

**THE AHUPUA'A AS A TRADITIONAL HAWAIIAN RESOURCE  
MANAGEMENT MODEL FOR A SUSTAINABLE  
COASTAL ENVIRONMENT**

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Being an isolated island state, Hawaii faces many challenges given finite land and water resources and its import dependence on consumptive resources. In response to these challenges, a rediscovery of the traditional Hawaiian practice for integrated resources management, known as the *ahupua'a* concept, is being embraced by island communities.

Given its jurisdictional boundaries which include all lands (except federal lands) and the waters from the shoreline to the seaward limit of the State's police power, the Hawaii Coastal Zone Management (CZM) Program is in a unique position to comprehensively consider and integrate the principles of this Hawaiian tradition to achieve a sustainable environment. As an island ecosystem, the CZM program is fully aware of the potential impacts that inland activities can have on our coastal resources and therefore, a need to create a sense of community stewardship. The challenge of this work will therefore be to discuss the concept of *ahupua'a* within a historic as well as modern context.

One hundred and seven years after the overthrow of the Hawaiian Nation, an unrest among the native Hawaiian people (*Kanaka Maoli*) has been simmering below the surface like the underlying lava at *Kilauea* Volcano's *Pu'u O'o* vent. Like *Kilauea*, there have been numerous warning signs over time since the illegal overthrow of the monarchy in 1893 (and much earlier with *The Great Mahele* or land division of 1847) as to the increasing volatility of issues facing the Hawaiian community. Warning signs have taken the form of protests and rallies involving civil disobedience with respect to past injustices, statehood, Hawaiian lands, sovereignty, desecration of ancestral burial grounds, and the ongoing resource issues of water and land.

Today, as a result of the determination of many native Hawaiians to assert their cultural independence as a nation and their right to self-determination, significant legal decisions, actions, and formal acknowledgements have brought Hawaiian issues to the forefront. In 1993, the Clinton administration officially acknowledged the illegality of the overthrow, and apologized for America's role in the event. As such, the U.S. Departments of Justice and the Interior have held hearings with native Hawaiians to discuss reconciliation measures. Legal cases, such as the August 1995 Hawaii Supreme Court's decision (*Public Access Shoreline Hawaii and Angel Pilago vs. County of Hawaii Planning Commission*) upholding the rights of native Hawaiians to exercise their traditional and

customary practices from the mountains to the sea, were pivotal in recognizing the inherent rights of an indigenous people to the land. Further, the discontinuation of military bombing exercises and reclaiming of the island of Kaho'olawe from the United States military was a significant victory for the Hawaiian people. More recently, the U.S. Supreme Court's *Rice vs. Cayetano* ruling that the election of Trustees for the Office of Hawaiian Affairs (OHA) by people of native Hawaiian blood only was unconstitutional and must be open to all Hawaii citizens, sent a clear message to the Hawaiian people of the importance of obtaining the same federal recognition and status as the Alaskan natives and American Indians have. Although a seemingly negative ruling for Hawaiian rights, it has actually resulted in an open invitation by the federal government to seriously discuss the framework for establishing a nation within a nation, or other form of indigenous government. These accomplishments and ongoing issues have raised the consciousness of Hawaiians with respect to their native rights and a renewed interest in their cultural heritage.

This awareness continues to be a driving force behind today's Hawaiian issues regarding sovereignty, land, education, and the environment. It has also captured the attention of our island communities as a whole, especially with respect to raising the level of awareness for the environment and the need for more effective resources management. To set the tone for our *ahupua'a* discussion, a common understanding of things "Hawaiian" is imperative.

### **Ho'o Mana'o: To Reflect on the Meaning**

Throughout the world, the word "*Aloha*" is synonymous to Hawaii as the "marathon" is to Boston. Aside from a personal greeting, it is a term that often elicits images of hula girls, leis, surfing, and the shores of Waikiki. But now many throughout the world, or visitors to Hawaii, have actually considered a more profound meaning for the word "*Aloha*" . . . a word imbedded in the very essence of Hawaiian culture.

To the Hawaiians, the word "*Aloha*" is a concept for how we live our life, how we interact with others and our environment, as well as how we perceive our own spirituality and interact with the forces of nature that constantly surround us. It is a tradition that not only embodies these concepts but the idea that all people are of one family and thus the need to practice "*Aloha*" to all. "*Aloha*" teaches us as a society to radiate kindness, affection, compassion, and charity and the belief that all problems can be settled by honest and loving discourse.

In practice, “*Aloha*” can be well described by the following principles:

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|---|--|
| “ <i>Ano</i> ”                                  | To maintain a high sense of moral quality -- “ <i>Ke ‘ano o ka nohona</i> ” or “way of life.”                            |
| “ <i>Lokahi</i> ”                               | To be united and in harmony with nature.   |
| “ <i>Ohana</i> ”                                | To remember that we are of one family.   |
| “ <i>Ho’okipa</i> ” and “ <i>Ho’oponopono</i> ” | To be hospitable and resolve problems harmoniously, but most importantly . . . to forgive.                               |
| “ <i>Aina</i> ”                                 | To maintain and nurture a spiritual love and respect for the land -- “ <i>Aloha ‘aina</i> ” and “ <i>Malama ‘aina</i> .” |

Collectively, the first letters of these principles not only spell the word “*Aloha*” but also embody what the Hawaiians call the “*Aloha Spirit*.” It is this spirit that must be grasped and applied to understand other Hawaiian concepts such as the **ahupua’a**. In fact, the “*Aloha Spirit*” is woven into the very fabric of Hawaiian society and culture.

### **The Ahupua’a: A way of life**

As a sustainable model, the *ahupua’a* is a resources management system that should be given serious attention. Prior to European contact there were 800,000 Hawaiians living in the islands with little to none of the environmental and resource issues that we face today. Presently, Hawaii’s population of 1.2 million is confronted with serious environmental and resource issues, of which “water” is a heated debate. As such, the *ahupua’a* could serve as a model for

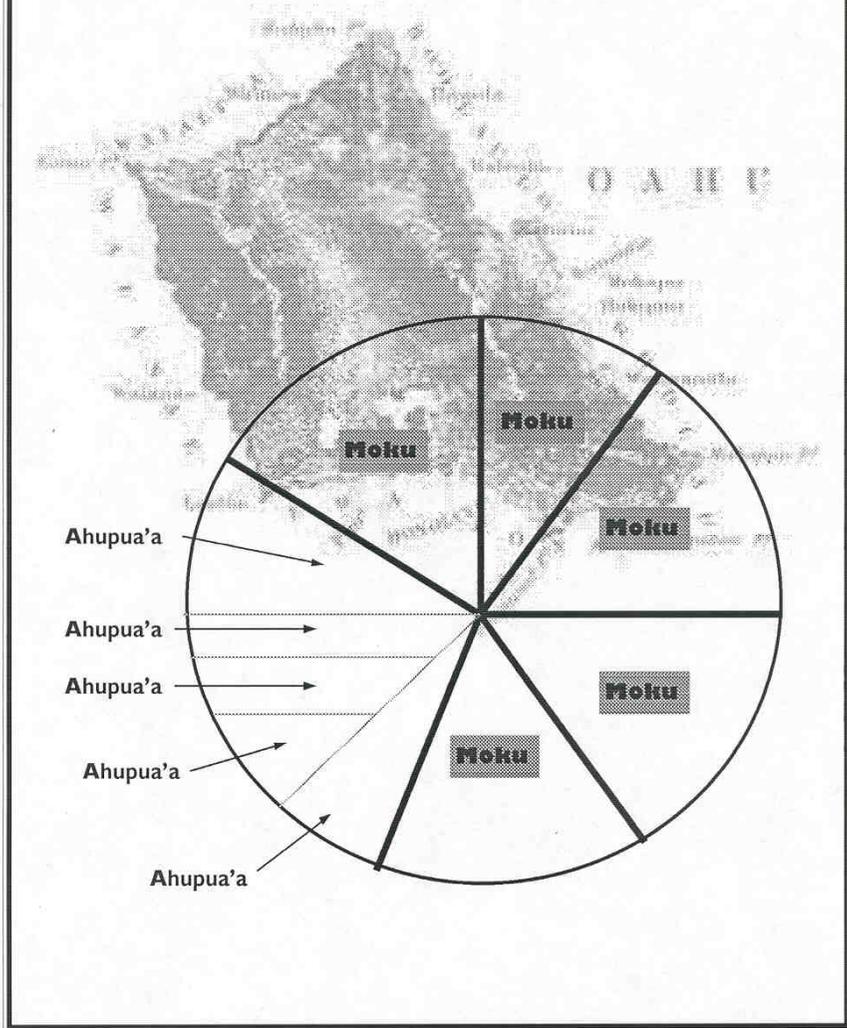
community-based decision-making to promote the community's quality of life rather than short-term economic fixes.

In basic terms, the *ahupua'a* is an ancient land division that runs from the top of the mountain to the sea. The word *ahupua'a* is derived from “*ahu*,” an altar of stones, upon which was placed an image of the head of a *pua'a*, or pig that served as boundary markers. However, as you may already have surmised, the *ahupua'a* means much more. The *ahupua'a* embodies a unique relationship between the Hawaiian people and the land as well as the practical and rational approaches applied to insure the sustainability of the natural environment from overexploitation, pollution and extinction.

According to ancient folklore, or *mo'olelo*, the islands and its people were born of the spirit world by the gods *Papa* (the earth) and *Wakea* (the sky). As such, they share a common origin as living entities. As a living entity, the land is viewed by the Hawaiians as a woman who gave birth to and nurtured the Hawaiian people and whose bosom we will return to upon death. This unique “circle of life” relationship illustrates an inherent symbiotic existence between man and the land. The proverbial Hawaiian saying “if you care for the land, the land will care for you,” typifies this timeless relationship.

In ancient Hawaii, upon the arrival of the first Hawaiians from the Marquesas Islands (approximately 750 A.D.), each of the main Hawaiian Islands were divided into smaller districts or *moku*. For the island of Oahu, there were six districts (see figure 1). Depending on the size of each district, they were further divided into *ahupua'a*, each governed by an *'Aha* Council consisting of practitioners who had specialized knowledge in medicine, agriculture, home and canoe building, and fishing, among other specialties. The size of the *ahupua'a* ranged from as little as 100 acres to thousands of acres. An *ahupua'a* generally extended from the top of the mountain, including all of the watershed bounded by the ridgelines that delineated the sides of the watershed, and extended out into the ocean fronting the watershed (including the fisheries). It includes all of the human activity, physical, mental and spiritual as well as all forms of life – animate and inanimate – as a fundamental holistic approach. The *ahupua'a* contained all the resources Hawaiians required for their existence. Fresh water resources were managed carefully for drinking, bathing, and irrigation. Wild and cultivated plants provided food, clothing, household goods, canoes, weapons, and countless other useful products. Many land and sea creatures utilized for food also provided bones, teeth, skin, and feathers for tools, crafts, and ornamentation.

**Figure 1: Traditional Hawaiian Land Divisions**



The 'Aha Council served as a governing board that maintained and enforced the laws of the land or *Kanawai* (a term derived from the value placed by Hawaiians on water or "*wai*") thereby, insuring the beneficial use and sustainability of resources required for the community to survive. The Hawaiians residing within the *ahupua'a* were free to use its resources but could not take anything from another without the permission from both *ahupua'a* councils. The council was

also consulted on major activities that would impact the land and resources downstream. For example, if a farmer wanted to clear an area of the forest for irrigated agriculture, the council members would utilize their specialized knowledge to advise the farmer as to the best location next to a stream for the construction of water diversion systems, mitigation measure for the loss of plants used for medicine, clothing, ornamentation, and ceremonial purposes, and the spiritual protocol required before permission was granted to proceed.

The laws of the land were practical laws which included insuring that diverted water for wetland agriculture was always returned to the stream so that the nutrients from the fields would enrich the fisheries at the coast and benefit the *loko i'a* or fishpond. In contrast, water in Hawaii has been permanently diverted, resulting in the reduction of year-round flowing streams. Other laws included the restriction of catching specific types of fish during spawning seasons to insure the replenishment of stock; pollution of stream water; and certain restrictions placed on the cutting of trees for canoes and house building. In the event that these laws were broken, individuals were dealt with severely. Punishment for crimes against the laws of the land would involve (1) restricted use of resources; (2) the removal of that person from the land, becoming an outcast (*Kauwa*); and (3) death.

By 1300 A.D., most of the Hawaiian Islands were populated as a result of the arrival of new immigrant polynesians from Tahiti. This new wave of immigrants brought with them a new social class of chiefs or *ali'i* that changed the land management structure but not the basic concepts of *ahupua'a*. The *ali'i nui* or high chief ruled the *mokupuni* or the entire island and would appoint *ali'i 'ai moku* or lower chiefs to rule each district (*moku*). In turn, the *ali'i ai moku* would then choose a lesser ranking chief or *ali'i 'ai ahupua'a* to rule the *ahupua'a*. In some cases the chief of the *ahupua'a* would assume the role of headman or *konohiki* and manage the day-to-day operations of the *ahupua'a*. Together, the headman, assisted by specialists (or *luna*) in the use of water and land boundaries would work hand-in-hand with a master fisherman and farmer to insure the productivity of the *ahupua'a* for the survival of its inhabitants. Resultant from this chiefly system, the role of the 'Aha Council diminished. However, an emphasis was placed on the interrelationships and interdependence between *ahupua'a* to *ahupua'a* and *moku* to *moku* thereby, integrating resources management island-wide.

Regardless of changes in the land management structure over time, the basic principles of the *ahupua'a* remained unchanged. Similarly, as with understanding the word "Aloha," basic beliefs guided the practice of the *ahupua'a* system and were essential to the integral relationships between the environment, man, and the spiritual world. These included the following eight principles:

- “Kai Moana:* Preserve all life in the ocean extending from the shoreline to the horizon.
- Makai:* Respect for the land and resources extending from the shoreline to the sands reach.
- Mauka:* Respect for all land and resources from the sand’s edge to the highest mountain peak.
- Kamolewai:* Respect for all water resources including rivers, streams, and springs and the life within.
- Kanakahonua:* Preserve and respect the laws of the land and each other to insure the community’s health, safety, and welfare.
- Kalewalani:* Respect for the elements that float in the sky including the sun, moon, clouds, stars, wind, and rain which guide the planting and fishing seasons, provide water, and that create the tides and directions for ocean navigation.
- Kapahelolona:* Preservation of the knowledge of practitioners.
- Ke’ihi:* Preservation and respect for the sacred elements including deities, ancestors, the forces of nature, and ceremonial activities.” (Kumu John Ka’imikaua, 2000)

Hawaiians believe that without an understanding and acceptance of these eight principles, it would be difficult to achieve the unity of spirit required to practice the *ahupua’a* concept. The Hawaiians weave a cord called *‘aha*, that requires braiding eight strands of sennit. Alone, each strand is weak . . . but together they form a sturdy and strong rope. Each strand of this rope represents one of the eight principles above and were mutually applied throughout everyday Hawaiian life.

The *ahupua’a* concept is a practical and rational approach to resources management that conforms with the existing geography and its resources rather than altering them for human convenience. For example, swampy land areas were used in their natural state for wetland agriculture and dry land regions were used for growing more drought tolerant crops such as sweet potato. As such, the need to alter the land and divert water was minimized to insure the life of the stream and land. Other examples of rational *ahupua’a* practices involved a

reciprocal approach to the use of resources. For instance, when a *koa* tree was cut down to build a canoe, ten more young *koa* trees were planted to take its place in order to insure the preservation of this resource, to maintain the integrity of the watershed, and to prevent erosion.

*Ahupua'a* in practice is really about (1) instilling appropriate values that allow people to make the right choices for not only themselves but for society; (2) community-based efforts that involve *ahupua'a* tenants or people with localized knowledge in the decision making process and who have a personal stake in their *ahupua'a*; (3) creation of partnerships and the involvement of stakeholders that united can begin to examine existing western governmental and legal structures in order to weave the *ahupua'a* principles throughout; and (4) perpetuating this practice from generation to generation.

### **Ahupua'a and Watershed Approach: A Perspective**

The rediscovery of the *ahupua'a* as a viable resource management tool is relatively a new trend in Hawaii. Historically however, the concept is founded in over a thousand years of Hawaiian heritage. The same holds relatively true for the nation's watershed approach which shares similarities with the *ahupua'a* concept. Comparatively, the *ahupua'a* and watershed approach have many common principles and objectives with respect to attaining a sustainable environment through a systems approach, community-based decisions and involvement, and the centrality of water as not only a resource but a necessity for survival.

During the late 1800s, a visionary by the name of John Wesley Powell, whose efforts as a scientist, geographer, and explorer led to the creation of the U.S. Geological Survey and the Bureau of Ethnology, understood the significance of the watershed based not only on its geologic, but political and social characteristics as well. Powell defined the watershed as "that area of land, a bounded hydrologic system, within which all living things are inextricable linked by their common water course and where, as humans settled, simple logic demanded that they become part of the community."<sup>1</sup> (Brown, 1997) A revolutionary idea for the period that took only 130 years for our nation to realize . . . . better late than never! Powell's vision was also aimed at promoting "watershed-wide conservation efforts based on cooperation, involvement of all stakeholders, and acceptance of and reliance on the facts that science and observation provide."<sup>2</sup> (Brown, 1997) These two thoughts bear a striking resemblance to the Hawaiians as actual co-habitants with their environment linked by the need to maintain their land, water, and ocean resources for survival and the involvement of the community and knowledge of their practitioners.

What has brought both the *ahupua'a* and the watershed concept to the forefront is based upon trends that have caused us to rethink our current approach to dealing with environmental problems. Although, environmental efforts began with good intentions to practice a holistic approach, it quickly became compartmentalized and attention was spent on individual issues such as air and water quality, endangered species, waste management, fisheries, etc. rather than the actual symptoms that were common to all. Today, indisputable scientific knowledge, an increase in environmental hazards, and the recognition of habitats and natural areas has resulted in a more “systems” view of resource issues. Furthermore, community-based solutions and leadership involving all stakeholders and partners have become increasingly more prevalent given continued government downsizing of which Hawaii has not been immune to over the past ten years. These trends have made it obviously clear that a holistic approach involving stakeholder participation is essential to a clear understanding of the socio-cultural, political, and economic aspects of an *ahupua'a* or watershed. A driving force behind both approaches has been the issue of water since it is paramount to the survival of all life and central to the theme of a sustainable environment. As the Hawaiians say, “water is life.”

Although there exists similarities between the two concepts, the *ahupua'a* is unique with respect to being land as well as ocean-based. As such, Hawaii is in an exceptional position to take a comprehensive approach that incorporates impacts “downstream” with respect to terrestrial watershed as well as the marine environment. The *ahupua'a* is also unique because it maintains its sense of place (i.e., names, legends, features, etc.) that makes it easier for people to associate with on a personal basis. Regardless of these unique qualities, Hawaii will continue to look at the nation’s watershed approach as it continues to develop a framework for an *ahupua'a*-based resources management structure.

### **Ho’ala Hou: Looking to the Future**

Whether we are speaking of the *ahupua'a* or the watershed concept, there are numerous efforts underway across the nation and in Hawaii to approach resources management in a holistic fashion. In Hawaii, the *ahupua'a* concept is being applied as a model for ecologists seeking improved resource management capabilities for projects such as the *Hanalei* Heritage River Initiative that is transcending western ecological, scientific and social science discipline boundaries in place of culturally-based decision making. Other projects, such as the *Pu'uwa'awa'a Ahupua'a* project, are partnering with the community and other major stakeholders such as the State of Hawaii, County of Hawaii, The Nature Conservancy of Hawaii, Big Island ranchers, conservationists, and hunters, among others to look at an *ahupua'a*-based system of management that would allow for mixed-uses. The multi-use plan for *Pu'uwa'awa'a* would transform an *ahupua'a* that was mainly used for ranching into an area that would

accommodate bird and mammal hunting; access for gathering forest materials; hiking and camping; protection of native species; preservation of archaeological sites; and public education. Through this approach, the *ahupua'a* would function as a model with respect to how economic, social and environmental goals can be achieved for dry land forests around the world. Yet another, the *Haena Ahupua'a* Project, proposed by Save Our Seas, is looking at developing a contemporary marine resources management plan along a traditional Hawaiian cultural theme to develop community-based stewardship. The project's goal is to establish an underwater habitat preservation through an integrated coastal management framework based on the *ahupua'a* concept. An ongoing urban *ahupua'a* effort is the *Ala Wai* Watershed project which is applying culturally-based concepts through the involvement of stakeholders at the community level to clean up Hawaii's most polluted water body . . . the *Ala Wai* Canal.

These are but a few of the growing examples in Hawaii where the *ahupua'a* concept has begun to bring communities together in the spirit of cooperation to address complex issues that not only cross political, but jurisdictional boundaries as well. We must continue to build on these efforts to establish an island-wide integrated resources management system that will (1) yield better environmental results; (2) generate increased public support; and (3) save time and money.

The first step in establishing an island-wide *ahupua'a* resources management framework will be the involvement of all stakeholders. Undoubtedly, this will be the most difficult task. Efforts are already underway by organizations such as the Ahupua'a Action Alliance, Malama Hawaii, and State Office of Planning and Office of Environmental Quality Control, as well as other numerous public and private groups and individuals to create a network of partners and stakeholders. The task of this network will be to set forth a framework that clearly defines the overall mission, goals, and objectives of the *ahupua'a* concept as well as management options that can be used to communicate the benefits of this approach and encourage further stakeholder involvement. The framework may include the establishment of a quasi-public agency such as an Ahupua'a Resources Management Authority (ARMA) that would have (1) a Board of Directors that consist of Hawaiian practitioners, government officials, and non-government representatives from each *mokupuni* or island; (2) island-wide jurisdictional review and approval powers with respect to projects requiring land use and environmental permits; (3) oversight and coordination of state-wide Ahupua'a Councils consisting of "people recognized by community service organizations and practitioners (crafters, fishers, farmers) who possess the knowledge regarding that particular ahupua'a,"<sup>3</sup> (Goodell, 1999) who would provide input into the review and approval process; (4) enforcement powers to establish appropriate and effective *kanawai* that would send a clear message of zero tolerance for harmful environmental acts that impact the health, welfare and safety of the entire island community; and (5) the necessary flexibility to attain

an adequate mix of federal, state, county, corporate, and philanthropic funding sources to support agency operations and to realize taxpayer savings.

Once this initial framework is established and agreed upon, it will be incumbent upon all stakeholders to use their related expertise and experience to begin to examine Hawaii's existing government structure and laws. As with other States, Hawaii is not immune to the morass of bureaucracy, seemingly endless process, and multi-jurisdictional fiefdoms that we have created and have become entrenched in. This is the ultimate challenge . . . to redefine jurisdictional and political boundaries by communities rather than by government departments, agencies, divisions, special projects, attached agencies, and so on . . . . .

Development of this framework will undoubtedly bring us face to face with the past again as we begin to educate the community on the principles of the *ahupua'a* and as we examine historic management elements such as the 'aha council and its potential modern applications. "Practical" and "rational" are the behaviors that the *ahupua'a* concept is trying to perpetuate. To borrow a quote from John Maynard Keynes, "We will always do the rational thing, but only after exhausting all other alternatives."<sup>4</sup> (Brown, 1997) As with the word "Aloha," the *ahupua'a* is more than just a meaning but rather a way of living that insures a balance with our environment.

The *ahupua'a* is a concept that "sings" because it retains its sense of place; a name that people can relate to; it has history and legends associated with every animate as well as inanimate object; and it has its own unique beauty and diversity. As such, the *ahupua'a* is an approach that allows the community to take ownership and become effective stewards for the land, ocean, and its resources. To end, I would like to quote Bonnie Goodell who defines sustainability as "no longer believing that one's worth is defined by what is kept for one's self through the deprivation of others." (Goodell, 1999).

### References

Andrade, Carlos, "Concepts That Can Inform And Augment Management of Watershed Activities," Heritage River Hanalei (HRH), <http://www.hawaiian.net/-cbokauai/hanalei/ahu.html>.

Brown, Christopher N., "The Watershed Approach: Making the transition from corridors to watersheds," Vol. 7, no. 4, Winter 1997.

Colten, Lee, "Why a Watershed Approach?," Kentucky Division of Water, Governor's Conference on the Environment, October 30, 1996.

Feher, Joseph, "Hawaii: A Pictorial History," Bernice P. Bishop Museum Special Publication No. 58, Bishop Museum Press, Honolulu, 1969.

Goodell, Bonnie, "Community Councils and Ahupua'a: Resurrecting Community Thinking," 1999.

Ka'imikaua, John, Kumu Hula, Halau Kukunaokala, 2000.

Pukui, Mary Kawena and Elbert, Samuel H., "Hawaiian Dictionary," University of Hawaii Press, Honolulu, 1986.

Save our Seas, "Haena Ahupua'a Information Page, Project Summary and ABSTRACT", [http://planet-hawaii.com/sos/Haena\\_ahupuaa.html](http://planet-hawaii.com/sos/Haena_ahupuaa.html).

Save Our Seas, NGO News, Clean Oceans Conference, June 1997.

TenBruggencate, Jan, "Plan calls for sharing forest land," Honolulu Advertiser, April 4, 1999.

Williams, Julie Stewart, "From the Mountains to the Sea," Kamehameha Schools Press, Honolulu, 1997.

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