KAHO`OLAWE ISLAND:
Restoring a Cultural Treasure

Final Report of the Kaho`olawe Island Conveyance Commission to the Congress of the United States
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Restoring a Cultural Treasure

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Conveyance Commission to the
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March 31, 1993
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Hardy Speehr

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.

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P. 13: Protect Kaho‘olawe ‘Ohana

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March 31, 1993

The Honorable Albert Gore, Jr.
President
United States Senate
Washington, D.C. 20510

The Honorable Thomas S. Foley
Speaker of the House
United States House of Representatives
Washington, D.C. 20515

Gentlemen:
It is with great pleasure that the Kaho‘olawe Island Conveyance Commission submits its final report to the United States Congress pursuant to the requirements of Public Law 101-511. The report represents more than two years of intensive work and embodies the collective work and thoughts of hundreds of people from throughout the State of Hawai‘i and the world beyond Hawai‘i’s shores.

The work of the Commission began on December 17, 1990. Each member has worked diligently to ensure that this report provides a blueprint for Congressional action as it relates to the Hawaiian island of Kaho‘olawe. The Commission extends special thanks to the Secretary of the Navy and the Commander in Chief, U.S. Pacific Command, the Governor of the State of Hawai‘i and his offices, the Mayor of the County of Maui and her offices, the Office of Hawaiian Affairs, and members of the Protect Kaho‘olawe ‘Ohana for their support and interest in the work of the Commission. Each member of the Commission expresses appreciation for the opportunity to participate in this important work.

Respectfully submitted,

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On October 22, 1990, President George Bush issued a memorandum to the Secretary of Defense directing the Secretary to immediately "discontinue use of Kaho‘olawe as a weapons range" (Appendix 2). In November 1990, the United States Congress established the Kaho‘olawe Island Conservation Commission (KICC) (Public Law 101-511). Members of the Commission were appointed by the Governor of the State of Hawaii, the Secretary of the U.S. Navy, and the Administrator of the State of Hawaii’s Office of Hawaiian Affairs. When first established, KICC was to complete its work by December 17, 1992; on October 6, 1992, however, the Congress, in Public Law 102-296, extended the life of KICC to September 30, 1993 (Appendix 5).

The five principal duties and responsibilities of KICC, set forth in Public Law 101-511, incorporating by reference the provisions of Senate Bill 3688, included:

- Identifying the terms and conditions for the return of Kaho‘olawe to the State of Hawaii;
- Identifying portions of the island suitable for restoration activities;
- Developing cost estimates for restoration activities;
- Identifying organizations and agencies with the expertise and resources needed to assist in restoration activities— including management of the island’s resources; and
- Reporting additional findings, recommendations, and comments, as appropriate (Appendix 4).

KICC held its first meeting on December 17, 1990 (Appendix 3). From December 1990 to March 1991, KICC concentrated on internal organizational activities and staff appointments. Shortly thereafter, it developed a work plan, identified gaps in knowledge about the island that hindered decisionmaking, and hired consultants to develop an information system on which informed decisions could be founded.

KICC’s detailed work plan established four separate tasks and time frames for data collection, analysis, and public input in preparation for the Commission’s final report to Congress. Two of these tasks dealt with studies of the cultural and historical aspects of Kaho‘olawe and personal interpretations of the relative importance of the major findings of these studies. To ensure that its recommendations were based on data of the highest quality, the Commission adopted a unique methodology for the procurement of cultural and historical products. This methodology combines the efforts and knowledge of professionals and practitioners.

A 30-member cultural-historical review committee, "Ahauni Kako‘o, was impaneled to review the findings of consultants working in the cultural and historical areas. These reviews were undertaken to both enhance work done and ensure that all possible resources were located and used. Meetings between KICC consultants and the "Ahauni Kako‘o were conducted in a spirit of cooperation with the intent of producing the most accurate cultural and historical studies of Kaho‘olawe.

Studies undertaken for this assessment of Kaho‘olawe included (Appendix 12) the following:

- Analyses of prehistoric, historic, archaeologi-cal, traditional, and contemporary resources to verify and chronicle the significance of Kaho‘olawe and its surrounding waters; and to determine the costs associated with the restoration, preservation, and stabilization of these resources—The Edith Kanaka‘ole Foundation Pua Kanakele of Hilo, Hawaii; Dr. Pat Mcevoy, archaeologist, and Rowland Boes, archaeo-logist, of Honolulu, Hawaii; Dr. Michael Graves, Dr. Terry Hunt, Rubellite Kawena Johnson, and Dr. Pauline King of the University of Hawaii at Manoa, Honolulu; Edith McKinzie, Honolulu Community College; and Carol Silva, Chief Archivist, Honolulu, Hawaii, were consultants for these studies.

- An analysis of the island’s unexplored ordnance problem, including a historical review of the military’s use of the island as a training site—what areas were used, at what time, and for what types of training; an examination of the technologies available for detecting, and rendering harmless, existing unexploded ordnance; and costs associated with using...
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Preface

On October 22, 1990, President George Bush issued a memorandum to the Secretary of Defense directing the Secretary to immediately “discontinue use of Kaho'olawe as a weapons range” (Appendix 2). In November 1990, the United States Congress established the Kaho'olawe Island Conveyance Commission (KICC) (Public Law 101-511). Members of the Commission were appointed by the Governor of the State of Hawai'i, the Secretary of the U.S. Navy, and the Administrator of the State of Hawai'i's Office of Hawaiian Affairs. When first established, KICC was to complete its work by December 17, 1992; on October 6, 1992, however, the Congress, in Public Law 102-396, extended the life of KICC to September 30, 1993 (Appendix 3).

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- Developing cost estimates for restoration activities;
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A Word of Appreciation

The Kaho'olawe Island Conveyance Commission extends its sincere appreciation to all of those groups and individuals who so graciously and unstintingly contributed to the development and production of this report.

To everyone from a very grateful Commission and staff, Mahalo Nui Loa, thank you very much!

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Those listed below, as well as many others too numerous to name, afforded the Commission the wealth of their experiences, expertise, and professionalism, as well as their cooperation, support, and services throughout its two-year tenure.
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A Word About the Hawaiian Language

There are variant definitions used by the federal and state governments for referring to the aboriginal peoples of Hawai'i and their culture. This report has adopted the terminology consistent with current federal legislation—i.e., a Native Hawaiian is any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now comprises the State of Hawai'i.

The Hawaiian language is very descriptive and often does not translate easily into English. This report incorporates some Hawaiian language terms that may need translation for the non-native reader. Translations for these terms are provided below.

| Pronunciation of Hawaiian is not difficult if taken slowly. All vowels are pronounced and, generally, have a sound similar to that of the European romance languages (French, Spanish, and Italian). There also, is a glottal (‘) that is considered a separate consonant. The glottal, generally, appears only between two similar vowels, i.e., a ‘a, he ‘a, and Hawai‘i, and each vowel is pronounced. On occasion, some vowels will have a macron over them. This is equally important to the (‘) for it signifies a stressed vowel for pronunciation and influences the meaning of the word; for instance, kumū means base or foundation, but kūmū is a type of fish. |

| Definitions |

- **Kane** One of the four major deities in Native Hawaiian religion; generally having domain over life forces.
- **Kapu** Taboo, prohibited, sacredness
- **Klave** Algaroba (*Prunus pallida*); related to the mesquite
- **Ko‘a** Shrine usually associated with fishing or birds
- **Kohola** Humpback whale (*Megaptera novaeangliae*)
- **Kona** Leeward sides of islands; kona winds come from the leeward or south
- **Ku** One of the four major deities in Native Hawaiian religion; generally having domain over war and battle.
- **Kuhina Nui** Priestess, High Priestess
- **Ku‘ula** One of the four major deities in Native Hawaiian religion; generally having domain over the ocean and the life within it.
- **Lono** General term for the ocean
- **Limu** General term for seaweed
<table>
<thead>
<tr>
<th>Lua</th>
<th>Hole, pit</th>
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<tbody>
<tr>
<td>Ma‘o</td>
<td>Hawaiian cotton plant (Gossypium (americanum)</td>
</tr>
<tr>
<td>Mo‘o</td>
<td>Lizard</td>
</tr>
<tr>
<td>Na‘a</td>
<td>Porpoise or dolphin (Stenella longirostris)</td>
</tr>
<tr>
<td>Na‘ulu</td>
<td>Type of rain; sudden showers or misted rain with no visible clouds</td>
</tr>
<tr>
<td>'Opa‘u‘ula</td>
<td>Red shrimp (Halocarcinia rubra)</td>
</tr>
<tr>
<td>'Opihi</td>
<td>Limpet (Cellana sp.)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Papa</th>
<th>Creation force for the world, or earth, with female affiliations; similar to “Mother Earth” in Western thought</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pu‘u</td>
<td>Any kind of protuberance; a hill, peak</td>
</tr>
<tr>
<td>Pu‘uhonua</td>
<td>Place of refuge, sanctuary, asylum</td>
</tr>
<tr>
<td>Wahi Pana</td>
<td>Legendary place; special place</td>
</tr>
<tr>
<td>Wai</td>
<td>General term for fresh water</td>
</tr>
<tr>
<td>Wakea</td>
<td>Mythical ancestor of all Native Hawaiians</td>
</tr>
</tbody>
</table>

Note: Translations have been taken from: Mary Kawena Pukui and Samuel Elbert. *Hawaiian Dictionary* (University of Hawaii Press: Honolulu, HI, 1986).
T
his 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 Kahōʻolawe. 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, Kahōʻolawe 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 1960 established the Kahōʻolawe Island Conveyance Commission to recommend the terms and conditions for the return of the island to the State of Hawai‘i.

Kahōʻolawe Island and the Struggle for Control
Kahōʻolawe Island is one of the eight major Hawaiian islands. It is nestled between Māui, Lana‘i, and Moloka‘i. Unlike any of the other Hawaiian Islands, Kahōʻolawe 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. Kahōʻolawe possesses numerous unique archaeological, historical, cultural, and environmental resources.

Military use of Kahōʻolawe 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. 10426 (Appendix I). 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 Kahōʻolawe’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, Aduti 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, historical, and religious freedoms laws. In 1978, the Court issued a partial Summary Judgment against the U.S. Department of Defense, finding that the military’s use of Kahōʻolawe violated federal statutes, the terms of the Presidential Executive Order, and federal regulations that were intended to guarantee the integrity of the island’s archaeological, historical, cultural, and environmental resources.

In 1989, the same federal District Court entered into a Consent Decree that led to negotiations between the U.S. Department of Defense and the Protect Kahōʻolawe ‘Ohana. The Decree required that the military develop and maintain a comprehensive environmental and historic preservation program for Kahōʻolawe and guarantee access to the island by members of the Protect Kahōʻolawe ‘Ohana.

KICC’s major finding is that Kahōʻolawe is a wahi pana and a pu‘ukohola—a special place with unique and important cultural, archaeological, historical, and environmental resources of local, national, and international significance. Because of this, KICC has concluded that all military use of Kahōʻolawe must cease, and that the State of Hawai‘i must guarantee in perpetuity that the island and its surrounding waters be used exclusively for the practice of traditional and contemporary Native Hawaiian culture, including religion—and for educational and scientific purposes.

KICC recommends that the island of Kahōʻolawe be returned to the State of Hawai‘i as part of its Public Land Trust, without conditions and reverter, in an expedient manner as possible, for the practice of Native Hawaiian culture and for educational and scientific purposes; and that the federal government be responsible for the clearance and removal of unexploded ordnance and related solid waste and any hazardous or toxic waste, should it be found; and that the island be restored to a condition reasonably safe for human habitation and human use.

Existing federal statutes and regulations indicate how situations such as Kahōʻolawe would ordinarily be addressed in terms of environmental restoration and liability. The decontamination of hazardous and toxic waste is required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund). CERCLA Section 102 affirms the obligation and ongoing liability of the United States with regard to the clean up of federal facilities. Removal of unexploded ordnance is a goal of the Defense Environmental Restoration Program (DERP), as defined by the Superfund Amendment and Reauthorization Act of 1986 (SARA).

KICC’s recommendations recognize the intent of these statutes and the technical abilities of agencies charged with insuring compliance. They also are designed, however, to return the island of Kahōʻolawe to the State of Hawai‘i through the most expeditious means possible.

Findings and Recommendations
This report is a unique and historic document. No other federal study of the future of Kahōʻolawe Island, authorized by the U.S. Congress, has ever been undertaken. Never before have Native Hawaiians and other
Restoring a Cultural Treasure

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 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 Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or Superfund Amendment and Reauthorization Act of 1986 (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 disinfecting 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 cleanup 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.” It is anticipated that enactment of special legislation for Kaho‘olawe will not be completed before the munitions restrictions expire.
Restoring a Cultural Treasure

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 Hawaii: "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‘o lave Island, Hawaii.”

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‘o lave and its surrounding waters can be made safe for the purposes identified in this report and in 5.308.

Recommendation 1.3. Onsite safety standards for the clearance and removal of unexploded ordnance and related solid waste from Kaho‘o lave 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‘o lave. With the change in jurisdiction from federal to state control, the Commission believes that the Protect Kaho‘o lave ‘Ohana’s rights to access Kaho‘o lave and to enter its surrounding waters for cultural and educational purposes should be maintained.

Recommendation 1.4. Access to Kaho‘o lave shall remain controlled and supervised. Upon conveyance of Kaho‘o lave to the State of Hawaii, access to and use of the island and its surrounding waters shall be under the jurisdiction of the State of Hawaii, and access by the Protect Kaho‘o lave ‘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 Hawaii 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 Summary

Termination of Executive Order No. 10436

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‘o lave shall cease. Presidential Executive Order No. 10436, dated February 20, 1955, which takes and reserves Kaho‘o lave 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‘o lave, contained in said Executive order, together with such additional requirements as are recommended by this Commission and as the Congress finds appropriate.

Recommendations to the State of Hawaii

Kaho‘o lave Island and its waters offer a unique challenge to all of Hawaii’s people to preserve and protect a corner of their island state so that future generations can become familiar with their island’s past human and natural heritages. For many Native Hawaiians and others, Kaho‘o lave is a special place that has been sanctified by the loss of life in a struggle between traditional values and Western concepts of land use and management. Because of all that Kaho‘o lave represents, including its unique history and its cultural significance including religion, the Commission finds that the island is a 'unana and a pu‘uhonua for island people committed to their heritage. These two concepts should guide future use and management of Kaho‘o lave and its surrounding waters.

THE KAHOOLOAWE MODEL: ISLAND USE AND MANAGEMENT

The Commission presents the following findings and recommendations as they relate to the purposes, administration, and resource management of Kaho‘o lave and its surrounding waters. When taken collectively, these findings and recommendations form a plan of action and a model for future development.

Purposes

Recommendation 2.1. The State of Hawaii shall pass legislation that guarantees in perpetuity the use and management of Kaho‘o lave 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
Restoring a Cultural Treasure

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‘o‘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‘o‘olawe and in its surrounding waters. A staffing model has already been developed for Kaho‘o‘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‘o‘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‘o‘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‘o‘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. The 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‘o‘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‘o‘olawe, and how to ensure that such restrictions remain in effect—except for authorized or emergency flights.

Executive Summary

Special Status and Recognition

On March 18, 1981, the entire island of Kaho‘o‘olawe was placed on the National Register of Historic Places because of its archaeological, cultural, and historic significance. It is the only entire island currently on the Register. Kaho‘o‘olawe’s numerous unique and significant items include the well-preserved remains of settlements, religious and burial sites, petroglyphs, numerous fishing shrines, and the State’s second-largest ancient Hawaiian stone tool quarry site.

Recommendation 2.5. The State of Hawai‘i shall seek to upgrade the status of Kaho‘o‘olawe’s significant sites to "National Historic Landmark" and should investigate the possibility of obtaining World Monument status for these sites under the International Council of Monuments and Sites (U.S./ICOMOS).

Place Names

Kaho‘o‘olawe’s place names also offer unique insights into the island’s culture. Many of Kaho‘o‘olawe’s place names can be traced directly to one or more of its historic periods noted above.

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‘o‘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‘o‘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. A Commission study found that the island’s petroglyphs are particularly susceptible to wind and water erosion and are quickly disappearing. In addition, the growing market for Native Hawaiian antiquities has led to at least one instance of vandalism on Kaho‘o‘olawe during KCC’s tenure. A major religious shrine and burial site was pillaged by vandals. The quantity of artifacts taken from the site is not known.

In recent times, a number of burials have been located but most have been reinterred. Native Hawaiian burials and any associated burial goods are protected under the state’s Historic Preservation Law (H.R.S. 60-4) and federal statutes, including the recently passed Native American Graves Protection and Repatriation Act (Public Law 101-601). Hawai‘i has developed a system of islandwide burial councils that oversee burial matters.

Data pertaining to Kaho‘o‘olawe’s archaeological and historical resources are incomplete and inadequate for study and management purposes. Although much information now exists, it needs to be systematically defined and categorized.
Restoring a Cultural Treasure

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 Mokuha;
- Petrographic analysis of Pu‘u Mokuha materials and stone implement fragments 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 Kukela Bay and the penal colony settlement area at Kaualana Bay. A restored ranch house at Kukela 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, 3 native plant species, and 5 animal species. A number of these species are listed on the federal government’s threatened and endangered species list.

Executive Summary

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 disappear. This plant is a remnant from an earlier time. The Commission’s recommendation to the scientific community that this new genus be named ‘Ō‘ō Kala‘aua Kana‘ao (the gentleman of Kana‘ao) has been accepted. Scientific descriptions of the new plant are in process.

Recommendation 2.8. 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 program of management, monitoring, protection, and enhancement of Kaho‘olawe’s rare flora and fauna, including:

- Focusing management strategies first on those species most immediately threatened with extinction on a worldwide basis;
- Searching the island to locate as many populations of rare species as possible;
- Designating Special Management Areas for the maintenance of native natural communities;
- Establishing elsewhere, on- and off-island, alternative populations of critically endangered species as a hedge against extinction;
- Establishing revegetation projects that use, whenever possible, plant materials that originated from Kaho‘olawe;
- Establishing measures to prevent the accidental introduction of exotic species onto Kaho‘olawe;
- Developing an Island-wide fire plan to address the anticipated increasing threat of fire;
- Designing and implementing a monitoring program to assess the status and population trends of rare species and the effectiveness of management programs designed to protect them;
- Undertaking additional surveys that focus on geographical/habitat coverage, wet/dry season coverage, and special groups that include anchialine pools, subterranean species and ecosystems, terrestrial invertebrates, nonvascular plants (e.g., lichens, mosses, and liverworts), and marine biota and;
- Hiring professional staff, including rangers, to conduct educational and interpretative activities and to enforce environmental laws.

Soil. Soil erosion—by wind and water—is the major environmental destabilization process affecting Kaho‘olawe. It has been estimated that in recent times more than 1,880,000 tons of soil are being lost every year as a result of erosion. It is estimated that much of the island’s top layer of soil has eroded. Much of the eastern end of Kaho‘olawe is eroded to a point where only hardpan remains.
Restoring a Cultural Treasure

Recommendation 2.9. The State of Hawai‘i shall, as part of its efforts and responsibilities in utilizing federal “restoration” funds for Kahō‘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 (Wail). Rainfall is the major source for fresh water on Kahō‘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 Kahō‘olawe, shall work in cooperation with the Native Hawaiian community to undertake a water resource program that includes 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 Kahō‘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 Kahō‘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 neural native plant communities).

Executive Summary

Surrounding Waters. The waters surrounding Kahō‘olawe are an integral part of the island environment. Two of the greatest threats to the resources in Kahō‘olawe’s surrounding waters are silting 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.

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

Estimated Expenditures for Island Restoration

The total cost for Kahō‘olawe’s restoration, including the clearance and removal of unexploded ordnance and related solid waste; soil conservation activities, and construction and maintenance of related infrastructure development, is estimated to be $110 million. This estimate does not include costs associated with the clearance and removal of unexploded ordnance from Kahō‘olawe’s surrounding waters or the removal and mitigation of any hazardous or toxic waste, should it be found. Cost estimates are made in accordance with the best information currently available, based on findings of KCC consultants. They are estimates only and are submitted by way of illustration—not by way of limitation. KCC relates its position that the federal government must bear all costs and liability for Kahō‘olawe’s cleanup and restoration in accordance with the requirements of Executive Order No. 10436. Details of estimated expenditures are contained in Part IV. A table of cost estimates is provided on the following page.
## Total Expected Costs (In Millions of Dollars)

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**TOTAL FOR ALL PROJECTS** $110.0
Restoring a Cultural Treasure

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 Kahō‘olawe casts a looming shadow on the near horizon for visitors and residents alike.

Kahō‘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 Kahō‘olawe, Pu‘u Moanalani, 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 (chili) and lua (pits) visible around the island—including Lua Kemalunu, Lua Kealiaalo, Pu‘u Moiwi, and Pu‘u Moanalula.

Kahō‘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 Kahō‘olawe ascended from the ocean depths to become one of the major Hawaiian Islands, along with Niihau, Kaua‘i, O‘ahu, Moloka‘i, Lana‘i, Maui, and Hawai‘i, about 1.5 million years ago. The geological history of the island as they entered the Hawaiian Island chain. A final name, Kuleana Ka‘u‘u o Ka ‘Aina translates as "the bone of the land standing upright," which may be a reference to how the island appeared from the early voyaging canoes.

Written records seem to indicate that the names Kanaloa and Kahō‘olawe may have been used interchangeably well into the 19th century. In 1779, Captains Charles Clerke and James King, two members of Captain James Cook’s last expedition, referred to Kahō‘olawe as Tahoworra and Tahoworwe, both seemingly English cognates of Kanaloa and Kahō‘olawe. Explorer William Ellis again mentioned “Tahsawwe... the small island on the south side of Maui” in his 1828 journal of his travels throughout the Hawaiian Kingdom. That same year, the Reverend William Richards, resident missionary in the town of Lahaina on Maui, wrote about a school established on the island of Kahō‘olawe. Regardless of name, it is certain that Kahō‘olawe was an integral part of the sociopolitical structure as it evolved in ancient and historical Hawai‘i.

From Mist of Time to Clouds of Dust

Kahō‘olawe is, however, only a small part of the tale of this island whose story began in the legends and chants of prehistory; was later described in the logs, journals, and correspondence of explorers, missionaries, statesmen, academics, and island residents; and is now being retold through the artifacts and other remains that still remain within its borders.

Kahō‘olawe’s story depicts a land that is a nui papa (special place) and a pu‘uhonua (sanctuary). It begins with the origin of the island’s name.

An Island Named Kanaloa

Kahō‘olawe is one of the traditional names that this island has carried. Literally translated, “Kahō‘olawe” means “to be caused to be carried away” or “to be brought together.” Some believe that this is a reference to ocean currents between Maui, Lana‘i, and Hawai‘i that converge at the island and bring a great assortment of drift materials to its shores. Prior to western contact, Kahō‘olawe had other names that indicate its significance as a nui papa and pu‘uhonua. The name that sets the island apart from others in Hawai‘i and indeed, the Pacific, is Kanaloa, the name of one of the four principal gods honored throughout Polynesia. Kanaloa is associated with all things of the sea, but also has affinities with the land and the heavens. At least three of the chants that record the origin of the Hawaiian Islands and their people reveal the name of Kanaloa for the island of Kahō‘olawe. As an example, the chanter-composer Pakuki of the court of Kamehameha I provided the following:

Ka hina ka Papa i Kanaloa, ke molii i hana u ke nui, Ho keiki i na Papa i hanau, Ha Hale Papa o i Tahiti, Ho a Tahiti Kapakapala.  

Other traditional names include Kohomanaumana or Kohomanaumamana o Kanaloa which refers to the significance of the island as a directional aid for the long voyages of Hawaiian ali‘i between Hawai‘i and Tahiti and perhaps, as a nesting place for Kanaloa himself. Kohalihi Mor refers to a place where the Sun sets or goes to sleep, or perhaps to a homeland. Hinu refers to the light rain that is characteristic to the island. Kohena or Alae‘ali Kohena (Kanaloa) means “to the left,” or “to your left and lit up like heaven,” which may describe how voyagers viewed

Prehistory: Linking the Present to the Past

The earliest accounts of Kahō‘olawe have been passed from generation to generation through chants and storytelling. Chants attributed to La‘u‘ula of Kaahumanu indicate that Papa gave birth to Kahō‘olawe in association with the creation of the other major Hawaiian Islands. The 19th century Hawaiian historian, David Malo, subscribed to this account; however, the Swedish adventurer and collector of Polynesian lore, Abraham Fornander,

Papa was prostrated with Kanaloa, an island, who was born as a birdling; as a porpoise; A child that Papa gave birth to, then Papa left and went back to Tahiti, went back to Tahiti at Kapakapalama

Translation of the traditional chant on the birth of Kahoe‘olawe
Restoring a Cultural Treasure

From Mists of Time to Clouds of Dust

Moskia, coupled with traditional accounts, also indicates that Kaho'olawe may have been an important training center for island navigators of this era. A significant feature of this landmark is the petrified ate 'Akupepe Kapili o Kaeaweli, a bellstone altar that accounts indicate embodied the knowledge of Kaeaweli. Place names on Kaho'olawe, such as Moalualu and Moalali, also attest to the legacy of the great voyaging exploits from Tahiti. Between 1400 A.D. and 1600 A.D., there seems to have been an increase in the use of the interior of the island for agriculture. This expansion seems to have occurred because of the land's ability to grow sweet potatoes and other dryland crops.

In the middle of the 17th century, a large nucleated settlement emerged at Hakkaiwa on the island's eastern coast. It grew to become the island's largest community and its political and religious center. The island's largest known heiau is located at Hakkaiwa and was probably constructed during this period.

By the end of the 18th century, the island's population had greatly declined at Hakkaiwa as well as in other settlements. This has been attributed to the interisland warfare among all islands, which was rampant at that time, that had been introduced into the island from contacts with traders and whalers; and general emigration from the island which may have occurred as inhabitants moved to the larger islands of Maui and Lanai. English carpenter George Youngton reported that Koho'olawe had a population of 160 in 1805.

Unlike other Hawaiian Islands, few former residents of Kaho'olawe ever returned, and even fewer new residents made it to the island in historical times. Thus, much of Kaho'olawe's ancient story is still visible and includes petroglyphs, house sites, fishing and agricultural shrines, a major stone quarry with a shrine, a relatively large heiau, and the remains of those who made Kaho'olawe their home. 4

Historical Periods

Although historians know that Kaho'olawe had a human population by 1250 A.D., the first known written accounts of the island did not appear for more than 500 years. Kaho'olawe's written history, therefore, begins in the year 1779, when descriptions of the island first began to appear in ships' logs. Seven distinct historical periods have been defined. 5

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Dr. Gordon T. Rule els collects artifacts from Kaho'oolawe's major stone quarry, Pa'a Mauio, in 1939

Dr. Gordon T. Rule els collects artifacts from Kaho'oolawe's major stone quarry, Pa'a Mauio, in 1939

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Wednesdays 24ths... to whatsoever the Western part of which we say took us very desolate, neither horses, trees, nor any culture that we saw: It is of no height, & has a sandy appearance.

Lieutenant James King: His Majesty's Ship Discovery: February 24, 1779
Restoring a Cultural Treasure

They say 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.


Petroglyph found on a slope of Pu‘u Moanamākāi (Photo Courtesy Helana Ilty)

to unify all the islands into one kingdom. The population of Kaho‘olawe was most certainly multiplied. 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.39

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 Na‘i Kaumau‘u submitted Kau‘i and Niihau 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. Royal chiefs, claiming ritual authority to rule under traditional Hawaiian religion, rallied around Ali‘i Na‘i Kaumualii and rebelled against the central government. It became necessary for the central government to suppress this challenge byabolishing the institution that gave it credence, the traditional religion. In November 1819, Kamehameha II held a gathering with his ali‘i ali‘i 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 No‘au. It is interesting that one of the wives of Kamehameha I, Keopuolani, associated the rebellion of the religious chiefs with Kaho‘olawe. She is recorded as having referred to Keopuolani, the leader of the religious chiefs, as an “azu, a fish of Kaho‘olawe.” Her zu was a nō Kaho‘olawe, meaning that he was a rebel.

It is important to note that while the chiefly and state rituals and heiau were abolished by the ‘Ai No‘au, traditional spiritual beliefs and the relation of the people to their ancestral deities and to the life forces of nature and land continued to be the basis of Native Hawaiian cultural values, practices, and customs. Native Hawaiian families continued to honor their family ancestral spirits and to care for the bones of their ancestors. Family members continued to plant, fish, hunt, and gather in accordance with traditional practices. They continued to call upon their deities to draw out the healing powers of native plant species used for traditional herbal medicine, and they continued to observe, read, and interpret natural phenomena as signs for guidance in their daily lives.

These practices remained strong in isolated rural areas in the Hawaiian islands. The islands of Molokai and Kaho‘olawe, in particular, served as a refuge for these practices and beliefs.

Missionary Period (1825-1853)

In 1820, shortly after the ‘Ai No‘au had been accomplished, Puritan missionaries from the Boston Missionary Society arrived to fill the religious void. The newly arrived missionaries began building churches and quickly established schools throughout the Kingdom. They engaged in the reading and writing—the basic skills they believed the Hawaiians needed to understand the Bible. Early missionaries account speak of the thousands of Hawaiians who were quick and eager to learn. By 1840, the Hawaiian kingdoms had become one of the more literate countries in the world.

Kaho‘olawe was considered part of the Kamehameha mission. However, it was directed by the Reverend William Richards. Richards first reported on Kaho‘olawe in 1825. By 1828, he had a school on the island with a total of 28 scholars attending. The school continued until about 1838.

During this period, religious intolerance in the Kingdom was strong. The king and his ali‘i made it clear that they subscribed to Protestant Christianity. Keo‘ula Nui Ka‘ahumanu, proclaimed in the Edict of 1820, that it is one of several identified punishments, all Catholics would be banished to Kaho‘olawe. There is no evidence, however, that any Catholics were actually sent to the island.

Whether the Edict set the stage, or whether the island had already been used for the exile of criminals, following its signing, Kaho‘olawe became known as a penal colony. In 1832, correspondence from the Reverend Hirah Bingham mentions that a youth, “the son of a foreigner,” was sentenced to Kaho‘olawe for manslaughter, and refers to the island as “a sort of state’s prison.” Hawaiian historian Samuel Kamakau has reported that during this period Kaho‘olawe and Lana‘i served as penal colonies—the former for men and the latter for women—and that crimes such as “rebellion, theft, divorce, breaking marriage vows, murder, and prostitution were punished with terms on these islands.”

Penal colony headquarters were located at Kaalua Bay on Kaho‘olawe’s northern coast. In 1840, there were 88 people living in the colony, which was overseen by an ali‘i from Maui named Kuwemahi Kinimaka. Kinimaka was placed in charge of the colony after having been sent there for supposedly forging the signature of Heketa. All of Kauai was blessed to Kaho‘olawe. However, there is some question as to his actual culpability. In the years that followed, native and non-natives alike were exiled to the island. Among the exiles was foreigner George Morgan, who committed a series of burglaries throughout Honolulu. Five years after his exile, Morgan was removed from the island and shipped to New England to be freed from jail. With his removal, Kaho‘olawe’s era as a penal colony ended. On May 2, 1853, by action of the Privy Council, all exiles still on the island were pardoned.

Kaho‘olawe’s first encounter with the U.S. military came in 1841 when crews from the Leopard and Greyhound—two small vessels under the command of Lieutenant Budd—were marooned on the island. Budd and his crew were a part of Captain Charles Wilkes’ Pacific expedition. The Leopard and Greyhound were wrecked on the western end of Kaho‘olawe, probably at Hanakana‘a. When the castaways reached shore, they made contact with Kinimaka, who provided them with food, supplies, and canoe transportation to Lahaina. From Lahaina, Budd and his crews rejoined Wilkes and continued their expedition.
Budd later reported that there were 15 convicts on Kahoʻolawe, and that “the settlements consisted 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.”

**Early Ranch Period (1853-1910)**

During Kahoʻolawe’s Early Ranch Period, Hawai‘i continued to undergo extensive political and social change. In 1846, 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 aliʻi, with portions set aside for government use. Processes were also established for the award of lands to private individuals. It was as a result of this land reform package that Kahoʻolawe 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 Kawai, a member of the first Land Commission, and C.C. Harris. Their offer of $40,000 was refused by the King’s Privy Council, which preferred to lease the island.

In 1857, Kamehameha V sent Maui Governor P. Nahaulehua and Loane Richardson to survey Kahoʻolawe. Their report, and a second survey by William F. Allen in 1858, are the first known comprehensive written descriptions of the island. Following the survey, the government issued the first of four leases for Kahoʻolawe. Signed on April 1, 1858, the lease called for the payment of $525.00 per year for use of the land. 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 1881, more than 9,000 goats and 12,000 sheep grazed on the island and in the gullies of Kahoʻolawe. Over-grazing soon began to take its toll—soil erosion became a significant problem. The ranchers began the first of many attempts to stem soil erosion by planting new vegetation in the late 1880s. Kaua‘i, or mosoquite, (Prosopis juliflora) was introduced and began to establish itself along the coast at this time.

The first recorded government census of Kahoʻolawe was conducted in 1866. Prior censuses had included Kahoʻolawe residents with residents from districts on Maui. Most, if not all, of the individuals noted in the 1866 census were involved with sheep ranching on the island and probably lived at Ahalua.

Between January 16 and 17, 1890, the Hawaiian Monarchy was overthrown ostensibly by American businessmen with backing from U.S. Naval forces on the U.S.S. Boston, which was anchored in Honolulu Harbor. At the request of U.S. Minister John L. Stevens, a force of 162 sailors and Marines landed in downtown Honolulu to support the revolutionaries. Fearing bloodshed, Queen Liliʻuokalani yielded to the superior power of the United States, in the following, carefully worded, statement:

Liliʻuokalani, by the Grace of God and under the Constitution of the Kingdom, Queen, do hereby solemnly protest against any and all acts done against myself and the constitutional Government of the Hawaiian Kingdom by certain persons claiming to have established a provisional government of and for this Kingdom. . . . That I yield to the superior force of the United States of America, whose minister pleni potenti, His Excellency John L. Stevens, has caused United States troops to be landed at Honolulu and declared that he would support the said provisional government.

Now, to avoid any collision of armed forces and perhaps loss of life do under this protest, and impelled by said force, yield my authority until such time as the Government of the United States shall, upon the facts being presented to it, undo the action of its representatives and ratify me in the authority which I claim as the constitutional sovereign of the Hawaiian Islands.

Queen Liliʻuokalani

With the passing of the Monarchy, the assets of the Crown and Government became exceedingly important to the self-proclaimed Provisional Government and, later, to the self-identified Republic of Hawai‘i. Kahoʻolawe retained its status as Government land under the new regime. When the U.S. Congress passed the 1898 Newlands Resolution, which made Hawai‘i a Territory of the United States, Government and Crown lands were transferred, or ceded, to the U.S. Government. Kahoʻolawe now became the property of the United States. In recognition of Hawai‘i’s unique land history, however, the U.S. Congress continued to allow the new Territory of Hawai‘i to manage all lands not needed for the purposes of the United States. This agreement was recognized in 1902 with passage of the Organic Act. Thus, Kahoʻolawe remained under territorial management with a ranch lease—first to a local businessman, Ben Dillingham, and then Eben Lew. The lease continued until 1910.

**Forest Reserve Period (1910-1918)**

By 1910, Kahoʻolawe’s soil erosion problems were continuing virtually unchecked. A report to the Territorial Board of Agriculture noted that “as a result of long continued over grazing this little island, once a valuable asset to the Territory, has become almost worthless from erosion and loss of soil.” On-going discussions were also occurring between federal and territorial officials on using Kahoʻolawe to test scientific hypotheses relating to relationships between rainfall and forest cover. In earlier times, chants referred to the ‘au‘au rains, which would form over Kahoʻolawe and drift into Kīhei on Maui. With Kahoʻolawe’s interior devastated by erosion and the upland forests of Haleakalā eliminated, these rains had ceased. The designation of Kahoʻolawe as a forest reserve brought about the possibility of receiving federal funds to attempt to bring back these rains.

The federal funds never materialized and, realizing that goats continued to roam the island unchecked, the Governor revoked Kahoʻolawe’s Forest Reserve status in 1918 and transferred the island to the Commissioner of Public Lands for public lease.

**Late Ranch Period (1918-1941)**

The Commissioner of Public Lands developed a lease that required the lessee to eliminate all goats from the island, limit the number of cattle on the
From Mists of Time to Clouds of Dust

The USS Arizona, sunk on December 7, 1941, is seen in a photograph from the September 1941 issue of the Honolulu Star-Bulletin. The image shows the ship in dry dock, with smoke rising from its stacks.

On January 15, 1925, a fleet of five planes under the command of Captain Donald Muse took off from Lake Field (Ford Island) and flew to Kahalawai. All planes landed successfully, however, a Honolulu Advertiser account of the event reported, "A whirlwind of a storm centered exactly over the planes, and for an hour the kite drenched their ships and their passengers." The flight in those days took three hours for the 160-mile round trip.

During the 1920s and 1930s, the United States military occasionally used Kahalawai for bombing practice. In those days, Army pilots would hang out of their bi-wing planes and drop hand-held bombs from their cockpits. Oral history has it that Harry Baldwin had an arrangement with the Army that permitted pilots to practice target drops on an isolated portion of the western end of the island. In an interview with the Commission, Manuel Pedro’s son David, recalled sometimes hearing the sound of bombs exploding on the far side of the island when he was a child.

This era has generated a great deal of interest about Kahalawai for the island seemed to cast a spell over those who were touched by it. The writings of Armistead Tampsky and Inez Ashdown reflect this spiritual aspect of the island.

Military Period (1941-1978)

In 1941, approximately seven months before the Japanese bombing of Pearl Harbor, Baldwin and MacPhee formalized an agreement with the United States to enable the Army Air Corps to use portions of the island for bombing practice. The sublease with the United States of America was signed on May 10, 1941. It called for the Government to pay $15.00 per year and allowed the Navy to set up a runway with fake aircraft and to begin using the area for target practice. The U.S. Navy also requested use of the island to test its warships' guns at this time. The new agreement became moot on December 7, 1941. With the attack Pearl Harbor, all island ranching activities ceased and the military command took over when martial law was declared on December 8, 1941. From that moment, the history of Kahalawai is one of military use.

One of the first acts of the Army was to commandeer Kahalawai Ranch’s boat, Matzie C, and place it into military service. The ranch received compensation for the boat, but was unable to continue ranching operations because it no longer had a means for moving materials and cattle from Kahalawai to Maui.

The U.S. Navy’s official use of Kahalawai began in early in the war. Surface units “from time to time utilized the southwestern part (west of longitude 156-40) for bombardment training.” Permission to use the island for bombardment was by verbal agreement between U.S. Army and Navy officials. As the war progressed, Naval use of the island increased.

During the war, Kahalawai played a major role as a training site for Navy ship gunners and marine fire control observers. In 1946, the Honolulu Star-Bulletin reported that “...at various times, 800 ships ranging from destroyers escorts to battle wagons redeployed for the day they would fire in support of marine landings.” The rehabs prepared Marines for the landing at Iwo Jima, Okinawa, and other sites throughout the southwest Pacific.

Just four months after the Navy began bombardment exercises on Kahalawai, Territorial officials were discussing how best to "rehabilitate" the island. The Honolulu Star-Bulletin reported, “members of the newly appointed Board of Agriculture and Forestry are interested in rehabilitating the island. All cattle were removed from Kahalawai... and the island is now uninhabited except by thousands of wild sheep. The sheep are eating and trampling the salt grass and other vegetation to such an extent that further serious erosion damage is feared...”
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 Hawaii 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 proceeded to need to undertake extensive soil conservation measures to begin addressing ongoing erosional problems. Fearing controversy, Territorial officials eventually agreed to continue 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 national purposes," placing it under the jurisdiction of the Secretary of the Navy.

When Hawaii 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 550 tons of TNT at a site near Hanakaoo Bay to simulate the effects that an atomic blast would have on nearby ships. The blast was detonated with three masted vessels moored at varying distances from the island's shore: the U.S.S. Atlantis at 2,000 feet; the Canadian destroyer R.C.N. Fries 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 shook the moored ships aside, but except for that it was just one big boom...."

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 'ope 'ape (Hilocaridinae vulva).

Territorial officials continued to raise the issue of the return of Kaho'olawe to local control after statehood, but to no avail. 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.

In 1971, Maui Mayor Emlor Cravalho and Life of the Land—local environmental organization—filed suit in U.S. District Court for the District of Hawaii 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 Nile Tavares ordered the Navy to complete an EIS.

In February 1975, Charles Maxwell, then of Akohe Association, a newly formed Hawaiian organization, proposed the return of Kaho'olawe to Native Hawaiians.

In January 1976, a group of nine Native Hawaiian landowners and sympathizers ventured across the Alaka'i Stream to Kaho'olawe to show their commitment to a halt to federal control and naval bombing on the island. The actions of the "Kaho'olawe Nine" marked the beginning of a new era of awareness and commitment to resolve the Kaho'olawe issue. Organized landings and Kaho'olawe between 1976 and 1977 brought national attention to the island.

In 1977, two young Native Hawaiian leaders, George Helm and James Kimo Mitchell, lost their lives during an effort to protest the military's continued bombing of the island.

In 1976, Hawaiian physician, Noa Emmett Alii, M.D., and the Protect Kaho'olawe Ohana, an organization formed to call attention to issues on Kaho'olawe, filed a civil suit, Alii v. Ramsefeld, in U.S. District Court in the District of Hawaii. The suit sought compliance by the U.S. Navy with environmental, historic preservation, and religious freedoms laws. On September 15, 1977, the federal court ordered a partial summary judgment in favor of Alii and the Protect Kaho'olawe Ohana, requiring the Navy to prepare an EIS and to inventory and protect historic sites on the island. As one result of this decision, the entire island of Kaho'olawe was designated a Historic District by the National Register of Historic Places in 1981.

In 1977, members of the Protect Kaho'olawe Ohana continued to press for Kaho'olawe's return. A year later, while the EIS and historic sites survey were being conducted, the State of Hawaii and the U.S. Navy signed a Memorandum of Understanding which both parties agreed to cooperate on programs that would eliminate goats, revegetate the island, and protect archaeological sites.

In 1980, the court settled Alii v. Brown, formerly Ramsefeld, by issuing a Consent Decree mandating the Navy to survey and protect historic and cultural sites on the island; clear surface ordnance from 10,000 acres; begin soil conservation and revegetation programs; eradicate goats and limit ordnance impact to training to the central third of the island. The Decree further acknowledged that the Protect Kaho'olawe Ohana was seeking recognition as a "steward" of the island, and allowed the Ohana access to the island for religious, educational, and scientific activities.

Since 1980, more than 4,000 people have visited Kaho'olawe with the Protect Kaho'olawe Ohana. The military has cleared ordnance from the surface of an estimated 14,000 acres, and the goats have been eliminated. The Ohana, the State of Hawaii, and the U.S. Navy have initiated soil conservation and revegetation programs, and the island's natural resources are beginning to show signs of restoration and revival.

The most recent action affecting Kaho'olawe occurred on October 22, 1990, when President George Bush issued a Memorandum to the Secretary of Defense to put a temporary halt to all bombing and munitions training on the island. Following this action, the U.S. Congress established the Kaho'olawe Island Conveyance Commission and provided it with funding necessary to fulfill its congressional mandate—studying the Island of Kaho'olawe and recommending the terms and conditions for the island's return to the State of Hawaii.

I am well aware of the importance of Kaho'olawe, particularly as it pertains to the native heritage of the Hawaiian people.

W. Graham Claytor Jr., Secretary of the Navy

The Cultural Thread

The thread of Native Hawaiian culture weaves throughout Kaho'olawe's prehistory and history, binding the contemporary with the ancient. Glimpses of Kaho'olawe's importance as a special place, a na lani, and as a sanctuary, a na hoku, are gleaned in its legends and chants and historical events. It remains a place where traditional ceremonies are held and practices observed, a continuum for culture.

In ancient times, legends and chants indicate that Kaho'olawe served as a stronghold for future of the Kanaloa priesthood. As the long voyages between Tahiti and Hawaii ceased and a distinctively Native Hawaiian culture began to emerge, the Kūhoe of
Kane and Ku come to the forefront. Kaho'olawe was excised from the mainstream of political and religious activity, but continued as a place where those loyal to Kamehameha could go and practice. This continued even after 1820 and the 'Ai'au. 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, 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, Hoapili, journeyed to Kaho'olawe and returned with an 'Ana cup and a wooden image—both indications that the traditional religion continued to be practiced on the island.

The Kihina miu of the Kingdom under Kamehameha II. Ka ahumanu, who marry also identify as the force behind the 'Ai'au, 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 1829, 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 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 Kawaiaha'o Church. Once the reinterment was completed, Kalakaua's faithful suggested that he visit Kaho'olawe to cleanse himself. In December 1875, the Royal party departed for Kaho'olawe.

At 6:30 a.m. . . . the steamer left Lahaina bearing to the east slightly south on Kaho'olawe where there is a harbor; and at 7:00 a.m. We entered the harbor of Hokoloa, which is near the famous cap Kekaisanikaniki. The paddlers on both sides—on that of the King's and on that of the Governor's—were as quick and as lively as the rowboat beneath. As the King prepared to sail toward land, the Khonai left us. . . . We set forth upland on Kaho'olawe, land upon the beach shivering from the spray of wave action.

When the King, the Governor . . . and all the rest of the court companions and paddlers on both rows on the shore had landed, the King stepped out on a canvas laid from the house to the edge of the shore and was appropriately attended to by the warm, generous, resident of this island who have great affection for their King. Likewise were we enjoyably engaged on the sand dune, basking in the warmth of the sun. After a few short minutes, food for breakfast was prepared and the house with its dark leaves of the forest was aged yet, a glimpse of the abundance of food. . . . pleasant and splendid; from them came the welcome and we were immersed in abundance.

Kalakaua's visit occurred during Kaho'olawe's early sheep ranching period. Even during this period of activity on the island, it continued to serve as a recognized 'ana pu'a and pu'uhonua.

As with other locations in Hawai'i, there have been individuals affiliated with Kaho'olawe who have served as the island's 'aloa 'aima. That tradition continued even after martial law was declared in 1941 and all military personnel were banned from the island. History records the names of Maka'elikikiki, B. Anahina Akina, Jack Aina, and Ronald Von Tempys as some of the past 'aima of the island. Since 1941, despite military use of the island, a number of Native Hawaiian families have continued to visit Kaho'olawe for religious and ceremonial purposes. The activities of the Protect Kaho'olawe 'Ohana in 1976 brought this situation into public view. What had always been a very personal and quiet relationship with the island among many Native Hawaiian families became a public issue.

Since 1976, members of the Protect Kaho'olawe 'Ohana have continued to maintain the practices and traditions of Kaho'olawe in the spirit of the Kaho'olawe who preceded them. Many kupuna have retained specific knowledge about the island and have assisted the 'Ohana in its efforts. Uncle Harry Kunihit Mitchell, Austy Emma DeFries, Austy Mary Lee, and Austy Edith Kanakaole deserve special recognition in this regard. Because of their efforts and those of other kupuna, the 'Ohana has kept glimpses of the island's past traditions and culture alive. Kaho'olawe is a place where traditional and contemporary Native Hawaiian culture can be practiced in safety; it continues to be a 'ana pu'a and serves as a pu'uhonua as it has for generations. For Native Hawaiians and others who have visited its shores, lived upon its lands, and fished in its surrounding waters.

On August 22, 1992, a rededication ceremony in the Native Hawaiian tradition was held on Kaho'olawe, with participation by the Governor of Hawai'i and members of Hawaii's congressional delegation. It was the only appropriate place in Hawai'i where such a ceremony could have been held.
PART II

Aspects of Kaho`olawe`s Land History Affect Its Current Status

A View of Maui from Kaho`olawe (Photo courtesy Reed and Rees)
Kahoʻolawe remained under federal control after Hawaiian statehood as a result of Executive Order No. 10436.

Further Definition of the Return of Ceded Lands

In 1963, the Congress further defined how these former ceded lands were to be returned to the state in the Hawaii Revised Conveyance Procedures Act of 1963 (Public Law 88-233, 77 Stat. 472), also known as the Land Conveyance Act of 1963.

Once military use of the island ceased, the return of Kahoʻolawe to the State of Hawaii, as part of the Public Land Trust, coincided with the Hawaii Admission Act and the Land Conveyance Act.

Government Responses

Kahoʻolawe has been the subject of extensive governmental activity since World War II. That activity falls into the categories of executive pronouncements, legislative actions, and court decisions. These government actions provide insights into Kahoʻolawe’s value, its ongoing role within the Hawaiian Islands, and the sometimes tenuous relationships between county, state, and federal governments.

In May 1941, the lease of Kahoʻolawe, the Kahoʻolawe Ranch Company, signed a one-year sublease with the United States allowing the federal government to utilize “any and all portions” of the island for “military purposes”—provided that those purposes did not interfere with existing ranch operations. The Kahoʻolawe Ranch Company’s timeline to return to Kahoʻolawe was valid until 1952. The sublease agreement brought to conclusion a process begun nearly two years before, when the Commander of the U.S. Army in Hawaii, Major General C.D. Herron, and the Acting Territorial Governor C.M. Hite to request “the use of Molokai [is] and Kihwawolu rocks off the windward coast of Oahu, and for the authority to negotiate with Mr. Harry Baldwin for a portion of Kahoʻolawe island.”

The Acting Governor declined General Herron’s request for use of Oahu’s offshore islands, but approved the request to make contact with Baldwin. Baldwin eventually agreed to the Army’s request for use of Kahoʻolawe. In correspondence with A.A. Dani, Acting Commissioner of Public Lands for the Territory, a few years later, Baldwin recalled that drought had severely impacted his ranching operations and that most of his cattle had to be moved to Maui. Seven months after the sublease signing, Pearl Harbor was attacked, and martial law declared. During the war, two supplemental agreements with the War Department, signed by Baldwin, extended the sublease for as long as a condition of national emergency existed or until the expiration of the lease in 1932, whichever came later.

Executive Pronouncements

Over the years, executive pronouncements concerning Kahoʻolawe have been made at three levels of government: at the national level by Presidents of the United States, at the state level by Hawaii’s Governors, and at the county level by Maui County’s Mayors.

Most of the executive pronouncements of the past 50 years have been directed toward stopping or limiting ordinance training on Kaho‘olawe and returning the island to local control in Hawaii. The one major exception is Executive Order No. 10436, which placed the island under the authority of the Secretary of the Navy in 1953. Major executive pronouncements are detailed in Appendix 7.

Legislative Actions

Legislative actions concerning Kahoʻolawe have occurred at the national, state, and county levels consistently during the past 50 years. Since 1970, Hawaii’s congressional delegation has introduced more than 10 bills in the U.S. Congress relating to the Kahoʻolawe issue. At the state level, more than 35 bills and resolutions have been introduced since the early 1960s. All have focused on:

- Stopping ordinance training on the island;
- Restoring the island;
- Returning the island to state control; and
- Combinations thereof.

A listing of the major actions is provided in Appendix 8.
Restoring a Cultural Treasure

Court Decisions

Because Kahoʻolawe 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 Kahoʻolawe 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 Kahoʻolawe. 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 Kahoʻolawe. 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 Kahoʻolawe 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.

PART III

Public Sentiment About Kahoʻolawe

Rose Syka gives testimony to the Commission concerning the use of native plants for Kahoʻolawe revegetation efforts

(Photograph courtesy JIM ENSERION)
In recent times, few issues of land control, management, and use have brought so many in Hawaii together toward a common goal. The future of Kaho‘olawe Island is one. Countless residents of the State of Hawaii—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 of residents of Hawaii’s attach to Kaho‘olawe.

Testimony to the Commission

From April 1991 to May 1991, KICC held eight public hearings throughout the State of Hawaii. The public was invited to attend and welcome 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, the representatives of the various military services, the State of Hawaii, 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 Hawaii.
- 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 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 Hawaii.
- 79 percent believe that Kaho‘olawe should be given into the stewardship of the Protect Kaho‘olawe Ohana and held by the State of Hawaii 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 Hawaii and for the end of military use and federal control.

In January 1992, the Governor of Hawaii’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.

- Of all Hawaii residents, 77 percent believe the federal government should relinquish control of the island. Of those who prefer that the federal government transfer control to the state, 45 percent prefer that management of Kaho‘olawe be handled by Protect Kaho‘olawe Ohana, while nearly 40 percent would like the State of Hawaii to assume management.
- Of all Hawaii residents, 85 percent are in agreement that Kaho‘olawe should be cleaned-up. Most of those prefer that the state determine cleanup needs and that the military implement cleanup operations—even if it were as much as $300 million.

Finally, more than 2,000 respondents to Honolulu Magazine’s annual poll on Hawaii issues—conducted in February 1992—indicated that the “best thing about Kaho‘olawe” is the “efforts to save the island/stopping the bombing.” The “worst thing about Kaho‘olawe” is that it is being “ruined by bombing.” A runner-up “worst” is the corrosion with a “Meme to George Bush: We’d like Kaho‘olawe back. Thank you.”

“What I’m trying to say is, the Hawaiian people never themselves had contact with their past. So the Hawaiians today, more than ever, perhaps are searching for their past. Kaho‘olawe has become one of the islands of that past, only 45 square miles, but it is a value that cannot be measured in acreage. It’s one-eighth of the Hawaiian chain. It is a whole island. It represents something that can make them feel complete as a people again.”

PART IV

Findings and Recommendations

Military ordnance on Kaho‘olawe
(Photography: Rowland Reeves)
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 Kahoolawe to the State of Hawaii; future use of Kahoolawe for military training purposes, and the removal of unexploded ordnance and solid waste from the island and its surrounding waters.
  - **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.

The Commission’s recommendations necessarily begin with federal action, which is required to convey title to Kahoolawe Island back to the State of Hawaii. Federal action is also required to fulfill certain responsibilities that the federal government has already assumed or should assume. The Commission views federal action as a unified activity that involves legislation enacted by the U.S. Congress and executive action undertaken by appropriate agencies of the Executive Branch. 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 Kahoolawe Island 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. Applicable legislation includes the following:

- **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA/Superfund),** which requires the decontamination of hazardous and toxic waste (CERCLA section 120 affirms the obligation and ongoing liability of the United States with regard to the cleanup of federal facilities).
- **Superfund Amendment and Reauthorization Act of 1986 (SARA),** which mandates that the Defense Environmental Restoration Program (DERP) with responsibility for the removal of unexploded ordnance.
- **Federal Facility Compliance Act of 1992 (Public Law 103-388),** which also addresses problems associated with unexploded ordnance, hazardous and toxic waste, on federal property.

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 Hawaii. The Commission’s recommendations recognize the intent of these statutes and the technical abilities of agencies charged with ensuring compliance. The recommendations are, however, also designed to return Kaho’olawe to the State of Hawaii as directed by S. 388 by the most expeditious means possible.

**The Need for Special Legislation**

As previously noted, Kaho’olawe is part of the Public Land Trust. These lands retain a special status and precedence has been established for how such lands are returned to state control after use by the federal government. Although the U.S. Congress has broad discretionary power in this regard, the Hawaii’s Admission Act of 1959 (Public Law 86-3; 73 Stat. 4) and the Hawaii’s Revised Conveyance Procedures Act of December 23, 1963 (Public Law 88-223, 77 Stat. 472) clearly define the process for the return of such lands. In such instances, lands are returned to the State of Hawaii’s free of conditions and reversion clauses.

Recommendation 1.1. The island of Kaho’olawe shall be returned to the State of Hawaii in an expedited manner as possible through special legislation stipulating the following:

- **Title to the island of Kaho’olawe shall be returned to the State of Hawaii 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
Restoring a Cultural Treasure

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 CEELA 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 agencies 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." Once military use of the island ceased, the Executive Order specifically requires the federal government to restore the island once it is no longer required for national purposes. This requirement is unlike other agreements executed for use of sites for military ordnance training. It is an integral part of the Executive Order and, therefore, must be addressed through special legislation.

It is the Commission's position that the island needs to be restored to a condition safe for human habitation and human use. Future land-use planning for the island does not envision residential development. Rather, the island will be used only for the practice of traditional and contemporary Native Hawaiian culture, including religion; for the study and preservation of archaeological and historic sites, structures, and remains; for soil conservation and plant reforestation activities; and for the enhancement and study of native plant and animal habitats.

The U.S. Naval Explosive Ordnance Disposal Technology Center has developed clearance standards for unexploded ordnance removal based on "end use" of land areas for the U.S. Army Corps of Engineers. The Commission notes that these standards may be appropriate for Kaho'olawe or, at least, form the basis for initial discussions on developing standards for the island that are mutually acceptable to the State of Hawai'i and the federal government (see Table 1).

Unexploded Ordnance and Related Solid Waste Removal

In 1993, 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

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

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. 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 Kahaluu Island and its surrounding waters can be made safe for the purposes identified in this report and in S. 3086 (Table 2 provides estimates of unexploded ordnance densities).

Table 2. Estimated Unexploded Ordnance Densities

<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>Hawaiian Eastern Troop Safety Zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Ordinance</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Subsurface Ordinance</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Former Target Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Ordinance</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
</tr>
<tr>
<td>Subsurface Ordinance</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
</tr>
<tr>
<td>Western Troop Safety Zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Ordinance</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Subsurface Ordinance</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Estimated Items per Acre</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(Surface and Subsurface)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrounding Ocean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>0.001</td>
<td>+</td>
<td>28‡</td>
<td></td>
</tr>
<tr>
<td>Est 0.004</td>
<td>+</td>
<td>126</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>0.038</td>
<td>+</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>0.070</td>
<td>+++</td>
<td>344</td>
<td></td>
</tr>
</tbody>
</table>

+ 5 items found at Ahupu
++ 3 items found at Kanapao (Breaks cover)
+++ 31 of 36 items found around Pau Koa (0.62 items/acre)
++++ 45 items found off Honokaaiki (Smugglers Cove)—Black Rock
‡ Magnitude of danger: + = most dangerous; ‡ = least dangerous

<table>
<thead>
<tr>
<th>Sources</th>
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</table>
Unexploded Ordnance and Related Solid Waste on the Island

The 1980 Consent Decree reached in the settlement of Ahuli vs. Breiter ordered the U.S. Navy to begin a program of unexploded ordnance clearance and removal for Kahö'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). The KICC consultant estimates that the total densities of potentially hazardous surface and subsurface items of unexploded ordnance remaining on Kahö'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 1985 and 1990, more than 300 tons of scrap and inert ordnance were collected on Kahö'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.

Unexploded Ordnance and Related Solid Waste in Surrounding Waters

All of Kahö'olawe’s coastal waters were regularly used for aircraft approaches to targets. On occasion, pilots experiencing problems jettisoned their bomb and rocket loads before returning to base. Prior to 1970, there was no requirement that the military keep records on where munitions were jettisoned. Much of this ordnance remains in coastal waters that surround the island. Although it is not yet possible to detail the specific nature of unexploded ordnance in Kahö'olawe’s surrounding waters, indications of areas that may harbor dangerous quantities of unexploded ordnance are available (Map 3).

The same types of unexploded ordnance found on the island may also be present in the island’s surrounding waters along with other specialized weaponry, such as torpedoes. Prior to 1970, a number of coastal targets were being used for military purposes. These included:

- Black Rock off Loe O Kealakaliki, which was a common site for 20mm to 40mm firing, rocket firing, and drops of bombs in 100- and 250-pound sizes;
- Kanapoo Bay, which was used for submarine exercises and torpedo firing;
- Waikakalulu and Kanohio Bay and the area between, which was used for submarine exercises and torpedo firings, particularly between 1957 and 1959;
- The northeast coast of the island, which was used for firing 11.25mm ("Tiny Tim") rockets; and
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- The waters from Makaha 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 Ahlu v. Blume 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 EKO'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 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.

Recommendation 1.5. All military use of Kaho'olawe shall cease. President by Executive Order No. 10436, dated February 20, 1933, which took 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.
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. Most recently, the state courts have affirmed Native Hawaiian rights to access resources. 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 island. It has acted in a stewardship role as haku‘ala for the general public since its recognition in the 1980 Consent Decree. Federal entities, including the U.S. Navy, Soil Conservation Service, U.S. Fish and Wildlife Service, National Park Service and U.S. Geological Survey, should be prepared to assist the Protect Kaho‘olawe Ohana with technical expertise. Assistance from private organizations such as The Nature Conservancy and the Pacific Tropical Botanical Garden will also be needed.

Island Administrative and Management Body

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 been developed for Kaho‘olawe. The model reflects future staffing requirements for implementing and managing projects identified within KCC’s recommendations, and, therefore, may be helpful as a guide (Table 3).

The new state body must be provided adequate financial resources to carry out its mandate. In the short term, federal funds will provide the bulk of program support for specific soil conservation projects and related activities. In the longer term, however, state revenues will be needed to continue and enhance those activities initiated with federal funds.

A vital part in this process involves the ability to continually educate and train staff. For that reason, it is important that a portion of the funds used for Kaho‘olawe’s administration be targeted for training and education.

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
### Restoring a Cultural Treasure

#### Table 3. Administrative Staffing Model

<table>
<thead>
<tr>
<th>KAH'O OLAWE OVERRIGHT COMMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXECUTIVE DIRECTOR</strong></td>
</tr>
<tr>
<td>Administrative</td>
</tr>
<tr>
<td>Secretary</td>
</tr>
<tr>
<td>Legal</td>
</tr>
</tbody>
</table>

### Findings and Recommendations

**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 Hawaii and shall consist of representatives from the State of Hawaii, 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**

Between 1927 and 1928, the Hawaii Territorial Governor, Wallace R. Farrington, and President Calvin Coolidge officially set aside 24 acres on Kaho'olawe for "lighthouse purposes." Provisions were made to service the area from the sea. A lighthouse was constructed and continued to function until 1941, when the war necessitated blackouts. The light was dismantled in 1944, and in 1952 the Governor of Hawaii authorized the lighthouse to be restored. In 1967, a new light was constructed. This new light requires only about 800 square feet for its operation and servicing.

**Recommendation 2.3.** The State of Hawaii 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

Maintaining Kaho'olawe's integrity as a cultural place where religious ceremonies can continue without interruption from sight-seeing excursions—particularly from helicopters—is an additional administrative concern. The National Park Service continues to deal with this concern in its National Parks. Currently, the airspace above Kaho'olawe is restricted to the 5,000-foot altitude for all commercial flights, whether fixed wing or helicopter. That altitude seems adequate to protect the integrity of the island.

**Recommendation 2.4.** The State of Hawaii 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.

### Fencing and Signage

Congress asked KICC to identify fencing needs for Kaho'olawe. KICC believes that fences are a management tool and that the nature of activities planned for Kaho'olawe, and the fact that public
Restoring a Cultural Treasure

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-stand 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 the island. Since 1980, more than 4,000 people have experienced Kaho'olawe through the Protect Kaho'olawe Ohana and its activities. A number of cultural ceremonies have taken place on the island.

Special Status and Recognition

On March 18, 1981, the entire island of Kaho'olawe was placed on the National Register of Historic Places because of its archaeological, cultural, and historic significance. It is the only entire island currently on the Register. Kaho'olawe's numerous unique and significant items include the well-preserved remains of settlements, religious and burial sites, petroglyphs, numerous fishing shrines, and the state's second largest ancient Hawaiian stone tool quarry site.

Uniqueness

Many of Kaho'olawe's archaeological and historical resources are unique. No other island has a comparable array of intact fishing shrines. Further, because the island has not undergone the kinds of development found on its neighboring islands, most of the remains of ancient Hawaiian settlements are intact and discernible. Also, according to legend, the island played a role in the ocean voyaging exploits of Polynesians coming and going to Hawai'i from Tahiti and islands south more than 500 years ago, particularly with the voyages of Mokaha, his son Kila, Lā'amaikākī, and Wahanui. The extent of that role has yet to be defined but may lie in the astro-archaeological resources found on the island. Finally, Kaho'olawe has passed through a number of distinct historical periods, beginning in the late 18th century. These periods were reviewed briefly in Part I of this report. There are distinct remains and remnants from these periods still on the island, including: a possible mission school, the records for which extend back to 1828; a penal colony operated at Kaulana Bay from 1825 to 1853; sheep ranching which had structures located at Honokoo, Ahupu, and Kulele Bays beginning as early as 1858 and continuing through 1909; cattle ranching which began in earnest in 1918 and continued until 1941; and, finally, military activities which began in the late 1920s and continue to the present time.

Legends and Traditions

Like its sister islands, Kaho'olawe's unique legends and traditions offer important insights into Hawaiian culture and the role the island played within that culture. Noted historian and archaeologist Dorothy Barrere has identified four distinct historical periods that form a framework for research in Native Hawaiian myths and legends. These four periods include: Cosmogonic Period, or creation myths and legends; Heroic Period, or myths and legends dealing with the heroic feats of Hawaiian gods and demigods; Settlement Period, or those myths and legends telling of the migrations of Polynesians to Hawai'i; and their settlement of the Hawaiian Islands; and the Dynastic Period, an era that continues to the present day through ali'i families and their forbears. Kaho'olawe is aptly represented in all four of these historical sequences, which neatly tie contemporary history to creation of the island.

Recommendation 2.5

The State of Hawai'i shall seek to upgrade the status of Kaho'olawe's significant sites to "National Historic Landmark" and should investigate the feasibility of obtaining World Monuments status for these sites under the International Council of Monuments and Sites (U.S./ICOMOS).

Place Names

Kaho'olawe's place names offer unique insights into the island's culture. As the noted 19th century Hawaiian historian Samuel Kamakau wrote, "It was the same from Hawaii to Kauai... no name was given without some reason." Many of Kaho'olawe's place names can be traced directly to one or more of the historic periods noted above. Some place names honor the Hawaiian fire goddess Pele's brother Kamanohi; some place names seem to relate to the voyaging of Lā'amaikākī; and other place names stem from the recent military's use of the island. Map 4 reflects the current places with names on the island. The Commission generally has adopted the earliest spelling of names or named provided by native informants as the most appropriate. A comprehensive listing of place names and their derivations is provided in Appendix 11.
The island of Kah‘olawe yesterday was declared eligible for the National Register of Historic Places. The announcement came from Jerry Rogers, acting keeper of the registry 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 467 sites.

_Honolulu Advertiser, January 28, 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 Kah‘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**

Kah‘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 la‘a (shrines), la‘au (stones used to attract fish), and heiau (temples); petroglyphs; work areas, including agricultural areas and rock quarry sites; settlement areas; and fishing grounds.

Historical resources include shipwrecks, settlement areas, and infrastructure mostly associated with the penal colony, ranching and military era. Currently, more than 540 archaeological and historical sites and more than 2,300 features have been identified on the island. The locations of these resources are shown in Table 4 and Maps 5 and 6.

Material written in the Native Hawaiian language, by native speakers, is an invaluable historical resource. This material includes: newspapers that date back to 1832; manuscripts; legends; and chants deposited in the Hawai‘i State Archives, the Bishop Museum Archives and Library, and private collections. References to Kah‘olawe are buried within these materials. As these historical "gems" resurface, Kah‘olawe’s past will continue to emerge.

**Fragility.** Kah‘olawe’s archaeological and historical resources are fragile and vulnerable and susceptible to additional damage from natural and human impacts. A Commission study found that the island’s petroglyphs are particularly susceptible to wind and water erosion and are quickly disappearing. In addition, the growing market for Native Hawaiian antiquities has led to at least one instance of vandalism on Kah‘olawe during KCC’s tenure. A major religious shrine and burial site was pillaged by vandals. The quantity of artifacts taken from the site is not known.

**Burials.** Few findings of burials have been recorded for Kah‘olawe. Undoubtedly, many remain undetected in sand dunes or caves. In historical times, one individual is known to have died and to
### Table 4. Kaho‘olawe Archaeological and Historical Sites (1980)

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Habi/tion Features</th>
<th>Sites &amp; Vehic. Dated</th>
<th>Lithic Quantities &amp; Workshops</th>
<th>Petroglyphs Dated</th>
<th>Photographed Works &amp; Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dated</td>
<td>Total</td>
<td>Dated</td>
<td>Total</td>
<td>Dated</td>
</tr>
<tr>
<td>Northeast</td>
<td>167</td>
<td>255</td>
<td>7</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>Northwest</td>
<td>164</td>
<td>390</td>
<td>6</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>West</td>
<td>63</td>
<td>214</td>
<td>3</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>South</td>
<td>19</td>
<td>50</td>
<td>5</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>SE Cliff</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>East Cliff</td>
<td>10</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Papaoa</td>
<td>6</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Waikahalani Cliff</td>
<td>13</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kamauhoa Cliff</td>
<td>17</td>
<td>23</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>South Shore</td>
<td>-</td>
<td>5</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Zone Total</strong></td>
<td>334</td>
<td>1,014</td>
<td>17</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Intermediate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>1</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Northwest</td>
<td>3</td>
<td>35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>West</td>
<td>5</td>
<td>21</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>South</td>
<td>8</td>
<td>23</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Southeast</td>
<td>2</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>East</td>
<td>13</td>
<td>36</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Papaoa</td>
<td>3</td>
<td>17</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td><strong>Zone Total</strong></td>
<td>33</td>
<td>157</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Island</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>190</td>
<td>506</td>
<td>4</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>South</td>
<td>53</td>
<td>509</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>West</td>
<td>2</td>
<td>6</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Zone Total</strong></td>
<td>245</td>
<td>832</td>
<td>10</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>612</td>
<td>2,463</td>
<td>33</td>
<td>87</td>
<td>10</td>
</tr>
</tbody>
</table>

Restoring a Cultural Treasure

Table 5. Records of Burials on Kahoolawe

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>NUMBERS OF REMAINS FOUND</th>
<th>AGE</th>
<th>SEX</th>
<th>CONDITION OF REMAINS</th>
<th>SOURCE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokoomua</td>
<td>12</td>
<td>4</td>
<td>Child</td>
<td>Unknown</td>
<td>Stokes</td>
<td>1913</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>Adult</td>
<td>Unknown</td>
<td>Stokes</td>
<td>1913</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>9-11</td>
<td>Unknown</td>
<td>Survey</td>
<td>1976-89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>Adult</td>
<td>Unknown</td>
<td>Survey</td>
<td>1976-89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>35-65</td>
<td>Female</td>
<td>Survey</td>
<td>1976-89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>18-25</td>
<td>Female</td>
<td>Survey</td>
<td>1976-89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Survey</td>
<td>1976-89</td>
</tr>
<tr>
<td>Third beach west</td>
<td>2</td>
<td></td>
<td></td>
<td>Badly decayed</td>
<td>Stokes</td>
<td>1913</td>
</tr>
<tr>
<td>of Kuleia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kamahoi Shrine</td>
<td>1</td>
<td></td>
<td>Adult</td>
<td>Male (?)</td>
<td>Stokes</td>
<td>1913</td>
</tr>
<tr>
<td>Site</td>
<td></td>
<td></td>
<td></td>
<td>Fully articulated</td>
<td>Stokes</td>
<td>1913</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>but headless</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern slope</td>
<td>1</td>
<td></td>
<td>Adult</td>
<td>Male</td>
<td>Pedro</td>
<td>Buried 1910</td>
</tr>
<tr>
<td>of Pu‘u o</td>
<td>4</td>
<td></td>
<td></td>
<td>Almost complete</td>
<td>Pedro</td>
<td></td>
</tr>
<tr>
<td>Moanalini</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headland</td>
<td></td>
<td>1</td>
<td></td>
<td>26</td>
<td>Pedro</td>
<td>1920-30s</td>
</tr>
<tr>
<td>overlooking</td>
<td></td>
<td></td>
<td>Male</td>
<td>Unknown</td>
<td>Pedro</td>
<td></td>
</tr>
<tr>
<td>Kuleia Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uplands near</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Unknown</td>
<td>Pedro</td>
<td>1920-30s</td>
</tr>
<tr>
<td>Pu‘u o Moanalani</td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td>Pedro</td>
<td></td>
</tr>
</tbody>
</table>
| Source: Rowland Reno, Memorandum to KOC, Honolulu, 1992.

have been laid to rest at Kuleia Bay near the MacPhee-Baldwin ranch facilities. This incident occurred in 1919 and involved the captain of the sampans Fleita Maru, Kekanini Kinokone, who died at Kuleia 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 Hokoomua, all of which were reinterred (Table 5). 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 Grave Protection and Repatriation Act (Public Law 101-601). Hawai‘i has developed a system of islandwide burial councils that oversee burial matters. The burial councils are assisted by Native Hawaiian groups and organizations such as the Office of Hawaiian Affairs and the Hui Malama I Na Kapuna O Hawai‘i. Because Kaho‘o olawe has no formal burial council, the Protect Kaho‘o Olawe ‘Ohana has assisted in matters relating to burials on the island.

Management Information Systems (MIS). Data pertaining to Kaho‘o olawe’s archaeological and historical resources are incomplete and inadequate for study and management purposes. The first archaeological survey of the island in recent times was conducted in 1913 by John Stokes of the Bishop Museum. It was followed in 1931 by a study conducted by Gilbert McAllister, who published the first book on the island’s archaeology in 1933. More recently, all Kaho‘o olawe work has been undertaken by the U.S. Navy and the State Historic Preservation Office. Although much information now exists, it needs to be systematically defined and categorized. Confusion currently exists over what constitutes sites, what constitutes features, and vice-versa. Much information about specific sites and features still remains in field notes and unpublished documents. These issues must be resolved if Kaho‘o olawe’s archaeological and historical resources are to be studied, analyzed, and managed properly.

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

- Research focusing on oral histories from individuals who have specific knowledge about the resources of Kaho‘o olawe;
- Research and translation of primary resource materials that are written in the Native Hawaiian language and relate to Kaho‘o olawe;
- Return and reinterment of all human remains removed from Kaho‘o olawe—in accordance with existing federal and state laws—and specification that the Protect Kaho‘o 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 ‘Owili;
- Petrographic analysis of Pu‘u Molii materials and stone implements from throughout the state to attempt to determine dispersal patterns of materials taken from the site;
Restoring a Cultural Treasure

- Stabilization and interpretation of the Macbee-Baldwin complex at Kakeha Bay and the penal colony settlement area at Kaulana Bay. A restored ranch house at Kakeha could serve as a gateway for some types of visits to the island and as a museum and depository for Ka’ohi‘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 Ka‘ohi‘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 Ka‘ohi‘olawe and use of that research to initiate and maintain interpretive and educational programs on and off the island.

Environment

Ka‘ohi‘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 1911, the military arrived, often on masse, and began bombing exercises. In June 1965, the largest non-nuclear explosion of its time, 380 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, quelled munitions training and operations on the island.

Despite the legacies of the past two centuries, Ka‘ohi‘olawe retains unique and special environmental resources. Since Western explorers made the first written observations of Ka‘ohi‘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 KCC and involved The Nature Conservancy, with assistance from the Pacific Tropical Botanical Garden and The Smithsonian Institution.

Flora and Fauna. Ka‘ohi‘olawe’s flora and fauna are characteristic of Pacific islands located in the lee of larger islands such as ‘Na‘ihau. The Nature Conservancy’s recent survey of Ka‘ohi‘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 species 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.

Ka‘ohi‘olawe’s earliest vegetation seems to have been characterized by a lowland dry shrubland 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 shrubland was replaced largely by a grassland community as a result of anthropogenic (human) burning. This condition has quickly transformed Ka‘ohi‘olawe into its present-day appearance, characterized by a greatly reduced grasslands community and a largely barren wasteland on the island plateau resulting from ungulate grazing. The new plant genus has survived all this. The Commission’s recommendation to the scientific community that this new genus be named Ka‘auapulu O Kanaloa (the gentleness of Kanaloa) has been accepted. Scientific descriptions of the new plant are in process.66

Ka‘ohi‘olawe, also, still possesses some of the best natural plant communities in the state. One such community is comprised of native cotton, ma‘o (Gossypium tomentosum). Critical habitat for Ka‘ohi‘olawe’s flora is estimated at 20 percent of the island, or about 5,630 acres.

Recommendation 2.8. The State of Hawai‘i, as part of its efforts and responsibilities in utilizing federal “restoration” funds for Ka‘ohi‘olawe, shall work in cooperation with the Native Hawaiian community to undertake an active program of management, monitoring, protection, and enhancement of Ka‘ohi‘olawe’s rare flora and fauna, including:

- Focusing management strategies first on those species most immediately threatened with extinction on a worldwide basis;
- Searching the island to locate as many populations of rare species as possible;
- Designating Special Management Areas for the maintenance of native natural communities;
- Establishing elsewhere, on- and off-island, alternative populations of critically endangered species as a hedge against extinction;
- Establishing restoration projects that use, whenever possible, plant materials that originated from Ka‘ohi‘olawe;
- Establishing measures to prevent the accidental introduction of exotics onto Ka‘ohi‘olawe;
- Developing an island-wide fire plan to address the anticipated increasing threat of fire;
- Designing and implementing a monitoring program to assess the status and population trends of rare species and the effectiveness of management programs designed to protect them;
- Undertaking additional surveys that focus on geographical/habitat coverage, wet/dry season coverage, and special groups that include chalaline pools, subterranean species and

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Finding and Recommendations
### Table 6. Kahoolawe Rare Flora and Fauna

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Federal Status</th>
<th>Heritage Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ferns and Fern Allies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Cycloglossum</em></td>
<td>Polulei</td>
<td>C1</td>
<td>G2</td>
</tr>
<tr>
<td><em>Ctenopteris cryptantha</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flowering Plants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Asteraceae</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Lippia berteriana</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Sarcocircum</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Leptosiphon</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Calyptrata</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Capparaceae</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Capparis sandwichiana</em></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><em>Erythrophloeum</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Chamerion angustifolium</em></td>
<td></td>
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</tr>
<tr>
<td><em>Fabaceae</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ficus carica</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Sesbania tortuosa</em></td>
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</tr>
<tr>
<td><em>Vicia villosa</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Heracleum</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hibiscus brackenridgei</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Penstemon</em></td>
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</tr>
<tr>
<td><em>Pernettya</em></td>
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<tr>
<td><em>Rhamnus</em></td>
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<tr>
<td><em>Gossypium hirsutum</em></td>
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<tr>
<td><em>Urtica</em></td>
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<tr>
<td><em>Netropsis serrata</em></td>
<td></td>
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<tr>
<td><strong>Reptiles</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><em>Chelonia mydas</em></td>
<td></td>
<td>LT</td>
<td>G3</td>
</tr>
<tr>
<td><em>Chelonia mydas</em></td>
<td></td>
<td>LT</td>
<td>G3</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
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</tr>
<tr>
<td><em>Procellariidae</em></td>
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<tr>
<td><em>Phaethon rubricauda</em></td>
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<tr>
<td><em>Mammals</em></td>
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<tr>
<td><em>Vespertilionidae</em></td>
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<tr>
<td><em>Lasius niger</em></td>
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<td></td>
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<tr>
<td><em>Rhinopteryx</em></td>
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<tr>
<td><em>Amblyrhyncus auricollis</em></td>
<td></td>
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<tr>
<td><em>Phalacrocorax</em></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><em>Monachus schauinslandii</em></td>
<td></td>
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</tr>
</tbody>
</table>

**Floristic Codes:**
- E = Endemic, native only to the Hawaiian Islands
- I = Indigenous, native to the Hawaiian Islands and elsewhere (includes fauna that are regular migrants and species that breed in Hawaii)
- T = Taxonomic name: flowering plants are listed according to Wagner, Herbst, and Schimel (1999); ferns and fern allies are listed according to Lammers (1988); reptiles are listed according to McClench (1975); birds are listed according to Pyle (1980); and mammals are listed according to Tomich (1982).

**Key to Federal Status:**
- 1 = Systematically proposed to list as endangered or threatened species.
- 2 = Systematically proposed to list as threatened species.
- 3 = Systematically proposed to list as endangered species.
- 4 = Systematically proposed to list as threatened species.
- 5 = Systematically proposed to list as either endangered or threatened species.
- 6 = Systematically proposed to list as either endangered or threatened species.
- 7 = Systematically proposed to list as threatened species.
- 8 = Systematically proposed to list as either endangered or threatened species.
- 9 = Systematically proposed to list as threatened species.
- 10 = Systematically proposed to list as endangered species.
- 11 = Systematically proposed to list as threatened species.
- 12 = Systematically proposed to list as endangered species.

**Key to the Hawaii Heritage Program's (HHP) Global Ranks:**
- G1 = Species critically imperiled globally (typically 1-5 current occurrences).
- G2 = Species critically imperiled globally (typically 6-20 current occurrences).
- G3 = Species critically imperiled globally (typically 21-100 current occurrences).
- G4 = Species critically imperiled globally (typically >100 current occurrences).
- G5 = Species critically imperiled locally (typically <10 current occurrences).
- G6 = Species critically imperiled locally (typically 11-29 current occurrences).
- G7 = Species critically imperiled locally (typically 30-99 current occurrences).
- G8 = Species critically imperiled locally (typically >100 current occurrences).

**Sources:**
- Soil erosion—by wind and water—is the major environmental destabilization process affecting Kahoolawe's soils. It has been estimated that in recent times more than 1,880,000 tons of soil are being lost each year as a result of erosion. KCC has found that the hydraulic properties of the soil on Kahoolawe vary greatly, even within small areas. As expected, land cover seems to be highly significant in determining the rate of water movement into soil, with vegetated soils allowing water infiltration at much higher rates. The first known mention of Kahoolawe's soils are derived from Hawaiian basalts and are typical of the soils found on other Hawaiian Islands. Kahoolawe's soils are derived from Hawaiian basalts and are typical of the soils found on other Hawaiian Islands.
Restoring a Cultural Treasure

Biological lowland shrub
(Photos Courtesy Harry Spencer)

Findings and Recommendations

Environmental problems appeared in the Hawaiian Gazette in 1881, which attributed the problem to grazing by goats and sheep, primarily on the island's island plateaus. Shortly after the turn of the century, this island plateau had eroded to hardpan, a condition that has remained fairly stable since the 1930s (Map 8). The environmental impacts from this erosion include both the loss of soil and the resulting degradation of plant and animal habitats on the island and in its surrounding waters.

The major coastal areas impacted by erosion lie between Lae Paki and Waaliki Point, with Ahihi Bay having the highest percentage of silt in the offshore sediments and the least amount of coral growth. It is estimated that much of the island's top layer of soil has eroded. This stripping averages about five feet, but has been as much as eight feet. Much of the eastern end of Kaho'olawe is eroded to a point where only hardpan remains.

Recommendation 2.8. 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. Annual rainfall on Kaho'olawe averages between something less than 10 inches on its western coast, near Hanakahoe Bay, and upward to 25 inches at its summit at Pu'u Mo'omolu. Because Kaho'olawe is located on the lee side of Maui and has a maximum elevation of only 1,477 feet, rainfall is generally restricted to large bursts of rain that usually hit the island during periods of kona (southwesterly) winds. Kona winds produce storms that can cause 2 to 4 inches of rain to fall within a 24-hour period. These storms are responsible for most of the island's current erosion problems. During the ranch era, efforts were made to capture rainfall in catchments constructed at Ahihi and Waikahale Gulches, reservoirs that were actually the craters of two puʻu at Kealualii and Keaolalalo, and redwood tanks. In spite of these efforts to “harvest” rainfall, on occasion water for cattle still had to be brought from Maui.

Like all Hawaiian Islands, Kaho'olawe seems to have a fresh water lens; a layer of fresh water "floating" on top of dense saltwater. Hawaiian legends and accounts by 19th century visitors to Kaho'olawe identify springs and wells on the island. Around the turn of the century, however, klawe (mesquite) was introduced onto the island as a source of cattle feed. With its introduction, existing wells and springs dried up as the trees' roots found their way into the water sources.

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Dates</th>
<th>Project Objectives</th>
<th>Project Director(s)</th>
<th>Other Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Trials for Rehabilitating Koho 'olena</td>
<td>1971-74</td>
<td>Determine what plant species would grow better given Koho 'olena's environment; 6 test plots were created and monitored.</td>
<td>Craig D. Whitelaw, Research Forester, Forest Service, U.S. Department of Agriculture; Wesley H.C. Wong, Hawai'i Division of Forestry, Dep't of Land and Natural Resources (DLNR), State of Hawai'i; D.N. Palmer, Soil Conservation Service; H.K. Yanamaka, DLNR</td>
<td>Various volunteer organizations.</td>
</tr>
<tr>
<td>Windbreak Project</td>
<td>1978-Present</td>
<td>Plant trees to protect Koho 'olena's erosion due to high winds—more than 30,000 taro blocks have been planted to date.</td>
<td>Wesley Wong, Coordinator, District Forester, DLNR, State of Hawai'i; Officer in Charge (OIC) Koho 'olena Project, U.S. Navy</td>
<td>Various volunteer organizations.</td>
</tr>
<tr>
<td>Native Hawaiian Revegetation Project</td>
<td>1985-Present</td>
<td>Test the viability of using native plant species for Koho 'olena replanting and revegetation projects. A series of plots with native plants were established and continued to be monitored. Since 1989, more than 3,500 native plants have been propagated for use on Koho 'olena.</td>
<td>Reo Sylvia, Coordinator, Native Hawaiian Plant Society</td>
<td>Various volunteer organizations.</td>
</tr>
<tr>
<td>Koho 'olena Restoration Project</td>
<td>1985-Present</td>
<td>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.</td>
<td>Officer in Charge, Koho 'olena Project, U.S. Navy</td>
<td>Soil Conservation Service, U.S. Department of Agriculture</td>
</tr>
</tbody>
</table>

## Findings and Recommendations

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Dates</th>
<th>Project Objectives</th>
<th>Project Director(s)</th>
<th>Other Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Dam Project</td>
<td>1986-89</td>
<td>Test methodologies for constructing check dams to reduce erosion caused by running water; 4,000 cu. ft. of soil were captured during the 4-month project.</td>
<td>Kate Vandermoor, Watershed Management Systems</td>
<td>Koho 'olena 'Onaha</td>
</tr>
<tr>
<td>CERIL Project</td>
<td>1988-Present</td>
<td>Identify an efficient and effective way to revegetate Koho 'olena without supplemental watering; trail planting areas using different grasses have promising effects.</td>
<td>Steven D. Warren and Robert E. Riggin, U.S. Army Corps of Engineers Construction, Engineering Research Laboratories (CERIL)</td>
<td>U.S. Navy</td>
</tr>
<tr>
<td>MINFAL Project</td>
<td>1988-Present</td>
<td>Determine the feasibility of planting vailali (Erythrina Sudansis) as a large-scale reforestation project; results are still being monitored.</td>
<td>Officer in Charge, Koho 'olena Project, U.S. Navy</td>
<td>University of Hawai'i Department of Agricultural Engineering</td>
</tr>
<tr>
<td>Restoration Project</td>
<td>1989-Present</td>
<td>Initiate revegetation of native plant species capturing rainwater and using drip irrigation systems; stem erosion by reducing water runoff and developing check dams. Project is in the permitting process.</td>
<td>Dan Holmes, Protect Koho 'olena 'Onaha</td>
<td>Volunteers, Koho 'olena 'Onaha</td>
</tr>
</tbody>
</table>

Source: Compiled by KIEC staff.
Restoring a Cultural Treasure

Map 8. Hardpan Boundaries

1931 1954
1978 1992

Check data on construction above Hakalau
(Plate Courtesy of the State of Hawaii "Kahaluu Ohana"

Findings and Recommendations

Additional work, including drilling a test well, must be undertaken before the extent or sustainable yield of Kaho'olawe's fresh water lens can be determined.

Desalination could provide Kaho'olawe with a third source of water. The U.S. Navy is currently installing a small system at its camp at Hanakaaania. Because of the expense involved, however, water from these systems would be used primarily for human consumption.

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 desalination 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. Since the 1970s, the State of Hawai'i, the U.S. Navy, and the Protect Kaho'olawe Ohana have been active in reforestation and revegetation efforts on Kaho'olawe (Table 7). The PKO has been specifically interested in reestablishing and using native plants for this purpose and has demonstrated their viability. The U.S. Navy also has developed a promising process for reestablishing grasslands on the hardpan. The State of Hawai'i and the U.S. Navy have jointly worked at developing windbreaks by planting various pine species and tamarisk (Tamarix gallica (L.) Ehrh.) to reduce the effects of wind erosion. All of these efforts need to continue and be expanded.

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 exotic where and when appropriate with native plant species (priority areas for species replacement will be in natural native plant communities).

Surrounding Waters. The waters surrounding Kaho'olawe are an integral part of the island environment. It is clear that Native Hawaiians used the island's resources and those in its surrounding waters to meet their daily needs. Fish, ohi'a, crabs, limu, and various other forms of ocean life were all important in maintaining the Hawaiian diet. Implements were fashioned from shell, and coral had significant religious connotations. The island's currents and winds were, likewise, specifically known to ancient Hawaiians and appear in ancient legends and chants. The fact that the island is intimately linked with the Hawaiian deity, Kanaloa, strengthens this relationship with the sea. The numerous ko'a and kū'ūde, as well as the writings of A.D. Kahauolino, a 19th century fisherman and historian, attest to this relationship as well.

Kaho'olawe's surrounding waters also serve as habitat for a number of marine reptiles and mammals, most of which are listed on the federal government's endangered species list. These include green sea turtles or hema (Chelonia mydas); Hawaiian monk seals, or 'ūlu holo i ka sau (Monachus schauinslandi); porpoises, or na'a (Stenella longirostrhis); and humpback whales, or kohola (Megaptera novaeangliae). In 1992, the U.S. Congress created the Hawaii Island Humpback Whale National Marine Sanctuary. The waters surrounding Kaho'olawe were excluded from the sanctuary.
Restoring a Cultural Treasure

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

Hina—Green Turtle
(Photo Courtesy Stewart I.)

Fina Hohe I Ka Ulu—Hawaiian Monk Seal
(Photo Courtesy Bruce Ellen)

Findings and Recommendations

Estimated Expenditures for Island Restoration

The total cost for Kaho‘olawe’s restoration, including the clearance and removal of unexploded ordnance and related solid waste, soil conservation activities, and construction and maintenance of related infrastructure development, is estimated to be $110 million. This estimate does not include costs associated with the clearance and removal of unexploded ordnance from Kaho‘olawe’s surrounding waters or the removal or mitigation of any hazardous or toxic waste, should it be found. Cost estimates are made in accordance with the best information currently available, based on findings of KICC consultants. They are estimates only and are submitted by way of illustration—not by way of limitation. KICC reiterates its position that the federal government must bear all costs and liability for Kaho‘olawe’s clean-up and restoration in accordance with the requirements of Executive Order No. 10456.

Unexploded Ordnance and Solid Waste Clearance

Clearance of unexploded ordnance from Kaho‘olawe to standards in accordance with planted land uses can be accomplished. KICC’s consultant notes that “circumstances related both to Kaho‘olawe’s military history and to its planned future uses are in many ways ideal for the rehabilitation of the island.” Kaho‘olawe has never been a war zone. Rather, it has been used only as a target range. There are no mines on the island that could detonate when disturbed and the residual explosive hazard on the island and its surrounding waters is the result of failures of items to detonate as planned. Moreover, no evidence exists of any hazardous or toxic chemical waste being present. Thus, the problem of unexploded ordnance and solid waste is solvable. The island’s unexploded ordnance contamination can be reduced and managed to an acceptable level while natural processes take hold and permanently restore the island.

The estimated cost for clearance and removal of unexploded ordnance is $72 million. This is based on a five-year, phased plan using a clearance team of about 120 individuals and an annual total expenditure of $15 million to $16 million—exclusive of infrastructure development. The first phase involves the construction of the infrastructure required to accomplish clearance and removal, and soil conservation activities. A major item in this phase is the development of an adequate road and trail system on the island. The second phase will focus on the actual clearance and removal of unexploded ordnance from priority areas chosen, generally, for their importance to soil conservation activities or cultural activities. The third phase will involve the clearance of broad lower priority areas and would primarily involve surface or shallow surface clearance. The fourth and final phase will be ongoing and will involve continual, onsite monitoring by rangers or hula ‘aina. These individuals would be trained as unexploded ordnance observers and provided with means to mark newly discovered ordnance for later removal by trained explosive ordnance disposal (EOD) personnel.

All unexploded ordnance cannot be removed from the island, for many items are estimated to be 10 feet to 15 feet below the surface and to remove these would be to destroy the environmental integrity and the archaeological and historical resources of Kaho‘olawe. As an alternative, KICC is recommending that the degree of unexploded ordnance clearance be based upon intended human use. It is anticipated that much of the island will be valued for its natural state and, therefore, will require surface clearance or minimum subsurface clearance only.
Restoring a Cultural Treasure

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, 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

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearance and Removal</td>
<td>$72.0 million</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>$15.0 million</td>
</tr>
<tr>
<td>Site Characterization Study</td>
<td>$1.0 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$88.0 million</strong></td>
</tr>
</tbody>
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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

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$21.6 million</td>
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</table>

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 to 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 reforestation and revegetation projects. Estimated costs for these projects are reflected in the Infrastructure section for clearance and removal of unexploded ordnance and related solid waste. The estimated cost for soil erosion abatement activities is $10 million.

Soil Erosion Abatement

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Dam/Terracing Activities</td>
<td>$3.0 million</td>
</tr>
<tr>
<td>Reforestation/Revegetation</td>
<td>$7.0 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$10.0 million</strong></td>
</tr>
</tbody>
</table>

Water Resource Development

Kaho‘olawe’s water supply comes from two major sources—rainfall and groundwater. A third potential source is the surrounding ocean. These projects will focus on all three of these sources. The most available source of water on the island is rainfall. Historically, rainfall has provided the bulk of water needed for the island and continues to offer the greatest potential for development. The cisterns need to be revitalized and additional catchment facilities need to be developed. One suggestion is that the island’s road system be improved to act as a catchment for rainfall harvesting. Water from this source could be readily available for soil abatement projects involving reforestation and revegetation efforts. Although groundwater exists, its sustainable yield and quality are uncertain and will not be known until a test well is completed. A test well has been included in this cost estimate. Water from such sources would be used only to meet human needs and only when no other water resource is available. A final source of water would be desalination of ocean water. The U.S. Navy is currently planning a small facility at Hanahou. This facility could be expanded, or perhaps, an additional small facility could be constructed at one of the other proposed points of access to and from the island. The total estimated cost for water resource development is $7.2 million.

Water Resource Development

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall Harvesting</td>
<td>$5.2 million</td>
</tr>
<tr>
<td>Groundwater Development</td>
<td>$1.4 million</td>
</tr>
<tr>
<td>Desalination Facility Development</td>
<td>$0.6 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7.2 million</strong></td>
</tr>
</tbody>
</table>

Historic Preservation

These projects are an important component of the soil conservation activities proposed for Kaho‘olawe. Most of the island’s archaeological and historical resources are affected by the island’s
Restoring a Cultural Treasure

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 Koho Kaua 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

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Fencing and Signage
KCC 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 a given location. Because access to the island and its surrounding waters will be carefully controlled and supervised, and because there are no longer any foral animals that need to be controlled by fences, KCC 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

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Findings and Recommendations

“What we saw when we excavated the site was fire cracked or naturally cracked rocks, arranged in a context that would lead one to believe it was used as a fireplace or earth oven. From that you can take off on a number of preliminary conclusions, including that it was at least a temporary habitation or campsite.”

Earle Watanabe, State Historical Sites Specialist, Honolulu Advertiser, November 23, 1976

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**Total Expected Costs (in Millions of Dollars)**

<table>
<thead>
<tr>
<th>Unexploded Ordnance and Solid Waste Clearance</th>
<th>$72.0</th>
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<tbody>
<tr>
<td>Infrastructure</td>
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<tr>
<td>Site Characterization Study</td>
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<td><strong>Total</strong></td>
<td>$88.0</td>
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<table>
<thead>
<tr>
<th>Soil Conservation Activities</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion Abatement</td>
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<tr>
<td>Check Dam/Treatment Activities</td>
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<thead>
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</tr>
</tbody>
</table>

| **Total Soil Conservation**                   | $21.6 |
| **Total for ALL Projects**                    | $101.8|

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*After planting an check dam deposit (Photo: Courtesy of the Puerto Koho Kaua, Oahu)*
PART V

Future Directions

Offering at Ke'a near Hakoneva
(Photo courtesy Frence Salthrope)
Kahō' cláwe is a special place, a unu pua and pu'ulauman. Although Kahō cláwe 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 Kahō cláwe 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 Kahō cláwe, 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 on 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 sur-

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.

Environmental District

This district includes all areas or sites that are either undergoing extreme environmental stress, such as the hardpan area, or are of significance because of their native plants or animals.

Kahō cláwe's hardpan area is extremely sensitive to wind and water erosion. Because erosion is the island's primary environmental problem, this area has been specifically identified. KICC proposes that soil conservation measures be continued and expanded in this area, utilizing a strategy based on stabilizing the island's individual watersheds.

Numerous native plant and animal species have been identified on the island, including a new plant genus. Many of these species are on the federal list of rare or endangered species and are in need of
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 island'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.

- **Roads and Trails**. An unimproved road system links the two ends of Kaho'olawe. Rough trails, generally, provide access from the road system to coastal areas. Currently, there is no recognized coastal trail around the perimeter of the island. Anticipated road improvements include developing a basic all-weather road system that extends to an all-weather access point at Kauheia Bay and developing an integrated trail system between coastal areas. It is critical that the island's road and trail system be designed to assist soil conservation efforts rather than inadvertently providing a means for additional soil erosion.
- **Water Development**. Water is essential for all activities on the island. The military now imports water for human use and utilizes water catchment in its camp. Additional water development is anticipated and includes developing a test well and restoring the old cisterns and tanks used during the ranching era. Two unique ideas also include developing a desalination capacity on the island and using the improved road system as a means for water catchment.
- **Special Development Area (SDA)**. These are areas for special purposes that require infrastructure development.
- **Monitoring Facilities**. It is anticipated that field way-stations will be needed for supplies storage. These stations may evolve into monitoring stations, or ranger stations, after clearance activities have been completed. They could also serve an important dual function in
monitoring activities on the island and in its surrounding waters and in providing living facilities for visiting researchers and rangers, or kahua '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 Hanakapiai 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. Kahua '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 Moanalii, Pu'u Moanalii, Hanakapiai Bay, and points along the southern coast.

- **Anchorage and Boat Landings.** Specific sites for boat landings and anchorages have historically been identified. A number of these sites may also 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."


**Un Mau Ke La O Ka 'Aina I Ka Pono.**

*The Life of the Land Is Preserved in Righteousness.*

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**A FINAL NOTE**

In August 1992, Kaho'olawe was the place and the focus for three days of rededication and spiritual renewal. More than 500 people from throughout the state and from various Native American Nations joined to remember the island's past and to acknowledge all those who have fought its return over the decades. Participating in the event were members of Hawaii's Congressional delegation and the Governor of the State of Hawaii. In his concluding remarks, Governor John Waihee spoke of this experience:

I need to say something because it was thrilling to sit back and to think back to 1976, 1977, and 1978 when this was all talk and we were all working for the return of Kaho'olawe. Who would have thought the day would come that the Governor of the State of Hawaii and a United States Senator and a United States Congressman would be... here on this 'aina. This is incredible, absolutely incredible, where we have come and how far we have gone.

The nation of Hawai'i has always existed. There are periods of time when it is asleep. It is now currently being reaffirmed... but I can tell you, were it not for Kaho'olawe we would not have the foundation that we stand upon today. It is here that we found that when we talked about things Hawaiian, it meant more than something economic or something political. It was something spiritual, it was special. And the pain of Kaho'olawe made the foundation for us to stand once again and to reaffirm a nationhood. That is what the significance of this movement is... And this island, this day, this celebration, is our opportunity to look back and to acknowledge those that laid the foundation for all of us so that we can pass it on to future generations.

And so this Commission concludes its report and a new chapter begins for others to write. Whatever is said, may it be truthful and do justice to all people, Native Hawaiian and non-native, civilian and military, who have felt upon their cheeks Kaho'olawe's ru'au winds and rains, or who have bathed its clear waters or been enveloped by its red dust. For they are the ones who will carry with them forever Kaho'olawe's story.
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7. "Kobemalamaalama" 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 ipuena, 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 Ipuena. Kobena 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 home of the land is showing'—kohlu ka'iari. When they see land they don't talk about 'ainu, they talk in parables. The say kahlu ka 'ului, meaning 'I see the bone of the land.' But actually, it's the land itself, or the mountains..."


9. Kahoolawalu, a high-ranking member of Kamehameha I's court, composed this chant. The chant is the Creation story, according to the "Haumua" tradition. It was recorded in *Abraham Formaner, Formaner Collection of Hawaiian Antiquities and Folklore*, vol. IV, Bishop Museum, Honolulu, 1916-1919, p. 24, 360. See also: David Mele. *Hawaiian Antiquities*, Bishop Museum Special Publication 2, Honolulu, 1971, p. 245.


15. For more information see:


- **General:** Peter MacDonald. "Fixed in Time: A Brief History of Kahoolawe", *Hawaiian Journal of History, vol. 6, 1972;*

- **Forest Reserve Period:** KCC Special Report by Hardy Speck. Kahoolawe Forest Reserve 1910-1918, Honolulu, January 1990.


- **The King's trip is reported in the native Hawaiian language in two installations of *Ke Laufa* Hani in dated 12/23/1875 (p. 2/4) and 12/30/1875 (p.4/2).**

- **Goats were presented to Kahoolawe ("Titeeoe") by Vancouver at the time of his leaving Maui in March 1793. He noted in his journal, "To Titeeoe, I gave also some goats and these being**

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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 #51, Amsterdam, 1968, p. 199. It is interesting to note that petroglyphs depicting goats have been found at Aluapu. This may have been the center for the early caring of goat herds prior to sheep being introduced into the island.


"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."

<table>
<thead>
<tr>
<th>Island of Kaho'olawe</th>
<th>Total</th>
<th>Male Schoolers</th>
<th>Female Schoolers</th>
<th>Male Scholars</th>
<th>Female Scholars</th>
<th>Total Inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaho'olawe</td>
<td>21</td>
<td>10</td>
<td>11</td>
<td>8</td>
<td>12</td>
<td>21</td>
</tr>
</tbody>
</table>

22 Kaho'olawe—The Uses of Its History, Honolulu, March, 1993, for a complete account of the penal colony era on Kaho'olawe. The records from the Kinkana case include the official court proceedings and the writings from the daily journal kept by the judge in the case, Miriam Kokolauno. Her journal is in the Hawaii State Archives (William Charles Lunalilo File). See also KCC Special Report by Edith McKinnon, The Kaho'olawe Administrators of Kaho'olawe, Honolulu, January, 1990, for a full discussion of Kinkana and his relationship with Hawaii ali'i.

23 The court records of the proceedings against George Morgan ore in the Hawaii State Archives. Complete records of other foreigners sentenced to Kaho'olawe include those for William H. Donaldson sentenced in January 1949 for breaking into the Printing Office, and Anthony Jenkins, sentenced for burglary of James Campbell's house in January 1868 (individual Name Index File and Court Records File).


25 Ibid., pp. 260-262.


27 P. Nahoolelua, Governor of Maui, and Ioane Richardson, a circuit judge from Maui, were sent by Keomehana V to Kaho'olawe to report on the condition of the laborers and to ascertain "whether it is suitable for raising cattle or sheep," and to determine a "fair rental" for the land (Interior Department Letter Books 7A, p. 51 in the Records of the Hawaii State Archives). For that following year, William F. Allen, who became Collector General of Customs for the Kingdom, was sent by Robert Wyllie and Elisha Allen, the first general lessees of Kaho'olawe, to inspect the island and to make recommendations about its future use as a sheep ranch. His report is in the Hawaii State Archives (R.C. Wyllie Private Collection). 1:31, 1880.

28 E. Bagot (ed.). McKenney’s Hawaiian Directory, San Francisco, 1885, p. 337. An account of the Wyllie—Allen sheep ranch is printed in Alfred Lomax. "Geographic Factors in Early Sheep Husbandry in the Hawaiian Islands (1791-1870)," Hawaiian Historical Society Annual Report for the Year 1949, Honolulu, 1940, pp. 46-51; and many letters remain in the Wyllie collection at the Hawaii State Archives which describe the hardships endured by the ranch in its early years.

29 The first year specific census data for Kaho'olawe has been found is 1869, though the government did conduct earlier censuses in 1850 and 1853. A missionary census conducted in 1832 estimates about 80 inhabitants on the island. See: Whitney; and Carol Silva. "Population Trends on Kaho'olawe," The Hawaiian Journal of History, vol. 18, 1984, pp. 394-395. Kaho'olawe's 1886 Residents seem to have been part of the sheep ranch operation. Census data is shown in the table above.


31 General Leilani, originally issued in 1863, was terminated on August 25, 1910, when the Governor of Hawaii, Walter F. Espar, proclaimed Kaho'olawe a forest reserve. The file for this lease and other Kaho'olawe leases are with the Land Management Division, Department of Land and Natural Resources, State of Hawaii.

32 The Honolulu Advertiser, 2/9/1925, p. 3/c-3-4. An account of the landing, also, is provided by Renee Wriston in His Hawaiian Today, Garden City, 1926. Much of the information gathered on this first trip appears in a confidential report from L.t. Comdr. C. Davis Hartwell, Intelligence Officer, to Rear Admiral D. McDonald, Commandant, 14th Naval District, dated “Report week of 21 March 1927.” A depiction of the airfield's location appears in the report which is filed in the Bishop Museum Archives (FSC/Grp1/Box 16). For additional information about the Army Air Force in Hawaii see: Ted Dacy. Army Aviation in Hawaii 1913-1941, published by author, Kailua, April 1991.
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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 Matice C and for improvements made on the island by the ranch became a subject of much debate and correspondence between the military, Mrs. Inoa Ashdown, Ashdown’s Newspaper, 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. Use of Military Armory filed with the National Archives, Pacific Sierra Region, San Bruno, Record Group 181, Subgroup-14th ND District Staff Headquarters, Seri-90 Bulletin—Correlation Section Army—181-5820(MT950; Folder-1122) Hawaii Islands/Map of Use Area: Record Group 181, Subgroup-14th ND District Staff Headquarters, Real Estate Division, Series-Real Estate Appraisals and Reports, Box-1, Folder-Maui and Hawaii (Oahu).


41 Honolulu Star-Bulletin, 6/24/1943, p. 4/c-5. Extensive correspondence exists between federal officials and military representatives in regards to Executive Order No. 10436. It is clear that all parties agreed that Kohalalo‘e was to be restored, for use as 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.


44 Correspondence and report form Colin Lennox, President, Board of Agriculture and Forestry, to Governor Stintback, dated January 14, 1947, in correspondence file, Land Management Division, Department of Land and Natural Resources, State of Hawai‘i. Although territorial officials directed the island’s return, the Navy wanted to purchase the island outright. In correspondence from Rear Admiral E.W. Hanson, Acting Commandant, 14th Naval District, San Francisco, to the Honorable Ingram M. Stintback, Governor of Hawaii, Iolani Palace, Honolulu, dated May 23, 1946, the Admiral concludes: In view of the above expressed desire of the Navy Department to purchase instead of lease, it is respectfully requested that the Territory of Hawaii cause a notice of cancellation of the basic lease to be issued and that the Secretary of the Navy be instructed to cancel the (Correspondence file, Land Management Division, Department of Land and Natural Resources, State of Hawai‘i).

45 On September 29, 1970, Senator Hiram Fong introduced a motion that the Navy stop bombing Kohalalo‘e as an amendment to a provision in the federal appropriations bill directing the Navy to cease bombing the Puerto Rican island of Culebra. He offered a similar amendment on the Senate floor on June 7, 1974 (One Congressional Record-Senate, June 7, 1974, pp. S1061-620.

46 Elmer P. Craverle, Individually, and as Mayor of the County of Maui, Life of the Land, A Non-Profit Hawaii Corporation v. Melvin Latry, Secretary of Defense, John Chafee, Sabahadi, Carol Kealoha, Charles Maxwell, Richard Howard, George Helm, James "Kim" Mitchell, Emmett Alluli, Walter Ritte, Jr., Kaawaipuna Prejman, Joyce Kainoa, Judy Napoleon, Collette Machado, Cynthia Thilen, Joel August and Kayama Edith Kanaka‘ole, Clara Ku, Mary Lee, Iolani Luahina, Emma DeFries, and Sarah Kazamoa. Also, a number of organizations were active in the movement. These included Hui Aloalo, Life of the Land, the Coalition for Native Claims, the Council of Hawaiian Organizations, and the Queen Lili‘uokalani Children’s Center.

47 A number of "unauthorized" landings on Kohalalo‘e were made between 1976 and 1977 to protest the Navy’s continued use of the island. The first landing was organized by Kaawaipuna Prejman of the Coalition for Native Claims, a nonprofit organization concerned with native rights issues. Most of the landings and their participants are noted below. Several individuals involved in these landings were prosecuted by the federal government, jailed, and, in some cases, remain barred from entry onto military facilities.

- "Kohalalo‘e Nine" Landing (1/3/1976): George Helm; Kimo Mitchell; Noa Emmett Alluli; Ian Lind; Ellen Miles; Walter Ritte, Jr.; Kaawaipuna Prejman; Steve Morris; and Karla Villalba.
- 2nd Landing (1/12/1976): Noa Emmett Alluli; Walter Ritte, Jr.; Loretta Ritte; and Scarlett Ritte.
- 5th Landing (2/13/1977): Emma DeFries, Sam Lono, Papi Kala, Elmer Cravalle... (65 people).
- On March 5, 1977, George Helm, James Kimo Mitchell, and William Mitchell journeyed to Kohalalo‘e in search of two Native Hawaiians who had been on the island for more than a few
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weeks. Helm and Kimo Mitchell were last seen in waters off Kah‘o‘alo‘le and have never been found.


56. The ‘aua cup and the shark image are referred to in a letter from the Reverend William Richard, resident missionary at Labuai, 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 Hopeful the governor of the island (Maui) wrote me a letter, in which he accused 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, Hopefulsdine, visited Taholanea and brought away the weather beaten idol which has for a number of years, been 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 "aua cup" from which all the villagers drank to his worship. It is made of cocoa nut. (Missionary Letters II, 754a, Letter # 144). Although the image has yet to be located, the "aua cup" was returned to the Bishop Museum in 1895 and then exchanged for a number of Swiss medical artifacts in 1903. The "aua cup" remains at the Bern Historical Museum in Bern, Switzerland.

57. Kali Lahi Hau‘oli, December 23, 1879, p. 21 c / 2. The spiritual aspect of the King’s trip to Kah‘o‘alo‘le is noted in correspondence between Queen Emma and Peter Kau‘o in Altons L. Kom. Notes from Molokai, Honolulu, 1976, p. 288.

58. See Note 29.


Endnotes

60. Correspondence from the Honorable C. M. Hille, Acting Governor, Territory of Hawaii to Major General C. D. Herron, U.S.A., Commanding, Hawaiian Department, Ft. Shafter, Hawaii dated August 15, 1930 in correspondence file, Land Management Division, Department of Land and Natural Resources, State of Hawaii.

61. Two Supplemental Agreements were executed between the Kahoolawe Ranch Company and the United States. The first, dated March 1, 1944, allowed the military to conduct unre¬stricted activities on the island and dispensed with the requirement of annually renewing the agreement with the ranch. The second agreement, dated October 18, 1944, allowed the United States to cancel the agreement on 30-day notice. Both documents are on file with the Land Management Department, Department of Land and Natural Resources, State of Hawaii.

62. Matison Sunderland Research and Planning Associates. Analysis of Public Opinion Regarding the Island of Kah‘o‘alo‘le, prepared for the Office of State Planning, State of Hawaii, January 1992. See also; "People’s Choice Awards," Honolulu Magazine, 1992. In correspondence to the KICC, the magazine’s editor noted: With regards to the questions on Kah‘o‘alo‘le, readers’ responses were almost unanimous. When asked about the Best Thing About Kah‘o‘alo‘le, the #1 response was the place of the island. A close second was the assumption that all bombing had stopped and that the island was being returned to the State.

63. The WORST Thing About Kah‘o‘alo‘le, as noted by the readers, was the fact that the island was ruined by the bombing. The runner-up response was the creation of a hiking hike, tied with the concept that the island is useless and can serve no real purpose (i.e., with regard to tourism or agriculture).

I hope this gives you an understanding of how our readers view Kah‘o‘alo‘le . . . (Correspondence from Ed Cassidy, editor and publisher, Honolulu Magazine, to Hardy Spowehr, Executive Assistant, KICC, dated December 31, 1991).


67. The first major study of the unsolved ordnance problem on Kahoolawe was initiated in September 1971, by Chief of Naval Operations as a result of Congressional legislation proposed by Senator Hiram Fong, in 1970 (cited earlier in this report). The resulting report, Ordinance Clearance Plan, was submitted to the Chief of Naval Operations in December 1972. In 1974, the U.S. Navy completed a brief summary of the unsolved ordnance on Kahoolawe (EOCJUGN). Another study was proposed in 1979 entitled: Proposal: Alternatives for the Clearance of Unexploded Ordnance from the Island of Kahoolawe; A team Project submitted by Kubler, Liebold, Harmon, Ivison and Richard to the University of Southern California’s Systems Management Center, May 1, 1975. In November
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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 1975 (8027/7/8b). The Final Report prepared by Marlinco, Ltd. was released in September 1975, Study on the Feasibility and Cost of Clearing Kahoolawe Island of Unexploded Ordnance—Final Report, 102-A, prepared for the Naval Sea Systems Command, Department of the Navy under contract N60024-76-C-6099, September 1975.

The Consent Decree required that the Navy remove surface ordnance from approximately 10,000 acres. According to the records, the Navy swept 74,140,000 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 Speeher, Executive Assistant, KIC, dated December 23, 1992).


Film footage of the underwater survey work is on file at the U.S. Department of Defense, Motion Picture Program Center, Norton Air Force Base, Riverside, CA. A copy is available in Hawaii through the Native Hawaiian film production company Na Maka o ka 'Aina, Honolulu.

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, 1959)
- Community Services Act of 1974 (January 4, 1975)
- Comprehensive Employment and Training Act (August 5, 1975)
- Native American Religious Freedom 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)
- Older Americans Act Amendments of 1987 (November 29, 1987)
- Housing and Community Development Act of 1987 (February 2, 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, 1988)
- Native American Grave Protection and Repatriation Act (November 16, 1990)

The State of Hawaii also has recognized its native people as having a special relationship with the land. Article XII of the state Constitution directly addresses this relationship under "Hawaiian Affairs." Numerous state statutes further define this in terms of land use and community development, language, artfacts, housing, burial sites, fishing rights, and access to resources.


The 1961 Consent Decree recognized the Protect Kaho'olawe Ohana (PROKOH) as "to act as stewards of the muu Kaho'olawe." The Governor of Hawaii in his State of the State Address presented on January 27, 1993 remarked in part: "both the federal and state governments have a rare second chance to do what is right for Kaho'olawe ... I propose we set aside Kaho'olawe as a natural heritage, to be healed and used only for those purposes that are consistent with the island's history and well-being. In this endeavor I call upon the Protect Kaho'olawe Ohana to continue to act as stewards."


On December 19, 1977, Governor Lingle appointed Governor's Executive Order No. 308 the U.S. Lighthouse Service for lighthouse purposes. This was followed by President Coolidge's presidential proclamation of 1927 which restored the territory's reservation for the Kaho'olawe lighthouse.
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Historical resources in the Native Hawaiian language include numerous newspapers dating between 1834-1984 and primary resource materials in the Bishop Museum Library and Archives and in the Hawaii State Archives. For more information see:


- Miscellaneous: Correspondence to Walter F. Dillingham from Benedictus Auhana Akina, Kaholalo Ranch Manager, between 1901-1904, Walter F. Dillingham File, Bishop Museum Archives, Honolulu.


85 Stokes kept meticulous notes. His notes have been transcribed and are now preserved in the Bishop Museum Archives in Honolulu.

86 J. Gilbert McAllister, Archaeology of Kaholalo, Bishop Museum Bulletin 115, Honolulu, 1993 (Reprint 1971). For more information on Kaholalo's past and present environmental features see:


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

Endnotes


- First Progress Report (May 24, 1971)
- Second Progress Report (November 9, 1971)
- Third Progress Report (with Wesley Wong, June 5, 1972)
- Fourth Progress Report (with Wesley Wong, November 24, 1972)
- Establishment Report No. 3 for Vegetation Trials for Rehabilitating Kaho'olawe Island, Hawaii (with Wesley Wong, February 28, 1973)
- Fifth Progress Report (with Wesley Wong, April 29, 1974)
- Sixth Progress Report (with Wesley Wong, November 26, 1974)


Rainfall for Kaho'olawe has not been consistently recorded. Presently, rainfall measurements are recorded by the Weather Bureau at a location on the island's interior near its summit. Historical records were collected by personnel stationed in 1904 but are sporadic. Little or no rainfall data exists for the island between 1920 and 1971. For early rainfall records see: E.H. Bryan Collection in the Bishop Museum Archives, Honolulu—"Kaho'olawe Vegetation" Binder.


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

Field project reports prior to 1935 are 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, Horizons Network Branch, Washington, D.C.


Field project reports prior to 1935 are 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, Horizons Network Branch, Washington, D.C.

Field project reports prior to 1935 are 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, Horizons Network Branch, Washington, D.C.

Field project reports prior to 1935 are 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, Horizons Network Branch, Washington, D.C.
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The Hawaiian Islands Humpback Whale National Marine Sanctuary is identified in the Oceans Act of 1992 (P.L. 104-357) 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.


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:


- **Land Use:** County of Maui, Kaho'olawe Community Plan, Hawaii, June 1982 (preliminary revision) and State of Hawaii, "Long Range Use Plan for the Island of Kaho'olawe (Draft)," Office of State Planning, Honolulu, November 1992.

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:


- Koko (1840-1842)—J. Jarvis. Scenes and Scenery in the Sandwich Islands and a Trip through Central America, Boston, 1844, pp. 283-282.


- Unknown (1927)—Maui News, March 26, 1927, p. 8/c.

**Endnotes**

106 From August 21-22, 1992, Kaho'olawe was the site of a re dedication ceremony for the island and Native Hawaiian culture and its values. Hawaii's Governor, members of his Congressional delegation and leaders from throughout the state took part in the two-day event.
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 Kaahoalawe, 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, 1959, 30 Stat. 798, 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, herefore 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 Kaahoalawe, 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-hoofed 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 seasonal 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 2. Presidential Memorandum

Memorandum on the Kaho‘olawe, Hawaii, Weapons Range

October 22, 1990

Memorandum for the Secretary of Defense

Subject: Use of the Island of Kaho‘olawe, Hawaii, as a Weapons Range

You are directed to discontinue use of Kaho‘olawe as a weapons range effective immediately. This directive extends to use of the Island for small arms, artillery, naval gunfire support, and aerial ordnance training. In future status of Kaho‘olawe and related issues.

George Bush

Section 8118
SEC. 8118. Notwithstanding any other provision of law, of the funds made available by this Act to the Department of the Navy, $5,000,000, to remain available until September 30, 1992, shall be available only for the establishment of the Kahoolawe Island Commission which shall be established under the terms and conditions of the Kahoolawe Island Act of 1978, as provided in the Senate on September 10, 1990. Provided, That the Secretary of the Navy shall provide 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.

Appendix 4. Senate Bill 3088

To establish a commission to study and recommend terms and conditions for returning Kahoolawe Island, Hawaii, from the United States to the State of Hawaii, 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 land, to limit improvements to the land during the period of the study, and for other purposes.

IN THE SENATE OF THE UNITED STATES
September 28 (Legislative Day, September 16, 1990)

MR. AKAKA (for himself and MR. INOUYE) introduced the following bill, which was read twice and referred to the Committee on Armed Services

A BILL

To establish a commission to study and recommend terms and conditions for returning Kahoolawe Island, Hawaii, from the United States to the State of Hawaii, 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 land, to limit improvements to the land during the period of the study, and for other purposes.

Be it enacted by the Senate and House of Representa-
tives of the United States of America in Congress
assembled,

SECTION 1. ESTABLISHMENT OF COMMIS-
SION TO STUDY LAND CONVEY-
ANCE OF KAOHOLAWE ISLAND,
HAWAII.

(a) ESTABLISHMENT.—There is established a
commission to be known as the "Kahoolawe Island
Conveyance Commission" (hereafter referred to in
this Act as the "Commission").

(b) Members.—(1) The Commission shall consist of five members appointed as follows:

(A) Two to be appointed by the Secretary of the Navy.

(B) Two to be appointed by the Governor of the State of Hawaii.

(C) One to be appointed by the Administrator of the Office of Hawaiian Affairs.

(2) Members shall be appointed for the life of the Commission. Any vacancy occurring in the membership of the Commission shall not affect the powers of the Commission and shall be filled in the same manner in which the original appointment was made.

(c) CHAIRMAN; MEETINGS.—(1) The Commission shall elect a Chairman from among its members.

(2) The Commission shall convene its first meeting not later than 30 days after the date of the enactment of this Act. Thereafter, the Commission shall meet at the direction of the Chairman or at the call of a majority of its members.

(d) COMPENSATION.—A member of the Commission may not be paid compensation for service performed as a member of the Commission. However, members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies of the Federal Government under subchapter 1 of chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the Commission.

(e) DUTIES.—(1) The Commission shall conduct a study to recommend the terms and conditions for the conveyance of a parcel of land consisting of approximately 28,766 acres and known as Kahoolawe Island, Hawaii, by the United States to the State of Hawaii.
Restoring a Cultural Treasure

(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 nonnative 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 (B) and (G) of subparagraph (B).

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

(H) 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 ordnance located on or within such portion.

(i) 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 related to the study referred to in subsection (a).

(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 (a), 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 (h)(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 (g)(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 to the effects such a sanctuary would have on the population of humpback whales that inhabit that marine environment.

(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary of Commerce shall submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Merchant Marine and Fisheries of the House of Representatives on the results of the study referred to in subsection (a), together with such comments and recommendations as the Secretary considers appropriate.

SEC. 4. LIMITATION ON IMPROVEMENTS TO KAHOO LAWE ISLAND.

No improvements may be made to Kahoolawe Island, Hawaii, during the period beginning on the date of the enactment of this Act and ending on the date of the termination of the Commission referred to in section 1(g) except as may be approved by the Secretary of the Navy or provided in the Consent Decree and Order in Ahul v. Brown, No. 76-0380 (D. Haw. entered December 1, 1983)

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated funds necessary to carry out the provisions of this Act, of which not more than $1,500,000 shall be authorized to carry out the study referred to in section 1.
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 Kaho'olawe 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 Kaho'olawe Island, Hawaii.

Appendix 6. Kaho'olawe Ownership and Leases

<table>
<thead>
<tr>
<th>Date</th>
<th>Ownership</th>
<th>Lessee/Size</th>
<th>Sublease/Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-1810</td>
<td>Trusteeship</td>
<td>District Ali'i</td>
<td></td>
</tr>
<tr>
<td>1810-48</td>
<td>Trusteeship</td>
<td>Ali'i Nui-Kamehameha Ulu'Ulii</td>
<td></td>
</tr>
<tr>
<td>1845</td>
<td>Kingdom of Hawa'i</td>
<td>Government Land</td>
<td></td>
</tr>
<tr>
<td>4/1/1853</td>
<td>Kingdom of Hawa'i</td>
<td>G.L. 47A/40 yrs ($250/yr)—issued to: Elisha H. Allen &amp; Robert C. Wylie (Sheep Ranching); Shepherd—Hillbrand (1859) Animals on the island:  2,075 sheep (1859)  Wild goats &amp; hogs (1859)</td>
<td></td>
</tr>
<tr>
<td>Terminated 1/1/1863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/1864</td>
<td>Kingdom of Hawa'i</td>
<td>G.L. 115 (50 yrs @ $250/yr)—issued to: Elisha H. Allen &amp; C.G. Hopkins (Sheep Ranching); Foreman: J. Lewis Animals on the island:  20,000 sheep (1875)</td>
<td></td>
</tr>
<tr>
<td>3/22/1880</td>
<td>Kingdom of Hawa'i</td>
<td>G.L. 115 assigned to: W.H. Cummins &amp; A.D. Courteny (Sheep Ranching—Kaho'olawe Stock Company); Manager: W.H. Daniels (1884) Animals on the island:  2,000 goats (1891)  1,000 sheep (1891)  9,000 goats (1884)  2,000 sheep (1884)  209 cattle (1884)  40 horses (1884)</td>
<td></td>
</tr>
<tr>
<td>1886</td>
<td>G.L. 115 assigned to: W.H. Cummins &amp; W.H. Daniels (Sheep Ranching)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/27/1887</td>
<td>Kingdom of Hawa'i</td>
<td>G.L. 115 assigned to: Randal Von Tempsky, C.S. Kynnersley &amp; J.R.S. Kynnersley (Sheep Ranching—Kaho'olawe Ranch Company); Managers: Robert Wallace (1888); Thomas W. Gay (1899, 1892); Alfred Dowell (1892); Thomas W. Gay (1891, 1892, 1895); Animals on the island:  1,000 sheep (1888)  800 cattle (1888)  100 horses (1888)  12,000 sheep (1890)  900 cattle (1890)</td>
<td></td>
</tr>
</tbody>
</table>
## Restoring a Cultural Treasure

<table>
<thead>
<tr>
<th>Date</th>
<th>Ownership</th>
<th>Lessee/Use</th>
<th>Sublessee/Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16/1893</td>
<td>Provisional Government of Hawaii</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/4/1894</td>
<td>Republic of Hawaii</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 8/12/1895  | United States of America | G.L. 115 assigned to: Benjamin F. Dillingham  
(Shelf Ranching): Manager: Benedictus Amaxi Akina (1899) |                                                                              |
(Shelf Ranching): Foreman: Hans Mortensen (1903-05) |                                                                              |
| 12/21/1903 | United States of America | G.L. 115 assigned to: Amelia L. Segee  
(Shelf Ranching): Foreman: Benedictus Amaxi Akina (1905-06) |                                                                              |
| 12/28/1906 | United States of America | G.L. 115 assigned to: Eben Lew (Shelf Ranching):  
Foreman: Benedictus Amaxi Akina, Malaka Kiihli (1910) | Animals on the island:  
- 5,000 sheep (1900)  
- 2,000 goats (1900)  
- 300 cattle (1900)  
- 40 horses (1900) |
| 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. Hurner—Forester (1910)  
- C.S. Jud—Forester (1915-18)  
- Eben Lew—former lessee, with Jack Aina—  
"unofficial agent" of Kaho'olawe |                                                                              |
| 4/20/1918  | United States of America | Territorial Governor Louis L. Olofson withdraws Kaho'olawe from "Forest Reserve" Status |                                                                              |
| 12/23/1918 | United States of America | G.L. 1049 assigned to: Angus MacPhee  
(Cattle Ranching)—Kahoolawe Ranch Company (KRC):  
Foreman: Jack' Aina (1911-22) |                                                                              |
| 7/11/1919  | United States of America |                                                                           | KRC sublease to: Kahoolawe Lumber Company:  
President—Rufus W. Polley  
Vice President—James L. Cole  
Secretary—Lee St. John  
Gilbert—Treasurer—D.J. John  
Obert—Auditor—A.E. Coxwell |

### Appendixes

<table>
<thead>
<tr>
<th>Date</th>
<th>Ownership</th>
<th>Lessee/Use</th>
<th>Sublessee/Use</th>
</tr>
</thead>
</table>
| 6/6/1920   | United States of America | G.L. 1049 assigned to: Angus MacPhee  
and Henry Bigelow (Cattle Ranching, Kahoolawe  
Ranch Company):  
Foreman with family: Manuel Pedro (1921-24)  
Animals on the island:  
- 500 cattle (200-300 in  
2 pastures) |                                                                              |
| 1925-26    | United States of America | G.L. 1049 Ist Re-opener ($300/yr) |                                                                              |
| 2/3/1927   | United States of America | Presidential Proclamation 1927 | U.S. Department of Commerce  
(Lighthouse Service) |
| 12/6/1927  | United States of America | Territorial Governor EO 308 | U.S. Department of Commerce  
(Lighthouse Service) |
| 3/15/1929  | United States of America | KRC sublease to: Shibata, Miyata & Associates (Pineapples) |                                                                              |
| 5/23/1933  | United States of America | G.L. 1049 terminated  
G.L. 2341 Issued to:  
Angus MacPhee and Henry Bigelow (Cattle Ranching—  
Kahoolawe Ranch Company):  
Foreman: Manuel Pedro (1933-34)  
Animals on the island:  
- 500 cattle (1933)  
- 200 sheep (1933)  
- 25 goats (1933)  
- 17 horses (1933)  
- 2 mules (1933)  
- 50 turkeys (1933) |                                                                              |
| 5/10/41    | United States of America |                                                                           | KRC sublease to: U.S. War Department ($1/yr to 1964) |
| 12/8/41    | United States of America | MARTIAL LAW DECLARED |                                                                              |
| 3/1/1944   | United States of America |                                                                           | KRC sublease to: U.S.A/Supplemental Agreement 1 ($235/yr for 1943-54) |
| 10/15/1944 | United States of America |                                                                           | KRC sublease to: U.S.A/Supplemental Agreement 2 |
| 10/1/1952  | United States of America | Territorial Governor EO 4238 cancels EO 308  
U.S. Department of Commerce (Lighthouse Service) |                                                                              |
| 5/9/1952   | United States of America | G.L. 2341 terminated |                                                                              |
| 11/7/1952  | United States of America | Territorial Revocable Permit 639 issued to U.S. Department of the Army |                                                                              |
| 2/20/1953  | United States of America | Presidential Executive Order 10436  
Issued: Secretary of the Navy |                                                                              |
| 12/21/1960 | United States of America | U.S. District Court of Hawaii to:  
Secretary of the Navy and the Protect  
Kaho'olawe  
Globes |                                                                              |
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.
10/22/1960 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.
01/08/1956 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 dedication ceremonies at Hakoawa 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 Holona 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 Hawaii’s 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 bombimg 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 ordinance.

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 ordinance.

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 ordinance. 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 returning 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 ordinance.

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 on Kaho'olawe. An appropriation of $15 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, 1995, and providing it with an additional appropriation of $350,000.

Territorial/State Legislation

1999  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/Lessive), 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."
Restoring a Cultural Treasure

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.

1987 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.

1987 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.

1987 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.


1987 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. 80, introduced by State Senator M. Yamasaki, requests that the U.S. Navy return Kaho'olawe to the State of Hawaii 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. 66, introduced by State Senator M. Yamasaki, requests that the U.S. Navy return Kaho'olawe to the State of Hawaii and Maui County.

1988 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 Hawaii.

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. 2831, introduced by State Senator Malama Solomon, establishes a negotiating fund within DLNR for the return of Kaho'olawe to the State of Hawaii.

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.

Appendixes

1992 H.C.R. 135, introduced by State Representative Mike O'Kieffe, requests that the island of Kaho'olawe be returned to the jurisdiction of the State of Hawaii and that all military operations cease on the island.

1992 H.R. 145, introduced by State Representative Mike O'Kieffe, requests that the island of Kaho'olawe be returned to the jurisdiction of the State of Hawaii and that all military operations cease on the island.

1992 G.M. 270 makes appointments to the Board of Registration for Maui, Moloka'i, Lana'i, and Kaho'olawe (Maui County).

County Councils

Kauai

02/03/1976 Resolution No. 230, introduced by Jerome Hiew, requests that President Gerald Ford order a cessation of bombing of Kaho'olawe and return the island to the people of Hawaii.

11/28/1990 Resolution No. 94, Draft 1, introduced by Ronald Kouchi, requests that foreign nations withdraw from RIMPAC exercises and that the U.S. Navy discontinue use of Kaho'olawe as a bombing target.

07/29/1992 Resolution No. 100-92, introduced by Ronald Kouchi, proclaims August 21-22, 1992, as days when the residents of the State are asked to acknowledge that the sacred island of Kaho'olawe is a historically significant place of healing.

Honolulu

01/29/1976 Resolution No. 76-29, introduced by Frank Loo, requests that the U.S. Navy cease bombing Kaho'olawe and that a study of the island's resources be conducted.

06/06/1988 Resolution No. 88-236, introduced by Gary Gill, requests that the U.S. Navy stop bombing Kaho'olawe and return the island to the people of Hawaii.

07/23/1992 Resolution No. 92-187, introduced by Rene Morisho, proclaims August 21-22, 1992, as days when the residents of the city are asked to acknowledge that the sacred island of Kaho'olawe is a historically significant place of healing.

Maui

01/17/1969 Resolution No. 39, introduced by Joseph Bolgo and Lanny Morisaki, requests that the U.S. Navy find alternative islands for its bombing practice and return Kaho'olawe to productive use.

10/03/1969 Resolution No. 224 requests that President Richard M. Nixon issue a directive to terminate all military activities on the island of Kaho'olawe.

01/16/1970 Resolution No. 16, introduced by E. Loy Cluney, requests that the county attorney study and determine the legality of the U.S. Navy's activities on Kaho'olawe.

02/06/1970 Resolution No. 36, introduced by Marco M. Meyer, requests that the Mayor tour Kaho'olawe and submit alternative sites to the U.S. Navy for its activities.

03/20/1970 Resolution No. 248, introduced by Yoneo Yamasaki, requests that the Maui Soil and Water Conservation District work with the State of Hawaii to restore Kaho'olawe.

05/15/1970 Resolution No. 181, introduced by Joseph E. Bolgo, requests that the Navy transport interested parties attending the Maui Chapter of the Conservation Council and the Mayor's Committee on Kaho'olawe's Public Symposium on Kaho'olawe to the island for an inspection trip.

06/19/1970 Resolution No. 241, introduced by Joseph E. Bolgo, thanks the U.S. Navy for providing escort service to the Mayor and Councilmen during their inspection trip to Kaho'olawe.
Restoring a Cultural Treasure

2/19/1971 Resolution No. 52, introduced by Yomoto Yamaguchi, endorses efforts by Senator Daniel K. Inouye to have Kaholo'olawe returned to the State of Hawai'i and the County of Maui.

07/20/1973 Resolution No. 88, introduced by Goro Okama, strongly urges the U.S. Congress to seriously consider the enactment of H.R. 3156, returning Kaholo'olawe to the people of the State of Hawai'i and the County of Maui.

02/06/1976 Resolution No. 76-9, introduced by E. Loy Clukey, requests that the Federal Government return Kaholo'olawe to the State of Hawai'i.

02/06/1976 Resolution No. 76-10, introduced by E. Loy Clukey, requests that the Governor of Hawai'i encourage the Federal Government to relinquish Kaholo'olawe to the State of Hawai'i.

02/11/1977 Resolution No. 77-33, introduced by E. Loy Clukey, requests that the United States Armed Forces immediately stop bombing and/or shelling of Kaholo'olawe.

09/05/1980 Resolution No. 80-142, introduced by Goro Okama, commends Congressman Spark Matsunaga for requesting that the U.S. Navy halt military construction on Kaholo'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 Kaholo'olawe as a bombing target.

08/20/1987 Resolution No. 87-98, introduced by Goro Okama, requests that the U.S. Navy return the island of Kaholo'olawe to the State of Hawai'i and the County of Maui.

06/03/1998 Resolution No. 88-35, introduced by Wayne Nishiki and Goro Okama, relates to RIMPAC military training exercises and the return of the island of Kaholo'olawe to the State of Hawai'i and the County of Maui.

07/20/1990 Resolution No. 90-77, introduced by Goro Okama, requests that the U.S. Navy discontinue use of the island of Kaholo'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 Okama, recognizes August 21-22, 1992, as days of acknowledgment that the sacred island of Kaholo'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 Kaholo'olawe.

08/12/1992 Resolution No. 568-92, 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 Kaholo'olawe as a historically significant place of healing.

Appendixes

Appendix 9. Court Decisions

7/29/1971 Mai I. Mayor Elmer Carvalho and State of the Land file suit in Federal District court to stop the U.S. Navy from bombing Taholo'olawe and request that an environmental impact statement (EIS) be prepared for the Island. Elmer Carvalho, Individual, and as Mayor of the County of Maui, Life of the Navy, and Retired Admiral Thomas R. Hayden, Commander, Air Fleet, Hawaii (Civil No. 71-7393) 11/22/1971 Federal Judge Nils Taves opens hearing on suit. 3/3/1972 Federal Judge Nils Taves requires the U.S. Navy to submit the necessary EIS information for review by the plaintiffs.

04/28/72 U.S. Navy submits its final EIS for Kaholo'olawe.

05/25/72 Federal Judge Nils Taves dismisses the Carvalho, et al. complaint upon receiving the U.S. Navy's EIS.

10/13/1976 Citizens (members of the Protect Kaholo'olawe Association) file suit against the U.S. Navy contending that naval activities on Kaholo'olawe are in violation of environmental laws, historic preservation laws, and freedom of religion practices. (Not Emmett Maki; Emma DeFries; Paul Fujishiro; Warren Mills Haynes, Jr.; George Hohn; Charles Koulentel McNeel, Sr.; Karl Anahau Manut; Adrian Nacac; Katherine B. O'Neal; Walter S. Stute; Lorelie Rito; Herbert F. Sanbas; Richard Susz; and Protect Kaholo'olawe Association v. Donald H. Robb, Secretary of Defense; J. William Middendorf II, Secretary of the Navy; James L. Holloway, Chief of Naval Operations; Ralph W. Westmoreland, Jr., Commander, 14th Naval District; and Thomas B. Hayond, Commander-in-Chief, Pacific Fleet, USN (Civil No. 76-3830)) 09/15/77 Federal Judge Dick Yin Wong issues his partial summary judgments for the plaintiffs and requires that the Navy prepare a new EIS within 45 days and annually thereafter.

12/01/80 Federal Judge William W. Schwarzer issues his Consent Decree and Order containing instructions to the Navy and providing the plaintiffs with access to the island. The decree contains the following sections: (1) Band management plan; (II) operation controls; (IV) archaelogical plan; (V) access; and (VI) miscellaneous.

(Not Emmett Alkan, et al., Defendants v. Harold Brown, et al., Plaintiffs) 02/04/77 Trespass charges are brought by the United States against two Protect Kaholo'olawe Association members for landing on the island. (United States v. Walter Ritke, Jr. and Richard Sanger (Criminal No. 77-00341)) 02/09/77 Trespass charges are brought by the United States against two Protect Kaholo'olawe Association members for landing on the island. (United States v. Karl A. Memet and Glen K. Davis (Criminal No. 77-00188)) 02/10/77 Citizens (members of the Protect Kaholo'olawe Association) file suit to stop military training exercises on Kaholo'olawe. (Walter Ritke, Jr.; Richard Sanger; Lorelie Rito; and Zemeta Sanger v. Harold Naval Operations; Ralph W. Westmoreland, Jr., Commander, 14th Naval District; and Thomas B. Hayond, Commander-in-Chief, Pacific Fleet, USN (Civil No. 77-00343) 02/28/77 Federal Judge Samuel King dismisses suit.
Restoring a Cultural Treasure

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 Mckindsey II, Secretary of the Navy; James L. Holmey, Chief of Naval Operations; Ralph S. Wentworth, Jr., Commandant of the 14th Naval District; and Thomas B. Haywood, 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 Kahalana, 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; Paunani Kahalana; Archdiold Brito, Jr.; Anne Rogers; John Kuenraker; John DeLeon; Anthony Bartel, Jr.; Kathryn Bartel; Terrel Kealohi; Maxine Kahalana; Julie Bronn; Soli Niihue; Carl Bannister, Jr.; and Bart Dow (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. 77-00346))
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 Holm (Criminal No. 77-0085); United States v. Janette Y. Foster (Criminal No. 77-01086); United States v. Earl DeLeon (Criminal No. 77-01087); United States v. Roman Dombriz, 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 Sayger, Jr. v. Jimmy Carter, President of the United States; and W. Graham Clayton, Jr., Secretary of the Navy (Civil No. 77-00059))
08/17/79 Federal Judge dismisses case.

Appendixes

Appendix 10. Estimated Types of Ordnance


B. Types of Ordnance Used
Two types of ordnance are used on the target complex: service (live) and practice ( inert).

Generally, training begins with use of practice ( inert) ordnance until a specified level of competency is achieved and then service ( live) ordnance is used. Training with service ordnance in and will remain a vital requirement to maintain readiness for combat units.

The types of ordnance found on the Kahoolawe Island Target Complex include, by general category:

Rockets
A variety of rockets ranging from 7.2-inch rocket thrown depth charge, 2.75-inch and 5-inch aircraft launched, and 5-inch shipboard-launched barrage rockets have been found. The explosive weights range from 2.3 pounds to 33 pounds and the fuzing mechanisms include impact, variable time, powder time and hydraulic.

Flares
Flares have been and are being used for illumination during night training activities. Flares are either aircraft dropped or shipboard fired 5-inch star projectiles. The illuminating charge weighs about 17 pounds and the fuzing mechanisms include mechanical and power train.

C. Unexploded Ordnance (Duds)
Hazards
The target complex has been used as a live ordnance target since 1941 and has been contaminated with all types of unexploded ordnance. All such ordnance found on the island was originally delivered as designed and should have theoretically detonated. No deactivating feature was incorporated into the munitions and each piece of dud ordnance must be considered live and therefore considered hazardous.

Some of the dud ordnance are now more hazardous because of the type of fuzing mechanism and the increased sensitivity due to exposure to the elements. For example, "cocker striker" fuzing system involves a firing pin held under spring compression until it is released at impact. If the system malfunctions, the firing pin remains cocked and may require only the slightest jar to function. Also, ordnance having "piezoelectric crystal," "anti-disturbance" and "all-ways acting fuzes" may detonate at the slightest disturbance.
Especially dangerous are the small bombs with anti-disturbance fuses 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 103-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 vreck a 9-inch brick wall located 15 feet away. Dud ordnance having lesser and greater amounts of explosives would produce corresponding effects.

Appendix 11. An Alphabetical Listing of Known Place Names

This is a listing of all known place names—traditional, historic, and recent—as described in the KICC special report “The Place Names of Kahoolawe.” Some of the place names are of doubtful origin and should be used with caution. Each known place name is shown in bold print followed by a chronological listing of the name as it has appeared over time, including a reference to the map or document in which it was found.

Ahu‘u Gulch
Ahu‘u Gulch—1926 (U.S.G.S., 1926)
Ahu‘u Gulch—1929 (U.S.G.S., 1929)
Ahu‘u Gulch—1947 (U.S.G.S., 1947)
Ahu‘u Gulch—1970a (Tax Key, undated)
Ahu‘u Gulch—1977 (Motteler, 1977a)
Ahu‘u nui Stream—1975 (Ashdown, 1975)
Ahu‘u Gulch—1978 (Raposa, 1978)
Ahu‘u Gulch—1983 (Motteler, 1983)
Ahu‘u Gulch—1983 (Motteler, 1983)
Ahu‘u Gulch—1984 (U.S.G.S., 1984)

Ahu‘u (ili)
Ahu‘u—1989 (Doc. 1126, undated-9)
Ahu‘u—1977 (Motteler, 1977a)
Ahu‘u—1977 (Motteler, 1977a)

Ahu‘uki Gulch
Ahu‘uki Gulch—1926 (U.S.G.S., 1926)
Ahu‘uki Gulch—1929 (U.S.G.S., 1929)
Ahu‘uki Gulch—1947 (U.S.G.S., 1947)
Ahu‘uki Gulch—1970a (Tax Key, undated)
Ahu‘uki Gulch—1977 (Motteler, 1977a)
Ahu‘uki Stream—1975 (Ashdown, 1975)
Ahu‘uki Gulch—1978 (Raposa, 1978)
Ahu‘uki Gulch—1983 (Motteler, 1983)

Ahu‘upuni (Fishing Ground)
Ahu‘upuni—1902 (Kahanulii, 1902-28)
**Kalama Bay**

- Kalama—1889 (Doc. 1126, undated-
- Kalama—1913 (Stokes, undated-
- Kalama—1916 (Emory, 1916)
- Kalama—1917 (Stokes, 1917)
- Kalama—1926 (L.M.Z., undated)
- Kalama—1926 (U.S.G.S., 1926)
- Kalama—1929 (U.S.G.S., 1929)
- Kalama—1933 (McAllister, 1933; 57)
- Kalama—1947 (U.S.G.S., 1947)
- Kalama—1958 (Motter, 1958)
- Kalama—1983 (Motter, 1983; 84)
- Kalama—1984 (U.S.G.S., 1984)

**Kalama o Kamohali**

- Kalama—1889 (Doc. 1126, undated-
- Kalama—1913 (Stokes, 1913; 59)
- Kalama—1916 (Emory, 1916)
- Kalama—1917 (Stokes, 1917)
- Kalama—1926 (L.M.Z., undated)
- Kalama—1929 (U.S.G.S., 1929)
- Kalama—1933 (McAllister, 1933; 57)
- Kalama—1947 (U.S.G.S., 1947)
- Kalama—1958 (Motter, 1958)
- Kalama—1983 (Motter, 1983; 84)
- Kalama—1984 (U.S.G.S., 1984)

**Kanapou**

- Kanapou—1859 (Kapohonu, 1859a)
- Kanapou—1859 (Kapohonu, 1859)
- Kanapou—1849 (Wylde, 1849)
- Kanapou—1843 (Arrowsmith, 1843)
- Kanapou—1939 (McAllister, 1939; 57)
- Kanapou—1943 (McAllister, 1943; 57)
- Kanapou—1943 (Stokes, 1943; 57)
- Kanapou—1947 (Motter, 1947)
- Kanapou—1958 (Motter, 1958)
- Kanapou—1983 (Motter, 1983; 84)
- Kanapou—1984 (U.S.G.S., 1984)

**Kanapou dili**

- Kanapou—1899 (Doc. 1126, undated-
- Kanapou—1977 (Motter, 1977)

**Kanoe**

- Kanoe—1926 (L.M.Z., undated)
- Kanoe—1926 (Motter, 1926; 84)

**Kanoe Gulch**

- Kanoe Gulch—1926 (U.S.G.S., 1926)
- Kanoe Gulch—1929 (U.S.G.S., 1929)
- Kanoe Gulch—1939 (McAllister, 1939; 57)
- Kanoe Gulch—1947 (U.S.G.S., 1947)
- Kanoe Gulch—1976 (Tax Key, undated)
- Kanoe Gulch—1983 (Motter, 1983; 84)

**Kanuku**

- Kanuku—1867 (Wall, 1867)
- Kanuku—1917 (Stokes, undated-
- Kanuku—1926 (U.S.G.S., 1926)
- Kanuku—1929 (U.S.G.S., 1929)
- Kanuku—1939 (Stokes, 1939)
- Kanuku—1940 (Stearns, 1940a)
- Kanuku—1947 (U.S.G.S., 1947)
- Kanuku—1954 (L.M.Z., 1954)
- Kanuku—1958 (Motter, 1958)
- Kanuku—1958 (Stokes, 1958)
- Kanuku—1976 (Motter, 1976)
- Kanuku—1977 (Stokes, 1977)
- Kanuku—1983 (Motter, 1983)
Restoring a Cultural Treasure

Waiaki
Waiaki Bay—1899 (Doc. 1126, undated-b)
Waiaki b—1913 (Stokes, undated-a)
Waiaki—a—1926 (L.M.Z., undated)
Waiaki—1926 (U.S.G.S., 1926)
Waiaki—1929 (U.S.G.S., 1929)
Papaka—1929 (Unknown, undated)
Waiaki—1933 (McAllister, 1933-58)
Waiaki—1947 (U.S.G.S., 1947)
Waiaki—1970s (Tax Key, undated)
Papaka nui—1970s (Ashdown, undated-a)
Waiaki—1970s (Ashdown, undated-a)
Waiaki—1975 (Ashdown, 1975)
Waiaki—1977 (Motteler, 1977a)
Waiaki—1978 (Raposa, 1978)
Waiaki—1982 (D.M.A., 1982)
Waiaki—1983 (Motteler, 1983)
Waiaki—1983 (Motteler, 1983-5)
Waiaki—1984 (U.S.G.S., 1984)

Waiaki Gulch
Waiaki Gulch—1926 (U.S.G.S., 1926)
Waiaki Gulch—1929 (U.S.G.S., 1929)
Waiaki Gulch—1947 (U.S.G.S., 1947)
Waiaki Gulch—1970s (Tax Key, undated)
Waiaki Gulch—1977 (Motteler, 1977a)
Waiaki Gulch—1978 (Raposa, 1978)
Waiaki Gulch—1982 (D.M.A., 1982)
Waiaki Gulch—1983 (Motteler, 1983)
Waiaki Gulch—1984 (U.S.G.S., 1984)

Waiaki Point
Waiaki 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—1983 (Motteler, 1983)
Wai Honu Gulch—1983 (Motteler, 1983-5)
Wai Honu Gulch—1984 (U.S.G.S., 1984)

Wai Kahalulu
Wai Kahalulu—1857 (Nahaholeha & Richardson, 1857-3)
Wai Kahalulu—1866 (Wall, 1866)
Wai Kahalulu—1889 (Doc. 1126, undated-b)
Luu Puihi—1911 (Conradt, undated-b)
30—1913 (Forbes, 1913)
33 Bay—1913 (Stokes, 1913-12)
Keslakakahi—1913 (Stokes, undated-a)
Wai Kahalulu—1913 (Stokes, undated-a)
33-1913 (Stokes, undated-b)
Luu Puihi—1912 (Stokes, undated-c)
33-1913 (Stokes, undated-c)
Wai Kahalulu Bay—1913 (Stokes, undated-c)
Waiwiliipeapea—1916 (Emory, 1916)
Waiwiliipeapea—1917 (Stokes, 1917)
Wai Kahalulu—1917 (Kawekane, 1917a)
Wai Kahalulu—1917 (Kawekane, 1917b)
Waiwiliipeapea—1925 (Raposa, undated)
Waiwiliipeapea—1926 (L.M.Z., undated)
Waiwiliipeapea—1926 (U.S.G.S., 1926)
Waiwiliipeapea—1929 (U.S.G.S., 1929)
Wai Kahalulu—1929 (Unknown, undated)
Waiwiliipeapea—1933 (McAllister, 1933)
Waiwiliipeapea—1933 (McAllister, 1933-58)
Waiwiliipeapea—1939 (Stearns, 1939)
Waiwiliipeapea—1940 (Stearns, 1940a)
Waiwiliipeapea—1947 (U.S.G.S., 1947)
Waiwiliipeapea—1965 (Klingensmith, 1965)
Waiwiliipeapea—1970s (Tax Key, undated)
Waiwiliipeapea—1983 (Motteler, 1983)
Waiwiliipeapea—1983 (Motteler, 1983-5)
Waiwiliipeapea—1985 (Napoka, 1983-4)
Waiwiliipeapea—1985 (Napoka, 1985-3)
Waiwiliipeapea—1988 (U.S.G.S., 1988)

Wai Lalo
Wai Lalo—1977 (Ashdown, 1977)

Wai Ka ha lulu Stream—1977 (Ashdown, 1977)
Waiwiliipeapea—1977 (Motteler, 1977b)
Waiwiliipeapea—1983 (Motteler, 1983)
Waiwiliipeapea—1984 (U.S.G.S., 1984)

Waiwiliipeapea—1917 (Stokes, 1917)
Waiwiliipeapea—1933 (McAllister, 1933-58)
Waiwiliipeapea—1977 (Motteler, 1977a)
Waiwiliipeapea—1983 (Motteler, 1983)
Waiwiliipeapea—1983 (Motteler, 1983-5)
Waiwiliipeapea—1984 (U.S.G.S., 1984)

Appendices
Appendix 12. Special Reports, Projects, and Consultants


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 Atkin
Tony D. Akloka
B. Ben Bohlool, Ph.D., NiftAL Project and Mireen
Indy Beutner
Thomas R. Cannon, Maui County Cultural Resources Commission
Janis D. Casco, The Whaler
Douglas Codiga
Jan Dayton
Mary Evasion, Sierra Club, Hawaii Chapter, Maui Group
Sherry L. Evans, Na Keiki O Hawai‘i
Bill Feltz
Rik Fitch
Nelson Fuson
Paulani Kanahale
Mathew F. Frambach, dba Administrative Consultant Services
Officer of the Temple of Lono
Cheryl L. Lovell-Otake
Brigit Maguire
Michael M. McPherson
Herbert Paa
David K. Pedro
Palmer Pudy
Linda L. Shackelford
Jack Sharpeston, Honson Company
Michael S. Spalding
Joseph Stevens
Yvonne K. Thompson
Cynthia Winters-Rebula

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
Pili Ani C. Desha, Hawaiian Civic Clubs
Robert Foster
Ellen Garrison

Gregory Arthur Herbst
Iona K. Pu Matsumura
Anna R. Stuart
Randi Wald
Jerome K. Yabuhashi, National Native American Law Students Association, Inc., Tempe AZ

Moloka‘i Public Hearing
April 9, 1991
Mitchell Pauole Center
Kauaikakai, Moloka‘i

Participants
Bobby Acalin
Laura Babal
Harry Chang
Mason K. Coelho
Stacy Crivello
Rhonda Dudoit
Sahoni Elizabeth English
Gertrude K. Frantz
Celeste Elizabeth Galliano
Willma Grumbruch
Sean Gonzales
Larry Helm
Auntie Lanikapi‘ui
Shannon W. Lima
Martin Kahoe
William Kalipi
Halona Kaupuhi
Mole Kim (with slide show)

Kona Public Hearing
April 17, 1991
King Kamehameha Hotel
Kona, Hawai‘i

Participants
Mary Ako
Koiliokoa Dedman
Karen Foy
Rick Gaffney
Pele Hanoe
Jay Hanson
Cliff Hooge
Jeanne Huihui
Stanley Huihui
Cindy Irvine
Pukui Kealewahe
James Kalili
Kai
Ko‘olani‘ekeha O Kahoolau
Kuhelii
Henry K. Keali'i

Appendixes

First Hilo Public Hearing
State Office Building
Hilo, Hawai‘i

Participants
Maniokola Akaka
Gary Alexander
Bonnie Bator
Marie Blyant
Catherine Ann Claye
Michael Helms
Paualani Kanicahle
Dwight Kondi
Kristine Kubot
Holly Lange
Denver Lenman
Craig "Ro" Kahui
Edward Kanatle
Jonathan Naone
Eugene "Geno" Louis Plores
Alvin Pangan
Kawaipuna Prejean
Elizabeth Ramsey
Muke Royes
William Reich
Peggy Ha o Ross
Steven Taxuma
Michael Trask
Milliani Trask

O‘ahu Public Hearing
April 25, 1991
Hawai‘i State Capitol
Honolulu, Hawai‘i

Participants
Keith Ahee
Ann Baginski
Mary Baker
Colonel Wallace Campbell, USMC
Phyliss Cayen
Dave Chun
Charles Dodge
Linda Dunn
Rear Admiral William Earner, USN
Harold B. Estes
Ron Fenstemaker
Roger Furr
Linda Gallano
Councilman Gary Gill
Steven Helea
Paul Heifrich
Dan Herman
Leila Hubbard
Colonel Bob Jackson, U.S. Army
Jo Ann Ka‘akua
Joe Ka‘akua
Ku Kahalaloa
Nedel Kahalu‘u
Kawehi Kanu‘i
Kawahine Kamana‘e
Ekela Kaniaupako
Moses Keale, Office of Hawaiian Affairs Trustee
John Kelly
Marion Kelly
David Klein
Keith Krueger
Kay Larsen
Restoring a Cultural Treasure

Alani Lloyd
Daviana McGregor
Doug Margolis
Thomas Maunapau
Luciano Mineiri
Rodney Morales
Brian Nakamura
Craig Neif
Kihel Nibens
Francis Norris
Franklin Odo
Bob Ogawa
Kalani Oheka
Mel Pestana
James Pitton
Richard Poliella
Lewellen Po'omaikelani
Senator Rick Reed
Rowland Reese
Wayne Sasaki
Leslie Teale
Representative Cynthia Thielen
Captain Walter Tobias
Laurie Veach
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
Hilo, Hawai‘i

Participants:
Jim Albertini
Tom Atkinson
Dana Noeani Bush
Adeline Eaton
Joseph Fanara
Ronald Fujioji
Ole Fujis
Peter Hanabusa
Kelli Kalahana
Lawrence Kahalepoole
Reynolds Kalanaivaho ole, Jr.
Kaliko Kamaile
Gabriel Kealoha
Arthur Kepo'o
Russell Kokubun, Hawai‘i County Council Chairman
Anna Kon
Malie Kiyokiku Ui
Rev. Tuck Wah Kalei Lee
Margaret McGuire
Michelle Kalena Kalani Minchew
Charmane Napelen
Robert Pietrini
Jim Snyder
Mary Sue Umea
Heidi Verrill
Ron Walters
Rich Warnhauer
Jane Kaho‘onani

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

Participants:
Abraham Aiona, Office of Hawaiian Affairs
Lopaka Aliwobi
Patricia Akina
Kristy Apana
Ricky Apana
Jennifer Awai
Maui County Councilman Vince Bagoyo
Christian Elsworth Bal
Margot Berdichevsky
Smokey Burgess
Amy Chang
Kionni Crabbe
Robin Crabbe
Vernon Dannels
Mary Evanon
Keoni Palma
Dana Naeoleen Hall
Roger Hawley
Henry Hilkbrand
Dan Holmes
Buck Joiner
Thelma Kaahai
Rev. Clarence Kamai
William Kennison
Kunio Kobayashi, for Congresswoman
Patsy T. Mink
Leina‘ala Kuloloio
Leslie Kuloloio
Manuel Kuloloio

Appendixes

Pua Mahoe
Charles Maxwell
Vincenzo Mina
Michael Mina
Brian Miskell for Mayor Mayor Linda Crockett-Lingle
Rev. Heather Mueller
Terry Munta
Glenn Nanz
Holokuli Holt Padilla
David Campbell Penn
Kopec Raymon
Elizabeth Ray
Barry Rivers
Hank Roberts
Peter Starbucks
Buckstar Starbucks
Dinah Starbucks
Una Starbucks
Rendell D. Tong
David Ventura
Daniel Vicas
Eileen Wender
Greg West
Jonathan Waxman

Kaua‘i Public Hearing
May 15, 1991
Kaua‘i Community College
Lihu‘e, Kaua‘i, Hawai‘i

Participants:
Danna Aina
Mohala Aina
Clifford L. Arinaga
Hartwell K.K. Blake
Jean Ieli Beniamina
Ted Blake
Donald L. Bode
Denny Bower
Joseph Chang
Denis Chun
David Duncan
Susan Floyd
Wilma Holo
Ed Kawa
Bill Lawrence
Jo-Ann Lei Kalamau
Debra Kimball
Koichi Kikita
John Kikita
Attwood Malikai Makana
Malikai Makanani
Malia Makanani
Lee Menter
Melani Nagao
Peter A. Nakamura, Kaua‘i County Planner
James Nishida
Carmen Panini
Barbara Jean Pigge
Sharon Pomroy
Judith Puana
Henry Smith
Dorothy Tao
Arthur Kauaukolu Trask
Chuck Trembath
Healani Trembath
Charles R. Wichtman, Jr.
Leslie Wilkins, Hawaii Federation of Business and Professional Women’s Clubs, Inc.

Lana‘i Public Hearing
May 30, 1991
Lana‘i Public Library
Lana‘i City, Hawai‘i

Participants:
Dorotegman Biscoy
Joseph Chang
Williamson (Bill) Chang
Martha A. Evans
Kimberly Lee Kukukawala
Lynn Kaho‘ohanaloha
Saul Koh‘ohanaloha
Eliane Komet
Elizabeth Pa Martin
John Ornellas
Glenn Osorio

Hilo Oral Testimony
October 19, 1992
University of Hawai‘i at Hilo
Hilo, Hawai‘i

Jim Albertini
Alan Weeheokalani Alexander
Ian Binnie
Sandra K. Buckles
Paul Burns
Luisa A. Busby
Nalakulaia Kalamaalakalani
Lehuanui Kali Hayes
Gregory Arthur Herbst
Keli W. Levine
Virginia Isbell
Restoring a Cultural Treasure

Maui Oral Testimony
October 21, 1992
Maui County Council Chambers
Wailuku, Maui, Hawai‘i
Margo Berdeshovsky
Susan Bradford
Lesley Ann Bruce
Mei Ling Chang
Mary Evanson
Henry Hildebrand
Dan Holmes
Hokulani Holt-Padilla
Reyn Kamaa
Leslie A. Kukalo
Charles Kauluwelhi Maxwell
Brian Miskae, Maui County Planning Department
Kloe Raymond
Hank Roberts
Burt Sokata
Mark E. Shaffer
Bill Smith
Reene Sylvia
Elaine Wonder

Moloka‘i Oral Testimony
October 22, 1992
Michel Pauole Center
Kaanakoa‘i, Moloka‘i Hawai‘i
Billy Akutagawa
Louella Opunuala Albino
Kevin Fitzsimmons
Wilma K. Grunbusch
Kekama Helm
Larry Helm
Moe K. Kim, Jr.
Collette Y. Machado
Peney Martin
Walter P. Mendes
Raymond Naki
Walter Ritte, Jr.
Diana Uehihi
Wren Wescott

Appendixes

Lanai Oral Testimony
October 26, 1992
Lanai Public Library
Lanai City, Hawai‘i
Lynn Kahoolalakahala
Sol Kahoolalakahala
Elaine Kaopuiki
John Omelias
Irene Perry

O‘ahu Oral Testimony
Tuesday, October 27, 1992
Kuamakapili Church Honolulu,
O‘ahu, Hawai‘i
Scotty Bowman, for Clayton Hee, Chairman,
Office of Hawaiian Affairs
Karen Boyle
Dawn Garenecki
Charles Dodge
Leila Hubbard
Daiviana McGregor
David Martin

Kumari Niihipali
Palani Nohihi
Jon Osorio
Rendell Kulaipono Tong
Laurie Voelch
Kawai Winter

Kaua‘i Oral Testimony
October 28, 1992
Kapa‘a Public Library
Kapa‘a, Kaua‘i, Hawai‘i
Tet Beniamina
Carl Berg
Jack Churchill
David Duncan
Robert Duncan
Alfred Makana
Sharon Pomroy
Joseph H. Reyes
Dorothy Tao
Charles Trembath
Healani Trembath
Kealohakina Pahio Tsukiyama
Appendix 14. Biographies of the Commissioners, Commission Staff, and Legal Counsel

Hannahal Tavares, Chairman
Kaho'olawe Island Conveyance Commission
Chairman Hannahal 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 HanaKapalau 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‘u Owa‘a, 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 Kaluma) 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.

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 1989 and re-elected to in 1994. Trustee DeSoto served in the 1978 Constitutional Convention, was on the Wai‘anae Neighborhood Board No. 24 for two terms, and also served on the Ailik Like Board of Directors. She was also Manager of the Wai‘anae Satellite City Hall of the City and County of Honolulu until she retired in 1992. Known as “Auntie” 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.

H. Howard Stephenson, Commissioner
H. Howard Stephenson is Chairman and Chief Executive Officer of Bancorp Hawai‘i, Inc., and its principal subsidiary, Bank of Hawai‘i. He has been with Bank of Hawai‘i for 34 years. Mr. Stephenson joined the bank's mortgage department in 1959, became Assistant Vice President in 1962; was elected to Vice President of the Mortgage Loan Administration in 1963; was named Senior Vice President of that unit in 1969; and was promoted to Executive Vice President of the Loan Administration Division in 1972. From 1980, until he assumed his current position, Mr. Stephenson served as President of Bancorp Hawai‘i, Inc., and its principal subsidiary, Bank of Hawai‘i.

Throughout his career, Mr. Stephenson has been active in various business, professional, and community associations, including the American Bankers Association, Hawaii Bankers Association, U.S. Japan Business Council, U.S. Korea Business Council, and Association of Reserve City Bankers. He currently serves on the boards of the Aloha United Way, the Honolulu Symphony, the Manulani Foundation, and the Pacific Fleet Submarine Memorial Association, Inc., and is also a member of the trustees of the Elssen Ohnaka Memorial Scholarship Fund; Chairman of the Hawai‘i Business Roundtable; and Chairman of the Board of Regents of the University of Hawai‘i.

Mr. Stephenson was born in Wichita, Kansas, received his undergraduate degree from the University of Michigan in 1958, and graduated with distinction from the School of Law of the University of Missouri, Kansas City.

KICC Staff Members
H. Rodger Beitz, Executive Director
H. Rodger Beitz has had a distinguished career of federal, state, and county service. He served as Regional Director, Region IX, of the Office of Economic Opportunity from 1969 to 1970, and was Deputy Assistant Director of Operations for the Office of Economic Opportunity from 1974 to 1976. From 1973 to 1974, Mr. Beitz was Minority Counsel for the U.S. Senate Committee on Anti-Trust and Monopoly. He also served as a legislative aide to U.S. Senator Hiram Fong and was appointed by President Ronald Reagan as a member of the Native Hawaiian Study Committee in 1981.

In addition, he has been Assistant Attorney General for the State of Hawai‘i and Finance Director and Corporation Counsel for the County of Maui. He is a practicing attorney in the State of Hawai‘i.

Velma M. Santos, Deputy Director
Velma M. Santos has held a number of high-level executive positions and received a number of appointments to positions in the state and county governments of Hawai‘i. Her first election to public office came in 1974, when she became a member of the House of Representatives of the Hawai‘i State Legislature. From 1976 until 1982, Mrs. Santos served as Director of the Maui County Department of Human Concerns. She was elected as a member of the Maui County Council in 1982 and served in that position until January of 1991.

Appendixes

James A. Kelly, Commissioner
James A. Kelly is President of EAP Associates, Inc., a Honolulu, Hawai‘i firm that provides international business consulting services focused on East Asia and the Pacific. Previously, he was Special Assistant for National Security Affairs to President Ronald Reagan, and was Senior Director for Asian Affairs, National Security Council, from March 1986 to March 1989. His responsibilities have included political, economic, and military issues involving all the countries of East Asia and the Pacific, and coordination of Asia/Pacific policy within the executive branch of the United States Government.

From June 1983 to March 1986, Mr. Kelly was Deputy Assistant Secretary of Defense for International Security Affairs (East Asia and Pacific), and was responsible for managing defense policy matters involving the Pacific and Asia, including frequent testimony before committees of the Congress.

Mr. Kelly is a graduate of Harvard University, the U.S. Naval Academy, and the National War College. He served in the U.S. Navy Supply Corps from 1959 to 1962, concluding his active duty as a Captain. He and his family have been residents of Hawai‘i since 1971.

James A. Kelly is President of EAP Associates, Inc., a Honolulu, Hawai‘i firm that provides international business consulting services focused on East Asia and the Pacific. Previously, he was Special Assistant for National Security Affairs to President Ronald Reagan, and was Senior Director for Asian Affairs, National Security Council, from March 1986 to March 1989. His responsibilities have included political, economic, and military issues involving all the countries of East Asia and the Pacific, and coordination of Asia/Pacific policy within the executive branch of the United States Government.

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In addition, he has been Assistant Attorney General for the State of Hawai‘i and Finance Director and Corporation Counsel for the County of Maui. He is a practicing attorney in the State of Hawai‘i.

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Restoring a Cultural Treasure

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 Hawaii 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 1965, and his J.D. from the University of California, Berkeley, School of Law in 1969.