



# Foundation Document

## Kaloko-Honokōhau National Historical Park

Hawai'i

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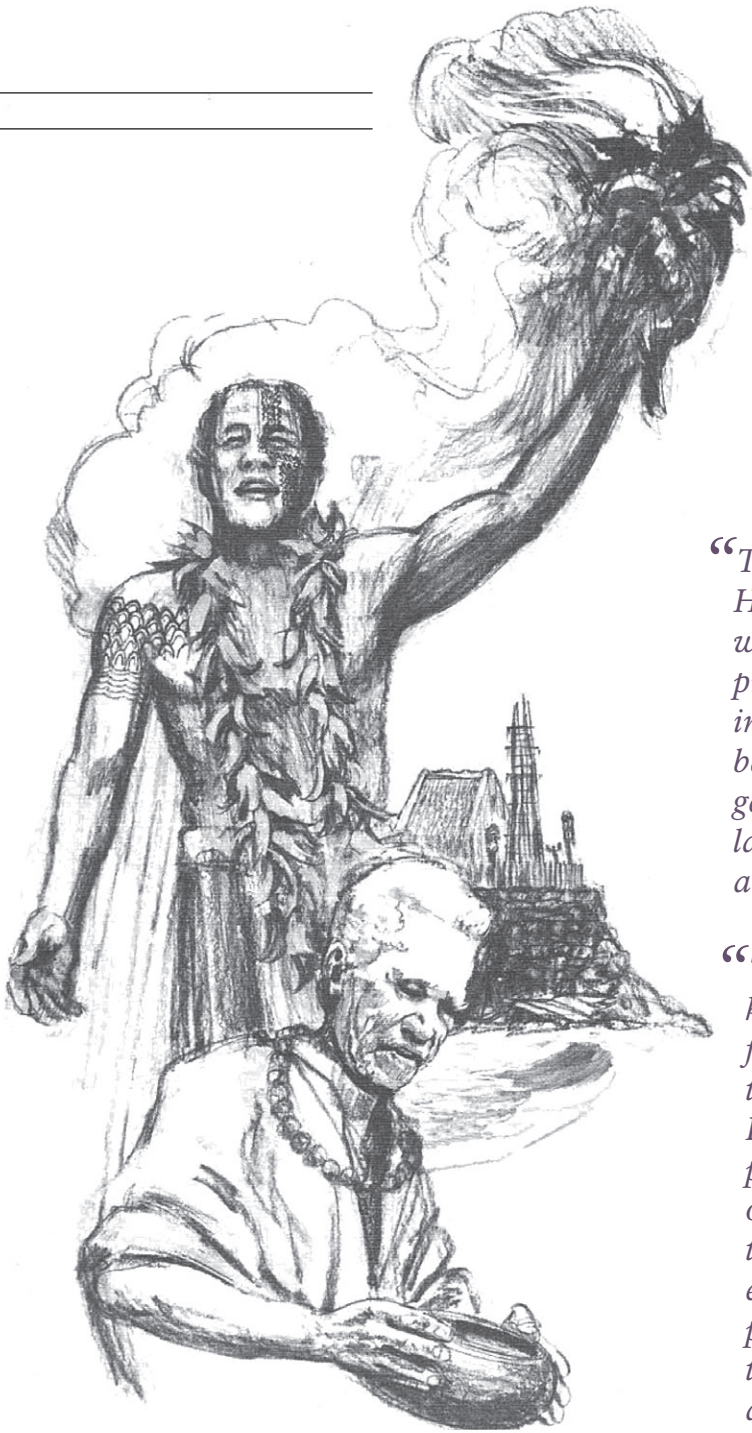




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“There was a spirit in Ka-loko, Hono-kō-hau. The Hawaiians who first came to the area felt its presence in every rock and tree, in the gentle waters of the shallow bays, and in the tradewinds that gently swept across the prehistoric lava flow. They touched the spirit and felt its mana (power).

“The spirit of Ka-loko, Hono-kō-hau was its life, the life that flowed in its land and the water that washed upon its shore. Like Hawaiians who found its presence elsewhere, the people of Ka-loko, Hono-kō-hau let the spirit become part of their existence. They lived in such perfect harmony with it that they became a singular, total, and inseparable environment.”

(The Spirit of Ka-loko Hono-kō-hau, 1974, pages 2 and 3.)

## Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



*The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.*

## Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Kaloko-Honokōhau National Historical Park can be accessed online at: <http://insideparkatlas.nps.gov/>.



## Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, other important resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Note: In this document, Hawaiian words are italicized on first mention but not afterward, per common use. In addition, “Native Hawaiians” is capitalized in this document, except in direct quotations of the enabling legislation.

This foundation document, by necessity, uses different spellings for Kaloko-Honokōhau National Historical Park. The above spelling is the official name of the park. However, certain documents and legislation spell the name in different ways, and this document consistently uses those alternate spellings when quoting or referencing those sources.

### Brief Description of the Park

Kaloko-Honokōhau National Historical Park is located on the west coast of the Island of Hawai‘i, approximately 3 miles south of the Keahole International Airport and 3 miles north of the town of Kailua-Kona. In 1972 Congress authorized the Honokohau Study Advisory Commission, comprised primarily of Native Hawaiians, to advise Congress and the Department of the Interior on the desirability and feasibility of establishing a unit of the national park system at the Honokōhau Settlement National Historic Landmark. The result was *The Spirit of Ka-loko Hono-kō-hau: A Proposal for the Establishment of a Ka-loko Hono-kō-hau National Cultural Park*, which was completed in 1974 and is commonly referred to as the Spirit Report.<sup>1</sup>

Kaloko-Honokōhau National Historical Park was designated in 1978. As described in its enabling legislation, the park was established “to provide a center for the preservation, interpretation, and perpetuation of traditional native Hawaiian activities and culture, and to demonstrate historic land use patterns as well as to provide a needed resource for the education, enjoyment, and appreciation of such traditional native Hawaiian activities and culture by local residents and visitors.” In the legislation Congress further directed the National Park Service to manage the new park “generally in accordance with the guidelines provided” in the Spirit Report. To this day, the Spirit Report remains the park’s primary guiding document.

1. The title of the original (1974) Spirit Report placed the kahakō on the second “o” in Honō-ko-hau, but later editions corrected it to Honokō-hau. When citing the Spirit Report, this foundation document uses *The Spirit of Ka-loko Honokō-hau*, consistent with the 40th anniversary edition.





Within its approximately 1,200-acre boundary, the park protects the site of an ancient Hawaiian settlement, the coastal portions of five different *ahupua'a* (traditional Hawaiian land divisions extending from the mountains into the sea), and a great concentration and variety of tangible and intangible resources that attest to the Hawaiians' presence on the land. *Kānaka maoli*<sup>2</sup> (Native Hawaiians) who once lived in this settlement possessed in-depth knowledge of their natural environment and demonstrated great ingenuity in adapting this seemingly inhospitable environment to their use. The people employed ingenious fishing and agricultural practices, and built large ponds to raise fish as a source of food. Some of the coastal pools provided an underground water source to support a settlement of people. The spirit of the *poe* (people) and the knowledge of the *kūpuna* (elders) created a tradition of respect and reverence for the area. Among the park's diverse resources are *loko i'a* (two fishponds and a fishtrap that were used for food production), *kahua* (house site platforms), *ki'i pōhaku* (petroglyphs), *heiau* (temples), graves, and a network of historic trails. As expressed in the Spirit Report, these resources are "not just a few token archeological representations of the Hawaiian culture, but the historic site of an entire community that existed as an entity within the boundaries of the *ahupua'a* but tied as well to adjacent communities of similar structures. It is a stage upon which the Hawaiian way of life was first performed centuries ago." This distinctively Hawaiian way of life persisted for centuries, but almost disappeared after European contact and settlement. Today Kaloko-Honokōhau National Historical Park provides opportunities to learn about Hawaiian culture and offers a much-needed venue for the practice and perpetuation of traditional skills and knowledge.

The park's rich natural abundance and diversity further draw people to this special place, where they may spot rare native plants and wildlife. The endangered *ae'o* (Hawaiian stilt) and *'alae ke'oke'o* (Hawaiian coot) make their home in the 'Aimakapā Fishpond. Several species of migratory waterfowl visit the park every year to overwinter at 'Aimakapā Fishpond. Along the shoreline, local residents and visitors may watch for juvenile *honu* (Hawaiian green sea turtles) feeding in the shallows and migratory shorebirds foraging along the shore, or on occasion may encounter an *'Iioholoikauaua* (Hawaiian monk seal) basking on the beach. Vibrantly colored corals and fish are seen by those who explore the park's waters offshore.

Although Kaloko-Honokōhau National Historical Park is a place that all people may visit and appreciate, it has particular significance to Hawaiians. As expressed in the Spirit Report, the park provides an opportunity to "restore the cultural identity" of Hawai'i. Through its preservation and management, the park enlarges "the horizons of people throughout the state, nation, and beyond." Today the Hawaiian spirit is strong again and is celebrated and nurtured at Kaloko-Honokōhau National Historical Park.

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2. This document uses the term *kānaka maoli* to refer to Native Hawaiians. There are also a variety of other terms in common usage that reflect different cultural and political meanings for Native Hawaiians.



## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Kaloko-Honokōhau National Historical Park was drafted through a careful analysis of its enabling legislation, legislative history, and the Spirit Report that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on November 10, 1978 (see appendix A for enabling legislation and subsequent amendments). The purpose statement lays the foundation for understanding what is most important about the park.

*Through stewardship of the ʻāina (land) and wai (water), KALOKO-HONOKŌHAU NATIONAL HISTORICAL PARK serves as a kīpuka<sup>3</sup> (island of life) for the perpetuation and practice of traditional Native Hawaiian activities and culture, for the education, enjoyment, and appreciation of local residents and visitors.*



3. In common usage, a *kīpuka* is a protected place or oasis within a lava flow where life is able to thrive. This foundation document describes Kaloko-Honokōhau National Historical Park as a *kīpuka* or a “cultural *kīpuka*”—a protected area spared from modern development where traditional Hawaiian activities and culture can thrive.

## Park Significance

Significance statements express why a park’s resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Kaloko-Honokōhau National Historical Park, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Kaloko-Honokōhau National Historical Park. All significance statements were inspired by the Spirit Report. (Please note that the sequence of the statements does not reflect the level of significance.)

- *Ola i ka wai* (water is life). Kaloko-Honokōhau National Historical Park preserves intact the historic site of a Hawaiian community sustained largely by groundwater. Without an underground flow of freshwater, the barren and harsh lava landscape would have been unsuitable for human settlement; yet hidden within the land flows this water of life. Water is the dynamic thread that continues to tie the environment and people together.
- Although small in size, Kaloko-Honokōhau National Historical Park contains an astonishing variety of rare, native ecosystems that support threatened, endangered, and candidate species, as well as myriad culturally significant species. From dryland forest, anchialine pools, brackish fishponds, natural wetlands, and coastal strand to coral reefs, the park offers a glimpse of Hawai‘i’s unique, and vanishing, natural diversity and abundance.
- *He ali‘i ka ‘āina; he kauwā ke kanaka* (The land is a chief; man is its servant).<sup>4</sup> Kaloko-Honokōhau National Historical Park, a rare “cultural kīpuka,” connects practitioners, descendants, community, and visitors to the land and to each other.
- Designated a national historic landmark, Kaloko-Honokōhau National Historical Park features a rich abundance, variety, and concentration of cultural and historic resources in their natural setting that demonstrate a coastal Hawaiian settlement prior to and immediately after contact with Western civilization in 1778. These features illustrate Hawaiian culture and heritage, and vividly portray the traditional relationship between people and nature.
- Kaloko-Honokōhau National Historical Park was established for and remains committed to the preservation, interpretation, and perpetuation of traditional Native Hawaiian activities and culture. The park’s diverse resources represent a Hawaiian way of life and culture that continues to evolve, and uniquely contributes to our national heritage.
- Kaloko-Honokōhau National Historical Park is the only unit of the national park system with three distinct types of loko i‘a (two fishponds: a *loko kuapā* and a *loko pu‘uone*); and a *loko ‘umeiki* (fishtrap). The park’s three fishponds illustrate ingenious engineering, aquaculture techniques, and practices of the past and offer opportunities for Hawaiian aquaculture to thrive into the future.

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4. (‘Ōlelo No‘eau. *Hawaiian Proverbs and Poetical Sayings: Collected, Translated, and Annotated by Mary Kawena Pukui*, #531, pp 62.) Mary Kawena Pukui translates this as “The land is a chief; man is its servant” which she interprets as, “Land has no need for man, but man needs the land and works it for a livelihood.”

## Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Kaloko-Honokōhau National Historical Park:

- **The Spirit of Kaloko-Honokōhau.** Since long before written history, a strong spirit of life has flowed through the land and waters of Kaloko-Honokōhau. Hawaiians saw and felt this spirit in every element of the environment that surrounded and sustained them. Visitors and local residents who experience the park's contemplative setting, beautiful scenery, and natural sounds can feel the spiritual life force. Keeping alive the spirit requires protecting this unique sense of place, and perpetuating traditions and teachings by handing them down to the next generation. As the Spirit Report explains, "The Hawaiian settlement at Ka-loko, Hono-kō-hau did not just survive. It thrived, because the ancient Hawaiians touched and understood the spirit but did not disturb it. They nurtured the spirit tenderly, like a rare and precious plant, and grew it until it filled everything around it with its being." (The Spirit Report, page 7.)



- Cultural Landscape.** The cultural landscape at Kaloko-Honokōhau National Historical Park is an enduring expression of the inseparable connections between Native Hawaiians and their environment. It is a place where the inhabitants adapted to and protected their surroundings. The Honokōhau Settlement, nominated in 1962 and listed in 1966 as a national historic landmark, contains both human-made features (cultural resources such as heiau, historic trails, and stone planters) and natural features such as vistas, night skies, water, land, and wildlife. In the traditional Hawaiian worldview, natural and cultural resources are fundamentally intertwined. The park’s cultural landscape provides tangible evidence of past features and patterns of use that illustrate a traditional and thriving Hawaiian coastal settlement. Traditional Hawaiian concepts of land use and land division are evident in the landscape, with portions of five ahupua‘a (traditional Hawaiian land divisions): Kealakehe, Honokōhau, Honokōhau Iki, Kaloko, and Kohanaiki. Each ahupua‘a extends from sea to mountain containing most of the resources needed to sustain people living there. The Hawaiian people lived in self-sustaining communities that relied on fresh and brackish water supplies, sea and fishpond harvests, and upland cultivation of sweet potatoes, taro, breadfruit, and sugar cane. Although a comprehensive cultural landscape inventory has not been completed, contributing elements of the park’s cultural landscape include the historic setting, spatial organization, historic viewsheds, and archeological sites and features.
- Cultural Practices.** Kaloko-Honokōhau National Historical Park preserves a place to cultivate the spirit. Kūpuna, the lineal and cultural descendants of the Kaloko-Honokōhau region, Native Hawaiian practitioners, community members, and volunteers all keep the spirit alive through their cultural practices and continuing connections to this special place. The park provides a place for Native Hawaiians to relive the finest hours of their ancestors, empowering them with *kuleana* (responsibility) to ensure stewardship and respect for all things spiritual and physical. With the concept of *mālama ‘āina*, caretakers nurture the land to ensure the continuation of resources necessary to sustain life for present and future generations. Early Hawaiians practiced environmental adaptation and engineering through the construction of fishponds, agricultural planters, and fishing *ko‘a* (traditional fishing grounds) and were further sustained by a variety of natural food sources. Subsistence activities were balanced with recreational and religious activities. Oral history narratives and traditions provide present and future generations with opportunities to understand the relationship shared between people and their environment.





- Loko I‘a (Fishponds and Fishtrap).** Early on, Hawaiians conceived the practice of using ponds and bays for catching and farming fish. As far as is known, the development of fishponds for true marine aquaculture in the Pacific is unique to Hawai‘i. At Kaloko-Honokōhau, Hawaiians developed three loko i‘a (two fishponds: a loko kuapā and a loko pu‘uone); and a loko ‘umeiki (fishtrap) to collect and raise a secure source of food. The construction and use of these loko i‘a demonstrated the Hawaiians’ ingenuity and in-depth understanding of their resources. These fishponds are representations of high-status authority and reflect the importance of the Kona District in Hawai‘i Island politics of traditional times.

At the Kaloko Fishpond, an approximately 17-acre pond / wetlands complex, a great *kuapā*—a massive, dry-set stone wall is constructed across an ocean embayment, the largest and widest in the state. The *kuapā* has been rehabilitated using modern and traditional techniques and materials. Rehabilitation is conducted to preserve the historical integrity, configuration, and function of the loko i‘a while preserving opportunities for traditional reuse. Kaloko Fishpond is connected to the sea through two *‘auwai kai* (channels) affording access for fish and circulation of water. When used, a *mākāhā* (sluice gate) prevents passage of larger fish back to the sea.

The ‘Aimakapā Fishpond operated in much the same manner, except that the pond, a loko pu‘uone, formed naturally behind a sand berm, rather than being enclosed by a *kuapā*. ‘Auwai kai dug through the berm to the ocean in historic times are evident today. At approximately 30 acres, ‘Aimakapā is the largest natural fishpond / wetland complex on Hawai‘i Island and is a rare example of a pu‘uone-style fishpond. In addition to its significant cultural history, ‘Aimakapā is one of only two natural fishpond / wetland complexes on the Kona Coast that has supported large numbers of endangered waterbirds in the past.

‘Ai‘ōpio Fishtrap’s stone walls are constructed across a small bay, forming an enclosure around the naturally curving shoreline. Inside ‘Ai‘ōpio, four rectangular walled enclosures are situated near the sandy shore of the pond. Today, these three loko i‘a are defining features of the park, provide important habitat for threatened and endangered species such as the ae‘o (Hawaiian stilt; *Himantopus mexicanus knudseni*), and ‘alae ke‘oke‘o (Hawaiian coot; *Fulica americana alai*), and offer the opportunity for traditional Hawaiian aquaculture to continue in the future.

- Anchialine Pools.** Anchialine pools are rare worldwide. Within the United States, anchialine pools are found only in Hawai‘i’s coastal areas. Kaloko-Honokōhau National Historical Park contains more than 185 known anchialine pools, an estimated 25% of the state’s known anchialine pool resources. Although these brackish coastal pools lack a surface connection to the ocean, their hydrologic connections to groundwater and the sea are apparent as pool water levels rise and fall with the ocean tides. Anchialine pools provide habitat for a distinctive set of native species, including mollusks and crustaceans, such as ‘ōpae ‘ula (*Halocaridina rubra*), a small, endemic species of red shrimp. Hawaiians used the pools for a variety of functions, including drinking, irrigation, holding fish, and bathing.
- Native Biodiversity.** From coastal dryland forest, brackish fishponds, anchialine pools, natural wetlands, and coastal strand to vibrant coral reef, the park offers a glimpse of Hawai‘i’s unique, and vanishing, natural diversity and abundance. Kaloko-Honokōhau National Historical Park’s diverse array of rare, native ecosystems supports native and culturally significant species, including 16 species that are protected under the Endangered Species Act or are candidate species for listing. Notable among the variety of rare ecosystems protected within the park are coastal wetlands, which are rare statewide and particularly on geologically young Hawai‘i Island; and dry coastal shrublands, a critically rare ecosystem statewide. More than 90% of Hawai‘i’s coastal shrublands have been lost to urban development and displacement by invasive species.
- Wai (Water).** Kaloko-Honokōhau National Historical Park is a small park, yet it contains a diverse array of water resources including seaward-flowing groundwater, anchialine pools, traditional Hawaiian fishponds, brackish wetlands, and coastal marine waters. These water resources are hydrologically connected and therefore interdependent. An abundant supply of fresh, clean water is critical to support the resources and values for which the park was established, and to support coastal ecosystems, fisheries, tourism, and recreation throughout the wider area. As stated in the Spirit Report, water is the “dynamic thread that ties the environment together.” The land, sea, and sky act as carriers for this valuable resource and make possible human settlement. Ancient Hawaiians, perceiving the necessity of water on isolated islands, oriented their land-sea use patterns to the water cycle. “Each ahupua‘a developed around a recognition that all of its elements were interdependent. What affected the *mauka* (toward the mountain) regions affected the *makai* (toward the ocean). What affected the neighboring ahupua‘a affected it. What affected the land affected the fishponds and the sea. What affected the water cycle affected the total environment. This is the way it was and is at Ka-loko, Hono-kō-hau.” (The Spirit Report, page 51.)
- Marine Waters.** Approximately half of the park is comprised of marine waters, 600 acres spanning from Noio Point (south of Honokohau Harbor) to Wāwahiwa‘a Point in Kohanaiki ahupua‘a. The nearshore waters and the resources they contain are an integral part of the park. The early Hawaiians maintained a relationship with the ocean that was vital to their way of life. From ancient times to present day, Hawaiians used these waters as a major source of food and careful management was practiced to sustain the resource. Kaloko-Honokōhau National Historical Park is one of four national park units in the Pacific Islands containing a coral reef ecosystem, and is the only national park in Hawai‘i with extensive coral habitat. The submerged lands are managed by the State of Hawai‘i and the waters within the park boundary are subject to NPS jurisdiction. The marine waters of the park are a part of the national system of marine protected areas. The abundant marine life in park waters includes five species protected under the Endangered Species Act: the ‘ilioholoikauaua, Hawaiian monk seal (*Monachus schauinslandi*), *nā koholā*, the humpback whale (*Megaptera novaeangliae*), the Hawaiian insular false killer whale (*Pseudorca crassidens*), the *honu ‘ea*, hawksbill sea turtle (*Eretmochelys imbricata*), and the honu, Hawaiian green sea turtle (*Chelonia mydas*).

## Other Important Resources and Values

- **Partnerships.** Collaboration is essential to the success of Kaloko-Honokōhau National Historical Park. Partnerships enable a wide variety of individuals and organizations to connect with the park and directly contribute to, improve, and enhance the research, interpretation, and stewardship of park resources and the perpetuation of the Hawaiian culture.
  - **Community.** The park collaborates with a diverse community of people and organizations, including kūpuna, lineal and cultural descendants of Kaloko-Honokōhau, Native Hawaiians, Native Hawaiian organizations, volunteers, resource stewards, cultural practitioners, visitors, and commercial permit holders. Community members play essential roles in fulfilling the park’s mission, fostering a shared sense of stewardship, and sharing *mo’olelo*, traditional ecological values, knowledge, and practices.
- **Nā Hoa Pili O Kaloko-Honokōhau.** In the park’s enabling legislation, Congress established an advisory commission, *Nā Hoa Pili O Kaloko-Honokōhau*, to advise the National Park Service “with respect to the historical, archeological, cultural, and interpretive programs of the park.” As stated in the legislation, “The Commission shall afford particular emphasis to the quality of traditional native Hawaiian culture demonstrated in the park.”
- **Hawai‘i Pacific Parks Association (HPPA).** This nonprofit organization manages the park’s bookstore and provides supplementary staffing at the visitor contact station as in-kind, program service aid to the National Park Service. The association also provides aid to the National Park Service in the form of cash donations and direct expenditures to support interpretation, educational programs and publications, research projects, and cultural activities at Kaloko-Honokōhau National Historical Park and at other cooperating national park units in Hawai‘i.
- **Ala Kahakai National Historic Trail.** Designated by Congress in 2000 for the preservation, protection, and interpretation of traditional Native Hawaiian culture and natural resources, this 175-mile corridor and trail network traverses more than 200 ahupua‘a and hundreds of ancient Hawaiian settlement sites, including the entirety of Kaloko-Honokōhau National Historical Park. Although it is managed separately by the National Park Service as part of the national trails system, managers of the Ala Kahakai National Historic Trail and Kaloko-Honokōhau National Historical Park work together to accomplish resource management goals and often support each other at park-based community events.
- **Public Agencies and Research Institutions.** A variety of local, state, national, and international agencies and research institutions partner with park scientists, community members, and cultural practitioners to conduct research in the park and integrate traditional and indigenous knowledge, including “citizen science.” The results of these efforts aid park management on a wide range of subjects. In particular, the National Park Service is a member of the Hawai‘i-Pacific Islands Cooperative Ecosystems Study Unit (HPI-CESU), and partners with member universities and nongovernment organizations to conduct research and provide technical assistance and educational activities that further stewardship of Pacific Island parks.



## Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park significance statements and fundamental and other important resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The Spirit Report provides high-level direction for interpretation at Kaloko-Honokōhau National Historical Park. For example, the Spirit Report states that there are valuable lessons that can be learned from ancient Hawaiian culture, and that the interpretive opportunities that exist in the park, “can offer a fine example of how one group of people, the Hawaiians, lived in such harmony with their environment that there were always enough natural resources to provide for their physical needs.” (page 22.) Moreover, the Spirit Report recommends that the park’s primary interpretive theme should be, “the Hawaiian culture—including the Hawaiian language, land and sea ethic, fishpond culture, family system, ancient chants, dances, crafts, and the important part religion played in these and other cultural activities.” (page 36.)

In developing the following interpretive themes for Kaloko-Honokōhau National Historical Park, the National Park Service looked to the Spirit Report for guidance and inspiration. Interpretive themes are often extracted from foundation documents and used “standalone” in other contexts. For this reason, all Hawaiian words are italicized in the interpretive themes.

- Since long before recorded history, Hawaiians have had an intimate relationship with the *‘āina* (land), *wai* (water), and *kai* (ocean) based on an understanding of the natural cycles of the environment gained through observation and experience, which allowed them to thrive in this seemingly inhospitable environment.
- Hawaiians, recognizing that all earth’s elements are interdependent, divided the land into *ahupua‘a* (land divisions) that stretched from *mauka* to *makai* (the mountains to the ocean), and encompassed the necessities of life. Hawaiians knew that what happens on the mountain, happens in the sea—*Ko kula uka, ko kula kai*.
- The people of Kaloko-Honokōhau were skilled stewards of the environment, honoring the relationships between humans, nature, and the gods through the construction of Kaloko and ‘Aimakapā fishponds and the ‘Ai‘ōpio fishtrap, which provided habitat for fish that sustained people physically and spiritually.
- The spirit of life flows through this land in the form of water—the *kai* (ocean) washes upon its shore and the *wai* (water) collects in pools fresh enough to drink—nurturing and sustaining plants, animals and the people who depend on them for survival.
- Kaloko-Honokōhau National Historical Park is a “cultural *kīpuka*,” a protected place amid urban development where *mana*, the enduring life force of the people, connects cultural practitioners, descendants, community and visitors to the land and to each other.
- The abundance of ocean resources in ancient times is evidenced today in the *wahi pana*, sacred spaces where *lawai‘a* (fishermen) expressed their gratitude and spiritual connection to ancestors through cultural practice and prayer.



## Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental and other important resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

### Special Mandates and Designations and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Kaloko-Honokōhau National Historical Park.

For information about the existing special mandates and designations and administrative commitments for Kaloko-Honokōhau National Historical Park, please see appendix C.

### Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park's fundamental and other important resources and values, and to develop a full assessment of the park's planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including Geographic Information System (GIS) data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental and other important resources and values (see appendix B)
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental and other important resources and values, and the identification of key issues lead up to and support the identification of planning and data collection needs.

## Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value. Please see appendix B for the analysis of fundamental resources and values.

## Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental and other important resources and values. For example, a key issue may pertain to the potential for a fundamental or other important resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but which still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Kaloko-Honokōhau National Historical Park and the associated planning and data needs to address them:

- **Realizing the Vision of the Spirit Report.** As directed by the enabling legislation, supported by community members and the National Park Service, and confirmed by the park's General Management Plan (1994), the Spirit Report provides the guiding vision for the development and management of Kaloko-Honokōhau National Historical Park. The Spirit Report envisions Kaloko-Honokōhau as a living cultural park—a place where Native Hawaiian culture is practiced, perpetuated, and shared with visitors. At times, the Spirit Report recommendations conflict with federal regulations and park management is committed to working with park partners to realize the vision of the Spirit Report.
  - a. **Nā Leo Kahiko Cultural Center.** Strengthening and developing existing and future partnerships and collaborations is necessary to create the Nā Leo Kahiko Cultural Center as envisioned in the Spirit Report. The construction, operation, maintenance, and program development of the cultural center are priorities. Cultural center program development and implementation are not contingent on the physical construction of the center. To move forward, it is crucial to develop a formal partnership agreement with a nonprofit organization that will work with the National Park Service to operate and maintain the center and its programming.
  - b. **Ability to Provide Access to Sites and Resources for Cultural Practices.** Many cultural practices take place in visitor-access areas of the park; however, some do not. Since the park's designation in 1978, park managers have strived to strike a balance between the needs of cultural practitioners who desire unannounced and unlimited access to park resources and cultural sites for religious and cultural purposes, and the National Park Service's mandate to ensure human safety and the protection of resources. Out of concern for the natural and cultural resources under federal law and policy, the National Park Service restricts public access to the majority of the park. However, this restriction has hindered cultural practitioners' ability to access areas without constraint. Consultation and collaboration with practitioners and guidance from Department of the Interior are needed to determine how to best provide access for cultural practitioners while ensuring the protection of the park's resources and safety of visitors.



- c. **Hiring Native Hawaiians.** The Spirit Report envisioned the park as being primarily managed and interpreted by Native Hawaiians. Increasing Native Hawaiian involvement in park management and interpretation is crucial; Native Hawaiians are uniquely suited to tell their own story and participate in the perpetuation of their own culture. Although the Spirit Report recommends a Native Hawaiian hiring preference, the enabling legislation of the park does not provide a regulatory mechanism to allow for preferential hiring of Native Hawaiians. Selecting officials must operate in compliance with Office of Personnel Management regulations for all hiring decisions. Therefore, career development tools to attract, hire, and retain Native Hawaiians must be further developed to promote these opportunities.
- d. **Community Outreach and Engagement.** Park managers are looking for new opportunities and strategies to reach and engage with park stakeholders in meaningful and mutually beneficial ways. Especially important are events that provide an opportunity for lineal and cultural descendants to celebrate their family connections to the place and share their *mana‘o* (ideas and opinions) with park managers. The park would benefit from a cultural liaison position to ensure that park practices, events, activities and publications are culturally sensitive and appropriate. To educate, communicate, and inspire community members the park website should be enhanced, social media presence expanded, and other avenues for outreach explored.
- *Associated high priority planning needs:* community engagement, stewardship, and partnerships plan; Nā Leo Kahiko Cultural Center design and concept plan; fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā; long-range interpretive plan; Native Hawaiian hiring and involvement strategy

- **Management of Loko I‘a Fishponds.** The fishponds of Kaloko-Honokōhau National Historical Park provide evidence of the Hawaiians’ skills in manipulating their local environment for food production and management. Traditional management of the fishponds as part of the Nā Leo Kahiko Cultural Center would be a major step toward fulfilling the vision of the Spirit Report. The Kaloko Fishpond kuapā (wall) has been rehabilitated and the National Park Service is preparing for the next steps of traditional aquaculture management. ‘Aimakapā and its environs are identified by the U.S. Fish and Wildlife Service as “core wetland” habitat necessary for the recovery of the endangered ae‘o (Hawaiian stilt) and the endangered ‘alae ke‘oke‘o (Hawaiian coot). Management of ‘Aimakapā as both a core wetland and traditional fishpond will be a more complex effort than the management of the other fishponds in the park. The National Park Service has initiated a comprehensive effort to remove nonnative, invasive plants and animals from the 30-acre fishpond / wetland / anchialine pool complex. This restoration is a major step toward fulfilling the vision of the Spirit Report. The ‘Ai‘ōpio Fishtrap area receives heavy visitation and use, and is subjected to impacts from recreational users who might not recognize that it is a cultural site and historic feature.

- *Associated high priority planning needs:* climate change adaptation strategy; community engagement, stewardship, and partnerships plan; Nā Leo Kahiko Cultural Center design and concept plan; fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā; long-range interpretive plan; Native Hawaiian hiring and involvement strategy

- **Cooperative Conservation Beyond Park Boundaries.** Kaloko-Honokōhau National Historical Park is located north of the town of Kailua-Kona, second-largest town on the Big Island, and one of the most rapidly growing areas in the state. Since the park was authorized in 1978, the majority of the State of Hawai‘i land-use zoning designation around the park has changed from “Conservation” to “Urban.” The Hawai‘i County Land Use Pattern Allocation Guide reveals that new medium- and high-density residential areas, and light-industrial commercial areas, comprise the long-range development plan for the areas surrounding Kaloko-Honokōhau National Historical Park. Currently, multiple developments are proposed, or are under construction, in the vicinity of the park that may add thousands of housing units, light-industrial and commercial areas, and a hospital. Land-use activities are sources of water, air, noise, and light pollution, and may affect the availability of groundwater to flow into the park’s pools, fishponds, and nearshore waters. Urban development also fragments the cultural landscape and degrades the cultural and natural viewsheds from the park, potentially affecting visitor and cultural practitioner experience, and sense of place in the park.

The enabling legislation for Kaloko-Honokōhau National Historical Park states that the Secretary shall consult with and may enter into agreements with neighbors of the park and local governments “to establish adequate controls on air and water quality and the scenic and esthetic values of the surrounding land and water areas.” The Secretary is directed to utilize the traditional ahupua‘a concept of land and water management to the maximum extent feasible in forming these agreements. Consequently, the National Park Service is committed to working with neighboring landowners and agencies to protect the viewsheds, air and water resources, cultural landscape, and other resources of the park and ahupua‘a as the lands around the park are developed.

The National Park Service will continue to address potential threats to the park’s air, water, night sky, soundscape, viewshed, plant and wildlife, and other cultural resources stemming from urban development and other anthropogenic activities by reviewing the environmental review documents of development projects, establishing agreements with neighboring landowners, and participating in state and county proceedings to establish protective conditions and best management practices to protect Hawai‘i’s natural and cultural resources in the area of Kaloko-Honokōhau National Historical Park.

- *Associated high priority planning needs:* climate change adaptation strategy; community engagement, stewardship, and partnerships plan; cooperative conservation strategy

- **Management of Marine Resources.** The Kaloko-Honokōhau National Historical Park boundary extends from Noio Point (south of Honokohau Harbor) north to Wāwahiwa‘a Point. The submerged lands are managed by the State of Hawai‘i and the waters within the park boundary are subject to NPS jurisdiction (36 CFR 1.2[3]). The mouth of the Honokohau Small Boat Harbor opens into park waters, but the harbor itself is excluded from the park boundary. Fifteen state-owned day-use mooring buoys are located within the park. The park’s enabling legislation affirms that the National Park Service shall consult with the State of Hawai‘i and may enter into a cooperative management agreement for the submerged lands within the park marine boundary. The National Park Service has an excellent working relationship with the State Division of Aquatic Resources (DAR) in West Hawai‘i; however, no action beyond initial meetings has been taken regarding a cooperative management agreement. The National Park Service and the state have entered into a cooperative agreement to study the recruitment of corals along the West Hawai‘i coast. This long-term study has been underway for more than 10 years. There is a general lack of awareness in the community of the park’s marine boundaries, and recreational users (snorkelers, SCUBA divers, paddle boarders, kayakers, fishing vessels) are frequently unaware they are within a national park. Management of commercial-use snorkel / SCUBA tours by NPS special-use permit is a goal, although all commercial operators are also managed by both the State Division of Boating and Ocean Recreation and the United States Coast Guard. NPS law enforcement rangers enforce state fishing regulations and work cooperatively with the state Division of Conservation and Resource Enforcement officers. Park managers are concerned about the effects of land-use activities on the coral reef ecosystem and its resiliency to the effects of climate change. Park managers are also concerned about declining fish biomass and abundance in the park, particularly given the easy fishing access from the adjacent harbor. A potential approach to addressing this issue is to work with the state Division of Aquatic Resources, Division of Conservation and Resources Enforcement, and with community fishers toward a form of community-based fisheries stewardship in the park.
  - *Associated high priority planning needs:* climate change adaptation strategy; community engagement, stewardship, and partnerships plan; cooperative conservation strategy; long-range interpretive plan



- **Removal of Nonnative Invasive Species.** Because of their geographic isolation and volcanic origins, the Hawaiian Islands are a unique location whose native species are found nowhere else in the world. In Hawai‘i, native species are considered to be those that arrived without assistance from humans. Native species evolved in isolation over the 70 million years of the islands’ volcanic history. Polynesian-introduced species were brought to Hawai‘i by the first humans to arrive on the islands. Both native and Polynesian-introduced plant species have a place in the park. As a result of years of work removing nonnative species and restoring native plant species, Kaloko-Honokōhau National Historical Park retains a small coastal dry-shrubland community more representative of precontact Hawai‘i than most of the west coast of the Big Island, and has eradicated the invasive red mangrove from the three fishponds. However, maintenance of these restored areas requires continual work and many invasive species remain in the park. Additionally, new species arrive in Hawai‘i regularly, posing new threats to native species.

  - *Associated high priority planning needs:* climate change adaptation strategy; community engagement, stewardship, and partnerships plan; cooperative conservation strategy; fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā
  
- **Climate Change Impacts.** The changing global climate portends profound changes to natural cycles and systems with related impacts on natural and cultural resources, access, infrastructure, and environmental conditions. As a coastal park, Kaloko-Honokōhau National Historical Park is affected by both sea-level rise and island subsidence. The cultural resources in Kaloko-Honokōhau National Historical Park are vulnerable to erosion and destruction from sea-level rise and especially storm surges. The park shoreline is already impacted by high surf and storm events, and these are projected to worsen with climate change. Sea surface temperatures are predicted to increase, which increases the vulnerability of coral reefs to bleaching. Ocean acidification, which is also predicted to increase, dissolves corals and the shells of many marine species. On land, average annual temperature is expected to increase. Rainfall models differ in their predictions of average annual precipitation. Changes to temperature and precipitation are likely to impact natural and cultural resources, including freshwater supply.

  - *Associated high priority planning needs:* climate change adaptation strategy; community engagement, stewardship, and partnerships plan; cooperative conservation strategy; fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā; long-range interpretive plan



## Other Important Issues

In addition to the key issues described above, several other important park issues were identified:

- Providing for the Protection of Resources and the Safety of Employees and Visitors.** Kaloko-Honokōhau National Historical Park is located in an area of urban growth on the north side of Kailua-Kona, Hawai‘i. Hawai‘i County’s Land Use Pattern Allocation Guide shows that the long-range plan for the areas surrounding the park is for medium- and high-density residential and urban development, indicating that population is expected to continue growing and will put additional pressure on the park. A dramatic increase in the numbers of homeless individuals on Hawai‘i Island and an increase in crime, specifically in Kailua-Kona, are affecting the park with higher occurrences of illegal camping, vandalism, and resource impacts. The park’s proximity to the Honokohau Small Boat Harbor, highway, airport, and urban areas combined with its unrestricted boundaries and shoreline access facilitate pedestrian nighttime and early morning use. Concerns include illegal fishing, poaching of sea turtles (protected by state and federal law), damage to cultural sites and natural resources, and the personal safety and security of employees and visitors.
- Recruiting and Retaining a Knowledgeable and Experienced Staff.** As a cultural park, it is important to employ and retain staff with an in-depth understanding of Hawaiian culture and history. However, without a preferential hiring authority for Native Hawaiians or local residents, NPS hiring officials must often select employees, particularly “seasonal” employees from outside the state, who have limited experience in Hawai‘i and lack this knowledge. There is no seasonal cycle of new employee orientation and training events because park operations and visitation continue year-round. In addition, continual employee turnover creates additional work to train each new hire. Recruitment and retention of qualified employees is challenging, particularly for law enforcement positions. The high cost of living and limited housing markets are barriers to some employees. Because of its small staff size, park employment does not provide an NPS career ladder for employees who do not wish to leave Hawai‘i for other opportunities or promotions within the National Park Service. Some existing programs can help to attract and retain local staff. For example, the Hawai‘i Island Parks’ Hawaiian Legacy Program facilitates the transfer of knowledge and skills in traditional Hawaiian trades such as stone setting and house construction from trade masters to the next generation of employees and community members.
- Accessibility.** Many features of the park are not accessible to people with disabilities. The nature of the historic landscape and features, built on and out of lava rock, present particular difficulties to providing accessibility while preserving resource integrity and visitor experience. A recent accessibility review of the park provided recommendations for interpretive amenities to expand offerings for all visitors, including people with a wide range of disabilities.



## Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, oral histories, ethnographies, resource studies, research activities, and park-use analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources are identified as data needs. Geospatial mapping tasks and products are included in data needs.

Planning and data needs considered of the utmost importance were identified as high priority, and other needs identified, but not rising to the level of high priority, were listed as either medium- or low-priority. These priorities inform park management efforts to secure funding and support for planning projects.

**Criteria and Considerations for Prioritization.** The following criteria were used to evaluate the priority of each planning or data need:

- Emergency or urgency of the issue
- Help support the purpose of the park
- Protect fundamental resources and values or prevent resource degradation
- Enhance visitor experience
- Address multiple interrelated issues
- Opportunities, including interagency or partner assistance

## High Priority Planning Needs

### Nā Leo Kahiko Cultural Center Design and Concept Plan.

*Rationale* — An immersive cultural center for in-depth cultural education, perpetuation, and training is at the heart of the vision of Kaloko-Honokōhau National Historical Park. Both the Spirit Report and the 1994 General Management Plan call for a place to be developed in the park where Hawaiians and others can participate and recreate, over a period of a day or more, the traditional Hawaiian ways. This cultural education complex is to be set apart from visitor activities occurring in the park to allow the participants to immerse themselves in the Hawaiian culture. Following a 2013 environmental assessment, which tiered from the general management plan and specifically examined the location, construction, and operation of the cultural center, the National Park Service selected a new site for the center. The Nā Leo Kahiko Cultural Center design and concept plan will address next steps: developing programming and developing detailed construction and operation plans and agreements as required.

*Scope* — The overall goal of the Nā Leo Kahiko Cultural Center buildings and programming would be to provide a place for concentrated cultural perpetuation, education, and intensive training and development of cultural practitioners. The Nā Leo Kahiko Cultural Center design and concept plan would have two major components that would be developed as a coordinated effort but able to stand apart. The first component would be a detailed development plan for the physical construction of the cultural center. This plan is needed in order to compete for funding for the construction of the center. The second component would plan for the programming and operation of the cultural center. Because it may take several years to secure funding and complete the construction of the center, the programming and operation component will take a phased approach. In phase 1, it would consider programming and activities to be implemented in the near-term (likely day use). Phase 2 would include the programming and operations of the cultural center once the buildings are complete. All components of the plan will be developed with the advice of Nā Hoa Pili and in close coordination and consultation with partners and the Native Hawaiian community.



### Community Engagement, Stewardship, Partnerships Plan.

*Rationale* — Partnerships, stewardship, and community engagement are essential to achieving the purpose of Kaloko-Honokōhau National Historical Park as a living cultural park. Although community engagement is ongoing, a plan describing mutual goals and clear direction would be beneficial.

*Scope* — The community engagement, stewardship, and partnerships plan would establish a framework to identify and attract new partners, increase stewardship through the cultural center programs and volunteerism, and better engage and retain long-term community stewardship. The plan would also explore ways to improve outreach to additional segments of the community who are not currently engaged with the park. The plan would use a facilitated process, working with partners and community members, to identify challenges and sensitive issues, set mutual goals, and determine prioritized actions to meet those goals.

Particular topics to address include how community groups, individuals, and the park staff would work together to be stewards of park resources and encourage cultural practices in the park. Through this process, the plan would develop and strengthen lasting partnerships with local communities with mutual benefits, vigorous collaboration, and processes for conflict resolution.



### Long-Range Interpretive Plan.

*Rationale* — The current long-range interpretive plan is out of date and does not include current communication methods, nor does it address cultural interpretation, natural resource interpretation, or ways to partner with Native Hawaiian organizations for interpretation. A long-range interpretive plan is needed to identify effective, efficient, and practical ways to address interpretation, education, and visitor experience goals and issues.

*Scope* — A long-range interpretive plan provides a vision for the future (5–10 years) of interpretation, education, and visitor experience opportunities. The long-range interpretive plan would confirm the park’s interpretive themes, describe visitor experience goals, and recommend a wide variety of both personal contact (programs, personal contacts) and non-personal contact (interpretive media and facilities) interpretive services and outreach activities that will best communicate the park’s purpose, significance, themes, and inspire visitors. A key factor is communication via multiple formats to reach a diversity of audiences. Web resources and social media can be leveraged for some audiences, while more traditional print and personal media would reach others. Native Hawaiian community members would be consulted as part of the planning process, and the plan would explore opportunities for cooperative interpretation. Nā Hoa Pili is tasked with advising on the historical, archeological, cultural, and interpretive programs of the park. The commission affords particular emphasis to the quality of traditional Native Hawaiian culture demonstrated in the park.



### **Fishpond Management Plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā.**

*Rationale* — The Kaloko, ‘Ai‘ōpio, and ‘Aimakapā Fishponds differ in their construction, their historical operation, their resources of concern, and in the complexity of their natural ecosystems. The Spirit Report and the 1994 General Management Plan lay out the management emphasis for each pond. A separate management plan for each fishpond is needed to define their future management. The plans would enhance cultural practices and practical learning, and through the cultural center, could serve as a catalyst for the expansion of cultural practices in the park.

*Scope* — The primary goal of the plans would be to develop community management of the ponds through the cultural center programming. The fishpond management plans would address the topics of roles and responsibilities, traditional aquacultural operations, harvest levels, pond infrastructure and environmental habitat maintenance, resource protection, human access, and levels of development to support these activities. The plans would address additional resource management concerns, such as the removal of nonnative fish, plants, and introduced predators; the restoration of native plants; the protection and restoration of cultural sites; the monitoring of fish populations before and after harvest; appropriate protocols; and the protection of habitat for native and endangered birds.

### **Native Hawaiian Hiring and Involvement Strategy.**

*Rationale* — As a park whose primary purpose is to interpret and sustain Hawaiian culture, involving Native Hawaiians in the management and day-to-day operations of Kaloko-Honokōhau National Historical Park is essential. Although community involvement and volunteers are an important component of sustaining cultural practices and successful resource preservation, volunteers have limited time to donate. The park’s enabling legislation recommends the hiring of Native Hawaiians, although it does not mandate it, which means that per federal law, Native Hawaiians cannot be given preference during the application process.

*Scope* — A Native Hawaiian hiring and involvement strategy would explore what other possible mechanisms might be available to involve Native Hawaiians in the park beyond direct hiring through the federal system, as well as ways to mentor and train students for competitive positions with the National Park Service. Possibilities to explore might include increased outreach to local students to encourage participation in programs that confer eligibility for noncompetitive conversion, such as Pathways, or alternative hiring authorities. This plan could build on the existing diversity hiring plan.



### Climate Change Adaptation Strategy.

*Rationale* — Climate change is a key issue at Kaloko-Honokōhau National Historical Park. Park resources are directly affected by sea-level rise in combination with island subsidence and increased storm surge. Changes in precipitation and temperature also have the potential to impact the park’s ecosystems. A park climate change scenario planning exercise has been completed. The development of an adaptation strategy, informed by additional climate change modeling in consultation with park descendants and others, is essential for making decisions about how to treat park resources as they are affected by a changing climate. Additional climate change data are needed to inform a climate change adaptation strategy that includes traditional knowledge.

*Scope* — A climate change adaptation strategy would provide concrete recommendations and decision points for specific risks to individual resources. The strategy would take the form of a living strategic plan. The adaptation strategy would employ climate-smart conservation principles to assess climate vulnerabilities, establish conservation goals, and identify, evaluate, and prioritize adaptation actions. The strategy would also provide guidance for monitoring adaptation action effectiveness, as well as monitoring for “trigger points” that would prompt a reevaluation of goals or implementation of new actions. Park staff will require the assistance of NPS climate scientists to develop this plan.

### Cooperative Conservation Strategy.

*Rationale* — The National Park Service is committed to working together with neighboring landowners and agencies to protect the viewsheds; air, water, and marine resources; cultural landscape; and other resources of the park and its five ahupua’a. The enabling legislation for Kaloko-Honokōhau National Historical Park directs the Secretary of the Interior (via the National Park Service) to work with neighbors and local governmental agencies and to utilize the traditional concept of ahupua’a of land and water management in order to achieve this goal. Since the creation of the park multiple adjacent and upslope developments have been proposed that have the potential to negatively affect nationally significant cultural and natural resources. Park staff actively engage with neighbors, stakeholders, and local governments to address potential impacts from these developments and seek cooperative solutions to eliminate, minimize, or mitigate them. The staff have accumulated a considerable amount of institutional knowledge, which could be lost with employee turnover. A cooperative conservation strategy will document past efforts and outcomes for cooperative conservation, make recommendations on resource issues to monitor closely, establish checklists and standard procedures for participating in local and state administrative proceedings, list scientific studies and references, and establish a tracking system for future efforts.

*Scope* — The strategy would have two components. The first component would document standard approaches and procedures for cooperative conservation and for responding to a suite of potential resource impacts. This would include descriptions of potential actions the National Park Service can take, and their timing, for engaging with and responding to various types of external developments that may impact NPS resources. This component would also include an inventory describing past NPS efforts to address threats to park resources from external activities, their outcomes, and existing agreements for the protection of resources. The second component would establish a record-keeping system and describe how efforts to engage in cooperative conservation should be tracked and documented in the future.

Planning Needs	Priority (H, M, L)
Nā Leo Kahiko Cultural Center design and concept plan	H
Community engagement, stewardship, and partnerships plan	H
Long-range interpretive plan	H
Fishpond management plans for Kaloko, 'Ai'ōpio, and 'Aimakapā	H
Native Hawaiian hiring and involvement strategy	H
Climate change adaptation strategy	H
Cooperative conservation strategy	H
Accessibility plan	M
Community-based marine fisheries management plan	M
Marine spatial/temporal-use planning	M
Park-wide cultural-use access plan	M
Resource stewardship strategy	M
Restoration / management plan for anchialine pools	M
Risk assessment and response planning for potential chemical releases from highway or light industrial area	M
Wayfinding and signage plan	M





Data Needs	Priority (H, M, L)
Assessment of effects on park biodiversity by introduced invertebrates (ants, wasps) and low-environmental impact control methods	M
Boundary study	M
Climate data	M
Cultural landscape inventory for the larger region	M
Ecosystem response studies	M
Effectiveness and analyses of potential environmental effects of nonchemical and chemical methods for removal and control of various nonnative species	M
Fisheries harvest studies	M
Historical timeline study	M
Inventories and studies of candidate and endangered invertebrates	M
Inventory of historic properties	M
Marine ecosystem data (See the Marine Waters FRV analysis table for a detailed list)	M
Natural and cultural resource data for Kaloko and 'Aimakapā fishponds and 'Ai'ōpio fishtrap (See the Loko I'a FRV analysis table for a detailed list)	M
Natural resource data and monitoring for anchialine pools (See the Anchialine Pools FRV analysis table for a detailed list)	M
Night sky monitoring	M
Law enforcement needs assessment	M
Oral histories	M
Timeline of urban development events around the park to present day	M
Traditional ecological knowledge	M
Visual resource inventory	M

## Part 3: Contributors

### Kaloko-Honokōhau National Historical Park

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## Appendixes

### Appendix A: Enabling Legislation and Legislative Acts for Kaloko-Honokōhau National Historical Park

Act of November 10, 1978 (P.L. 95-625, 92 Stat. 3499) – Established Kaloko-Honokohau National Historical Park.

#### KALOKO-HONOKOHAU NATIONAL HISTORICAL PARK

SEC. 505. (a) In order to provide a center for the preservation, interpretation, and perpetuation of traditional native Hawaiian activities and culture, and to demonstrate historic land use patterns as well as to provide a needed resource for the education, enjoyment, and appreciation of such traditional native Hawaiian activities and culture by local residents and visitors, there is established the Kaloko-Honokohau National Historical Park (hereinafter in this section referred to as the “park”) in Hawaii comprising approximately one thousand three hundred acres as generally depicted on the map entitled “Kaloko-Honokohau National Historical Park,” numbered KHN-80,000, and dated May 1978, which shall be on file and available for public inspection in the appropriate offices of the National Park Service, Department of the Interior.

**Establishment and description.**  
16 USC 396d.

(b) Except for any lands owned by the State of Hawaii or its subdivisions, which may be acquired only by donation, the Secretary is authorized to acquire the lands described above by donation, exchange, or purchase through the use of donated or appropriated funds, notwithstanding any prior restriction of law.

**Land acquisition.**

(c) The Secretary shall administer the park in accordance with this section and the provisions of law generally applicable to units of the national park system, including the Acts approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 461-467), and August 21, 1935 (49 Stat. 666; 16 U.S.C. 461 et seq.), and generally in accordance with the guidelines provided in the study report entitled “Kaloko-Honokohau” prepared by the Honokohau Study Advisory Commission and the National Park Service, May 1974, GPO 690-514.

**Administration.**

(d) (1) In administering the park the Secretary may provide traditional native Hawaiian accommodations.

(2) The Secretary shall consult with and may enter into a cooperative management agreement with the State of Hawaii for the management of the submerged lands within the authorized park boundary, following the marine management policies of the State of Hawaii.

**Cooperative management agreement.**

(3) Commercial, recreational, and subsistence fishing and shoreline food gathering activities as well as access to and from the Honokohau small boat harbor by motor boats and other water craft shall be permitted wherever such activities are not inconsistent with the purposes for which the park is established, subject to regulation by the Secretary.

(4) The Secretary shall consult with and may enter into agreements with other governmental entities and private landowners to establish adequate controls on air and water quality and the scenic and esthetic values of the surrounding land and water areas. In consulting with and entering into any such agreements, the Secretary shall to the maximum extent feasible utilize the traditional native Hawaiian Ahupua’s concept of land and water management.

**Agreements, consultation.**

(e) In carrying out the purposes of this section the Secretary is authorized and directed as appropriate to employ native Hawaiians.

<b>Native Hawaiians.</b>	For the purposes of this section, native Hawaiians are defined as any lineal descendants of the race inhabiting the Hawaiian Islands prior to the year 1778.
<b>Kaloko-Honokohau Na Hoa Pili O Kaloko-Honokohau Establishment Membership.</b>	(f) (1) There is hereby established the Kaloko-Honokohau Na Hoa Pili O Kaloko-Honokohau (The Friends of Kaloko-Honokohau), an Advisory Commission for the park. The Commission shall be composed of nine members, appointed by the Secretary, at least five of whom shall be selected from nominations provided by native Hawaiian organizations. All members of the Commission shall be residents of the State of Hawaii, and at least six members shall be native Hawaiians. Members of the Commission shall be appointed for five-year terms except that initial appointment(s) shall consist of two members appointed for a term of five years, two for a term of four years, two for a term of three years, two for a term of two years, and one for a term of one year. No member may serve more than one term consecutively.
<b>Chairman.</b>	(2) The Secretary shall designate one member of the Commission to be Chairman. Any vacancy in the Commission shall be filled by appointment for the remainder of the term.
<b>Compensation and expenses.</b>	(3) Members of the Commission shall serve without compensation. The Secretary is authorized to pay the expenses reasonably incurred by the Commission in carrying out its responsibilities under this section on vouchers signed by the Chairman.
<b>Duties.</b>	(4) The Superintendent of the park, the National Park Service State Director, Hawaii, a person appointed by the Governor of Hawaii, and a person appointed by the mayor of the county of Hawaii, shall serve as ex officio nonvoting members of the Commission.
<b>Meetings.</b>	(5) The Commission shall advise the Director, National Park Service, with respect to the historical, archeological, cultural, and interpretive programs of the park. The Commission shall afford particular emphasis to the quality of traditional native Hawaiian culture demonstrated in the park.
<b>Termination.</b>	(6) The Commission shall meet not less than twice a year. Additional meetings may be called by the Chairman. (7) The Advisory Commission shall terminate ten years after the date of enactment of this Act.
<b>Appropriation authorization.</b>	(g) There are hereby authorized to be appropriated not to exceed \$25,000,000 for acquisition and \$1,000,000 for development.



Act of December 12, 1980 (P.L. 96-514, 94 Stat. 2960) – Authorized the Secretary to acquire surplus Federal lands and then to exchange those surplus lands for lands described in the park’s enabling legislation.

94 STAT. 2960

PUBLIC LAW 96-514—DEC. 12, 1980

FISH AND WILDLIFE AND PARKS

HERITAGE CONSERVATION AND RECREATION SERVICE

SALARIES AND EXPENSES

For necessary expenses of the Heritage Conservation and Recreation Service, not otherwise provided for, \$15,980,000.

URBAN PARK AND RECREATION FUND

16 USC 2501 note.

For expenses necessary to carry out the provisions of the Urban Park and Recreation Recovery Act of 1978 (title 10 of Public Law 95-625), \$20,000,000, to remain available until expended.

LAND AND WATER CONSERVATION FUND

16 USC 4601-4-4601-11.

For expenses necessary to carry out the provisions of the Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 4601-4-11), including \$7,708,000 for administrative expenses of the Heritage Conservation and Recreation Service during the current fiscal year, and acquisition of land or waters, or interest therein, in accordance with the statutory authority applicable to the State or Federal agency concerned, to be derived from the Land and Water Conservation Fund, established by section 2 of said Act as amended, to remain available until expended, \$378,593,000, of which (1) \$228,745,000 shall be available for payments to the States in accordance with section 6(c) of said Act; (2) \$1,135,000 shall be available to the Bureau of Land Management; (3) \$39,416,000 shall be available to the Forest Service; (4) \$21,520,000 shall be available to the United States Fish and Wildlife Service; and (5) \$80,211,000 shall be available to the National Park Service: *Provided*, That not to exceed \$6,000,000 of the amount provided for State assistance may be available as a contingency reserve to be administered by the Secretary to meet unforeseen needs of the States.

16 USC 4601-5.

Notwithstanding the provisions of Public Law 90-401, revenues from recreation fee collections by Federal agencies shall hereafter be paid into the Land and Water Conservation Fund, to be available for appropriation for any or all purposes authorized by the Land and Water Conservation Fund Act of 1965, as amended, without regard to the source of such revenues.

16 USC 4601-5a. 16 USC 4601-5 and note, 4601-7, 4601-9, 4601-10a-4601-10c, 4601-22. 16 USC 4601-4 note. 16 USC 396e. 16 USC 396d.

Notwithstanding any other provision of law, the Secretary is authorized and shall seek to acquire the lands described in section 505(a) of the Act of November 10, 1978 (92 Stat. 3467) by first acquiring Federal surplus lands of equivalent value from the General Services Administration and then exchanging such surplus lands for the lands described in section 505(a) of that Act with the land owners. Exchanges shall be on the basis of equal value, and any party to the exchange may pay or accept cash in order to equalize the value of the property exchanged.

Act of November 13, 2000 (P.L. 106-510) – Amended the park’s designation to reflect Native Hawaiian spelling—i.e., Kaloko-Honokōhau National Historical Park.

**Public Law 106–510**  
**106th Congress**

**An Act**

To eliminate restrictions on the acquisition of certain land contiguous to Hawaii Volcanoes National Park, and for other purposes.

Nov. 13, 2000  
[S. 938]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Hawaii Volcanoes National Park Adjustment Act of 2000.  
16 USC 1 note.

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Hawaii Volcanoes National Park Adjustment Act of 2000”.

**SEC. 2. ELIMINATION OF RESTRICTIONS ON LAND ACQUISITION.**

The first section of the Act entitled “An Act to add certain lands on the island of Hawaii to the Hawaii National Park, and for other purposes”, approved June 20, 1938 (16 U.S.C. 391b), is amended by striking “park: *Provided,*” and all that follows and inserting “park. Land (including the land depicted on the map entitled ‘NPS-PAC 1997HW’) may be acquired by the Secretary through donation, exchange, or purchase with donated or appropriated funds.”.

**SEC. 3. CORRECTIONS IN DESIGNATIONS OF HAWAIIAN NATIONAL PARKS.**

**(a) HAWAI’I VOLCANOES NATIONAL PARK.—**

(1) **IN GENERAL.**—Public Law 87–278 (75 Stat. 577) is amended by striking “Hawaii Volcanoes National Park” each place it appears and inserting “Hawai’i Volcanoes National Park”. 16 USC 391d.

(2) **REFERENCES.**—Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Hawaii Volcanoes National Park” shall be considered a reference to “Hawai’i Volcanoes National Park”. 16 USC 391d note.

**(b) HALEAKALĀ NATIONAL PARK.—**

(1) **IN GENERAL.**—Public Law 86–744 (74 Stat. 881) is amended by striking “Haleakala National Park” and inserting “Haleakalā National Park”. 16 USC 396b, 396c.

(2) **REFERENCES.**—Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Haleakala National Park” shall be considered a reference to “Haleakalā National Park”. 16 USC 396b note.

**(c) KALOKO-HONOKŌHAU.—**

(1) **IN GENERAL.**—Section 505 of the National Parks and Recreation Act of 1978 (16 U.S.C. 396d) is amended—

(A) in the section heading, by striking “KALOKO-HONOKOHAU” and inserting “KALOKO-HONOKŌHAU”; and

114 STAT. 2364

PUBLIC LAW 106-510—NOV. 13, 2000

(B) by striking “Kaloko-Honokohau” each place it appears and inserting “Kaloko-Honokōhau”.

16 USC 396d note.

(2) REFERENCES.—Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Kaloko-Honokohau National Historical Park” shall be considered a reference to “Kaloko-Honokōhau National Historical Park”.

(d) PU’UHONUA O HŌNAUNAU NATIONAL HISTORICAL PARK.—

16 USC 397, 397a, 397b, 397d.

(1) IN GENERAL.—The Act of July 21, 1955 (chapter 385; 69 Stat. 376), as amended by section 305 of the National Parks and Recreation Act of 1978 (92 Stat. 3477), is amended by striking “Puuhonua o Honaunau National Historical Park” each place it appears and inserting “Pu’uhonua o Hōnaunau National Historical Park”.

16 USC 397 note.

(2) REFERENCES.—Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Puuhonua o Honaunau National Historical Park” shall be considered a reference to “Pu’uhonua o Hōnaunau National Historical Park”.

(e) PU’UKOHOLĀ HEIAU NATIONAL HISTORIC SITE.—

16 USC 461 note.

(1) IN GENERAL.—Public Law 92-388 (86 Stat. 562) is amended by striking “Puukohola Heiau National Historic Site” each place it appears and inserting “Pu’ukoholā Heiau National Historic Site”.

(2) REFERENCES.—Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Puukohola Heiau National Historic Site” shall be considered a reference to “Pu’ukoholā Heiau National Historic Site”.

SEC. 4. CONFORMING AMENDMENTS.

16 USC 1132 note.

(a) Section 401(8) of the National Parks and Recreation Act of 1978 (Public Law 95-625; 92 Stat. 3489) is amended by striking “Hawaii Volcanoes” each place it appears and inserting “Hawai’i Volcanoes”.

16 USC 1132 note.

(b) The first section of Public Law 94-567 (90 Stat. 2692) is amended in subsection (e) by striking “Haleakala” each place it appears and inserting “Haleakalā”.

Approved November 13, 2000.

Act of December 2, 2003 (P.L. 108-142, 117 Stat. 1875), “Kaloko-Honokōhau National Historical Park Addition Act of 2003” – Boundary revision: expanded the park boundaries to include an additional 2.14 acres.

**Public Law 108–142  
108th Congress**

**An Act**

To revise the boundary of the Kaloko-Honokōhau National Historical Park in the State of Hawaii, and for other purposes.

Dec. 2, 2003  
[S. 254]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Kaloko-Honokōhau National Historical Park Addition Act of 2003”.

**SEC. 2. ADDITIONS TO KALOKO-HONOKŌHAU NATIONAL HISTORICAL PARK.**

Section 505(a) of Public Law 95–625 (16 U.S.C. 396d(a)) is amended—

- (1) by striking “(a) In order” and inserting “(a)(1) In order”;
- (2) by striking “1978,” and all that follows and inserting “1978.”; and
- (3) by adding at the end the following new paragraphs:
  - “(2) The boundaries of the park are modified to include lands and interests therein comprised of Parcels 1 and 2 totaling 2.14 acres, identified as ‘Tract A’ on the map entitled ‘Kaloko-Honokōhau National Historical Park Proposed Boundary Adjustment’, numbered PWR (PISO) 466/82,043 and dated April 2002.
  - “(3) The maps referred to in this subsection shall be on file and available for public inspection in the appropriate offices of the National Park Service.”.

Kaloko-Honokōhau National Historical Park Addition Act of 2003.  
16 USC 396d note.

## Appendix B: Analysis of Fundamental Resources and Values and Other Important Resources and Values

Please note that all of the park’s fundamental resources and values are interrelated, and therefore the content presented in the resource tables below overlap. In addition, the content presented in these tables is not exhaustive. More detailed information can be found in other sources. For example, the NPS Integrated Resource Management Applications (IRMA) Portal (<https://irma.nps.gov/Portal>) contains additional data and studies.



Fundamental Resource or Value	The Spirit of Kaloko-Honokōhau
<p><b>Opportunities</b></p>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Strengthen relationships with the Native Hawaiian community—for instance, more opportunities for “talk story.” The Native Hawaiian community has a connection to the spirit.</li> <li>• Create more opportunities to connect with the spirit through Nā Leo Kahiko.</li> <li>• Collect additional oral histories, and appropriately share them with the community. Continue to work with the surrounding community (including neighbors and local agencies) to emphasize the importance of the natural soundscape, night sky, and scenic resources, and to reduce impacts to these resources.</li> <li>• Reduce impacts to the natural soundscape and night skies from park operations and infrastructure.</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement, 1994.</i></li> <li>• Multiple oral histories and ethnographies describing traditions and customs, practices, and beliefs of the families and lands of Kaloko and Honokōhau.</li> <li>• Night sky monitoring.</li> <li>• Aloua, Ruth-Rebeccalynne. Reauthorizing Kānaka ‘Oiwi Heritage Discourse at Kaloko-Honokōhau National Historical Park, Hawai‘i. 2011.</li> <li>• Soundscape monitoring.</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau, 1974.</i></li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Oral histories.</li> <li>• Traditional ecological knowledge.</li> <li>• Visual resource inventory.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Community engagement, stewardship, and partnerships plan.</li> <li>• Nā Leo Kahiko Cultural Center design and concept plan.</li> <li>• Parkwide cultural-use access plan.</li> </ul>

Fundamental Resource or Value	The Spirit of Kaloko-Honokōhau
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.4) "Park Management"</li> <li>• NPS Management Policies 2006 (§1.4.6) "What Constitutes Park Resources and Values"</li> <li>• NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS Management Policies 2006 (§2.3.1.4) "Science and Scholarship"</li> <li>• NPS Management Policies 2006 (§4.1) "General Management Concepts"</li> <li>• NPS Management Policies 2006 (§4.1.4) "Partnerships"</li> <li>• NPS Management Policies 2006 (§4.2) "Studies and Collections"</li> <li>• NPS Management Policies 2006 (§5.1) "Research"</li> <li>• NPS Management Policies 2006 (§8.10) "Natural and Cultural Studies, Research, and Collection Activities"</li> <li>• Director's Order 6: <i>Interpretation and Education</i></li> <li>• Director's Order 14: <i>Resource Damage Assessment and Restoration</i></li> <li>• Director's Order 77: <i>Natural Resource Protection</i></li> <li>• Director's Order 79: <i>Integrity of Scientific and Scholarly Activities</i></li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> </ul>



Fundamental Resource or Value	Cultural Landscape
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Threats to natural systems are also threats to the cultural landscape. In the traditional Hawaiian worldview, there is no distinction between natural and cultural resources.</li> <li>• Invasion by nonnative species affects the cultural landscape by altering viewsapes and damaging structural integrity of cultural sites.</li> <li>• Urban development fragments the cultural landscape, disrupting cultural connectivity, and negatively altering daytime cultural vistas and night skies. Certain cultural practices require viewing naturally dark night skies.</li> <li>• Some human activities inside the park threaten the cultural landscape. For example, illegal camping in the park can result in resource damage.</li> <li>• Vandalism of petroglyphs and other resources.</li> <li>• Very high levels of visitation in some areas of the park can affect the cultural landscape. The park will continue monitoring visitor use levels and assessing any impacts to resources that occur as a result of visitor use levels. There is also a need for a new data collection effort that would focus on impacts from visitor use levels to inform visitor use management strategies including visitor capacity.</li> <li>• Park signs can negatively affect cultural landscape. A challenge park personnel face is the need to balance preserving the cultural and scenic landscape with signage needed to discourage undesired behavior.</li> <li>• Climate change is a threat to the cultural landscape and will affect landscapes through altered temperature and rainfall patterns and sea-level rise.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Continue to participate with the State Historic Preservation Office and neighbors to protect the surrounding cultural landscape and cultural connectivity to the park through preservation of trails and other connections.</li> <li>• Explore novel means such as digital media and other technology to interpret the cultural landscape and discourage inappropriate behaviors in place of additional signs.</li> <li>• Partner with nearby landowners, planners, and developers to increase awareness and protection of important scenic views.</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Aloua, Ruth-Rebeccalynne. Reauthorizing Kānaka ‘Oiwi Heritage Discourse at Kaloko-Honokōhau National Historical Park, Hawai‘i. 2011.</li> <li>• Documentation of oral histories.</li> <li>• Gonzales, Patrick. <i>Climate Change Trends, Impacts, and Vulnerabilities, Kaloko-Honokōhau National Historical Park</i>, January 15, 2016.</li> <li>• <i>He Wahi Mo‘olelo ‘Ohana No Kaloko Me Honokōhau Ma Kekaha o Nā Kona – A collection of family traditions describing customs, practices and beliefs of the families and lands of Kaloko and Honokōhau, North Kona, Island of Hawai‘i.</i></li> <li>• Jokiel, Jon. <i>The Hawaiian Renaissance: Using Participatory Action Research (PAR) to Document Meanings of a Cultural Live-in Center (CLC) within Kaloko-Honokōhau National Historical Park</i>, 2011.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994.</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> <li>• Soundscape monitoring.</li> </ul>

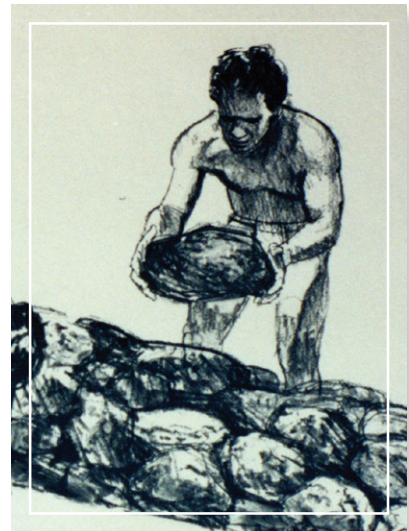
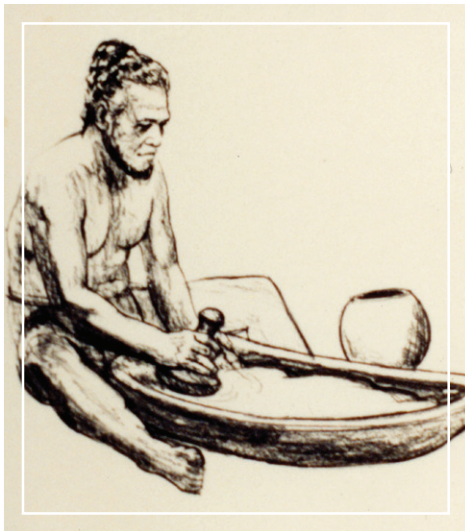
Fundamental Resource or Value	Cultural Landscape
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Cultural landscape inventory for the larger region.</li> <li>• Night sky monitoring.</li> <li>• Oral histories on certain subjects.</li> <li>• Visual resource inventory.</li> <li>• Continued monitoring of visitor use levels.</li> <li>• Visitor use study to inform visitor use management strategies.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Nā Leo Kahiko Cultural Center design and concept plan.</li> <li>• Community engagement, stewardship, and partnerships plan.</li> <li>• Climate change adaptation strategy.</li> <li>• Cooperative conservation strategy.</li> <li>• Fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā.</li> <li>• Long-range interpretive plan.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act of 1977 (42 USC 7401 et seq.)</li> <li>• National Historic Preservation Act of 1966, as amended</li> <li>• Executive Order 11593, “Protection and Enhancement of the Cultural Environment”</li> <li>• “Curation of Federally-Owned and Administered Archaeological Collections” (36 CFR 79)</li> <li>• Paleontological Resources Preservation Act (2009)</li> <li>• Protection of Historic Properties (36 CFR 800)</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1.4) “Park Management”</li> <li>• NPS <i>Management Policies 2006</i> (§1.4.6) “What Constitutes Park Resources and Values”</li> <li>• NPS <i>Management Policies 2006</i> (§1.6) “Cooperative Conservation Beyond Park Boundaries”</li> <li>• NPS <i>Management Policies 2006</i> (§2.3.1.4) “Science and Scholarship”</li> <li>• NPS <i>Management Policies 2006</i> (§4.1) “General Management Concepts”</li> <li>• NPS <i>Management Policies 2006</i> (§4.1.4) “Partnerships”</li> <li>• NPS <i>Management Policies 2006</i> (§4.2) “Studies and Collections”</li> <li>• NPS <i>Management Policies 2006</i> (chapter 5) “Cultural Resource Management”</li> <li>• NPS <i>Management Policies 2006</i> (§5.1) “Research”</li> <li>• NPS <i>Management Policies 2006</i> (§8.10) “Natural and Cultural Studies, Research, and Collection Activities”</li> <li>• Director’s Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director’s Order 28: <i>Cultural Resource Management</i></li> <li>• Director’s Policy Memorandum 12-02, “Applying National Park Service Management Policies in the Context of Climate Change”</li> <li>• Director’s Policy Memorandum 14-02, “Climate Change and Stewardship of Cultural Resources”</li> </ul>





Fundamental Resource or Value	Cultural Practices
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Striking the right balance between preservation and use is a challenge at any national park unit. The needs and requests of cultural practitioners are not always permitted by federal regulations.</li> <li>• Participating in and supporting traditional Hawaiian activities in the park presents some challenges for employees of the National Park Service. Hawaiian cultural practices, including important ceremonies as well as more day-to-day activities, occur at times of the year and times of the day that are appropriate to those activities and events. These times do not always align with employees' scheduled work hours and job requirements. Some visitors lack awareness of the park's cultural significance. As a result, unintentional disrespectful actions may occur or intentional vandalism of cultural sites may occur.</li> <li>• Loss of knowledge is a serious threat to culture. During the period when Native Hawaiian culture was suppressed, traditional knowledge that had been handed down from generation to generation was lost.</li> <li>• The challenges encountered by the National Park Service in hiring Native Hawaiians can be considered a threat to cultural practices in the park. The National Park Service and stakeholders agree it is necessary to increase Native Hawaiian staff, in a variety of positions, as proposed in the Spirit Report. (See "key issues" discussion.)</li> <li>• Projected sea-level rise associated with climate change could overrun the fishponds, which are built at or near sea level and threatens current fishpond practice.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Development of the planned Nā Leo Kahiko Cultural Center provides the best opportunity to expand traditional cultural practices and training in the park.</li> <li>• Continue to find new ways to strengthen and promote cultural practices in the park.</li> <li>• Continue to pursue partnerships, which are essential for cultural practices to thrive in the park.</li> <li>• Continue to pursue securing cultural liaison position for the park.</li> <li>• Expand traditional management of the fishponds (Hawaiian aquaculture) through the Nā Leo Kahiko Cultural Center. (See Loko I'a FRV table.)</li> <li>• Engage with stakeholders to develop guidelines for NPS staff to respond to cultural-use requests and facilitate access.</li> <li>• Expand community outreach to welcome families, encourage connections to place, and build knowledge of and support for the park.</li> <li>• Maintain free admission to the park.</li> <li>• Develop innovative opportunities to hire and promote Native Hawaiians. (See "key issues" and "planning needs" sections.)</li> <li>• Continue to better understand and integrate the Hawaiian calendar in park planning, operations, and resource management.</li> <li>• Continue to partner with cultural practitioners who are willing to share their knowledge with park personnel and the public.</li> </ul>

Fundamental Resource or Value	Cultural Practices
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• <i>The Spirit of Ka-loko Hono-kō-hau, 1974.</i></li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement, 1994.</i></li> <li>• Multiple oral histories and ethnographies, describing traditions and customs, practices, and beliefs of the families and lands of Kaloko and Honokōhau.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Oral histories on certain subjects.</li> <li>• Law enforcement needs assessment (ongoing).</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Parkwide cultural-use access plan.</li> <li>• Community engagement, stewardship, and partnership plan.</li> <li>• Nā Leo Kahiko Cultural Center design and concept plan.</li> <li>• Native Hawaiian hiring and involvement strategy.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Equal Protection Clause of the Fourteenth Amendment of the United States Constitution</li> <li>• American Indian Religious Freedom Act of 1978</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• Paleontological Resources Preservation Act (2009)</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS Management Policies 2006 (§2.3.1.4) "Science and Scholarship"</li> <li>• NPS Management Policies 2006 (§4.1) "General Management Concepts"</li> <li>• NPS Management Policies 2006 (§4.1.4) "Partnerships"</li> <li>• NPS Management Policies 2006 (§4.2) "Studies and Collections"</li> <li>• NPS Management Policies 2006 (§5.1) "Research"</li> <li>• NPS Management Policies 2006 (§8.10) "Natural and Cultural Studies, Research, and Collection Activities"</li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> </ul>





Fundamental Resource or Value	Loko I'a (Fishponds and Fishtrap)
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Nonpoint source pollution (e.g., polluted runoff to groundwater such as fertilizers, pesticides, chemical contaminants, metals, and nutrients/pathogens from cesspool / septic systems).</li> <li>• Groundwater development for drinking water (urban withdrawal, pumping) poses a threat to groundwater levels, and the quality and quantity of groundwater that discharges to the park's ecologically and culturally significant aquatic habitats.</li> <li>• Invasive species, nonnative plants and animals.</li> <li>• Climate change effects, particularly high surf and storm surge.</li> <li>• Lack of awareness by some visitors of the cultural significance of fishponds. Unintentional disrespectful actions such as swimming in the ponds and pools sometimes occur.</li> <li>• Illegal fishing from the fishponds (i.e., illegal methods, illegal catch, fishing in closed areas).</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Continue and expand the park's Hawaiian Legacy Program to train future generations of employees and stewards in traditional Hawaiian trades, including stabilization of fishpond kuapā with traditional masonry techniques.</li> <li>• Increase efforts to engage partners and community members (e.g., friends group, practitioners) in stewardship of the fishponds.</li> <li>• Promote research on fishpond ecosystem functioning and effective management through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Develop formal partnership with The Nature Conservancy (West Hawai'i Marine Program) to share knowledge and resources for fishpond conservation and management.</li> <li>• Continue to partner with Hui Malama Loko I'a, a statewide group to support fishponds throughout the Hawaiian Islands, and Hui Loko, a West Hawai'i Fishpond group.</li> </ul>

Fundamental Resource or Value	Loko I'a (Fishponds and Fishtrap)
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Assessment of Coastal Water Resources and Watershed Conditions in Kaloko-Honokōhau National Historical Park, Hawai'i. Hoover and Gold, December 2005.</li> <li>• IRMA Data Store website (<a href="https://irma.nps.gov/Portal">https://irma.nps.gov/Portal</a>). Data and reports related to cultural resources are housed at park headquarters.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994.</li> <li>• Kaloko-Honokōhau Vegetation Management Strategies. 1998.</li> <li>• Kaloko-Honokōhau National Historical Park Natural Resource Condition Assessment, expected completion in 2017.</li> <li>• NPS Pacific Island Network: Brochure Groundwater Resources at Kaloko-Honokōhau National Historical Park.</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> <li>• U.S. Geological Survey groundwater modeling studies.</li> <li>• 'Aimakapā Fishpond             <ul style="list-style-type: none"> <li>• Archeological surveys</li> <li>• Coastal hazard analysis</li> <li>• Multiple water quality data and studies</li> <li>• Magnetic resonance study</li> <li>• Oral histories</li> <li>• Pollen-core studies</li> <li>• Wetlands management plan and environmental assessment, 2015</li> <li>• Waterbird data and studies</li> </ul> </li> <li>• 'Ai'ōpio Fishtrap             <ul style="list-style-type: none"> <li>• Archeological surveys, including submerged resources</li> <li>• Coastal hazard analysis</li> <li>• Marine turtle habitat use</li> <li>• Oral histories</li> <li>• Visitor use</li> <li>• Water quality data</li> </ul> </li> <li>• Kaloko Fishpond             <ul style="list-style-type: none"> <li>• Alien algae removal project data, report, publication</li> <li>• Alien coelenterate (jellyfish) removal data</li> <li>• Archeological surveys</li> <li>• Coastal hazard analysis</li> <li>• Kaloko Fishpond feasibility study</li> <li>• Multiple water quality data and studies</li> <li>• Oral histories</li> </ul> </li> </ul> <p><b>Select Studies and Reports</b></p> <ul style="list-style-type: none"> <li>• Bhambare, D.N., 1996. Design and development of a remotely controlled mobile data acquisition system for continuous and long-term monitoring of water quality in Hawaiian anchialine ponds: Water quality characteristics of Kaloko Pond – a small case study. Master's thesis, University of Hawai'i at Manoa, Civil Engineering Department, Honolulu, HI.</li> <li>• Bienfang, P., 2007. Assess nutrient sources, fluxes, and water quality of ponds within the Kaloko-Honokōhau National Historical Park, Final Report. Hawaii-Pacific Islands Cooperative Ecosystem Studies Unit Unpublished Report-2186087. University of Hawai'i at Manoa, Honolulu, HI.</li> </ul>

Fundamental Resource or Value	Loko I'a (Fishponds and Fishtrap)
Existing Data and Plans Related to the FRV	<p><b>Select Studies and Reports (continued)</b></p> <ul style="list-style-type: none"> <li>• Bienfang, P., 2008. Addendum to February 2007 Report. Hawai'i-Pacific Islands Cooperative Ecosystem Studies Unit. University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Brasher, A.M., 1999. Development of a monitoring program to assess physical, chemical and biological components of Kaloko Fishpond at Kaloko-Honokōhau National Historical Park on the Island of Hawai'i. Unpublished Report 31870. Prepared for the National Park Service.</li> <li>• Bruland, G.L. and R.A. MacKenzie. 2010. Nitrogen source tracking with N15 content of coastal wetland plants in Hawai'i. <i>Journal of Environmental Quality</i> 39:409-419.</li> <li>• Chai, D.K. An inventory and assessment of Kaloko Pond, marsh, and anchialine pools at Kaloko-Honokōhau National Historical Park, North Kona, Hawai'i DRAFT. Pacific Cooperative Resources Studies Unit. Unpublished Report. University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Costa-Pierce, B.A., 1987. Aquaculture in ancient Hawai'i. <i>BioScience</i> 37(5): 320-33.</li> <li>• Duarte, K. et al. 2006. Assessment of submarine groundwater discharge by handheld aerial infrared imagery: case study of Kaloko fishpond and bay, Hawai'i <i>Limnology and Oceanography: Methods</i> 4:227-236.</li> <li>• Kikuchi, W. and J. Belshe, 1971. Examination and evaluation of fishponds on the leeward coast of the island of Hawai'i, November 22, 1971. County of Hawai'i Planning Commission.</li> <li>• Maciolek, J. A., and R.E. Brock, 1974. Aquatic survey of the Kona coast ponds of Hawai'i Island, April 1974. Sea Grant Advisory Report UNIH-SEAGRANT-AR-74-04. Sea Grant College Program, University of Hawai'i.</li> <li>• MacKenzie, R.A. and G.L. Bruland, 2012. Nekton communities in Hawaiian Coastal Wetlands: The distribution and abundance of introduced fish species. <i>Estuaries and Coasts</i> 35: 212-226.</li> <li>• Maly, K. and O. Maly, 2002. He Wahi Mo'olelo 'Ohana no Kaloko me Honokōhau ma Kekaha o nā Kona – A collection of family traditions describing customs, practices and beliefs of the families and lands of Kaloko and Honokōhau, North Kona, Island of Hawai'i, April 1, 2002. Kumu Pono Associates, Hilo, HI.</li> <li>• Nico, L. 2015. Evaluating the piscicide rotenone as an option for eradication of invasive Mozambique tilapia in a Hawaiian brackish-water wetland complex. <i>Management of Biological Invasions</i>. 6:83-104.</li> <li>• Peterson, J.A. and M.K. Orr, 2005. I 'Ono Ke Kole, I'a One Ke Kole – Sweet Conversation, Sweet-Tasting Fish: A Marine Ethnography of Kaloko-Honokōhau National Historical Park, Kailua-Kona, Hawai'i, October 2005. International Archaeological Research Institute, Inc., Honolulu, HI.</li> <li>• Roy, L.A., and J.K. Nahale, 1975. Ka Mo'olelo Ha'i Waha O Honokohau-Kaloko. Prepared by the Bernice P. Bishop Museum for the National Park Service.</li> <li>• Weijerman, M., Most, R., Wong, K., and S. Beavers, 2008. Attempt to control the invasive red algae <i>Acanthophora spicifera</i> (Rhodophyta: Ceramiales) in a Hawaiian fishpond: An assessment of removal techniques and management options. <i>Pacific Science</i> 62(4): 517-532.</li> <li>• Vitousek, S. et al. 2010. Pu'ukoholā Heiau National Historic Site and Kaloko-Honokōhau Historical Park, Big Island of Hawai'i: Coastal hazard analysis report. Natural Resource Technical Report NPS/NRPC/NRTR/GRD—2010/387.</li> <li>• Wyban, C.A., 1992. Tide and Current: Fishponds of Hawaii. Honolulu, University of Hawai'i Press.</li> <li>• Wyban, C.A., 1996. Feasibility study for Kaloko Fishpond, Kaloko-Honokōhau National Historical Park, Island of Hawai'i, July 4, 1996. Prepared for the National Park Service.</li> </ul>

Fundamental Resource or Value	Loko I‘a (Fishponds and Fishtrap)
<p><b>Data and/or GIS Needs</b></p>	<p><b>For Kaloko Fishpond, ‘Aimakapā Fishpond, and ‘Ai‘ōpio Fishtrap:</b></p> <ul style="list-style-type: none"> <li>• ‘Ai‘ōpio / Maliu Point visitor capacity study.</li> <li>• Consistent fishpond water quality monitoring. Continued groundwater monitoring inside and outside of the park.</li> <li>• Current status of alien algae and coelenterates (jellyfish) in Kaloko Fishpond.</li> <li>• Effective control/eradication methods of invasive fish, algae, and coelenterates; analyses of potential impacts by method, monitoring for adaptive management.</li> <li>• Fish species inventory (including abundance of herbivores and predators), local life cycles and behavior, local abundance and density, population dynamics, identification of slot-size boundaries for fishpond / aquaculture harvest of target species, and harvest quantity and rates by species.</li> <li>• Continued periodic sampling of contaminants and contaminants of emerging concern (e.g., pharmaceuticals and personal care products) including monitoring for toxics in park biota.</li> <li>• Groundwater input and residence times.</li> <li>• Traditional ecological knowledge regarding all aspects and components of fishpond / fishtrap ecosystems.</li> <li>• Traditional resource management tools, (e.g., kapu and ahupua‘a management), based on traditional ecological knowledge and western science data.</li> <li>• Nutrient bioassays.</li> <li>• Mākāhā flow rates across tidal cycle.</li> <li>• Monitoring of efficacy of native plant restoration and invasive plant control activities for adaptive management.</li> <li>• Predator population monitoring (spatial distribution, abundance) and control efficacy for adaptive management.</li> <li>• Studies to analyze potential impacts of opening ‘Aimakapā to marine waters on 1) cultural resources (historic records, maps, photos, oral history accounts and on-site surface and subsurface magnetic surveys with modeling to better identify historic ‘auwai locations, potential “new” locations, and to assess potential effects to the historic property by opening one or more historic or “new” ‘auwai; and, 2) natural resources (modeling studies of circulation, mixing, and water quality to characterize the fate and potential effects of sediment discharge from the fishpond to the coastal marine environment, and the potential effects of direct seawater flow into the pond on endangered birds and other organisms).</li> <li>• Updated water quality monitoring SOP for Kaloko Fishpond.</li> <li>• Waterbird monitoring and population dynamics studies for adaptive management.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Best management practices for specific fishpond management activities.</li> <li>• Climate change adaptation strategy.</li> <li>• Cultural and natural restoration plans and compliance needs for ‘Ai‘ōpio / Maliu Point Park.</li> <li>• Endangered Species Act Section 7 biological assessment of excluding Hawaiian green sea turtle from Kaloko Fishpond (long-term use of mākāhā).</li> <li>• Fishpond management plans for Kaloko, ‘Ai‘ōpio, and ‘Aimakapā.</li> </ul>

Fundamental Resource or Value	Loko I'a (Fishponds and Fishtrap)
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Migratory Bird Treaty Act of 1918 (16 USC §703-712)</li> <li>• Clean Water Act of 1972, as amended (33 USC §1251 et seq.)</li> <li>• Endangered Species Act of 1973, as amended (16 USC §1531 et seq.)</li> <li>• National Historic Preservation Act of 1966</li> <li>• National Environmental Policy Act of 1969 (42 USC §4321 et seq.)</li> <li>• Coastal Zone Management Act of 1972 (16 USC §1451 et seq.)</li> <li>• Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended (16 USC §1801)</li> <li>• National Invasive Species Act of 1996 (16 USC §4701)</li> <li>• Paleontological Resources Preservation Act (2009)</li> <li>• Executive Order 11514, "Protection and Enhancement of Environmental Quality"</li> <li>• Executive Order 11990, "Protection of Wetlands"</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Executive Order 13352, "Facilitation of Cooperative Conservation"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• Hawai'i Revised Statutes (HRS) Chapter 342D Water Pollution</li> <li>• Hawai'i Administrative Rules (HAR) Chapter 11-54 Water Quality Standards</li> <li>• HAR Chapter 11-55 Water Pollution Control</li> <li>• HRS Chapter 205A Coastal Zone Management (HRS §205A-2(b)(4)(A) and HRS§ 205A-2(c)[4])</li> <li>• State of Hawai'i, Hawai'i Administrative Rules, lay net rules</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1.4.7.2) "Improving Resource Conditions within the Parks"</li> <li>• NPS <i>Management Policies 2006</i> (§4.4) "Biological Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.6) "Water Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.1.1) "Planning for Natural Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.1.5) "Restoration of Natural Systems"</li> <li>• NPS <i>Management Policies 2006</i> (§4.4.2.2) "Restoration of Native Plant and Animal Species"</li> <li>• NPS <i>Management Policies 2006</i> (§4.4.3) "Harvest of Plants and Animals by the Public"</li> <li>• NPS <i>Management Policies 2006</i> (§4.8.1.1) "Shorelines and Barrier Islands"</li> <li>• NPS <i>Management Policies 2006</i> (§5.3) "Stewardship"</li> <li>• NPS <i>Management Policies 2006</i> (§5.3.5.2.5) "Biotic Cultural Resources"</li> <li>• NPS <i>Management Policies 2006</i> (§5.3.5.2) "Cultural Landscapes"</li> <li>• NPS <i>Management Policies 2006</i> (§5.3.5.4) "Historic and Prehistoric Structures"</li> <li>• NPS <i>Management Policies 2006</i> (§8.0) "Use of the Parks"</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 77: <i>Natural Resource Protection</i></li> <li>• Director's Order 77-1: <i>Wetland Protection</i></li> <li>• Director's Policy Memorandum 12-02, "Applying NPS Management Policies in the Context of Climate Change"</li> <li>• Director's Policy Memorandum 14-02, "Climate Change and Stewardship of Cultural Resources"</li> </ul>



Fundamental Resource or Value	Anchialine Pools
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Nonpoint source pollution (e.g., polluted runoff to groundwater such as fertilizers, chemical contaminants, metals, and nutrients/pathogens from cesspool / septic systems) affects habitat for rare, endemic and endangered species.</li> <li>• Groundwater development for drinking water (urban withdrawal, pumping) poses a threat to groundwater levels, and the quality and quantity of groundwater that discharges to the park’s ecologically and culturally significant aquatic habitats.</li> <li>• Climate change, particularly changes in rainfall and groundwater recharge (see Wai [Water] Table and “key issues” section).</li> <li>• Invasive species, nonnative plants and animals, particularly fish.</li> <li>• Collecting of pool flora/fauna, including rare, endemic and endangered species, for aquaria.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Continue to promote research on anchialine pool ecology and cultural use through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Further develop partnerships with National Parks Conservation Association, The Nature Conservancy, Sierra Club, other nongovernmental organizations, <i>hui</i> (groups), and local community stewardship and friends groups to access additional opportunities, broaden knowledge base, and use citizen science.</li> </ul>



Fundamental Resource or Value	Anchialine Pools
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Anchialine pool inventory data and reports.</li> <li>• Archeological surveys and mentions in various oral histories.</li> <li>• Assessment of Coastal Water Resources and Watershed Conditions in Kaloko-Honokōhau National Historical Park, Hawai‘i. Hoover and Gold, December 2005.</li> <li>• Flora and fauna data and reports.</li> <li>• IRMA Data Store website (<a href="https://irma.nps.gov/Portal">https://irma.nps.gov/Portal</a>). Data and reports related to cultural resources are housed at park headquarters.</li> <li>• Kaloko-Honokōhau National Historical Park Natural Resource Condition Assessment, expected completion in 2017.</li> <li>• NPS inventory and monitoring databases and reports.</li> <li>• Sea-level rise modeling.</li> <li>• Spatial data and reports.</li> <li>• Water quality data and reports.</li> </ul> <p><b>Select Studies and Reports</b></p> <ul style="list-style-type: none"> <li>• Bienfang, P., 2007. Assess nutrient sources, fluxes, and water quality of ponds within the Kaloko-Honokōhau National Historical Park, Final Report. Hawai‘i-Pacific Islands Cooperative Ecosystem Studies Unit Unpublished Report-2186087. University of Hawai‘i at Manoa, Honolulu, HI.</li> <li>• Bienfang, P., 2008. Addendum to February 2007 Report. Hawai‘i-Pacific Islands Cooperative Ecosystem Studies Unit. University of Hawai‘i at Manoa, Honolulu, HI.</li> <li>• Brock, R.E. and A.K.H. Kam, 1997. Biological and water quality characteristics of anchialine resources in Kaloko-Honokōhau National Historical Park. Cooperative National Park Resources Studies Unit Technical Report 112. University of Hawai‘i at Manoa, Honolulu, HI.</li> <li>• Marrack, L. and S. Beavers. 2011. Inventory and Assessment of Anchialine Pool Habitats in Kaloko-Honokōhau National Historical Park, 2007-2009. Kailua Kona, HI.</li> <li>• Maciolek, J. A., and R.E. Brock, 1974. Aquatic survey of the Kona coast ponds of Hawai‘i Island, April 1974. Sea Grant Advisory Report UNIHI-SEA GRANT-AR-74-04. Sea Grant College Program, University of Hawai‘i.</li> <li>• National Park Service, 2015a. Pacific Island Network Anchialine Pool Dataset. Relational Database-2192748. Available at <a href="https://irma.nps.gov/App/Reference/Profile/2192748/">https://irma.nps.gov/App/Reference/Profile/2192748/</a></li> <li>• Raikow, D. F., and A. Farahi. 2014. Water quality in anchialine pools of Kaloko-Honokōhau National Historical Park: Summary report 2008-2011. Natural Resource Data Series NPS/PACN/NRDS—2014/661.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Additional sea-level rise (SLR) modeling.</li> <li>• Continued inventory of previously unidentified and newly formed (due to SLR/ subsidence) pools.</li> <li>• Continued monitoring of water quality parameters and pool water levels.</li> <li>• Ecosystem studies and habitat association studies for candidate species.</li> <li>• Effective control/eradication methods of invasive fish; analyses of potential impacts to native species by method, monitoring for adaptive management.</li> <li>• Flora and fauna inventories,</li> <li>• Flora and fauna genetics and taxonomy studies.</li> <li>• Continued periodic sampling of contaminants and contaminants of emerging concern (e.g., pharmaceuticals and personal care products) including monitoring for toxics in park biota.</li> <li>• Passive dye-tracing to identify flow pathways.</li> <li>• Ecosystem response studies to invasive species perturbation, pollution, and restoration actions.</li> <li>• Additional isotope studies to infer sources of nutrients and contaminants.</li> <li>• Nutrient bioassays.</li> </ul>

Fundamental Resource or Value	Anchialine Pools
Planning Needs	<ul style="list-style-type: none"> <li>• Climate change adaptation strategy.</li> <li>• Restoration and management plan for anchialine pools.</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Migratory Bird Treaty Act of 1918 (16 USC §703-712)</li> <li>• Clean Water Act of 1972, as amended (33 USC §1251 et seq.)</li> <li>• National Historic Preservation Act of 1966</li> <li>• National Environmental Policy Act of 1969 (42 USC §4321 et seq.)</li> <li>• Endangered Species Act of 1973, as amended (16 USC §1531-1544)</li> <li>• Paleontological Resources Preservation Act (2009)</li> <li>• Executive Order 11514, "Protection and Enhancement of Environmental Quality"</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.4.7.2) "Improving Resource Conditions within the Parks"</li> <li>• NPS Management Policies 2006 (§4.1.1) "Planning for Natural Resource Management"</li> <li>• NPS Management Policies 2006 (§4.1.5) "Restoration of Natural Systems"</li> <li>• NPS Management Policies 2006 (§4.4.2.2) "Restoration of Native Plant and Animal Species"</li> <li>• NPS Management Policies 2006 (§4.6) "Water Resource Management"</li> <li>• NPS Management Policies 2006 (§5.3) "Stewardship"</li> <li>• NPS Management Policies 2006 (§5.3.5.2.5) "Biotic Cultural Resources"</li> <li>• NPS Management Policies 2006 (§5.3.5.2) "Cultural Landscapes"</li> <li>• NPS Management Policies 2006 (§5.3.5.4) "Historic and Prehistoric Structures"</li> <li>• NPS Management Policies 2006 (§8.0) "Use of the Parks"</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 77-1: <i>Wetland Protection</i></li> <li>• NPS Natural Resource Management Reference Manual 77</li> <li>• Director's Policy Memorandum 12-02, "Applying NPS Management Policies in the Context of Climate Change"</li> </ul>





Fundamental Resource or Value	Native Biodiversity
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Alterations to native habitats decrease native species diversity by destroying the ecological balance between plants, animals, soil, and water that has evolved over hundreds of thousands of years, resulting in declines in habitat condition and food sources.</li> <li>• The ongoing invasion of the Hawaiian Islands by nonnative species is detrimental to native biodiversity. Species already present include aggressive habitat-modifying terrestrial and marine plants, predators, herbivores (ungulates: goats, pigs), rodents, pathogens, predatory invertebrates (ants and other social insects), and biological competitors.</li> <li>• Inadvertent introduction of invasive nonnative species and of disease pathogens to park ecosystems, or transmission of existing invaders to new areas in the park through items such as clothing, vehicles, boats, plant media, and tools/gear by park-goers and employees.</li> <li>• Development of neighboring properties affects habitat and movement of native species.</li> <li>• Populations of feral cats adjacent to the park are fed by the public, which increases the threat of direct depredation of native animals and the spread of diseases and parasites to native wildlife and humans (e.g., toxoplasmosis, ringworm, etc.).</li> <li>• Changes to groundwater quality and quantity, and the introduction of environmental contaminants affect habitat and biodiversity of aquatic and marine organisms.</li> <li>• Unsustainable harvest of marine organisms on a commercial scale and an individual scale.</li> <li>• With the exception of the Hawaiian hoary bat, Hawai'i has no native land mammals. Clearing of adjacent lands displaces nonnative animals (i.e., mongooses, rodents, and cats) into parklands, increasing the levels of nonnative predators within the park.</li> <li>• Diseases such as avian botulism, West Nile virus, avian influenza, and the potential for disease and parasite transfer from introduced organisms to native organisms affect biodiversity. Green sea turtles are affected by turtle fibropapillomatosis disease. Coral disease is linked to wastewater pathogens.</li> <li>• Sea-level rise and increased climate variability affect native biodiversity through changes in baseline air and water temperatures and in moisture conditions.</li> <li>• Direct anthropogenic threats to native wildlife include human-wildlife interactions such as visitors closely approaching, or touching, sea turtles; dogs off-leash chasing sea turtles and waterbirds; and collecting anchialine pool species for aquaria.</li> <li>• Illegal fishing (methods, catch, closed areas) in pools, fishponds, and marine waters.</li> </ul>

Fundamental Resource or Value	Native Biodiversity
<p><b>Threats and Opportunities</b></p>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Establish partnerships and educational outreach opportunities with residential associations of neighboring residential developments to increase stewardship responsibility by neighbors.</li> <li>• Develop park interpretation programs and media centered on biocultural resources and biodiversity.</li> <li>• Develop and apply knowledge base of traditional resource management tools (e.g., kapu and ahupua‘a-scale management) based on traditional ecological knowledge and modern science information.</li> <li>• Continue to promote research on native ecosystems and biodiversity through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Strengthen and increase partnerships with the Hawai‘i Department of Land and Natural Resources and the U.S. Fish and Wildlife Service to develop and improve conservation strategies for Hawaiian terrestrial and marine plant and wildlife species.</li> <li>• Increase early detection monitoring efforts for nonnative plants and fish in high traffic areas, and establish procedures to prevent inadvertent spread of nonnative seeds by park staff.</li> <li>• Develop materials to educate visitors on the devastating effects of releasing nonnative species to anchialine pools.</li> <li>• Further develop partnerships with nongovernmental organizations (e.g., National Parks Conservation Association, The Nature Conservancy, Sierra Club, Audubon Society and others), hui, park friends groups, and local community stewardship groups to broaden knowledge base, increase early detection of invasive species monitoring through internship programs, and conduct citizen science.</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• ‘Aimakapā Fishpond Wetlands Restoration Management Plan / Environmental Assessment, 2015.</li> <li>• Archeological surveys and various oral histories.</li> <li>• Assessment of Coastal Water Resources and Watershed Conditions in Kaloko-Honokōhau National Historical Park, 2005.</li> <li>• Coral recruitment study data and reports.</li> <li>• Geological resources inventory.</li> <li>• Hoary bat inventory, data, and reports.</li> <li>• IRMA Data Store website (<a href="https://irma.nps.gov/Portal">https://irma.nps.gov/Portal</a>). Data and reports related to cultural resources are housed at park headquarters.</li> <li>• Integrated pest management plan (underway).</li> <li>• Introduced predator data.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994.</li> <li>• Kaloko-Honokōhau National Historical Park Natural Resource Condition Assessment, expected completion in 2017.</li> <li>• Marine fish ethnography.</li> <li>• Marine flora (algae) and fauna (fish, coral, urchin, turtles, marine mammals) inventories, data, and reports.</li> <li>• Migratory bird data.</li> <li>• Night sky monitoring data</li> </ul>

Fundamental Resource or Value	Native Biodiversity
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• NPS Geologic Resources Inventory KAHO report: Thornberry -Ehrlich, T. 2011. Kaloko-Honokōhau National Historical Park: geologic resources inventory report. Natural Resource Report NPS/NRPC/GRD/NRR—2011/384. National Park Service, Ft. Collins, Colorado.</li> <li>• NPS Geologic Resources Inventory KAHO Geologic Map: 2007. Digital Geologic Map of the Island of Hawai'i (NPS, GRD, GRE, HAVO). NPS Geologic Resources Inventory Program. Lakewood, CO. <a href="https://irma.nps.gov/DataStore/Reference/Profile/1044526">https://irma.nps.gov/DataStore/Reference/Profile/1044526</a></li> <li>• NPS inventory and monitoring databases and reports (coastal strand vegetation, anchialine pool protocol development study, marine fish, coral).</li> <li>• NPS PACN Paleontological Resources Inventory Report: Hunt, R. K., V. L. Santucci, and J. P. Kenworthy. 2007. Paleontological Resource Inventory and Monitoring, Pacific Island Network. National Park Service TIC# D-24. 57 pages.</li> <li>• Sea-level rise modeling.</li> <li>• Spatial data and reports.</li> <li>• Terrestrial flora and fauna data and reports.</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> <li>• Threatened and endangered species reporting data.</li> <li>• Underwater soundscape (noise) study.</li> <li>• Vegetation management strategy.</li> <li>• Vegetation inventory and GIS map.</li> <li>• Vegetation survey data and reports.</li> <li>• Waterbird data and reports.</li> <li>• Water quality data and reports.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Assessment of effects on park biodiversity by introduced invertebrates (ants, wasps) and low-environmental impact control methods for them.</li> <li>• Continued coastal strand vegetation monitoring.</li> <li>• Continued periodic sampling of contaminants and contaminants of emerging concern (e.g., pharmaceuticals and personal care products) including monitoring for toxics in park biota.</li> <li>• Ecosystem response to clearing sediment and vegetation from anchialine pools (underway).</li> <li>• Effectiveness and analyses of potential environmental effects of nonchemical and chemical methods for removal of tilapia.</li> <li>• Effectiveness and analyses of potential environmental effects of nonchemical and chemical methods for removal and control of various nonnative plant species.</li> <li>• Inventories and studies of candidate and endangered invertebrates.</li> <li>• Surveys for early detection of invasive plant species, particularly in high traffic areas</li> <li>• Updated vegetation inventory map (underway).</li> <li>• Waterbird population response to wetlands restoration (underway).</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Anchialine pool restoration plan.</li> <li>• Climate change adaptation strategy.</li> <li>• Integrated pest management plan (underway).</li> <li>• Fishpond management plans for Kaloko, 'Ai'ōpio, and 'Aimakapā.</li> </ul>

Fundamental Resource or Value	Native Biodiversity
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Lacey Act of 1900, as amended (16 USC §3371-3378)</li> <li>• Migratory Bird Treaty Act of 1918 (16 USC §703-712)</li> <li>• Clean Water Act of 1972, as amended (33 USC §1251 et seq.)</li> <li>• Endangered Species Act of 1973 (16 USC §1531-1544)</li> <li>• Federal Noxious Weed Act of 1974, as amended (7 USC §2801 et seq.)</li> <li>• Clean Air Act of 1977 (42 USC 7401 et seq.)</li> <li>• National Invasive Species Act of 1996 (16 USC §4701)</li> <li>• Coral Reef Conservation Act of 2000 (16 USC §6401 et seq.)</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Executive Order 13089, "Coral Reef Protection"</li> <li>• Executive Order 11990, "Protection of Wetlands"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.4.7.2) "Improving Resource Conditions within the Parks"</li> <li>• NPS Management Policies 2006 (§4.1.1) "Planning for Natural Resource Management"</li> <li>• NPS Management Policies 2006 (§4.1.4) "Partnerships"</li> <li>• NPS Management Policies 2006 (§4.1.5) "Restoration of Natural Systems"</li> <li>• NPS Management Policies 2006 (§4.4.2.2) "Restoration of Native Plant and Animal Species"</li> <li>• NPS Management Policies 2006 (§4.6) "Water Resource Management"</li> <li>• NPS Management Policies 2006 (§5.3) "Stewardship"</li> <li>• NPS Management Policies 2006 (§5.3.5.2.5) "Biotic Cultural Resources"</li> <li>• NPS Management Policies 2006 (§5.3.5.2) "Cultural Landscapes"</li> <li>• NPS Management Policies 2006 (§8.0) "Use of the Parks"</li> <li>• Director's Order 77: <i>Natural Resource Protection</i></li> <li>• Director's Order 77-7: <i>Integrated Pest Management</i></li> <li>• NPS <i>Integrated Pest Management Manual</i></li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• NPS-75 <i>Natural Resources Inventory and Monitoring Guidelines</i></li> <li>• Director's Policy Memorandum 12-02, "Applying NPS Management Policies in the Context of Climate Change"</li> </ul>





Fundamental Resource or Value	Wai (Water)
<p style="text-align: center;"><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Nonpoint source pollution is primarily from stormwater runoff, wastewater disposal and seepage, and drainage. The lava flows that are in or surrounding the park are relatively young, and rainfall in North Kona is scarce. Together, these factors inhibit soil development. Because the wastewater and stormwater runoff from urban development in West Hawai'i are primarily discharged to cesspools or septic systems and dry wells, runoff drains quickly to the water table through porous basalt lava. Contaminants (e.g., pesticides, oil, grease, toxic chemicals, metals, nutrients, bacteria, pathogens) that may be dissolved or suspended in stormwater or wastewater have greater potential to reach the water table in this area than in other urban areas with a municipal sewer and stormwater collection and treatment systems and/or areas with more developed soils.</li> <li>• As urban growth accelerates in the contiguous surrounding areas, the area of land covered by impervious surfaces such as roads and parking lots increases. Runoff from impervious surfaces may discharge to dry wells, where contaminants can move down relatively quickly to the groundwater.</li> <li>• Increased concentrations of nitrogen and phosphorous in groundwater can affect aquatic systems. In addition to nutrient inputs from wastewater sources, fertilizers used by homeowners in residential areas and golf courses can be as high as or higher than in agricultural areas.</li> <li>• Groundwater supplies nearly all drinking and irrigation water in the north Kona area. Groundwater withdrawals (well pumping) for drinking and irrigation water, especially from wells directly upslope or adjacent to the park, pose a threat to groundwater levels and to the quality and quantity of groundwater that discharges to the park's ecologically and culturally significant aquatic habitats.</li> <li>• Climate variability related to global climate change may result in reduced rainfall, which in turn could reduce regional groundwater flow and quality. All other factors remaining equal, sea-level rise will cause coastal groundwater levels to rise and the distribution of salinity in the aquifer to change.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Further develop existing traditional knowledge base of local-area traditional water-management tools (e.g., use, kapu and ahupua'a-scale management) through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Continue to promote research on and modeling of regional and local groundwater hydrology and climate with the U.S. Geological Survey and other agencies and institutions. Use this information to identify potential trigger levels for management action.</li> <li>• Continue to maintain, strengthen, and expand relationships with existing partners such as National Parks Conservation Association, The Nature Conservancy, Sierra Club, and local community stewardship and friends groups to expand public education efforts regarding the importance of protection of groundwater resources from land-based activities.</li> <li>• Continue to seek relationships and establish partnerships and/or agreements with neighboring landowners and local agencies to develop and share water data for the protection of water resources.</li> </ul>

Fundamental Resource or Value	Wai (Water)
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• IRMA Data Store website (<a href="https://irma.nps.gov/Portal">https://irma.nps.gov/Portal</a>). Data and reports related to cultural resources are housed at park headquarters.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> </ul> <p><b>USGS studies: isotope tracer studies to infer nutrient and contaminant sources and aquifer connectivity, groundwater models, water quality and contaminants studies, submarine groundwater discharge and fate studies</b></p> <ul style="list-style-type: none"> <li>• Grossman, E.E., Logan, J.B., Presto, M.K., and C.D. Storlazzi, 2010. Submarine groundwater discharge and fate along the coast of Kaloko-Honokōhau National Historical Park, Island of Hawai‘i, Part 3, spatial and temporal patterns in nearshore waters and coastal groundwater plumes, December 2003–April 2006. U.S. Geological Survey. Scientific Investigations Report 2010-5081.</li> <li>• Hunt, C.D., Jr., 2014. Baseline water-quality sampling to infer nutrient and contaminant sources at Kaloko-Honokōhau National Historical Park, Island of Hawai‘i, 2009. U.S. Geological Survey. Scientific Investigations Report 2014-5158.</li> <li>• Izuka, S. K, J. A. Perreault, T. Jones, and K. Kozar, 2011. Protocol for long-term groundwater hydrology monitoring in American Memorial Park, Commonwealth of the Northern Mariana Islands, and Kaloko-Honokōhau National Historic Park, Hawai‘i: Version 1.0. Natural Resource Report. NPS/PACN/NRR—2011/472.</li> <li>• Knee, K., Street, J., Grossman, E., and A. Paytan, 2008. Submarine groundwater discharge and fate along the coast of Kaloko-Honokōhau National Historical Park, Island of Hawai‘i, Part 2, spatial and temporal variations in salinity, radium-isotope activity, and nutrient concentrations in coastal waters, December 2003–April 2006. U.S. Geological Survey. Scientific Investigations Report 2008-5128.</li> <li>• Oki, D.S., 1999. Geohydrology and numerical simulation of the groundwater flow system of Kona, Island of Hawai‘i. U.S. Geological Survey Water-Resources Investigations Report 99-4073.</li> <li>• Oki, D.S., Tribble, G.W., Souza, W.R., and E.L. Bolke, 1999. Groundwater resources in Kaloko Honokōhau National Historical Park, Island of Hawai‘i, and numerical simulation of the effects of groundwater withdrawals. U.S. Geological Survey. Water-Resources Investigations Report 99-4070.</li> <li>• Oki, ongoing. Effects of groundwater withdrawal injection, and climate change on water resources at Kaloko-Honokōhau National Historical Park.</li> <li>• Presto, M.K., C.D. Storlazzi, J.B. Logan, and E.E. Grossman. 2007. Submarine groundwater discharge and seasonal trends along the coast of Kaloko-Honokōhau National Historical Park, Hawai‘i, Part I, Time-series measurements of currents, waves and water properties; November 2005-July 2006: U.S. Geological Survey Open-File Report 2007-1310.</li> <li>• Tillman, F.D., D.S. Oki, and A.G. Johnson. Water-chemistry data collected in and near Kaloko-Honokōhau National Historical Park, 2012-2014. U.S. Geological Survey. Open-File Report 2014-1173.</li> <li>• Tillman, F.D. et al. 2014. Investigation of Geochemical Indicators to Evaluate the Connection between Inland and Coastal Groundwater Systems near Kaloko-Honokōhau National Historical Park, Hawai‘i. Applied Geochemistry.</li> <li>• U.S. Geological Survey. 2002. Assessment of Organic Chemical Contamination at Kaloko-Honokōhau National Historical Park.</li> </ul> <p><b>NPS Inventory and Monitoring Program, Pacific Island Network: Long-term monitoring of groundwater levels, chlorides, and nutrients. Long-term monitoring of anchialine pool water quality. Data and reports on <a href="https://irma.nps.gov">https://irma.nps.gov</a>.</b></p> <ul style="list-style-type: none"> <li>• Anchialine pool water quality monitoring. NPS. 2016. Pacific Island Network Water Quality Monitoring Dataset (<a href="https://irma.nps.gov">https://irma.nps.gov</a>).</li> <li>• Groundwater level and quality monitoring. National Park Service and U.S. Geological Survey. 2016. Kaloko-Honokōhau National Historical Park Observation Well Dataset (<a href="https://irma.nps.gov">https://irma.nps.gov</a>).</li> </ul>



Fundamental Resource or Value	Wai (Water)
<p><b>Existing Data and Plans Related to the FRV</b></p>	<p><b>NPS Inventory and Monitoring Program, Pacific Island Network: Long-term monitoring of groundwater levels, chlorides, and nutrients. Long-term monitoring of anchialine pool water quality. (continued)</b></p> <ul style="list-style-type: none"> <li>• Jones, T., et al. 2011. Water Quality Vital Signs Monitoring Protocol for the Pacific Island Network: Volume 1. Report Narrative: Version 1.0. Natural Resource Report. NPS/PACN/NRR—2011/418.</li> <li>• Raikow, D. F., and A. Farahi. 2014. Water quality in anchialine pools of Kaloko-Honokōhau National Historical Park: Summary report 2008-2011. Natural Resource Data Series NPS/PACN/NRDS—2014/661.</li> <li>• Raikow, D.F. and A. Farahi. 2016. Water quality in pools and groundwater monitoring wells of the national parks on the west coast of the Island of Hawai'i: Summary report 2012-2014. Natural Resource Data Series. NPS/PACN/NRDS—2016/1008.</li> </ul> <p><b>NPS and other Research Studies</b></p> <ul style="list-style-type: none"> <li>• Assessment of Coastal Water Resources and Watershed Conditions in Kaloko-Honokōhau National Historical Park, Hawai'i.</li> <li>• Bienfang, P., 2007. Assess nutrient sources, fluxes, and water quality of ponds within the Kaloko Honokōhau National Historical Park, Final Report. Hawai'i-Pacific Islands Cooperative Ecosystem Studies Unit Unpublished Report-2186087. University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Bienfang, P., 2008. Addendum to February 2007 Report. Hawai'i-Pacific Islands Cooperative Ecosystem Studies Unit. University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• NPS 2003. Contaminants data.</li> <li>• Brock, R.E. and A.K.H. Kam, 1997. Biological and water quality characteristics of anchialine resources in Kaloko-Honokōhau National Historical Park. Cooperative National Park Resources Studies Unit Technical Report 112. University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Glenn, C.R. 2006. Collaborative research: assessment of groundwater inputs into coastal waters of Hawai'i via natural tracers and aerial imagery. University of Hawaii. Honolulu, HI.</li> <li>• Kaloko-Honokōhau National Historical Park Natural Resource Condition Assessment, expected completion in 2017.</li> <li>• National Park Service. 2013. Petition for Water Management Area Action.</li> <li>• National Park Service Pacific Island Network Brochure: Groundwater Resources at Kaloko-Honokōhau National Historical Park.</li> <li>• National Park Service Site Bulletin: Protect yourself, protect the reef! Impacts of sunscreens on our corals.</li> </ul> <p><b>Hawai'i State Land Use Commission Findings of Fact, Conclusions of Law, Decision and Orders. Development conditions placed on developments that pertain to protecting resources in and around Kaloko-Honokōhau National Historical Park (<a href="http://luc.hawaii.gov">http://luc.hawaii.gov</a>)</b></p> <ul style="list-style-type: none"> <li>• Docket A86-599 Kona Beach Development Venture.</li> <li>• Docket A89-743 McClean Honokohau Properties.</li> <li>• Docket A00-730 Lanihau Properties, LLC.</li> <li>• Docket A00-732 TSA Corporation.</li> <li>• Docket A06-770 The Shopoff Group.</li> <li>• Docket A07-774 North Kona Village.</li> <li>• Docket A10-788 HHFDC &amp; Forest City Hawai'i Kona, LLC.</li> </ul> <p><b>Hawai'i State Water Commission: NPS Submissions</b></p> <ul style="list-style-type: none"> <li>• NPS 2013. Petition for Water Management Area Action.</li> <li>• NPS 2015. Specific Information on the Quantity of Water Needed to Support Natural and Cultural Resources in Kaloko-Honokōhau National Historical Park.</li> </ul>

Fundamental Resource or Value	Wai (Water)
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Additional climate downscaling projections to improve understanding of future climate conditions.</li> <li>• Additional isotope studies to continue to infer sources of nutrients and contaminants.</li> <li>• Continued groundwater modeling of the effects of pumping and injection wells on groundwater quality and quantity.</li> <li>• Continued periodic monitoring of park waters for groundwater contaminants.</li> <li>• Data from deep observation-wells situated between the park and pumping wells and drilling of additional exploratory wells to improve understanding of subsurface geologic conditions.</li> <li>• Ecosystem response studies (responses to perturbation, pollution).</li> <li>• Fine-scale rainfall data in upslope regions of the park (100'-4000').</li> <li>• Geophysical studies to improve understanding of subsurface geologic conditions.</li> <li>• High-quality data on changes in the thickness of the freshwater lens in the aquifer.</li> <li>• Historical climate data.</li> <li>• Nutrient bioassays.</li> <li>• Spatial and temporal passive-dye tracing studies of dry wells upslope of the park to determine connectivity and flow pathways into and within the park.</li> <li>• Timeline of urban development events around the park to present day.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Cooperative conservation strategy.</li> <li>• Climate change adaptation strategy.</li> <li>• Risk assessment and response for potential chemical releases from highway or light industrial area.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• National Environmental Policy Act of 1969 (42 USC §4321 et seq.)</li> <li>• Clean Water Act of 1972, as amended (33 USC §1251 et seq.)</li> <li>• Coastal Zone Management Act of 1972 (16 USC §1451 et seq.)</li> <li>• Endangered Species Act of 1973, as amended (16 USC §1531-1544)</li> <li>• Clean Air Act of 1977 (42 USC §7401 et seq.)</li> <li>• Coastal Zone Management Act Reauthorization Amendments of 1990 (16 USC §1451, Sec. 6201 et seq.)</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• Executive Order 11514, "Protection and Enhancement of Environmental Quality"</li> <li>• Executive Order 12088, "Federal Compliance with Pollution Control Standards"</li> <li>• Hawai'i Revised Statutes (174C) State Water Code</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director's Policy Memorandum 12-02, "Applying NPS Management Policies in the Context of Climate Change"</li> </ul>

Fundamental Resource or Value	Marine Waters
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Marine ecosystems are affected by land-based pollution and adjacent land-use activities that introduce sediments, nutrients, pathogens, and chemical contaminants to ocean waters (see Wai [Water] FRV table for additional information), and by marine-based pollution from boating activities.</li> <li>• Unsustainable resource extraction of marine species through a variety of methods, for example, tournaments and reef gleaning (e.g., sea cucumbers).</li> <li>• Fishing pressure may be increased by ease of access from Honokohau Small Boat Harbor.</li> <li>• Introduction or spread of invasive, nonnative marine species.</li> <li>• Recreational impacts (e.g., unintentional damage to coral from SCUBA diving and snorkeling, sunscreen containing oxybenzone and cinnamates).</li> <li>• Boat groundings on park shoreline may release fuel, oil, and other contaminants.</li> <li>• Climate change leading to habitat alteration (e.g., coral mortality) from hurricanes, ocean acidification, and severe coral bleaching events (see “key issues” section for additional information).</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Engage with the Native Hawaiian community, fishers, and others to develop traditional ecological and indigenous knowledge base for marine resources, and local-area traditional fisheries and ocean resource management tools (e.g., pono fishing practices).</li> <li>• Continue to promote research to increase understanding of the park marine ecosystem conditions, trends, and their causes through collaboration and partnerships with the Native Hawaiian community, universities, and other research institutions.</li> <li>• Develop ways to better foster public understanding of the value of our ocean and respect of the importance of ocean resources to Hawaiian culture.</li> <li>• Continue to promote effective conservation of terrestrial habitats and best urban land-use practices outside of park boundaries to protect the health of marine ecosystems and improve their resiliency to the effects of climate change.</li> <li>• Create interpretive materials and programs such as, a park site bulletin for dive shops that focuses on marine stewardship and cultural aspects of the park’s marine waters; and an educational program for schools and neighborhood associations that focus on Hawai’i fishing regulations and pono fishing practices, including information on the mercury related statewide fish consumption guidelines.</li> <li>• Establish stronger relationships with dive/snorkel shops and local dive clubs.</li> <li>• Work with the State Division of Aquatic Resources (DAR), Hawai’i Sea Grant, and the fishing-pono community to explore a community-based fisheries management plan for park marine resources.</li> <li>• Expand current working relationships with state Division of Aquatic Resources and Division of Boating and Ocean Recreation to increase researcher and boating community awareness of NPS jurisdiction and permit requirements.</li> <li>• Renew discussions with the State of Hawai’i regarding potential for a joint management agreement for submerged parklands.</li> <li>• Continue to seek relationships and establish partnerships and/or agreements with neighboring landowners and local agencies to implement land-use best management practices for the protection of marine resources from nonpoint source pollution.</li> </ul>

Fundamental Resource or Value	Marine Waters
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Beets J., Brown, E. and A. Friedlander, 2010. Inventory of marine vertebrate species and fish-habitat utilization patterns in coastal water off four national parks in Hawai'i. Technical Report 168. Pacific Cooperative Studies Unit, University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Beets et al. (in review). Managing marine ecosystem responses to increasing nutrients and other disturbances: Herbivory as a control of algal overgrowth of coral reefs in two Hawai'i parks.</li> <li>• Brock RE. 1980. Colonization of marine fishes in a newly created harbor, Honokōhau, Hawai'i. Pacific Science. 34:313-326.</li> <li>• Frankel A.S. and A. Driscoll-Lind, 2008. Trends in ambient noise over multiple time scales off Kaloko-Honokōhau National Historical Park, Island of Hawai'i. National Park Service.</li> <li>• Gibbs, A. et al. 2007. Benthic habitats and offshore geological resources of Kaloko-Honokōhau National Historical Park, Hawai'i. U.S. Geological Survey (USGS) Scientific Investigations Report. Scientific Investigations Report 2006-5256.</li> <li>• Hoover, D. and C. Gold, 2005. Assessment of coastal water resources and watershed conditions in Kaloko-Honokōhau National Historical Park, Hawai'i. Technical Report NPS/NRWRD/NRTR-2005/344.</li> <li>• IRMA Data Store website (<a href="https://irma.nps.gov/Portal">https://irma.nps.gov/Portal</a>). Data and reports related to cultural resources are housed at park headquarters.</li> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994.</li> <li>• Kaloko-Honokōhau National Historical Park Natural Resource Condition Assessment, expected completion in 2017.</li> <li>• McKenna, S.A., D. N. Grosse, K. L. Kramer and S. Beavers. In review. Kaloko-Honokōhau National Historical Park marine fish monitoring program trend report for 2007-2011, 2014 and 2015: Pacific Island Network. Natural Resource Technical Report NPS/KAHO/NRTR—2015/XXX. National Park Service, Fort Collins, Colorado, expected publication in 2017.</li> <li>• Pacific Island Network Benthic Marine Community and Marine Fish Monitoring. 2006-present. (<a href="https://irma.nps.gov">https://irma.nps.gov</a>)</li> <li>• Pacific Island Network Marine Water Quality Monitoring. 2007-present. (<a href="https://irma.nps.gov">https://irma.nps.gov</a>)</li> <li>• Parrish, J.D., Smith, G.C., and J.E. Norris, 1990. Resources of the marine waters of Kaloko-Honokōhau National Historical Park. Technical Report 74. Cooperative National Park Resources Studies Unit, University of Hawai'i at Manoa, Honolulu, HI.</li> <li>• Paytan, A. et al. 2006. Submarine groundwater discharge: an important source of new inorganic nitrogen to coral reef ecosystems. Limnology and Oceanography. 51:343-348.</li> <li>• Peterson, J.A. and M.K. Orr, 2005. I 'Ono Ke Kole, I'a One Ke Kole – Sweet Conversation, Sweet-Tasting Fish: A Marine Ethnography of Kaloko-Honokōhau National Historical Park, Kailua-Kona, Hawai'i, October 2005. International Archaeological Research Institute, Inc., Honolulu, HI.</li> <li>• Maly, K. and O. Maly, 2002. He Wahi Mo'olelo 'Ohana no Kaloko me Honokōhau ma Kekaha o nā Kona – A collection of family traditions describing customs, practices, and beliefs of the families and lands of Kaloko and Honokōhau, North Kona, Island of Hawai'i, April 1, 2002. Kumu Pono Associates, Hilo, HI.</li> <li>• Marrack, L., S. Beavers, M. Weijerman, and R. Most. 2014. Baseline assessment of the coral reef habitat in Kaloko-Honokōhau National Historical Park adjacent to the Shores at Kohanaiki development, 2007-2007. HPI-CESU &amp; PCSU Technical Report Series. Technical Report No. 190.</li> </ul>

Fundamental Resource or Value	Marine Waters
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Martin, R. and W. Walsh. 2012. The West Hawai'i Coral Recruitment Project; Recruitment Dynamics of Scleractinian Corals along the Kona Coast of the Big Island of Hawai'i.</li> <li>• Rodgers, K. et al. 2004. Rapid assessment of Kaloko-Honokōhau and Pu'uhonua o Hōnaunau, West Hawai'i, Final Report National Park Service and U.S. Geological Survey.</li> <li>• Wabnitz et al. 2010. Ecosystem structure and processes at Kaloko-Honokōhau, focusing on the role of herbivores, including the green sea turtle <i>Chelonia mydas</i>, in reef resilience. Marine Ecology Progress Series 420:27-44.</li> <li>• Walsh, W. et al. 2013. Long-Term Monitoring of Coral Reefs of the Main Hawaiian Islands, Final Report 2009 NOAA Coral Reef Conservation Program, Hawai'i Island Monitoring Report, NA09NOS4260100 10/01/2009 – 12/31/2012.</li> <li>• Weijerman, M., S. Beavers, L. Marrack, and R. Most. 2014. Baseline assessment of the coral reef habitat in Kaloko-Honokōhau National Historical Park adjacent to the proposed Honokohau Harbor expansion and development, Kona Kai Ola, 2006-2007. HPI-CESU &amp; PCSU Technical Report Series. Technical Report 189.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Additional isotope studies to infer sources of nutrients.</li> <li>• Continuation of long-term park and regional coral recruitment study.</li> <li>• Continuation of urchin (herbivory) monitoring.</li> <li>• Continuation of marine turtle population and habitat use studies.</li> <li>• Continued quarterly monitoring of park marine water quality, fish abundance and biomass, and benthic habitat.</li> <li>• Continued periodic sampling of contaminants and contaminants of emerging concern (e.g., pharmaceuticals and personal care products) including monitoring for toxics in park biota.</li> <li>• Coral bleaching recovery monitoring and studies.</li> <li>• Coral disease surveys.</li> <li>• Coral spawning data by species.</li> <li>• Fisheries harvest data for multiple target species and by gear (e.g., spearfishing).</li> <li>• Fish reproduction patterns and fecundity studies of fisheries-targeted species.</li> <li>• Increased base of traditional ecological knowledge of park marine resources.</li> <li>• Marine visitor-use and visitor-impact studies (visitation via snorkel/dive tours or other marine tours).</li> <li>• Nutrient pore-water studies.</li> <li>• Spinner dolphin habitat use study.</li> <li>• Studies of resiliency of select coral species to bleaching.</li> <li>• Map shallow water &lt; 5' submarine groundwater input locations.</li> <li>• Review and improvement of existing gap analysis of marine ecosystem data.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change adaptation strategy.</li> <li>• Community-based fisheries management plan.</li> <li>• Marine spatial / temporal-use planning (recreation, fishing, etc.).</li> </ul>

Fundamental Resource or Value	Marine Waters
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• National Environmental Policy Act of 1969 (42 USC §4321 et seq.)</li> <li>• Clean Water Act of 1972 (33 USC § 1251 et seq.)</li> <li>• Coastal Zone Management Act of 1972 (16 USC §1451 et seq.)</li> <li>• Marine Mammal Protection Act of 1972 (16 USC §1362 et seq.)</li> <li>• Endangered Species Act of 1973 (16 USC §1531 et seq.)</li> <li>• Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended (16 USC §1801)</li> <li>• Coastal Zone Management Act Reauthorization Amendments of 1990 (16 USC §1451, Sec. 6201 et seq.)</li> <li>• Coral Reef Conservation Act of 2000 (16 USC §6401 et seq.)</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• Executive Order 13089, "Coral Reef Protection"</li> <li>• Executive Order 13158, "Marine Protected Areas"</li> <li>• Executive Order 13547, "Stewardship of the Ocean, Our Coasts, and the Great Lakes"</li> <li>• Executive Order 13653, "Preparing the United States for the Impacts of Climate Change"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS <i>Management Policies 2006</i> (chapter 4) "Natural Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.6) "Water Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (chapter 8) "Use of the Parks"</li> <li>• Director's Policy Memorandum 12-02, "Applying NPS Management Policies in the Context of Climate Change"</li> </ul>



## Analysis of Other Important Resources and Values

Other Important Resource or Value	Partnerships
<p><b>Opportunities</b></p>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Coordinating with the state to ensuring timely notification of air quality health advisory information to staff and visitors when unhealthy conditions are expected, likely from volcanic emissions and/or brushfires.</li> <li>• Continue to participate with the State Historic Preservation Office and neighbors to protect the surrounding cultural landscape and cultural connectivity to the park through preservation of trails and other connections.</li> <li>• Expand outreach efforts to diverse segments of the community and organizations who may be interested in partnerships. For example partnerships with hui with specific interests such as existing partnerships with dryland forest restoration, fishpond management, citizen science, bird watchers, etc.</li> <li>• Seek out relationships with several individual teachers or participate in the teacher ranger program.</li> <li>• Build relationships with the Chamber of Commerce, Rotary, Lions, Hawaiian Civic Club, and other similar organizations.</li> <li>• Partner with land management agencies and nongovernmental organizations that share similar resources to those in the park to share expertise.</li> <li>• Engage with leaders of children’s programs (Scouts, YMCA, etc.).</li> <li>• Engage with a rotating group of primary and secondary schools for in-park projects.</li> <li>• Engage with professors from the University of Hawai’i and Hawai’i Community College for educational opportunities through stewardship internships.</li> <li>• The park recently launched a Youth Ranger Program. Explore opportunities within this program to hire local candidates.</li> <li>• Partner with nearby landowners, planners, and developers to increase awareness and protection of important scenic views</li> <li>• Partner with land management agencies and nongovernmental organizations that share similar resources to those in the park to share expertise.</li> <li>• Expand outreach efforts to diverse segments of the community and organizations who may be interested in partnerships. For example partnerships with hui (groups) with specific interests such as existing partnerships with dryland forest restoration, fishpond management, citizen science, bird watchers, etc.</li> <li>• Strengthen lasting partnerships with local communities with mutual benefits, vigorous collaboration, and processes for conflict resolution.</li> <li>• Continue to pursue partnerships with the goal of ensuring that cultural practices thrive in the park.</li> <li>• Promote research on fishpond ecosystem functioning and effective management through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Develop formal partnership with The Nature Conservancy (West Hawai’i Marine Program) to share knowledge and resources for fishpond conservation and management.</li> <li>• Continue partnerships with Hui Malama Loko I’a, a statewide group to support fishponds throughout the Hawaiian Islands, and Hui Loko, a West Hawai’i Fishpond group.</li> <li>• Continue to promote research on anchialine pool ecology and cultural use through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Further develop partnerships with National Parks Conservation Association, The Nature Conservancy, Sierra Club, other nongovernmental organizations, hui (groups), and local community stewardship and friends groups to access additional opportunities, broaden knowledge base, and use citizen science.</li> <li>• Establish partnerships and educational outreach opportunities with residential associations of neighboring residential developments to increase stewardship responsibility by neighbors.</li> </ul>

Other Important Resource or Value	Partnerships
<p><b>Opportunities</b></p>	<p><b>Opportunities (continued)</b></p> <ul style="list-style-type: none"> <li>• Establish partnerships and educational outreach opportunities with residential associations of neighboring residential developments to increase stewardship responsibility by neighbors.</li> <li>• Further develop partnerships with nongovernmental organizations (e.g., National Parks Conservation Association, The Nature Conservancy, Sierra Club, Audubon Society and others), hui, park friends groups, and local community stewardship groups to broaden knowledge base, increase early detection of invasive species monitoring through internship programs, and conduct citizen science.</li> <li>• Continue to seek relationships and establish partnerships and/or agreements with neighboring landowners and local agencies to develop and share water data for the protection of water resources.</li> <li>• Further develop existing traditional knowledge base of local-area traditional water-management tools (e.g., use, kapu and ahupua'a-scale management) through shared traditional ecological knowledge by the Native Hawaiian community, and partnerships with universities and other research institutions.</li> <li>• Continue to promote research to increase understanding of the park marine ecosystem conditions, trends, and their causes through collaboration and partnerships with the Native Hawaiian community, universities, and other research institutions.</li> <li>• Research and compile example agreements from comparable national park units—e.g., for example, parks featuring cultural centers or other forms of partnership-based management.</li> </ul>
<p><b>Existing Data and Plans Related to the OIRV</b></p>	<ul style="list-style-type: none"> <li>• <i>The Spirit of Ka-loko Hono-kō-hau</i>, 1974.</li> <li>• <i>Kaloko-Honokōhau National Historical Park General Management Plan / Environmental Impact Statement</i>, 1994.</li> <li>• Kaloko-Honokōhau National Historical Park Cultural Center Environmental Assessment.</li> <li>• Existing partnership agreements.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• None identified.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Community engagement, stewardship, and partnerships plan.</li> <li>• Nā Leo Kahiko Cultural Center design and concept plan.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• Enabling legislation, PL 95-625, which established Nā Hoa Pili O Kaloko- Honokōhau as an advisory commission for the park</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS <i>Management Policies 2006</i> (§2.3.1.4) "Science and Scholarship"</li> <li>• NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships"</li> <li>• NPS <i>Management Policies 2006</i> (§4.2) "Studies and Collections"</li> <li>• NPS <i>Management Policies 2006</i> (§5.1) "Research"</li> <li>• NPS <i>Management Policies 2006</i> (§8.10) "Natural and Cultural Studies, Research, and Collection Activities"</li> <li>• Director's Order 20: <i>Agreements</i></li> <li>• NPS <i>Agreements Handbook</i></li> </ul>



## Appendix C: Inventory of Special Mandates, Designations and Administrative Commitments

### Special Mandates and Designations

- **Special Mandates and/or Authorizations in the Enabling Legislation PL 95-625 (section 505)** - Certain provisions in the park’s enabling legislation place requirements on management and/or authorize the Secretary of the Interior to enter into agreements or take other actions for the purposes of park management. Notable provisions are summarized below. Please note that the park’s 1978 enabling legislation does not use diacritics in a manner that is consistent with current usage. The bullets below include direct quotations from this legislation. Therefore, certain words appear differently than in other sections of this foundation document.
  - **Administration Generally in Accordance with the Guidelines Provided in the Spirit Report** – Section (c) of the legislation requires that in addition to the “provisions of law generally applicable to units of the national park system,” the Secretary shall administer the park “generally in accordance with the guidelines provided in the study report entitled ‘Kaloko-Honokohau’ prepared by the Honokohau Study Advisory Commission and the National Park Service, May 1974, GPO 690-514” (i.e., the Spirit Report).
  - **Authorization for Cooperative Management of Submerged Lands** – Section (d) (2) authorizes the Secretary to “consult with and may enter into a cooperative management agreement with the State of Hawaii for the management of the submerged lands within the authorized park boundary, following the marine management policies of the State of Hawaii.”
  - **Fishing and Access to Honokohau Harbor** – Section (d) (3) mandates that, “Commercial, recreational, and subsistence fishing and shoreline food gathering activities as well as access to and from the Honokohau small boat harbor by motor boats and other water craft shall be permitted wherever such activities are not inconsistent with the purposes for which the park is established, subject to regulation by the Secretary.”
  - **Consultation and Agreements for Resource Protection in and Around the Park** – Section (d) (4) mandates that the Secretary “shall consult with and may enter into agreements with other governmental entities and private landowners to establish adequate controls on air and water quality and the scenic and esthetic values of the surrounding land and water areas. In consulting with and entering into any such agreements, the Secretary shall to the maximum extent feasible utilize the traditional native Hawaiian Ahupua’a’s concept of land and water management.”
  - **Hiring of Native Hawaiians** – Section (e) of the legislation authorizes and directs the Secretary “as appropriate to employ native Hawaiians. For the purposes of this section, native Hawaiians are defined as any lineal descendants of the race inhabiting the Hawaiian Islands prior to the year 1778.”



- **Na Hoa Pili O Kaloko-Honokohau, an Advisory Commission for the Park** – In section (f) of the legislation Congress established an advisory commission for the park, Na Hoa Pili O Kaloko-Honokohau (The Friends of Kaloko-Honokohau), to advise the National Park Service “with respect to the historical, archeological, cultural, and interpretive programs of the park.” The legislation further states that, “The Commission shall afford particular emphasis to the quality of traditional native Hawaiian culture demonstrated in the park.” The legislation also specifies requirements for the composition of the advisory commission (see the attached legislation for full requirements). For example, the commission is composed of nine members. All members must be residents of the State of Hawai‘i and at least six members must be Native Hawaiian. The park superintendent shall serve as ex officio nonvoting member of the commission. The commission was authorized for 10 years after the establishment of the park, and has been reauthorized several times, most recently by the Omnibus Public Land Management Act of 2009. The commission’s current termination date is December 18, 2018.
- **National Historic Landmark Designation** – In 1966 the Honokōhau Settlement was designated a national historic landmark, having been nominated for national historic landmark designation in 1962. According to the National Register of Historic Places documentation, the Honokōhau Settlement National Historic Landmark “shows the close relationship between the early Hawaiians and their environment.” Included in the settlement are ancient house sites, four heiau, three fishponds, petroglyphs, and many burials. National historic landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Section 110(f) of the National Historic Preservation Act requires that federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect national historic landmarks. The law requires that agencies, “to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm” to national historic landmarks. The national historic landmark designation was instrumental in the eventual establishment of the park.
- **Federal Consistency with the Coastal Zone Management Act** – Consistent with the Coastal Zone Management Act, Section 307, federal agencies are subject to federal consistency requirements with the enforceable policies of a coastal state’s federally approved coastal management program if the federal action will affect a coastal use or resource.
- **Marine Protected Area** – The marine waters of Kaloko-Honokōhau National Historical Park were designated a federal Marine Protected Area (MPA) on May 25, 2010 (Federal Register May 25, 2010, 75:29317-29321) and added to the List of National System MPAs, which is the official register for all marine protected areas that have been formally recognized as part of the national system. According to Executive Order 13158, a “marine protected area” is “any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.” Marine protected areas on the list are those that went through the nomination process, and have been agreed upon by both the MPA Center and the managing agency. As part of this national system, the National Park Service has opportunities to work with managers of other marine protected areas on common conservation objectives; however, this designation does not change the management of the site or entail any restrictions on access or use. The List of National System MPAs was developed in response to Executive Order 13158, “Marine Protected Areas.”



### Administrative Commitments

Name	Agreement Type	Start Date – Expiration Date	Stakeholders	Purpose	Notes
State of Hawai'i, Revocable Permit S-6783	Revocable permit	1991 – Month to month, renewed annually	State Department of Land and Natural Resources	Allows the National Park Service to manage existing archeological features and anchialine ponds on 6.92 acres of state-owned lands within the authorized park boundary.	N/A
Mutual Assistance Agreement with Hawai'i County	Interagency agreement	Expires 2022 Renewed every 5 years	Hawai'i Police Department Hawai'i Fire Department	Provides for mutual emergency assistance for law enforcement. Provides for mutual emergency assistance for fire, search and rescue, and emergency medical services.	Park units on Island of Hawai'i.
Hawai'i Pacific Parks Association	Cooperating association agreement	2010 – Expires 12/20/2020	Hawai'i Pacific Parks Association	To support the National Park Service Pacific Island Parks through sales of interpretive / educational materials and support interpretive programs.	N/A
Pacific Area Communications Center	Agreement	2012 – As long as Pacific Area Communications Center is in existence	Hawai'i Volcanoes National Park and Pacific Island Network parks	Provide 24/7 emergency dispatch services to all parks in the Pacific Island Network; sets payment for services.	Kaloko-Honokōhau National Historical Park transferred Operations Formula System (OFS) base increased funding to Hawai'i Volcanoes National Park (\$340k/year).

Name	Agreement Type	Start Date – Expiration Date	Stakeholders	Purpose	Notes
Hawai'i-Pacific Islands Cooperative Ecosystems Study Unit	Cooperative and joint venture agreement	N/A	Multiple federal agencies, universities, and partner research institutions and non-governmental organizations	1) Provide research, technical assistance and education to federal land management, environmental and research agencies, and their potential partners; 2) Develop a program of research, technical assistance and education that involves the biological, physical, social, and cultural sciences needed to address resources issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context at the local, regional, and national level; and 3) Place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions.	Applicable to all Hawai'i and Pacific Island park units.
National Programmatic Agreement for Compliance with Section 106 of the National Historic Preservation Act	Programmatic agreement	2008 – Renewed as needed	National Park Service, Advisory Council on Historic Preservation, National Conference of State Historic Preservation Officers	Streamlined review under Section 106 for agreed-upon criteria; applicable to all National Park Service units.	N/A
Park Programmatic Agreement for Compliance with Section 106 of National Historic Preservation Act	Programmatic agreement	2006 – Kaloko-Honokōhau National Historical Park will invite all parties to this programmatic agreement to a meeting one year from the date of execution of this agreement and every two years thereafter, to discuss implementation of the terms of this programmatic agreement and determine whether revisions, amendment, or termination is needed.	National Park Service- Kaloko-Honokōhau National Historical Park; Advisory Council on Historic Preservation; Hawai'i State Historic Preservation Office	Streamlined review under Section 106 for agreed-upon criteria; park-specific agreement.	N/A

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## Pacific West Foundation Document Recommendation Kaloko-Honokōhau National Historical Park

June 2018

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This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Pacific West Regional Director.



RECOMMENDED

Bill Thompson, Superintendent, Kaloko-Honokōhau National Historical Park

6/5/2018

Date



APPROVED

for Stan Austin, Regional Director, Pacific West Region

6/14/18

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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June 2018

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