

PSLU Committee

From: Tamara A. Paltin
Sent: Monday, June 24, 2019 10:38 AM
To: PSLU Committee
Subject: FW: Waikapū Country Town Integrated Natural-Cultural Resource Preservation & Management Plan
Attachments: Integrated Nat-Cult Resource Plan (HP 2019).pdf

Hello PSLU Committee Staff,

I am forwarding the Natural-Cultural Resource Plan for Waikapū Country Town.
Please let me know if there is anything else I can help with.

Mahalo

Tamara

From: Hokua Pellegrino <hokua.pellegrino@gmail.com>
Sent: Wednesday, June 19, 2019 2:05 AM
To: Tamara A. Paltin <Tamara.Paltin@mauicounty.us>; Keani N. Rawlins <Keani.Rawlins@mauicounty.us>; Kelly King <Kelly.King@mauicounty.us>; Tasha A. Kama <Tasha.Kama@mauicounty.us>; Riki Hokama <Riki.Hokama@mauicounty.us>; Alice L. Lee <Alice.Lee@mauicounty.us>; Mike J. Molina <Mike.Molina@mauicounty.us>; Shane M. Sinenci <Shane.Sinenci@mauicounty.us>; Yukilei Sugimura <Yukilei.Sugimura@mauicounty.us>
Cc: Michael Summers <msummers@planningconsultantshawaii.com>; Mike Atherton <athertonisland@gmail.com>; Albert Boyce <albertboyce@gmail.com>
Subject: Waikapū Country Town Integrated Natural-Cultural Resource Preservation & Management Plan

Aloha e County Council Members,

Mahalo nui for your patience. I have attached the completed Waikapū Country Town Integrated Natural-Cultural Resource Preservation & Management Plan for your review. We look forward to answering any questions or concerns during the Planning and Sustainable Land Use Committee Hearing tomorrow. Mahalo nui!

me ke aloha,
Hōkūao

Integrated Natural-Cultural Resource Preservation & Management Plan

A Framework for Protecting, Enhancing and Stewarding the Natural & Cultural
Resources of Waikapū set forth by the Waikapū Country Town Development



Prepared for
Waikapū Properties, LLC & Wai‘ale Partners, LLC
PO Box 1870
Manteca, California 95336

In Partnership with
Planning Consultants Hawai‘i, LLC
2231 West Main St.
Wailuku, Hawai‘i 96793

Prepared by
Hōkūao Pellegrino
Cultural Consultant

June 2019

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1.1 HŌ‘ULU‘ULU MANA‘O KO‘IKO‘I - EXECUTIVE SUMMARY

As the largest land owner of agricultural, conservation, rural and urban zoned land in the ahupua‘a of Waikapū, Waikapū Properties, LLC & Wai‘ale 905 Partners, LLC are committed to responsible land stewardship and the protection of cultural and natural resources. It was consistently recognized throughout the Waikapū Country Town (WCT) 2016 Environmental Impact Statement (EIS) along with the 2014 Cultural Impact Assessment (CIA) and 2016 Ka Pa‘akai Analysis, that the ahupua‘a of Waikapū has an extensive pre and post-western contact cultural history in addition to vast natural and cultural resources. Waikapū Properties, LLC & Wai‘ale 905 Partners, LLC acknowledge their obligation to preserving and managing these cultural assets as well as the need to formalize collaborations with key stakeholders such as Native Hawaiian lineal and cultural descendants of Waikapū, Waikapū community members, environmental-based stewardship organizations and educational institutions.

Waikapū Properties, LLC & Wai‘ale 905 Partners, LLC play a critical role in the caring for and protection of natural resources and cultural landscapes within their land asset portfolio, both within and adjacent to the WCT development project. These lands are an important part of the overall cultural identity and future well-being of the ahupua‘a of Waikapū. Therefore, developers requested that an Integrated Natural-Cultural Preservation and Management Plan for the Waikapū Country Town Project be completed and to be used as a framework for protecting, enhancing and stewarding the natural and cultural resources in Waikapū.

The Cultural Impact Assessment and Ka Pa‘akai Analysis were comprehensive documents that identified all of the historical, natural and cultural resources of Waikapū within the greater context of the moku of Wailuku, also known as Pū‘ali Komohana and Nā Wai ‘Ehā. This plan developed an expanded approach in addressing key conditions set forth by the LUC (Land Use Commission) as well as concerns that were brought forth throughout the planning, entitlement and community outreach process. Engagement with key stakeholders greatly assisted in providing clear strategies and implementation measures that align with sustainable stewardship practices throughout the Waikapū ahupua‘a, while putting forth priority projects that enhance the natural and cultural resources of Waikapū and mitigate any adverse impacts.

The Integrated Natural-Cultural Resource Preservation and Management Plan is strongly tied to and in alignment with the ‘ōlelo no‘eau or Hawaiian proverb; *‘O ku‘u ‘āina ku‘u kulāiwi – My land is my homeland. I have a responsibility to love and care for the land and those who came before to serve this place and its people.* This innovative plan will be a leading example and model of sustainability, in addition to how communities both new and old, can collaboratively work together to protect and steward the natural and cultural resources within their ahupua‘a. Lastly, this plan will be a living document that is incorporated throughout all phases of the Waikapū Country Town Development as a way to increase community engagement and ‘āina-based stewardship.

Three guiding principles have been established as a means to demonstrate a strong pilina (relationship) with each other and the ability to wili (intertwine) throughout the Integrated Natural-Cultural Resource Preservation and management plan. The guiding principles are defined below.

- I. Ho‘okuluma: to be accustomed to or with; to develop an intimate relationship or understanding to ‘āina.
- II. Ho‘oulu: to protect; to preserve; to restore life back into; to increase productivity; to make thrive.
- III. Ho‘okuleana: to bring under the care and protection of; to steward; to be responsible; to sustain.

1.2 PROJECT BACKGROUND

Waikapū Country Town is a new mixed-use housing development being proposed by Waikapū Properties, LLC & Wai'ale 905 Partners, LLC. It will be situated on lands within and surrounding the Maui Tropical Plantation (MTP) and adjacent to the existing historic town of Waikapū. The development project will encompass approximately 500 acres of land and include rural lots, single family lots, cottage town houses, country town mix use, commercial, parks, open space, school and other permitted uses. 1,021 acres will remain in agriculture of which 877 acres will be protected in perpetuity under an agricultural conservation easement with the Hawaiian Islands Land Trust. In addition to protecting important agricultural lands, is the establishment of a 50 acre cultural preserve which will protect highly sensitive pre-western contact kuleana parcels and the Waikapū Stream. There were over 50 Kuleana Land Commission Awards (LCA) and Government Grants awarded to Native Hawaiians during the Great Māhele (1848), prior to any plantation and commercial uses of the proposed project area. Around 36 of these kuleana parcels were compromised during the plantation era, however, many are still intact as they were prior to western contact. Thus, it was imperative to protect these culturally sensitive lands in perpetuity by placing them in a cultural preserve to be managed in the future by a Waikapū-based community organization with a robust management and stewardship plan. Majority of the Waikapū watershed, located in both the Hana'ula and Kapilau Mountain Range, is owned by Hana'ula Ranch, LLC, which is co-owned by a partner of Waikapū Properties, LLC. Although the Waikapū Country Town development is not within the 3,425 conservation parcel, the nearest subdivision is ¾ of a mile away from the conservation boundary. Due to the sensitive nature and rarity of Waikapū's native flora and fauna, as well as invasive species control, it is important to include protective measures and management strategies to have in place for Hana'ula Ranch, LLC as part of the Integrated Natural-Cultural Resource Preservation & Management Plan.

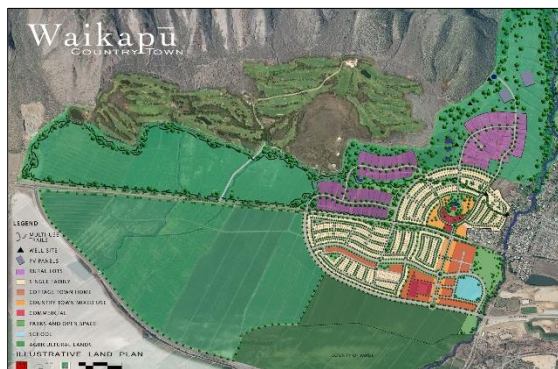


Figure 1: WCT Development Map

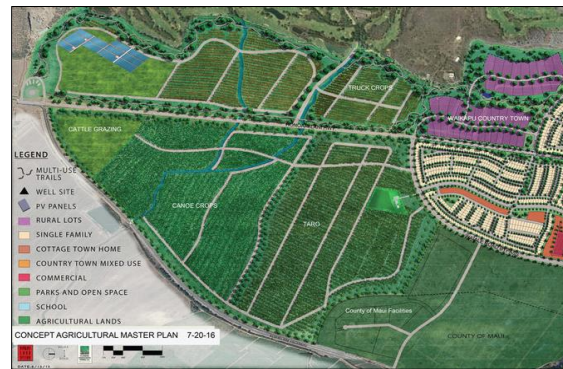


Figure 2: WCT Agricultural Lands

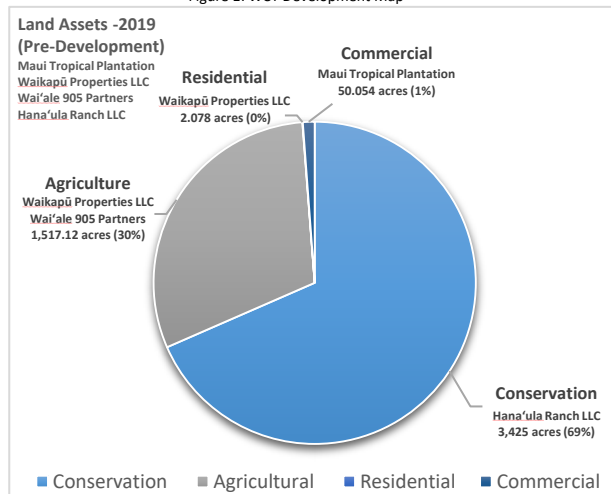


Figure 3: Land Asset Model (Current State)

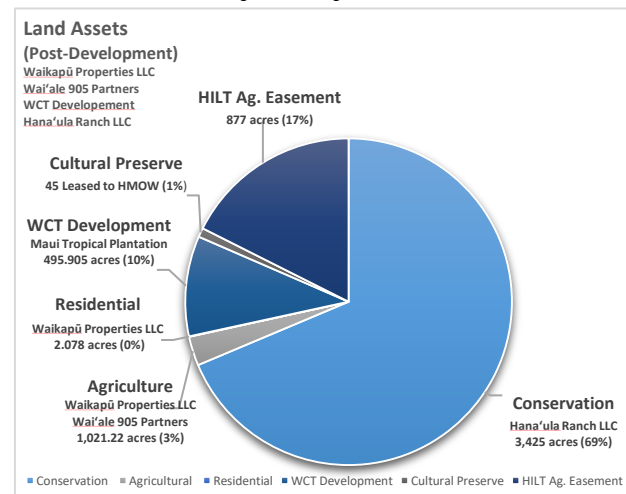


Figure 4: Land Asset Model (Post-Development)

1.3 WAIKAPŪ I KA MAKANI KOKOLOLIO - A BRIEF HISTORICAL OVERVIEW OF WAIKAPŪ

Waikapū is the first ahupua‘a (land division) in the greater moku (district) of Wailuku or Pū‘ali Komohana, poetically known as Nā Wai ‘Ehā. Hana‘ula and Kapilau are the mountain ranges in Waikapū, both of which are part of the overall West Maui Mountains, or today known as Mauna Kahālāwai. The traditional palena ‘āina (boundaries) of Waikapū encompass 15,684 acres from mauka to makai (mountain to the sea). Commencing north of Waikapū Stream along the ridges of Kapilau, the boundary line descends at Kalapaoka‘ilio Ridge to Pōhāko‘i, a known hoana (grinding stone) near the intersection of Ku‘ikahi and Honoapi‘ilani. It subsequently moves east to Ka‘ōpala, located adjacent to the Central Maui Base Yard. From there, it follows south along Mokulele Highway to a point called Kiheipūko‘a close to the Sugar Beach Condominiums. The boundary follows a westward approach along the coast of Mā‘alaea Bay and loko wai (wetlands) of Keālia to Kapoli, a spring once existing next to Buzz’s Wharf Restaurant and in the ‘ili (subdivision) of Mā‘alaea. From Kapoli, the line veers northwards along Honoapi‘ilani Highway to once prominent cinder cone and transit point, called Pu‘uhele. The Waikapū boundary points culminate westward from Pu‘uhele along a line of four additional storied cinder cones in the Hana‘ula mountain range named Pu‘uhona, Pu‘ulū‘au, Pu‘umoe and Pu‘uanu.

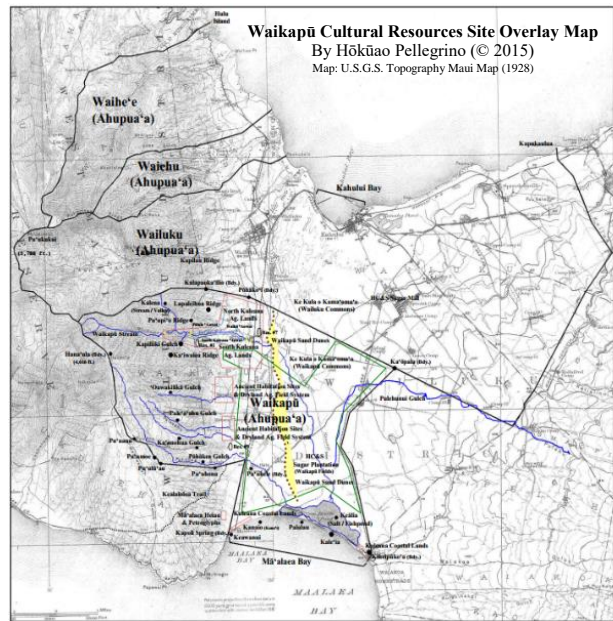


Figure 5: Waikapū Cultural Landscape Map - Hōkūao Pellegrino (2015)

Waikapū is known as the “waters of the conch”, a legendary and storied ahupua‘a deeply connected to both its natural resources and cultural landscapes. The meaning and significance of its name derives from the mo‘olelo (story) about Puapualenalea, a mischievous and magical dog who stole a pū (conch shell) from a guarded cave in the valley of Waikapū.

The landscape of Waikapū i ka makani Kokololio (Waikapū of the gusty wind) is highly diverse and includes extensive natural, cultural and water resources. The coastal region and nearshore fisheries at Mā‘alaea Bay was once an expansive resource that greatly assisted in sustaining Hawaiians living throughout the Waikapū ahupua‘a. The wetlands and ancient inland fishpond of Kēalia provided a habitat for native aquatic species, also another important food source. However, Keālia was truly known for their mo‘o paka‘ai or salt ponds in which Hawaiians produced some of the highest grades of pa‘akai (salt) on Maui. Included in Waikapū, was a large portion of Kama‘oma‘o or the central isthmus and plains. There, existed a diverse native shrub land along with a portion of the Nā Wai ‘Ehā pu‘u one or sand dune system. Interred in the sand dunes were iwi kūpuna (bones of ancestors) of former residents of Waikapū, the greater Nā Wai ‘Ehā and possibly those who had fallen in the many infamous battles that took place there, both of ali‘i and maka‘āinana class. Mauka or inland of the dunes were deep interior valleys, gulches and alluvial planes, which were of great importance to mahi‘ai or farmers who cultivated both wetland and dryland



Figure 6: Kapilau & Hana‘ula Mountain Ranges, Waikapū - Hōkūao Pellegrino (2017)

Polynesian introduced food crops (i.e. kalo - taro, 'uala – sweet potato, mai'a - banana, 'ulu - breadfruit, kō - sugarcane, niu - coconut, wauke – paper mulberry, pū hala – pandanus).

The Waikapū Stream was and continues to be one of the most important features and an invaluable cultural resources of the Waikapū ahupua'a. A kupuna (elder) of Waikapū, the late Mr. Solomon Viela, shared stories about a valley and tributary called Kalena which feeds into the main Waikapū Stream. This valley and water source can be found on documents and maps dating back as early as 1888. Mr. Viela talked about his childhood days in the 1930s and 40s and how he spent time in the area known as Kalena, a storied place very dear to him. Thousands of years ago and prior to the arrival of Polynesians in Hawai'i, Waikapū Stream veered north and flowed into Kahului Bay. This flow created a narrow break in the coral reef, allowing modern day ships to naturally and safely enter into the bay. For at least the last two thousand years, Waikapū Stream flows south through Kama'oma'o and into the loko wai of Keālia. This mauka to makai flow enabled Keālia to become the largest wetland on Maui. Being that it was a perennial stream, native aquatic species such as 'o'opu, 'ōpae and possibly hīhīwai were once commonly found. When Keālia becomes full of water, the estuary of Palalau will naturally open and water from the pond exits into Mā'alaea Bay.



Figure 7: Waikapū Stream - Hōkūāo Pellegrino (2016)

The watershed of Waikapū sustained a biodiverse dryland, mesic and wet forest. The abundance of endemic and indigenous plants allowed for rain to be captured and maintained within the Waikapū Stream. Forests included an abundance of native birds, insects, snails and mammal species. Hawaiians utilized native plants for a multitude of traditional purposes. Some examples of plants used were; olonā, a wet forest plant used for making cordage; ko'oko'olau and māmaki, used for lā'au lapa'au (herbal medicine) and wiliwili, used for recreational activities such as surfing.



Figure 8: Ko'oko'olau in Waikapū Valley - Hōkūāo Pellegrino

Located along the Hana'ula mountain range and immediately below the dry gulches of 'Oawakilikā, Pale'a'ahu and Ka'onohua, a prominent Hawaiian settlement and agricultural complex was found during the development of the King Kamehameha and Kahili Golf Courses in the early 1990s. Archaeologists who studied the area documented over 100 sites that included burials, temporary and permanent shelters, heiau and stone wall enclosures and features related to a once extensive dryland agricultural field system. No other dryland agricultural sites of this magnitude have been discovered in any other ahupua'a in Nā Wai 'Ehā. Carbon dates conclude that this area was settled and utilized by Hawaiians around the 12th century or 1100 AD and probably predate any development of intensive wetland agricultural systems commonly found throughout the Waikapū Valley.



Figure 9: Kamehameha Golf Course - Hōkūāo Pellegrino

The Great Māhele of 1848 was a process that paved the way for lands in Hawai‘i to be divided, claimed and privately owned by both Hawaiians and foreigners for the first time ever. Lands that were being cultivated by *hoā‘āina* or Hawaiian tenants were called *kuleana* lands. There were over 100 *kuleana* lands in Waikapū, located around the coastal region of Mā‘ālaea and Keālia as well as the current Waikapū historic town, stream and valley. Those large tracts of lands unclaimed lands were retained by the Hawaiian Kingdom under the Board of Education. Waikapū consisted of over 30 ‘*ili* (traditional subdivisions). Awarded *kuleana* lands included claims for traditional *lo‘i* *kalo* and *māla* (wetland and dryland systems), ‘*auwai* (irrigation ditches), *heiau* (religious structures), *hale* (house lots), *pūnāwai* (springs), *ko‘a* (fishing shrines), *mo‘o pa‘akai* (salt ponds), *loko wai* (inland fish ponds), *alanui* (trails). *ana* (caves), *pu‘e one* (sand dunes), and *lua kupapa‘u* (burial sites), *holoholona* (pens for raising animals), *lawai‘a* (fisheries), *lua kupapa‘u* (burial sites / graves). Something quite unique to Waikapū were the numerous claims of *lo‘i pa‘ahao* (prison taro patches), *lo‘i Po‘alima* (Friday taro patches) and *lo‘i aupuni* (government taro patches). Māhele maps and documents specify that over 1,400 *lo‘i* *kalo* on around 1,000 acres were awarded. The method of wetland *kalo* cultivation contributed to the greater agricultural system of Nā Wai ‘*Ehā*, making it the largest contiguous *kalo* growing region Hawai‘i.

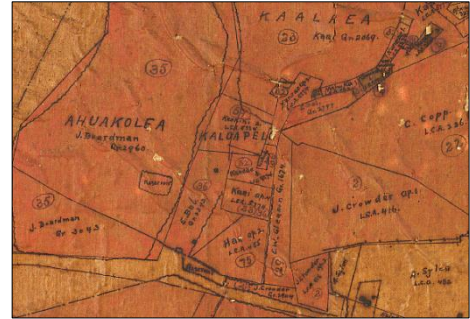


Figure 10: Part of 1894 Map of Waikapū - Hōkūao Pellegrino



Figure 11: Waikapū lo‘i kalo - Hōkūao Pellegrino

Waikapū along with the other three *ahupua‘a* in Nā Wai ‘*Ehā*, were colonized very early on by westerners. Foreign interests in the land tenure and the water resources of Waikapū grew rapidly, especially knowing that traditional ditch systems were able to convey the water needed for early development of an industry that would forever change the landscape of Hawai‘i. Though highly debated, it was thought that Waikapū was home to one of the earliest sugar plantations and processing mills in the islands, established by an Italian named Antone Catalina, around the year 1823 who made molasses. Catalina was also known as the first person to bring in cattle to Waikapū. Soon to follow, was the formation of the Waikapū Sugar Plantation Co. in 1862 by James Louzada and brother-in-law Henry Cornwell. A large processing mill was built on the ‘*ili* of Wahineomā‘*ili* as seen in the picture above. In 1890, Waikapū Sugar Co. was consolidated under Wailuku Sugar Co. There were four main plantation camps in Waikapū associated with Wailuku Sugar Co.; Kimura, Pu‘uhele, Hayashi and Waikapū Camp. Vast acres of sugar cane fields along with a mill, camps and plantation infrastructure dominated a former cultural landscape once filled with verdant *lo‘i* *kalo*, native forests, Hawaiian thatched *hale* and a beautiful stream flowing through it all.



Figure 12: Waikapū Sugar Plantation, circa 1884 - Maui Historical Society

Waikapū drastically changed during the plantation era, becoming a diverse and bustling little town both under the rule of the Hawaiian Kingdom and Territory of the United States. At the top of West Waikō Road was the former Cornwell Estate who were associated with the Waikapū Sugar Co. Both King David Kalākaua would frequent the estate to rest and gamble at times during his visits to Maui. His sister, Queen Lydia Lili'uokalani also spent time at the Cornwell Estate during her circuit around the island. Many foreigners visited the estate, such as Mark Twain (Samuel Clemens) who wrote about his love for the quaint village lifestyle and Maui. Lined up along the main road (now Honoapi'ilani Highway) and on West Waikō Road were drygood, grocery and liquor stores, Sakamoto and Ah Fat Store being one of the most well-known of them all. Throughout the town, there were three different congregational churches; Waikapū Protestant Church (Old Government Road), Waikapū Mormon Church (West Waikō Road) and St. Joseph Catholic Church (Honoapi'ilani Highway). For recreation, there was an open air theatre that played mainly Japanese films and a famous horse race track where the current Waikapū Gardens subdivision is located. Adjacent to the Waikapū Protestant Church was Waikapū Elementary School, later to be consolidated with Wailuku Elementary School. In the coastal region of Waikapū near the fishing village of Mā'alaea, the very first commercial airport on Maui was built in 1929, named Mā'alaea Airport. Amelia Earhart landed there in the early 1930s prior to the airport being closed in 1938 due to high winds, close proximity to the West Maui Mountains and inadequate runway space for larger planes. During World War II, there was a major training facility in the Keālia-Mā'alaea region, as well as military facilities that included an infirmary and barracks in the main part of town. Beginning in the early 1900s, the Rogers family raised cattle, pigs, chickens and established a butchery while the Vida family who are descendants of the Shaw and Cockett genealogy, were known for their perpetuation of a very important cultural practice of raising pigs and preparation of kālua pig.

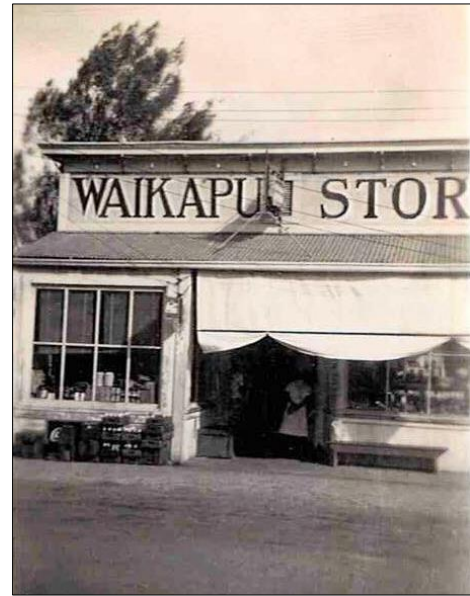


Figure 13: Waikapū Store, circa 1930 - Maui Historical Society



Figure 14: Ah Fat Store Sign - Hōkūao Pellegrino (2019)

A once dominant native landscape and sustainable Hawaiian community in Waikapū almost seems nonexistent. Many important cultural sites are long gone while those remaining are challenged to survive by the influx of both environmental and human impacts. A few examples of sites that have been and continue to be impacted over the course of the last 200 years are provided below.

- Kapoli Spring in Mā'alaea has dried up and was built over by harbor development and infrastructure.
- Pu'uhele has been completely excavated and used as a dump for commercial construction waste.
- 75% of all lo'ī kalo ag systems on kuleana lands have been plowed under for sugar cane cultivation and now built on with housing subdivisions.
- Pu'e one sand, both of which were geologically and culturally valued have since been flattened, developed on and hundreds of iwi kupuna (burials) have been disturbed.
- Keālia wetlands are being encroached upon by an eroding shoreline and disturbed by a major highway.
- Waikapū Stream, although connecting to Keālia and the ocean, still has over 25% of its stream flow diverted away from the watershed for off-stream usage.
- Native dryland, mesic and wet forest plants, mammal, bird and insect species in Waikapū have either gone extinct or are a rarity due to the spread of invasive species and feral ungulates.

Although drastic changes and impacts in the ahupua‘a of Waikapū have occurred, concerted efforts are being made to connect both new and old residents to the remaining cultural and natural history and resources, while restoring a strong sense of place and identity amongst them. Remnant kuleana lands and ‘auwai are now considered cultural kīpuka (oasis) in the midst of residential neighborhoods. Many are being restored to their original state allowing for traditional food crops such as kalo and ‘ulu to flourish once again and become the staples that they once were. Watershed protection and stewardship is a major priority being facilitated by multiple Maui-based environmental organizations who work to ensure that native habitats are protected and can thrive again. Waikapū Stream which truly is the center piece of Waikapū, has a lot of positive attention. A lot of effort is being made by the community and community organizations to protect its health, mauka to makai connectivity, native habitat and traditional and customary access and use. Waikapū is growing into a more diverse and active community faster than it ever has, yet the people of this place are making every attempt to bridge the richness of the Hawaiian and plantation history and lifestyle together for future generations who will call this ahupua‘a home. One thing remains strong and everlasting, the makani kokololio (gusty wind) which has seen the changes throughout the times. It is a fine example of the resiliency that is currently demonstrated by those who are kupa o ka ‘āina – natives of this land.



Figure 15: Waikapū ‘Auwai Restoration - Hōkūāo Pellegrino (2004)

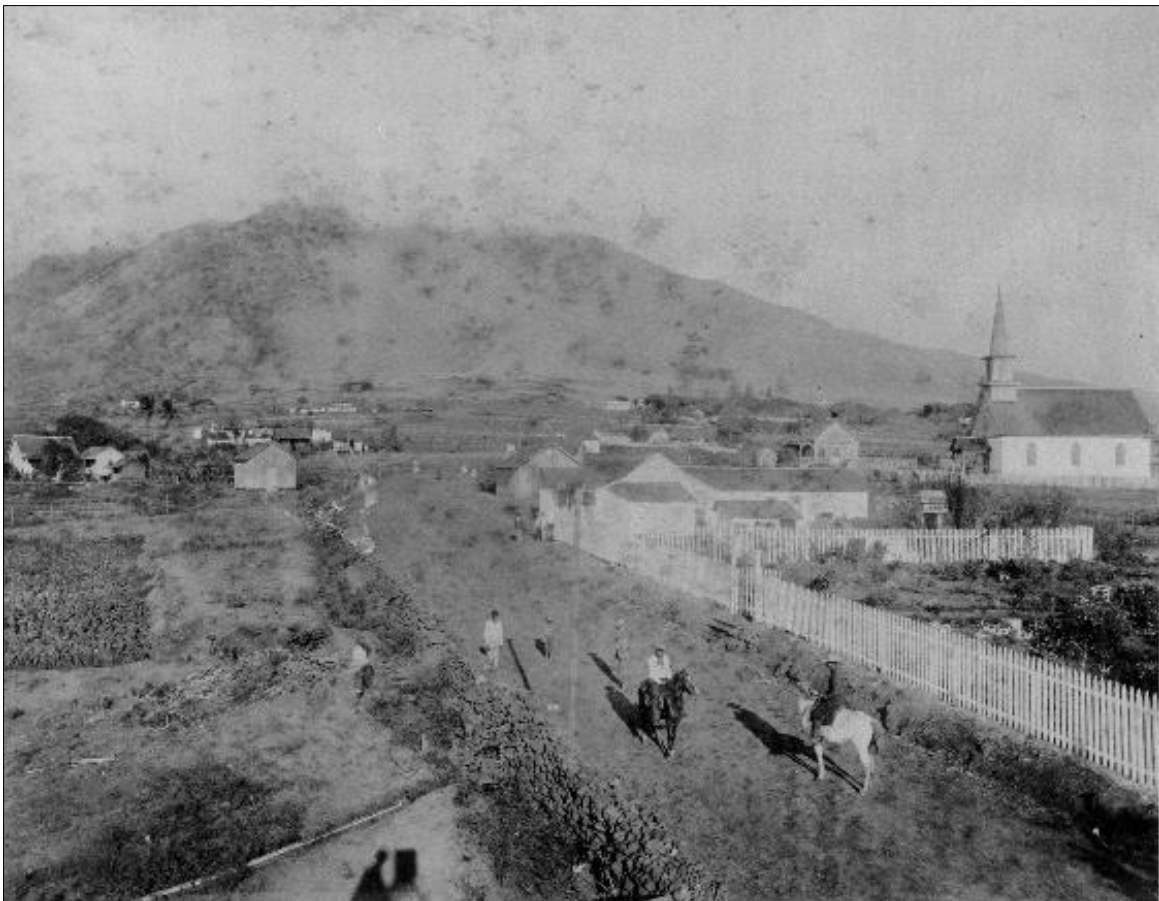


Figure 16: Waikapū Village, circa 1884 - Bishop Museum Archives

2.1 'ĀINA KUMU WAI O WAIKAPŪ - WAIKAPŪ WATERSHED

The upper Waikapū watershed falls within the mountain range of Hana'ula (4,616 ft.) and Kapilau (4,426 ft.). It is 1 of 10 watersheds and is approximately 7,900 acres or 16% of the overall Mauna Kahālāwai Watershed, totaling 50,000 acres. The annual rainfall ranges between 10" along the southern flank of Hana'ula to around 75" at the intersection of Hana'ula and Kapilau in the Waikapū Valley. Rain accounts for providing 3-4 MGD (million gallons per day) into the Waikapū Stream, a perennial stream that culminates at the Keālia wetlands. The sustainable yield for ground water in the Waikapū aquifer is 3 MGD. There are five dry gulches along the Hana'ula Mountain Range (Kapiliiki, 'Oawakilikā, Pale'a'ahu, Ka'onohua, Pōhākea) and one in the center of Kapilau



Figure 17: Waikapū Watershed - Hōkūao Pellegrino (2018)

(Kalapaoka'ilio), all of which flow intermittently during heavy rainfall events. The watershed has a mixture of montane and lowland wet forest, mesic forest, dry forest and shrubland which includes an abundance of endemic and indigenous flora and fauna. Many of the plant, bird, insect and mammal species are either endangered, locally rare, species of concern or candidate for protection. The wet and mesic forests still have an abundance of 'ōhi'a lehua (*Metrosideros polymorpha*), hala pepe (*Pleomele auwahiensis*), maile (*Alyxia oliviformis*) and olonā (*Touchardia latifolia*). The dryland forest still have outliers of koai'a (*Acacia koaia*), wiliwili (*Erythrina sandwicensis*), ko'oko'olau (*Bidens spp.*) and 'ākia (*Wikstroemia oahuensis*). Many of these plant species mentioned in addition to others, were utilized for various cultural purposes by Hawaiians living in the Waikapū ahupua'a. The biological value of the Waikapū watershed continues to be important to Hawaiians. Rare and endangered aviary species such as koa'e kea (*Phaethon lepturus dorotheae*) and nēnē (*Branta sandwicensis*) along with the 'ōpe'ape'a (*Lasiurus cinereus semotus*) an endangered hoary bat species can also be found amongst the watershed. Invasive species such as pigs and especially deer are real and actively threatening the lower Hana'ula and Kapilau forest zones.



Figure 18: Waikapū 'Ōhi'a Lehua (2014)



Figure 19: Waikapū Koa'i'a (2015)



Figure 20: Wiliwili (2017)



Figure 21: Ko'oko'olau (2015)

The current land owners within the upper Waikapū Watershed are Wailuku Water Co., Hana'ula Ranch LLC, Donna and Allen Trust and the State of Hawai'i. Management of these lands is conducted by the Mauna Kahālāwai Watershed Partnership (MKWP) which oversees the entire West Maui Mountain Watersheds. MKWP conducts regular aerial and ground surveys of both native and invasive species, build and maintain strategic fences lines within critical sections of the watershed and eradicate invasive species. Currently, less than 50% of the entire Waikapū watershed is fenced for controlling feral ungulates. In addition to MKWP, is Hui Mālama o Waikapū, a community-based organization that has extensive knowledge of the entire upper and lower Waikapū watershed region. They currently lease and manage 5 acres from Waikapū Properties that is adjacent to the conservation district. The area includes rare dryland forest species that include koai'a and wiliwili. Since their establishment in 2011, they have created a dryland forest restoration, stewardship and cultural resource management program that engages with the Waikapū community and educational groups from across Maui.

2.2 MAUNA KAHĀLĀWAI WATERSHED FOREST ZONE AND SPECIES STATUS MAP

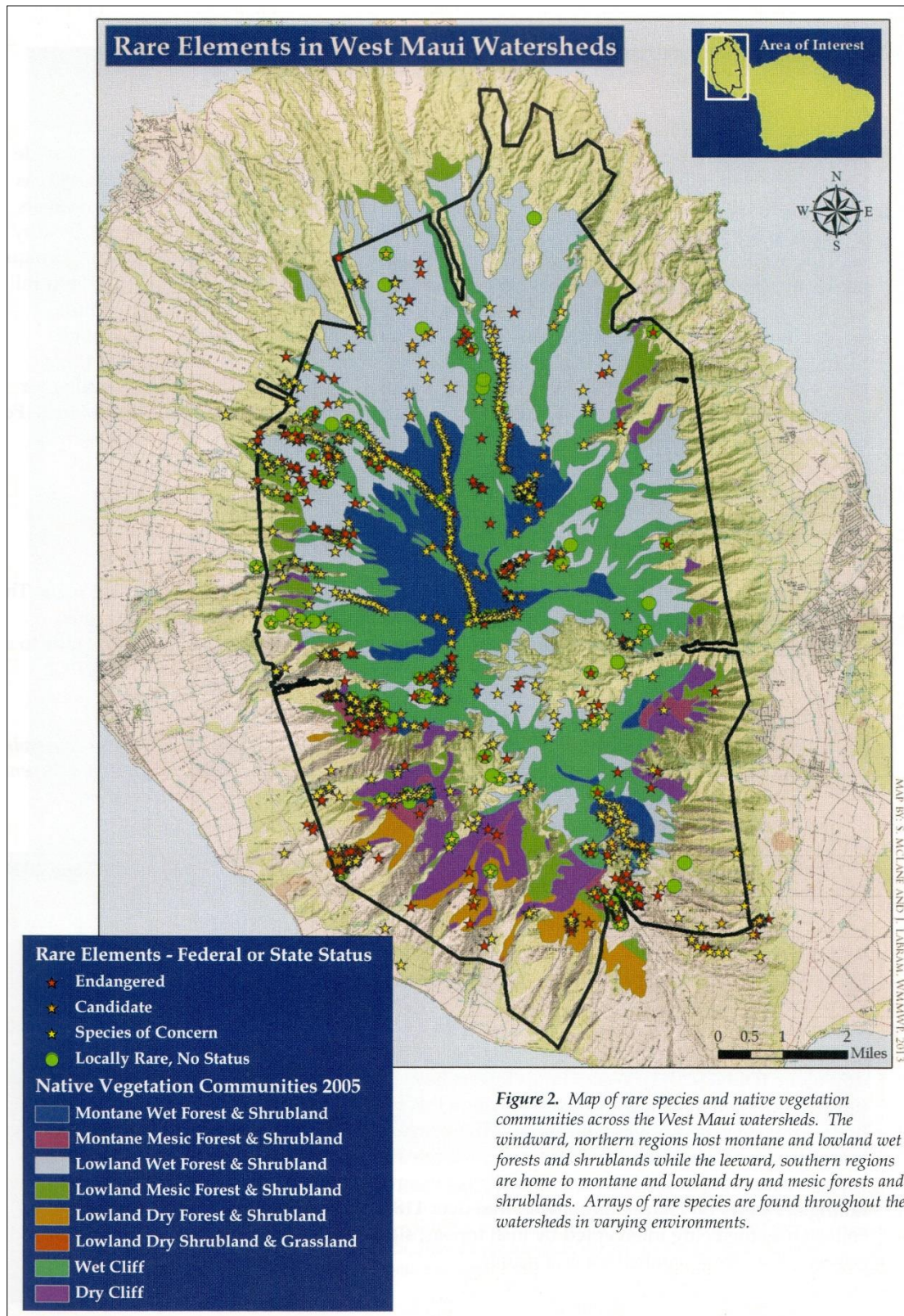


Figure 2. Map of rare species and native vegetation communities across the West Maui watersheds. The windward, northern regions host montane and lowland wet forests and shrublands while the leeward, southern regions are home to montane and lowland dry and mesic forests and shrublands. Arrays of rare species are found throughout the watersheds in varying environments.

Figure 22: West Maui Mountains Watershed Forest Zone Map - Mauna Kahālawai Watershed Partnership Management Plan (2013)

2.3 MAUNA KAHĀLĀWAI WATERSHED WATER SUPPLY DATA

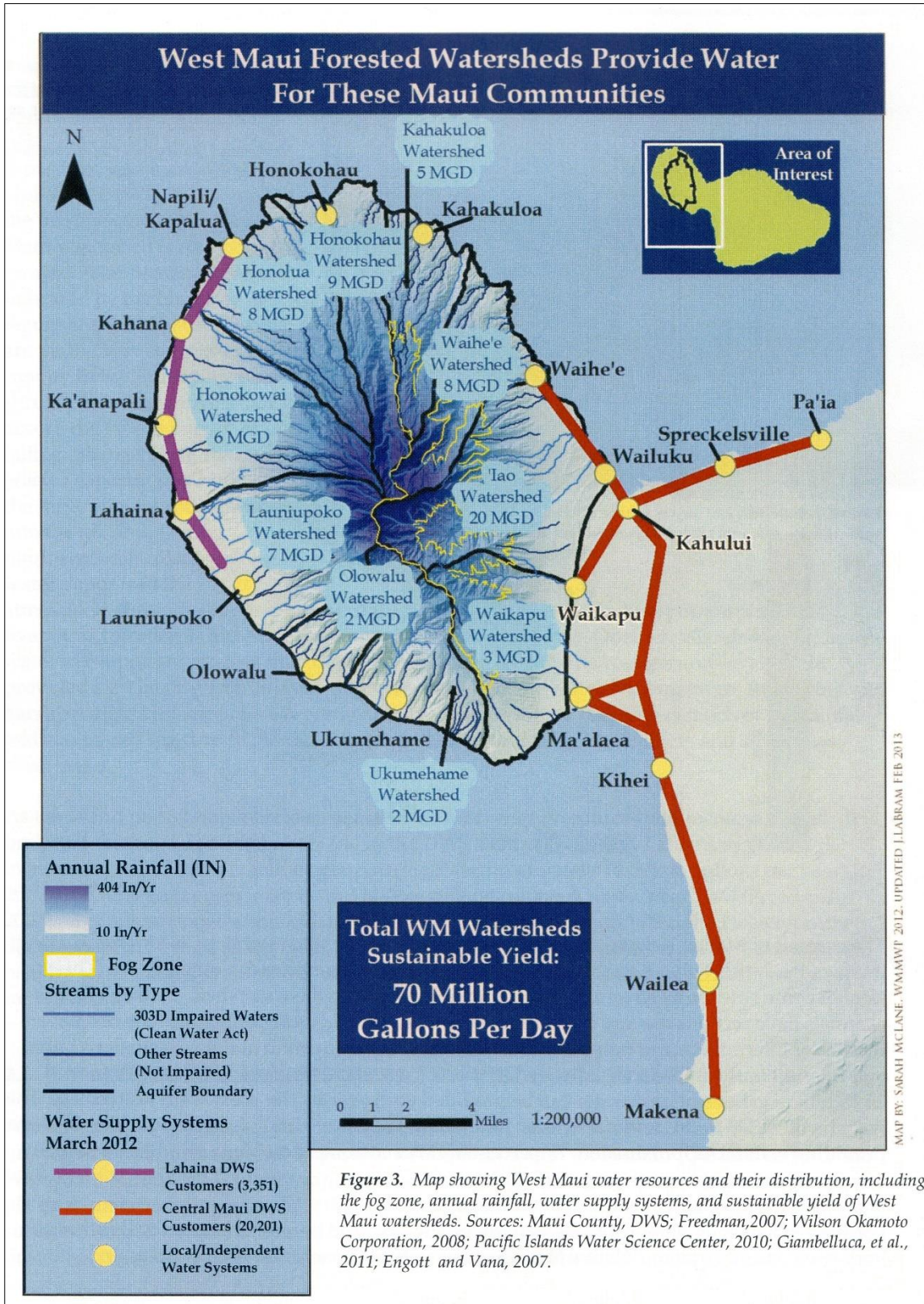


Figure 23: West Maui Mountain Water Source and Distribution Map - Mauna Kahālawai Watershed Partnership Management Plan (2013)

2.4 WAIKAPŪ WATERSHED MANAGEMENT PRIORITY PROJECT #1

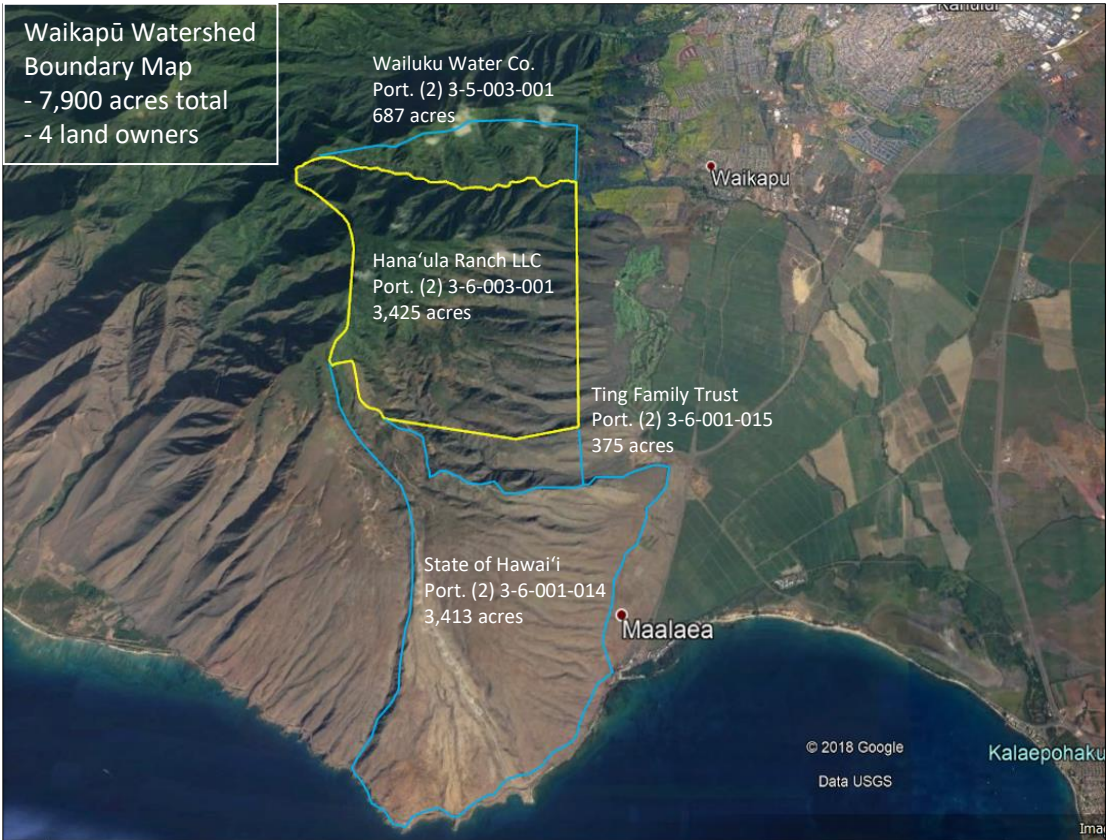
Priority Project	5 Year Integrated Waikapū Watershed Management Plan
Purpose	<p>Due to the proximity of the WCT Development to the Waikapū Watershed (~¾ mi.) a management plan shall be developed to mitigate any risks and or impacts to that area. A watershed management plan specific to the Hana’ula Ranch, LLC (TMK 2-3-6-003-001) portion of the Waikapū watershed, which encompasses 3,425 acres will be developed. The integrated plan shall be supplementary to that of the overall Mauna Kahālāwai Watershed Partnership Management Plan and further hone in on particular management and stewardship strategies for the Waikapū watershed.</p>
Overview	<p>The integrated management plan will be developed and include but not limited to the following: (A) Comprehensive analysis and forest profiles of the Waikapū Watershed. (B) Overview of current MKWP management projects and initiatives. (C) Integrated management and community-based stewardship approaches. (D) Invasive species control and eradication. (E) Educational outreach initiatives and community engagement. (F) Analysis of short and long term forest investments, internal and external revenue generating income, budget overview. Due to the expertise required and keen knowledge of the area and expertise required to develop such as robust plan, it is being proposed that Keahi Bustamente of Hui Mālama o Waikapū will develop this plan. Keahi will work closely with Mauna Kahālāwai Watershed Partnership to ensure that both plans integrate and complement one another.</p>
Site Map	 <p>Waikapū Watershed Boundary Map - 7,900 acres total - 4 land owners</p> <p>Wailuku Water Co. Port. (2) 3-5-003-001 687 acres</p> <p>Hana’ula Ranch LLC Port. (2) 3-6-003-001 3,425 acres</p> <p>Ting Family Trust Port. (2) 3-6-001-015 375 acres</p> <p>State of Hawai’i Port. (2) 3-6-001-014 3,413 acres</p> <p>© 2018 Google Data USGS</p>

Figure 24: Overview of Waikapū Watershed Land Owners - Hōkūao Pellegrino (2019)

Integrated Natural-Cultural Resource Preservation & Management Plan
 Waikapū Properties LLC & Partners – Waikapū Country Town Development

Key Stakeholders	Hui Mālama o Waikapū, Mauna Kahālāwai Watershed Partnership, Hana‘ula Ranch, LLC, Waikapū Properties, LLC, Wai‘ale 905 Partners, LLC
Project Owner	Waikapū Properties, LLC
Project Manager	Waikapū Properties, LLC, Hana‘ula Ranch, LLC in partnership with Hui Mālama o Waikapū & Mauna Kahālāwai Watershed Partnership
Timeline	Project planning, stakeholder engagement, plan development and will commence in 2020 and be completed by the end of 2021. Implementation of the 5 year plan will be initiated in 2022 and conclude in 2027. The timeline may be modified to coincide with the creation of the new Mauna Kahālāwai Watershed Management plan. In 2027, all stakeholders will produce a Final Plan Summary and recommendations for any and all future plans.
Management	Mauna Kahālāwai Watershed Partnership and Hui Mālama o Waikapū will work in collaboration on the implementation and management of the plan in concert with land owners Waikapū Properties LLC and Hana‘ula Ranch, LLC.
Outcomes	The development and implementation of a comprehensive management plan will ensure the sustainability of both ground and surface water sources in Waikapū via invasive species eradication-control and the protection, restoration and stewardship of the Waikapū Watershed.
Cost Analysis & Budget Overview	\$12,500 is being proposed to be allocated for the development of the Integrated Waikapū Watershed Management Plan.

2.5 WAIKAPŪ WATERSHED MANAGEMENT PRIORITY PROJECT #2

Priority Project	Mauna Kahālāwai Watershed Partnership Perpetual Fund
Purpose	To establish a perpetual revenue stream for the Mauna Kahālāwai Watershed Partnership by earmarked for specific Waikapū watershed projects and initiatives in alignment with the Integrated Waikapū Watershed Management Plan.
Overview	The Waikapū Country Town Development along with agricultural sites are located in close proximity to the Waikapū watershed. In addition to location, the mix-use development will draw heavily on ground water resources from the Waikapū aquifer. The use of this resource whether it be from ground or surface water sources is solely based on the proper management of the Waikapū and overall Mauna Kahālāwai watershed. Therefore, it is vital to support key watershed management stakeholders in the work that they do. It is being proposed Waikapū Country Town Development require a certain percentage of the monthly homeowner’s association fees within the Waikapū Country Town development project go towards supporting the Mauna Kahālāwai Watershed Partnership www.westmauiwatershed.org Funds allocated will be earmarked for stewardship projects in the Waikapū Watershed focused on native flora and fauna species protection, invasive species plant, disease and feral ungulate eradication and control, boundary fences and other key components laid out in the future Waikapū Watershed Management Plan. Community education outreach, engagement and stewardship opportunities will be initiated through collaborative efforts between Mauna Kahālāwai Watershed Partnership and Hui Mālama o Waikapū.
Site Map	Hana’ula Ranch, LLC portion of the Waikapū Watershed (See Figure 24 on Page 13)
Stakeholders	Mauna Kahālāwai Watershed Partnership, Waikapū Country Town Development, Hui Mālama o Waikapū, Hana’ula Ranch, LLC, Waikapū Properties, LLC, Wai’ale 905 Partners, LLC
Project Owner	Waikapū Country Town Development: Waikapū Properties, LLC & Wai’ale 905 Partners, LLC
Project Manager	Waikapū Country Town Homeowners Association (or other future named entity associated with WCT development).
Timeline	Implementation of the perpetual fund will commence when a homeowners association is established and generating revenue from WCT residents and businesses.
Management	Mauna Kahālāwai Watershed Partnership will work in collaboration with the future homeowners association
Outcomes	Waikapū Country Town homeowners and business will develop a strong sense of place and connection to the water resources and Waikapū watershed which they draw upon and utilize daily. They will have an important role and responsibility as being good stewards of water resources by investing in the management of the Waikapū watershed in perpetuity. Waikapū Properties, LLC and Partners would be paving a new pathway and holistic approach to ahupua’a sustainability.
Cost Analysis & Budget Overview	The percentage of monthly and annual revenue for the perpetual fund will be determined at a later time amongst stakeholders.

3.1 WAIKAPŪ STREAM OVERVIEW

Waikapū Stream is one of the longest perennial streams in the Mauna Kahālāwai or West Maui Mountains watersheds, spanning over 9 miles. The main course of the stream commences in the interior valley of Waikapū at the intersection of the Kapilau and Hana’ula Mountain Range. The stream flows outwards through the current town and central plains of Kama’oma’o and culminates into Keālia, Maui’s largest wetland and ancient inland fishpond. When Keālia becomes saturated, a mixture of fresh and brackish water will exit into Mā’alaea Bay via the Palalau estuary. At the 1,060 ft. elevation, there is a tributary called Kalena which has an average flow between 0.5 – 1 MGD. It directly feeds into the main part of the Waikapū Stream. The median stream flow or Q90 of the Waikapū Stream which includes all tributaries is 3-4 MGD. The Waikapū Stream is the first of the four great streams known as Nā Wai ‘Ehā and provides habitat to an array of native aquatic species such as ‘o’opu, ‘ōpae and hīhīwai. Native Hawaiians residents of Waikapū prior to the arrival of westerners, predominantly utilized the Waikapū Stream as a source of drinking water, bathing and for irrigating 1,000 surveyed acres of lo’i kalo cultivated on kuleana lands. Four known and well documented ancient ‘auwai systems were developed by Hawaiians in Waikapū; 3 on the north side of the stream (Pālolo and 2 unnamed ‘auwai) and 1 unnamed on the south side. During the sugar plantation era in Waikapū (1862-2016), the Waikapū Sugar Co. (1862-1890) whom was eventually acquired by Wailuku Sugar Co. (1862-1988), diverted most if not all of the Waikapū Stream via 4 major diversions (South Waikapū Intake, Everett Ditch Intake, Waihe’e Ditch Intake and Reservoir 6 Intake). On October 13, 2014, the State Commission on Water Resource Management set instream flow standards for Waikapū Stream and Wailuku River. Wailuku Water Co. which evolved from Wailuku Sugar Co. and Wailuku Agribusiness Co., was ordered to restore 2.9 MGD into the Waikapū Stream. Since the partial restoration of stream flow in 2014, native aquatic species such as ‘o’opu nākea (*awaous guamensis*), ‘ōpae kala ‘ole (*Atyoida bisulcata*) and hīhīwai (*Eneritina granosa*) have been observed and documented in the upper reaches of the stream and āholehole (*Kuhlia sandvicensis*) in the wetlands and estuary at Keālia.



Figure 25: Kalena Tributary - Hōkūāo Pellegrino (2015)



Figure 26: Keālia Wetlands - Hōkūāo Pellegrino (2017)



Figure 27: N. Kuleana ‘Auwai (2019)



Figure 28: S. Waikapū Dam Intake Diversion (2012)



Figure 29: ‘O’opu - Waikapū Stream (2018)

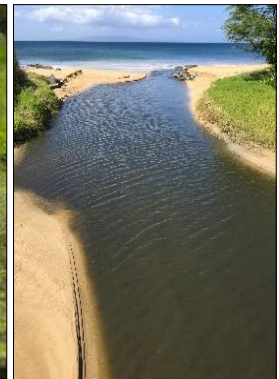


Figure 30: Palalau Estuary, Keālia (2016)

3.2 WAIKAPŪ SURFACE & GROUND WATER DISTRIBUTION SCHEMATIC DIAGRAM - HÖKŪAO PELLEGRINO (2019)

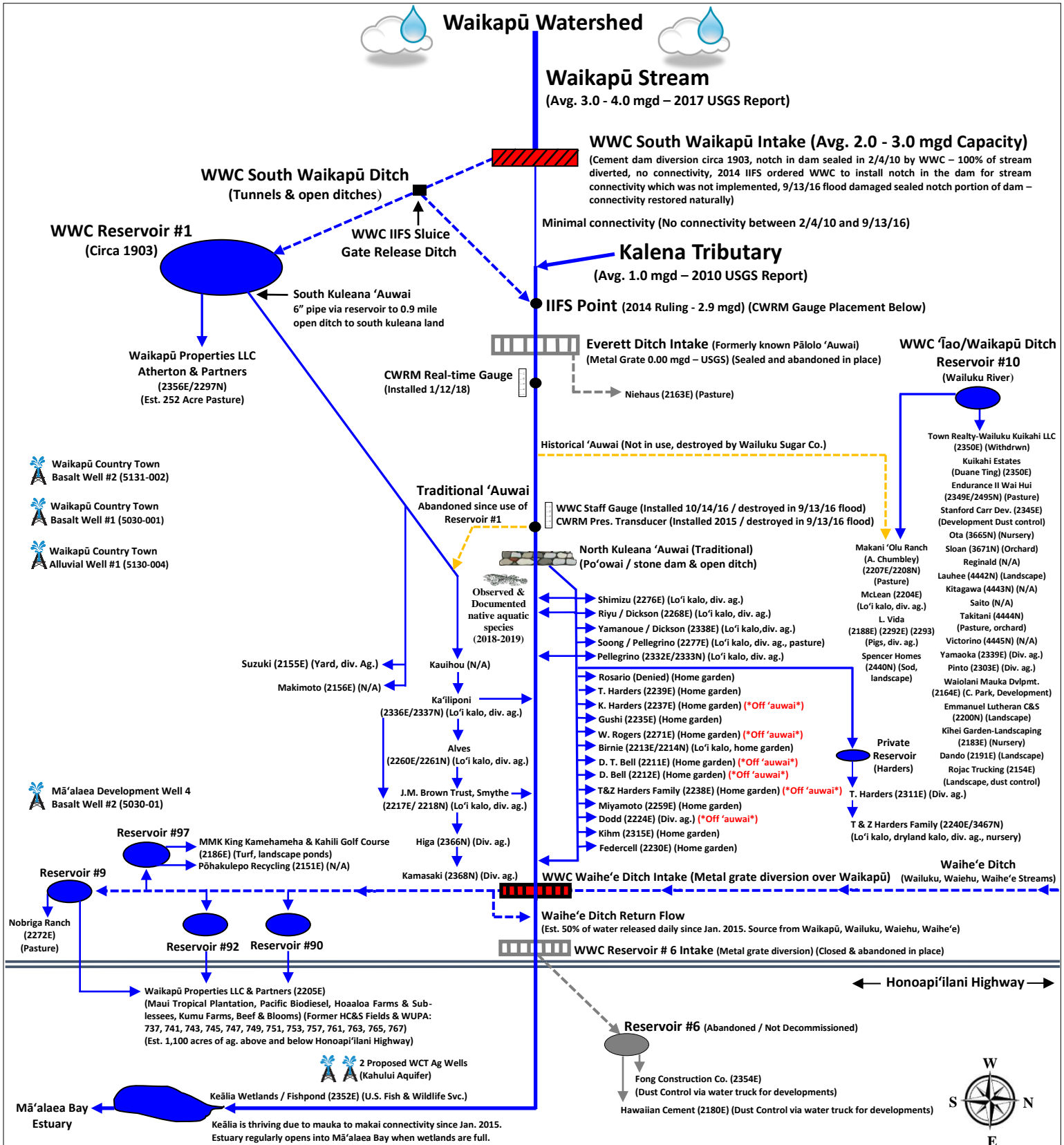


Figure 31: Waikapū Surface & Ground Water Distribution Schematic Diagram - Hōkūao Pellegrino (2019)

3.3 WAIKAPŪ STREAM PRIORITY PROJECT #1

Priority Project	Interim Instream Flow Standards & State Water Use Permit Compliance
Purpose	To ensure that Waikapū Stream flow connects mauka to makai, native aquatic species and habit thrive, and that appurtenant rights will be protected for traditional and customary practices of Native Hawaiian kuleana lo'i kalo farmers.
Overview	<p>The current IIFS of the Waikapū Stream is 2.9 MGD. Wailuku Water Co. manages the plantation era diversions and water distribution system on lands owned by Waikapū Properties LLC and Hana'ula Ranch LLC via an easement agreement. Although Waikapū Properties LLC and Hana'ula Ranch LLC do not actively manage the system, they have a responsibility as land owners and stewards of Waikapū to ensure the IIFS is in compliance. The current IIFS agreement recognizes the following compliance requirements: (A) Notch in the South Waikapū Dam Intake Diversion (1,160 ft.) to ensure stream connectivity for successful native aquatic habitat upstream migration. (B) To return enough flow via South Waikapū Ditch sluice gate (1,070 ft.) into Waikapū Stream needed to meet the 2.9 MGD IIFS immediately below (915 ft). (C) Consistent monitoring by all involved parties in conjunction with CWRM who has installed a real-time gauge at the IIFS point (915 ft.) to measure stream flow in the Waikapū Stream. http://fc01.mccrometer.net/secure/explorer.do?panel=8a0018df60a38d450160c2bb0113025b. Waikapū Properties has submitted the following SWUPA's in 2009; 2206, 2356, 2297N and 3472N. In 2016, a proposed agreement was made between Hui o Nā Wai 'Ehā and Waikapū Properties LLC to greatly minimize the use of Waikapū Stream water via the South Waikapū Diversion Intake, Ditch and Reservoir #1. At that time, 100,169 GPD was being used by all 4 users (Kumu Farms, Hoaloha Farms, Makani 'Olu Ranch and Beef and Blooms. The proposed agreement stated that by 2018-2019, Kumu Farms and Hoaloha Farms would move their farming operations below the Waihe'e Ditch system which would allow them to use the Waihe'e Ditch for ag irrigation. Both Kumu Farms and Hoaloha Farms have relocated and the remaining agricultural lands are being solely used for cattle grazing by Makani 'Olu Ranch and Beef & Blooms on a total of 252 acres. The approved water allocation for cattle is 250 GPD/Acre which equates to around 63,000 GPD as their current use. Key stakeholders such as Hui o Nā Wai 'Ehā and Waikapū kuleana land owners approve of and support Waikapū Properties current allocation of water from Waikapū Stream as was agreed upon in the proposed settlement between the two parties in the Nā Wai 'Ehā Contested Case (CCH-MA 15-01).</p>
Site Map	Waikapū Ahupua'a Water Distribution Schematic Diagram (See Figure 31 on Page 17)
Stakeholders	Hui o Nā Wai 'Ehā, Waikapū Properties, LLC and Hana'ula Ranch, LLC, Wailuku Water Co., State Commission on Water Resource Management
Owner	Waikapū Properties, LLC, Wai'ale 905 Partners, LLC and Hana'ula Ranch, LLC
Manager	Waikapū Properties, LLC, Wai'ale 905 Partners, LLC and Hana'ula Ranch, LLC
Timeline	On-going via monitoring and compliance checks.
Outcomes	<p>The Waikapū Stream, Native Hawaiian kuleana land owners, community and key stakeholders benefit by having natural and healthy stream flowing through the ahupua'a. Other benefits include Hui o Nā Wai 'Ehā's six in-stream core values. www.huionawaieha.org</p>
Cost Analysis & Budget Overview	N/A

3.4 WAIKAPŪ STREAM PRIORITY PROJECT #2

Priority Project	South Waikapū Kuleana ‘Auwai Restoration
Purpose	To support south kuleana land owners and lo’i kalo farmers in becoming independent of plantation era water distribution systems and allowing access to restore and manage the traditional south Waikapū kuleana ‘auwai irrigation system that historically fed those particular kuleana lands. Eliminating plantation ditch system dependence by the south kuleana lo’i kalo farmers is critical to the health and success of their crops, especially that of lo’i kalo. The current South Waikapū Diversion Intake that feeds Reservoir #1 as well as the ditch that flows 0.9 miles to the first set of kuleana lands, has extremely detrimental impacts. Impacts include continuous leaks, soil erosion and plantation era byproducts that enter into the Waikapū Stream during blockages and large rain events. Due to the length of time that water sits in Reservoir #1 as well as the heating up of water along the 0.9 mile plantation ditch course, crops especially that of lo’i kalo succumb to rot and diseases. The spread of invasive species such as razor clams and plants has also been a major problem and lastly the inability to self-manage and control the system is extremely challenging. South kuleana lo’i kalo farmers want to restore the traditional access for their kuleana water directly from the Waikapū Stream, similar to that of the north Waikapū kuleana ‘auwai. If successful, Waikapū would be the first ahupua‘a in Nā Wai ‘Ehā in over 150 years to have access to and usage of traditional ‘auwai irrigation systems that are completely independent from former Wailuku Sugar Co. / Wailuku Water Co. plantation irrigation systems for lo’i kalo cultivation.
Overview	Hui o Nā Wai ‘Ehā in partnership with key south Waikapū kuleana kalo farmers and families, would work in conjunction with landowners who have ownership of the portion of ‘auwai that will be restored; Waikapū Properties, LLC and Makani ‘Olu Ranch. This would include meetings with key stakeholders, scheduled site visits and the development of long term strategies for safe and secure access and regular maintenance. Hui o Nā Wai ‘Ehā will work directly with the State Water Commission staff on any required permits needed in restoring the actual po’o wai or traditional dam. When proper planning, access agreements and documents and the development of a comprehensive plan of action by land owners has been agreed upon, managed restoration work will commence. Restoration efforts will take place by key stakeholder groups and experts in this field of work. Hand tools such as shovels, picks, and chainsaws will be the only form of equipment used. Due to the complexity of the area and sensitivity of the landscape, no heavy equipment will be allowed. The restoration project area is about 0.19 miles or 1,025 ft. long. Upon completion, key stakeholders will work with Waikapū Properties LLC and Wailuku Water Co. to minimize or eliminate flow from Reservoir #1 into plantation ditch/‘auwai.
Stakeholders	Hui o Nā Wai ‘Ehā, South Waikapū Kuleana Land Owners & Lo’i Kalo Farmers, Makani ‘Olu Ranch and Waikapū Properties, LLC, Wai‘ale 905 Partners, LLC
Project Owner	Waikapū Properties, LLC, Wailuku Water Co.
Project Manager	Waikapū Properties, LLC, Wailuku Water Co., Hui o Nā Wai ‘Ehā
Timeline	Project planning, access agreements and documentation, land entitlements to commence in 2020. Implementation and completion by the end of 2021.
Management	South Waikapū kuleana land owners and kalo Farmers via right of entry agreements

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Outcomes	Building relationships between off-stream and instream users of water. Developing a well-rounded agricultural community with both sustainable large scale and kuleana lo'i kalo cultivation / farming.
Cost Analysis & Budget Overview	Funds for mechanized hand equipment, irrigation supplies (i.e. pipe) will be incurred by Hui o Nā Wai 'Ehā.

Site Map

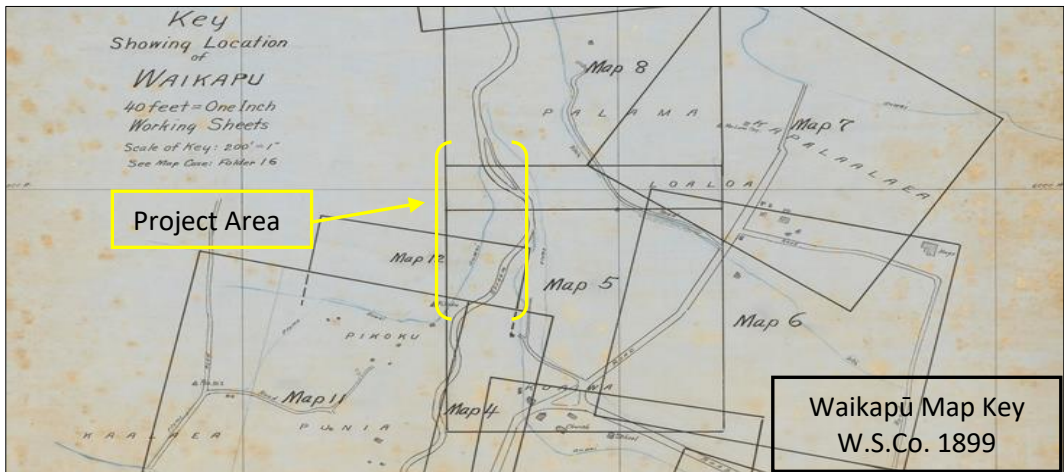


Figure 32: Waikapū Map Key - Wailuku Sugar Co. Map (1899)

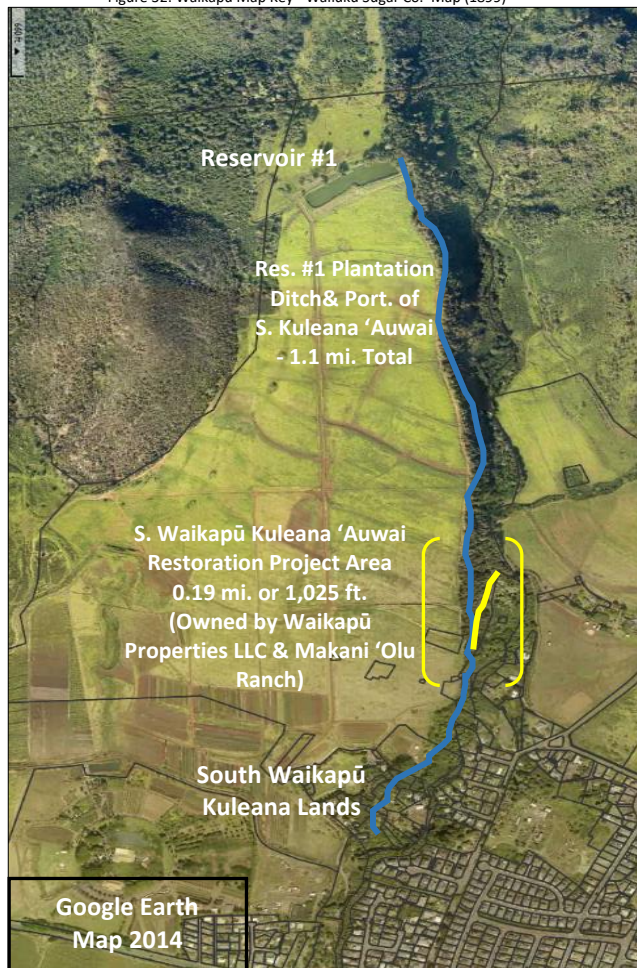


Figure 33: 'Auwai Restoration Project Map - Hōkūao Pellegrino (2019)

3.5 WAIKAPŪ STREAM PRIORITY PROJECT #3


Priority Project	Waihe‘e Ditch Diversion Intake at Waikapū Stream Closure	
Purpose	To support mauka to makai connectivity throughout the entire Waikapū Stream course. To enhance the biological and cultural value and integrity of the Waikapū Stream.	
Overview	<p>The Waihe‘e Ditch Diversion Intake (500 ft.) is a 15 ft. metal grate diversion. It was built by Wailuku Sugar Co. over the Waikapū Stream and diverts a portion of the natural streamflow into the Waihe‘e Ditch to be blended with Waihe‘e, Waiehu and Wailuku stream water for commercial and agricultural use, south of the ditch (i.e. Maui Tropical Plantation and agricultural users, Kahili and King Kamehameha Golf Course). Since the IIFS was implemented in 2016 for both Waikapū and Wailuku along with the closure of HC&S, diverted water into the intake from Waikapū Stream along with 50% of the ditch flow is being returned into Waikapū Stream 150 feet below via a throw-off ditch. Strong evidence has demonstrated over the last 3 years that the diverted stream flow from Waikapū Stream into the Waihe‘e Ditch is not needed. Therefore the proposed project request s for Waikapū Properties LLC to work in concert with Wailuku Water Co. to formally close and relinquish its use of the diversion over Waikapū Stream. The current and projected demand for Waihe‘e Ditch water south of Waikapū Stream is being met from water sourced directly from the Waihe‘e ditch and without the need for Waikapū Stream water to be diverted. Hui o Nā Wai ‘Ehā would like to work collaboratively with both parties and especially Waikapū Properties LLC as a leading example of what a good steward of the Waikapū Stream look like. Waikapū Properties LLC is the land owner of this parcel of land and Wailuku Water Co. has an easement for the Waihe‘e Ditch Diversion and Ditch System. If permits are required from CWRM, Hui o Nā Wai ‘Ehā can work with both parties to ensure that all laws and regulations are being adhered to.</p>	
Site Map	Waikapū Ahupua‘a Water Distribution Schematic Diagram on (See Figure 31 on Page 17	
Stakeholders	Hui o Nā Wai ‘Ehā, Waikapū Properties, LLC, Wai‘ale 905 Partners, LLC, Wailuku Water Co., State Commission on Water Resource Management.	
Owner	Waikapū Properties LLC and Wailuku Water Co.	
Management	Following the closure of the Waihe‘e Ditch Diversion on Waikapū Stream, there will no longer be any need for further maintenance or management of the diversion other than that of the actual ditch system south of Waikapū Stream via the Waihe‘e Ditch.	
Timeline	Hui o Nā Wai ‘Ehā has requested for this project to be planned and implemented by the end of 2021.	
Outcomes	Enhancing the bio-cultural values and integrity of the Waikapū Stream. 90% of Waikapū Stream will be flowing mauka to makai. Ground water aquifer throughout the entire stretch of the Waikapū Stream, watershed. Native Ecosystem rehabilitation.	
Cost Analysis & Budget Overview	To be determined in planning and implementation stage.	

Figure 34: Waihe‘e Ditch Intake at Waikapū Stream (2019)

4.1 LAND AND CULTURAL RESOURCES OVERVIEW

The land tenure during the time of the Māhele of 1848 indicated that Waikapū was a thriving ahupua'a in which Hawaiians dominated the cultural landscape by cultivating an extensive system of lo'i kalo (wetland taro patches) in and around Waikapū Valley and Stream. The coastal region of Waikapū was utilized for fishing grounds and salt production from Keālia wetlands/fishpond to Mā'alaea Bay. Maps from the late 1800s, conclude that some 120+ Māhele claims and Government Grants were successfully awarded to Native Hawaiians and a few foreigners in Waikapū. The land mass of 'ili (subdivisions) in which lo'i kalo was cultivated, is estimated to be around 900 acres. Over 1,300 lo'i kalo were recorded in Land Commission Award claims and dispersed throughout the 900 acres. In addition to lo'i kalo claims, were requests for kula (dryland cultivation), mo'o pa'akai (salt pans/grounds), wauke (paper mulberry used for making kapa), hala (pandanus used for making mats), potatoes, and hale (house lots for living).

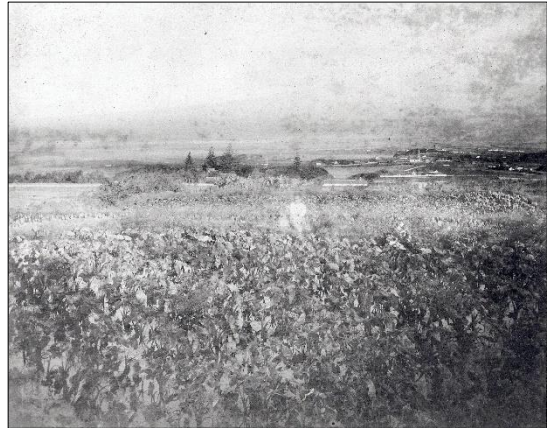


Figure 35: Waikapū Lo'i Kalo - Bishop Museum (1890)

The 503 acre footprint of the proposed Waikapū Country Town Development will be located in an area that was once a culturally rich landscape dominated by over 250 acres of fertile lands cultivated in lo'i kalo. These farmed kuleana lands were well documented during the time of the Great Māhele. 52 Land Commission Awards (LCA) and Government Grants comprised of 74 'āpana (parcels) were claimed between 1852 and 1855. The proposed development project is situated on more than half of these awarded lands. Of the 52 awards, 36 were compromised during the Waikapū/Wailuku Sugar Co. tenure. The remaining cultural properties are adjacent to the project and within the interior part of the Waikapū Valley, on lands owned by Waikapū Property LLC and Hana'ula Ranch LLC. A pedestrian survey with cultural, lineal descendants of Waikapū and members of Hui Mālama o Waikapū over the last 3 years have identified the remaining parcels and conclude that many if not all of them are in-tact and still possess extensive cultural and archaeological sites. The cultural corridor of kuleana parcels are situated on about 50 acres and predominantly along the Waikapū Stream. The close proximity that these kuleana parcels are in relationship to the Waikapū Stream, clearly demonstrate that both 'āina (land) and wai (water) were valuable cultural resources for Hawaiians who once lived there. To understand the functionality of these parcels and the collaborative relationship native tenants had with each other can see in similar kuleana parcels actively being cultivated in lo'i kalo just below these abandoned but intact areas.



Figure 36: Waikapū Archaeological Sites in Cultural Preserve - Hōkūao Pellegrino (2018)

Article XII, section 7 of Hawai'i Constitution obligates the State of Hawai'i and its agencies, such as the LUC, "to protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible when granting permission for reclassification of district boundaries." (*Ka*

Pa‘akai o Ka ‘Āina v Land Use Commission, 94 Hawai‘i 31, 7 P.3d 1068 [2000]. Under Article XII, section 7, the State shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua‘a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights. In the context of land use permitting, these issues are commonly addressed when the LUC is asked to approve a petition for the reclassification of district boundaries, as such an action most often initiates activities that precede initial intensive development. In the September 11, 2000 Hawai‘i Supreme Court landmark decision (*Ka Pa‘akai o Ka ‘Āina v Land Use Commission*), an analytical framework for addressing the preservation and protection of customary and traditional native practices specific to Hawaiian communities was created. The court decision established a three-part process relative to evaluating such potential impacts: first, to identify whether any valued cultural, historical, or natural resources are present; and identify the extent to which any traditional and customary Native Hawaiian rights are exercised; second, to identify the extent to which those resources and rights will be affected or impaired by the proposed action; and third, to specify the feasible action, if any, to be taken by the regulatory body to reasonably protect Native Hawaiian rights if they are found to exist.

In an effort to identify whether any valued cultural, historical, or natural resources are present within the proposed project area, and identify the extent to which any traditional and customary Native Hawaiian rights are, or have been, exercised (the first part of the analytical process); historical archival information was investigated, and prior and current cultural studies that included consultation and oral-historical interviews were reviewed. A summary of the 52 kuleana awarded parcels have been analyzed in detail on page 26.

An archaeological inventory survey (AIS) was conducted for the proposed Waikapū Country Town development by Archaeological Services Hawai‘i LLC. The project area extends all the way to the southern edge of the Waikapū Stream, however the development will remain at least 100 ft. from the stream, such that the former cane access road which parallels the stream, as well as the steep to moderate slopes down to the stream’s edge will not be encroached upon by development. This 100 ft. buffer zone was mandated in 1992 by the State Land Use District Boundary Review for Maui, Molokai, Lanai, Honolulu where a 100-ft corridor on both sides of Waikapū Stream was placed into a Conservation District (Office of State Planning: 31). Developing a cultural reserve or corridor is one such mitigation measure that has been proposed in the latter part of this study as a way to ensure protection of these cultural sites in perpetuity.

The AIS scope of work consisted of dividing the project area into five zones based primarily on the current TMK’s (ASH 2013). From mauka to makai the zones are as follows: Parcel 3 Mauka, constitutes the mauka section of TMK 3-6-004:003; Parcel 3 Waena is the middle and remaining section of TMK 3-6- 004:003; Parcel 6 is TMK 3-6-004:006; Parcel 7 is the current Maui Tropical Plantation landholdings 3-6- 004:007 and Parcel 3 Makai is within TMK 3-6-002:003. The investigation was conducted to determine presence/absence, extent, and significance of historic properties within the proposed development area and to formulate future mitigation measures for these remains and the project area.

The Waikapū Stream has and continues to be a very important cultural resource for Native Hawaiian cultural practitioners and practices such as lo‘i kalo cultivation. The proposed project area includes a plantation era irrigation and traditional ‘auwai system that provides water for South Waikapū kuleana lo‘i kalo farmers. An ancient ‘auwai historically provided water for South Waikapū kuleana lo‘i kalo farmers which commenced on Government Grant 1844 to Joseph Sylva, now currently part of the proposed project area. The use of the po‘owai or intake portion of this ‘auwai was discontinued when Wailuku Sugar Co. built the south Waikapū dam intake within the Waikapū Valley around the turn of the 20th century.

Currently, the south Waikapū dam and intake is owned by Wailuku Water Co. whom divert Waikapū Stream water about 2 miles into the Waikapū Valley, delivers water through their ditch system and into Reservoir #1 which is on the developer's proposed projects land. From Reservoir #1, a portion of water is released via a pvc pipe into a smaller open ditch and connects with the remaining portion of the ancient 'auwai that delivers water to the south kuleana lo'i kalo farmers. As of December 2018, 6 south kuleana land owners have been identified as utilizing this ditch commonly called south Waikapū kuleana 'auwai for kalo cultivation: (TMK 3-6-005:019, TMK 3-6-006:027, TMK 3-6-006:025, TMK 3-6-006:029, TMK 3-6-006:003, TMK 3-6-006:013). There are numerous other south kuleana lands that are privately owned and consist of former lo'i kalo terraces, however are not in use. Lineal descendants of these lands through the State Water Use Permit process have expressed interest in utilizing or returning to their ancestral lands to restore and farm lo'i kalo. These lands are identified as (TMK 3-6-005:014, TMK 3-6-005:067, TMK 3-6-005:001, TMK 3-6-006:017, TMK 3-6-006:032, TMK 3-6-006:033, TMK 3-6-006:001, TMK 3-6-005068, TMK 3-6-007:010).



Figure 37: N. Waikapū Kuleana 'Auwai - Maui Historical Society (1900)

To ensure that current and future Native Hawaiian practices associated with access to kuleana water for lo'i kalo cultivation are protected, the following information has been provided by existing south kuleana lo'i kalo farmers. They expressed that the irrigation system which provides water to their lands via the plantation ditch found within the proposed project area, is inefficient and causes limitations. The limitations include lack of and consistent water for lo'i kalo cultivation as well as warm water that comes from Reservoir #1 rather than straight from the stream as it historically did. They have shared that the water entering the ditch comes from a reservoir which causes some warming of the water rather than fresh stream water directly from the Waikapū Stream. Although the amount of water released via a pvc pipe may be sufficient, the estimated 1 mile long open ditch has numerous leaks and along with absorption into the ground along the ironwood trees. When the water finally enters the ancient 'auwai system near the kuleana lands, it has been said that the amount is minimal and does not provide sufficient amount of water for the current and growing needs of existing kuleana lo'i kalo farmers.

The proposed project area has identified the plantation era irrigation and 'auwai system be located within a greenway. Although the development will not adversely Hawaiian cultural practices related to lo'i kalo cultivation on neighboring properties that access water via the developer's land, a proposed improvement of the infrastructure and overall system should be implemented to mitigate their concerns.

Traditional and customary rights in relationship to Waikapū water and lo'i kalo cultivation are also occurring extensively on the north side of Waikapū Stream on kuleana lands directly across from the proposed project area. (TMK An intact traditional 'auwai known as the north kuleana 'auwai accesses Waikapū Stream water directly from the Waikapū Stream. (TMK 3-5-012:031, TMK 3-5-012:028, TMK 3-5-012:041, TMK 3-5-012:027, TMK 3-5-012:026, TMK 3-5-012:049, TMK 3-5-012:048, TMK 3-5-012:047, TMK 3-5-012:023, TMK 3-5-012:021, TMK 3-5-012:020, TMK 3-5-004:028, TMK 3-5-004:32, TMK 3-5-012:016, TMK 3-5-012:016, TMK 3-5-012:015, TMK 3-5-012:10, TMK 3-5-012:012, TMK 3-5-012:013, TMK 3-5-012:009, TMK 3-5-012:008, TMK 3-5-012:007, TMK 3-5-012:006, TMK 3-5-012:005, TMK 3-5-012:003, TMK 3-5-012:001) The State Commission on Water Resource Management set the Interim Instream Flow Standards (IIFS) for Waikapū Stream as 2.9 mgd in 2014 through a settlement agreement between the

following parties; Hui o Nā Wai ‘Ehā, Wailuku Water Company, Hawaiian Commercial Sugar Company, Maui Tomorrow, County of Maui, and Office of Hawaiian Affairs. The amount of water that has been released into Waikapū Stream does not account for traditional and customary rights for kuleana lo‘i kalo farmers which is a protected right under State Law. The interior valley of Waikapū watershed includes a diverse native forest with an array of endemic plants, insects, snails and mammals. Traditional access and trails into the Waikapū Valley are along the Waikapū Stream which is partially owned by the developer of the proposed project. In addition to the river, are two plantation era access points adjacent to Reservoir #1. There are a number of Hawaiian cultural practices identified in relationship to accessing the Waikapū Valley for gathering and stewarding highly sensitive cultural and natural resources.

There are endemic medicinal plants such as ko‘oko‘olau (*bidens* sp.) and māmaki (*pipturus albidus*) that have been identified by lineal descendants of Waikapū for gathering and use in lā‘au lapa‘au (Hawaiian herbal medicine). These native plants and others grow in very specific regions within the valley and ridges. A Hawaiian family shared about a specific ko‘oko‘olau plant that they would gather fresh leaves from which was located along a ridge and dry gulch in the valley named Kapiliiki. The leaves were used to treat a family member who has high blood pressure. The proposed project does not adversely impact the area in which traditional cultural practice of gathering herbs exist. The proposed project will continue to allow access to the Waikapū Valley for traditional and customary practices through a greenway or potential cultural preserve adjacent to the Waikapū Stream and near the opening of the valley on a trail below Reservoir #1. Controlled access will be an important part of this project in order to protect both the watershed and cultural resources.

Lineal descendants of Waikapū have also been identified as having scattered the ashes of their ancestors within the valley. The cultural practices conducted by lineal descendants are reliant on access through the proposed development in order to honor their kūpuna. The proposed project will continue to allow access to the Waikapū Valley for traditional and customary practices through a greenway or potential cultural reserve adjacent to the Waikapū Stream and near the opening of the valley on a trail below Reservoir #1.

Hui Mālama o Waikapū, a non-profit organization affiliated with Tri-Isle RC&D was established in 2009 and currently has a 15 year lease with the developer for a 5 acre parcel of land adjacent to the proposed project. The mission of the organization is “E mālama a ho‘okā‘oi i ka mo‘omeheu, kaiameaola kūlohelohe a me ka wai o kō Waikapu ahupua‘a” or “To preserve and enhance the cultural, biological, and water resources of the Waikapū ahupua‘a”. Hui Mālama o Waikapū is comprised of four Waikapū residents who have genealogical ties to the ahupua‘a, and have committed themselves to protecting the culturally and environmentally rich landscape through cultural practices. The members of Hui Mālama o Waikapū (HMOK) who are also lineal descendants conduct cultural practices on the leased parcel of land in addition to lands in and around the project area. These practices include gathering of seeds and cuttings of endemic plant cultivars for propagation and restoration of the leased native dryland forest owned by the developer. They also gather native plants and material for traditional implements used during activities on the leased land such as lo‘i kalo, Hawaiian food crop cultivation and lā‘au



Figure 38: Hui Mālama o Waikapū Work Day (2013)

lapa’au. In addition, the group has sought and received funding to initiate a natural and cultural resource management and education program in the leased area. Access and protection to this highly sensitive cultural sight is critical for both cultural practices and educational program implementation. Hui Mālama has brought over 1,000 students since their inception and continue to grow their educational programs to include formal partnerships with educational institutions on Maui. Currently the land owner provides access via an old plantation road leading up to the reservoir and access point to HMOW leased lands. The proposed project will continue to allow access to their lease lands for traditional and customary Hawaiian practices through a greenway or potential cultural reserve adjacent to the Waikapū Stream and near the opening of the valley on a trail below Reservoir #1. The founders and members of Hui Mālama o Waikapū and who are from the Waikapū ahupua’a, have extensive knowledge of the cultural sites and practices within and adjacent to the proposed development project. HMOK has recommended that a cultural preserve be established to ensure that all cultural sites, existing and future cultural practices within the developers land base be protected in perpetuity. These sites include kuleana lands with lo’i kalo terraces, ‘auwai systems, house sites, other cultural and archaeological features, and native plant species. Hui Mālama o Waikapū proposes to work alongside developer to ensure that there is a plan to mitigate any potential adverse impacts on these highly sensitive cultural lands.

In the development of the CIA, two privately owned kuleana parcels of land were identified. They are called the “Mahi parcels”. Both parcels are located directly in the middle of where the proposed urban lots were to be developed in the mauka section. These parcels are currently vacant and in the middle of a pasture used by the developer and neighboring land owner for grazing cattle. Lineal descendants of the Mahi family who now live on O’ahu, were contacted through this process and expressed a deep interest in returning to their ancestral land someday along with a permanent access easement to their property. The developer for the project has been made aware of this and has since moved the urban lots and road away from the Mahi kuleana parcels. A permanent easement for the Mahi family will also be recommended below as a priority project.

KULEANA PARCELS IDENTIFIED WITHIN THE LAND ASSETS OF WAIKAPŪ PROPERTIES LLC

Awardee	‘Ili (Subdivision)	Land Commission Award	Royal Patent	‘Āpana (Parcel)	Grant	Acres	Description of Cultural & Natural Resources via Native and Foreign Testimony and Survey Notes	Surveyor
Kupalii	Keana	3546	3151	2		1.2	- Kula - Kalo paukū - Kukui & wiliwili - Borders Waikapū Stream	E. Bailey 5-5-1852
Charles Copp	Papala	236-I	498	2		1.0 (est.)	- Lo’i kalo (unspecified amount) - Borders Waikapū Stream	Ioane (John) Richardson
Napailoi	Kaloaloha / Loaloha	10481	3131	4		0.66	- Lo’i kalo (unspecified amount) - Borders Waikapū Stream	E. Bailey 4-23-1852
Opunui	Loaloha	3224	4115	6		0.27	- Lo’i kalo (unspecified amount) - Borders Waikapū Stream	E. Bailey 6-25-1852
Keaka (W)	Olohe	3549	3122	3		1.0	- 3 lo’i kalo	N/A

Integrated Natural-Cultural Resource Preservation & Management Plan
 Waikapū Properties LLC & Partners – Waikapū Country Town Development

						(est.)	- Borders Waikapū Stream	
Keaka (W)	Olohe				1511	0.2 (est.)	- Lo'i kalo (unspecified amount) - Borders Waikapū Stream	N/A
Kupalii	Mokahelahela / Makaielelu	3546	3151	3		1.0	- 1 house lot	E. Bailey 5-5-1852
Kamakaipoaa / Kamakaipuaa	Kamauehalii	6385	None	2		1.94	- Lo'i (unspecified amount) - Borders Waikapū Stream	E. Bailey 4-15-1852
Nahau	Olohe	3340	3115	2		0.8	- Mo'o kula - 1 house lot - 'Auwai watercourse	E. Bailey 4-11-1852
Joseph Sylva	Waihalulu			3	1844	487.0	- 'Auwai watercourse - Pens - Stone walls - Native claims retained - Gulch	E. Bailey 4-10-1855
Joseph Sylva	Waihalulu			2	1844	9.52	- Stone walls - Multiple house lot	E. Bailey 4-10-1855
Joseph Sylva	Waihalulu & Paalae			1	1844	22.36	- Native claims retained	E. Bailey 4-10-1855
Napailoi	Waihalulu	10481	3131	2&3		1.3	- 8 lo'i kalo - Kula - 1 house lot	E. Bailey 4-23-1852
Napailoi	Paalae	10481	3131	1:1		0.54	- Kalo paukū - Kula - 'Auwai watercourse	E. Bailey 4-23-1852
Napailoi	Paalae	10481	3131	1:2		0.19	- Kalo paukū - Kula	E. Bailey 4-23-1852
Napailoi	Paalae	10481	3131	1:3		0.1	- Kalo paukū - Kula	E. Bailey 4-23-1852
Hakiki	Waihalulu	2577	4948	4		0.2	- 4 lo'i kalo - 'Auwai watercourse	E. Bailey 8-14-1852
Kaeha	Olohe	2394	3138	1		1.36	- Kalo paukū - Pūhala - 2 house lots - 'Auwai watercourse	E. Bailey 6-21-1852
Nalei	Olohe	10460	None	2		0.07	- 2 lo'i kalo - 'Auwai watercourse	E. Bailey 4-16-1852
Ehunui Mahi Parcel	Olohe			1513		0.07 (est.)	- Unknown	N/A
Ehunui Mahi Parcel	Olohe	2499	4070	1		0.8	- Kalo paukū - Po'alima - 'Auwai watercourse	E. Bailey 6-25-1852
Ehunui Mahi Parcel	Pikoku	2499	4070	3		1.3	- 7 lo'i kalo - 'Auwai watercourse	E. Bailey 6-25-1852
Kamaipuaa / Kamakaipoaa / Kamakaipuaa	Pikoku	6385	None	1		0.17	- Kalo paukū	E. Bailey 4-15-1852
Koa	Pikoku	3528	3155	1		3.90	- 2 house lots - Kalo paukū - Kula - 'Auwai watercourse	E. Bailey 8-27-1852

Integrated Natural-Cultural Resource Preservation & Management Plan
 Waikapū Properties LLC & Partners – Waikapū Country Town Development

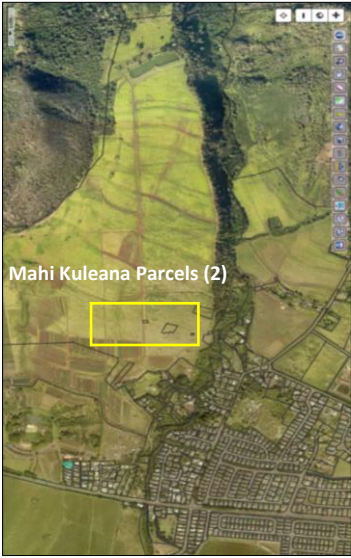
Koa	Pikoku				1708	0.1 (est.)	- 1 lo'í kalo - 'Auwai watercourse - 2 burial plots (Maxwell)	E. Bailey 9-9-1854
Hakiki	Olohe	2577	4948	2		0.25	- 7 lo'í kalo	E. Bailey 8-14-1852
Mohomoho	Kamauhalii			1	1711	0.08	- 1 lo'í kalo	E. Bailey 9-8-1854
Mohomoho	Kamauhalii			2	1711	0.04	- 1 lo'í kalo	E. Bailey 9-8-1854
Ihu	Kamauhalii			1	1712	0.09	- 1 lo'í kalo	E. Bailey 9-15-1854
Opunui	Kamauhalii				1704	1.94	- Unkown	E. Bailey 9-9-1854
Mataio	Kamauhalii	3020	3140	2		2.65	- Kalo paukū - Kula - House lot	E. Bailey 4-15-1852
Keawe (W)	Punia	3520	3135			2.54	- 2 kalo paukū - Kula	E. Bailey 4-15-1852
Makuakane	Punia	2522	3125			1.83	- Kalo paukū	Unknown
Kekua	Kamauhalii	5551	3150	1		0.42	- Kalo paukū	E. Bailey 6-25-1852
Kekua	Kaalaea	5551	3150	2		0.1	- 2 lo'í kalo	E. Bailey 6-25-1852
Kekua	Kamauhalii				1518	0.15 (est.)	- Unknown	N/A
Kamohai	Kaalaea	3527	3156	3		0.2	- Kalo paukū - Kula mo'ō	E. Bailey 8-18-1852
Naanaa	Punia	3337	3136	1,2,3		1.1	- Kalo paukū - Lo'í kalo - House lot	E. Bailey 4-14-1852
Ihu	Kaalaea			2	1712	0.07	- 1 lo'í kalo	E. Bailey 9-15-1854
Kaai	Kaalaea			2	2069	0.18	- Unknown	N/A
Opunui	Kaalaea	3224	4115	5		0.32	- Kula	E. Bailey 6-25-13
Naanaa	Kaalaea	3337	3136	4		0.45	- Kalo paukū	E. Bailey 4-14-1852
Poepoe	Kaalaea	2609	3124	1,5		0.98	- Kalo paukū - 'Uala kula - House lot	E. Bailey 8-27-1852
Kaai	Kaalaea	5774	4014	2		2.76	- 6 lo'í kalo - 'Auwai watercourse	E. Bailey 3-?-1852
Kaai	Kaalaea			1	2069	10.46	- Unknown	N/A
Wahinealii	Kaalaea	11022	3142	8		0.6	- House lot	E. Bailey 4-15-1852
Mahoe	Ahuakolea	10160	3148	1		1.99	- Kalo paukū	E. Bailey 4-16-1852
Kamohai	Kaalaea	3527	3156	2		0.2	- Kalo paukū	E. Bailey 8-18-1852
Keakini	Kaalaea	5324	6374	3		0.56	- 1 lo'í kalo	E. Bailey 4-24-1852
Kaneae	Kaloapelu	8874	3130	1		0.29	- Lo'í kalo	E. Bailey 8-26-1852

Figure 39: Great Māhele Kuleana Land Awards - Hōkūao Pellegrino (2019)

4.2 LAND AND CULTURAL RESOURCES PRIORITY PROJECT #1

Priority Project	Waikapū Valley Access for Native Hawaiian Traditional and Customary Practices and Gathering
Purpose	To allow access for Native Hawaiian traditional and customary practices and gathering in the Waikapū Valley through a managed process. To ensure that cultural resources in the Waikapū Valley are not being adversely impacted due to uncontrolled access.
Overview	The proximity of the Waikapū Country Town Development to the access point into the Waikapū Valley is extremely close. While access for Native Hawaiian traditional and customary practices and gathering is strongly supported by the developers, the possibility of increased entry into the valley via hikers, tourists, non-members of the community, community members and others because of the Waikapū Country Town Development needs to be addressed and managed properly. Signage, fence lines with a controlled access gate for lineal and cultural descendants of Waikapū along with invasive species sanitation stations will be developed and installed. Hui Mālama o Waikapū will work closely with Waikapū Properties LLC to determine the plan of action.
Site Map	To be determined by stakeholder groups
Stakeholders	Hui Mālama o Waikapū, Hui o Nā Wai ‘Ehā, Waikapū Properties, LLC.
Owner	Waikapū Properties, LLC
Management	Waikapū Properties, LLC, Waikapū Community Members and Hui Mālama o Waikapū
Timeline	A plan will be set in place by the end of 2020
Outcomes	Managed access will preserve and protect both natural and cultural resources as well as protecting gathering rights of Waikapū lineal descendants. Measures will also be put to limit and close off the general public from entering valley especially because of the high probability of spreading invasive species (i.e. Rapid ‘Ōhi’a Death).
Cost Analysis & Budget Overview	To be determined in the planning process.

4.3 LAND AND CULTURAL RESOURCES PRIORITY PROJECT #2

Priority Project	Mahi Kuleana Parcel Access
Purpose	To protect and allow easements for 2 Mahi kuleana parcels
Overview	Through the development of the CIA, two privately owned kuleana parcels of land were identified. They are called the “Mahi parcels”. Both parcels are located directly in the middle of where the proposed urban lots were to be developed in the mauka section. These parcels are currently vacant and in the middle of a pasture used by Waikapū Properties LLC and Makani ‘Olu Ranch for grazing cattle. Lineal descendants of the Mahi family who now live on O‘ahu, were contacted through this process and expressed a deep interest in returning to their ancestral land someday along with a permanent access easement to their property. The developer for the project has been made aware of this and has since moved the urban lots and road away from the Mahi kuleana parcels. Since there is no formal easements and lot lines, the Mahi family has requested Waikapū Properties LLC to assist in surveying their 2 kuleana parcels along with an easement. The Mahi’s have made it clear they don’t want to sell their ancestral lands but rather want to be a good steward of them in the near future. In exchange of support, the Mahi family would be open to setting some conditions to ensure that their property is managed properly due to its extremely close proximity to the urban lots for Waikapū Country Town.
Site Map	 <p>Figure 40: Mahi Kuleana Parcel Map - Hōkūao Pellegrino (2019)</p>
Stakeholders	Mahi Family, Waikapū Properties, LLC, Wai‘ale 905 Partners, LLC, and Hui Mālama o Waikapū
Owner	Mahi Family, Waikapū Properties, LLC, and Wai‘ale 905 Partners, LLC
Management	Mahi Family, Waikapū Properties, LLC
Timeline	To be completed in 2021
Outcomes	Incorporating a strong sense of place within the Waikapū Country Town Development by fostering strong relationships with the Mahi Family who is one of the last remaining lineal descendants of Waikapū with kuleana land.
Cost Analysis & Budget Overview	To be determined at a later time following the estimate from survey vendor.

4.4 LAND AND CULTURAL RESOURCES PRIORITY PROJECT #3

Priority Project	Waikapū Cultural Preserve, Cultural Corridor and Riparian Buffer
Purpose	To establish a cultural preserve to ensure the integrity of natural and cultural resources found within a 50 acre corridor of kuleana lands is protected and stewarded in perpetuity. The remaining intact kuleana parcels adjacent to and mauka of the Waikapū Country Town Development are on 50 acres of land. Many of these kuleana parcels as specified in detail on page 32 show that they are along the Waikapū Stream.
Overview	20 culturally sensitive kuleana parcels are in need of protection beyond the LUC condition of a 100 foot buffer between Waikapū Country Town Development and Waikapū Stream. It is being proposed that a 50 acre buffer along the Waikapū Stream and ridge leading down to the stream be created. The establishment of a cultural preserve would ensure these lands and designated buffer zones will never be developed or impacted. The proposed cultural preserve will be within 3 of 5 large agricultural lots that can be developed however not subdivided as part of a condition in the WCT project. The close proximity of these lots have the potential for compromising the kuleana lands, therefore, it is further proposed that specific language, design guidelines, plot plan exhibits and deed restrictions be set in place for the 3 large agricultural lots. Hui Mālama o Waikapū currently manages 5 acres on lands they lease from Waikapū Properties, LLC, within the 50 acre cultural preserve. Hui Mālama o Waikapū in conjunction with Hui o Nā Wai ‘Ehā would like to work as the entity formally managing the 50 acre cultural preserve for both protection, ‘āina-based stewardship and community engagement.
Site Map	See Figure 41 on Page 31
Stakeholders	Waikapū Properties, LLC, Wai‘ale 905 Partners, LLC, Hui Mālama o Waikapū, Hui o Nā Wai ‘Ehā.
Owner	Waikapū Properties. LLC
Management	Management will be in conjunction with Hui Mālama o Waikapū and Hui o Nā Wai ‘Ehā.
Timeline	Establish formal cultural preserve designation and management oversight by end of 2020.
Outcomes	Protection and stewardship of some of the last remaining pre-western contact Hawaiian kuleana parcels in the Waikapū ahupua‘a. Allowing current and future lineal and cultural descendants to reconnect place. Increasing stewardship and educational opportunities while building community engagement trust and empowerment. Adaptive management strategies. Restoration of traditional agricultural sties and native dryland forests as a historical agroforestry model. Increase traditional access for cultural practices. Restore and interpret cultural landscapes.
Cost Analysis & Budget Overview	A proposed annual fund of \$5,000 is being requested to the managing entity for the protection and stewardship of the Waikapū Cultural Preserve.

WAIKAPŪ CULTURAL PRESERVE MAP - Hōkūao Pellegrino (2019)

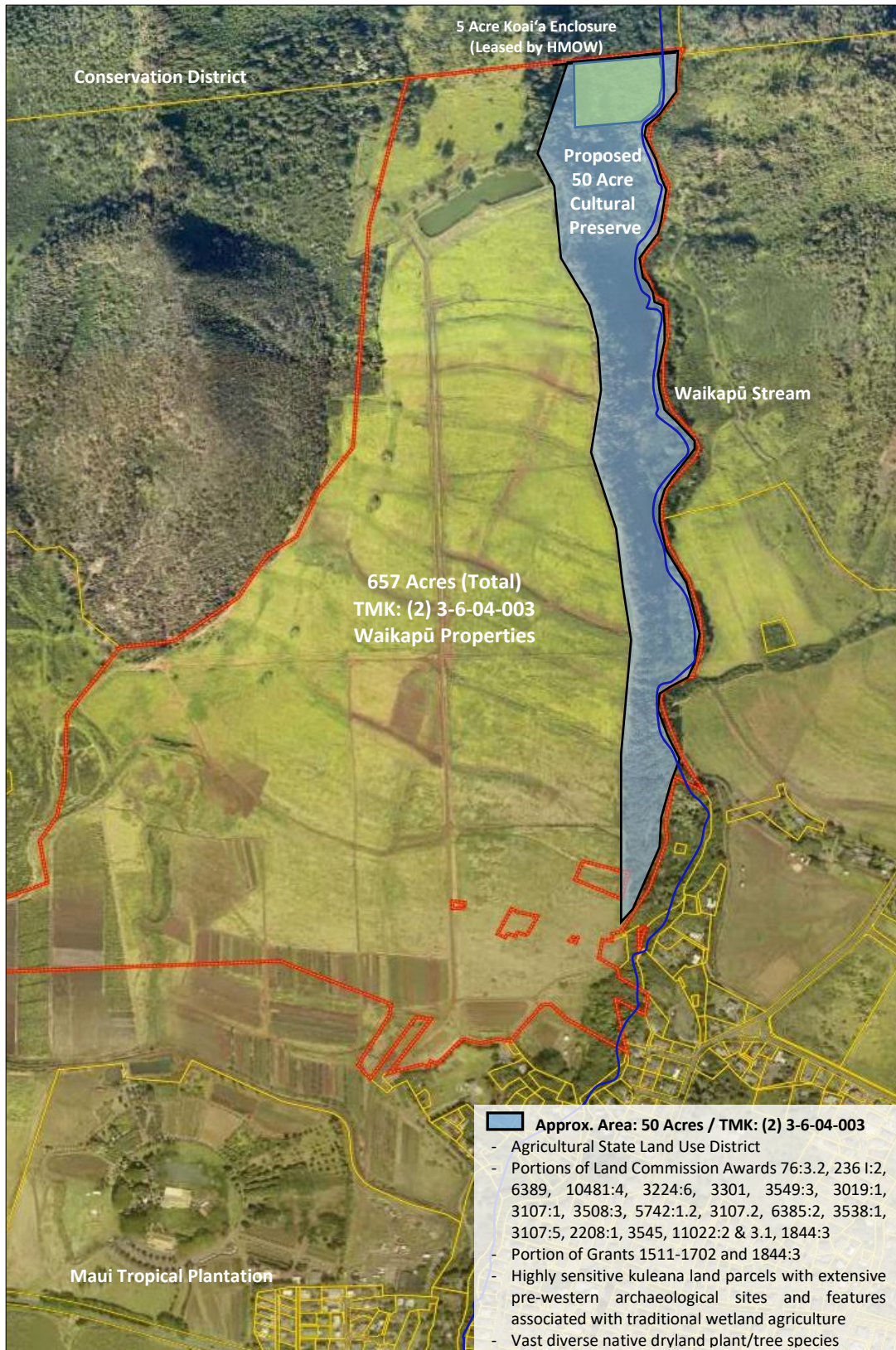


Figure 41: Waikapū Cultural Preserve Map - Hōkūao Pellegrino (2019)

Indices of Māhele Land Commission Awards and Land Grants Located within the 50 Acre Cultural Preserve

Awardee	'Ili (Subdivision)	Land Commission Award	Royal Patent	Grant	Acres	Description of Cultural & Natural Resources via Native and Foreign Testimony, Native Register and Survey Notes	Survey
William Shaw	Loaloa	76:3.2	7694		3.42	- Palolo 'Auwai / Everett Ditch - Ha'anui mountain - Both sides of Waikapū Stream	J. Metcalf 1-25-1847
Charles Copp	Papala	236-1:2	498		1.0 (est.)	- Lo'i kalo (unspecified amount) - Both sides of Waikapū Stream	Ioane (John) Richardson
Kahaleole	Loaloa	6389	6192		3.48	- Palolo 'Auwai / Everett Ditch - Borders Waikapū Stream	E. Bailey 3-15-1854
Napailoi	Kaloaloa / Loaloa	10481:4	3131		0.66	- Lo'i kalo (unspecified amount) - Adjacent to Waikapū Stream	E. Bailey 4-23-1852
Opunui	Loaloa	3224:6	4115		0.27	- Lo'i kalo (unspecified amount) - Adjacent to Waikapū Stream	E. Bailey 6-25-1852
Mahoe / Kamakea	'Ōlohe	3301	3137		9.7	- Wiliwili tree reference - Palolo 'Auwai / Everette Ditch - Adjacent to Waikapū Stream	E. Bailey 6-25-1852
Keaka	'Ōlohe	3549:3	3122		0.52 (est.)	- 3 lo'i kalo - Both sides of Waikapū Stream	Unknown
Mehao	'Ōhi'a	3019:1	5333		0.58	- 5 lo'i kalo - Adjacent to Waikapū Stream	E. Bailey 9-27-1852
Keaka	'Ōlohe			1511 / 1702	0.17	- Located within LCA 3549:3	E. Bailey 4-19-1855
Kaili	'Ōhi'a	3107:1	2348		0.8	- Adjacent to Waikapū Stream - 'Auwai	E. Bailey 6-25-1852
Kuheleloa	'Ōhi'a	3508:3	3123		0.65	- Mo'o kalo - Adjacent to Waikapū Stream - 'Auwai	E. Bailey 4-19-1853
Kaluahinui	'Ōhi'a	5742:1.2	4125		0.36	- Adjacent to Waikapū Stream - 16 lo'i kalo & upland kalo	E. Bailey 6-25-1852
Kaili	'Ōhi'a	3107:2			1.27	- Paukū kalo, Po'alima, Lo'i Aupuni, Lo'i Pa'ahao - Adjacent to Waikapū Stream - 'Auwai	E. Bailey 4-30-1852
Kamakaipoaa / Kamakaipuaa	Kama'ūhāli'i	6385:2	N/A		1.94	- Lo'i (unspecified amount) - Adjacent to Waikapū Stream	E. Bailey 4-15-1852
Keakua	Pālama	3538:1	2351		1.64	- 21 Lo'i kalo - House lot - Kula - Adjacent to Waikapū Stream	E. Bailey 6-25-1852
Kaili	Pālama	3107:5	2348		0.90	- Lo'i kalo (unspecified amount) - Adjacent to Waikapū Stream	E. Bailey 4-30-1852
Manu	Pālama	2208:1	2208		0.72	- 36 lo'i kalo / mo'o kalo - Adjacent to Waikapū Stream	E. Bailey 1-27-1854
Keaweamahi	Pālama	3545	5262		2.08	- Mo'o kalo - Kula - Adjacent to Waikapū Stream	E. Bailey 4-16-1852
Wahinealii	Pālama	11022:2 3:1	3142		1.70	- Mo'o kalo - Adjacent to Waikapū Stream	E. Bailey 4-16-1852
Joseph Sylva / Silva	Moka'elelū			1844:3	487.0	- 'Auwai / watercourse - Stone walls, pens - Native claims retained - Kaiwaloa Ridge & Kapiliiki Gulch	E. Bailey 4-10-1855

NOTE: The Cultural Preserve includes a portion of each kuleana identified in the table. The remaining portions are owned by other land owners not associated with the ownership of Waikapū Properties.

4.5 LAND & CULTURAL RESOURCES PRIORITY PROJECT #4

Priority Project	Integration of Waikapū Ethnohistorical Resources throughout WCT Development
Purpose	To integrate and perpetuate the cultural identity of Waikapū throughout the entire Waikapū Country Town Development.
Overview	The Waikapū Country Development is proposing to have a park, school, businesses and streets. The purpose of this project is to utilize the in-depth cultural research conducted via the CIA and this plan in all aspects of the development. Areas may include but are not limited to the naming of the school, park, buildings, and streets as well as creating interpretive signage throughout the development sharing the history of Waikapū and profound natural and cultural resources that exist. In addition to this is building a strong sense of place by providing opportunities to experience hands-on stewardship opportunities within designated spaces such as the Waikapū Cultural Preserve. A community advisory committee to assist in these two areas would be set up to execute on this project.
Site Map	Waikapū Country Town See Figure 1 on Page 4
Stakeholders	Waikapū Properties, LLC, Wai’ale 905 Partners, LLC, Waikapū Community Association, Future Waikapū Country Town Community Advisory Committee
Owner	Waikapū Community in conjunction with Waikapū Country Town
Management	Future Waikapū Country Town Community Advisory Committee and key stakeholders.
Timeline	Pre and post development phases
Outcomes	Strong integration of Waikapū cultural and natural resources throughout the Waikapū Country Town development by building bridges and relationships between old and new residents.
Cost Analysis & Budget Overview	N/A

5.1 HŌ‘ULU‘ULU MANA‘O HOPE - FINAL SUMMARY

The In-depth research and analysis included in the Cultural Impact Assessment and Ka Pa‘akai Analysis has shown that the Waikapū Country Town development is within a naturally and culturally vibrant ahupua‘a. It has shown that throughout the last 10 years, Waikapū Properties, LLC, and Wai‘ale 905 Partners, LLC have been openly communicating with the Waikapū Community at large, those kuleana land owners whose lands may be impacted adjacent to the subject property and key stakeholders groups. Because of the concerns about neighboring cultural properties and resources, it is recommended that the developer continue to have genuine discussions throughout the planning process with the Waikapū Community and stakeholders, while providing current information and/or changes regarding the development plan. Overarching sentiments provided by the community is that they want to trust the planning and development process, to ensure the developer is continually open to their concerns and working directly with them on addressing any issues. Lastly, they want the commitment of the developers to execute and complete all priority projects that were identified in this plan.

The Integrated Natural-Cultural Resource Preservation Management Plan is a guiding document that provides strategic guidance and actions for the management and stewardship of resources via priority projects and current initiatives. Waikapū Properties, LLC and Wai‘ale 905 Partners, LLC are committed to seeing this plan through to completion in partnership with all major key stakeholders that were identified. Responsible stewardship of cultural and natural resources is critical to maintaining the unique character of the current Waikapū Historic Town and ahupua‘a. Furthermore, it enhances the way of life of current and future Waikapū residents while supporting thoughtful growth and sustainability.



Figure 42: Lo‘i Kalo Wall Restoration at Noho‘ana Farm, Waikapū - Hōkūao Pellegrino (2005)

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