native Hawaiian language and interest in traditional value systems, including religion; reexamining Hawaiian history and relating past events from the Native Hawaiian perspective; and defining island lifestyles that are more appropriate for island living. Kaho`olawe and its surrounding waters offer a place where all of these practices can be accommodated and are appropriate. For more than ten years, PKO has utilized the island for cultural practices and has demonstrated the viability and importance of maintaining a cultural foundation for activities on

Map 4. Place Names

Northwest

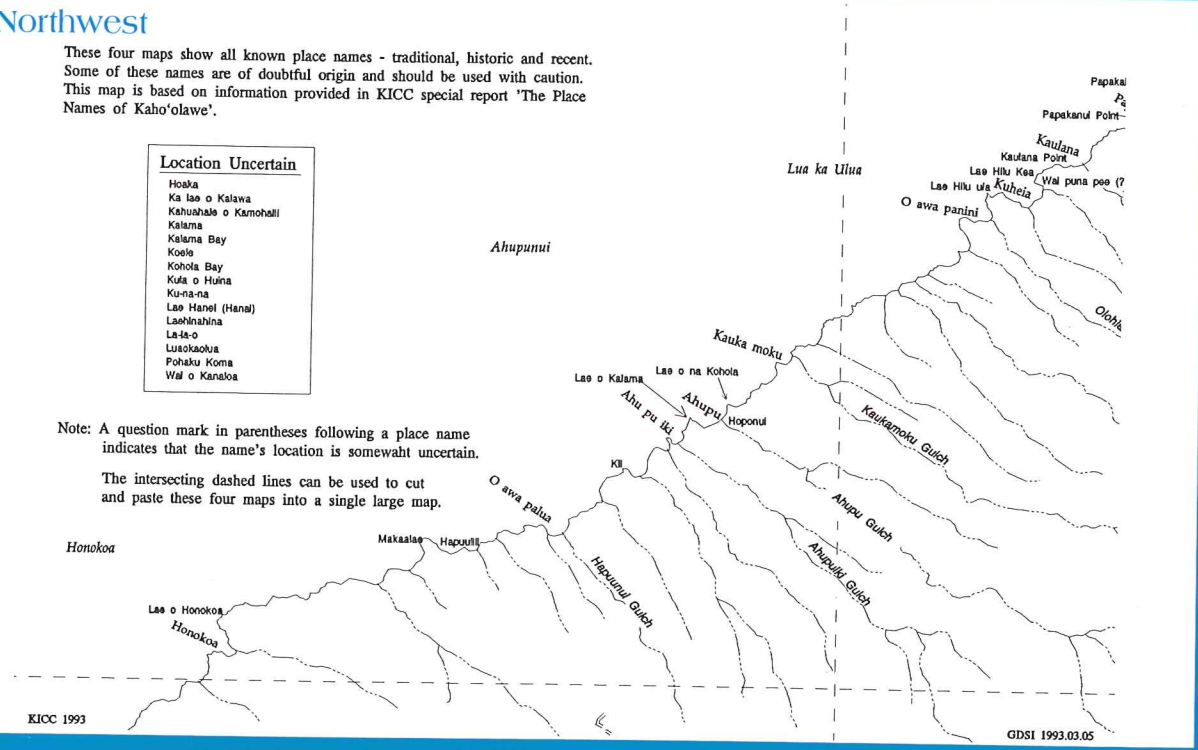
These four maps show all known place names - traditional, historic and recent. Some of these names are of doubtful origin and should be used with caution. This map is based on information provided in KICC special report 'The Place Names of Kaho'olawe'.

Location Uncertain

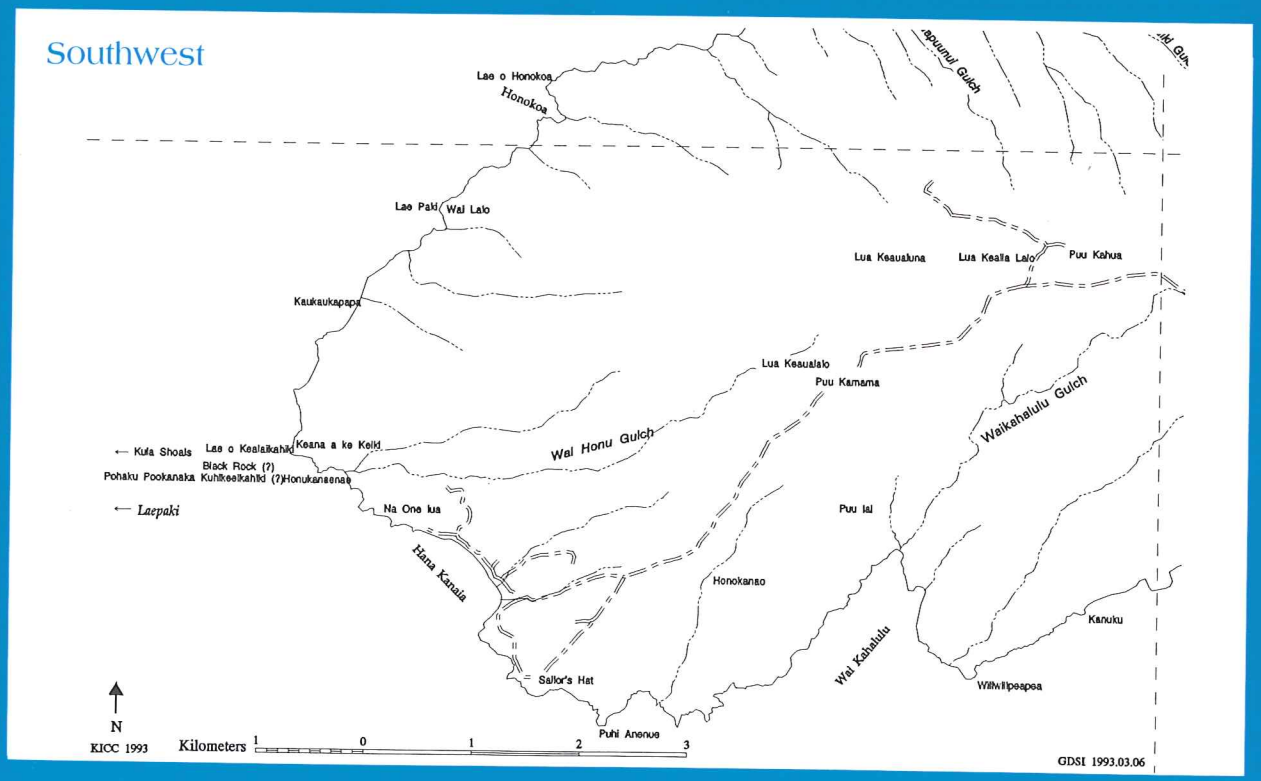
- Hoaka
- Ka lae o Kalawa
- Kahuahale o Kamohalli
- Kalama
- Kalama Bay
- Koele
- Kohola Bay
- Kula o Huina
- Ku-na-na
- Lae Hanei (Hanai)
- Laehinahina
- La-la-o
- Luaokaoiua
- Pohaku Koma
- Wai o Kanaloa

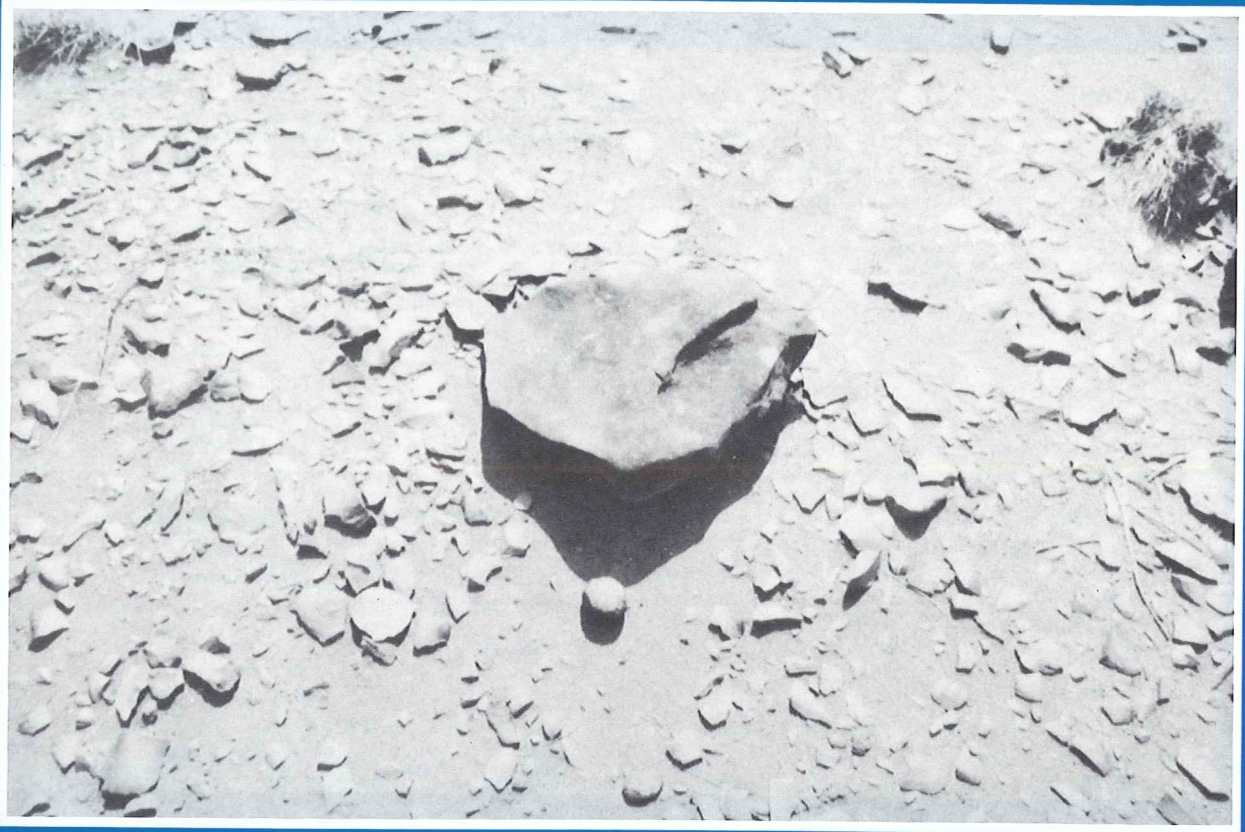
Note: A question mark in parentheses following a place name indicates that the name's location is somewaht uncertain.

The intersecting dashed lines can be used to cut and paste these four maps into a single large map.



Southwest





Shrine for the adz workshop on Pu`u Mo`iwi
(Photo Courtesy Roland Reeve)

The island of Kaho`olawe yesterday was declared eligible for the National Register of Historic Places. The announcement came from Jerry Rogers, acting keeper of the register at the U.S. Interior Department in Washington. The ruling, requested by the state Historic Preservation Office . . . means the Navy must nominate the entire island as an archaeological district, which includes 487 sites.

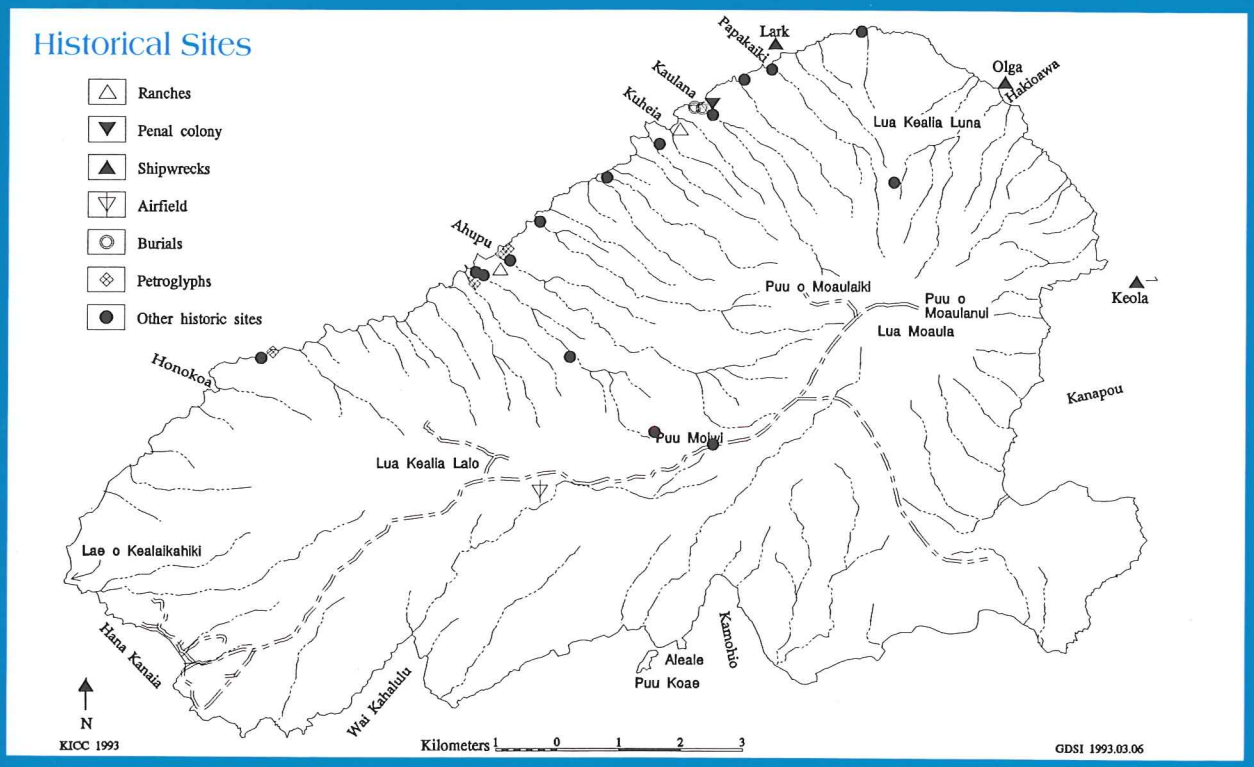
Honolulu Advertiser, *January 29, 1981*

Recommendation 2.6. The State of Hawai`i shall work in cooperation with the Native Hawaiian community to conduct a review and analysis of Kaho`olawe's place names and determine the most appropriate names for areas that have been referred to by more than one name.

Archaeology and History

Kaho`olawe's archaeological and historical resources are valuable state, national, and international treasures that provide insight into the island's past. These resources are unique and, currently, extremely fragile and vulnerable. Ancient religious structures include *ko`a* (shrines), *ku`ula* (stones used to attract fish), and *heiau* (temples); petroglyphs; work areas, including agricultural areas and rock quarry sites; settlement areas; and fishing grounds.

Map 6. Historical Sites, Work Areas, Religious Sites, and Settlements



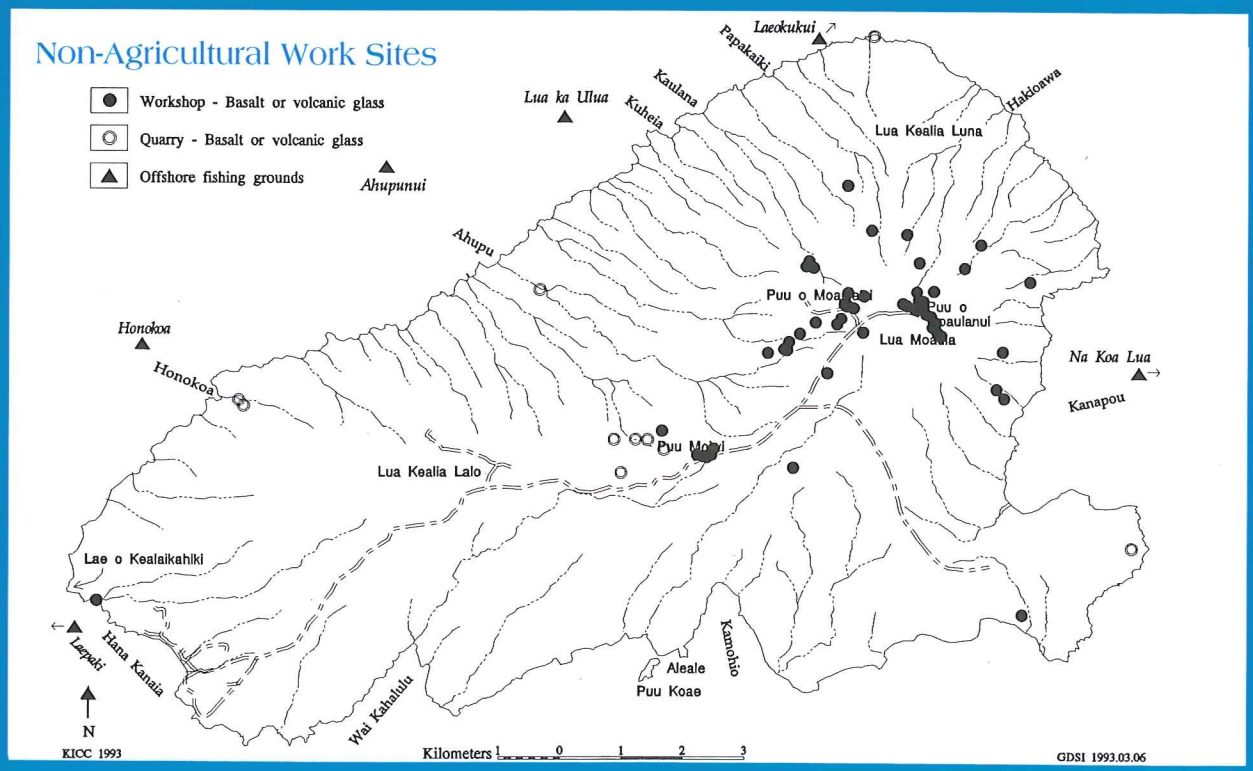


Table 4. Kaho`olawe Archaeological and Historical Sites (1980)

Settlement Zone & Subzone	Habitation Features		Shrines & Heiau		Lithic Quarries & Workshops		Petroglyph Clusters		Postcontact Walls & Features	
	Dated	Total	Dated	Total	Dated	Total	Dated	Total	Dated	Total
Northeast	107	255	7	18	-	-	1	10	-	10
Northwest	104	390	3	22	-	-	1	10	2	26
West	63	214	3	22	2	7	-	3	1	8
South Cliff	19	50	1	2	-	-	-	-	-	1
SE Cliff	1	7	1	2	-	1	-	-	1	-
East Cliff	10	16	-	-	2	2	-	-	-	-
Kanapou	-	6	-	3	-	-	-	-	-	-
Waikahalulu Cliff	13	48	-	-	-	-	-	-	-	-
Kamohio Cliff	17	23	1	1	-	-	-	-	-	-
South Shore	-	5	1	2	-	-	-	-	-	-
Zone Total	334	1,014	17	72	4	10	2	23	4	45
II. Intermediate										
Northeast	1	18	-	-	-	-	-	-	-	-
Northwest	3	35	-	-	1	2	-	-	-	1
West	3	21	-	-	-	-	-	-	-	1
South	8	23	-	1	-	-	-	-	-	-
Southeast	2	7	-	-	-	-	-	-	-	-
East	13	36	-	-	3	3	-	-	-	-
Kanapou	3	17	1	2	-	-	-	-	2	3
Zone Total	33	157	1	3	4	5	-	-	2	4
III. Inland										
North	190	566	4	9	1	3	-	-	-	1
South	53	320	1	2	-	-	1	1	-	2
West	2	6	-	1	1	14	-	-	-	-
Zone Total	245	892	5	12	2	17	1	1	-	3
Grand Total	612	2,063	23	87	10	32	3	24	6	52

Source: Hommon, Robert J., 1980. National Register of Historic Places, Multiple Resource Nomination Form for the Historic Resources of Kaho'olawe (Final).

Table 5. Records of Burials on Kaho'olawe

LOCATION	NUMBER REMAINS FOUND	AGE	SEX	CONDITION OF REMAINS	SOURCE	DATE
Hakioawa Burial Ground	4	Child	Uncertain	Unknown	Stokes	1913
	2	Adult	Female	Unknown	Stokes	1913
Hakioawa	1	0-6	Uncertain	Unknown	Survey	1976-80
	3	Adult	Uncertain	Unknown	Survey	1976-80
	1	35-55	Female	Unknown	Survey	1976-80
	1	18-25	Female	Unknown	Survey	1976-80
	1	Uncertain	Uncertain	Unknown	Survey	1976-80
Third gulch west of Kuheia	2	Uncertain	Uncertain	Badly decayed	Stokes	1913
Kamohio Shrine Site	1	Adult	Male (?)	Fully articulated but headless	Stokes	1913
Northern Slope of Pu`u o Moaulanui	1	45+	Male	Almost complete	Pedro	Buried 1919
Headland overlooking Kuheia Bay	1	26	Male	Unknown	Pedro	1920-30s
Uplands near Pu`u o Moaulaiki	4	Uncertain	Uncertain	Unknown	Pedro	1920-30s

Source: Rowland Reeve, Memorandum to KICC, Honolulu, 1992.

have been laid to rest at Kuheia Bay near the MacPhee-Baldwin ranch facilities. This incident occurred in 1919 and involved the captain of the sampan *Heeia Maru*, Keanini Kimokeo, who died at Kuheia after being crushed by a long boat he was steering when he was tossed out and the boat landed on him.

In recent times, a number of burials have been located but most have been reinterred. In 1913, anthropologist John Stokes discovered some 16 burials, 8 of which he brought to the Bishop Museum for examination. During the later ranching period, ranch foreman Manuel Pedro, also occasionally found and reinterred skeletal remains that had been in eroding shallow graves—particularly in the hardpan area. More recently, archaeological activity between 1976 and 1980 identified some 24 burials at Hakioawa, all of which were reinterred (Table 5).[83]

Native Hawaiian burials and any associated burial goods are protected under the state's Historic Preservation Law (H.R.S. 6E-43) and federal statutes, including the recently passed Native American

- **Stabilization and interpretation of the MacPhee-Baldwin complex at Kuheia Bay and the penal colony settlement area at Kaulana Bay. A restored ranch house at Kuheia could serve as a gateway for some types of visits to the island and as a museum and depository for Kaho`olawe archaeological and historical materials;**
- **Manage, monitor, and protect the island's archaeological and historical resources by having (1) professional staff with adequate financial resources assigned solely to Kaho`olawe and (2) on-island rangers interpreting these resources and enforcing historic preservation laws; and**
- **Additional research on the cultural, archaeological, and historical aspects of Kaho`olawe and use of that research to initiate and maintain interpretive and educational programs on and off the island.**

Environment

Kaho`olawe is an island. As such, its environment is fragile and sensitive to change. Changes have affected the island's environment with ever-increasing speed. First was the arrival of Polynesian voyagers followed, perhaps 1,000 years later, by voyagers from the East. In the latter half of the 19th century, sheep and other ungulates were moved to the island and new plant species were introduced to support these animals. In 1941, the military arrived, often en masse, and began bombing exercises. In June 1965, the largest non-nuclear explosion of its time, 500 tons of TNT, dubbed Project Sailor's Hat, was detonated on the island. And so it went until 1990, when President George Bush, through his Memorandum to the U.S. Secretary of Defense, quieted munitions training and operations on the island.

Despite the legacies of the past two centuries, Kaho`olawe retains unique and special environmental resources. Since Western explorers made the first written observations of Kaho`olawe in 1779, the island has been visited, on a number of occasions. specifically for the study of its natural environment. The most recent of these visits was sponsored by KICC and involved The Nature Conservancy, with assistance from the Pacific Tropical Botanical Garden and The Smithsonian Institution.[87]

Flora and Fauna. Kaho`olawe's flora and fauna are characteristic of Pacific islands located in the lee of larger islands such as Ni`ihau. The Nature Conservancy's recent survey of Kaho`olawe identified 20 rare plant and animal species, including 2 of 8 natural plant communities, 13 native plant species, and 5 animal species (Table 6 and Map 7). A number of these species are listed on the federal government's threatened and endangered species list.

One plant in particular deserves mention. It was discovered by scientists from the Pacific Tropical Botanical Garden in a very isolated, difficult-to-reach location on the island. Initial findings indicate that the plant is a new genus found only previously in pollen samples that date to the 14th and 15th centuries, but then disappeared. This plant is a remnant from an earlier time.

Kaho`olawe's earliest vegetation seems to have been characterized by a lowland dry shrub land community, probably with a few widely scattered large shrubs or small trees. Late in prehistory, or, perhaps, early in the historic period after 1778, the shrub land was replaced largely by a grassland community as a result of anthropogenic (human) burning. This condition has quickly transformed Kaho`olawe into its present-day appearance, characterized by a greatly reduced grasslands community and a largely barren wasteland on the inland plateau resulting from ungulate grazing. The new plant genus has survived all this. The Commission's recommendation to the scientific community that

> *"What is important about this island is that preservation of sites is better here than on any other island. Ninety-nine percent of the sites that ever existed are still here. There has been remarkably little site destruction. We're losing valuable information through erosion. Erosion is virtually the only threat to sites on this island."*
>
> *H. David Tuggle, Navy archaeologist,*
> **Honolulu Star-Bulletin, *May 13, 1983***

Table 6. Kaho'olawe Rare Flora and Fauna

STATUS[a]	SCIENTIFIC NAME[b]	COMMON NAME	FEDERAL STATUS[c]	HERITAGE GLOBAL RANK[d]
Ferns and Fern Allies				
	Ophioglossaceae			
E	Ophioglossum concinnum[e]	Pololei	C1	G2
Flowering Plants				
	Asteraceae			
E	Lipochaeta bryanii[f]	Nehe	3A	GH
	Brassicaceae			
E	Lepidium bidentatum var. o-waihiense[e]	`Anaunau, naunau, kunana	None	G2T2
	Capparaceae			
E	Capparis sandwichiana[e]	Pua pilo, maiapilo	C2	G2
	Euphorbiaceae			
E	Chamaesyce skottsbergii var. vaccinioides[f]	`Akoka, koka, kokamalei	C2	G2T1
	Fabaceae			
E	Fabaceae sp. nov.[e]	Ka palupalu o Kanaloa	None	G1
E	Sesbania tomentosa[e]	`Ohai	C1	G2
E	Viga o-wahuensis[e]	—	C1	G1
	Malvaceae			
E	Hibiscus brackenridgeii ssp. brackenridgeii[e]	Ma`o hau hele	C1	G1T1
	Portulacaceae			
E	Portulaca molokiniensis[e]	`Îhi	C2	G1
E	Portulaca villosa[e]	`Îhi	C2	G1
	Rhamnaceae			
E	Gouania hillebrandii[f]	—	LE	G1
	Urticaceae			
E	Neraudia sericea[f]	Ma`aloa, ma`ola, `oloa	C1	G1
Reptiles				
	Cheloniidae			
I	Chelonia mydas[f]	Honu, Green Turtle	LT	G3
Birds				
	Procellariidae			
E	Pterodroma phaeopygia sandwichensis[g]	`Ua`u, Dark-rumped Petrel	LE	G2
	Mammals			
	Vespertilionidae			
E	Lasiurus cinereus semotus[g]	`Ope`ape`a, Hawaiian Hoary Bat	LE	G2
	Balaenopteridae			
I	Megaptera novaeangliae[h]	Humpback Whale	LE	G2
	Phocidae			
E	Monachus schauinslandi[g]	`Ilio holo i ka uaua, Hawaiian Monk Seal	LE	G2

Biological lowland shrub
(Photo Courtesy Hardy Spoehr)

Map 7. Rare Flora and Fauna

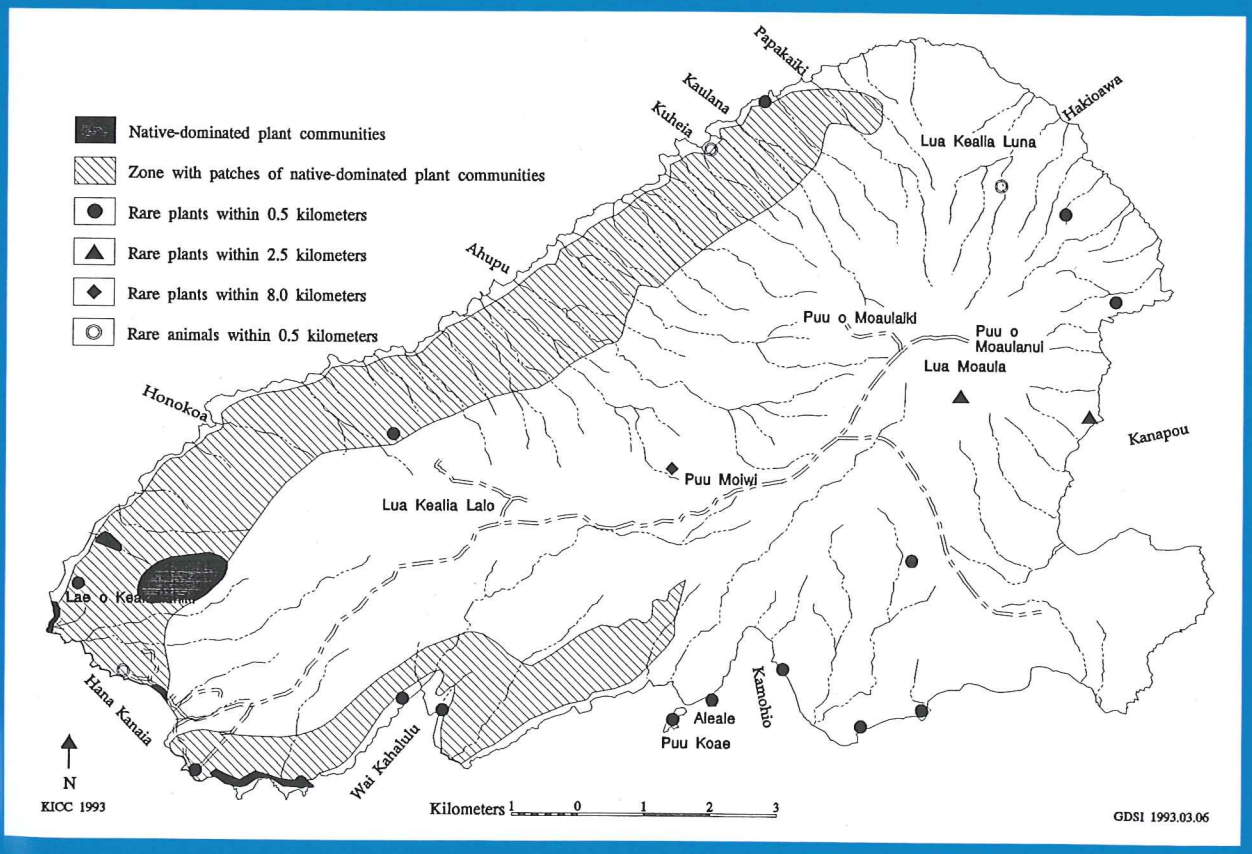
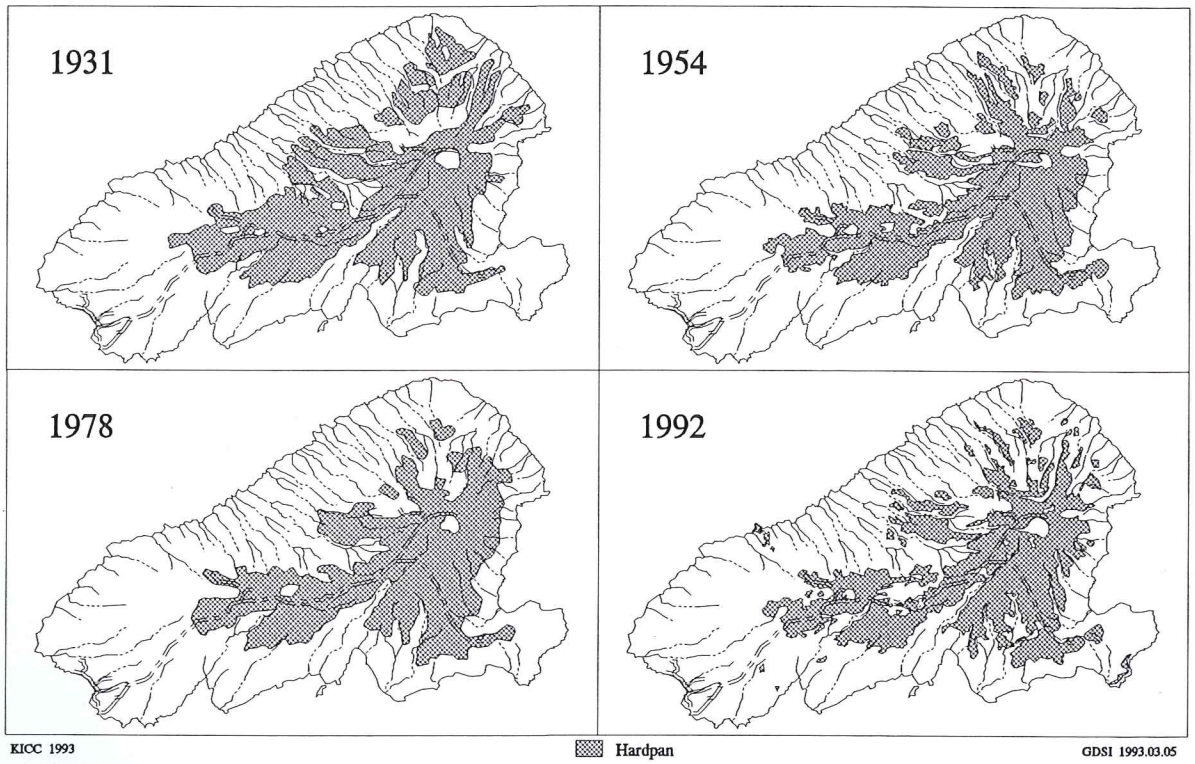
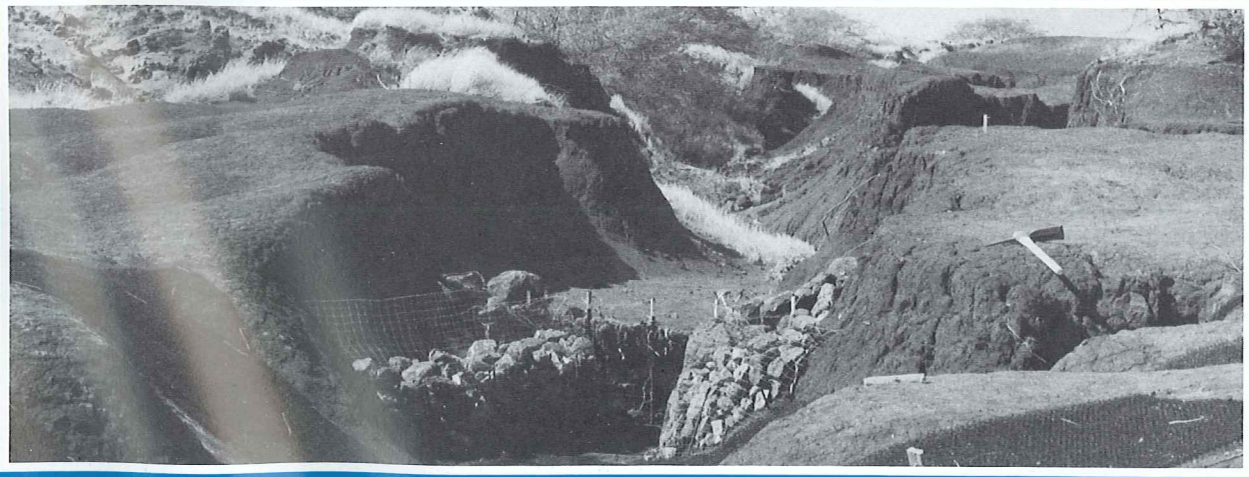


Table 7. Major Reforestation and Revegetation Projects: 1970-1993

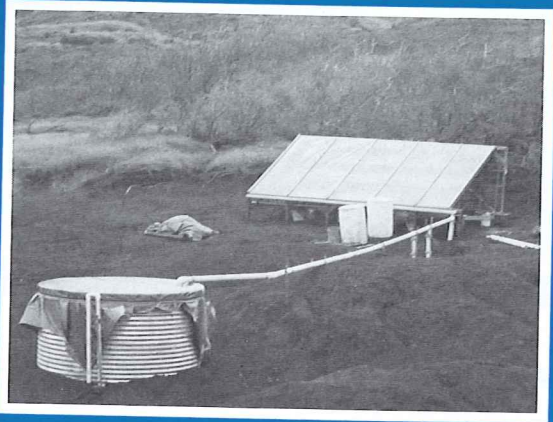
Project Title	Project Dates	Project Objectives	Project Director (s)	Other Participants
Vegetation Trials for Rehabilitating Kaho`olawe	1971-74	Determine what plant species would grow better given Kaho`olawe's environment: 6 test plots were created and monitored.	Craig D. Whitesell, Research Forester, Forest Service, U.S. Department of Agriculture; Wesley H.C. Wong, Hawaii Division of Forestry, Dept. of Land and Natural Resources (DLNR), State of Hawaii	D.N. Palmer, Soil Conservation Service; H.K Yanamura, DLNR
Windbreak Project	1978-Present	Plant trees to impact on Kaho`olawe's erosion due to high winds—more than 30,000 tamarisks have been planted to date.	Wesley Wong, Coordinator, District Forester, DLNR, State of Hawaii; Officer in Charge (OIC) Kaho`olawe Project, U.S. Navy	Various volunteer organizations
Native Hawaiian Revegetation Project	1985-Present	Test the viability of using native plant species for Kaho`olawe replanting and revegetation projects: A series of plots with native plants were established and continue to be monitored. Since 1989, more than 3,500 native plants have been propagated for use on Kaho`olawe.	Rene Sylva, Coordinator, Native Hawaiian Plant Society	U.S. Navy; U.S. Department of Agriculture; DLNR; University of Hawai`i, Sierra Club
Kaho`olawe Restoration Project	1986-Present	Reduce the impacts of water erosion: A series of check dams, using old automobile tires, have been used in a number of locations to stem erosion. It has proved effective in some locations.	Officer in Charge, Kaho`olawe Project, U.S. Navy	Soil Conservation Service, U.S. Department of Agriculture

Map 8. Hardpan Boundaries





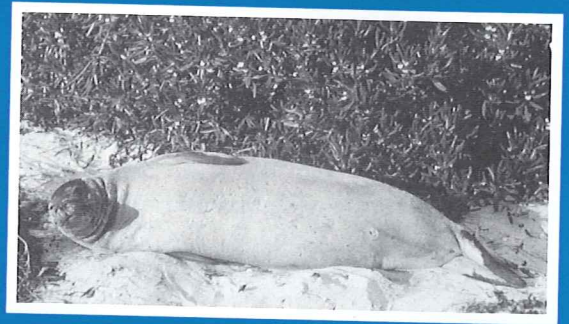
Check dam construction above Hakioawa
(Photo Courtesy of the Protect Kaho`olawe `Ohana)



Kealialuna catchment and tank
(Photo Courtesy of the Protect Kaho`olawe `Ohana)

Volunteers reintroduce native plants to the island
(Photo Courtesy of the U.S. Navy)

Honu—Green Turtle
(Photo Courtesy Stewart I)



`Ilio Holo I Ka Uaua—Hawaiian Monk Seal
(Photo Courtesy Bruce Eilerts)

pending further study of the unexploded ordnance in these waters. The National Oceanic and Atmospheric Administration (NOAA) will make a determination of whether these waters are eligible for inclusion within the sanctuary in 1996. If found to be eligible, negotiations between NOAA and the Kaho`olawe administrating authority will be required at the appropriate time.[96]

Two of the greatest threats to the resources in Kaho`olawe's surrounding waters are siltation caused by erosion, and human activity including commercial fishing and diving. The State of Hawai`i recently completed an inventory of aquatic resources in the island's coastal areas. Preliminary data from that study suggest that the island's coral reefs are in good health, but are very fragile and are threatened by silt and sediment. The potential impact of human activity on Kaho`olawe's marine resources is clear from what has occurred at Kaho`olawe's neighboring islet, Molokini. Scores of daily visits on boats have taken their toll on the islet's coral reef and its ability to sustain fish populations. These impacts and the threat posed by unexploded ordnance in Kaho`olawe's surrounding waters require the area to be carefully managed.

Recommendation 2.12. The State of Hawai`i shall recognize the waters surrounding Kaho`olawe for their pristine nature—and their importance in maintaining numerous marine species populations—and designate these waters with special status under the law.

Required infrastructure for the clearance and removal of unexploded ordnance includes basic facilities for housing work crews and their equipment and facilities for removing tons of solid waste. Support facilities for water, electrical, and road systems development will also have to be constructed. The estimated total cost for development and maintenance of these facilities is $15 million.

These estimates do not consider any costs for the mitigation of hazardous or toxic wastes, should they be found on the island or in its surrounding waters. KICC is, however, including funds to undertake an initial sampling and analysis survey for potentially hazardous and toxic waste. KICC estimates that this Site Characterization Study will cost $1 million. Thus, the overall cost estimate for unexploded ordnance clearance and removal, for the construction and maintenance of related infrastructure, and for conducting a Site Characterization Study is $88 million.

Unexploded Ordnance and Solid Waste Clearance

Clearance and Removal	$72.0 million
Infrastructure	$15.0 million
Site Characterization Study	$ 1.0 million
Total	**$88.0 million**

Soil Conservation Activities

A number of proposed soil conservation activities have as their goal the ultimate restoration of the island and its numerous resources. These activities include projects for soil erosion abatement, water resource development, historical preservation, and biological critical habitat restoration. The total estimated cost for these activities is $21.6 million. This estimate reflects a short-term expenditure and may not be adequate for long-term management. Although the resources of Kaho`olawe may not be totally restored when these projects are completed, the island's restorative processes will have been set into motion and will have advanced to a point where environmental stabilization will be achieved in fairly rapid order.

Soil Conservation Activities

Total	**$21.6 million**

Attempt to control erosion using Tamarisk trees
(Photo Courtesy of the U.S. Navy)

Soil Erosion Abatement

These projects form the basis for stemming soil erosion on the island. They include soil erosion control through check dams and terracing in concert with large-scale reforestation and revegetation. Efforts will be geared to specific watersheds—on a priority basis—particularly in areas with large areas of hardpan that are undergoing large-scale gullying. Reforestation and revegetation projects will use native plant species whenever possible. Prior and current work of the U.S. Navy, the State of Hawai`i, and the Protect Kaho`olawe `Ohana form the basis for these projects. Continued grassing of hardpan areas and systematic planting of windbreaks aimed at stemming the impacts of wind erosion are of particular importance. The redesign and development of infrastructure, such as roads and trails, that complement efforts to stem erosion and employ the natural forces of wind and water to enhance the island's environment will be needed in concert with

erosion. The stabilization and interpretation of these sites and areas will assist not only in preserving the island's heritage, but also in stemming the impacts of erosion. In addition, the development of an ongoing historic preservation program for Kaho`olawe will serve as a model for other historic preservation programs in the state and on the U.S. mainland.

Historic Preservation

Total	**$ 3.0 million**

Biological Critical Habitat Enhancement

These projects, like those noted above, compliment soil conservation activities on the island by enhancing areas deemed critical for the survival of specific endangered native plant and animal species, and securing them from the impacts of soil erosion. Specific activities incorporated within these projects have been noted earlier in the recommendations noted under Flora and Fauna.

Biological Enhancement

Total	**$ 1.4 million**

Fencing and Signage

KICC views the use of fences as a management tool, primarily to alert individuals to sensitive and fragile areas and to areas that are hazardous to life and limb. Signage will be required both to alert individuals to dangerous areas and to educate visitors about archaeological and historical sites or unique environmental resources in given location. Because access to the island and its surrounding waters will be carefully controlled and supervised, and because there are no longer any feral animals that need to be controlled by fences, KICC believes that appropriate signage is equally important to fencing. The total estimated cost for fencing and signage over a 5-year period is $400,000.

Fencing and Signage

Fencing Materials and Installation	$ 185,000
Fence Maintenance (5 years)	90,000
Signage and Installation	100,000
Sign Maintenance (5 years)	25,000
Total	$ 400,000

After: planting on check dam deposit
(Photo Courtesy of the Protect Kaho`olawe `Ohana)

Kaho`olawe is a special place, a *wahi pana* and *pu`uhonua*. Although Kaho`olawe and its surrounding waters qualify as a park under state law, the Commission recommends that this park be established in perpetuity for the specific purposes enumerated in this report. These purposes are to:

- Study and practice traditional and contemporary Native Hawaiian culture, including religion;
- Study and preserve archaeological and historical sites, structures, and remains;
- Undertake soil conservation and plant reforestation and revegetation activities; and
- Study and enhance native plant and animal habitats and communities.

The Commission also takes the position that the entire island of Kaho`olawe and its surrounding waters should be considered as integral and related parts of this park, both of which can be made safe for specific human uses that complement the identified purposes noted above.

Future management of Kaho`olawe, its resources, and the resources of the surrounding waters must be based on protecting and preserving those resources for use by today's generation and for generations to follow. KICC has identified and mapped these resources based upon its current understanding of their location and extent. These resources have been identified, generally, as cultural, environmental, and development districts for the island and its surrounding waters and are presented as guides for future management planning. Future activities should not infringe upon the resources identified in these districts.[98]

Contemporary Hawaiian hale at Hakioawa.
(Photo Courtesy Rowland Reeve)

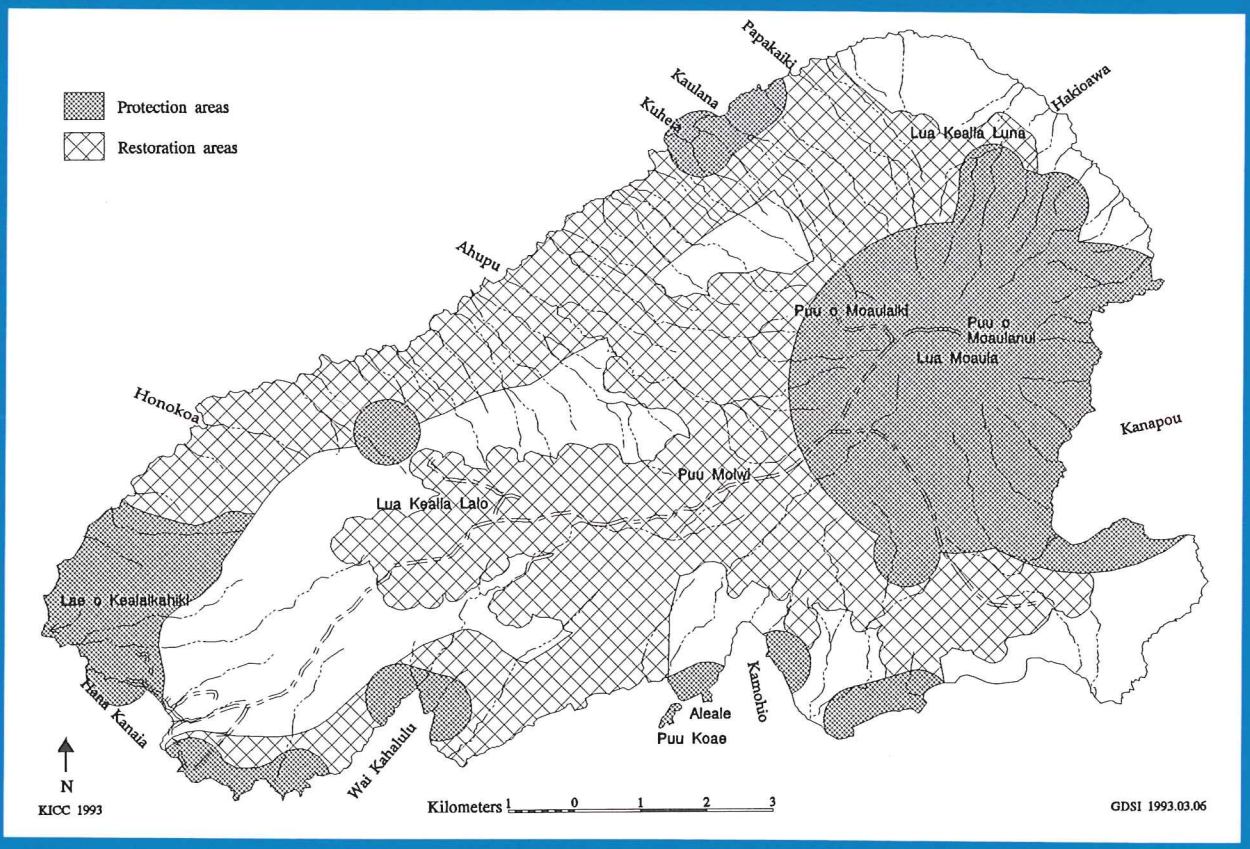
> *"Park" means an area which, by reason of location, natural features, scenic beauty or legendary, historical, or scientific interest, possesses distinct physical, aesthetic, intellectual, creative, or social values.*
>
> *Hawaii Revised Statutes 184-1*

Cultural District

This district encompasses all the man-made or utilized features of the island and its surrounding waters that relate to life as it was practiced on the island. It includes all of the island's archaeological and historical sites, structures, and remains and areas that hold special meaning or significance because of past or contemporary events and practices (Map 9). The following items are included in this district.

- **Settlement Areas**—locations where populations of Native Hawaiians and others lived. Such sites have house platforms, shelters, and various other related structures, and include pre-1778 areas as well as historical areas, such as the penal colony site and areas associated with the island's ranching and military activities.
- **Religious Sites**—areas with remains or structures that were or continue to be used for Native Hawaiian religious purposes and practices. These include areas where there are burials.
- **Work Sites**—areas where the Native Hawaiian population undertook or continues to undertake various activities related to its livelihood, including rock quarries, agricultural field systems, petroglyph areas, and fishing areas.

Map 10. Environmental District

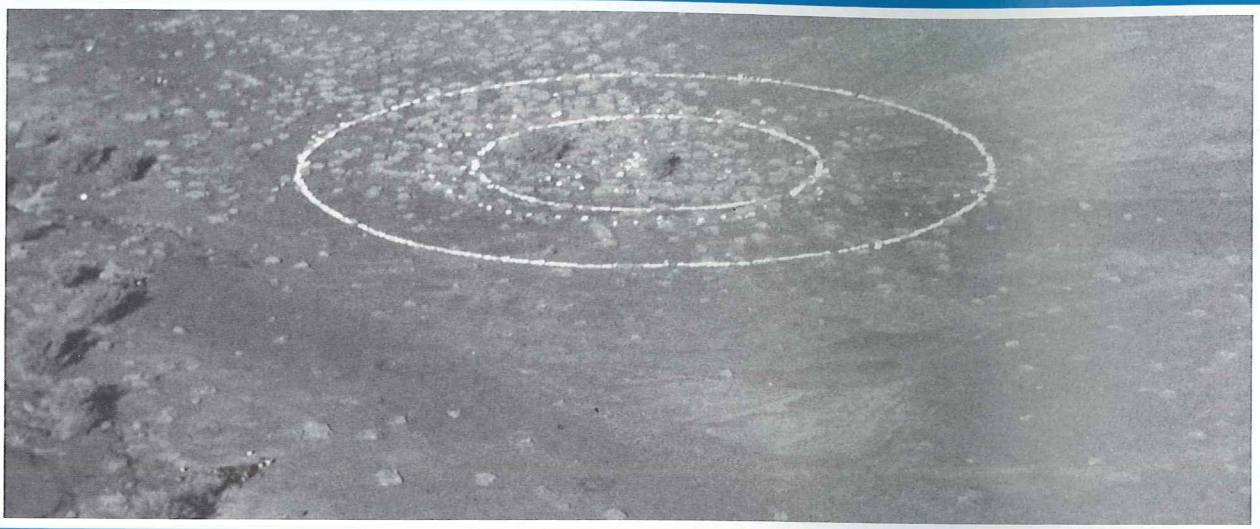


active management. These include not only individual plant and animal species, but also native communities, particularly some of the native plant communities (Map 10). Two areas are included in this district:

- **Hardpan Area**—the location of the island's hardpan, an area needing special attention to alleviate erosional problems (restoration).
- **Critical Habitats**—locations that require active management of rare or endangered species living within them or utilizing them, or are the state's finer or finest examples of particular native plant or animal communities (preservation).

Development District

This district includes all the existing and proposed infrastructure necessary to clean up and restore the island and its surrounding waters and to carry out the specific purposes to which the island and its surrounding waters are dedicated. Although basic infrastructure is already in place, KICC anticipates that improvements and additional facilities will be required to complete cleanup and restoration activities (Map 11). It is assumed that any new infrastructure will be designed and constructed with the intent that it also serve the island's purposes once these activities have been completed. The island's existing infrastructure and anticipated improvements include the following.



Navy Target on hardpan area.
(Photo Courtesy of the U.S. Navy)

monitoring activities on the island and in its surrounding waters and in providing living facilities for visiting researchers and rangers, or *kahu `aina*.

- **Living Facilities.** During cleanup and restoration activities, there may be a need to house and support up to 150 people on the island for extensive periods of time. The current military camp at Hanakanaia Bay may well serve as the center for developing these facilities. Once cleanup has been accomplished, these facilities could become the major living facilities for groups of individuals visiting or living on the island.
- **Visitor Center and Museum.** It is anticipated that many people will want to visit the island. There needs to be an area designated for their arrival and departure. A small visitor's center and museum could be developed. *Kahu `aina* would meet visitors and educate them about the island and its culture and history. A day visitation may include trips to Kaulana Bay, Pu`u Moaulaiki, Pu`u Moaulanui, Hanakanaia Bay, and points along the southern coast.
- **Anchorages and Boat Landings.** Specific sites for boat landings and anchorages have historically been identified. A number of these sites may also have to be used for removal of solid waste materials during cleanup activities.
- **Aircraft Landing Areas.** Although the Army Air Corps had an unimproved landing strip on the island in the late 1920s, there are no plans to construct any airfield on the island. Helicopter landing zones established by the military will be kept operational for supplying the island and for emergency situations.

"Kaho`olawe has educated me and many other Hawaiians about our identity as a unique and important contributor to the cultures of the world."

Adatchie Eaton, Hilo Public Hearing, May 8, 1991.

Ua Mau Ke Ea O Ka `Aina I Ka Pono.

The Life of the Land is Preserved in Righteousness.

1 Stearns, Harold T. "Geology and Ground-Water Resources of the Islands of Lanai and Kahoolawe," *Hawaii Division of Hydrology Bulletin 6*, Honolulu, 1940, pp. 140-143.

2 Naughton, J.J., G.A. MacDonald, and V.A. Greenberg. "Some Additional Potassium-Argon Ages of Hawaiian Rocks: The Maui Complex of Molokai, Maui, Lanai, and Kaho`olawe," *Journal of Volcanology and Geothermal Research*, vol. 7, 1980, pp. 339- 355. ***For more information see:*** Harold T. Stearns. "Geology and Ground-Water Resources of the Islands of Lanai and Kahoolawe, Hawaii" with Gordon A. MacDonald. "The Petrography of Lanai and Kahoolawe" in *Hawaii Division of Hydrology Bulletin 6*, Honolulu, 1940, pp. 117-175 and Watershed Management Systems. *Kaho`olawe Water Resources Study*, prepared for State of Hawai`i Department of Land and Natural Resources (DOWRM), October 1990, pp. 62-67.

3 Pukui, Mary Kawena and Samuel H. Elbert. *Hawaiian Dictionary*, Honolulu, 1986, p. 113.

4 This version of the birth of Kaho`olawe by Pakui appears in Abraham Fornander. *Fornander Collection of Hawaiian Antiquities and Folklore*, vol. 4, Bishop Museum, Honolulu, 1916–1919, p. 12.

5 "Kohemalamamalama" can be translated in this instance as the "resting place;" the inference being that the island served as the place where Kanaloa returned to rest and resuscitate after his sojourns around the Pacific islands. Noted *kupuna*, Harry Kunihi Mitchell, has provided a number of additional names and insights about them. In an interview in 1976 he noted, "That island has a lot of names: We call it Kanaloa, one of the gods of the Hawaiian nation. Then there's another name. When they came in and saw that island they called it *kohema*. *Kohema* means to your left. Naturally they came in to the right so they saw this island, that's the first island malamalama, to your left and light up. Sometimes, they call that island `the bone of the land is showing'—*kukulu ka`iwi*. When they see land they don't talk about *`aina*, they talk in parables. The say *kukulu ka `iwi*, meaning 'I see the bone of the land.' But actually, it's the land itself, or the mountains. . . *o ka `iwi* means mountains. Another name for this island is *hine li`i*, is the rain goddess. *Li`i* means small, so, we have little rain on that island, not much, so they call it 'little rain island' and they say *hine li`i*. Kaho`olawe . . . Another name is *kahiki moe*-where the sun goes to sleep. That's the chants of my ancestors, the *kupuna*. They say, 'The sun goes to sleep off Kaho`olawe or behind Kaho`olawe'" (Susan Halas. "Harry Mitchell Talks Story," *Maui News, TV Guide* insert, Feb. 17, 1979.

Kaho`olawe was referred to in chants and legends as Kanaloa. Kanaloa was one of the four principal gods in Native Hawaiian religion; the others being Kane, Ku, and Lono. These gods, or *akua*, are found throughout Polynesia and are known as Tangaroa, Tane, Tu, and Rongo in Tahiti, Samoa, Tonga, the Cook Islands, and elsewhere. In Native Hawaiian religion, these four deities personify natural forces. Kanaloa is recognized as the *akua* of the ocean and ocean winds and things relating to fishing. Kanaloa and Kane are often associated together in their human forms and noted for their opening up fresh water springs. ***For more information see:*** KICC Special Report by The Kanaka`ole Foundation. *Kaho`olawe's Living Cultural Heritage*, Hawai`i, 1993; Rubellite Kawena Johnson. "Native Hawaiian Religion" in *Native Hawaiian Study Commission Report—Report on the Culture, Needs and Concerns of Native Hawaiians (Majority Report)*, Washington, D.C., 1983, p. 226; Te Rangi Hiroa. *Arts & Crafts of Hawaii-Religion*, Bishop Museum Spec. Pub. 45, Honolulu, 1957, pp. 465-580; and Mary Kawena Pukui. *Hawaiian Religion*, Honolulu, 1963.

6 The English references were made on Captain James Cook's last voyage to the Pacific and appear in *Cook, Clerke, and Gore. A Voyage to the Pacific Ocean . . . Performed Under the Direction of Captains Cook, Clerke, and Gore, In the Years 1776, 1777, 1778, 1779, 1780*, vol. 2, Philadelphia, 1818, p. 101.

7 Ellis, William. *Polynesian Researches, During a Residence of Nearly Eight Years in the Society and Sandwich Island*, London, 1853, p. 9.

the first foreign animals imported into Maui, were regarded as a most valuable present . . . ." ***See:*** George Vancouver. *Voyage of Discovery to the North Pacific and Round the World*, vol. 2, Bibliotheca Australiana #31, Amsterdam, 1968, p. 199. It is interesting to note that petroglyphs depicting goats have been found at Ahupu. This may have been the center for the early caring of goat herds prior to sheep being introduced into the island.

19 Kuykendall, Ralph. *The Hawaiian Kingdom 1778–1854*, Honolulu, 1967, pp. 100-116.

20 *The Missionary Herald* (Hawaiiana), II, p. 210 (for October 15, 1828) in the Hawaiian Mission Children's Society Library.

"In attention to the schools there has been no particular change during the last few months . . . . The following table is made out from the latest returns, and represents very nearly their present state."

	No. of Schools	Female Scholars	Male Scholars	Total	Those who were able to spell & recite reading lessons	Writers
Island of Kahoolawe	1	13	15	28	27	3

21 See KICC Special Report by Dr. Pauline King. *Kaho`olawe Island—The Uses of Its History*, Honolulu, March 1993, for a discussion of this period in Hawai`i's history and the use of Kaho`olawe as a penal colony.

22 Hiram Bingham. *A Residence of Twenty-One Years in the Sandwich Islands*, New York, 1848, p. 443.

23 Samuel Kamakau. *Ruling Chiefs of Hawaii, Honolulu*, 1992, pp. 356-357. 25. Thomas G. Thrum. "Kahoolawe—An Early Place of Banishment," *Hawaiian Almanac and Annual for 1903*, Honolulu, 1902, p. 122.

24 Thomas G. Thrum. "Kahoolawe—An Early Place of Banishment," *Hawaiian Almanac and Annual for 1903*, Honolulu, 1902, p. 122.

25 Ibid. See KICC Special Report by Dr. Pauline King. *Kaho`olawe Island—The Uses of Its History*, Honolulu, March, 1993, for a complete account of the penal colony era on Kaho`olawe. The records from the Kinimaka case include the official court proceedings and the writings from the daily journal kept by the Judge in the case, Miriam Kekauluohi. Her journal is in the Hawai`i State Archives (William Charles Lunalilo File). *See Also* KICC Special Report by Edith McKinizie. *Na Mo`i O Kaho`olawe—The Administrators of Kaho`olawe*, Honolulu, January, 1993, for a full discussion of Kinimaka and his relationship with Hawaiian *ali`i*.

26 The court records of the proceedings against George Morgan are in the Hawai`i State Archives. Complete records of other "foreigners" sentenced to Kaho`olawe include those for William H. Dean, sentenced in January 1849 for breaking into the Printing Office, and Anthony Jenkins, sentenced for burglary of James Campbell's house in January 1848 (Individual Name Index File and Court Records File).

27 Charles Wilkes. *Narrative of the U.S. Exploring Expedition During the Years 1838–1842*, Philadelphia, 1844, pp. 260-262.

28 Ibid., pp. 260-262

29 ***For more information see:*** KICC Special Reports by Joel August, Esq. *Comprehensive Legal Research Memorandum*, Wailuku, October 12, 1992, pp. 10-50; Jon Chinen. *The Great Mahele*, Hawai`i, 1978 and *Original Land Titles in Hawaii*, Hawai`i, 1961; Lilikala Kame`eleihiwa. *Native Land and Foreign Desires—Pehea La E Pono Ai?*, Honolulu, 1992; Shiro Kashiwa et al. *Memorandum—Interpretation of Section 5 of the Hawaii Statehood Act*, Department of the Attorney General, State of Hawai`i, October 18, 1960; Marion Kelly. "Changes in Land Tenure in Hawaii: 1778–1850," M.A. Thesis, University of Hawai`i, 1956; Land Study Bureau (Harold L. Baker). *State Lands of Hawaii*, Special Study Series Land Study Bureau Report No. 5, University of Hawai`i, July 1961; Neil Levy. "Native Hawaiian Land Rights," *California Law Review*, vol. 63, no. 4, 1975; Melody Kapilialoha MacKenzie (Ed.). *Native Hawaiian Rights Handbook*, Honolulu, 1991, pp. 3-77; William F. Quinn, Governor, State of Hawai`i. "Special Message on Federal Lands in Hawaii," 1st Legislature, State of Hawaii, April 25, 1961; and Thomas Spaulding. *The Crown Lands of Hawaii*, U.H. Occasional Paper No. 1, October 1923.

36 KICC debriefing paper with David Pedro, Rowland Reeve, and H. Rodger Betts, conducted at Wailuku, Maui, 9/20/1991. ***For more information about Kaho`olawe's ranching eras see:*** KICC Special Report by Pauline King. Kaho`olawe Island—The Uses of Its History, Honolulu, March 1993; Inez Ashdown. "Kaho`olawe Retains an Old Hawaiian Custom," *Honolulu Star Bulletin*, February 12, 1938, p. 1/c. 1-5; Inez MacPhee Ashdown. *Recollections of Kahoolawe*, Honolulu, 1979; Francis Norris. "Kaho`olawe—Island of Opportunity," University of Hawai`i Research Paper, Spring 1991; and M.J. Tomonari-Tuggle and Laura A. Carter. "Archaeological Mapping of the Kuhe`eia Bay Ranch Site, Kaho`olawe Island, State of Hawai`i," Historic Sites Section, Department of Land and Natural Resources, State of Hawai`i, August 1984. Noted Maui author Armine Von Tempski made Kaho`olawe and its cattle ranching era the central focus of her novel *Dust*, New York, 1928 (Reprint 1991).

37 Lease document dated May 10, 1941, between Kahoolawe Ranch Company and the United States of America is in G.L. 115 Lease File with the Land Management Division, Department of Land and Natural Resources, State of Hawai`i.

38 The issue of compensation for loss of the *Maizie C* and for improvements made on the island by the ranch became a subject of much debate and correspondence between the military, Mrs. Inez Ashdown, Angus MacPhee's daughter, and Hawai`i's territorial government officials in latter years (Correspondence in file in the Land Management Division and the Forestry and Wildlife Division, Department of Land and Natural Resources, State of Hawai`i).

39 Correspondence marked "Confidential" from Commander in Chief, U.S. Pacific Fleet, to Commanding General, U.S. Army Forces, Central Pacific Area, dated September 27, 1943, entitled "Use of Kahoolawe Island for Bombardment Training" with map showing "U.S.N. Artillery Range (Permissive Use from Army)" filed with the National Archives, Pacific Sierra Region, San Bruno, Record Group-181, Subgroup-14th ND District Staff Headquarters, Series-General Correspondence, Box-181-583204(V9504), Folder-FG12(2) Hawaiian Islands/Map of Use Area: Record Group-181, Subgroup-14th ND Staff Headquarters, Real Estate Division, Series-Real Estate Appraisals and Reports, Box-1, Folder-Maui and Hawaii (Oahu).

40 *Honolulu Star-Bulletin*, 8/16/1946, p. 19/c. 1-2 and 8/17/1946, p. 15/c. 5-7 "Kahoolawe Training School for Naval Gunners." Kaho`olawe's role as training area during World War II remains to be fully documented. Some accounts include: Carl W. Proehl. *The Fourth Marine Division of World War II*, Infantry Journal Press, 1946; Lt. Col. R.D. Heinl. "The Most Shot-at Island in the Pacific," *U.S. Naval Institute Proceedings*, vol. 73, no. 530, April 1947, pp. 397-399; and Grenfred Allen. *Hawaii's War Years*, 1941–1945, Honolulu, 1950.

41 *Honolulu Star-Bulletin*, 7/12/1943, p. 4/c. 5.

42 Extensive correspondence exists between territorial officials and military representatives in regards to Executive Order No. 10436. It is clear that all parties agreed that Kaho`olawe was to be restored for use after its tenure as a military training site. For more information see: KICC Special Report by Joel E. August, Esq. *Comprehensive Legal Research Memorandum*, October 12, 1992, pp. 40-50, 157, and correspondence files in the Land Management Division, Department of Land and Natural Resources, State of Hawai`i, and in the Department of the Attorney General, State of Hawai`i.

43 Honolulu *Star-Bulletin*, 2/8/1965, p. 1/c. 5-8. "Operation Sailor's Hat" was extensively covered by the Honolulu newspapers. These included: *Honolulu Star-Bulletin*, 12/21/1964, p. 1/c. 8; *Honolulu Star-Bulletin*, 1/12/1965, p. A-1B/c. 5-8; *Honolulu Advertiser*, 1/16/1965, p. 1/c. 1-4; *Honolulu Star-Bulletin*, 2/1/1965, p. Cl c. 1-8; *Honolulu Advertiser*, 2/2/1965, p. A2, c. 6-8; *Sunday Star-Bulletin and Advertiser*, 2/7/1965, p. 1/c.5; *Honolulu Star-Bulletin*, 2/8/1965, p. 1/c. 5-8; *Honolulu Star-Bulletin*, p. A2/c. 1-8; and *Honolulu Star-Bulletin*, 5/21/1966, p. B1/c. 1-8. Film footage of the Sailor's Hat explosion is on file at the U.S. Department of Defense, Motion Media Records Center, Norton Air Force Base, Riverside, California. A copy is available in Hawai`i through the Native Hawaiian film production company Na Maka O Ka `Aina, Honolulu.

44 ***For more information see:*** KICC Special Report by The Nature Conservancy of Hawai`i. *Biological Database & Reconnaissance Survey of Kaho`olawe Island*, November 1992, pp. 17-18.

weeks. Helm and Kimo Mitchell were last seen in waters off Kaho`olawe and have never been found.

51 *Noa Emmett Aluli, et al., Plaintiffs* v. *Donald Rumsfeld, Secretary of Defense, et al., Defendants* (Civil Action File No. 76-0380). **Note:** Presidential administrations changed in 1978. Donald Rumsfeld was replaced by Harold Brown as Secretary of Defense.

52 *Noa Emmett Aluli, et al., Plaintiffs* v. *Harold Brown, Secretary of Defense, et al., Defendants* (Civil Action File No. 76-0380). Decision dated September 15, 1977, in the United States District Court for the District of Hawai`i.

53 *Noa Emmett Aluli, et al., Plaintiff v. Harold Brown, Secretary of Defense, et al., Defendants (Civil No. 76-0380). Decision dated December 1, 1980, in the United States District Court for the District of Hawai`i.*

54 The U.S. Navy has summarized its activities in recent years in its *Environmental Assessment for Navy Activities Conducted at the Kaho`olawe Training Area, Hawaii (Draft),* by Belt Collins & Associates (Honolulu) and dated August 6, 1992. Past activities have been generally described in various EIS and EA publications including: U.S. Department of the Navy. *Final Environmental Impact Statement; Kahoolawe Island Target Complex, Hawaiian Archipelago,* February 1972; U.S. Department of the Navy. *Draft Supplement to the Final Environmental Impact Statement—Kahoolawe Island Target Complex,* 1977; and the U.S. Department of the Navy. *Environmental Impact Statement—Military Use of the Kahoolawe Training Area,* by Environment Impact Study Corp., Honolulu, September 1979. The Protect Kaho`olawe `Ohana has summarized its activities in testimony presented at hearings conducted by the KICC and in Protect Kaho`olawe Fund. *Environmental Assessment—Kaho`olawe Restoration Project,* June 1991, with addendum and supplement through May 26, 1992.

55 The *`awa* cup and the shark image are referred to in a letter from the Reverend William Richard, resident missionary at Lahaina, Maui, to Jeremiah Evarts, Corresponding Secretary of the American Board of Commissioners dated March 31, 1827, and filed in the Hawaiian Mission children's Society Library in a series of volumes. *Missionary Letters* (II,754a):

At the time I wrote you Hoapili the governor of the island (Maui) was on a tour, in which he visited all the villages on the island and in every village held a meeting for the purpose of proclaiming certain rules and regulations and encouraging the people to attend to religious instruction.

While he was going around this island, his wife, Hoapiliwahine, visited Tahoolawe and brought away the weather beaten idol which has for a number of years, been had in great veneration and receive sacrifices of some sort or other from every native that passed the island.

In 1828, Richards again remarks about the image and an "awa cup" from which all his votaries drank to his worship. . . It is made of cocoa nut." (*Missionary Letters,* vol. III, pp. 728-9, Letter #144). Although the image has yet to be located, the *`awa* cup was returned to the Bishop Museum in 1895 and then exchanged for a number of Swiss neolithic artifacts in 1903. The *`awa* cup remains at the Berne Historical Museum in Berne, Switzerland.

56 *Ka Lahui Hawaii,* December 23, 1875, p. 2/c. 2. The spiritual aspect of the King's trip to Kaho`olawe is noted in correspondence between Queen Emma and Peter Kaeo in Alfons L. Korn. *News from Molokai, Honolulu,* 1976, p. 288.

57 See Note #29.

58 ***See:*** Hawaii Admission Act of March 18, 1959 (Public Law 86-3, 73 Stat. 4) Section 5(f).

59 The Hawaii Revised Conveyance Procedures Act identified the process by which Hawai`i ceded lands are returned once their use is no longer required by the Federal government. ***For more information see:*** Correspondence from American Law Division, Congressional Research Service, The Library of Congress, Washington, D.C. to the Honorable Daniel K. Akaka, United States Senate dated September 9, 1992, entitled "Transfer of Kahoolawe Island" and from Warren Price, III, Attorney General, State of Hawai`i, to H. Rodger Betts, Executive Director, KICC, dated March 13, 1992, entitled, "Your January 29, 1992, Letter Transmitting a Memorandum Re the Conveyance of Kaho`olawe to the State of Hawaii;" and KICC Special Report by Joel August, Esq. entitled *Comprehensive Legal Memorandum,* Wailuku, October 12, 1992, pp. 51-75.

1975, the Navy initiated a review and update of its initial study. A number of studies were done in conjunction with this study and included an "Ordnance Penetration Study" conducted by Explosive Ordnance Disposal Mobile Unit One in 1976 (8027/Ser. 68). The Final Report prepared by Marinco, Ltd. was released in September 1976, *Study on the Feasibility and Cost of Clearing Kahoolawe Island or Unexploded Ordnance—Final Report*, 102-A, prepared for the Naval Sea Systems Command, Department of the Navy under contract N00024-76-C-6089, September 1976.

66 The Consent Decree required that the Navy "remove surface ordnance from approximately 10,000 acres . . . ." According to its records, the Navy swept "over 14,000 acres" between the Fall of 1981 and November 1992 (correspondence from Captain M. D. Roth, Jr., U.S. Navy, Assistant Chief of Staff Operations and Plans/ Kaho`olawe Project Officer, to Hardy Spoehr, Executive Assistant, KICC, dated December 23, 1992).

67 KICC Special Report by Ballena Systems Corporation. *Unexploded Ordnance on Kaho`olawe: Historical Review, Technology Assessment, and Clearance Planning—Final Report*, Alameda, July 1992, pp. 30-40.

68 Report prepared by Walter J. Dennison, "Explosive Hazards Associated with the Waters Surrounding Kahoolawe Island," Office of State Planning, State of Hawai`i, October 3, 1992. ***See also:*** Marinco Ltd., *Study on the Feasibility and Cost of Clearing Kahoolawe Island of Unexploded Ordnance (Final Report)*, prepared for the Naval Sea Systems Command, Department of the Navy, Washington, D.C., September 1976, pp. 57-58.

69 U.S. Navy. "COMEODGRUPAC Report on Kahoolawe Island; Underwater Survey," Commander Explosive Ordnance Disposal Group One, Pacific, EODGRUOWE: N3:re, 8027, Serial 496, November 8, 1978, and U.S. Navy. "Hydrologic Reconnaissance of Selected Areas of the Island of Kahoolawe, Hawaii," prepared in cooperation with the U.S. Geological Survey, Pearl Harbor, Honolulu, 1978.

Film footage of the underwater survey work is on file at the U.S. Department of Defense, Motion Media Records Center, Norton Air Force Base, Riverside, CA. A copy is available in Hawai`i through the Native Hawaiian film production company Na Maka o Ka `Aina, Honolulu.

70 A sampling of enacted federal legislation which has identified and benefited Native Hawaiians includes the following.

- Hawaiian Homes Commission Act (July 9, 1921)
- Hawaii National Park Extension Act (June 30, 1938)
- Hawaii Admission Act (March 18, 1958)
- Community Services Act of 1974 (January 4, 1975)
- Comprehensive Employment and Training Act (August 5, 1977)
- Native American Religious Freedoms Act (August 11, 1978)
- Youth Employment Act (October 27, 1978)
- Public Law 96-565, Title III (December 20, 1980)
- Library Services and Construction Act (October 17, 1984)
- Carl D. Perkins Vocational Education Act (October 19, 1984)
- Older Americans Act Amendments of 1987 (November 29, 1987)
- Housing and Community Development Act of 1987 (February 2, 1988)
- Augustus F. Hawkins—Robert T. Stafford Elementary and Secondary School Improvement Amendments (April 28, 1988)
- Veterans' Benefits and Services Act (May 20, 1988)
- Indian Housing Act (June 29, 1988)
- Native Hawaiian Health Care Act (October 31, 1988)
- National Museum of the American Indian Act (November 28, 1989)
- Native American Grave Protection and Repatriation Act (November 16, 1990)

The State of Hawai`i also has recognized its native people as having a special relationship within the state. Article XII of the state Constitution directly addresses this relationship under "Hawaiian Affairs." Numerous state statutes

Kahoolawe Archaeological Excavation—1981, prepared for the Pacific Division, Naval Facilities Engineering Command, U.S. Navy, Pearl Harbor, Hawaii, by Science Management, Inc., Honolulu, May 1983; Hamilton H. Ahlo. "Preliminary Case Report-35 Sites in Danger of Erosion, Kaho`olawe, Hawaii," Hawaii Marine Research, Honolulu, November 1980 William Barrera, Jr. "Kaho`olawe Archaeology: An Overview," *Hawaiian Archaeology*, vol. 1, no. 1, 1984, pp. 3143; Hallett Hammatt. "Paleoarchaeology of Kahoolawe," paper presented at the Symposium on Hawaiian Archaeology, Society of American Archaeology Annual Meeting, Tucson, Arizona, 1978; Earl Neller. "Island of Kahoolawe Site Visit," Hawaii Historic Places Review Board, Honolulu, April 25-28, 1980; Earl Neller. "Erosion of Archaeological Sites on Kahoolawe, Hawaii—A Reconnaissance of Selected Sites," State Historic Preservation Office, Department of Land and Natural Resources, State of Hawai`i, September 1981; Earl Neller. "Kaho`olawe Field Trip Report," State Historic Preservation Office, Department of Land and Natural Resources, State of Hawai`i, January 5-8, 1982; Earl Neller. "Settlement Patterns on Kaho`olawe Island, Hawaii," State Historic Preservation Office, Department of Land and Natural Resources, State of Hawai`i, Honolulu, April 1982; Paul Rosendahl, Alan Haun, Joseph Halbig, Mikk Kaschko, and Melinda Allen. *Kahoolawe Excavations, 1982-3, Data Recovery Project*, prepared for the Pacific Division, Naval Facilities Engineering Command, U.S. Navy, Pearl Harbor, Hawaii by Paul H. Rosendahl, Ph.D, Inc., Hilo, June 1987 (in two volumes); Martha Yent. "Field trip to Kaho`olawe: Review of the Cultural Resources," Historic Sites Office, Division of State Parks, Department of Land and Natural Resources, State of Hawai`i, March 1983.

For earlier archaeological reports see: John Stokes. *Kaho`olawe Field Notebooks* (unpublished), Bishop Museum Archives, Honolulu, 1913, and J. Gilbert McAllister. *Archaeology of Kahoolawe*, Bishop Museum Bulletin 115, Honolulu, 1933 (Reprint 1971).

80 Historical resources in the Native Hawaiian language include numerous newspapers dating between 1834–1948 and primary resource materials in the Bishop Museum Library and Archives and in the Hawai`i State Archives. ***For more information see:***

- **Newspapers:** Rubellite Kawena Johnson. *Kukini `Aha `Ilono (Carry on the News)*, Honolulu, 1976; Esther Mookini. *The Hawaiian Newspapers*, Honolulu, 1974; and Nancy Jane Morris. *Ka Loea Kalaiaina: A Study of a Hawaiian Language Newspaper as a Historical Reference Source*, M.A. Thesis, Pacific Islands Studies, University of Hawai`i, Honolulu, December 1975.
- **Miscellaneous:** Correspondence to Walter F. Dillingham from Benedictus Auhana Akina, Kahoolawe Ranch Manager, between 1901–1904, Walter F. Dillingham File, Bishop Museum Archives, Honolulu.

81 ***See:*** KICC Special Report by Rock Art Associates. *Kaho`olawe Petroglyph Survey and Inventory*, Phoenix, in preparation. The number of known petroglyphs has been doubled by the KICC's study. ***See also:*** P.K. Kwiatkowski. *Na Ki`i Pohaku, a Hawaiian Petroglyph Primer*, Honolulu, 1991; and Edward Stasack and J. Halley Cox. *Hawaiian Petroglyphs*, Bishop Museum, Honolulu, 1970.

82 Upon discovering the pilfering, the Navy undertook a survey of the site and has attempted to repair some of the damage done by vandals. ***For more information see:*** Michael Graves and C. Kehaunani Abad. *Kamohio Shrine Survey*, Honolulu, in preparation, and KICC consultant reports from Rowland Reeve. "Kamohio Shrine Site," Honolulu, 1992, and "Kaho`olawe Burial Bundle," Honolulu, 1992.

82 In addition to the State of Hawai`i's 1976-80 survey, the following research has been conducted on Kaho`olawe burials: William Barrera, Jr., and Christina Batista. "Excavation of a Burial at Site 473, Kaho`olawe," Hawaii Marine Research, Honolulu, December 1979; Christine Batista. "A Hawaiian Firepit Burial from the Island of Kaho`olawe," Department of Anthropology, University of Hawaii, Hawai`i, August 1981; and Wendell Kam. "Report on the Human Skeletal Remains Excavated on the Island of Kaho`olawe," Historic Sites Section, Department of Land and Natural Resources, State of Hawai`i, November 14, 1985.

84 ***For more information see:*** David J. Harris. "Respect for the Living and Respect for the Dead: Return of Indian and Other Native American Burial Remains," *Washington Univer-*

August 2, 1972; State of Hawaii. *Kaho`olawe Island Nearshore Marine Resource Inventory (Draft)*, Division of Aquatic Resources, Department of Land and Natural Resources, December 1992; and United States Department of Commerce. *Kahoolawe National Marine Sanctuary Feasibility Study*, National Oceanic and Atmospheric Administration, National Ocean Service, Office of Ocean and Coastal Resource Management, Sanctuaries and Reserves Division, December 1991. Protect Kaho`olawe `Ohana. *Contemporary Use of the Waters Surrounding Kaho`olawe, Hawai`i*, in preparation.

- **Coastal Waters:** Correspondence to the Rev. William Richards, Lahaina, from Capt. Charles Wilkes providing his observations about sailing hazards around Kealaikahiki, March 21, 1841, and Correspondence to Capt. Charles Wilkes from Kamehameha III indicating sailing instructions around Kealaikahiki, April 2, 1841 (both items in the Hawai`i State Archives); and U.S. Coast and Geodetic Surveys on or near Kaho`olawe:

Year	Field Director	Ship
1900	Perkins	Pathfinder
1904/05	Pratt	Patterson
1932	Swanson	Pioneer
1961/62	Porter/Wardwell	Surveyor
1962	Wardwell	Pathfinder
1963	Seaborg	
1965	Woodcock	Pathfinder
1966	Short	Pathfinder
1969	Newson	Pathfinder

Field project reports prior to 1935 are filed in the National Archives, Scientific, Economic & Natural Resources Branch, Washington, D.C. Other materials are still on file with the U.S. Department of Commerce, NOAA, National Ocean Service, National Geodetic Survey, Horizontal Network Branch, Washington, D.C.

- **Ground Water:** J. Kauahikaua. *An Assessment of the Ground-Water Resources of Kaho`olawe, Hawai`i*, U.S. Geological Survey Open File Report 89-648, 1989; Harold T. Stearns. "Geology and Ground-Water Resources of the Islands of Lanai and Kahoolawe," *Hawaii Division of Hydrology Bulletin* 6, U.S. Geological Survey, Honolulu, 1940; and Kiyoshi J. Takasaki. *Water Resources of the Island of Kahoolawe, Hawaii: Preliminary Findings*, U.S. Geological Survey, Water Resources Investigations Report 89-4209, 1991.

88 ***For a discussion on finding the new plant, see:*** Steve Perlman. "Kahoolawe—the Eighth Hawaiian Island—New Genus Found," *The Bulletin*, National Tropical Botanical Garden, vol. XXII, no. 2, Spring 1992.

89 Watershed Management Systems. *Kaho`olawe Water Resources Study—Strategies for the Management of Land & Water Resources, Kaho`olawe Island (Draft)*, Report R-82, prepared for the Protect Kaho`olawe `Ohana/Fund for the Division of Water Resource Management, Department of Land and Natural Resources, State of Hawai`i, Honolulu, October 1990, p. 143. ***For more information on soil characteristics and erosion control, see:*** KICC Special Report by Tom Giambelluca and Keith Loague. *The Spatial Variability of Near-Surface Soil Hydraulic Properties for Kaho`olawe: A Preliminary Investigation*, Berkeley, January, 1993; correspondence from Harry H. Sato, Assist. State Soil Scientist, to Russell LeBarron, State Division of Forestry, July 8, 1970, identifying the different Kaho`olawe soils and their respective properties (On file, Division of Forestry and Wildlife, Department of Land and Natural Resources, State of Hawai`i); Roy J. Shlemon. *Soil-Geomorphic Reconnaissance of the Lua Makika Area, Island of Kahoolawe, Hawaii*, prepared for the Pacific Division, Naval Facilities Engineering Command, U.S. Navy, Pearl Harbor, Hawaii, September 1980; United States Department of Agriculture. *Kaho`olawe Island Erosion Control Structure Inventory and Evaluation*, prepared by the Soil Conservation Service, Interagency Service Agreement No. A-9251-125, Honolulu, January 27, 1992; and Steven D. Warren and Robert E. Riggins. *Rehabilitation of Kaho`olawe*, prepared for the Commander Naval Base, Pearl Harbor and Pacific Division, Naval Facilities Engineering Command by U.S. Army Construction Engineering Research Laboratory, Environmental Division, Champaign, Illinois:

- 1988—Rehabilitation Proposal
- 1989—First Status Report
- 1991— Second Status Report

rounding Ocean," *Hawaiian Journal of History*, vol. 26, 1992, pp. 231-257.

96 The Hawaiian Islands Humpback Whale National Marine Sanctuary is identified in the Oceans Act of 1992 (P.L. 104-587) which was passed by the U.S. Congress on November 4, 1992. The waters surrounding Kaho`olawe, a distance of three nautical miles from the high-water mark, have been excluded from the sanctuary until issues involving unexploded ordnance in these waters can be resolved.

97 KICC Special Report by Ballena Systems Corporation. *Unexploded Ordnance on Kaho`olawe: Historical Review, Technology Assessment, and Clearance Planning*, Alameda, July 1992, pp. 141-142.

98 A number of plans have been prepared for Kaho`olawe over the years. Some of these have been directed at specific topics such as culture, water resources, or land use. These include:

- **Culture:** KICC Special Report by Michael W. Graves and C. Kehaunani Abad. *Preservation of Historical Resources on Kaho`olawe: Responsibilities, Natural and Cultural Impacts, and Priorities*, Honolulu, January 1993; Hamilton Ahlo. *Kaho`olawe: A Cultural Resources Management Plan*, prepared for Pacific Division, Naval Facilities Engineering Command, Contract No. N62742-78-C-0061, U.S. Navy, Pearl Harbor, Honolulu, August 10, 1981; Dennis T. P. Keene. *Kaho`olawe Island, Hawaii Ethnic Significance Overview (Draft)*, prepared for Pacific Division, Naval Facilities Engineering Command, Contract No. N62742-84-C-0076, U.S. Navy, Pearl Harbor, Honolulu, August 1985 and; Energy Services Corp. (ERCE). *The Cultural Resource Management Plan for Kaho`olawe Archaeological District (Draft)*, U.S. Navy, Pearl Harbor, Hawaii, February 19, 1991.
- **Water Resources:** County of Maui, Planning Department, and Department of Water Supply and State of Hawaii, Department of Land and Natural Resources. *Maui County Water Use and Development Plan*, Honolulu, March 1990, and Watershed Management Systems. *Kaho`olawe Water Resources Study*, prepared for the Protect Kaho`olawe `Ohana and the Division of Water Resource Management, Department of Land and Natural Resources, State of Hawai`i, October 1990.
- **Land Use:** County of Maui, *Kahoolawe Community Plan*, Hawaii, June 1982 (presently under revision) and State of Hawai`i. "Long Range Use Plan for the Island of Kaho`olawe (Draft)," Office of State Planning, Honolulu, November 1992.

99 Many sinkings and shipwrecks have been recorded around Kaho`olawe since the early 1800s. The most celebrated shipwreck was that of John Jacob Astor's ship *Lark* in 1813. Known shipwrecks are as follows.

- *Marshall* (early 1800s)—John Papa Ii. *Fragments of Hawaiian History*, Honolulu, 1973, p. 128, and Richard Pierce. *Russia's Hawaiian Adventure, 1815–1817*, Berkeley, 1965, pp. 23, 165-166, 206-207.
- Unknown (1809)—Samuel Kamakau. *Ruling Chiefs of Hawaii*, Honolulu, 1961, p. 207.
- *Lark* (1813)—Peter Corney. *Early Voyages in the North Pacific: 1813–1818*, Fairfield, 1965, pp. 101-102, and Washington Irving. *Astoria; or Anecdotes of an Enterprise Beyond the Rocky Mountains*, Norman, 1964, pp. 431-432, 476-480.
- *Keola* (1840)—JJ. Jarvis. *Scenes and Scenery in the Sandwich Islands and a Trip through Central America*, Boston, 1844, pp. 280-282.
- *Leopard/Greyhound* (1841)—Charles Wilkes. *Narrative of the U.S. Exploring Expedition*, Philadelphia, 1844, pp. 260- 262.
- Unknown (1848)—A.D. Kahaulelio. "Fishing Lore," manuscript in Bishop Museum Library, Honolulu, June 27, 1902, pp. 100-103.
- Unknown (1850)—Edward Perkins. *Na Motu; or Reef Roving in the South Pacific*, New York, 1854, pp. 158-168.
- *Marilda* (1870)—Thomas Thrum. *Hawaiian Annual*, Honolulu, 1883, p. 41.
- *Olga* (1906)—*Pacific Commercial Advertiser*, May 17, 1906, p. 10/c. 3; C.S. Judd. "Kahoolawe," *Hawaiian Almanac and Annual for 1917*, Honolulu, 1916, p. 123; and *Honolulu Advertiser*, August 28, 1910, p. 1/c. 4.
- Unknown (1916)—*Maui News*, January 7, 1916, p. 6/c. 2.
- Unknown (1927)—*Maui News*, March 26, 1927, p. 8/c. 3.

Appendix 1. Executive Order No. 10436

RESERVING KAHOOLAWE ISLAND, TERRITORY OF HAWAII, FOR THE USE OF THE UNITED STATES FOR NAVAL PURPOSES AND PLACING IT UNDER THE JURISDICTION OF THE SECRETARY OF THE NAVY

WHEREAS it appears necessary and in the public interest that the Island of Kahoolawe, Territory of Hawaii, which comprises an area of approximately forty-five square miles, and which forms a part of the public lands ceded and transferred to the United States by the Republic of Hawaii under the joint resolution of annexation of July 7, 1898, 30 Stat. 750, be taken and reserved for the use of the United States for naval purposes, except that portion comprising an area of 23.3 acres, more or less, heretofore taken for lighthouse purposes by Proclamation No. 1527 of the President of the United States dated February 3, 1928 (45 Stat. 29377; and

WHEREAS it is deemed desirable and in the public interest that provisions be made for the conducting of a program of soil conservation on the island while the reservation made hereby is in force, and that the area within such reservation be restored to a condition reasonably safe for human habitation when it is no longer needed for naval purposes:

NOW, THEREFORE, by virtue of the authority vested in me by section 91 of the act of April 30, 1900, 31 Stat. 159, as amended by section 7 of the act of May 27, 1910, 36 Stat. 447, it is ordered as follows:

1. The Island of Kahoolawe, Territory of Hawaii, except that portion taken by the United States for lighthouse purposes by Proclamation No. 1827 of February 3, 1928, is hereby taken and reserved for the use of the United States for naval purposes, and is placed under the jurisdiction of the Secretary of the Navy.

2. The Secretary of the Navy shall, within a reasonable period following the date of this order, eradicate from the island all cloven-hooved animals, or shall within such period and at all times thereafter while the area hereby reserved or any portion thereof is under his jurisdiction take such steps as may be necessary to assure that the number of such animals on the island at any given time shall not exceed two hundred.

3. The Territory of Hawaii shall have the right, at its expense and risk, at reasonable intervals to enter and inspect the island to ascertain the extent of forest cover, erosion, and animal life thereon, and to sow or plant suitable grasses and plants under a program of soil conservation: *Provided*, that such entrance and inspection shall not interfere unreasonably with activities of the Department of the Navy or of the United States Coast Guard.

4. When there is no longer a need for the use of the area hereby reserved, or any portion thereof, for naval purposes of the United States, the Department of the Navy shall so notify the Territory of Hawaii, and shall, upon seasonable request of the Territory, render such area, or such portion thereof, reasonably safe for human habitation, without cost to the Territory.

DWIGHT D. EISENHOWER

The White House
February 20, 1953

Appendix 3. Department of Defense Appropriations Act, 1991 (Public Law 101-511)

Section 8118

SEC. 8188. Notwithstanding any other provision of law, of the funds made available by this Act to the Department of the Navy, $1,500,000, to remain available until September 30, 1992, shall be available only for the expenses of the Kahoolawe Island Commission which shall be established under the terms and conditions of S. 3088 as introduced in the Senate on September 10, 1990: *Provided,* That the Secretary of the Navy shall provide the Commission such assistance and facilities as may be necessary to carry out its proceedings.

Section 8119

SEC. 8119. None of the funds made available by this Act shall be available for any Military Department of the United States to conduct bombing training, gunnery training, or similar munitions delivery training on the parcel of land known as Kahoolawe Island, Hawaii.

(2) In carrying out the study referred to in this subsection the Commission shall have the following duties:

(A) To identify any portions of the land of Kahoolawe Island that are suitable for restoration to the condition reasonably safe for human habitation, including lands that are suitable for use by the State of Hawaii for—

(i) parks (including educational and recreational purposes);

(ii) the study and preservation of archeological sites and remains; and

(iii) the preservation of historical structures, sites, and remains;

(B) To identify any additional portions of such land that are suitable for restoration to a condition less than reasonably safe for human habitation, including lands that are suitable for—

(i) soil conservation and plant reforestation purposes; and

(ii) removal or destruction of non-native plants and animals.

(C) To estimate the total cost of the restoration of the lands identified pursuant to subparagraphs (A) and (B).

(D) To identify any fences necessary to enclose the lands identified pursuant to subparagraphs (A) and (B).

(E) To estimate the total cost of constructing and maintaining the fences identified pursuant to subparagraphs (A) and (B).

(F) To evaluate the public and private entity best suited to perform the activities referred to in clauses (i) and (ii) of subparagraph (B).

(G) To estimate the total cost of performing the activities referred to in clauses (i) and (ii) of subparagraph (B).

(3) For the purposes of this section, restoration of a portion of land to a condition reasonably safe for human habitation includes, at a minimum, the removal or rendering harmless to human activity of all hazardous or explosive ordinance located on or within such portion.

(f) REPORTS.—(1) Not later than July 31, 1991, the Commission shall submit to the Congress an interim report detailing its activities and preliminary findings and recommendations relating to the study referred to in subsection (e).

(2) Not later than two years after the date of the first meeting of the Commission, the Commission shall submit to the Congress a final report on the results of the study referred to in subsection (e), together with such comments and recommendations as the Commission considers appropriate.

(g) Termination.—The Commission shall expire 30 days after the date on which the final report referred to in subsection (f)(2) is submitted to the Congress.

SEC. 2. PROHIBITION ON USE OF LAND FOR MUNITIONS DELIVERY TRAINING.

(a) PROHIBITION ON USE OF LAND FOR WEAPONS DELIVERY TRAINING.—The land subject to the study referred to in section 1 of this Act may not be used for bombing training, gunnery training, or similar munitions delivery training by—

(1) any military department of the United States;

(2) the United States Coast Guard; or

(3) any military department, agency, or other entity of any foreign government by or with the permission of the United States.

(b) EFFECTIVE DATE.—The prohibition set out in subsection (a) shall be effective on the date of the enactment of this Act.

(c) DURATION OF PROHIBITION.—The prohibition set out in subsection (a) shall terminate 120 days after the date on which the final report referred to in subsection (f)(2) of section 1 is submitted to the Congress.

SEC. 3. MARINE SANCTUARY STUDY.

(a) SANCTUARY STUDY.—The Secretary of Commerce shall carry out a study to determine the desirability and feasibility of establishing a national marine sanctuary in the marine environment adjacent to Kahoolawe Island. In conducting the study, the Secretary shall give special consideration

Appendix 5. Department of Defense Appropriations Act, 1993 (Public Law 102-396)

Section 9062 A

SEC. 9062A. Notwithstanding any other provision of law, of the funds made available by this Act to the Department of the Navy, $500,000, to remain available until September 30, 1993, shall be available only for the expenses of the Kahoolawe Island Commission which is hereby authorized to delay until March 31, 1993, the submission of its final report: *Provided*, That the Secretary of the Navy shall provide the Commission such assistance and facilities as may be necessary to carry out its proceedings.

Section 9078 A

SEC 9078A. None of the funds made available by this Act shall be available for any Military Department of the United States to conduct bombing training, gunnery training, or similar munitions delivery training on the parcel of land known as Kahoolawe Island, Hawaii.

Date	Ownership	Lessee/Use	Sublease/Use
1/16/1893	Provisional Government of Hawai`i		
7/4/1894	Republic of Hawai`i		
8/12/1898	United States of America (Ceded by Newlands Resolution		
4/28/1899	United States of America	G.L. 115 assigned to: Benjamin F. Dillingham (Sheep Ranching); Manager: Benedictus Auhana Akina (1899)	
12/21/1903	United States of America	G.L. 115 assigned to: Christian C. Conradt (Sheep Ranching); Foreman with family: Hans Mortensen (1903-05) Animals on the island: • 5,000 sheep (1903-04) • 60 cattle (1904) • ? horses (1904)	
12/28/1906	United States of America	G.L. 115 assigned to: Eben Low (Sheep Ranching); Foreman: Benedictus Auhana Akina; Maikai Keliilike (1910) Animals on the island: • 5,000 goats (1909) • 3,200 sheep (1909) • 40 cattle (1909) • 40 horses (1909)	
8/25/1910	United States of America	Territorial Governor W.F. Frear designates Kaho`olawe a Forest Reserve under the Board of Agriculture and Forestry; Island Managers: • R.S. Hosmer—Forester (1910) • C.S. Judd—Forester (1915-18) • Eben Low—former lessee, with Jack Aina—"unofficial ranger" of Kaho`olawe	
4/20/1918	United States of America	Territorial Governor Lucius Pinkham withdraws Kaho`olawe from "Forest Reserve" Status	
12/23/1918	United States of America	G.L. 1049 issued to: Angus MacPhee (Cattle Ranching—Kahoolawe Ranch Company (KRC) Foreman: Jack `Aina (1918-22)	
7/11/1919	United States of America		KRC sublease of to: Kahoolawe Honey Company: President—Rufus W. Robinson; Vice President —James L Coke; Secretary—Lee St. John Gilbert; Treasurer—O. St. John Gilbert; Auditor—A.E. Cooley

Appendix 7. Executive Pronouncements

Presidential Pronouncements

02/03/1928 Presidential Proclamation No. 1827 by Calvin Coolidge sets aside 23.3 acres on Kaho`olawe for lighthouse purposes.

02/20/1953 Executive Order No. 10436 by Dwight D. Eisenhower places Kaho`olawe under the authority of the Secretary of the Navy for military training purposes.

10/22/1990 Presidential Memorandum by George Bush to the Secretary of Defense directs the Secretary to "immediately discontinue use of Kaho`olawe as a weapons range."

Gubernatorial Pronouncements

08/25/1910 Governor's Proclamation by Walter F. Frear designates the entire island of Kaho`olawe as the Kaho`olawe Forest Reserve.

04/20/1918 Governor's Proclamation by Lucius Pinkham withdraws the entire island of Kaho`olawe from the forest reserve.

12/19/1927 Governor's Executive Order No. 308 by Wallace R. Farrington sets aside 23.2 acres of Kaho`olawe as a United States Lighthouse reservation.

10/01/1952 Governor's Executive Order No. 1528 by Oren E. Long cancels Governor's Executive Order No. 308.

01/08/1976 Governor George Ariyoshi states "it's only a matter of time before the military stops using Kaho`olawe as a bombing target and turns it over to the State. . ."

08/18/1992 Governor John Waihee proclaims August 21-22, 1992, as "Days of Acknowledgment" to recognize the history of Kaho`olawe and its significance as a place of healing.

8/21/1992 Governor John Waihee recognizes the Protect Kaho`olawe `Ohana for its past efforts and stewardship role for Kaho`olawe at rededication ceremonies at Hakioawa on Kaho`olawe and recognizes the island as a historically significant place of healing.

Mayoral Pronouncements

09/15/1969 Maui County Mayor Elmer Cravalho expresses concern over the Navy's inability to keep animal populations down on Kaho`olawe in violation of Presidential Executive Order No. 10436.

07/15/1971 Maui County Mayor Elmer Cravalho and Maui County Chairman Goro Hokama describe the Secretary of the Navy and his response to Kaho`olawe issues as "the extreme height of arrogance."

02/14/1973 Maui County Mayor Elmer Cravalho asks the Hawai`i Congressional delegation to include a "Kaho`olawe rider" in a billion-dollar Vietnam rehabilitation bill for the island's "cleanup, reforestation, and goat control."

01/29/1976 Maui County Mayor Elmer Cravalho petitions the Federal Aviation Administration (FAA) to suspend the permits granting the Navy use of two air corridors over Kaho`olawe.

02/09/1977 Maui County Mayor Elmer Cravalho seeks a temporary restraining order to prevent the military from conducting live firing practice.

Appendix 8. Legislative Actions

Congressional Legislation

1970 Hawai`i Senator Hiram Fong requests that the Navy cease bombing Kaho`olawe in conjunction with the cessation of bombing on Culebra in Puerto Rico.

1971 S. 1662 is introduced by Hawai`i Senator Daniel K. Inouye "to provide for the conveyance of Kaho`olawe to the State of Hawai`i" and to support appropriate soil and water conservation activities and the removal of ordnance.

1974 S. 3466 is introduced by Hawai`i Senator Daniel K. Inouye to provide for the conveyance of Kaho`olawe to the State of Hawai`i and to carry out soil and water conservation activities and removal or ordnance.

1974 S. 3000, introduced by Senator Hubert H. Humphrey, is amended to include a resolution introduced by Hawai`i Senator Hiram Fong directing the Pentagon to look for an alternative to Kaho`olawe as a practice range for bombing.

1975 H.R. 1705 is introduced by Congresswoman Patsy Mink. The bill provides for the conveyance of Kaho`olawe to the State of Hawai`i, the support of appropriate soil and water conservation activities, and the removal of ordnance. The wording of the bill is similar to that of S. 1662.

1975 H.R. 10029 is attached to the 1976 Appropriations Bill by Senator Daniel K. Inouye directing the Pentagon to study the feasibility of restoring Kaho`olawe and returning the island to the State of Hawai`i.

1977 S. 221 is introduced by Hawai`i Senator Daniel K. Inouye. The bill authorizes the Secretary of the Navy to set aside and clear a certain portion of Kaho`olawe as a pilot project to determine the feasibility and costs factors of clearing the island and its surrounding waters of ordnance.

1990 S. 3088 is introduced by Hawai`i Senators Daniel K. Akaka and Daniel K. Inouye. This bill establishes a commission to study and recommend terms and conditions for returning Kaho`olawe to the State of Hawai`i, to prohibit the use of the land as a bombing range, to provide a study of a potential marine sanctuary in the vicinity of the island, and to limit improvements to the island during the period of study.

1990 S. 3189 is reported by Hawai`i Senator Daniel K. Inouye making appropriations for the Department of Defense for the fiscal year ending September 30, 1991, and incorporating the language of S. 3088 and restricting military funding for live ordnance training on Kaho`olawe. An appropriation of $1.5 million is provided to the Kaho`olawe Island Conveyance Commission.

1992 H.R. 5504 is introduced by Hawai`i Representatives and incorporated into the Department of Defense appropriations bill extending the life of the Kaho`olawe Island Conveyance Commission to September 30, 1993, and providing it with an additional appropriation of $500,000.

Territorial/State Legislation

1909 H.C.R. 19, introduced by Territorial legislator R.W. Shingle, states that Kaho`olawe "should not be leased upon the termination of the existing lease (Eben Low/Lessee), but that every effort should be made by the proper authorities for the killing of all animal life upon said island and for the improvement and restoration of the plant life thereon."

1986	S.B. 2177, introduced by State Representative M. Andrews, makes an appropriation for a survey and development plan for water resources on Kaho`olawe.
1986	G.M. 185 makes appointments to the Board of Registration for Maui, Moloka`i, Lana`i, and Kaho`olawe (Maui County).
1986	S.B. 2420, introduced by State Senator Malama Solomon, makes an appropriation for a survey and development plan for water resources on Kaho`olawe.
1987	H.B. 1811, introduced by State Representative B. Pfeil, identifies the 3rd Land District of public lands, to include the islands of Moloka`i, Lana`i, Molokini, and Kaho`olawe.
1988	S.C.R. 122, introduced by State Senator R. Reed, requests that Canada not participate in the shelling of Kaho`olawe during the 1988 Rim of the Pacific (RIMPAC) military exercises.
1988	S.R. 130, introduced by State Senator R. Reed, requests that Canada not participate in the shelling of Kaho`olawe during the 1988 RIMPAC military exercises.
1988	S.C.R. 6, introduced by State Senator R. Reed, urges that the U.S. Navy immediately halt its shelling and bombing of Kaho`olawe.
1988	S.C.R. 12, introduced by State Senator J. Wong, requests that the United States Government return Kaho`olawe to the State of Hawai`i.
1988	S.R. 8, introduced by State Senator R. Reed, urges the U.S. Navy to immediately halt shelling and bombing of Kaho`olawe.
1988	S.R. 17, introduced by State Senator J. Wong, requests that the United States Government return Kaho`olawe to the State of Hawai`i.
1988	S.R. 80, introduced by State Senator M. Yamasaki, requests that the U.S. Navy return Kaho`olawe to the State of Hawai`i and Maui County.
1988	H.C.R. 292, introduced by State Representative B. Pfeil, requests that Canada not participate in the shelling of Kaho`olawe as part of the 1988 RIMPAC military training exercises.
1988	H.R. 374, introduced by State Representative B. Pfeil, requests that Canada not participate in the shelling of Kaho`olawe as part of the 1988 RIMPAC military training exercises.
1988	G.M. 265 makes appointments to the Board of Registration for Maui, Moloka`i, Lana`i, and Kaho`olawe (Maui County).
1988	S.C.R. 68, introduced by State Senator M. Yamasaki, requests that the U.S. Navy return Kaho`olawe to the State of Hawai`i and Maui County.
1989	S.B. 304, introduced by State Senator M. Yamasaki, makes an appropriation for a water resources study of Kaho`olawe.
1989	S.B. 1039, introduced by State Senator Malama Solomon, establishes a negotiation fund within the Department of Land and Natural Resources (DLNR) for the return of Kaho`olawe to the State of Hawai`i.
1989	S.B. 1204, introduced by State Senator Norman Mizuguchi, makes an appropriation for a grant-in-aid to the U.S. Navy for floating structures as an alternative to using Kaho`olawe for ordnance training and for related actions.
1990	S.B. 2531, introduced by State Senator Malama Solomon, establishes a negotiating fund within DLNR for the return of Kaho`olawe to the State of Hawai`i.
1990	G.M. 243 makes appointments to the Board of Registration for Maui, Moloka`i, Lana`i, and Kaho`olawe (Maui County).
1991	S.R. 122, introduced by State Senator Norman Mizuguchi, requests that the Committee on Employment and Public Institutions review progress on the disposition of Kaho`olawe.

2/19/1971	Resolution No. 52, introduced by Yoneto Yamaguchi, endorses efforts by Senator Daniel K. Inouye to have Kaho`olawe returned to the State of Hawai`i and the County of Maui.
07/20/1973	Resolution No. 88, introduced by Goro Hokama, strongly urges the U.S. Congress to seriously consider the enactment of H.R. 3156, returning Kaho`olawe to the people of the State of Hawai`i and Maui County.
02/06/1976	Resolution No. 76-9, introduced by E. Loy Cluney, requests that the Federal Government return Kaho`olawe to the State of Hawai`i.
02/06/1976	Resolution No. 76-10, introduced by E. Loy Cluney, requests that the Governor of Hawai`i encourage the Federal Government to relinquish Kaho`olawe to the State of Hawai`i.
02/11/1977	Resolution No. 77-33, introduced by E. Loy Cluney, requests that the United States Armed Forces immediately stop bombing and/or shelling of Kaho`olawe.
09/05/1980	Resolution No. 80-142, introduced by Goro Hokama, commends Congressman Spark Matsunaga for requesting that the U.S. Navy halt military construction on Kaho`olawe.
04/02/1982	Resolution No. 82-33, introduced by Allen W. Barr and Wayne Nishiki, requests that the Department of the Navy and RIMPAC terminate use of Kaho`olawe as a bombing target.
08/20/1987	Resolution No. 87-98, introduced by Goro Hokama, requests that the U.S. Navy return the island of Kaho`olawe to the State of Hawai`i and the County of Maui.
06/03/1988	Resolution No. 88-55, introduced by Wayne Nishiki and Goro Hokama, relates to RIMPAC military training exercises and the return of the island of Kaho`olawe to the State of Hawai`i and the County of Maui.
07/20/1990	Resolution No. 90-77, introduced by Goro Hokama, requests that the U.S. Navy discontinue use of the island of Kaho`olawe as a gunnery and bombing target and return the island to the State of Hawai`i and the County of Maui.
08/07/1992	Resolution No. 92-57, introduced by Goro Hokama, recognizes August 21-22, 1992, as days of acknowledgment that the sacred island of Kaho`olawe is a historically significant place of healing.

Hawai`i

1976	Resolution No. 520, introduced by Merle Lai, seeks a temporary halt to the bombing of Kaho`olawe.
08/12/1992	Resolution No. 508-92, introduced by Kalani Schutte, proclaims August 21-22, 1992, as days for the residents of the County of Hawai`i to acknowledge the sacred island of Kaho`olawe as a historically significant place of healing.

2/10/1977 Maui Mayor Elmer Cravalho, on behalf of Maui County, files suit to stop military training exercises on Kaho`olawe. (*Elmer Cravalho, Mayor of County of Maui* v. *Harold Brown, Secretary of Defense; J. William Middendorf II, Secretary of the Navy; James L. Holloway, Chief of Naval Operations; Ralph S. Wentworth, Jr., Commandant of the 14th Naval District; and Thomas B. Hayward, Commander-In-Chief, Pacific Fleet, USN* (Civil No. 77-0044))

03/28/79 Federal Judge Sam King dismisses suit.

03/06/1977 Citizen files suit for seizure of boat and violation of due process. (*Joyce Kainoa* v. *James Moreau, Rear Admiral, USN* (Civil No. 77-00083))

03/18/77 Federal Judge dismisses suit.

05/11/1977 Trespass charges are brought by the United States against three members of the Protect Kaho`olawe Association for their landing on Kaho`olawe. (*United States* v. *Samuel Kealoha, Joyce A.M. Kainoa, and Rae M.L. Chang* (Criminal No. 77-0496))

08/06/1977 Trespass charges are brought by the United States against 14 members of the Protect Kaho`olawe `Ohana for landing on the island. (*United States* v. *Kaliko Martin; Puanani Kealoha; Archibald Brito, Jr.; Anne Rogers; John Shoemaker; John DeLeon; Anthony Bartel, Jr.; Kathryn Bartel; Terrilee Kekoolani; Maxine Kahaulelio; Julie Brossy; Soli Niheu; Carl Bannister, Jr.; and Bart Dane* (Criminal # 77-00992))

08/29/1977 Citizen files writ of Habeas Corpus in his court case regarding trespass on Kaho`olawe. (*Walter Ritte, Jr.* v *Griffin Bell* (Civil No. 77-00340))

07/17/78 Federal Judge dismisses case.

09/08/1977 Trespass charges are brought by the United States against five members of the Protect Kaho`olawe Association for their landing on Kaho`olawe. (*United States* v. *Adolph Helm* (Criminal No. 77-01085); *United States* v. *Jeanette Y. Foster* (Criminal No. 77-01086); *United States* v. *Earl DeLeon* (Criminal No. 77-01087); *United States* v. *Roman Dombriques, Jr.* (Criminal No. 77-01088); *United States* v. *Isaac D. Hall* (Criminal No. 77-01089))

09/15/1977 Citizen files for federal declaratory judgement—Act 28-2201. (*Walter Ritte, Jr., Richard Sawyer, Jr.* v. *Jimmy Carter, President of the United States; and W. Graham Claytor, Jr., Secretary of the Navy* (Civil No. 77-00365))

08/17/79 Federal Judge dismisses case.

Especially dangerous are the small bombs with anti-disturbance fuzes which are distributed from dispensers and are armed by spinning in the air during descent and intended to detonate upon impact. If detonation fails to occur, these bomblets may be detonated by the slightest movement. The dangerous situation is increased by the bomb's small size, frequently camouflage-painted, and may be located just below the ground surface.

Also, the majority of practice ordnance items, which are generally considered inert, are, in fact, also hazardous. The smaller practice items contain shotgun charges that can cause serious injury and the larger items contain lethal black powder charges.

Unexploded (dud) ordnance are found lying on the ground surface, just below the ground surface, buried deeply, and in offshore waters of the target complex. The penetration depth of the underground dud ordnance items range from 2-3 feet for gun-fired projectiles, and 15 feet or greater for aerial delivered bombs. Potential hazards from detonation are great to people, vehicles and other activities requiring movement of soil. For example, a single 100-lb. bomb buried 10 feet, upon detonation, results in a crater 12 feet wide and can break a building foundation located 40 feet away or wreck a 9-inch brick wall located 15 feet away. Dud ordnance having lesser and greater amounts of explosives would produce corresponding effects.

Aikupau

Aikupau—1902 (*Thrum, 1902:121)
Aikupo—1913? (Stokes, undated-c)
Aikupou—1917 (Kauwekane, 1917a)
Aikupou—1917 (Kauwekane, 1917b)
Waaiki Bay—1925? (Dranga?, undated)
Aikupou—1929? (Unknown, undated)
Aikupo—1933 (*McAllister, 1933:57)
Aikupau—1983 (*Motteler, 1983:4)
Aikupo—1983 (*Motteler, 1983:4)
Aikupou—1983 (*Motteler, 1983:4)

Aleale

Aleale—1913? (Stokes, undated-c)
Puu Koae—1913? (Stokes, undated-b)
Aleale—1917 (Stokes, 1917)
Aleale Pt.—1926? (L.M.Z., undated)
Aleale—1926 (U.S.G.S., 1926)
Aleale—1929 (U.S.G.S., 1929)
Aleale—1933 (*McAllister, 1933:57)
Aleale—1947 (U.S.G.S., 1947)
Aleale—1970s (Tax Key, undated)
Aleale—1977 (Motteler, 1977a)
Aleale—1978 (Raposa, 1978)
Aleale—1982 (D.M.A., 1982)
Aleale—1983 (Motteler, 1983)
Aleale—1983 (*Motteler, 1983:4)
Aleale—1984 (U.S.G.S., 1984)

Black Rock

Black Rock—1989 (*Clark, 1989:127)

Cave of Kunaka

Cave of Kunaka—1889? (Doc. 1126, undated-b)
Cave of Kunaka—1913? (Stokes, undated-a)
Cave of Kunaka—1913? (Stokes, undated-c)
Cave of Kunaka—1916 (Emory, 1916)
Cave of Kunaka—1917 (Stokes, 1917)
Kunaka—1933 (*McAllister, 1933:57)
Kunaka Cave—1977 (Motteler, 1977a)
Kunaka Cave—1982 (D.M.A., 1982)
Kunaka Cave—1983 (*Motteler, 1983:4)
Cave of Kanaka—1983 (*Napoka, 1983:1)
Luakunaka—1983 (*Napoka, 1983:3)
Kunaka Cave—1984 (U.S.G.S., 1984)

Hakioawa

Hakioawa Bay—1889? (Doc. 1126, undated-b)
Hakioawa—1902 (*Thrum, 1902:119)
Hakioawa—1907 (*Thrum, 1907:119)
Hakiawa—1910 (**The Sunday Advertiser*, 8/28/1910:1:c,4)
Hakiawa—1911? (Conradt, undated)
Hakioawa B.—1913 (*Stokes, 1913:I:6,9,13)
Hakioawa B—1913? (Stokes, undated-a)
Hakioawa B or Olga—1913? (Stokes, undated)
Hakioawa Bay—1913? (Stokes, undated-c)
Hakioana Bay—1916 (Emory, 1916)
Hakioawa Bay—1917 (Stokes, 1917)
Hakioawa—1917 (Kauwekane, 1917a)
Hakioawa—1917 (Kauwekane, 1917b)
Hakioawa Bay—1925 (Dranga?, undated)
Hakioawa—1926 (U.S.G.S., 1926)
Hakioawa—1929 (U.S.G.S., 1929)
Hakioawa Bay—1933 (McAllister, 1933)
Hakioawa—1939 (Stearns, 1939)
Hakioawa—1940 (Stearns, 1940a)
Hakioawa—1947 (U.S.G.S., 1947)
Hakioawa—1970s (Tax Key, undated)
Hakio awa—1975 (Ashdown, 1975a)
Hakioawa Bay—1977 (Motteler, 1977a)
Hakioawa—1977 (Motteler, 1977a)
Hakioawa—1978 (Raposa, 1978)
Hakioawa—1980 (29th Eng., 1980)
Big Gulch—1980 (*Clark, 1980:134)
Hakioawa—1982 (D.M.A., 1982)
Hakioawa—1983 (Motteler, 1983)
Hakioawa—1983 (*Motteler, 1983:4)
Hakioawa Gulch—1983 (*Motteler, 1983:4)
Hakioawa—1984 (U.S.G.S., 1984)

Hakioawa iki (Ili)

Hakioawa iki—1889? (Doc. 1126, undated-a)
Hakioawaiki—1977 (Motteler, 1977a)

Hakioawaiki

Hakioawaiki Gulch—1983 (*Motteler, 1983:4)

Hakioawa nui (Ili)

Hakioawa nui—1889 ? (Doc. 1126, undated-a)
Hakioawanui—1977 (Motteler, 1977a)

Hakioawa Point

Hakioawa Pt.—1926? (L.M.Z., undated)
Hakioawa Pt.—1954 (U.S.N., 1954)
Hakioawa Point—1980 (29th Eng., 1980)

Hale Mua Heiau

Heiau—1925? (Dranga?, undated)
Hale Mua Heiau—1983 (*Motteler, 1983:4)

Hoponui

Hoponui (tank)—1977 (Motteler, 1977a)
Hoponui—1983 (*Motteler, 1983:5)

Hula Kao

Hula Kao—1916 (Emory, 1916)
Hulo Kao—1977 (Motteler, 1977a)
Hulo Kao—1983 (*Motteler, 1983:4)
Hula Kao—1984 (U.S.G.S., 1984)

Iliililoa

Iliililoa—1889? (Doc. 1126, undated-b)
Iliililoa—1916 (Emory, 1916)
Iliililoa—1917 (Stokes, 1917)
Iliililoa—1933 (*McAllister, 1933:57)
Iliililoa—1977 (Motteler, 1977a)
Iliililoa—1982 (D.M.A., 1982)
Iliililoa—1983 (Motteler, 1983)
Iliililoa—1983 (*Motteler, 1983:4)
Iliililoa—1984 (U.S.G.S., 1984)

Kahuahale o Kamohalii

Kahuahale o Kamohalii—1889? (Doc. 1126, undated-b)
Kahuahale of Kamohoalii—1913 (*Stokes, 1913:I:9)
Kahuahale o Kamohalii—1913? (Stokes, undated-a)
Kahuahale o Kamohoalii—1913? (Stokes, undated-c)
Kahuahale o Kamohalii—1916 (Emory, 1916)
Kahuahale Kamohalii—1917 (Stokes, 1917)
Kahuahale o Kamohalii—1925? (Dranga, undated)
Kahuahale-o-Kamohoalii—1933 (*McAllister, 1933:57)
Ka hua Hale o Ka Mooalii—undated (Ashdown, undated)
Kahuahale o Kamohoalii—1983 (*Motteler, 1983:5)
Kahuahole—1983 (*Napoka, 1983:2)

Kaka

Kaka—1889? (Doc. 1126, undated-b)
Puu o Kaka—undated (*HI. K. 8)
Kaka—1916 (Emory, 1916)
Kaka—1917 (Stokes, 1917)
Kaka—1977 (Motteler, 1977a)
Kaka—1983 (*Motteler, 1983:4)

Ka lae o Kalawa

Ka lae o Kalawa—undated (*HI. K. 8)

Kalama

Kalama—1889? (Doc. 1126, undated-b)
Kalama—1913? (Stokes, undated-a)
Kalauia—1916 (Emory, 1916)
Kalama—1917 (Stokes, 1917)
Kalama Pt.—1926? (L.M.Z., undated)
Kalama—1926 (U.S.G.S., 1926)
Kalama—1929 (U.S.G.S., 1929)
Kalama—1933 (*McAllister, 1933:57)
Kalauia—1933 (*McAllister, 1933:57)
Kalama—1947 (U.S.G.S., 1947)
Kalama Pt.—1954 (U.S.N., 1954)
Ka-lau-ia—1960 (*Ashdown, 1960:5)
Kalama—1970s (Tax Key, undated)
Kalama—1977 (Motteler, 1977a)
Kalauia—1977 (Motteler, 1977a)
Kalama—1978 (Raposa, 1978)
Kalama Point—1980 (29th Eng., 1980)
Kalama—1982 (D.M.A., 1982)
Kalama—1983 (Motteler, 1983)
Kalama—1983 (*Motteler, 1983:4)
Kalauia—1983 (*Motteler, 1983:4)
Kalama—1984 (U.S.G.S., 1984)

Kalama Bay

Kalama Bay—1889? (Doc. 1126, undated-b)
Kalama B—1913? (Stokes, undated-a)
? Kalama B—1913? (Stokes, undated-b)
Ka Lama—1970s? (Ashdown, undated)

Kalua o Kamohoalii

Kalua o Kamohoalii—1917 (Kauwekane, 1917a)
Kalua o Kamohoalii—1929? (Unknown, undated)
Kalua-o-Kamohoalii—1933 (*McAllister, 1933:57)
Kalua o Kamohoalii—1977 (Motteler, 1977a)
Kalua o Kamohoalii—1982 (D.M.A., 1982)
Kalua o Kamohoalii—1983 (Motteler, 1983)
Kalua o Kamohoalii—1983 (*Motteler, 1983:4)
Kalua o Kamohoalii—1984 (U.S.G.S., 1984)

Kamohio

Puu Koae Bay—1913 (*Stokes, 1913:I:14)
Waikahalulu—1913? (Stokes, undated-a)
Kamohio—1913? (Stokes, undated-c)
Kamohio Bay—1917 (Stokes, 1917)
Kamohio Bay—1925? (Dranga?, undated)
Kamohio Bay—1926? (L.M.Z., undated)
Kamohio Bay—1926 (U.S.G.S., 1926)
Kamohio Bay—1929 (U.S.G.S., 1929)
Kamohio Bay—1933 (McAllister, 1933)
Kamohio—1933 (*McAllister, 1933:57)

Kaohe

Kaohe—1917 (Kauwekane, 1917a)
Kaohe—1917 (Kauwekane, 1917b)
Kaohe—1933 (*McAllister, 1933:57)
Kaohi—undated (*Ashdown, undated:57)
Ka-ohi—1960 (*Ashdown, 1960:5)
Kaohi—1977 (Motteler, 1977a)
Kaohi/Kaohe—1983 (*Motteler, 1983:4)

Kaukamaka Gulch

Kaukamaka Gulch—1982 (D.M.A., 1982)
Kaukamaka Gl—1983 (Motteler, 1983)
Kaukamaka Gulch—1983 (*Motteler, 1983:4)
Kaukamaka Gulch—1984 (U.S.G.S., 1984)

Kauka moku

Kauka moku—1917 (Kauwekane, 1917a)
Kauka moku—1917 (Kauwekane, 1917b)
Kaukamoku—1926? (L.M.Z., undated)
Kauka moku—1929? (Unknown, undated)
Kaukamoku—1933 (*McAllister, 1933:58)
Kaukamoku—1977 (Motteler, 1977a)
Kaukamoku—1982 (D.M.A., 1982)
Kaukamoku—1983 (Motteler, 1983)
Kaukamoku—1983 (*Motteler, 1983:5)
Kaukamoku—1984 (U.S.G.S., 1984)

Kaukamoku Gulch

Kaukamoku Gulch—1926 (U.S.G.S., 1926)
Kaukamoku Gulch—1929 (U.S.G.S., 1929)
Kaukamoku—1933 (*McAllister, 1933:58)
Kaukamoku Gulch—1947 (U.S.G.S., 1947)
Kaukamoku Gulch—1970s (Tax Key, undated)
Kaukamoku Gulch—1977 (Motteler, 1977a)
Kaukamoku Gulch—1978 (Raposa, 1978)
Kaukamoku Gulch—1982 (D.M.A., 1982)
Kaukamoku Gulch—1983 (Motteler, 1983)
Kaukamoku Gulch—1983 (*Motteler, 1983:5)
Kaukamoku Gulch—1984 (U.S.G.S., 1984)

Kaukaukapapa

Kaukaukapapa Beach—1939 (Stearns, 1939)
Kaukaukapapa Beach—1977 (Motteler, 1977b)
Kaukaukapapa Beach—1983 (*Motteler, 1983:5)
*Twin Sands Beach—1989 (*Clark, 1989:127)

Kaulana (Ili)

Kaulana—1889? (Doc. 1126, undated-a)
Kaulana—1977 (Motteler, 1977a)

Kaulana

Kaulana—1886 (Wall, 1886)
Kaulana Bay—1889? (Doc. 1126, undated—b)
Kaulana—1902 (*Thrum, 1902:121)
Kaulana—1911? (Conradt, undated)
Kaulana B—1913? (Stokes, undated-a)
Kaulana Bay—1913? (Stokes, undated-c)
Kaulana Bay—1917 (Stokes, 1917)
Kaulana—1917 (Kauwekane, 1917a)
Kaulana—1917 (Kauwekane, 1917b)
Kaulana Bay—1925? (Dranga, undated)
Kaulana—1926? (L.M.Z., undated)
Kaulana—1926 (U.S.G.S., 1926)
Kaulana—1929 (U.S.G.S., 1929)
Kaulana—1933 (*McAllister, 1933:57)
Kaulana—1947 (U.S.G.S., 1947)
Kaulana—1970s (Tax Key, undated)
Kai papau Bay—1970s? (Ashdown, undated)
Kaulama Pt and Bay—1975 (Ashdown, 1974a)
Kaulana Bay—1977 (Ashdown, 1977)
Kaulana—1977 (Motteler, 1977a)
Kaulana—1978 (Raposa, 1978)
Kaulana—1982 (D.M.A., 1982)
Kaulana—1983 (Motteler, 1983)
Kaulana—1983 (*Motteler, 1983:5)
Kaulana—1984 (U.S.G.S., 1984)

Kaulana Gulch

Kaulana Gulch—1913 (Stokes, undated-b)
Kaulana Gulch—1926 (U.S.G.S., 1926)
Kaulana Gulch—1929 (U.S.G.S., 1929)
Kaulana Gulch—1947 (U.S.G.S., 1947)
Kaulana Gulch—1970s (Tax Key, undated)
Kaulana Gulch—1977 (Motteler, 1977a)
Kaulana Gulch—1978 (Raposa, 1978)
Kaulana Gulch—1980 (29th Eng., 1980)
Kaulana Gulch—1982 (D.M.A., 1982)
Kaulana Gulch—1983 (Motteler, 1983)
Kaulana Gulch—1983 (*Motteler, 1983:5)
Kaulana Gulch—1984 (U.S.G.S., 1984)

Kaulana-nui

Kaulana-nui—1977 (*Ashdown, 1977:4)

Kaulana Point

Kaulana Pt.—1954 (U.S.N., 1954)
Kaulama Pt and Bay—1975 (Ashdown, 1975a)
Kaulana Point—1980 (29th Eng., 1980)

Kunaka (Ili)

Kunaka—1889? (Doc. 1126, undated-a)
Kunaka—1977 (Motteler, 1977-a)

Ku-na-na

Ku-na-na—1960 (*Ashdown, 1960:5)

Lae Hanei (or Hanai)

Lae Hanei (or Hanai)—1970s (*Ashdown, undated:3)

Lae Hilu Kea

Hilu kea—1970s (Ashdown, undated)
Lae Hilu Kea—1975 (Ashdown, 1975a)
Lae o Hilukea—1977 (Motteler, 1977a)
Lae o Hilukea—1982 (D.M.A., 1982)
Lae o Hilukea—1983 (Motteler, 1983:5)
Lae o Hilukea—1983 (*Motteler, 1983:5)
Lae o Hilukea—1984 (U.S.G.S., 1984)

Lae Hilu ula

Lae HIlu ula—1975 (Ashdown, 1975a)
Hiluula—1975 (*Ashdown, 1976)
Lae Olohia—1970s? (*Ashdown, undated:3)
Lae Olohia—1977 (*Ashdown, 1977:3)
Lae o Hiluula—1977 (Motteler, 1977a)
Lae o Hiluula—1982 (D.M.A., 1982)
Lae o Hiluula—1983 (Motteler, 1983)
Lae o Hiluula—1983 (*Motteler, 1983:5)
Laeolohia—1983 (*Napoka, 1983:3)
Lae o Hiluula—1984 (U.S.G.S., 1984)

Lae o Halona

Halona cape—1889? (Doc. 1126, undated-b)
Kanapou Pt.—1911? (Conradt, undated)
Halona Pt.—1913 (Forbes, 1913)
Halona Pt.—1913? (Stokes, undated-a)
Halona cape—1913? (Stokes, undated-a)
Kanapou Pt.—1913? (Stokes, undated-c)
Ka Lae o Halona—1916 (Emory, 1916)
Halona Pt.—1917 (Stokes, 1917)
Halona Cape—1925? (Dranga?, undated)
Halona Pt—1926? (L.M.Z., undated)
Lae o Halona—1926 (U.S.G.S., 1926)
Lae o Halona—1929 (U.S.G.S., 1929)
Lae o Halona—1933 (*McAllister, 1933:57)
Lae o Halona—1947 (U.S.G.S., 1947)
Halons[?] Pt.—1954 (U.S.N., 1954)
Lae o Halona—1965 (Klingensmith, 1965)
Lae o Halona—1970s (Tax Key, undated)
Lae Halona—undated (Ashdown, undated)
Halona Pt.—undated (Ashdown, undated)
Lae o Halona—1975 (Ashdown, 1975a)
Lae o Halona—1977 (Ashdown, 1977)
Lae o Halona—1977 (Motteler, 1977a)
Halona Pt.—1978 (Raposa, 1978)
Halona Point—1980 (29th Eng., 1980)
Lae o Halona—1982 (D.M.A., 1982)
Lae o Halona—1983 (Motteler, 1983)
Lae o Halona—1983 (*Motteler, 1983:4)
Lae o Halona—1984 (U.S.G.S., 1984)

Lae o Honokoa

Hanakoa Pt.—1911? (Conradt, undated([?]
Honokoa Pt.—1913? (Stokes, undated-c)
Honokoa Pt.—1917 (Stokes, 1917)
Lae o honokoa—1917 (Kauwekane, 1917a)
Lae o Honokoa—1917 (Kauwekane, 1917b)
Lae o Honokoa—1929? (Unknown, undated)
Honokou Pt—1970s? (Ashdown, undated-a)
Lae Hono kou—1970s (Ashdown, undated-b)
Lae Hono kou—1975 (Ashdown, 1975)
Lae Hono Kou (or Koa)—1977 (Ashdown, 1977)
Lae o Honokoa—1977 (Motteler, 1977a)
Lae o Honokoa—1982 (D.M.A., 1982)
Lae o Honokoa—1983 (*Motteler, 1983:5)
Lae o Honokoa—1984 (U.S.G.S., 1984)

Lae o Kaka

Halona Pt.—1886? (Wall, 1886)
Lae o Kaka—1889? (Doc. 1126, undated-b)
Halona Pt.—1911 (Podmore, 1911)
Lae o Kaka—1913? (Stokes, undated-a)
Halona Pt—1913? (Stokes, undated-b)
Halona Pt.—1913? (Stokes, undated-c)
Lae o Kaka—1913? (Stokes, undated-a)
Lae o Kaha—1916 (Emory, 1916)
Halona Pt.—1917 (Stokes, 1917)
Lae o Kaka—1917 (Stokes, 1917)
Lae o Kaka—1917 (Kauwekane, 1917a)
Lae o Kaku?a—1917 (Kauwekane, 1917b)
Lae o Kaka—1925? (Dranga?, undated)
Kaka Pt.—1926? (L.M.Z., undated)
Lae o Kaka—1926 (U.S.G.S., 1926)
Lae o Kaka—1929 (U.S.G.S., 1929)
Kaku—1929? (Unknown, undated)
Lae o Kaka—1933 (McAllister, 1933)
Lae o Kaka—1933 (*McAllister, 1933:57)
Lae o Kaka—1947 (U.S.G.S., 1947)
Kaka Pt.—1954 (U.S.N., 1954)
Lae o Kaka—1965 (Klingensmith, 1965)
Lae o Kaka—1970s (Tax Key, undated)
Koko—undated (Ashdown, undated)

Lae o Kealaikahiki—1983 (*Motteler, 1983:5)
Lae o Kealaikahiki—1984 (U.S.G.S., 1984)
Lae o Kealaikahiki—1984 (Motteler, 1984)

Lae o Kuakaiwa

Lae o Kuakaiwa—1889? (Doc. 1126, undated-b)
Lae o Kuakaiwa—1913? (Stokes, undated-a)
? Lae o Kuakaiwa—1913? (Stokes, undated-b)
Lae o Kuakaiwa—1917 (Stokes, 1917)
Lae o Kamohio—1917 (Kauwekane, 1917a)
Lae o Kamohio—1917 (Kauwekane, 1917b)
Lae o Kuakaiwa—1925? (Dranga?, undated)
Kuakaiwa Pt.—1926? (L.M.Z., undated)
Lae o Kuakaiwa—1926 (U.S.G.S., 1926)
Lae o Kuakaiwa—1929 (U.S.G.S., 1929)
Lae o Kamohio—1929? (Unknown, undated)
Lae o Kuakaiwa—1933 (McAllister, 1933)
Lae o Kuakaiwa—1933 (*McAllister, 1933:57)
Lae o Kuakaiwa—1947 (U.S.G.S., 1947)
Kuakaiwa Pt.—1954 (U.S.N., 1954)
Lae o Kuakaiwa—1970s (Tax Key, undated)
Lae o Ku aka iwa—1975 (Ashdown, 1975a)
Lae o Kuakaiwa—1977 (Ashdown, 1977)
Lae o Kuakaiwa—1977 (Motteler, 1977a)
Kuakaiwa Pt.—1978 (Raposa, 1978)
Kuakaiwa Point—1980 (29th Eng., 1980)
Lae o Kuakaiwa—1982 (D.M.A., 1982)
Lae o Kuakaiwa—1983 (Motteler, 1983)
Lae o Kuakaiwa—1983 (*Motteler, 1983:4)
Lae o Kuakaiwa—1984 (U.S.G.S., 1984)

Lae o Kukui

Kuikui Pt.—1886? (Wall, 1886)
lae o Kukui—1902 (*Kahaulelio, 1902:17)
Kukui Pt.—1911 (Podmore, 1911)
Kui Kui Pt.—1911? (Conradt, undated)
Kukui Pt.—1913 (Forbes, 1913)
Kuikui Pt.—1913? (Stokes, undated-a)
Kuikui Pt.—1913? (Stokes, undated b)
Kuikui Pt.—1913? (Stokes, undated c)
Kuikui Pt.—1917 (Stokes, 1917)
Lae o Kukui—1917 (Kauwekane, 1917a)
Lae o Kukui—1917 (Kauwekane, 1917b)
Kuikui Point—1925? (Dranga?, undated)
Kuikui Pt.—1926? (L.M.Z, undated)
Lae o Kuikui—1926 (U.S.G.S., 1926)
Lae o Kuikui—1929 (U.S.G.S., 1929)
Lae o Kukui—1929? (Unknown, undated)
Lae o Kuikui—1933 (McAllister, 1933)
Lae o Kuikui—1933 (*McAllister, 1933:58)
Lae o Kuikui—1935 (*Coulter, 1935:76)
[?]—1939 (Bryan, 1939)
Lae o Kuikui—1947 (U.S.G.S., 1947)
Kuikui Pt.—1954 (U.S.N., 1954)
Lae o Kuikui—1970s (Tax Key, undated)
Lae o Kukui—1975 (Ashdown, 1975a)
Lae o Kukui—1977 (Motteler, 1977a)
Cape Kuikui—1978 (Raposa, 1978)
Kuikui Point—1980 (29th Eng., 1980)
Lae o Kukui—1982 (D.M.A., 1982)
Lae o Kukui—1982 (Motteler, 1983)
Lae o Kukui—1983 (*Motteler, 1983:4)
Lae o Kuikui—1983 (*Motteler, 1983:4)
Lae o Kukui—1984 (U.S.G.S., 1984)

Laeokukui (Fishing Ground)

Laeokukui—1902 (*Kahaulelio, 1902:28)

Lae o Mano

Lae o Mano—1975 (Ashdown, 1975a)

Lae o na Kohola

na Lae o Kohola—1970s? (Ashdown, undated)
Na Lae Kohola—1975 (Ashdown, 1975a)
na lae Kohola—1977 (Ashdown, 1977)
Lae o Na Kohola—1977 (Motteler, 1977a)
Lae o na Kohola—1982 (D.M.A., 1982)
Lae o Na Kohola—1983 (Motteler, 1983)
Lae o Na Kohola—1983 (*Motteler, 1983)
Lae o Na Kohola—1984 (U.S.G.S., 1984)

Lae Paki

Lae Paki—1933 (*McAllister, 1933:57)
Lae Paki—undated (Ashdown, undated)
Lae Paki—1975 (Ashdown, 1975a)
Lae Paki—1975 (Ashdown, 1975b)
Lae Paki—1977 (Ashdown, 1977)
Lae Paki—1977 (Motteler, 1977a)
Lae Paki—1982 (D.M.A., 1982)
Lae Paki—1983 (Motteler, 1983)
Lae Paki—1983 (*Motteler, 1983:5)
Lae Paki—1984 (U.S.G.S., 1984)

Laehinahina

Laehinahina—1983 (Napoka, 1983:3)

Laepaki (Fishing Ground)

Laepaki—1902 (*Kahaulelio, 1902:30)

La-la-o

La-la-o—1960 (*Ashdown, 1960:6)

Makaalae Pt.—1954 (U.S.N., 1954)
Makaalae—1965 (Klingensmith, 1965)
Makaalae—1970s (Tax Key, undated)
Maka alae Pt—1970s? (Ashdown, undated)
Lae Maka alae—1975 (Ashdown, 1975a)
Lae Maka alae—1975 (Ashdown, 1975b)
Makaalae—1977 (Ashdown, 1977)
Makaalae—1977 (Motteler, 1977a)
Makaalae—1978 (Raposa, 1978)
Makaalae Point—1980 (29th Eng., 1980)
Makaalae—1982 (D.M.A., 1982)
Makaalae—1983 (Motteler, 1983)
Makaalae—1983 (*Motteler, 1983:5)
Makaalae—1984 (U.S.G.S., 1984)

Makakilo

Makakilo—1977 (Ashdown, 1977)

Makalii

Makalii—1977 (Ashdown, 1977)

Naalapa (Ili)

Naalapa—1889? (Doc. 1126, undated-a)
Naalapa—1977 (Motteler, 1977a)

Na Koa Lua (Fishing Ground)

Na Koa Lua—1977 (Ashdown, 1977)

Na One lua

Na One lua—1977 (Ashdown, 1977)

O awa palua

ahupu iki—1911? (Conradt, undated)
? Kalama B.—1913? (Stokes, undated-b)
Ahupu B.—1913? (Stokes, undated-b)
Ahupuiki—1913? (Stokes, undated-c)
Ahupuiki Bay—1913? (Stokes, undated-c)
Ahupuiki Bay—1917 (Stokes, 1917)
O awa palua—1917 (Kauwekane, 1917a)
Oawa palua—1917 (Kauwekane, 1917b)
Ahupuu Bay—1925? (Dranga?, undated)
Oawa palua—1929? (Unknown, undated)
Ka Lama—1970s? (Ashdown, undated)
Oawa palua—1977 (Motteler, 1977a)
Oawapalua—1983 (*Motteler, 1983:5)

O awa panini

O awa panini—1917 (Kauwekane, 1917a)
Oawa panini—1917 (Kauwekane, 1917b)
Oawa panini—1929? (Unknown, undated)
Kai Olohia—1970s (Ashdown, undated-a)
Kai Olohia—1977 (Motteler, 1977a)
Kai Olohia—1983 (*Motteler, 1983:5)
Oawapanini—1983 (*Motteler, 1983:5)

O awa wahie

O awa wahie—1917 (Kauwekane, 1917a)
Oawa wahie—1917 (Kauwekane, 1917b)
Oawa wahie—1929? (Unknown, undated)
Oawawahie—1982 (D.M.A., 1982)
Oawawahie—1933 (*McAllister, 1933:58)
Oawawahie—1982 (D.M.A., 1982)
Oawawahie—1983 (Motteler, 1983)
Oawawahie—1983 (*Motteler, 1983:4)
Oawawahie—1984 (U.S.G.S., 1984)

Olohia

Olohia—1976 (*Ashdown, 1976:1)
Olohia Gulch—1977 (Motteler, 1977a)
Olohia Gulch—1982 (D.M.A., 1982)
Olohia Gulch—1983 (*Motteler, 1983:5)
Olohia Gulch—1984 (U.S.G.S., 1984)

Pali

Pali—1911? (Conradt, undated)
Pali—1913? (Stokes, undated-c)

Pali o ka Lapa Kea

Pali o Kalapakea—1889? (Doc. 1126, undated-b)
Pali o Kalapakea—1913? (Stokes, undated-a)
Pali o Kalaupakea—1916 (Emory, 1916)
Lapa Kea—1917 (Kauwekane, 1917a)
Lapa Kea—1917 (Kauwekane, 1917b)
Pali o Kalapakea—1917 (Stokes, 1917)
Pali o Kalapakea—1925? (Dranga?, undated)
Lapa Kea—1929? (Unknown, undated)
Lapa Kea—1933 (*McAllister, 1933:57)
Pali o Kalapa—undated (Ashdown, undated)
Pali o Kalapu—1975 (Ashdown, 1975a)
Pali o Ka Lapa—1977 (Ashdown, 1977)
Pali o Kalapakea—1977 (Motteler, 1977a)
Pali o Kalapakea—1982 (D.M.A., 1982)
Pali o Kalapakea—1983 (Motteler, 1983)
Pali o Kalapakea—1983 (*Motteler, 1983:4)
Pali-o-lapa-kea—1983 (*Napoka, 1983:3)
Pali o Kalapakea—1984 (U.S.G.S., 1984)

Papaka (Ili)

Papaka—1889? (Doc. 1126, undated-a)
Papakanui—1977 (Motteler, 1977a)
Papakaiki—1977 (Motteler, 1977a)

Puhi Anenue

Puhi anenue—1917 (Kauwekane, 1917a)
Puhi anenue—1917 (Kauwekane, 1917b)
Puhi Anenue—1929? (Unknown, undated)
Puhianenue—1933 (*McAllister, 1933:58)
Puhia-ne-nui—1960 (*Ashdown, 1960:6)
Puhi anenue—1977 (Motteler, 1977a)
Puhi a Nanue—1977 (Motteler, 1977b)
Puhi a Nanue—1982 (D.M.A., 1982)
Puhi a Nanue—1983 (Motteler, 1983)
Puhi a Nanue—1983 (*Motteler, 1983:5)
Puhi a Nanue—1984 (U.S.G.S., 1984)

Puhi o Halona

Puhi stopped by Kalaikini—1889 (Doc. 1126, undated-b)
Puhi stopped by Kalaikini—1913? (Stokes, undated-a)
Puhi—1917 (Stokes, 1917)
Puhi o halona—1917 (Kauwekane, 1917a)
Puhi ohalona—1917 (Kauwekane, 1917b)
Puhi O Halona—1929? (Unknown, undated)

Puhi o Kohe o Hala

Kohe o Hala—1889? (Doc. 1126, undated-b)
Kohe o Hala—undated (*HI. K.8)
Kohe o Hala—1913? (Stokes, undated-a)
Kohe o Hala—1913? (Stokes, undated-c)
Kohe o Hala—1916 (Emory, 1916)
Kohe o Hala—1917 (Stokes, 1917)
Puhi—1917 (Stokes, 1917)
Puhi o Koheohala—1917 (Kauwekane, 1917a)
Puhi o Koheohala—1917 (Kauwekane, 1917b)
Kohe o Hala—1925? (Dranga?, undated)
Puhi Koheo Hala—1926 (U.S.G.S., 1926)
Puhi Koheo Hala—1929 (U.S.G.S., 1929)
Puhi o Koheohala—1929? (Unknown, undated)
Puhi Koheo Hala—1933 (*McAllister, 1933:58)
Puhi Koheo Hala—1947 (U.S.G.S., 1947)
Puhi Koheo Hala—1970s? (Tax Key, undated)
Kohe o Hala—undated (Ashdown, undated)
Kohe o Hala—1975 (Ashdown, 1975a)
Kohe o Hala—1977 (Ashdown, 1977)
Kohe o Hala—1977 (Motteler, 1977a)
Puhi Koheo Hala—1978 (Raposa, 1978)
Puhi Koheo Hala—1982 (D.M.A., 1982)
Kohe o Hala—1983 (Motteler, 1983)
Kohe o Hala—1983 (*Motteler, 1983:4)
Puhi Koheo Hala—1983 (*Motteler 1983:4)
Puhi Kohe o Hala—1984 (U.S.G.S., 1984)

Punapuna

Punapuna—1913? (Stokes, undated-c)
Punapuna—1933 (*McAllister, 1933:58)

Puna Wai

Puna Wai—1977(Ashdown, 1977)

Punawai Honu (or Huna)

Punawai Honu or Huna—1975 (Ashdown, 1975a)
Puna Pee—1977 (Ashdown, 1977)

Puu Kahua

Puu Kahua—1977 (Motteler, 1977a)
Puu Kahua—1982 (D.M.A., 1982)
Puu Kahua—1983 (*Motteler, 1983:5)
Puu Kahua—1984 (U.S.G.S., 1984)
Landing Zone Eagle—Current Navy usage

Puu Kamama

Puu Kamama—1939 (Stearns, 1939)
Puu Kamama—1977 (Motteler, 1977b)
Puu Kamama—1983 (*Motteler, 1983:5)

Puu Koae

Puu Koae—1889? (Doc. 1126, undated-b)
Puukoae—1911? (Conradt, undated)
Puu Koae—1913 (*Stokes, 1913:I:10)
Puu Koae—1913? (Stokes, undated-a)
? Puu Koae—1913? (Stokes, undated-b)
Puu Koae I.—1913? (Stokes, undated-c)
Puu Koae—1916 (Emory, 1916)
Puu Koae Id.—1917 (Stokes, 1917)
Puu Koae—1917 (Kauwekane, 1917a)
Puu Koae—1917 (Kauwekane, 1917b)
Kahoolaweliilii—1925? (Dranga?, undated)
Puukoae——1926? (L.M.Z., undated)
Puu Koae—1926 (U.S.G.S., 1926)
Puu Koae—1929 (U.S.G.S., 1929)
Puu Koae—1933 (*McAllister, 1933:58)
Kahoolawe lii lii—1933 (*Skinner, 1933:18)
Puu Koae—1939 (Stearns, 1939)
Puu Koae—1940 (Stearns, 1940a)
Puu Koae—1947 (U.S.G.S., 1947)
Puukoae I.—1954 (U.S.N., 1954)
Puu Koae—1965 (Klingensmith, 1965)
Puu Koae—1970s (Tax Key, undated)
Puu Koae—undated (Ashdown, undated)
Puu Koae—1975 (Ashdown, 1975b)
Puu Koae—1977 (Motteler, 1977a)
Puukoae Is.—1978 (Raposa, 1978)

Waaiki

Waaiki Bay—1889? (Doc. 1126, undated-b)
Waaiki b—1913? (Stokes, undated-a)
Waaiki—1926? (L.M.Z., undated)
Waaiki—1926 (U.S.G.S., 1926)
Waaiki—1929 (U.S.G.S., 1929)
Papaka—1929 (Unknown, undated)
Waaiki—1933 (*McAllister, 1933:58)
Waaiki—1947 (U.S.G.S., 1947)
Waaiki—1970s (Tax Key, undated)
Papaka nui—1970s? (Ashdown, undated-a)
Waa-iki—1970s? (Ashdown, undated-a)
Waa-iki—1975 (Ashdown, 1975)
Waa-Iki—1977 (Ashdown, 1977)
Waaiki—1977 (Motteler, 1977a)
Waaiki—1978 (Raposa, 1978)
Waaiki—1982 (D.M.A., 1982)
Waaiki—1983 (Motteler, 1983)
Waaiki—1983 (*Motteler, 1983:5)
Waaiki—1984 (U.S.G.S., 1984)

Waaiki Gulch

Waakaiki Gulch—1926 (U.S.G.S., 1926)
Waakaiki Gulch—1929 (U.S.G.S., 1929)
Waakaiki Gulch—1947 (U.S.G.S., 1947)
Waakaiki Gulch—1970s (Tax Key, undated)
Waakaiki Gulch—1977 (Motteler, 1977a)
Waakaiki Gulch—1978 (Raposa, 1978)
Waaiki Gulch—1980 (29th Eng., 1980)
Waakaiki Gulch—1982 (D.M.A., 1982)
Waakaiki Gl—1983 (Motteler, 1983)
Waakaiki Gulch—1983 (*Motteler, 1983:5)
Waakaiki Gulch—1984 (U.S.G.S., 1984)

Waaiki Point

Waaiki Point—1980 (29th Eng., 1980)

Wai Awa

Wai Awa—1977 (*Ashdown, 1977:4)

Wai Honu Gulch

Wai Honu Gulch—1977 (Motteler, 1977b)
Wai Honu Gulch—1982 (D.M.A., 1982)
Wai Honu Gulch—1983 (Motteler, 1983)
Wai Honu Gulch—1983 (*Motteler, 1983:5)
Wai Honu Gulch—1984 (U.S.G.S., 1984)

Wai Kahalulu

Waikaalulu—1857 (*Nahaolelua & Richardson, 1857:3)
Waikahalulu—1886 (Wall, 1886)
Wai Kahalulu—1889? (Doc. 1126, undated-b)
Lua Puhi—1911? (Conradt, undated)[?]
33—1913 (Forbes, 1913)
33 Bay—1913 (*Stokes, 1913:I:12)
Kealaikahiki—1913? (Stokes, undated-a)
Waikahalulu—1913? (Stokes, undated-a)
33-1913? (Stokes, undated-b)
Lua Puhi—1913? (Stokes, undated-c)
33-1913? (Stokes, undated-c)
Waikahalulu Bay—1913? (Stokes, undated-c)
Wiliwilipeapea—1916 (Emory, 1916)
Waikahalulu Bay—1917 (Stokes, 1917)
Wai Kahalulu—1917 (Kauwekane, 1917a)
Wai Kahalulu—1917 (Kauwekane, 1917b)
Waikahalulu Bay—1925? (Dranga?, undated)
Waikahalulu Bay—1926? (L.M.Z., undated)
Waikahalulu Bay—1926 (U.S.G.S., 1926)
Waikahalulu Bay—1929 (U.S.G.S., 1929)
Wai Kahaluu—1929? (Unknown, undated)
Waikahalulu Bay—1933 (McAllister, 1933)
Waikahalulu—1933 (*McAllister, 1933:58)
Waikahalulu Bay—1939 (Stearns, 1939)
Waikahalulu Bay—1940 (Stearns, 1940a)
Waikahalulu Bay—1947 (U.S.G.S., 1947)
Waikahalulu Bay—1954 (U.S.N., 1954)
Waikahalulu Bay—1965 (Klingensmith, 1965)
Waikahalulu Bay—1970s (Tax Key, undated)
Waikahalulu iki—undated (Ashdown, undated)
Wai ka ha lulu Bay—1975 (Ashdown, 1975a)
Wai kahalulu Bay—1977 (Ashdown, 1977)
Wai Kahalulu Bay—1977 (Motteler, 1977a)
Waikahalulu Bay—1978 (Raposa, 1978)
Waikahalulu Bay—1980 (29th Eng., 1980)
Waikahalulu Bay—1982 (D.M.A., 1982)
Waikahalulu Bay—1983 (Motteler, 1983)
Waikahalulu Bay—1983 (*Motteler, 1983:5)
Waikahalulu Bay—1983 (*Napoka, 1983:4)
Laepuhi—1983 (*Napoka, 1983:3)
Waikahalulu Bay—1984 (U.S.G.S., 1984)

Waikahalulu Gulch

Wai ka ha lulu Stream—1977 (Ashdown, 1977)
Waikahalulu Gulch—1977 (Motteler, 1977b)
Waikahalulu Gulch—1982 (D.M.A., 1982)
Waikahalulu Gulch—1983 (Motteler, 1983)
Waikahalulu Gulch—1983 (*Motteler, 1983:5)
Waikahalulu Gulch—1984 (U.S.G.S., 1984)
Klein's Gulch—Current Navy usage

Wai Lalo

Wai Lalo—1977 (Ashdown, 1977)

Appendix 12. Special Reports, Projects, and Consultants

1. Joel August, Esq. *Comprehensive Legal Research Memorandum*, Wailuku, 1992.

2. J. Stephen Athens, Jerome Ward, and David Welch. *Paleobotanical Investigations, Kaho`olawe Island, Hawai`i*, International Archaeological Research Institute, Honolulu, 1992.

3. Kendall F. Casey, Brian A. Baertflein, and Bryon Donaldson. *Unexploded Ordnance on Kaho`olawe: Historical Review, Technology Assessment, and Clearance Planning*, Ballena Systems Corporation with Donaldson Enterprises, Alameda, 1992.

4. Thomas W. Giambelluca and Keith Loague. *The Spatial Variability of Near-Surface Soil Hydraulic Properties for Kaho`olawe: A Preliminary Investigation*, Honolulu, 1992.

5. Heather Giugni. *Kaho`olawe: Restoring a Cultural Treasure (A video Presentation)*, Juniroa Productions Inc., Honolulu, 1993.

6. Samuel Gon III, Gail Chun, et. al. *Biological Database and Reconnaissance Survey of Kaho`olawe Island Including Rare Plants, Animals and Natural Communities*, The Nature Conservancy of Hawaii, Hawai`i Heritage Program, Honolulu, 1992.

7. Michael Graves and C. Kehaunani Abad. *Preservation of Historical Resources on Kaho`olawe: Responsibilities, Natural and Cultural Impacts, and Priorities*, Honolulu, 1992.

8. Michael Graves and Gail Murakami. *Kaho`olawe Settlement Utilizing Radio-Carbon Dating Techniques*, Honolulu, 1993.

9. Rubellite Kawena Johnson, Abraham Piianaia, Aki Sinoto, and Edward Stasack. *Kaho`olawe's Potential Astro-Archaeological Resources*, Honolulu, 1993.

10. Royce Allen Jones. *Kaho`olawe (A Geographic Information System-GIS)*, Geographic Decision Systems International, Honolulu, 1993.

11. David Kalama. *Kaho`olawe (A Video Production)*, Kalama Productions with Lynne Waters Productions, Honolulu, 1993.

12. Pua Kanahele. *Kaho`olawe's Living Cultural Heritage*, Kanaka`ole Foundation, Hilo, 1993.

13. Pauline King. *Kaho`olawe Island: The Uses of Its History*, Honolulu, 1993.

14. Pat McCoy, Attwood Makanani, and Aki Sinoto. *Pu`u Moiwi Shrine and Quarry Site*, Honolulu, 1993.

15. Edith McKinzie. *Na Mo`i O Kaho`olawe: The Administrators of Kaho`olawe*, Honolulu, 1992.

16. Rowland Reeve. *Kaho`olawe Place Names*, Honolulu, 1992.

17. Rowland Reeve. *Na Wahi Pana O Kaho`olawe*, Honolulu, 1992.

18. Carol Silva. *Kaho`olawe Historic Documentation: 1970-1990*, Honolulu, 1993.

19. Hardy Spoehr. *Kaho`olawe Forest Reserve Period: 1910-1918*, Honolulu, 1992.

20. Hardy Spoehr. *Kaho`olawe Honey and Pineapple Ventures: Anecdotes to the Island's History*, , Honolulu, 1992.

21. Edward Stasack. *Kaho`olawe Petroglyph Survey and Inventory*, Associated Rock Art Consultants, Prescott, 1993.

Consultant reports are available for review at the National Archives in Washington, D.C., the State of Hawai`i Archives, and Office of State Planning in Honolulu, Hawai`i.

Appendix 13. Public Hearings Participants

Written Testimonies Received in Response to the First Public Hearings

Robert Aitken
Tony D. Akioka
B. Ben Bohlool, Ph.D., NifTAL Project and Mircen
Judy Buettner
Thomas R. Cannon, Maui County Cultural Resources Commission
Janis D. Casco, The Whaler
Douglas Codiga
Jan Dapitan
Mary Evanson, Sierra Club, Hawaii Chapter, Maui Group
Sherry L. Evans, Na Keiki O Hawai`i
Bill Feltz
Rik Fitch
Nelson Fuson
Pualani Kanahele
Mathew F. Kaonohi, dba Administrative Consultant Services
Officers of the Temple of Lono
Cheryl U. Lovell-Obatake
Brigit McBride
Michael M. McPherson
Herbert Paas
David K. Pedro
Palmer Purdy
Linda L. Shackelford
Jack Sharpsteen, Honson Company
Michael S. Spalding
Joseph Stevens
Yvonne K. Thompson
Cynthia Winters-Babula

Written Testimonies Received in Response to the Second Public Hearing

Isabella A. Abbott, Professor of Botany, University of Hawaii
Gail Chun, The Nature Conservancy of Hawaii
Pi`ilani C. Desha, Hawaiian Civic Clubs
Robert Foster
Ellen Garrison
Gregory Arthur Herbst
Ilona K. Fu Moritsugu
Anna R. Stuart
Randi Wold
Jerome K. Yasuhara, National Native American Law Students Association, Inc., Tempe AZ

Moloka`i Public Hearing April 9, 1991 Mitchell Pauole Center Kaunakaka`i, Moloka`i

Participants:
Bobby Alcain
Luana Busby
Harry Chung
Mason K. Coelho
Stacy Crivello
Rhonda Dudoit
Sahoni Elizabeth English
Gertrude K. Frantz
Celeste Elizabeth Ginliano
Wilma Grambusch
Sean Gonzales
Larry Helm
Aunty Lani Kapuni
Shannon W. Lima
Martin Kahae
William Kalipi
Halona Kaopuiki
Moke Kim (with slide show)
Wanette Lee
Colette Y. Machado
Walter Mendes
Edwin L.P. Miranda
B.J. Moniz
Bridget Mowat
Betty Puaa
Walter Ritte, Jr.
Eldridge Spencer
DeGray Vanderbilt
Kamakahukilani Von Oelhoffen

Alan Lloyd
Davianna McGregor
Doug Margolis
Thomas Maunapau
Luciano Minerbi
Rodney Morales
Brian Nakamura
Craig Neff
Kihei Niheu
Francis Norris
Franklin Odo
Bob Ogawa
Kalani Ohelo
Mel Pestana
James Pitton
Richard Polelia
Lewellen Po`omaihealani
Senator Rick Reed
Rowland Reeve
Wayne Sasaki
Leslie Teale
Representative Cynthia Thielen
Captain Walter Tobias
Laurie Veatch
Dawn Wasson
Joey Watts
Kalani Whittaker
Aaron Whyne
Rhonda Willard
Ernestina Williams
Norma Wong, Office of State Planning
Roy Yee

Second Hilo Public Hearing
May 8, 1991
Hawai`i County Council Chambers
Hilo, Hawai`i

Participants:
Jim Albertini
Tom Aitken
Daina Noelani Bush
Adatchie Eaton
Joseph Fanara
Ronald Fujiyosi
Ole Fulks
Peter Hanohano
Kelii Loane
Lawrence Kahalepauole
Reynolds Kamakawiwo`ole, Jr.
Kaliko Kawaele
Gabriel Kealoha
Arthur Kepo`o
Russell Kokubunm Hawai`i County Council Chairman
Anna Kon
Maile Kukuiku`uinu
Rev. Tuck Wah Kalei Lee
Margaret McGuire
Michelle Kaleiokalani Minchew
Charmaine Napoleon
Robert Petricci
Jim Snyder
Mary Mae Umea
Heidi Verrill
Ron Walters
Rich Warshauer
Jane Kaho`onani Week

Maui Public Hearing
May 14, 1991
Maui County Council Chambers
Wailuku, Maui, Hawai`i

Participants:
Abraham Aiona, Office of Hawaiian Affairs
Lopaka Aiwohi
Patricia Akina
Kristy Apana
Ricky Apana
Jennifer Awai
Maui County Councilman Vince Bagoyo
Christian Elsworth Bal
Margo Berdeshevsky
Smokey Burgess
Amy Chang
Kioni Crabbe
Robin Crabbe
Vernyce Dannells
Mary Evanson
Keoni Fairbanks
Dana Naone Hall
Roger Hawley
Henry Hildebrand
Dan Holmes
Buck Joiner
Thelma Kaahui
Rev. Clarence Kamai
William Kennison
Kunio Kobayashi, for Congresswoman Patsy T. Mink
Leina`ala Kuloloio
Leslie Kuloloio
Manuel Kuloloio

Faelyn L. Jardine
Kai Kealiikeaehale O Kaholokai
M. Kaleialii Kaopio
Kinohi Gomes
Ku Kahakalau
Kalani Kahalepauole
Bonnie Kahapea
Kawika Kaikala
Clara L. Kakalia
Burt Kauhi
Vickathy Leialoha Kelekolio
Harry Kepaa
Mana Kon
Brenda Luana Machado Lee
Genesis Lee Loy
Yoshito Robert L`Hote
Leimomi Manner
Kaohulani McGuire
Margaret McGuire
Nalani Merrill
Manu Meyer
William Kealakahi Meyers
Paul K. Neves
David Paul
Kealoha Pisciotta
Rita Pregana
Punawai Rice
David B. Smith
John K. Spencer
Steven Tayama
Naauao Vivas
Rick Warshauer
Norma Wong, Office of State Planning

Kona Oral Testimony
October 20, 1992
King Kamehameha Hotel
Kona, Hawai`i

Mary Alo
Anuhea Reimann Giegerl
Cliff Hogge
Tiffany Jardine
Trisha Kahokulani Jardine
Buster Padilla

Maui Oral Testimony
October 21, 1992
Maui County Council Chambers
Wailuku, Maui, Hawai`i

Margo Berdeshevsky
Susan Bradford
Lesley Ann Bruce
Mei-Ling Chang
Mary Evanson
Henry Hildebrand
Dan Holmes
Hokulani Holt-Padilla
Robyn Kalama
Leslie A. Kuloloio
Charles Kauluwehi Maxwell
Brian Miskae, Maui County Planning Department
Kiope Raymond
Hank Roberts
Burt Sakata
Mark E. Shaffer
Bill Smith
Rene Sylva
Elaine Wender

Moloka`i Oral Testimony
October 22, 1992
Mitchel Pauole Center
Kaunakaka`i, Moloka`i Hawai`i

Billy Akutagawa
Louella Opuulani Albino
Kevin Fitzsimmons
Wilma K. Grambusch
Kekama Helm
Larry Helm
Moke Kim, Jr.
Colette Y. Machado
Penny Martin
Walter P. Mendes
Raymond Naki
Wilter Ritte, Jr.
Donna Uahinui
Wren Wescoatt

Appendix 14. Biographies of the Commissioners, Commission Staff, and Legal Counsel

Hannibal Tavares, Chairman

Kaho`olawe Island Conveyance Commission Chairman Hannibal Tavares was Mayor of Maui County from 1979 to 1990. He joined Alexander and Baldwin Inc. in 1972, where he rose to the position of Corporate Vice President of Community Relations with statewide responsibilities, and remained until 1979, when he won election as Mayor of Maui County. Mr. Tavares' illustrious career of public service and corporate responsibility has also included 7 years with the Maui Police Department, where he was promoted from patrolman, to detective, and then to captain; 3 years as a teacher at the old Maui High School in Hamakuapoko; 4 years as an elected member of the Maui County Board of Supervisors; and more than 20 years with the sugar industry in various positions of authority.

Mr. Tavares was born in Makawao, Maui, and educated on Maui and on O`ahu. He attended the University of Hawai`i and San Diego State College, and the American Management Association School of Management in New York City.

Noa Emmett Aluli, M.D., Vice Chairman

Noa Emmett Aluli has been a practicing family and primary care physician on Moloka`i, at the Moloka`i Family Health Center/Moloka`i Clinic and the Moloka`i General Hospital, since 1975. He is President of Na Pu`uwai, Inc., the Native Hawaiian health care organization that sponsored the Moloka`i Heart study in 1985 and the Moloka`i Diet Study in 1987, and is currently providing health surveillance, outreach services, and monitoring diabetes and hypertension in residents of the islands of Moloka`i (including Kalaupapa) and Lana`i. He has served as an educator, teaching math and science in several island schools, and also served in the U.S. Coast Guard from 1967 to 1973.

Dr. Aluli is the current President of the Protect Kaho`olawe Fund, and spokesman for the Protect Kaho`olawe `Ohana—an organization he helped found. He was also recently appointed to membership on the National Heart Lung Blood Institute Ad Hoc Committee on Minority Populations. In addition he is a founding member of Hui Ala Loa, Moloka`i; the Pele Defense Fund; Ka `Ohana O Ka Lae; and Hui Malama I Na Kupuna/the Moloka`i Burials Council.

Dr. Aluli was born in Honolulu, where he attended St. Louis High School. He received a Bachelor of Science degree from Marquette University in Wisconsin in 1966; did graduate research at the University of Hawai`i, the University of Rochester, and the University of New Mexico; graduated from the University of Hawai`i School of Medicine in 1975; and completed the University of Hawai`i Integrated Surgery/Family Medicine internship in 1966.

A. Frenchy DeSoto, Commissioner

A. Frenchy DeSoto is a Trustee-At-Large of the Office of Hawaiian Affairs (OHA)—a post she was first elected to in 1980 and re-elected to in 1986. Trustee DeSoto served in the 1978 Constitutional Convention, was on the Waianae Neighborhood Board No. 24 for two terms, and also served on the Alu Like Board of Directors. She was also Manager of the Waianae Satellite City Hall of the City and County of Honolulu until she retired in 1992. Known as "Aunty" Frenchy, Ms. DeSoto has been active in the community, receiving many awards and commendations for her outstanding service.

Born in Honolulu, Trustee DeSoto graduated from Farrington High School; attended Leeward Community College and Central Michigan University; and has completed management courses offered by the City and County of Honolulu.

Educated at the University of Michigan and the University of Hawai`i, Mrs. Santos was an elementary school teacher for 22 years.

Momi Lovell Singson, Administrative Assistant

Momi Lovell Singson has held a variety of office management and executive positions with the State of Hawai`i, Department of the Attorney General, and with private law firms. Her experience includes work as a legal assistant, legal secretary and bookkeeper, and office manager for a court reporting firm.

Born in Tacoma, Washington, Ms. Singson has been a resident of Maui for 17 years. She received her formal education in Washington state and on Maui, and is currently certified in secretarial, accounting, and business education.

Hardy Spoehr, Executive Assistant

Hardy Spoehr has been involved with Native Hawaiian issues since 1976, serving most recently as Administrator for the State Department of Hawaiian Home Lands. He has an extensive background in both the public and private sectors. Mr. Spoehr has worked for the Cook Islands Government, the City and County of Honolulu, the County of Hawai`i, and the State of Hawai`i, as well as for various nonprofit groups, including Alu Like, Inc. and The Nature Conservancy of Hawaii.

Raised in Hawai`i, Mr. Spoehr attended Wesleyan University and has a masters degree from the University of Hawai`i.

Marie H. Via, Publishing/Graphic Artist

Marie H. Via has worked for three years as a paralegal in the conveyance field and two years as a legal secretary. She has performed desktop publishing and layout work for the past four years. Ms. Via was born and raised in Kailua, O`ahu, and is a graduate of Moloka`i High and Intermediate School.

Legal Counsel

Joel E. August, Esq.

Joel E. August has been a Per Diem District Court Judge in the State of Hawai`i since 1982. He has also maintained a private law practice, specializing in medical malpractice and personal injury, for the past 14 years. Previously, Mr. August served as an attorney with the Legal Aid Society of Hawaii from 1971 to 1978, and was a Peace Corps volunteer in Ecuador from 1963 to 1965. In 1977, he received a National Endowment for Humanities Jurisprudence Fellowship from Cornell University.

Mr. August earned his undergraduate degree from Dartmouth College in 1963, and his J.D. from the University of California, Berkeley, School of Law in 1969.