

APPENDIX B

ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENT OF CULTURAL RESOURCES AT KAHULUI HARBOR

Archaeological and Cultural Impact Assessment of Cultural Resources at Kahului Harbor

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& 3-7-08:2,3,4 & 6



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EXECUTIVE SUMMARY

The State of Hawai'i Department of Transportation Harbors Division has proposed in its Kahului Commercial Harbor 2025 Master Plan a number of improvements to Kahului Harbor at Kahului, Maui. Under contract to Edward K. Noda and Associates, Inc., International Archaeological Research Institute, Inc. (IARII) has prepared an assessment of the potential impacts to cultural resources of proposed harbor improvements. IARII conducted research to identify and evaluate the significance of historic properties at and near the harbor and assess the potential effects of the harbor projects on these properties. Its sub-consultant, Social Research Pacific, Inc., conducted background research and interviews with harbor user groups and Native Hawaiian elders and cultural practitioners to identify traditional cultural practices at the harbor and assess the impact of the harbor improvements to any traditional activities.

Through a review of previous archaeological reports, files at the State Historic Preservation Division (SHPD), and consultations with SHPD staff, IARII identified two recorded historic properties within or near Kahului Harbor. The SHPD has designated Kahului Harbor itself as a historic property (Site 2953). Following detailed archival research concerning the history of the harbor, IARII concluded that the harbor piers and associated features dating to the 1920s should be considered eligible for inclusion in the National Register of Historic Places (NRHP) based on their association with the broad patterns of Kahului history. The development of the harbor was clearly crucial to the development of Kahului as the largest town on the island. However, because the wharves and building sheds are typical of neighbor island harbor facilities and not unique or special, the site is not considered significant for its architectural qualities. While no archaeological sites have been identified in the harbor area, the presence of former beach and backbeach sand deposits beneath portions of the harbor fill and the recovery of cultural materials during previous archaeological testing indicate that there is the potential for the presence of subsurface archaeological deposits and human burials.

Kahului Harbor also falls within or adjacent to the proposed Kahului Historic District (Site 1607). Three historic buildings, the Kahului Railroad office, shop and roundhouse, listed as contributing elements to this District, are located near the harbor. It was determined that improvements to the harbor will not have a significant adverse impact on the architectural characteristics of these buildings or the visual integrity of the buildings and the District.

The cultural impact assessment determined that only the extensions of Piers 1 and 2 would have any impact on groups using the harbor. These would include short-term interruptions of activities during construction. The extension of Pier 2C would result in the loss of two or three canoe lanes used by the harbor canoe groups, but this will not significantly affect their activities, according to most members. The negative impact will be offset in part by the added protection the new pier extension will provide to inexperienced paddlers. Continuing tenant-user meetings will maintain communications between the Harbors Division and canoe groups and insure that they are informed as the projects are implemented.

It is recommended that, with SHPD concurrence, there be an assessment of no significant adverse impact to cultural resources as a result of the implementation of these improvements, with the provision that archaeological monitoring be conducted of disturbance to any areas where there is a potential for subsurface cultural deposits.

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I. INTRODUCTION

At the request of Edward K. Noda and Associates, Inc. (EKNA), International Archaeological Research Institute, Inc. (IARII) has prepared this assessment of cultural resources at Kahului Harbor, Kahului, Maui. IARII undertook a background literature review, inventory, and evaluation of historic properties (archaeological resources and historic structures) in the Kahului Harbor area and assessed the potential for as yet undiscovered archaeological resources. Its subconsultant for this project, Social Research Pacific, Inc. (SRP), conducted a study of traditional native Hawaiian cultural places and practices at the harbor and prepared a cultural impact assessment of harbor improvements on these practices and on current uses of the harbor by Hawaiian and other user groups.

These assessments were conducted in connection with preparation of an Environmental Assessment (EA) by EKNA to evaluate the potential environmental effects of several improvements planned for Kahului Harbor under the Kahului Commercial Harbor 2025 Master Plan (Harbors Division 2000). IARII's and SRP's research efforts are presented jointly in this report. This report provides assessments of cultural resources, both historic properties and traditional places and practices, at the harbor and of the potential impact of the proposed projects; and it proposes measures to mitigate any adverse effects.

DEFINITION OF PROJECT

The Kahului Commercial Harbor 2025 Master Plan recommends a number of proposed projects to improve the harbor facilities over the next 25 years. The EA being prepared by EKNA will assess the following improvement projects:

1. extension of Pier 1;
2. construction of Pier 1 comfort stations, water line and sewer line;
3. expansion of Pier 3;
4. construction of a new Pier 4;
5. extension of Pier 2C, to include a passenger terminal;
6. structural paving, construction of access bridge, and installation of utilities at Pu'unēnē Yard.

GEOGRAPHIC LOCATION

Kahului Commercial Harbor is one of ten state-managed commercial harbors in Hawai'i. It is located along the north shore of the island of Maui at the end of the isthmus that lies between the West Maui Mountains and Haleakalā Crater, the two volcanic land masses that comprise the island (Fig. 1). The harbor lies in Kahului Bay, a large indentation in the north coastline. Kahului, the largest town and most important commercial center on the island, is inland of the bay. Behind Kahului, sugar cane fields stretch across the entire isthmus to Ma'alaea Bay on the south shore. To the east at the base of Haleakalā lie coastal sand dunes and Kahului Airport, the major airport on the island, with sugar cane fields

stretching up the lower slopes of the mountain behind the airport. To the west is Maui's capital, Wailuku, sitting at the base of the West Maui Mountains.

Kahului Harbor falls within the *ahupua'a* of Wailuku, the largest of the traditional Hawaiian land units that form Wailuku District. This *ahupua'a* stretches from the West Maui Mountains eastward across much of the northern part of the isthmus and ends at the coast, east of Kahului Airport.

Kahului Bay, ringed by sand beaches and sand dunes, forms a natural, partially protected anchorage for ships stopping at Maui. Throughout the 19th century, however, Lahaina remained the main port of call. Then, early in the 20th century, with the filling of some of the coastal land to provide the foundation for harbor structures, the construction of a breakwater into the bay to further protect the anchorage from strong northeastern currents, and the building of piers and wharfs that could accommodate larger ships, Kahului Harbor became the major port on the island and has remained so until the present.

At present, Kahului Harbor has three piers (Fig. 2), all of which provide berths for the vessels that supply vital services and goods for the residents of Maui. Pier 1 also accommodates large cruise vessels carrying international and inter-island passengers.

PROJECT OBJECTIVES AND METHODS

This project involves identification and evaluation of two categories of cultural resources: historic properties and traditional cultural places and practices. The purpose of the project is to identify from historical documentation, previous archaeological research, interviews with native Hawaiians and harbor user group, and a survey of the project area the cultural resources that are present or potentially present, evaluate the significance of these resources, and determine the potential for significant effects to these resources as a result of the proposed projects.

This evaluation is being conducted to meet the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, which requires federal agencies to consider the effects of any undertaking on significant cultural resources. Significant historic properties are those cultural resources that are potentially eligible or determined to be eligible for nomination to the National Register of Historic Places (NRHP), based on the criteria of 36 CFR Part 64, the federal regulations implementing the National Historic Preservation Act (NHPA) or to the State of Hawai'i Register of Historic Places (HRHP), based on the criteria set out in Chapter 343, Hawaii Revised Statutes (HRS). A significant environmental effect is any action that would adversely affect those qualities that make a cultural resource eligible for the NRHP or HRHP.

The cultural impact assessment study was completed to meet Section 106 Consultation requirements of the NHPA (under 36 CFR 800). It also aimed to satisfy the Hawaii State Historic Preservation Division's (SHPD) request for conducting cultural impact assessments. The proposed project aims to meet the goals of the Hawaii State Plan, Chapter 226—Socio-Cultural Advancement in HRS Section 225-20-21; 23-27, of the Hawaii Revised Statutes.

Historical and archaeological research previously conducted by IARII and the cultural impact assessment prepared by SRP for the Kahului Airport Improvement environmental impact statement (EIS) provided a baseline of information for the current study. Additional background research for the harbor area involved a search for documents and maps at the University of Hawai'i Hamilton Library Pacific Collection, the Bishop Museum library and archives, the State of Hawai'i Archives, State Survey Office,

Hawaiian Mission Children's Society Library, and the Hawaiian Historical Society, and newspaper articles at the State Library. Reports of archaeological studies in the SHPD library were reviewed.

The IARII archaeologist conducted a one day field visit to Maui, which included survey of the harbor area, recording of the condition of historic buildings near the harbor, and brief archival research at the Maui Historical Society (Bailey Museum) archives in Wailuku.

The SRP oral historian conducting the cultural impact study made several visits to Maui to interview native Hawaiian informants and individuals and organizations who use the harbor. During these visits archival research was conducted at the Maui Historical Society and the Maui News.

ORGANIZATION OF THE REPORT

This report first reviews the traditional oral history of the Kahului Bay area and then the history of the harbor itself from historical sources that document its inception and development, and its importance for the historical development of Kahului and Maui as a whole. This section (Chapter II) provides a historic context in which the importance of the material cultural remains of the Kahului area (the archaeological resources and historic structures), their role and history, and their significance as potential historic properties can be defined and evaluated.

Chapter III reviews the previous research on the historic cultural resources at Kahului Harbor and the nearby region and the results of that research. This summary provides a basis for assessing the potential for buried archaeological sites in the harbor area.

Chapter IV presents SRP's cultural impact study, in which information on traditional land use was gathered from written sources and oral interviews with fishermen and Hawaiian *kūpuna* who have previously used or currently use the project area. The primary emphasis is on interviews with current users of the project area.

Chapter V provides an assessment of the significant cultural resources identified at Kahului Harbor and the potential for discovery of as yet unidentified resources (the Affected Environment) and evaluates the potential impact of the projects on these resources (Environmental Consequences). Measures to mitigate these potential adverse effects are proposed.

Chapter V also summarizes potential cultural impacts from the projects, as well as comments and suggestions offered by user groups, in the context of the state Environmental Council's guidelines for cultural impact assessments and the Hawai'i State Plan for Socio-Cultural Advancement. Based on the interviews, recommendations to minimize the effects of the planned project are offered.

II. KAHULUI HARBOR—HISTORICAL BACKGROUND

During the traditional era, Kahului Bay formed part of Maui's prosperous Na Wai 'Eha region; today it is the site of Hawai'i's second-most-important industrial port. Kahului Harbor's development could be seen as the story of how two key Territorial-era industries, transportation and plantation agriculture, brought each other to prosperity. The port's most rapid expansion took place during the first three decades of the 20th century, but it continues to play a part in Maui's commercial and industrial growth.

During the reign of Kamehameha III, a village of 26 pili grass houses graced the Kahului shoreline. A century and a decade later, a showcase of post-World War II urban planning spread inland from the same shore. Through tidal wave, plague, fire, political upheaval, industrialization, and spasms of civic improvement, Kahului was frequently and energetically reborn. Throughout the process, but especially from 1900-1931, town fathers doggedly built up the harbor—each milestone (a new wharf, a deeper channel) celebrated with one anxious eye on the next pressing need.

Kahului, dwarfed by its neighbor Wailuku and long outshone as a port by Lahaina, grew in the 20th century into the second most important harbor in the Hawaiian Islands, with a port infrastructure that sometimes surpassed even Honolulu's in sophistication. One could see that process as the result of tidal forces of industrial growth, but one could almost as easily see it as the brainchild of one man—Henry Perrine Baldwin, key owner of the Hawaiian Commercial and Sugar Company and its subsidiary, the Kahului Railroad Company. The railroad funded the first 10 years of intensive harbor construction, and was one of the main government contractors thereafter. The company also owned much of the land under Kahului town and kept a firm grip on its development.

BEFORE SUGAR

Written sources leave behind little more than random snapshots of the traditional Hawaiian era and the early years of foreign contact. Kahului—whose name probably means “the winning”¹ (Pukui et al. 1974:67)—is located on the north coast of the Wailuku *ahupua'a* on the Maui isthmus. Its once dry and sandy hinterlands merged toward the northwest with an extraordinarily fertile area traditionally called Na Wai 'Eha or “the four waters,” after four streams of windward West Maui: Waikapū, Wailuku, Waiehu, and Waihe'e (Handy and Handy 1972:496).

Na Wai 'Eha was one of Maui's most productive agricultural areas and home to one of its two major population centers. The bay was a rich source of seafood, with a major fishpond—actually two adjacent ponds, named Kanahā and Mau'oni—near its eastern shore. The Kahului shore was once lined with coconut trees (Tomonari-Tuggle and Welch 1995:13).

The area around Kahului Harbor was likely a Hawaiian settlement during prehistoric times, probably a village primarily of fishermen who would have used the shore of the bay to launch their fishing canoes and collect shellfish from the coastal flats. This way of life continued into the early historic

¹ “Winning” here probably carries the sense of “prize” or “spoils,” not of the act of victory itself.

period. Based on the account of a native Hawaiian of “considerable age,” a writer at the turn of the century described the area (*Paradise of the Pacific*, September 1900, in Silva n.d.:10):

The shores of Kahului harbor, from Waihee Point to Haiku, were surrounded with the grass huts of the fishermen and of those connected with the innumerable war canoes of the king. Myriads of coconut trees lined the beach from Kahakuloa to Wailuku.

Archaeological sites uncovered near Kahului Harbor support this documentation. Cultural deposits (Sites 3119, 3120, 5070) and buried human remains (Sites 3139, 3120, 4211, 5071, 4211) have been found within the beach sand.

Each of the four regions of Na Wai ‘Eha had its own special breeze; Wailuku’s was named Makani-lawe-malie or “the wind that takes it easy” (Sterling 1998:62). The names of the four streams that define the region are said to have less peaceful meanings, recalling past battles. One of the meanings attributed to Wailuku is “water of destruction,” after a legendary battle where men fought with owls (Sterling 1998:63, 74).

Around 1781 chief Kahekili of Maui (who had a residence, Kalanihale, at Wailuku) was attacked by the Big Island chief Kalaniopu‘u, whose forces pushed north from Mā‘alea Bay on Maui’s south shore, but were repulsed at Wailuku.

As tensions rose before the invasion, both chiefs had built *heiau* (temples) to enlist their war gods’ support. Kalaniopu‘u relied on crack troops called the Alapa and Pi‘ipi‘i, and Kahekili commanded “chiefs, fighting men, and left-handed warriors whose slingshots missed not a hair of the head or a blade of grass.” Kalaniopu‘u’s men took heavy casualties in two stunning defeats—both likened to schools of mullet being lured or chased into a pond—before he gave up the invasion (Kamakau 1992:85-87).

Nine years later an even more famous attack on Kahekili—led by Kamehameha the Great, who had begun his campaign to consolidate the islands under his own rule—began with a landing at Kahului. Kamehameha’s huge fleet of war canoes, some with swivel guns mounted, is said to have filled the bay. A cannon named Lopaka and two trusted foreign advisors, John Young and Isaac Davis, were key to Kamehameha’s victory; “[h]ad they fought face-to-face and hand-to-hand, as was the custom,” Kamakau asserts (1992:148), “they would have been equally matched.” Two days of fierce fighting later, Kamehameha had chased Kahekili’s troops up ‘Īao Valley to defeat. The valley’s red-stained waters became choked with the bodies of fallen warriors; the battle is remembered as Kepaniwai or “the damming of the waters” (Sterling 1998:81, Speakman 1987:53, Clark 1989:7, Bartholomew 1994:5, Kamakau 1992:148-149). “There was great slaughter, but mostly among commoners,” Kamakau (1992:148) remarks of the battle. It was a rout for the Maui king, but not a permanent one. Kamehameha would have to fight for Maui again.

Early in the 19th century those wars ended and by mid-century Maui was already home to a handful of foreigners. But a visitor touring the isthmus’ north shore on his way to Haleakalā (Gorham 1843:16) could still pick out the site of old battles by the scattered bones and skulls visible on the surface—remnants, he believed, of Kamehameha’s campaign.

The lush region was the setting for scenes not only of war but of peace and reconciliation. After Kalaniopu‘u’s 1781 defeat, there was some bickering among his court about who should be sent to sue for peace. His wife Kalola was a sister of the victorious Kahekili, but she refused to lead the peace party (Kamakau 1992:88), saying,

It will not do any good for me to go, for we came to deal death. If we had come offering love we should have been received with affection. I can do nothing.

In the end, the elite chief Kiwala‘o led the peace mission, his sacred status so high that even the troops of the winning side had to fall to the ground as he passed by. Once they reached Kahekili in Wailuku, the messengers who came with Kiwala‘o begged, “grant us our lives.” As Kamakau tells it, Kahekili was quick to reconcile, saying

There is no death to be dealt out here. Let live! Let the battle cease. ... Take the fish of Kanahā and Mau‘oni and the vegetable food of Nawaieha...

to the camp of the defeated where his sister waited (Kamakau 1992:88)—giving voice to his generosity in victory as well as to the natural abundance of his home region.

Kahului is also remembered as the site of a peaceful meeting between the 16th century chiefs Keawe-nui-a-‘Umi of Hawai‘i and Kiha-a-Pi‘ilani of Maui (Kamakau 1992:42). In peaceful times, the nearby waters off Wailuku were a favorite surfing spot for the chiefs (Tomonari-Tuggle and Welch 1995:15).²

Just east of Kahului Harbor are the remnants of Kanahā fishpond, now a wildlife refuge. The pond may have been built as early as the 1500s with renovations in the 1700s (Tomonari-Tuggle and Welch 1995:15-16). Kanahā was separated from another fishpond, Mau‘oni, by a dividing wall. The building of the ponds has been attributed to the early 16th century Maui chief Kiha-a-pi‘ilani (Pukui et al. 1974:83, Sterling 1998:88)—the same chief who, with his father, Pi‘ilani, is said to have built the Alaloa or long road encircling Maui (Duensing 1998:xiii). But they might also have been built by the 18th century chief Kapi‘ioho‘okalani (Bartholomew 1994:132, Sterling 1998:87-88).

The latter version³ relates a stirring adventure that calls up echoes of another island’s legendary warriors: King Arthur and his knights. In this case, however, the hero of the quest is a young O‘ahu chiefess of high and sacred rank. Her father, Kapi‘ioho‘okalani, ruled O‘ahu and half of Moloka‘i and was related to Maui *ali‘i* (royalty) as well. He began to build the fishponds but was killed in battle; the Maui king Kamehamehanui continued his work, placing a very strict *kapu* (taboo) on the dividing wall between the two ponds.

Meanwhile, the dead king’s daughter, Kahamaluihi, whose home was on O‘ahu, traveled to Maui to find her brother, Kanahaokalani. The sacred young chiefess traveled incognito through Maui, and had a number of adventures, including marriage, as she continued to search for her brother. When she arrived near the fishponds her dead father had begun, a crowd had gathered to greet Kamehamehanui, who was approaching in a grand procession. As the king drew near, Kahamaluihi stripped off her *pā‘ū* (skirt) and stepped onto the *kapu* center wall between the fishponds. “Around her waist was flying the *pola* [flap] of a white *malo* called the *malo kea*.⁴” The crowd waited in shock to see what punishment the audacious young woman (who had still not revealed her identity) would receive. But the king recognized her and embraced her, saying “I have mourned for you; welcome, cousin,” and acknowledged the high rank that

² Tomonari-Tuggle and Welch cite Kamakau and I‘i in giving the following names for chiefly surfing spots: Kehu, Ka‘akau, Kaleholeho, Kaakau-pohaku, Paukukalo.

³ For this version of the story, Sterling drew on 1923 interview notes in the Bishop Museum’s anthropology collection. The story was given to a researcher by Pua-a-Makakanalii, Mrs. Rosalie Blaisdell, in 1923.

⁴ According to Pukui and Elbert’s *Hawaiian Dictionary*, the *malo kea* is “an epithet for a female priest enjoying masculine privileges and exemption from female taboos.”

entitled her to tread on the wall where he had placed a *kapu*. Kamehamehanui invited Kahamaluihi to name the fishponds. She named the one closer to the sea Kanahā, in honor of her brother, and the one inland Mau‘oni—the alias under which she had traveled in disguise.

A visitor traveling east from Wailuku in 1843 described “a small fresh or brackish water a few rods only from the sea”—possibly the remnants of Kanahā or Mau‘oni. He remarked that cattle drank from it and sometimes people used the water too, as “mountain water is some miles off”; at the nearby seashore he saw fishermen at work, fish nets drying, and a few cottages (Gorham 1843:15-16).

Kanahā and Mau‘oni provided Hawaiians with mullet during seasons when ocean fishing was *kapu*. The pond was fed by freshwater streams and also had an outlet to the sea; mullet were seen there into the early 1900s. Eventually, dredge materials from Kahului Harbor filled in part of the pond and blocked its outlet to the sea (Bartholomew 1994:132); sadly, by 1907 the “stench from Kanaha pond” was listed as one of the main drawbacks of Kahului’s location (*Maui News* December 31, 1947:38).

Before the Europeans came, Na Wai ‘Eha contained the “largest continuous region of wet taro cultivation in Hawai‘i” and supported the second largest population center on Maui (Bartholomew 1994:127). This concentration of human strength and natural abundance has been suggested as one reason for Maui’s success in pre-contact power struggles, greater than might be expected from the island’s relative size (Duensing 1998:xiii). But as shipboard diseases swept the islands, “all areas except Lahaina were devastated” (Bartholomew 1994:28). A time-limited search of the archives turned up no details on the fate of the once-thriving Hawaiian community of Na Wai ‘Eha.

In 1837 the missionary Richard Armstrong, stationed at Wailuku, described in his journal a tidal wave that wiped out a village of 26 grass houses on the Kahului shore. Strong swimming and quick thinking enabled all but two of the villagers to survive—Armstrong wrote admiringly of the rescue work he witnessed or heard about—but the villagers’ homes and belongings were swept inland and smashed into a small lake, possibly Kanahā fishpond.⁵

During the mid-19th century Great Mahele,⁶ the *ali‘i nui* Victoria Kamāmalu was granted most of the lands around the harbor. In 1876 Kepoikai, the father of Senator A.N. Kepoikai of Wailuku, lived on the beach toward the Wailuku end and owned the fishing right at Kahului (*Maui News* March 3, 1900:2). Numerous smaller grants were parceled out farther inland and westward during the Mahele (Jackson 1881, Unknown 1881), but not within the area under study here.

Hawaiians were among the residents of the impoverished, crowded Chinatown neighborhood that was burned down during Kahului’s bubonic plague scare in 1900. Other than that, the original inhabitants of this part of Na Wai ‘Eha seem to have left little trace in the written records of the bustling port community that replaced them. It would be tempting to think of that 1837 grass-house village as the precursor to modern Kahului. But only a lengthy and detailed search of archival and Hawaiian-language sources could uncover whether any link between the two exists.

⁵ Armstrong’s journal entry for that event was reprinted by the *Maui News* in 1937 for a today-in-history column. Given time constraints it was not possible to find the original document or journal entries for the days and weeks after the event.

⁶ This was the legal process, initiated in 1845, that turned Hawai‘i’s traditional land system into a system of European-style fee-simple ownership.

CAPTAINS OF INDUSTRY

A Chinese man built the first sugar enterprise on Maui, a mill at Wailuku, in 1823; an early rum distillery was put out of business after missionaries complained to Hawai‘i’s powerful queen and regent, Ka‘ahumanu (Best 1978:29). Small sugar plantations sprang up after that in the area around Kahului Bay. But it took foreign access to land ownership after the Great Mahele—and the 1876 reciprocity treaty with the United States (which guaranteed a better American market for Hawai‘i sugar)—to turn the crop into a major focus of the Hawaiian economy.

Sugar cane is a thirsty crop, and its growth in the hinterlands of Kahului expanded rapidly after Claus Spreckels and Henry Baldwin acquired land and water rights and built the Hāmākua and Spreckels “ditches” to irrigate the once-arid region. For a century that gloried in industrial progress, these engineering marvels stretching across rugged, gorge-crossed terrain were monumental achievements indeed. As Osorio points out (2002:185), we know too little to say what effect this irrigation system had on the lands where the water originated and the people who lived there.

In 1878, through his friendship with King Kalākaua, Claus Spreckels secured a lease of 40,000 acres of land, among which was a portion of Wailuku *ahupua‘a*. In 1882, he acquired fee simple title to all of the *ahupua‘a* through Grant 3343 (Kennedy et al. 1992a:12). That same year, Spreckels founded the Hawaiian Commercial and Sugar Company (HC&S), which quickly became the largest and best-equipped sugar plantation in the islands (Kuykendall 1967:60). The Spreckelsville Mill, actually four mills in one complex, was located just to the northeast of the present Kahului Airport, near the intersection of Old Stable Road and Hana Highway.

Maui sugar growers had to move their product to market, often across similarly rugged land. Some tried to ship directly from small docks on their property, but that was a dangerous process and a number of ships were lost. The open roadstead at Lahaina offered little shelter (Bartholomew 1994:79-80). As the need for better port facilities grew, Kahului Bay began its metamorphosis into a deep-draft international harbor. The port, the sugar plantations, and the railroad helped each other grow from modest beginnings into major Maui industries.

Railroads were coming into being across the islands; Hawaiians soon invented a word for the new mode of transportation: *ka‘a ahi* or “fire wagon” (Bartholomew 1994:79). Kahului Railroad built its first line from a starting point on the beach at Kahului (Best 1978:14), where the company’s headquarters were also located (Clark 1989:7), to Wailuku; its first locomotive was named after Queen Emma. It was built by Thomas Hobron, a former sea captain turned merchant (Clark 1989:7), who already owned both trans-Pacific and inter-island shipping lines (Hungerford 1963:71). Even before the line to Wailuku was finished, a portion of it opened for business on Monday, July 21, 1879, the Hawaiian Gazette reported a week later, carrying 14 tons of freight and 150 passengers a day.

Within a year of its founding the railroad had built an engine house, yards and a station at Kahului; most of the construction was of wood. The terminus continued to grow rapidly (Best 1978:31). After the Kahului-Wailuku track was laid, the narrow-gauge railroad expanded eastward to Ha‘iku and beyond, building tall, “spidery” trestles to cross the deep gorges (Hungerford 1963:69) in another marvel of Victorian engineering. Shipping magnate Samuel G. Wilder acquired the railroad in 1884; and in turn sold it in 1899 to a group of businessmen led by Baldwin.

THE TOWN

The beginnings of the city of Kahului are imperfectly known; a key player in the town's early development—the Kahului Railroad Company—lost its early records in the tidal wave of 1946 (Best 1978:29); and the *Maui News* did not begin publication until 1900.

Kahului town got its start in the 1860s as a supplier to neighboring Wailuku; shipping soon became its major focus. By the end of the 19th century it had a warehouse, stores, wheelwright and blacksmith shops, a custom house, a saloon, and Chinese restaurants (Bartholomew 1994:132).

The *Maui News* recalled in a turn-of-the-century retrospective that the very first western-style building was a warehouse built by Thomas Hogan near the beach in 1863; a business known as Kimble's store went up in the same area a decade later; and in 1876, William Goodness built and ran a wheelwright/blacksmith shop “just back of where the Kahului Saloon [which moved to Wailuku after the 1900 bubonic plague] recently stood.” That same year, a tidal wave flooded the town and “covered the whole flat back of Kahului.” By 1879, there was a small landing for the use of sugar planters (Clark 1989:7) and a new custom house was built in 1882 (*Maui News* March 3, 1900:2). By 1900, Kahului town covered 20 acres of flat and poorly drained land along the shore (*Maui News* March 3, 1900:2).

Several events came together around 1900 to accelerate Kahului's development. Hawai'i became a United States territory in 1898. Baldwin and his associates bought the railroad and began making plans for the port. And the bubonic plague swept through the Hawaiian Islands at the turn of the century, taking 70 lives (Kuykendall and Day 1961:190) including several in Kahului.

The plague struck Honolulu, the hardest-hit Hawaiian city, in December 1899; the first suspicious death in Kahului was that of Ah Tong, a “wash house Chinaman,” who died on February 4, 1900. It was several more days before a case developed with clear symptoms of the plague. When it did, Sheriff Baldwin quarantined the city, an order that was soon backed up by the Board of Health, and ordered a detention camp set up at the Kahului racetrack.

By Monday the 12th, the camp was ready. “Over 200 Chinese, [Japanese] and natives were fumigated and dressed in new suits, and at two o'clock the procession quickly moved out to their new quarters,” the then-weekly *News* reported on February 17. Their old neighborhood—from the Kahului saloon to the custom house—was immediately dynamited and burned. The breeze was blowing from the sea, which helped keep the blaze contained. Frightened Chinese in neighboring Wailuku asked a missionary to help them store their meager possessions, in case the same thing happened to them (Turner 1920:9)—but Wailuku was spared.

The last plague victim in Kahului appears to have been Miss Julia English, sister of the harbor pilot, who died less than a month after Ah Tong. Authorities seemed confident that she would be the last casualty, although dead rats carrying the plague were still found occasionally.⁷

A proposal to burn down the entire town of Kahului gained serious support—including from the Wailuku-based *Maui News* (March 3 and 10, 1900). In the end, a less drastic measure was chosen.

⁷ Oddly, the quarantine of Kahului doesn't seem to have begun until well into March, the month after the last victim apparently died. The purpose of burning was to exterminate rats, which were known to spread the disease, although the full mechanism of contagion was not yet understood.

Kahului was surrounded by a rat-proof corrugated iron wall;⁸ residents moved to temporary housing outside the town limits; and no one was allowed inside the wall except for the rat-catchers. Moving these more well-to-do residents took a little longer: It wasn't until March 24 that the *News* announced, "Kahului is now without a resident." By that date, the last plague-infested rat corpse had also been found. Near the harbor, some industrial buildings were renovated in an attempt to dig out the last of the contamination.

A quick search of the records found conflicting indications of when the Kahului quarantine was completely, officially lifted. Once the worst was over, concern seems to have waned gradually as other events competed for public attention. By early May at the latest, the crisis was clearly over (*Maui News* May 5, 1900).⁹

Camp Wood, where the Chinatowners had been quarantined, was kept open as housing for plantation workers (*Maui News* July 28, 1900:3). Cheerful reports of the former internees' clean little homes and promising new jobs alternated with fund-raising appeals for the destitute; it's not clear how many quarantine survivors fit into which category. A Wailuku missionary recorded that as soon as the quarantine was lifted, hundreds of people "of various nationalities flocked to Wailuku, in need of food, and clothing. A very forlorn lot, having lost their all by the burning of their homes" (Turner 1920:9).

By July 19, 1900 the *News* was cheerfully reporting that "[i]t seems quite like old times at Kahului once more. The rat proof fences have all been taken down ... Business is booming, and there is the making of a live little town, if," the newspaper qualified, "the owner will permit it." Ownership of the land underneath the town and harbor was still highly centralized. As the newspaper had described it near the end of the plague crisis (April 28, 1900):

At present, Kahului is nothing more than a private store, wharf, and railroad of the Hawaiian Commercial and Sugar Company, who practically own all the town.¹⁰

The newspaper called on the company to build workshops and stores and then offer them for sale or lease in order to attract a diverse business community. HC&S would soon come forward with its own vision for municipal growth, but Kahului would remain a one-owner town for a long time to come.

The real metamorphosis for the city began seven years later, in 1907, when a cycle of long-term leases came up for renewal. Baldwin and his associates took the opportunity to push for an early version of urban renewal.

On June 8, 1907 the *News* reported, "The Kahului Railroad Company is filling in the low lands in and about Kahului and will in time raise the level of the entire town site." It was hoped this would help

⁸ Inside the fence on the east side of town were a lumber yard, the Hawaiian Commercial and Sugar Company store, various warehouses, and the Kirkland, Church and Filler residences. From there the wall ran parallel to the Wailuku road, to a spot near the detention camp, from where it extended to the beach, leaving a cottage belonging to a Mr. Ball outside the quarantine (*Maui News* March 10, 1900:3). Unfortunately, no map found to date is detailed enough to pinpoint these exact spots. A man by the last name of Ball was manager of the Kahului Saloon, which moved to Wailuku near the end of the plague crisis.

⁹ Kahului seems to have learned from its plague experience. In 1911 diphtheria, scarlet fever, and smallpox swept through nearby towns on Maui, but Kahului implemented house-to-house inspections and escaped without a casualty (*Maui News* December 31, 1947). Twenty years later, the Territory passed new plague regulations and inspected all its harbors for compliance; Kahului Harbor got high marks for both work procedures and physical facilities (*Maui News* July 23, 1932).

¹⁰ At that point, Hawaiian Commercial and Sugar Company had only recently passed into the hands of Baldwin and his associates.

with the mosquito problem. The town's other problems included an insufficient water supply and sewage system (*Maui News*, December 31, 1947:38); these had been among the reasons for the frequent calls, during the plague, for burning down the town and relocating it on healthier ground inland.

The company met with its leaseholders on June 13, 1907, asking them to surrender their leases. New lots were being laid out "in the most modern lines" (*Maui News* June 15, 1907:1); when this process was complete, tenants would have to reapply for leases. By October, work was well underway, the *News* reported on the 5th: "Buildings have been removed and Pu'unēnē Avenue now extends to the sea"; the harbor was being dredged and "the beach lots have all been staked out." The lots would be offered in pre-paid, long-term leases; the company still held on to control of the land.

A generation later, a "land expert" touring Maui in 1930 apparently had nothing but praise for the way Kahului town was run—by the Kahului Railroad Company, which still owned almost all the land under the business district. "As soon as leases expire, the owners must replace old structures with new ones in accordance with specifications approved by manager William Walsh of the Kahului Railroad Co.," the *News* explained. The land expert, C.L. Mattfeldt, also gave the company high marks for its emphasis on fire safety, "parks, beauty, civic pride," and sanitation, and noted that leases seemed to be based on the tenant's ability to pay. "The town is under the absolute control of Mr. William Walsh, who instead of being autocratic is the most popular and best liked man in Kahului!" the expert and the newspaper enthused. The railroad company kept a private police force in Kahului, to supplement the public force's efforts to preserve order (*Maui News* May 7 and 10, 1930).

Early in World War II Kahului was shelled, twice, from enemy submarines in the bay. The first attack, at dusk on December 15, 1941, was recorded on Maui in thick black headlines:

SUB SHELLS KAHULUI! *DAMAGE SLIGHT No Injuries*

Two shells fell harmlessly into the harbor. Four rounds hit the Maui Pineapple Company cannery, doing some damage to the roof and smokestack. One fell on the driveway of the Maui Vocational School, another in a waste lumber pile on Pier 1, and one broke a few windows at the Pacific Guano and Fertilizer building. None of the damage was considered major. Some frightened Kahului residents started to flee, but police and Boy Scouts persuaded them to return home (Allen 1950:59, *Honolulu Star Bulletin* December 16, 1941, *Maui News* December 17, 1941).

The second attack on Kahului, on December 31, took place after General Order No. 14 established wartime censorship in Hawai'i and therefore received limited coverage (Maui Historical Society 1992:1). The *News* did, however, mention in its first edition of 1942 that Maui police, navy and marine forces, as well as "HC&S Co. cowboys," were patrolling on horseback to prevent looting. The death toll from the attacks: one unfortunate chicken (Bartholomew 1994:149).

Though Kahului Harbor remained relatively unscathed, men did lose their lives at sea near Maui during the war—including four who died during an attack on the Matson freighter *Lahaina* and 24 when the Army transport *Royal T. Frank* came under fire (Bartholomew 1994:149).

Maui saw extensive construction to accommodate U.S. military needs during World War II—including naval air stations at Kahului and Pu'unēnē and the huge Camp Maui on the slopes of Haleakalā—but apparently very little at the harbor itself. The Army, Navy, and Marines trained "all over the island" (Bartholomew 1994:146); the Marines seem to have found a special place in the hearts of the islanders, who christened them "Maui's own." When the Marines Fourth Division returned to the island

after their victory at Iwo Jima, “the Maui community turned out en masse at Kahului Harbor to welcome their warriors home” (Bartholomew 1994:146-147).

THE HARBOR

A number of ports on Maui developed before Kahului, with a variety of wharves and landings. However, Kahului was the first Maui port with a structure to which ships could directly moor, rather than anchoring offshore and transferring their freight and passengers by lighter (Rush 1957:41).

Early construction on Kahului Bay included a scattering of buildings, early railroad facilities, at least one wharf, an “unfinished jetty” noted in 1881, and a “fishery” (Monsarrat 1879; Jackson 1881; Howell 1896) (Figs. 3. and 4, Photo 1). But as noted earlier, development of the harbor began in earnest under Baldwin’s leadership just after the turn of the century. Railroad and port depended on each other to provide service to the merchants of the port town and the plantations around it. As the railroad expanded eastward, the harbor grew to accommodate ever larger and deeper-draft vessels; its most intense period of development would cover the first three decades of the 20th century.

In its original condition, the bay was exposed to the prevailing northeast trade winds and to the occasional severe storm coming directly from the north (Clare and Morrow 1930:73). A high priority at the turn of the century was a breakwater to slow the heavy seas entering the harbor from the northeast. Baldwin’s Kahului Railroad Company built the original eastern breakwater on top of the eastern reef, which already gave the bay some natural protection (Williams 1909:130). At first they used huge rocks cleared from the canefields; later, a company quarry supplied the project. The company also dredged the harbor and built a wharf, moorings, and buoys (Hungerford 1963:20, *Maui News* December 12, 1931).

By mid 1900, plans were afoot to rebuild the harbor and downtown areas—enlarging two (apparently already existing) wharves, building new depots and workshops, and erecting a new hotel near the wharf. “There will be a lower and upper balcony extending around three sides of the hotel, and the side next to the sea will extend out into the water, supported on piles,” the *Maui News* reported, continuing in a burst of post-plague optimism: “No more shanties are to be built at Kahului, but neat and commodious cottages will be erected as needed.”

The hotel was under construction by November, and the “old wharf” was renovated and lengthened (*Maui News* July 28, November 3 and November 10, 1900). Baldwin hired an engineer to survey the harbor in 1901, and asked the pilots and captains that worked for him to record tides, winds and currents to have the information ready when the time for building came (*Maui News* August 23 and December 12, 1931). Work on the breakwater began in 1905 (*Maui News* December 12, 1931). By 1908 the company had built two small wharves (Rush 1957:41, Nakayama 1987:108). Early harbor development apparently did not spoil the beauty of the bay—a 1910 article called it “bathing of the best and a splendid beach” (Clark 1989:7).

By 1910 the harbor (Fig. 5) had reached a number of milestones—an 1,800-foot breakwater protected the harbor from the eastern side, and on it stood a 40-foot-tall lighthouse; the harbor had been dredged, and the new 200-foot pile-and-timber Claudine Wharf could accommodate vessels with up to 25-foot draft.¹¹

¹¹ Russian workmen contributed greatly to the building of the Claudine Wharf, the *Maui News* reminisced in a 1947 retrospective (December 31:38). The Russians “proved to be good workers but of wandering disposition,” the *News* recalled, many leaving for San Francisco and others for the drinking life.

But repeated problems such as storm damage to the breakwater led to increasing conviction that harbor development was a task too big for any one company to handle. The federal government took over responsibility for the harbor itself in 1910; the territorial government later took charge of the wharves; but the Kahului Railroad Company remained in the picture as a major building contractor.

Construction of a western breakwater began in 1917 (see Fig. 5); five years later, work began on a long-awaited new wharf to accommodate larger vessels (Photo 2). Pier 1, as it was called, went up along the eastern breakwater. The 500-foot-long concrete structure was turned over to the Territory of Hawaii in August 1923.

The freight conveyor system it needed in order to be truly effective was not finished until later; but a festive visit by the Matson steam liner *Maui*, carrying an excursion party from the San Francisco Chamber of Commerce in October 1923, celebrated its opening. The vessel docked smoothly in spite of rough weather; passengers had to walk about 1,000 feet to the waiting cars because the roadway approach was still under construction, but nobody seemed to mind. In a major boon for the harbor, the Los Angeles Steamship Company announced in the summer of 1924 that it would make the new pier at Kahului a regular stop for two of its steamers, the *City of Los Angeles* and the *Calawaii*.

The first visit of the *City of Los Angeles* was a public relations disaster for the harbor and its new wharf. Carrying 112 passengers, the liner arrived on July 28 in a stiff wind and had a terrible time maneuvering its way to the dock and mooring securely—in spite of help from two local vessels, the *Leslie Baldwin* and the *Makaiwa*. Eventually, the cruise ship's passengers had to be taken off by small boat and landed, humiliatingly enough, on the old Claudine Wharf. The last passengers got to shore around 5 p.m., which didn't leave much time for sightseeing. It took the *City of Los Angeles* three and a half hours to dock, with all the help the harbor could provide. Leaving the next day, the ship fouled its anchor on old steel cables lying on the harbor floor, fouled its propeller on a buoy, and hit a sandbar on the way out of the harbor. The harbor floor was "disordered," fumed Captain Paulson, who refused to use the dock again.

Two weeks later the somewhat smaller *Calawaii*, arriving in better weather and piloted by Kahului harbormaster E.H. Parker, docked without problems—as a crowd watched in suspense from the shore. Two weeks later, Parker brought the *City of Los Angeles* in without a problem, too, despite a "usually stiff trade wind blowing broadside on" (*Maui News* July 30, August 13, and August 27, 1924).

By the end of 1924, the harbor was becoming congested and the nearly new Pier 1 was already being labeled "inadequate" by the business community (*Maui News* December 20, 1924). Freight was piling up on the wharves, the Claudine Wharf was becoming increasingly unsafe but remained in use, and the planned opening of a new cannery promised to bring even more pressure—and opportunity—to the harbor. The *City of Los Angeles* continued to periodically call off visits to the port due to safety issues; and steamers were lining up at sea waiting for a chance to unload their freight.

The Claudine Wharf was less than 15 years old and the new Pier 1 was scarcely broken in, but already commerce was outstripping the harbor's ability to accommodate it. In 1927, the railroad company's manager, William Walsh, called the Claudine "dangerous to life and property" (*Maui News* March 27, 1927) and complained that Maui was losing business because of the harbor's inadequacies. Two months later, the Claudine was demolished; it had apparently remained in use up to the end, in spite of its hazardous condition.

A new, larger wharf (Pier 2) was already under construction, being built from the sea end in toward shore. It stood in approximately the same place as the Claudine Wharf, but extended farther out to

sea; because its construction began at the seaward end, both old and new structures existed side by side for awhile.

The new wharf's first official customer was the *Mauna Kea* on December 2, 1927; but impatient customers had for some time already been dumping their freight on the unfinished structure and going back across the harbor to complete their paperwork. Two years later, Pier 1—the original deep-draft structure, built along the eastern breakwater—was extended to double its original length. By 1930, although improvements were still incomplete, the congestion had eased. The *News* ran the headline *Pilikia Pau* (the trouble is over) over its report that the harbor, dredged to a minimum depth of 35 feet and a maximum width of 1,455, was now safe for larger vessels; that the two new piers could accommodate two ocean liners, an oil boat, inter-island steamers and lumber carriers; and that a freight conveyor system was planned for the Pier 1 extension, similar to the one that already existed on the first half of the pier.

By August 1931, the *News* was celebrating the successful end of 30 years of harbor development—a well dredged harbor; one pier for large vessels, with the most sophisticated freight handling system in the Islands, a smaller pier for inter-island vessels, and in between “abundant anchorage for sampans and the mosquito fleet” (Fig. 6). On September 16, the paper reported with pride and excitement, the harbor coped smoothly with its busiest day ever, moving five ships in and out right on time with “no interruption, no hurry or flurry,” only “ordered activity.” By December, the crowning touch: Both east and west breakwaters were repaired, lengthened, complete at last.

During the preceding 30 years, the builders and users of Kahului Harbor had often given voice to restlessness and dissatisfaction, driven by the rapid industrial and commercial growth enveloping Maui and the pressures that growth put on the island's only commercial port. At a Harbor Board meeting in August 1923, the commissioners had no sooner taken official possession of the new Pier 1 than they turned to discussion of new construction projects (such as replacing the Claudine Wharf). Little more than a year after it was built, the Maui Chamber of Commerce was already calling Pier 1 inadequate. A harbor dredging project in 1925 came so soon after the last project that the dredger was still in the bay and didn't have to be called back. (*Maui News* August 31, 1923, December 20, 1924, January 10, 1925, October 4, 1930).

But for a moment in 1931, the federal, territorial and private enterprises, the cruise ship captains and freight handlers, the sugar and pineapple plantation managers, cannery owners, fishermen, lighthouse tenders—and perhaps most of all William Walsh, superintendent of the Kahului Railroad Company, who had been involved with the project from its start—could celebrate a goal achieved and a project completed satisfactorily enough to gladden even the most demanding civic booster.

EPILOGUE

The last major construction milestone at Kahului Harbor was probably the 40,000-ton bulk sugar plant built by the Kahului Railroad Company in 1942—the first of its kind in the islands. Kahului once again outstripped even Honolulu in port technology for a brief while.

By then the nation was at war—a war with a Pacific theater that deeply involved the hearts of Maui's people as they turned thousands of young *malihini* (off-islanders) into “Maui's own,” sent them to now-legendary battles, and lined up at Kahului Harbor to welcome the survivors home.

During World War II, the U.S. government annexed land at Kahului for the construction of the 18th Service Battalion camp of the U.S. Marine Corps and Naval Air Station, Kahului. Following the

war, the airport was turned over to civilian authorities, and other facilities were dismantled or abandoned. Historic archaeological sites found near Kahului Harbor reflect these events, and include Kahului Railroad berm (Sites 3112), Kahului Railroad buildings (Site 1607), an historic deposit (Site 3119) and the former 18th service Battalion camp of the U.S. Marine Corps (Site 4232).

Additions continued to be made to the harbor facilities, but no major changes followed the war. The State improved and expanded the Pier 1 wharf in 1955 and the Pier 2 wharf in 1963. The original sheds on these wharves, put up in the 1920s, were demolished, removed, or modified; and new sheds or shed extensions were built in 1955, 1970, and 1973. The most significant change was the construction in 1979 of Pier 3, a new wharf paralleling the shore northeast of Pier 2.

After the war, at about the same time as the more famous Levitts were building their affordable housing units on the East Coast, a model city grew inland from old Kahului under the direction of the respected urban planner Harland Bartholomew. Unlike Levittown, Dream City's homes were designed to take advantage of Pacific tradewinds, and were built to attract plantation workers rather than returning veterans. The aim was "eliminating the traditional landlord tenant relationship of the companies and their employees ... to achieve a more stable and happier plantation company" (*Paradise of the Pacific*, December 1948:116).

The old landscape of plantation camps and small rural stores would fade as Wailuku and Kahului expanded inland and towards each other. As tourism boomed, it would change even more. But in the restless heart of this ever-re-invented community, the pace of change had slowed a bit—change that had brought Kahului Harbor in the space of a generation, in the time span of one man's career, from a nearly pristine bay to a state-of-the-art industrial harbor.

NOTE ON TERMINOLOGY

In the documentation on Kahului Harbor, the names of the main harbor structures changed over time and depending on author, and can be confusing. The Claudine Wharf, completed in 1910, was the first wharf for which there is extensive documentation. It could only accommodate smaller ("inter-island") vessels. The term *Pier 1* almost always refers to the wharf next to the east breakwater, which could accommodate larger ("trans-Pacific") vessels and had the most sophisticated freight handling equipment. It was built in two phases. In original sources, *Pier 2* sometimes refers to the extension (second phase) of Pier 1, sometimes to the new, large-vessel dock that eventually replaced the Claudine Wharf, and more rarely, to the Claudine Wharf itself, while *Pier 3* is sometimes used to refer to the newer, larger structure at the site of the old Claudine Wharf.

For ease of reading, this chapter has used *Pier 1* to refer to the pier along the eastern breakwater and *Pier 2* for the structure that replaced the Claudine Wharf.

The words *wharf* and *pier* are used interchangeably by most writers on Kahului Harbor and this chapter has followed that practice.

III. HISTORIC PROPERTIES IN THE KAHULUI HARBOR AREA

This chapter summarizes the archaeological work and the architectural history research that has been carried out near Kahului Harbor and describes the historic properties that have been identified as a result of this work. The potential for the presence of prehistoric and early historic cultural resources at Kahului Harbor will be assessed within the context of this information.

HISTORICAL/ARCHITECTURAL STUDIES AND SITES

KAHULUI TOWN AND HARBOR

The earliest research at Kahului Harbor was conducted by the state of Hawai'i during the 1974 statewide inventory of historic places. As a result of this survey Kahului Harbor was designated as a historic site, Site 50-50-04-2953 on the State Inventory of Historic Places (SIHP). The harbor also formed part of the area defined as the Kahului Historic District, Site 50-50-04-1607.

Site 2953 consists of the piers, wharves, breakwaters, and associated structures that make up the active harbor facility. As discussed in the preceding chapter, development of Kahului Harbor began in 1863 with the building of a warehouse near the beach, and a small commercial landing was in place by 1879. However, the primary period of construction occurred between 1901 and 1931. The designation of the historical period features of Kahului Harbor as elements comprising a historic property reflect the importance of the harbor's construction and development to Maui's history.

The Kahului Historic District consists of the central, coastal section of the town of Kahului. A nomination form for the State of Hawai'i Register of Historic Places (HRHP) was filled out in 1974 as part of the statewide inventory of historic places that was being conducted at that time. The form lists seven structures as contributing elements to the historic district. Figure 7 shows the location of the buildings that are still standing. Four of these were located on the inland side of Ka'ahumanu Avenue: the First Hawaiian Bank, Kahului School, and the auditorium and grandstand at the fairgrounds. Three buildings that were part of the Kahului Railroad (KRR), which terminated at the harbor, were located on the coastal side of Ka'ahumanu Avenue. These three buildings were used as a roundhouse, an office, and a shop for the railroad. According to the inventory form, the significance of the district derives from the role these structures played in the major period of growth and development of Kahului town, especially after a 1917 fire that destroyed much of the town, leaving few structures standing.

The inventory form does not set out precise boundaries for the Historic District; the sketch map on the form simply shows the location of the contributing structures. The district was not nominated to the National or State Register of Historic Places.

Limited archival and field research have been conducted as part of this assessment to update the information on the inventory form. The old First Hawaiian Bank building, located on the southeast of the Ka'ahumanu and Pu'unēnē Avenue intersection, now belongs to the Bank of Hawaii. The two-story concrete building, with its hip tile roof and copper water catchments (trademarks of its architect C.W. Dickey), has undergone some renovation, but it appears to retain much of its integrity (Photo 3). The

school building, situated between Kane Street and School Avenue on the south side of Ka'ahumanu Avenue, was the location of Kahului School, which, from 1912 through the 1970s, served as the main elementary school for Kahului town. After the school was moved to its present location on Hina Avenue, the building was apparently demolished. Today only temporary structures are present, standing on the inland side of the school parcel. The background research was unable to uncover any evidence of when the building was demolished (or moved) or any further documentation of this historic building prior to its destruction.

The Kahului Railroad Company roundhouse and shop remain standing, adjacent to the harbor, on the west side of Hobron Avenue on land owned by Alexander and Baldwin. This shop is a large, concrete brick building with a pedimental façade. The year of its construction, 1926, is engraved in red numerals on the façade below the front pediment (Photo 4). In the rear the shop connects with the curved roundhouse building (Photo 5). These buildings are still in use and seem to have undergone some interior renovation when they switched from railroad to electrical shop, warehouse, and office functions, but the buildings appear to retain their structural integrity. The Kahului Railroad office building, located on the harbor side of Ka'ahumanu Avenue east of Wharf Street on state of Hawai'i land, is in very good condition and appears to have undergone some recent renovation.

NAVAL AIR STATION, KAHULUI (NASKA)

The coastal area east of Kahului, consisting of sand beaches, sand dunes, marshes, and ponds was developed by the military during World War II as Naval Air Station, Kahului (NASKA); after the war the airport was eventually turned over to the state for use as a civilian airport. Early archaeological studies largely ignored the historic structures at the airport. Welch (1988) noted the presence of extensive remains of military development from World War II, and a preliminary inventory of the World War II features, noting their present condition, was made during a 1994 study of cultural resources for the Kahului Airport Improvements EIS (Tomonari-Tuggle and Welch 1995). Following that study, a more thorough study of the historic buildings was conducted by Mason Architects, including documentation and evaluation of all standing structures (Yoklavich, Tomonari-Tuggle, and Welch 1997). These standing structures include 18 ammunition magazines in the Kanahā Pond area, the Enlisted Men's Beach Pavilion, four small arms magazines, four Quonset huts, and a warehouse. The magazines, pavilion, and the remaining foundation of the Officer's Club were evaluated as potentially eligible for the National Register of Historical Places.

ARCHAEOLOGICAL STUDIES AND SITES

There have been several archaeological studies carried out in the Kahului area; but only one within the harbor itself. Table 1 summarizes the work that has been carried out; Figure 8 locates the various studies. Figure 7 shows the location of archaeological sites that have been identified in the general vicinity of Kahului Harbor. Discussion of the results of previous archaeological studies and the results of these studies is organized by sub-area.

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor.

Report	Location	Level of Survey	Comments
Kikuchi 1973	statewide	fishpond survey; Ph.D. dissertation	described and classified Mau'oni and Kanahā Ponds, Site 50-50-05-1783
Barrera 1976	1,020 acres; Waiale	surface survey of disturbed areas	notes that human remains were previously found in sugar cane fields to south
Connolly 1981	development areas of Kahului Airport	reconnaissance survey; Airport Master Plan EA	Site 1 (50-50-05-1798)—burials in airport area
Keau 1981	Kanahā Park/Wastewater Treatment Plant	overview; pedestrian survey	no surface evidence of sites but major storm had covered surface of the treatment plant
Fredericksen and Fredericksen 1988	232 acres south of airport in sugar cane fields	reconnaissance survey; limited subsurface work	survey limited to roads, ditches, open areas
Fredericksen et al. 1988	34 acres between Kaunoa School and Maui CC	surface survey and backhoe trenching	9 backhoe trenches; no cultural deposits
Welch 1988	Short Term Kahului Airport Development areas	reconnaissance survey; revisit Connolly 1981 sites	probable subsurface deposits in dune extending west of Site 50-50-05-1799; military remains around proposed access road at west end of airport
Kennedy 1990	300 m inland of Kahului Harbor; proposed Maui Community Arts and Cultural Center	backhoe trenching	51 trenches; no cultural remains; absence of cultural remains due to previous leveling of dunes
Donham 1990	4.6 acres; Maui Palms Hotel	surface survey and augering	40 auger cores; cultural deposit interpreted as secondary deposit imported as fill
Goodfellow 1991	warehouse site west of Kanahā Pond	surface survey/ subsurface testing (25 backhoe trenches)	no cultural remains; black beach sand 1 m b.s.
Kennedy et al. 1992b	TMK 3-5-03:01	inventory survey and subsurface testing	
Fredericksen, D. and Fredericksen 1992	Kahului Beach Road and Waiehu Beach Road	Inventory survey	railroad bed (Site 50-50-04-3112), historic refuse and prehistoric deposit (Site 50-50-04-3119), and a prehistoric deposit radiocarbon dated to 1790±70 years BP (Site 50-50-04-3120)
Fredericksen, W. and Fredericksen 1992	Maui Community College	inventory survey	heavily disturbed, no new sites: Kahului Railroad berm and foundations from the 18th Marine Camp

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor (continued).

Report	Location	Level of Survey	Comments
Griffin 1993	Nehe Point, Paukukalo	inadvertent burial	one burial (Site 50-50-04-3139) found beneath a house
Fredericksen et al. 1994	Maui Central Parkway, Wailuku	inventory survey	23 backhoe trenches, no sites found
Dunn and Spear 1995	Waialae Road, Wailuku	archaeological monitoring	three sites: an isolated hearth (Site 50-50-04-4067), a human burial (Site 50-50-04-4005), and pre-contact burials and cultural layer (Site 50-50-04-4068)
Tomonari-Tuggle and Welch 1995	Kahului Airport	limited field survey and cultural resource assessment	five known archaeological sites (2 buried cultural deposits, a burial/reburial area, possible surface habitation area, and a fishpond)
Fredericksen and Fredericksen 1996	Lower Main and Mill Streets, Wailuku	data recovery	Site 50-50-04-4127 found during road improvements; consists of two cultural layers including artifacts associated with fishhook manufacture, lithic tool use, and food preparation; radiocarbon dating indicates late precontact period (AD 1570-1780)
Hammatt and Chiogioji 1996	Waiale Road, Lower Main Street	field inspection	historic bridge and six previously documented sites with human burials
Burgett and Spear 1996	Lower Main Street	inventory survey	Maui Sand Hills (Site 50-50-04-4004), remnant of cultural deposit
Heidel et al. 1997	Maui Central Park, Wailuku	inventory survey	surface survey and 31 backhoe trenches; Kahului Railroad berm (Site 50-50-04-3112), WWII military installation (50-50-04-4232), and an area previously identified as containing scattered human remains (Site 50-50-04-4211)
Wade, Eblé, and Pantaleo 1997	Kahului Harbor Barge Terminal	inventory survey	Surface survey and 11 backhoe trenches; one firepit and two historic artifacts
Fredericksen and Fredericksen 1998	Lower Main and Mill Streets	inventory survey	remnant cultural deposit tentatively associated with previously identified habitation Site 50-50-04-4127 and Site 50-50-04-4414, a precontact cultural deposit with an associated burial
Chaffee et al. 1998	west of Papohaku Park	inventory survey	40 backhoe trenches, no cultural deposits due to prior mechanical disturbance of the soil

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor (continued).

Report	Location	Level of Survey	Comments
Fredericksen and Fredericksen 1999	Lower Main and Mill Streets	Mitigation	habitation area (Site 50-50-04-4127), a habitation area with an in situ burial and disturbed remains from an additional 1 or 2 individuals
Fredericksen 2001	Lower Main and Ho'okahi Streets	monitoring	two sites discovered during traffic signal monitoring: possible precontact habitation area (Site 50-50-04-5070) and a scatter of disturbed human remains contained within fill soil (Site 50-50-04- 5071)

KAHULUI HARBOR PROPER

In 1996 Garcia and Associates (GANDA) conducted surface survey and backhoe trenching of 8 acres of the harbor area between Wharf Street and Pu'unēnē Avenue. No surface evidence of archaeological sites was found during the survey. Eleven trenches were excavated in the west half of the property (TMK 8-8-8:6). A probable firepit filled with charcoal was found in Trench 10. Due to apparent ground disturbance, the charcoal sample was not submitted for radiocarbon dating, so the age of the feature is not known. In other trenches two historic period artifacts, a sherd of white porcelain and a piece of bottle glass, were found (Wade, Eblé, and Pantaleo 1997). The finds can be regarded as part of Site 2953 and indicate that there is a potential for the recovery of subsurface cultural materials beneath the harbor fill.

On the seaward side where the piers and wharves are located, the harbor area has been extended out by filling in the bay. Therefore, there is virtually no potential for the presence of intact cultural resources in this part of the harbor. However, the inland portions of the harbor from the wharves to Ka'ahumanu Avenue were built by laying fill on top of the former beach. As shown by the excavations by GANDA, the underlying beach sands retain the potential to contain remains of prehistoric or early historic cultural activity or human burial remains.

THE COASTAL STRIP

Limited archaeological work has been conducted in the coastal strip surrounding Kahului Harbor. Sites that have been uncovered in this area include both traditional Hawaiian and historical archaeological sites. The traditional Hawaiian sites, which were found in sand deposits, include human burials and cultural deposits.

Griffin (1993) recorded a burial (Site 50-50-04-3139) which was uncovered during construction activities near Nehe Point. South of Nehe Point cultural deposits were also found on the west side of Kahului Bay, north of Kahului Harbor (Fredericksen, D., and Fredericksen 1992). Deposits (Site 50-50-04-3119) appearing to date from the late 19th to early 20th century were found overlaying a precontact Hawaiian deposit consisting of marine shell midden, basalt flakes, and abraders. A radiocarbon date of 1790±70 years BP was obtained from charcoal associated with the artifacts. Another cultural deposit (Site 50-50-04-3120) was found ca. 60 ft east of Site 3119. This site contained a variety of artifacts, such as

fishhooks, abraders, basalt flakes, scrapers, and a possible bird bone whistle. In addition, a human phalanx was excavated from what may have been a rodent disturbance, suggesting that burials may be located nearby.

Two more archaeological sites were recorded just northwest of Site 3119 (Frederickson 2001) near the intersection of Lower Main Street and Ho'okai Street. Site 50-50-04-5070, a cultural deposit in dune sand, consists of scattered charcoal flecking and marine shells. It is located on the southern side of Lower Main Street. Site 50-50-04-5071, located on the northern side of the street, consists of human skeletal material. Old breaks in the bone indicate it was previously disturbed.

Three archaeological sites were recorded south of Site 3119 within the 110-acre Maui Central Park (Heidel et al. 1997). Scattered human remains (Site 50-50-04-4211) were found in dune deposits in the central eastern portion of the park near Maui Community Arts and Cultural Center in 1996. The bone appeared to be out of context and was collected by State Historic Preservation Division (SHPD) archaeologist Theresa Donham. Additional testing by Heidel et al. (1997) uncovered no evidence of human remains. Site 50-50-04-3112 consists of remnants of the Kahului Railroad berm (see below). Site 50-50-04-4232 is the former 18th Service Battalion camp of the U.S. Marine Corps, attached to the 4th Marine Division at Camp Maui. Following decommission, a large amount of fill was dumped over the area, possibly obscuring remains of the camp. Only four concrete pads were observed.

Several other studies have failed to reveal any evidence of cultural resources. A surface survey at the Wailuku-Kahului Wastewater Treatment Plant to the east of the harbor failed to uncover any evidence of cultural materials (Keau 1981). A major storm, however, had covered the ground surface with debris, possibly hiding surface archaeological sites. An inventory survey conducted on a 10-acre parcel on the southwest side of the harbor uncovered no evidence of traditional Hawaiian or historic cultural materials (Fredericksen et al. 1994). Modern debris, such as tires, bottles, and concrete, were present on the surface. Twenty-three backhoe test trenches were excavated on the parcel, revealing extensive disturbance. A survey just east of Kahului Harbor and west of Kanahā Pond (Goodfellow 1991), in which 25 backhoe trenches were excavated, also found no evidence of cultural remains.

KAHULUI RAILROAD

Kahului's railroad was developed for the transportation of sugar cane from the fields to Kahului harbor in the late 19th century. The Kahului Railroad (KRR) was founded in 1879 when Thomas Hobron added passenger cars to the rail system. The Kahului Station was located southeast of the harbor at Hobron Point and the line extended along the coast east towards Spreckelsville and west towards Wailuku. A branch also went to Pu'unēnē.

Site 50-50-04-3112 consists of remnants of the Kahului Railroad berm, which extended in a north to south direction, roughly paralleling Kahului Beach Road (Heidel et al. 1997). The berm is roughly 3 m high and 12 m wide. It is lined by ironwood and coconut trees. Historic deposits (Site 50-50-04-3119) have also been found on the west side of Kahului Bay, north of Kahului Harbor (Fredericksen, D., and Fredericksen 1992). The deposits appear to date from the late 19th to early 20th century and were likely related to the railroad. They overlie an earlier, precontact Hawaiian deposit.

KANAHĀ FISHPOND

Kanahā Pond Wildlife Sanctuary is located east of Kahului Harbor. The pond itself, today covering about 37 acres, was a prehistoric Hawaiian fishpond, Site 50-50-05-1783, dating back to at least the middle of the 16th century. Kikuchi (1973) classifies the ponds based on written records and interpretation of aerial photographs. Mau‘oni Pond is a Type III pond, a *loko wai*, which is “an inland fresh water fishpond which is usually either a natural lake or swamp, which can contain ditches connected to a river, stream, or the sea, and which can contain sluice gates” (Kikuchi 1973:228). Kanahā Pond is also a *loko wai*, but one “whose shape has been altered by man” (Type IIIa) (Kikuchi 1973:229).

The only documented archaeological survey was a pedestrian survey of the refuge by Connolly (1981). He does not, however, describe his survey method nor any observations of his survey. Survey of the Kanahā Pond Wildlife Sanctuary area was not carried out during the assessment of cultural resources at Kahului Airport (Tomonari-Tuggle and Welch 1995) because it was nesting season and entrance was not permitted. Although the fishpond has been disturbed by modern activity, it remains partially intact. In the absence of any archaeological survey of the area, it remains unknown whether any cultural features associated with Hawaiian use of the pond are still present.

Kanahā Pond has appeared on historical maps from as early as 1881; it should be noted that this map shows a stone wall across the pond, the only historical record of the existence of such a structure (Jackson 1881; see Fig. 3.). Mau‘oni Pond is only known from traditions; based on historical maps (especially USGS 1922), however, it is likely that Mau‘oni Pond was located in the east half of the Kanahā coastal flat, below the natural, seaward end of Kalialinui Stream. Later historical maps show the changes in the configuration of Kanahā Pond but it was not until World War II that the pond was significantly impacted by the construction of ammunition magazines and access roads for NASKA.

MAUI SAND HILLS

A number of archaeological sites have been found in the coastal dune deposits called Maui Sand Hills. Many of these sites consist of human burials and cultural deposits, often in disturbed contexts. A series of such sites, though frequently disturbed, are located along Lower Main Street extending back from the intersection with Kahului Beach Road toward central Wailuku. These are shown on Figure 8. Remains of the old KRR bed also parallel Lower Main Street.

One of the richest of the archaeological deposits in the Sand Hills is Site 50-50-05-4127, a habitation area with associated human remains found near the intersection of Lower Main Street and Mill Street (Fredericksen and Fredericksen 1999). Artifacts uncovered from this area, such as basalt adzes, *poi* pounders, basalt hammerstones, and shell tools and ornaments, suggest the site was used for permanent habitation.

IV. TRADITIONAL AND CURRENT USES OF THE HARBOR AREA

This chapter describes the cultural impact assessment study conducted in connection with the proposed Kahului Harbor improvements. This study consisted of interviews with persons and groups, including fishermen and Hawaiian *kūpuna*, who use or have used the Kahului Harbor, and those who may be affected by potential developments along the existing harbor. Along with the interviews, site visits were done to assess the proximity of physical features (traditional/historic, recreational, residential, roadways) and user group areas within the project area.

The study was completed to meet Section 106 Consultation requirements of the NHPA and satisfy the Hawai'i State Historic Preservation Division's (SHPD) request for conducting cultural impact assessments. As part of the requirement, attempts were made to contact *kūpuna* (Hawaiian elders) who are knowledgeable about the area. Since the harbor management regularly holds meetings for its tenants and users, many of the informants were participants of these meetings. Interviews were completed between the months of September and October 2002. Organizations using the two canoe *hale* (houses) at Hoaloha Park were visited and consulted with on several occasions.

Due to the relative familiarity of the projects proposed in the 2025 Master Plan to user groups and the generally favorable nature of the plan's overall intent, it is felt that the types of impacts that can be expected (potential or no impacts) identified during this planning level study are adequate for the planning phase.

The primary objective of this cultural impact assessment is to:

1. identify traditional and current cultural uses of the harbor area;
2. identify user groups who would be affected (culturally impacted) by projects proposed in the 2025 Master Plan;
3. conduct interviews with individuals and groups to identify these potential effects;
and
4. assess the level of impact(s) from these potential affects on traditional and current cultural practices in the area.

The user groups identified for this cultural impact assessment include tenants of Kahului Harbor who were identified from the tenant-user meeting roster. Non-tenant user groups were identified through site visits to the project area. All user groups were interviewed either in person or by telephone. Interviews and discussions were also held with individuals who expressed general interest in the project area.

Interviewees who previously spoke with this researcher for *An Evaluation of Traditional and Historical Land Uses in the Kahului Airport Area* (Prasad and Tomonari-Tuggle 1999) provided significant information about traditional land uses in the present project area. The informants included *kūpuna* and other individuals of Hawaiian ancestry, and long-term residents who are familiar with the history of Kahului. The following section consists of oral history data gathered during that earlier study, combined with additional information from the present study.

Participants in the current study and the 1999 study are listed in Appendix B.

TRADITIONAL HAWAIIAN USES OF THE KAHULUI HARBOR AREA

The following accounts summarize the types of “traditional uses” recalled or verified by interview participants; the list may not be exhaustive.

FISHING USES OF THE AREA

Fishing appears to have been the primary activity in the Kahului area up until and well after the beginning of the plantation period. Oral interviews indicate that several types of subsistence activities related to fishing took place along the shores of Kahului, in the ponds, and nearby areas. Among these are:

1. fishing in Kanahā pond,
2. shellfish gathering,
3. picking of *limu* (edible water plants),
4. turtle hunting,
5. *hukilau* (traditional net fishing), from Kuau to Lower Pā‘ia, and
6. gathering salt from salt pans.

First-hand accounts of fishing activities in the area come from Charles (Charlie) Keau, Aaron Brown, and Rene Sylva.

Charlie Keau: According to Charlie, fishing was the main concern [use] of the area by Hawaiians. Along with Kanahā Pond, the reef area was widely used for gathering shellfish. He does not think that all of Kanahā Pond was used. During certain times of the year, the pond would smell from the *limu*. He remembers that Mau‘oni Pond extended all the way to the old Fairgrounds area. Turtle fishing was also known from the Kahului area. Having a nearby stream, people had access to both freshwater and saltwater fish, including *moi* (threadfish) and ‘o‘opu (goby). The area was also famous for picking *limu*. (Although not too much traditional fishing takes place nowadays, the shoreline along Kahului remains a popular place for netting and diving.)

Charlie grew up in Paukūkalo, Wailuku (across Kahului Harbor, looking west from Pier 1). Paukūkalo was also good for fishing and picking *limu*. He recalls that the old folks really liked Paukūkalo and that it has changed dramatically since construction of the Community Center. He remembers that old timers used to put their canoes out from “Kalo Grounds,” the present location of Maui Beach Hotel. Some of these people also lived underneath the nearby trees.

Charlie recalls Kahului being referred to as “Kahiwa‘a,” which translates to “the nose of the canoe.” According to Edward Baker (in Sterling 1995:93), the name “Kaihuwa‘a” was given to the Dream City subdivision in Kahului. Another name used in the area was “Kaimuhee.” According to W. Uaua (June 29, 1871, in Sterling 1995:92), Kaimuhee was above the two waters, Kanahā and Mau‘oni. Although not familiar with this place name, Charlie says that Kaimuhee can be translated as “underground place for octopus” or “imu for cooking octopus.” Since cooking or drying of seafood was generally done

at the shore, it is difficult to determine just where this place would have been located. No one else had heard of the name Kaimuhee.

Aaron Brown: Aaron has been a fisherman for most of his life. He was born in Hilo but raised by his family in Pā'ia. He spent most of his time fishing along the shoreline from Pā'ia to Waihe'e. Kahului was a very popular fishing grounds, as well as a place for picking *limu*. He recalls Piers 1 and 2 in Kahului as being popular places for fishing, diving, and swimming. The area was very clean before Kahului town was built up. Remnants of both piers, which were directly oceanside of the current Longs Drugs, still remain near the breakwater in Kahului.

Aaron had fished in Kanahā Pond. Along with his brothers and neighbors, he used to catch 'o'opu and āholehole (Hawaiian flagtail) from the pond. Sometimes there was *pāpio* (the young of *ulua* or jackfish) in the pond. They used old pipes to bring up the fish since there wasn't any need for nets. The water in the pond was very clean and the fish were visible. Depending on the season, there could be an abundance of fish in Kanahā. Aaron also recalls picking *limu* along the shoreline, and gathering salt inland of Kanahā Pond. He remembers that the land around the old fairgrounds would fill with water at high tide; he didn't know that this area once formed part of Mau'oni Pond.

Aaron remembers that his mother participated in the *hukilau* taking place from Pā'ia on down towards Kahului. One of the foremost leaders of the *hukilau* was Makani Hokoana (father of Nancy Hokoana). Aaron spent a great deal of time with the Hokoana family, both fishing as well participating in other traditional Hawaiian activities such as preparing *kalua* pig.

Rene Sylva: Rene has been an avid fishermen in the Kahului- Pā'ia area since the 1930s. Much of what he learned about fishing was taught to him by an older Hawaiian fisherman. Rene is particularly knowledgeable about Hawaiian plants, and knows a great deal about how schools of fish along the shoreline corresponded with the seasonal changes of flowering plants. He was a net fisherman and particularly fond of catching turtle, *enenue* (also called *nenue* – chub or rudderfish), *manini* (surgeonfish), and *akule* (bigeye scad). Rene also remembers that the Kahului area was (and still is) good for catching lobster. He once caught 208 lobsters during the course of a day. Rene also recalls Makani Hokoana as the person who would lead the *hukilau*. Mr. Hokoana was known particularly for his technique of using the *lau*, which consisted of *ti* leaves and a rope.

According to Rene, after the breakwater was built in 1912, the shoreline changed dramatically. It no longer was a long stretch of sandy beach from Pā'ia to Waihe'e Stream. The military made the shoreline off limits to fishing between 1943 and 1945. During this time, the schools of fish got rather large. In 1944, only Hawaiians, many of whom lived in the fishing villages around Kahului Bay, were allowed to go fishing along Kahului's shoreline.

All forms of fishing (netting, freshwater, reef, and open-water) took place at Kahului during the precontact era and well into the historical period. Kahului is still an important fishing area, although development has changed the face of the shoreline and limited access to many of these resources.

AGRICULTURAL USES OF KAHULUI

During the precontact period, Wailuku *ahupua'a* was known as an area for growing taro (Tomonari-Tuggle and Welch 1995). According to Charlie and Aaron, taro was often grown alongside fishponds and in areas with freshwater streams. "Fishing went hand in hand with taro and cultivated plants" (Aaron recalls the taro that his grandmother grew along Baldwin Avenue in Pā'ia). While none of

those interviewed had actually witnessed taro growing in the Kahului area, there is little doubt that taro farming took place alongside the ponds. Changes in the configuration of Kanahā and Mau‘oni ponds were significant by the turn of the century.

According to Charlie, it is possible that sweet potato, pumpkin, and Hawaiian sugar cane also were grown in this part of Kahului. Given the type of soil and surrounding activities, it would not have been unusual for Hawaiians to be cultivating these other crops.

GATHERING OF NATIVE PLANTS

As an expert on native Hawaiian plants, Rene is extremely familiar with the plants of Maui, Lāna‘i, and Kaho‘olawe. Although there appears to be no mention of the gathering of native plants from and around the project area in written accounts, Rene feels that Hawaiians would have gathered plants from the area. Traditional plant species that can still be found in the Kahului area include ‘*aki‘aki* grass and *kauno‘a*. He is certain that many other species of traditional plants were found in the area but that some either have become extinct or have been displaced by introduced plants such as *haole koa* and *kiawe* that now surround Kanahā Pond.

HABITATION

Recollections about habitation in the Kahului area date primarily to the historical period. Government records indicate that the *ahupua‘a* of Wailuku was claimed as Crown Lands by Kamehameha III, and that there were no commoners’ *kuleana* lots in the project area. The small historic settlement in the harbor area grew in conjunction with the development of the railway and commercialization of sugar in the late 1800s. Based on the sequence of recorded events, it does not appear that any Hawaiian families claimed or had permanent habitation/use rights to the land before contact or into the historical period. In contrast, surrounding areas, such as Pā‘ia, which had Hawaiian residences before the turn of the century, continue to be home to some of these families; for example, Nancy Hokoana’s family has resided on the family lot in lower Pā‘ia since before the 1900s. (William Tavares’ father purchased the current Tavares family lot from the Hokoana family in 1910.)

While written accounts tell little of Hawaiian settlements in the Kahului area, it is assumed that seasonal camps associated with fishing activities were located along the seashore (e.g., see the “fishing station” on Jackson’s 1881 map). Charlie, who spent much of his youth at Raw Fish Camp in Wailuku, knows the area was very popular for fishing activities. The reef, shoreline, and open seas off the Kahului coast would have been ideal fishing grounds for native Hawaiians. Based on the activities that carried over into the historic period, it can be assumed that similar activities took place during earlier times.

According to Charlie, Harbor Road (now Kahului Beach Road) in Wailuku was marked by a row of coconut trees named in memory of the stevedores who worked at the docks. This was also the location of Raw Fish Camp. Only the people of Pā‘ia and Kahului know of Raw Fish Camp. It had many homes, and residents included Hawaiians, Japanese, Chinese, Filipinos, and Portuguese, all of whom were employees of Kahului Railroad. The camp was destroyed after Dream City was built in the early 1950s. Russell Okumura is a former resident of Raw Fish Camp. He along with Myoko Onaga and Dorothy Makimoto recalled the days when the houses along the camp were occupied. Dorothy lived just above Raw Fish Camp, in Wailuku, while Myoko lived in the town of Kahului. Photo 6 shows Raw Fish Camp in 1973. According to Fred Woodruff, a volunteer at the Bailey House Museum, the Kahului Railroad

Company built the camp in 1919 to house stevedores and their families, who were primarily of Hawaiian descent (*The Maui News*, July 28, 2002).

Almost everyone interviewed recalled the Hawaiian families who lived along the Kahului waterfront (near the present Maui Islander Hotel). These were people who worked for the railroad. George Ito, who worked on installing the sewer system for Dream City, recalls that these families lived along the waterfront until construction began on the first increment of Dream City. Since the railroad employees were also given the option to buy a house or lot in Dream City, many took the opportunity to relocate. George also remembers a rather large Hawaiian settlement near the site of the present wastewater treatment plant adjacent to Kanahā Pond. He recalls that homes of some of the railroad workers (primarily Hawaiians) were scattered in the area that had large thickets of *kiawe* (around Kanahā Pond).

Hiroshi Arisumi, a resident of Camp 6 at Pu‘unēnē, recalls that the towns of Spreckelsville and Kahului had houses all along the beach until the airport was built. He believes that these were homes of the wealthy people. Barbara Woods, who moved to Maui in 1954 after her husband took a job with Hawaii Pineapple Company, confirmed this. A few weeks after their arrival, they moved into the old Cameron house in Spreckelsville; Barbara has remained at this residence since 1955. She recalls there being three houses to the west of her home, all of which belonged to people of status. These homes were referred to as the “Beach Houses.” There weren’t any Hawaiian families living in this area. She recalls that people were less mobile in those days, relying primarily on the railway to get from one place to another. Her family’s focus was in and around Spreckelsville and Pā‘ia towns, since these provided most of the necessary social services (e.g., beauty shop, post office, and a theater in nearby Cod Fish Village). Until the building of Dream City, Kahului was not much of a town. This is perhaps best summed up by Charlie Keau, “the old timers from Kahului come from Pu‘unēnē...the fishermen and railroad workers are all gone.”

OTHER SOCIAL/RECREATIONAL ACTIVITIES

The beach along Kahului, prior to building of the harbor breakwaters, was all sand and could very well have served as an ideal recreational area for swimming, surfing, and sailing canoes (see Photo 1). Many of the written accounts tell of the canoe landings along Kahului (west to Waiehu and east to Kē‘au).

Kamakau (1961:83) refers to Ka‘akau and Kehu as two beaches in Waiehu where the ruling chiefs played. According to Charlie, Ka‘akau or “breakwater” is the surfing beach at Waiehu, and Kehu is a part of Waihe‘e. The entire shoreline area from Pā‘ia to Waihe‘e is referred to as Ka‘a. The area in front of Waiehu is also called Ka‘a. No one else recalled the beach names by Ka‘akau or Kehu in the Kahului area. Charlie also noted that the *ali‘i* would have used the beach areas for surfing only seasonally.

The shoreline along Kahului continues to be an area of much recreational activity. Changes such as the harbor breakwaters appear to only have slowed down but not eliminated recreational use of the area.

CURRENT USES OF THE PROJECT AREA

While the primary activities at Kahului Harbor concern commercial uses of the port, the harbor is also used for various cultural activities. Activities such as fishing, surfing and paddling reflect back to a time when this part of Maui served as a primary area for traditional Hawaiian recreational practices.

The following are the primary traditional/recreational user groups identified for Kahului Harbor area.

PADDLING ORGANIZATIONS

The Hawaiian Canoe Club and Na Kai Ewalu are two fairly large organizations that have *hale* (canoe houses) on the harbor grounds. The *hale* are located side by side on the beachfront (off of Hoaloa Beach Park), facing out towards the eastern breakwater and Pier 1. According to Gabby Garcia of Na Kai Ewalu, his club has been paddling from the harbor since at least 1972; Photo 7 shows club members carrying out their canoe to Kahului Beach. Well known paddlers such as David Kaho'ohanohano and Grandpa John Lake are among the individuals who began the club.

The Hawaiian Canoe Club began using the harbor around 1974. It currently trains up to 180 students during its regatta season (June-July). The *hale* also serves as a meeting area for various social and educational groups. According Mary Akiona, the Executive Program Director of the organization, the club leases the building and the land 10 feet outwards, from the county. Alexander and Baldwin (A&B) lease the adjoining lands.

Paddling season for both groups usually extends from March to September/October, with some intermittent practices in between. People of all ages are members; however, because of its protective and relatively calm waters, Kahului Harbor is a favored and regular training ground for *keiki* (child) paddlers. Both clubs use an area that extends ¼ mile from shoreline of the beach, paralleling and passing Pier 2. There are a total of eight paddling lanes. Two are located on the east side of Pier 2 and are used only by adults and only when there are no boats moving through the harbor. Proposed improvements and/or changes in the harbor, specifically those bordering Pier 2, would impact the canoe paddling groups the most since the areas surrounding this pier are regularly used for paddling. Following earlier consultations with canoe club representatives, improvements to Pier 2 have been reduced in size to minimize impacts on the use of the harbor by the paddlers.

FISHERMEN—THROW NET AND POLE (OFF THE HARBOR)

Fishing at Kahului Harbor is still very popular. Depending on the type of fish sought, one of three locations is generally chosen—(1) along Perimeter Road, (2) off Hoaloa Beach, and (3) along the western breakwater/wall area. Along Perimeter Road, fishing is done between the Power Plant and Pier 1, at the far southern edge of the harbor. The large rocks off the breakwater and wall provide a good place from which to do pole fishing. At present, a sign reading “No fishing until further notice” is posted at the entrance to Pier 1. Security measures enforced after September 11, 2001, have temporarily closed the area along Perimeter Road to all fishermen. Also, the current Corps of Engineers project at Pier 1 has temporarily placed some of the fishing spots off limits. (Previously an area inside the harbor along Pier 1, was also open to fishermen; for security and safety reasons, fishing has completely been banned in the area.)

The second fishing area, off of Hoaloa Beach Park, fronts the area used by the canoe clubs. These are primarily pole fishermen. (Throw net fishing is not allowed in the harbor, but according to several fishermen, it is frequently done.) Fishermen off the beach park are looking for “seasonal” catch. One regular, Rudy, says he comes when *halalū* (baby mackerel) and *uouoa* (mullet) are in season; he also collects *manuia* or *ogo* (seaweed) off these shores. Fishing off of the beach park, just east of the canoe *hale*, is a favorite of fishermen; the only times they vacate the area is when paddling takes place. Given

the type of fish (young, small) caught by these fishermen, it is unlikely that the extension of Pier 2C will affect their use of the area.

The third fishing spot is along the western breakwater/wall. This is a more established fishing spot, and includes a fishing shack with table, benches, chairs, and fish cleaning areas nearby. According to Mr. Ishikawa, this is “the place where the old timers stay...to play cards, eat, socialize.” The fishing spot is within 50 meters of the small public boat ramp and attracts many fish larger than those in the harbor. According to two fishermen, the area along the western breakwater (inside the harbor) is also good for net fishing. These fishermen would be affected if a new pier is put in place on this western end. However, current harbor improvements do not include construction of such a pier.

FISHERMEN—SMALL BOAT, NON-COMMERCIAL

Small-boat fishermen use the public boat ramp located at the west end of the harbor. The Department of Land and Natural Resources (DLNR) operates this ramp. DLNR also issues licenses/permits for general uses of the harbor area including canoe races. No small boats are known to use the harbor area where commercial activities are focused. During the period of this study, no small boats came to or departed from the small boat ramp. Small boats would also be affected if a new pier were to be placed along the western breakwater/wall area.

SURFERS

Surfers have used the western end of the harbor along the breakwater for many years. It is an ideal surfing location for residents along the northern shores of Maui. The surfers primarily come out when the winter swells rise. They find good waves that can be ridden onto the beach (towards Harbor Lights condominiums), in an area that’s well protected from heavy winds and rough seas. No surfers had used the harbor during the period of this study. They would be affected only if the placement of Pier 5 along the western end of the harbor is pursued.

SWIMMERS AND BEACH/PARK USERS

Swimmers and beach/park users are not likely to be affected significantly by any changes that take place within the harbor. Except possibly for limited access (resulting from multiple uses of the same area), these groups use land and sea areas immediately adjacent to the beach, and are unlikely to be affected by the proposed changes.

V. EVALUATION OF SIGNIFICANCE, ASSESSMENT OF POTENTIAL EFFECTS, AND RECOMMENDATIONS

This chapter assesses the potential impacts of planned harbor improvements on archaeological resources, the Kahului Historic District, traditional native Hawaiian practices in the area, and current uses of the harbor.

The area of potential effect for this project constitutes the four pier areas and the container yard areas directly behind them that will be the sites of the five proposed construction projects. Project areas will be the area into which Pier 1 will be extended, the area in which the Pier 1 comfort station will be built and the sewer line laid, the Pier 3 expansion area, the location of the new Pier 4, and the location of the new passenger terminal.

The modifications could have an indirect impact on remaining areas of the harbor in the vicinity of the improvement areas. Therefore, the entire harbor area will be considered in the assessment of cultural resources and the impacts of the improvement projects on these resources.

ASSESSMENT OF HISTORIC PROPERTIES

EVALUATION OF HISTORIC PROPERTIES IN THE PROJECT AREA

Criteria of Significance

Historic properties are evaluated for significance in terms of their ability to meet the criteria for nomination to the NRHP as set out in federal regulation 36 CFR 800 Part 64 implementing the NHPA and the criteria for the HRHP contained in Chapter 343 Hawaii Revised Statutes, Section 6e, as amended. An impact will be evaluated as significant under National Environmental Policy Act (NEPA) if it involves an adverse effect to a significant historic property; that is, if it alters or modifies those qualities of a property that make it eligible to the NRHP or HRHP or alter the integrity of the historic property.

Historic Properties at Kahului Harbor

Kahului Harbor has been designated a historic site, Site 50-50-04-2953 in the State of Hawai'i Inventory of Historic Places maintained by SHPD. This site consists of those features and structures of the harbor that were constructed during its main period of development between 1901 and 1931. These features are over 50 years old and the harbor retains much of its integrity in setting, materials, and design. This historic site is regarded as potentially eligible to the NRHP and the HRHP on the basis of its importance in the broad patterns of Maui and Hawai'i history and its association with important persons in Maui's history, particularly Henry P. Baldwin. Chapter II of this assessment sets out in detail the historical importance of the harbor in the development of the sugar industry on Maui and the establishment of Kahului as the main commercial center on the island.

The piers and the buildings on them are typical of the facilities found at other neighbor island harbors. They do not possess any characteristics that would make them special, unique, or of high architectural value and thus do not qualify as eligible to the NRHP under Criterion C. Many of the sheds now standing on the piers are less than 50 years old. Of the original buildings constructed in the 1920s, a portion of the Pier 1 shed has been removed, the Pier 2 produce shed was demolished, and the original Pier 2 shed has been modified through the addition of extensions in 1970 and 1973. Thus the significance of the Kahului Harbor site derives from its historical value and not its architectural qualities.

Kahului Harbor also falls within or adjacent to the Historic Kahului District (no formal boundaries have been defined for the district). This district was defined during the 1974 statewide inventory and the district entered as Site 50-50-04-1607 in the SHPD State Inventory of Historic Properties. The register form lists the significance of the district as lying in the areas of architecture and history. Seven structures are specifically listed as contributing elements: the Kahului Railroad roundhouse, shop, and office, the First Hawaiian Bank, Kahului School, and the County Fairgrounds auditorium and grandstand. The three railroad buildings lie adjacent to Kahului Harbor in the area between Ka'ahumanu Avenue and the piers.

Although never formally nominated to the National or State Register, an Hawai'i Register of Historic Places form was filled in, and the SHPD treats the structures contributing to the District as historic properties that are eligible for the National Register. The historic importance of the structures derives from their role in the growth of Kahului town beginning in the late 1880s. Chapter II of this report documents the role of the railroad as well as the harbor in the development of Kahului and the sugar industry on Maui. The buildings are also associated with important figures in Maui's history: T.H. Hobron, Claus Spreckels, and Henry P. Baldwin.

The architectural importance of these buildings is based both on their age and their style. Following a fire in 1917, the town needed to be completely rebuilt. The Kahului School building, built in 1912, though of standard design, was virtually the only building standing in 1974 that dated to before 1917. The auditorium and grandstand of the fairgrounds were constructed in 1919 and form the site of the oldest, continuing fair in the state. The First Hawaiian Bank building is of importance because it was designed by noted architect C.W. Dickey and reflects his trademarks. The railroad buildings display architectural elaborations typical of the 1920s period in which they were built.

Any modification or alteration to these historic structures during harbor improvements would constitute an effect under the stipulations of the NHPA. In accordance with Section 106 of the NHPA, consultation with the State Historic Preservation Officer should take place prior to undertaking actions that would directly or indirectly affect these buildings.

Potential for Subsurface Cultural Deposits

The potential for undiscovered subsurface cultural resources in most of the harbor area is generally quite low. The piers were built on fill from the dredging to deepen the bay and extend out into the bay, so the potential for archaeological deposits beneath these areas is extremely low. The dredged material was also used as fill to cover and level the area stretching back to Ka'ahumanu Avenue and inland of the avenue near Haleakalā Highway. Thus, the upper part of the deposit throughout the harbor area is fill. However, as demonstrated by the previous subsurface testing in the harbor area, in the area between the wharves and Ka'ahumanu Avenue, the fill probably simply covered the existing beach deposits. Since historical and traditional accounts indicate that fishing villages were once located along the shores of the bay and since sand deposits were frequently used for burial by prehistoric Hawaiians,

there is a potential for deeply buried cultural deposits and human burials in these portions of the harbor. Previous subsurface testing during archaeological survey in 1997 in TMK 3-7-8 between Wharf Street and Pu'unēnē Avenue in the Pu'unēnē Yard revealed a single cultural deposit, probably a firepit (Wade et al. 1997). The SHPD in its letter of October 3, 2002 to EKNA specifically notes the potential for such deposits on TMK 3-7-10:2. This was previously an unsurveyed vacant lot, but has been paved over with asphalt, and is now used as a parking area for vehicles being shipped to or from the harbor.

ENVIRONMENTAL CONSEQUENCES: ASSESSMENT OF POTENTIAL IMPACTS

Each of the six proposed projects will directly impact only the piers and the wharves and the container yard areas directly associated with them. These projects, except for the sewer line, will be confined to areas of imported fill that were constructed out beyond the former shoreline of the bay. The only direct impact, then, would be on the pier structures themselves, which form the Kahului Harbor historic site.

The major concern in regard to historic properties from the modification would be a potential adverse effect in regard to the integrity of the setting of these structures and of the KRR buildings that form part of the Kahului District. However, because the structures making up the harbor site derive their historical importance from the part they have played in the development of the harbor, these modifications are simply a continuation of the process that gives the piers and wharves their historic value. Since they have always been integral parts of a changing and actively used harbor facility, this impact is deemed to be minimal and less than significant under the NEPA regulations. Also, as argued above, the harbor piers are regarded as significant cultural resources primarily because of their role in history and not their architectural qualities; therefore, these modifications will not affect the qualities that give the property its value.

Alterations to the harbor could indirectly alter the integrity of setting for the three KRR buildings that form contributing elements of the Kahului Historic District. However, previous alterations around these structures since the time of their construction has already been so great that the effect of the harbor improvement projects will be negligible. Also, since most of the alterations are minor, involving extensions and expansions of current features rather than construction of new facilities, the impact will be unnoticeable. All the proposed new structures will be low in height and similar in form and style to existing structures. From the area of the harbor improvements to the KRR roundhouse, the nearest building in the Historic District, it is a distance of at least 500 feet. Large fuel tanks and the several stories high World War II age sugar plant block any view between the two, eliminating the possibility of further adverse impacts to the visual integrity of the KRR buildings. The KRR buildings are important for their architectural as well as historic value, but any indirect impacts should not affect their architectural integrity and thus would not constitute a significant impact.

While noting that the project falls within the boundaries of a historic site and a historic district, the SHPD in a letter dated October 3, 2002, providing a preliminary review of the project, appears to concur that a finding of no significant impact would be appropriate.

None of the projects as currently planned will affect directly the areas of concern for buried archaeological deposits. Therefore, the project should have no effect on any cultural resources that may be buried at Kahului Harbor.

MITIGATION MEASURES

Mitigation measures for historic properties that may be impacted by this project should consist of efforts in the design of new facilities and during their construction to minimize indirect impacts to the buildings that constitute the Kahului Historic District.

While the potential for finding buried cultural deposits appears quite low, should human remains, prehistoric or historic artifacts, or cultural features (such as trash pits, post holes, or hearths) be encountered in the course of excavations during construction, then the supervisor should halt work in that area and the SHPD Maui office should be notified in accordance with the provisions of Section 6e of Chapter 343 HRS. The Maui archaeologist will then visit the site prior to resumption of construction work in the area of the find, assess the significance of the finds, and decide how to proceed.

The proposed improvements to Pu'unēnē Yard (Project 6) are located in TMK 3-7-08:6, where the archaeologists conducting testing recommended that an archaeological monitor be present during any ground altering activities. In his letter dated October 3, 2002, the SHPO concurred with this recommendation. Therefore an archaeological monitor should be present during all excavation work that might extend below the modern fill level. If any of the other projects should be expanded to the extent that construction work might have an impact on below fill deposits in the properties that form TMK 3-7-08:1, 3, inland portion of 4, and 6 inland of Pier 2 on the west side of Wharf Street, then the SHPD recommends that a qualified archaeological monitor should be present during all ground-altering activities. For any monitoring, a monitoring plan should be prepared prior to the commencement of construction and a monitoring report submitted to the SHPD at the end of monitoring.

At present no ground altering activities are planned for TMK 3-7-10:2, which is located next to Hobron and Ka'ahumanu Avenues and is used as a parking area for incoming and outgoing vehicles. However, if, in the future, any construction is planned for this parcel, then the SHPD recommends that an inventory survey first be conducted of this area to determine if significant historic sites are present. Until a few years ago, this parcel was a vacant lot, but it is now paved with asphalt, precluding any surface survey. Survey would have to consist of subsurface testing to determine if intact cultural deposits are present. An acceptable report would need to be submitted to the SHPD for evaluation of the significance of the cultural resources and the potential adverse effects of the proposed project. Mitigation measures could then be developed in accordance with the findings of the survey. If mitigation of any historic sites were needed, then a mitigation plan would need to be developed in consultation with the SHPD and implemented prior to construction.

CONSULTATIONS WITH SHPD

In reviews of the draft of this report, the State Historic Preservations Officer (SHPO) concurred with the assessment and proposed mitigation measures for the potential archaeological resources, but expressed lingering concern about possible effects of the project on the historic buildings of the area. Following submittal of additional photographs of the project area, a meeting was arranged with the SHPD architect to discuss these concerns. With the use of photographs and an aerial photograph of the harbor, Harbors Division illustrated the presence of existing structures between the proposed construction areas and the structures of the Historic District. Given the distance of 500 feet between the proposed new pier construction and the nearest of these structures, the presence of the other buildings between, and the low height of the planned new buildings, the lack of impact on the visual integrity of the historic buildings was clarified. Harbors Division also emphasized that most of the existing buildings at the harbor itself are less than 50 years old and that all are typical neighbor island harbor sheds, lacking any special or unique

architectural qualities. Following the meeting, in a letter dated March 31, 2004, the SHPD expressed agreement that the harbor improvements will have no effect on any architectural historic properties and that there will be no need to implement measures to mitigate adverse effects.

CULTURAL IMPACT ASSESSMENT

ASSESSMENT OF POTENTIAL IMPACTS

Based on information gathered from interviews with individuals and organizations that use the Kahului Harbor and its surrounding areas, the potential impacts of the proposed project would generally be positive. The analyses are presented in table form, according to each “proposed action” and its potential impacts on each of the five user groups. These improvements/actions are to be undertaken sometime within the span of the 2025 Master Plan.

Tables 2 through 7 present the quantitative results of the data gathered from user groups. Discussion of these results and the potential impact/no impact follows the tables.

Table 2. Pier 1C Extension.

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)		x
Canoe paddlers	x	
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

Table 3. Construction of Comfort Station and Sewer Line at Pier 1.

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)	x	
Canoe paddlers	x	
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

Table 4. Expansion of Pier 3.

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)	x	
Canoe paddlers	x	
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

Table 5. Construction of a New Pier 4 (between Piers 1 and 3).

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)	x	
Canoe paddlers	x	
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

Table 6. Extension of Pier 2C, with Accompanying “Dolphins” (fendering pillars).

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)	x	
Canoe paddlers		x
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

Table 7. Structural Paving, Construction of Access Bridge, and Installation of Utilities at Puunēnē Yard.

User groups affected	No impact	Possible impacts
Fishermen (small boat)	x	
Fishermen (shoreline/net)	x	
Canoe paddlers	x	
Surfers (board and kite)	x	
Swimmers and beach/park users	x	

No Cultural Impacts (Positive)

The improvement project proposed for Pier 3 is seen to have no cultural impacts.

The improvement project proposed for Pier 4 is seen to have no cultural impacts.

The comfort station and sewer line improvement project proposed for Pier 1 is seen to have no cultural impacts.

Potential Indirect Cultural Impacts (Short-Term)

The improvement project proposed for extending Pier 1 will have no long-term impacts. Short-term impacts may occur to line/net fisherman using the shoreline area to the right of Pier 1, along Perimeter Road. The effect would primarily be restricted access during the construction phases, and is not evaluated as a significant impact.

Improvement projects proposed for and around Pier 2C will have potential short-term impacts on restricting/limiting paddling lanes. Once construction has been completed, canoes and small boats should have access through the fendering pillars. This temporary impact is not considered significant by any of the user groups. The project is slated for 5+ years from the current date.

Potential “Direct” Cultural Impacts (Long-Term)

The placement of Pier 2C will likely close two or three of the existing eight canoe paddling lanes that run parallel to the beach. Scheduling/coordinate changes will need to be made by the canoe clubs to accommodate the reduced number of lanes. In general, most members of the canoe clubs using the lanes do not seem to feel that the loss of canoe lanes through the addition of Pier 2C would significantly impact their activities. Any negative impacts from the loss of lanes would be offset to some extent by the beneficial effect of added protection that the pier would provide for inexperienced paddlers who are learning canoe skills. (According to S. Cunningham, this project entails no dredging so there should be little change/effects to the existing surf pattern.)

COMMENTS/SUGGESTIONS OFFERED BY USER GROUPS

The opinions expressed by the various user groups in the Kahului Harbor area generally support the proposed improvement projects. There is also appreciation for current management efforts and style of discussing matters at the tenant-user group meetings. Overall, there is a good relationship between the commercial uses of the harbor and the public (cultural/social) uses such as canoe paddling, fishing, and surfing. One example is the regular communication to user groups by the harbormaster's office on daily boat movements. This is sent via fax to each group.

By far, the activity most likely to be affected by any changes within the harbor area proper, is canoe paddling. Canoe paddlers share the protected bay closest to the area of greatest commercial activity. The fishermen are off to either side of the harbor, or go out in small boats from the public boat ramp on the western end. Surfers and other recreational users of the harbor are primarily active along the western shores, away from the commercial center. Many of these groups are seasonal users of the harbor.

The primary area of concern is the construction of Pier 2C. Although not slated for another 5+ years, development and design plans for construction of Pier 2C should obtain input from the canoe groups to be affected. The construction of Pier 5, a project that would have significant cultural impacts, has been deemed unsuitable at this time for various reasons. If it goes forward, a more project-specific assessment would need to be done.

Specific comments offered by harbor users include the following:

1. Allow the placement of a "main line" for canoe paddlers from Pu'unēnē Avenue out towards and beyond the newly constructed Pier 2C.
2. The addition of Pier 2C looks good, although it may require the paddling regattas to be moved to Saturdays and Sundays (to accommodate the ships), and the reduction of their existing eight lanes to five or six lanes.
3. Open Pier 2C to fishermen. (For security reasons, they can no longer fish off the walls of the existing Pier 2, nor can they any longer use the inner area along Pier 1.) This would allow use of one inner harbor area to fishermen.
4. Construction of Pier 2C will destroy our existing race course. We now have eight clubs and eight lanes; it will reduce it down to five lanes.
5. Plans to expand the harbor should look at other possible sites. However, such alternatives have already previously been assessed by Harbors Division, such as:
 - toward Kanahā Pond (southward of the existing harbor area);
 - Mā'alaea;
 - Olowalu Bay (but need to consider the area's value as a traditional shark breeding habitat);
 - Pā'ia/Spreckelsville;
 - Kīhei (site of historic boat ramp);
 - Waiehu area.

6. Bigger ships such as luxury liners should be ported in another area; they are eyesores.
7. The harbor is much cleaner now that Maui Pine and Land is no longer dumping in the water.
8. We (Maui) have only one harbor, while all other islands have at least two. We need a second commercial harbor.
9. Since tourists generally go to Lahaina, let the ships bringing them dock on the other side.
10. Dredging for the placement of Pier 5 will increase/produce higher surf. It will change the surf conditions within the entire harbor area.

EVALUATION OF FINDINGS WITH RESPECT TO SPECIFIC STATE CRITERIA

PASH and Traditional/Cultural Concerns in the Project Area

Public Access Hawaii Shoreline (PASH), the State of Hawai'i Supreme Court decisions that define the rights of native Hawaiians as *ahupua'a* tenants to exercise traditional and customary practices, is not a consideration for Kahului Harbor and the current project area. The application of PASH rights encompasses issues that relate to the broader concept of *ahupua'a*, which includes the shoreline. Although PASH generally applies to access to shoreline areas for traditional and customary practices by native Hawaiians, this is not a concern at Kahului Harbor for two reasons. First, Hawaiian groups (canoe paddlers, surfers, fishermen) have access to the harbor, and most importantly, will not be denied access as a result of future developments. In the near future, an altar for the god Kanaloa will be completed on the shoreline, between the two canoe *hale* (Gabby Gouveia of Na Kai Ewalu, pers. comm.). The rock representing Kanaloa was brought from Kahakaloa, and is already in place in front of the *hale*. Second, PASH has not been a concern for the harbor area since other traditional uses have either been long abandoned or have been discontinued for a significant period of time.

Application of the Environmental Council Guidelines for Cultural Impact Assessments

Efforts were taken to meet the Environmental Council's guidelines for conducting cultural impact assessments. An evaluation of the council's six-point protocol is offered below.

1. Efforts were made to contact individuals and organizations that have expertise concerning the types of cultural resources, practices, and beliefs found within the vicinity of Kahului Harbor.
2. Efforts were made to locate individuals and organizations that would be directly affected by changes to the proposed project area.
3. Formal and informal interviews, past and present, were done with individuals who have historical knowledge about the area.
4. Documentary research, particularly on the location of traditional and cultural uses of the area, was completed.

5. Cultural resources in the project area were examined in the archaeological portion of this project, and are not seen as a major component of the current cultural impact study's purpose.
6. The assessment above is considered appropriate in meeting the goals of the current study, taking into consideration that the projects (improvements) are slated for an approximate 25-year period and will occur in an area that is already designated and used as the primary commercial harbor on Maui.

Meeting the Goals of the Hawaii State Plan for Socio-Cultural Advancement

The proposed project aims to meet the goals of the Hawaii State Plan, Chapter 226 - Socio-Cultural Advancement in HRS Section 225-20-21; 23-27, of the Hawaii Revised Statutes. The Hawaii State Plan was prepared as a guide for future development of the State of Hawai'i "in the areas of population growth, economic benefits, enhancement and preservation of the physical environment, facility systems maintenance and development, and socio-cultural advancement (2025 Master Plan 2000:X-1)." At present, Kahului Harbor has two canoe clubs that are actively providing social and cultural education to their young students. These are the kind of activities that could be enhanced and benefit from being incorporated into the state plan's future development goals.

RECOMMENDED MITIGATION MEASURES FOR CULTURAL PRACTICES

Since the cultural impact assessment portion of this report was prepared for a planning level document, there is allowance for any potential negative impacts to be mitigated before actions are taken. There also is an opportunity to properly plan for adverse impacts that may be unavoidable. Based on the information gathered, the following recommendations are made.

1. Address cultural/social impacts as part of an environmental assessment prior to initiating new actions not covered by this assessment. This would include the additional projects proposed in the 2025 Master Plan but not covered in this study that might have potential cultural impacts on user groups.
2. Continue tenant-user meetings and exchange of information regarding the activities in the harbor. These meetings have been highly informative and allow the user groups to be part of the decision-making process. When an improvement project is about ready to begin, notify the user groups at these community meetings prior to initiating the project.
3. Consider creating a pictorial or written display of the rich history of Kahului Harbor. This could provide significant information on the traditional Hawaiian and plantation-era history of the harbor, and display the harbor's current multiple uses including the various commercial needs it fulfills. User groups can be recruited to help create this presentation (both the Hawaiian Canoe Club and Na Kai Ewalu are currently active in offering traditional Hawaiian cultural programs).

FIGURES

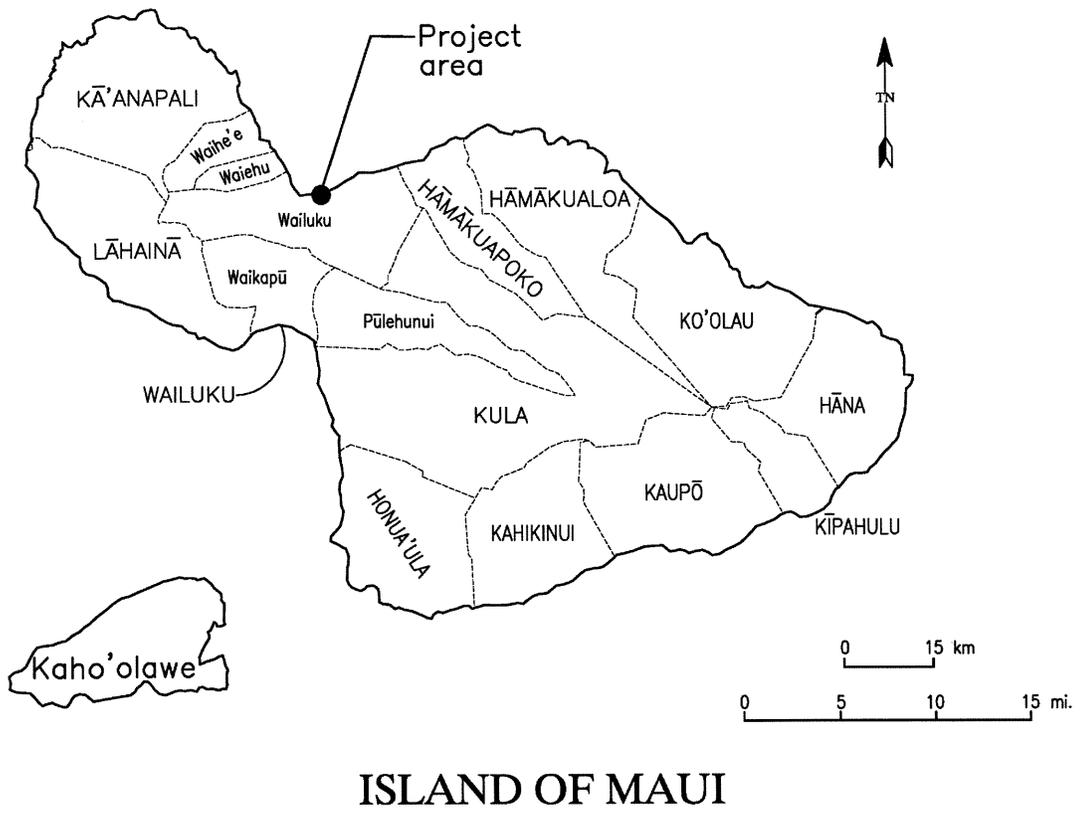


Figure 1. Location of Kahului Harbor.

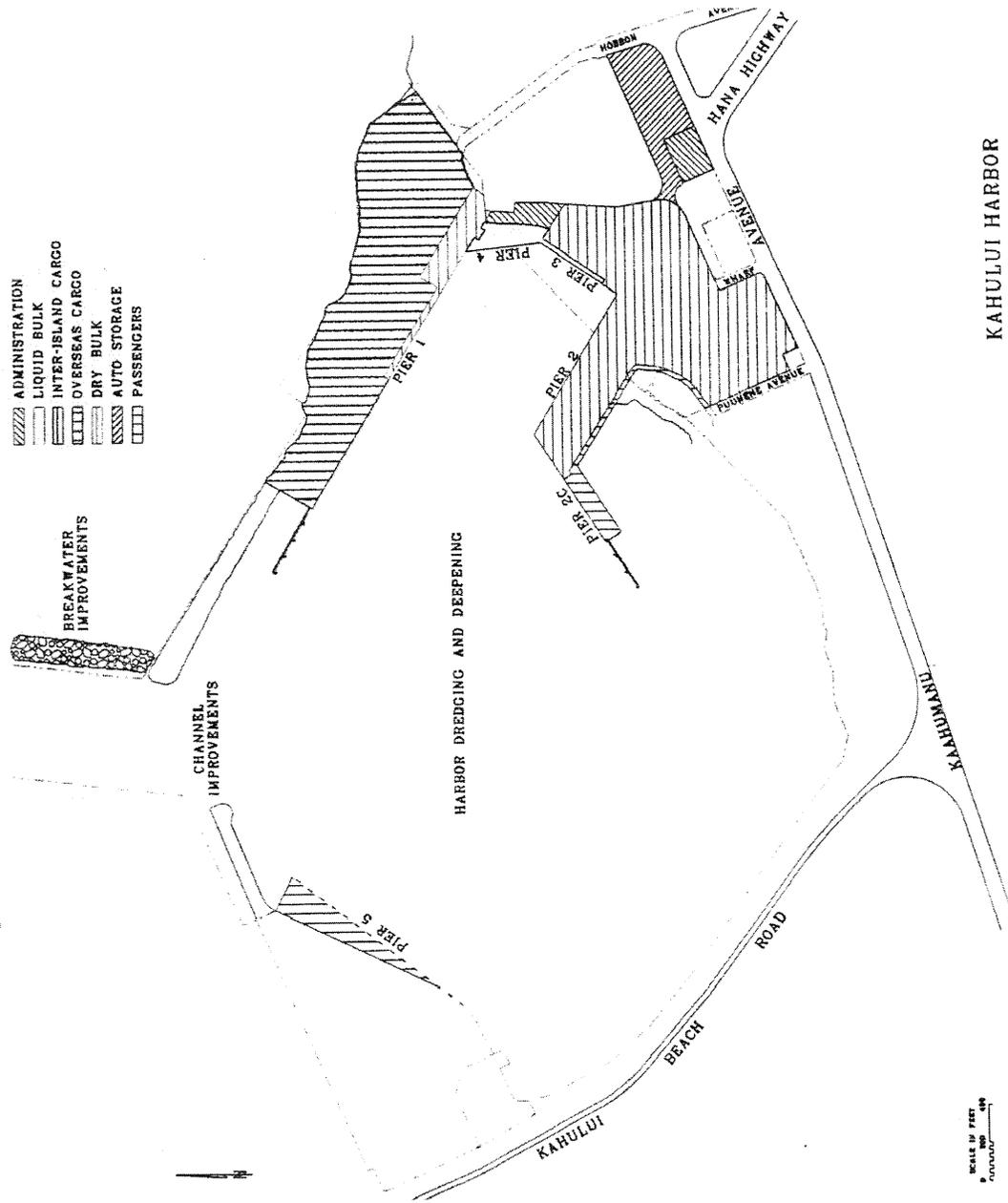


Figure 2. Map of Kahului Harbor showing proposed harbor improvement projects.

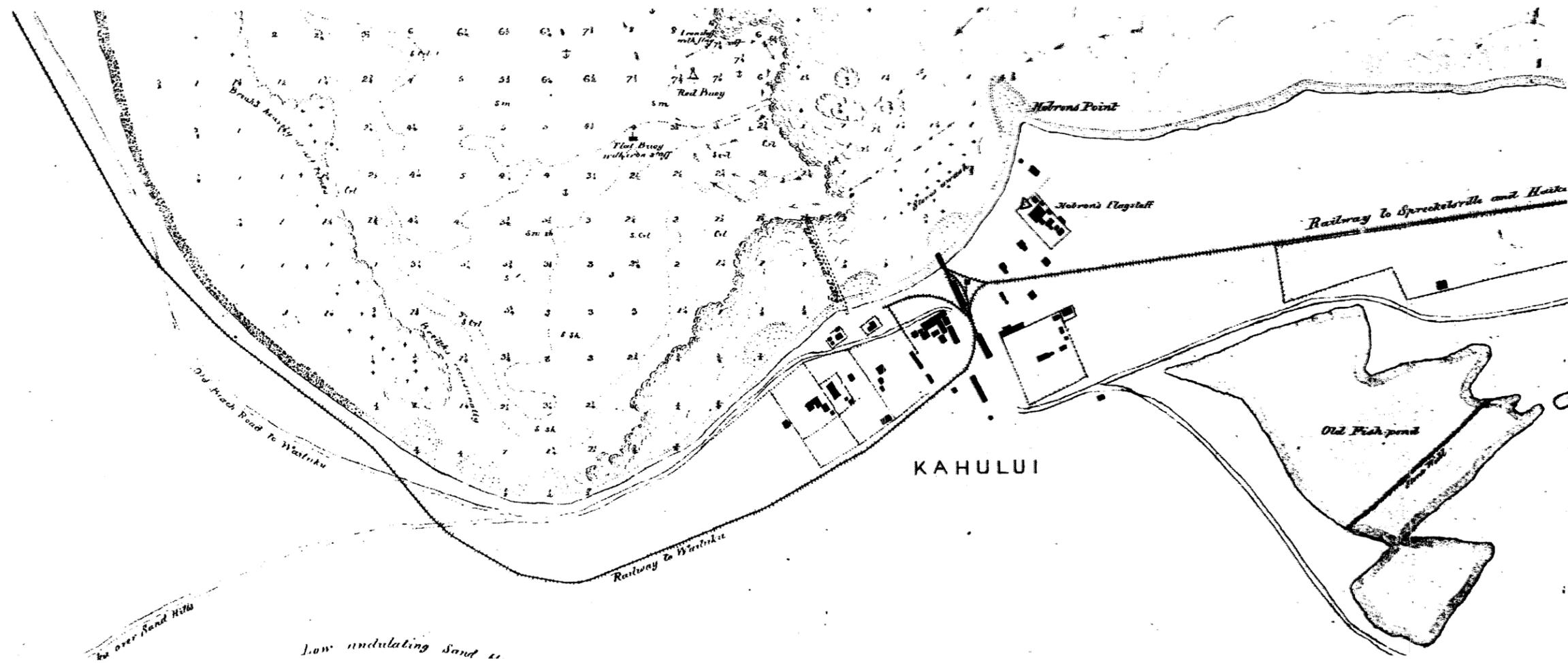


Figure 3. This 1881 Hawaiian Government Survey map by George Jackson shows the beginnings of Kahului town and harbor, the rail lines to Wailuku and Ha'ikū, and the fishponds Kanahā and Mau'oni.

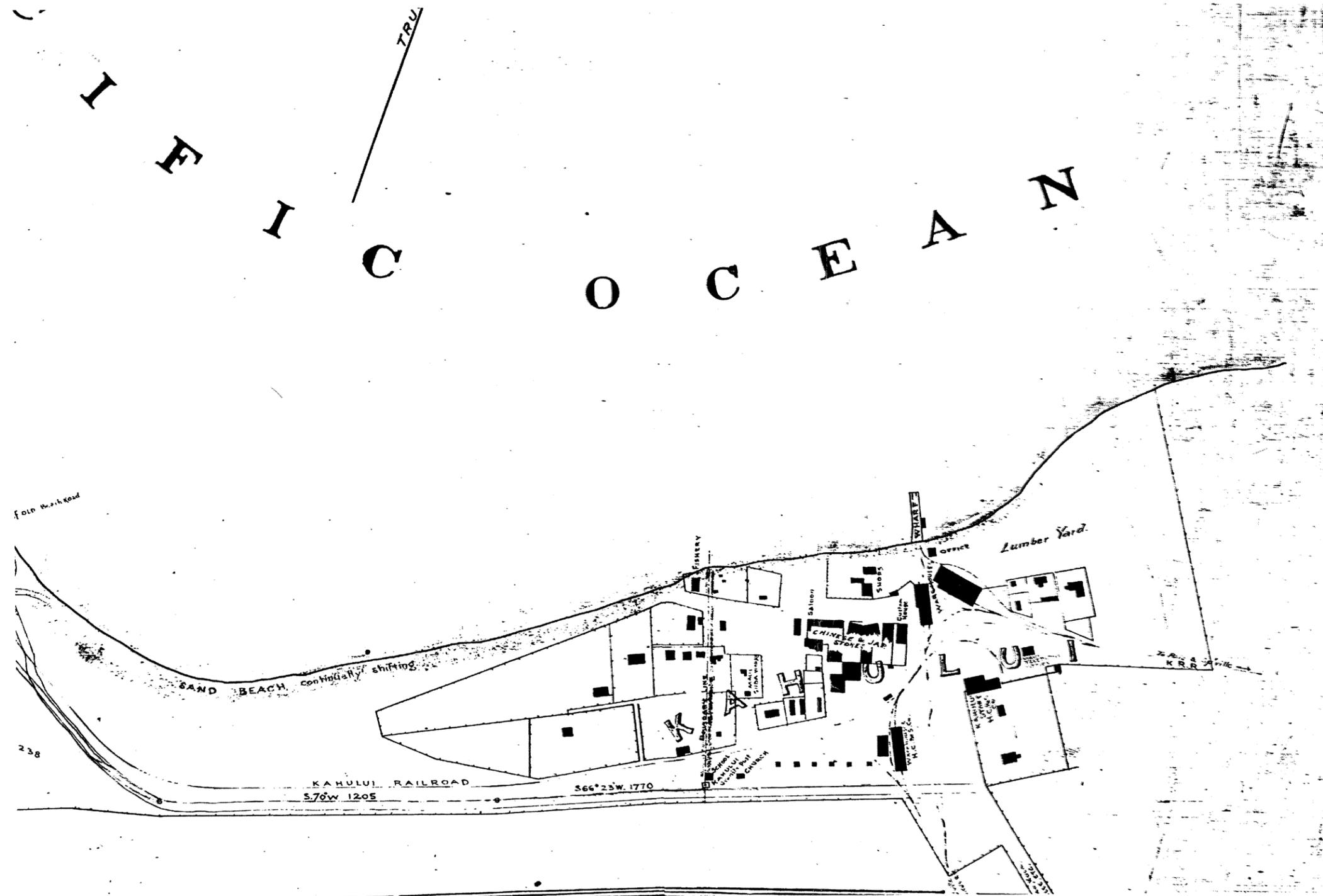


Figure 4. This map by Hugh Howell (1896) shows the town and harbor in somewhat more detail 15 years after Jackson's map.

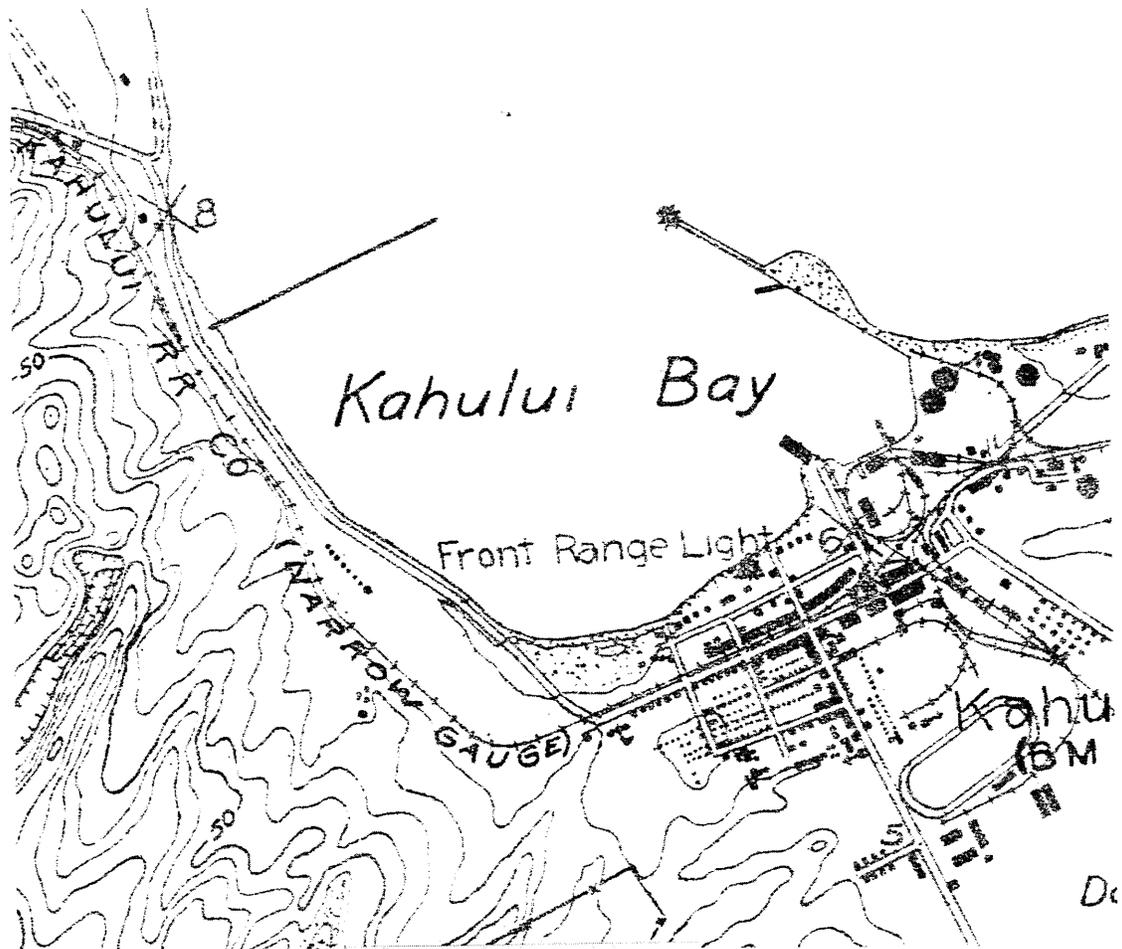


Figure 5. Kahului Harbor's eastern breakwater was completed in 1910; work on the western breakwater began in 1917. This 1922 USGS map shows both breakwaters.



Figure 8. Areas of previous archaeological studies (Source: SHPD GIS).

PHOTOGRAPHS

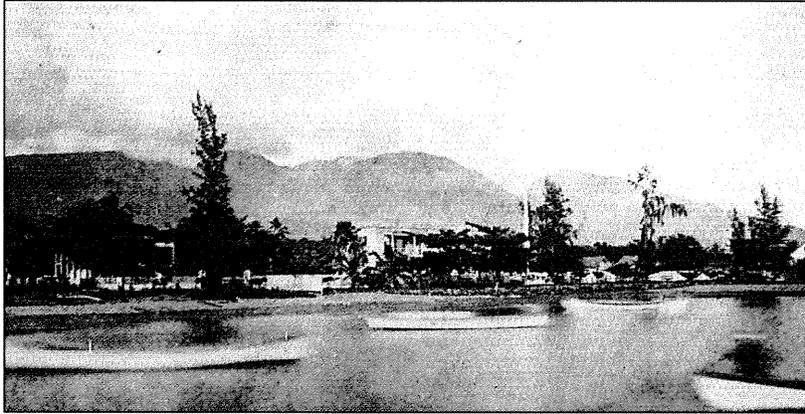


Photo 1. Kahului Waterfront, 1870 to 1880s (Source: Bartholomew 1994).

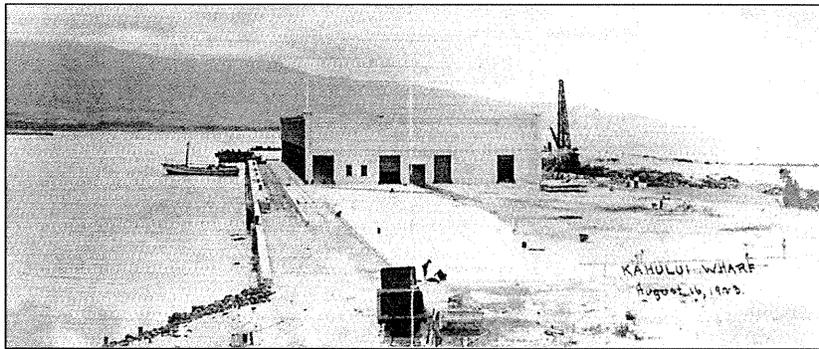


Photo 2. Construction of Pier One at Maui Wharf, 1923 (Source: Bartholomew 1994).



Photo 3. Site 1607 Bank of Hawaii (former First Hawaiian Bank) building.



Photo 4. Site 1607 former Kahului Railroad shop building.



Photo 5. Site 1607 former Kahului Railroad roundhouse.

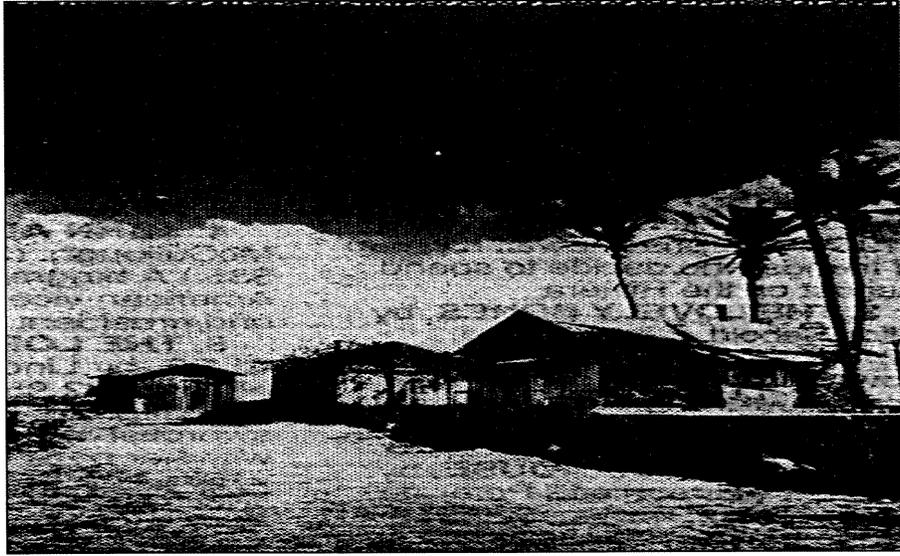


Photo 6. Raw Fish Camp (Photo courtesy of Maui Historical Society, Bailey House Museum).



Photo 7. Canoe being carried to the beach at Kahului, 1970s (Source: Bartholomew 1994).

APPENDIX A.

KAHULUI HARBOR TIMELINE

“There were so many harbors to be dug, three decades ago.”

— *Maui News* August 23, 1931

“Contrary to general belief, the Kahului breakwater project is not entirely finished.”

— *Maui News* October 30, 1931

Year	Event
1857	<i>The Friend</i> publishes an article on ports of the Sandwich Islands; Kahului is not mentioned.
1863	A warehouse, the first European-style structure, is built near the beach.
1873	Kimble’s Store is built near the beach.
1876	A wheelwright/blacksmith shop is built near the old site of the Kahului saloon.
1876	A tidal wave floods Kahului.
1879	A small landing is built for sugar growers.
1879-1881	Captain Thomas Hobron and his associates build the first line of Kahului Railroad; the Kahului Railroad Company is incorporated two years later.
1884	Samuel G. Wilder acquires Kahului Railroad.
1899	Hawaiian Commercial and Sugar Company buys the railroad.
1900 – November	A new hotel is under construction at the harbor; the “old wharf” has gotten new piles and been extended 40 feet and is in the process of getting new flooring.
1901	H.P. Baldwin hires an engineer to survey the harbor.
1903 – April	During a mass meeting on April 24 at the Wailuku Court House, the crowd expresses strong support for a public wharf at Kahului and chooses representatives to lobby for it.
1904	A new roundhouse is built.
1905	Kahului Railroad Company makes many improvements during the year, including new buildings, additions to old buildings, and improved shipping facilities.
1905	Work starts on the harbor’s east breakwater.
1907	Breakwater construction and harbor dredging are underway.
1908	By this year the Kahului Railroad Company has built two small wharves. Vessels do not pull up to the wharves but sent freight and passengers in on lighters.

Year	Event
1901	Kahului has a customs officer, a government pilot, and a Public Health and Marine Hospital Service quarantine officer.
1909	Kahului is still completely dependent on lighters to transfer goods and people; there is no wharf suitable for steamers or sailing vessels to pull up to directly.
1909 – October, November	Representatives of Kahului Railroad Company meet with the governor to discuss plans for the waterfront. Negotiations focus on the smaller of two planned wharves (which will become known as the Claudine Wharf). Discussion of a bigger wharf are expected to take place later, after the harbor has been dredged. The government reserves the option to take over the wharf at a future date. Within a few weeks the company receives a license to build an inter-island wharf.
1910	By 1910, Kahului Railroad Company has built an 1,800-foot breakwater on the eastern side of the harbor, dredged the harbor basin, and built a 200-foot wharf that can accommodate 25-foot-draft vessels.
1910	The federal government takes over responsibility for the harbor; Kahului Railroad Company cedes all rights to the existing breakwater and agrees to make no financial claim on the government for harbor improvements already made.
1910 – July	A 40-foot lighthouse is established on the breakwater.
1910	The “Claudine Wharf,” as the inter-island wharf is known, is completed.
1911	Work on the breakwater continues, now under the control of the U.S. Engineers.
1913 – March, July	A project to add 75 feet to the breakwater is going forward on a rush basis, conducted by Kahului Railroad Company under contract to the War Department. The line for the new (west) breakwater has been surveyed and charted but Congress has not approved that project yet. The (east) breakwater extension is finished July 3.
1916 – August	President Wilson signs a Rivers and Harbors appropriations bill that includes funding for the west breakwater.
1917 – July	Work starts on the west breakwater. Kahului Railroad Company is the contractor.
1918	More harbor dredging begins.
1922	Hawaiian Dredging Company is awarded the contract for the “inshore end” of Pier 1—consisting of “a concrete apron 500 feet long and a concrete shed 132' x 375', with steel trusses, wooden purlins and sheathing, tar and gravel roof.” Work begins in May.
1923 – June	Claudine Wharf is closed for repairs; goods and passengers are again moved by lighters.
1923 – August	Pier 1 is completed and turned over to the Territory of Hawaii on August 29—but it is not completely open for business yet; the conveyors and other equipment are not installed. With 500 feet of berthing space, the new wharf is suitable for large steamers that the Claudine Wharf can't accommodate.
1923 – September	The new wharf is used for the first time on Sunday, September 23, by the lighthouse tender <i>Kukui</i> . (The facilities for moving freight are still not installed.) A few naval vessels use the wharf the following month.
1923 – October	The Matson steam liner <i>Maui</i> berths at the new wharf, carrying aboard it an “excursion party” from the San Francisco Chamber of Commerce. Freight moving equipment has not yet been installed and the roadway to the wharf is not yet complete.
1923	An office building is built, fronting Main Street in a grove of coconut palms, and an 11-stall roundhouse is built soon after.

Year	Event
1923-26	More workshops are built at the railway terminus in Kahului.
1924 – May	Construction of the freight conveyor system (which required a separate bond issue to finance it) is finally underway. The approach road is completed on May 3 and taken over by the Territory two weeks later.
1924 – July	Los Angeles Steamship Company announces that its two steamers, the <i>City of Los Angeles</i> and the <i>Calawaii</i> , will make regular visits to Kahului beginning the end of the month. The first visit (July 28) is a public relations disaster, as the <i>City of Los Angeles</i> has serious problems both docking and leaving the harbor. The first freight shipment goes out from the new wharf (probably on the <i>City of Los Angeles</i> , despite its earlier docking problems).
1924 – August to November	The Los Angeles Steamship Company announces it will not use the new wharf (instead, it will moor offshore and transfer passengers and freight by lighter). However, in mid-month the company's second steamer—the <i>Calawaii</i> , which is somewhat smaller and arrives in better weather—ties up at the wharf without a problem. Later, the <i>City of Los Angeles</i> also docks successfully several times, but in mid-November abandons the Kahului stopover for the winter because it considers it unsafe during the stronger winds.
1924 – November	The Territory of Hawaii buys the Claudine Wharf for \$25,000. The west breakwater loses 15 feet in a storm; so far it has lost 125 feet in “surface washout.”
1924 – December	The Kahului wharves are congested, freight is piling up, and at least one ship has had to wait for its turn to unload. The Maui Chamber of Commerce labels the new wharf (which can only accommodate one large vessel at a time) “inadequate,” and calls for it to be lengthened.
1925 – February	Claudine Wharf's piles give way; it's believed that ocean currents, possibly affected by recent harbor dredging, might have swept away sand supporting the piles.
1925 – October	California Packing Company plans to build a cannery at Kahului; the increased business is seen as one more reason to move forward with harbor improvements.
1925 – November	Kahului Railroad Company alerts the harbor board that water is eroding the road to Claudine Wharf, in front of the ticket office.
1926 – May	The Los Angeles Chamber of Commerce announces it will skip its planned June visit onboard the <i>City of Los Angeles</i> because of safety issues.
1926 – June	Steamers are again lining up waiting a turn to unload at the wharf.
1926 – October	Harbor dredging, preliminary to construction of a new wharf (in about the same place as the Claudine Wharf but longer) is underway. The Claudine was declared unsafe “some time ago” but shippers are still using it. A part of it has already collapsed; this was expected, though, and the railroad tracks had already been moved in anticipation. Driving routes in the vicinity are already changing, and congestion and delays are expected.
1926 – October	Around the harbor, Kahului Railroad Company is replacing its old wooden buildings, one by one, with “fine concrete structures of imposing dimensions.”
1927 – March	Pier #1 is overcrowded. Kahului Railroad Company's manager, William Walsh, calls the older Claudine Wharf “dangerous to life and property” and says Maui is missing out on shipping because of the condition of the harbor.
1927 – May	Demolition of the Claudine Wharf begins May 3.
1927	The <i>Maui News</i> carries several articles in the second half of the year on port congestion and inconvenience during construction.

Year	Event
1927 – December	There remain loose ends to tie up, but Wharf #2 (the replacement for the Claudine Wharf) is now open for business.
1928 – March	The breakwaters are damaged in a storm; debris clutters harbor floor; shipping access is expected to be very limited until the seas calm down.
1929—May	Construction is complete on the extension (“second unit”) of Pier 1.
1929 – November	A bad storm damages the east breakwater.
1930	The extension to the Pier 1 shed is nearly complete and already in use.
1930 – October	<p>“Pilikia Pau”—the <i>Maui News</i> summarizes harbor improvements:</p> <ul style="list-style-type: none"> • The harbor is dredged to a minimum depth of 35 feet and a maximum width of 1,455 feet and is “now safe for large vessels.” • Pier 1 can accommodate two liners and an oil boat; Pier 2 can accommodate inter-island steamers and lumber carriers. • Work on the breakwater continues.
1930 – December	The east breakwater is now complete and a lighthouse has been re-established on it—the Kahului East Breakwater Light, “a pyramidal skeleton tower the top 41 feet above water from which there flashes the light, visible ten miles away.” Work on the west breakwater continues.
1931 – August	Matson Navigation Company includes Kahului on its San Francisco/ Honolulu/Hilo route.
1931 – August	<p>This is the condition of the harbor:</p> <ul style="list-style-type: none"> • It is dredged to 35 feet, with a 600-foot channel that is 40 feet deep or more. • Pier 1 (adjoining the east breakwater) has four rail tracks and a more modern conveyer system than Honolulu. It has a storage capacity of 70,000 tons of sugar, 375 cases of pineapple, and additional freight, and a “full complement of molasses and oil pipelines.” It is quickly paying for itself in storage and shipping fees. • Pier 2, at the site of the old Claudine Wharf, handles inter-island passengers and freight. • Between the two piers is “abundant anchorage for sampans and the mosquito fleet.”
1931 – October	The west breakwater is finished.
1931 – December	The <i>Maui News</i> celebrates the end of a harbor improvement process that began in 1901.
1942	Kahului Railroad Company builds the first bulk sugar plant in the Islands, with a 40,000-ton capacity, at Kahului Harbor.

Sources: Bartholomew, Best, Clare and Morrow Clark, Hungerford, Kuykendall 1982, *Maui News*, Nakayama, “Ports of the Sandwich Islands,” Rush, Stroup, United States Board of Engineers for Rivers and Harbors, Williams.

Note: This timeline is based on a quick search of the records, is necessarily incomplete, and contains references to places and events that may not be given full context here or in the main text.

APPENDIX B.

INDIVIDUALS AND GROUPS CONTACTED AND INTERVIEWED FOR THE CULTURAL IMPACT ASSESSMENT

CONTACTED FOR THIS STUDY

Scott Cunningham, Harbormaster
 Mary Akiona, Executive Director, Hawaiian Canoe Club
 Sharon Balidoy, Laeula O Kai Canoe Club
 Gabby Gouveia, Na Kai Ewalu Canoe Club
 Uncle Boogie, Head Coach Na Kai Ewalu, 38-year employee for Young Brothers
 Iokepa Naeole, Past President of the Hawaiian Canoe Club
 Ethel Ujie, former frequent visitor of Raw Fish Camp
 Russel Okumura, former resident of Raw Fish Camp
 Maui Historical Society
 Mr. Ishikawa, long-term shoreline fisherman at Kahului
 Rudy, long-term fisherman at Kahului
 Dorothy Makimoto
 Myoko Onaga
 Fishermen (seven) at the “fish shack”
 Paddlers (various with both clubs)

No surfers were located or observed in the project area during the study period.

CONTACTED FOR EARLIER STUDY

The following individuals provided oral histories for *An Evaluation of Traditional and Historical Land Uses in the Kahului Airport Area* (Prasad and Tomonari-Tuggle 1999).

<i>Kūpuna</i> Charles (Charlie) Keau	Glen Misubayashi
<i>Kūpuna</i> Aaron Brown	Sam Ohigashi
<i>Kūpuna</i> Nancy Hokoana	Jon Sakamoto
<i>Kūpuna</i> Rene Sylva	Maizie Sanford
Hiroshi Arisumi	William Tavares
Richard Cameron	Barbara Woods
George Ito	Joe McCabe

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