

**LANA`I
COMMUNITY PLAN
(1998)**

MAUI COUNTY COUNCIL

EXHIBIT 1

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Lana`i Community Plan

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PART I

INTRODUCTION TO THE LANA`I COMMUNITY PLAN

A. Purpose of the Lana`i Community Plan

The Lana`i Community Plan, one of nine (9) Community Plans for Maui County, reflects current and anticipated conditions in the Lana`i region and advances planning goals, objectives, policies and implementation considerations to guide decision-making in the region through the year 2010. The Lana`i Community Plan provides specific recommendations to address the goals, objectives and policies contained in the General Plan, while recognizing the values and unique attributes of Lana`i, in order to enhance the region's overall living environment.

The Maui County General Plan, first adopted in 1980 and updated in 1990, sets forth goals, directions and strategies for meeting the long-term social, economic, environmental and land use needs of the County. Similarly, the Lana`i Community Plan was first adopted by Ordinance No. 1306 in 1983.

B. The Role of the Community Plan in the Planning Process

For Maui County, the General Plan and the Community Plans are strategic planning documents which guide government action and decision-making. Both the General Plan and the Community Plans are part of a planning hierarchy which includes, as primary components, the Hawaii State Plan and State Functional Plans. See Exhibit A.

Mutually supporting goals, objectives, policies and implementing actions contained in the Hawaii State Plan, State Functional Plans, Maui County General Plan and the Lana`i Community Plan provide for optimum planning effectiveness and benefits for the residents of the Lana`i Community Plan region.

Implementation of the goals, objectives and policies contained in the Community Plan are defined through specific implementing actions, also set forth in each Community Plan. Implementing actions as well as broader policy recommendations are effectuated through various processes, including zoning, the capital improvements program, and the County budgeting process.

C. The 1993 Community Plan Update

The update process was driven by the work of the Lana`i Citizens Advisory Committee (CAC). This 14 member panel met a total of 16 times during a 225-day deliberation process to identify, formulate and recommend appropriate revisions to the Lana`i Community Plan. The CAC carefully reviewed the 1983 version of the Community Plan, reshaping the plan to create a viable document which will serve the Lana`i region through the turn of the century.

The update process incorporated technical studies and assessments. The results of these four (4) studies were used by the Planning Department and CAC to understand possible future conditions and needs. The technical studies consisted of the following:

1. A Socio-Economic Forecast which projects population, employment and housing characteristics through the year 2010 for each Community Plan region;
2. A Land Use Forecast which provides a measure of existing and future vacant and undeveloped lands (by Community Plan land use designation) for each Community Plan region;
3. An Infrastructure Assessment which identifies infrastructure (e.g., roadways, drainage, water, wastewater, telephone and electrical systems) limits and opportunities in high-growth Community Plan regions; and
4. A Public Facilities and Service Assessment which identifies public facilities and services (e.g., schools, parks, police and fire protection, hospital and solid waste disposal services) limits and opportunities in high-growth Community Plan regions.

Following the 225-day CAC process, the CAC's recommendations were submitted to the Planning Department. The Planning Department prepared the revised Community Plan, based on the work of the CAC. The revised Community Plan was forwarded to the Lana`i Planning Commission for public hearing and review, and then sent to the County Council for further review and adoption by ordinance. This process is summarized graphically in Exhibit B.

PART II

DESCRIPTION OF THE REGION AND ITS PROBLEMS AND OPPORTUNITIES

A. Planning Area Description

This section describes the boundaries of the Lana`i Community Plan region and describes historical and archaeological resources of significance located within the planning region.

1. General Description of Region and Existing Community Plan Boundary

The island of Lana`i, formed by a single volcano, covers a land area of about 90,000 acres.

Almost all of the island's residents live in Lana`i City, which is situated on the central plateau just below Lana`ihale, the volcanic peak. The location of this plantation community was based on the need to make the settlement area accessible to the pineapple fields that formerly extended through the central plateau. Kaumalapau harbor is the only commercial harbor on the island and handles the shipment of the majority of the goods and products that support the island's population. Resort development is concentrated in two areas: at Koele, above Lana`i City and at Manele/Hulopoe on the coast. The Manele/Hulopoe Bay area is also host to a small boat harbor and major beach park. Manele and Hulopoe Bays are designated Marine Life Conservation Districts. On the eastern shore there are a few homes on small *kuleana* and other land holdings. Approximately 98 percent of the island is owned by the major landowner, Castle and Cooke, Inc.

2. Historical and Environmental Context of the Region

Natural History

The Birth and Shaping of Lana`i.

As the Pacific plate drifted across a hot spot in the earth's crust, magma periodically erupted to create a chain of volcanoes in the middle of the Pacific Ocean. Only the tips of those volcanoes, now known as the Hawaiian Islands, are visible around the surrounding sea.

From its birth, Lana`i was slowly shaped by natural forces. Land masses shifted along flat zones to create many features, such as the bench bordering the east side of the Palawai Basin. Runoff cut gullies and canyons into the landscape, and created alluvial fans at the base of Lana`ihale. Wind scoured the countryside, creating the coastal dunes around Manele and Hulopoe Bays, and the upland dunes in the northern part of the island.

During the ice ages of the Pleistocene, sea level rose and fell drastically, sometimes dropping to the point where Molokai, Maui, and Lana`i were one island; at other times rising well above the present level to cut high sea cliffs in the volcanic rock, particularly on the unprotected west side of the island. Through time, plant and animal life became established, and contributed to the shaping of Lana`i.

Early Colonization by Flora and Fauna

The Hawaiian islands existed for millions of years in splendid isolation. They were one of the last major pieces of land to be discovered and inhabited by people. For eons they were truly a paradise for the plants and animals that somehow managed to reach them and survive.

These isolated volcanic islands in the middle of the warm Pacific ocean represented a long, chancy and perilous journey to any organism which might happen upon them. Even today, scientists are unsure how life got to Hawaii. They theorize that an immigrant plant or animal got here and managed to survive and reproduce only once every 20,000 years. Once an organism did arrive - whether it was in the high jet stream winds, on the back, feet or insides of a bird, rafting on pieces of logs broken off in a storm, or by other unknown mechanisms - and managed to survive and reproduce, there were many environmental niches into which that organism could fit. Within short distances in Hawaii, the climate, soil type, and exposure to sun, rain and wind can be drastically different. Organisms which would not survive in a tough competitive continental situation had more of a chance on these hospitable and under-inhabited islands. Because the method of arrival was so chancy, many organisms which could logically be here are not.

Over a long time, plants and animals evolved into unique forms. Because there were few animals (the only native animals are birds, insects, land snails, the Hawaiian bat, the monk seal and fish) plants did not have to protect themselves to survive. As a result, a few native Hawaiian plants have thorns, poisons, clinging seeds, strong odors or deep roots because these are all things needed to survive the presence of animals, particularly grazing

herbivores. The species of flora and fauna that made it to the Hawaiian Islands continued to evolve in a relatively undisturbed environment, resulting in unique species found nowhere else in the world.

The plants helped break down the volcanic rock, creating and holding soil for other plants. The dry climate, due to the rain shadow effect caused by Maui to the east, caused development of a landscape dominated by forests on the mountain and plateau.

Arrival of Polynesians

Once people came to Hawaii, the long slow process of evolution of unique and vulnerable organisms was suddenly interrupted. Colonization was now rapid. The Hawaiians brought about 32 plants and four or five animals - chickens, dogs, pigs, stowaway rats and possibly geckos. They also brought and used fire. With their stone and wood tools and fire they cleared the land for crops and livestock. They also used and ate what they could of the native life forms. Natural vegetation was important for building materials, cordage, thatching materials, and firewood. The fauna, particularly the abundant marine life, was a critical food source.

The Hawaiian culture practiced many techniques of conservation, and had a reverence for the islands and their flora and fauna. But people have to eat, clothe and shelter themselves and participate in social and religious life. The ecosystem was inexorably altered. Land cleared of vegetation, either for agricultural purposes or for materials, was now more susceptible to erosion. Native flora and fauna now had to compete with introduced exotics.

Recent Changes

Change proceeded rapidly compared to the years of isolation prior to the arrival of humans. With the coming of Europeans, change was even more rapid. The introduction of grazing animals, metal tools, firearms and other modern accouterments had an even greater impact on native flora and fauna.

On Lana`i, grazing animals such as sheep, goats, and pigs were introduced, as well as axis deer from Japan. These animals ate off the native cover, and the island started washing away into the sea, killing the coral reefs in the process and eliminating habitat for native birds and other animals. Clearing land for agriculture and other business ventures killed off more native plants and animals.

The native forests disappeared at a rapid rate. George Munro in his book "The Story of Lana`i," includes a quote from Mr. J.M. Lydgate who botanized the island in 1870. Lydgate wrote, "Lana`i even in those early days had been denuded of its forest cover; only on the summit ridge was there a somewhat moth-eaten cover of it left." In places the forest was replaced by weeds and exotics such as Christmas berry and lantana. Kiawe, spread in the feces of cattle who were fed with the kiawe bean, came to dominate many coastal areas of Lana`i. In other places, the soil simply blew or washed away. Eroded soil washing into the coastal zone of the east side turned water red, killed part of the reef, and built up the lowland area, forming new land. In the plateau uplands, eroded landscapes began to dominate.

Conservation efforts usually involved exotic plants. Norfolk Island pine trees were planted to trap moisture from the air; rows of eucalyptus were put in the ground to break the force of the wind; and molasses grass was sown to hold the soil. Other conservation efforts, such as the fencing of patches of dryland forest and killing off the goats, benefited the native flora and fauna, but the situation is still precarious.

Lana`i Today

Today, tangled masses of kiawe dominate many coastal areas, pineapple dominates the basins, and other exotics dominate Lana`ihale. Little remains of the native vegetation, and what does remain is threatened. The patches of dryland tropical forest near Kanepu`u have been dwindling recently due to fire and predation by deer. Native plants still exist on Lana`ihale, but are threatened by the activities of axis deer. Soil continues to wash from upland areas and accumulate on the lowlands of the east coast, and the surrounding ocean still turns red occasionally from windblown soil particles. The rich marine life still exists, but is struggling against over-harvest, human impact, and the effects of soil deposition.

But interest in native flora and fauna exists. The Lana`i Company recently made arrangements with the Nature Conservancy of Hawaii to manage the remnants of the dryland tropical forest. Plans are underway to enclose a larger tract of forest with fences high enough to keep the deer out. The goal is not only to protect the remaining forest, but to propagate those native species, and reclaim part of Lana`i from exotic vegetation.

A Lana`i Summit Preserve was also proposed by the Nature Conservancy of Hawaii to help protect native flora and fauna. The proposed preserve

contains excellent examples of native forest communities on Lana`i, several rare and endangered plants endemic to Lana`i, and habitat for remnant populations of Hawaiian honeycreepers. According to the Natural Conservancy, native bird life was considered abundant on Lana`i as late as 1900, and included several birds now thought to be extinct. The summit forest is currently the last habitat on Lana`i for several species of birds, and also provide a home for the Hawaiian bat and several specie of Hawaiian land snails.

Lana`i History

Overview

Early native historians, working in populated areas, usually wrote down traditions that were significant to understanding major trends in Hawaiian history. Since Lana`i did not play a major role in the evolution of broader patterns of history in Hawaii, much of the local history and culture of the island was not recorded.

Most of the local traditions of Lana`i were not written down when Emory conducted his research there in 1921. Emory concentrated on surveying extant archaeology on the island. During preliminary field work, it became obvious to Emory that "the answer to many questions concerning the various objects and types of ruins can come only from present native informants or through a laborious compilation of indirect evidence." (Emory 1924:3)

Emory continued to discuss information input by saying, "During the search among the ruins the several natives who had some knowledge of them were too feeble to accompany me on the rather long distances necessary to reach the locations. Consequently, I planned to complete the field notes and then, using these records as a guide to questions and a check on answers, to spend some time with the informants." (Emory 1927:3) This was never done.

Since the time of Emory's expedition, only one attempt was made to collect the oral traditions of Lana`i - a survey conducted by the Bishop Museum in 1963. At the present time there are 13 hours of indexed, but not transcribed, interviews in the sound archives at the Bishop Museum. When these recordings are transcribed and made accessible to the public they could add to our understanding of the early traditional history of Lana`i. These recordings may provide critical information since most of Lana`i's

knowledgeable informants have passed away. Today, we have a sketchy and incomplete picture of the pre-contact occupation of Lana`i.

Period of the Gods

All phases of early Hawaiian life were controlled by religious ritual. There were innumerable gods in the pantheistic world of pre-contact Hawaii. A man's fortune depended upon his relationship with these gods. All Hawaiian society believed that they descended from the gods. Alii's or chiefs validated their legitimacy to rule through tracing their unbroken descent from the gods.

Genealogical chants, such as the Kumulipo, trace the descent of mankind from the gods, Wakea and Papa, the personifications of sky and earth. These early chants explain the creation of the islands of Hawaii as well as the creation of the gods and thus eventually mankind.

The birth of the island of Lana`i has been recorded by several surviving traditions. Most common of these traditions was chanted by Pakui, a historian during the time of Kamehameha I. (Fornander 1916-19:IV:12) According to this chant, after the birth of Maui Island, Papa returned to Kahiki and Wakea took Kaulawahine for his wife. From this union Lana`i-kaula was born.

Another tradition says that Lana`i was found and adopted by a chief from Kahiki (Fornander 1916-19:IV:2), while another recounts how Lana`i grew from a piece of coral thrown into the ocean by the famous fisherman Kapuheeuanui. (Fornander 1916-10:IV:20) All of these versions of creation are ancient traditions acceptable to native Hawaiians.

The Early Hawaiians ... Pre-Contact Lana`i

Arrival of Man

According to Hawaiian oral history, the first inhabitant of Lana`i was Kaululaau, who was banished there by his father for destroying breadfruit trees in Lahaina. (Fornander 1916-19:486, O.P. Emerson 1921:16-19 and Gay 1977:61) By tracing Kaululaau's genealogy, and using 25 years to represent one generation, this would have been c. 1400. If this date is accurate, settlement of Lana`i occurred nearly 1,000 years after the arrival of the first Polynesians in Hawaii.

When Kaululaau first arrived, the island was filled with evil spirits. Through his cunning, he drove away the evil spirits from Lana`i and the island became inhabitable. Because of its proximity, Lana`i has always been closely aligned with Maui, and from the time of Kaululaau onward, Lana`i "was under the rule of Maui chiefs and probably received from Maui the principal contribution of the ancestors of the historical inhabitants." (Emory 1924:123)

At the present time, scientific research is in agreement with Hawaiian oral tradition. An archaeological survey conducted at Kalaehi "suggests occupation of Lae Hi (Kalaehi) may have occurred as early as the 14th century." (Graves and Ladefoged 1988:31) Other than these recent radiocarbon dates, there are no recorded dates from sites on Lana`i.

Since the time of Kaululaau, Lana`i was occupied by native Hawaiians. These Hawaiians settled and developed the island without contact from the west until February 25, 1779 when Lana`i was sighted and described by Captain King who was a part of the Cook expedition in the Pacific. Thus, for three and a half centuries, Hawaiians lived on Lana`i in relative isolation.

Overview

The legacy of this period of occupation is at the best sketchy since the Hawaiians had no system of writing, and very few of their oral traditions from this time were recorded. To understand this period, it's necessary to work with the bits and pieces of oral tradition that have survived, as well as to seriously examine the archaeological remains of the Hawaiian's built environment on the island.

Except for recent research at Kalaehi (Graves:1987:UH Field School) and Manele-Hulopoe (Kaschiko and Athens:1987) the only major archaeological survey of the island was conducted over a six-month period in 1921 by Kenneth Emory, who was employed by the Bishop Museum. Emory's inventory was field checked and updated for the State Historic Preservation Office by Rob Hommon in 1974. Except for Niihau, Lana`i is probably the least studied Hawaiian island from the perspective of archaeology. Future research will no doubt shed more light on life on pre-contact Lana`i.

The wide variety of artifacts found on Lana`i reflect a culture almost identical to that which existed on the other Hawaiian islands. This traditional society lacked metallurgy as well as pottery. All implements for living were made from either wood, coral, bone, or volcanic stone. The stone alignments and structures which are the most visible prehistoric remnants on Lana`i today

were foundations of structures in the Hawaiian village. Houses made of grasses fastened to a wooden framework stood on these platforms.

Lana`i is one of the cluster of four islands that are connected by sheltered seas, easily navigated by the Hawaiian canoe. For this reason, Lana`i never existed in absolute seclusion, but instead was always closely associated with her neighboring islands, especially Maui. Thus, island self-sufficiency was not absolutely necessary for survival to the pre-contact Lana`i.

Social Order

From early times Lana`i was considered an out-district of Maui under the rule of lesser chiefs who were controlled by a more powerful Maui ruler. There were 13 separate land divisions, or ahupua`a, within the island of Lana`i that were controlled by konohiki, or land managers. Under these manager's supervision were the common people, or makaainana, who were the farmers and fishermen. Above the konohiki in this strongly hierarchical society were the various classes of rulers or alii, who were in turn under the control of the gods.

Lifestyle

Living on Lana`i during traditional times was a fragile existence that revolved around the availability of water. Except for Maunalei Valley, water was never abundant, thus forcing the early Hawaiians to manage this resource well. Limited small scale agriculture was pursued in coastal and upland areas depending upon the availability of water. Because of the water resources in Maunalei Valley, wetland taro was cultivated there. These terraces still exist today. For the most part, cultivation of crops was limited to dryland agriculture, which produced sweet potatoes, yams and gourds. These crops were usually grown during the wet season.

Much of the central basin area now under pineapple cultivation was a dryland forest where the native akoko tree was one of the dominant plants. Prior to modern excavation for water in this area, water resources were very limited. Except for the Kanepu`u area this dryland forest has been totally destroyed, primarily through the introduction of goats and sheep.

Although water placed limitations on the lifestyle of the early Hawaiians, they were able to live comfortably within the limits of their environment. The principal springs on the island were on the north and east sides at Kaiholena, Waiapaa and Waiakeakua. In times of drought, a man traveling from the

shore could carry at least six gallons of water from a spring to home in a single trip. This supply would last at least 16 days for normal household. (Emory 1924:47) Early Hawaiians also dug wells in coastal areas, and lined them with a grass and mud mixture that retained drinkable water during much of the year. There was also a system for collecting dew on oiled tapa cloth in the dryland forest.

The ocean provided an abundant food supply for the pre-contact Hawaiian population. Lana`i's ocean resources were responsible for Kamehameha I choosing the fishing community of Kaunolu for a part-time residence.

Religion

Religious worship was dictated by one's social position in pre-contact Lana`i. The common people concerned themselves with the lesser deities and spirits by making offerings at simple shrines constructed to propitiate these lesser gods. On a grander scale, large heiau, or temples of state, were constructed by ruling chiefs for the formal worship of the major gods. Both types of religious structures are extant on Lana`i today. The large number of koa (simple fishing shrines) reflect the importance of this occupation in earlier times.

Chants

With no system of writing, traditional Hawaiian society relied on oral chants to pass their cultural memory from one generation to another. A traditional chant that was chanted and danced on the island of Lana`i (Kahaulelio 1902) is a good record of early life on Lana`i as told by a native Hawaiian:

A Kaohai, lae, lae	At Kaohai
I ke kaka uhu lae, lae	Fishing for uhu
A Kamaiki lae, lae	At Kamaiki
I ka uhu ka`i lae, lae	For the Uhu ka`i
Hoohaehae lae, lae	Luring the fish
Hiu a lilo lae, lae	Until it is caught
O ke Ake ono lae, lae	The delicious liver
O ka Lau li lae, lae	Of the Lau li fish
Penu kai on lae, lae	Good when dipped in its gravy
O ka Uhu ula lae, lae	The red Uhu fish
Kau ka miko lae, lae	Good when salted
Uala Kawelo lae, lae	The Kawelo sweet potato
Kahi pupu lae, lae	Eaten as a pupu

Poi Lehua lae, lae
O Maunalei lae, lae

The Lehua taro poi
From Maunalei.

This is an excerpt of a longer chant that, when recited, chronicles life on early Lana`i. The ahupua`a of Kaohai mentioned in the first line is a renowned fishing ground for the uhu fish. Lana`i was famous throughout the Hawaiian Islands for its uhu fishing. Other legendary fishing places on Lana`i were the cliffs of Kaholo famous for the malolo flying fish, Polihua for turtle catching and Pu`upehe for oio fishing.

The significance of place names to the traditional Hawaiian will be discussed later in this report. The inclusion of place names in chants such as this one glorified the areas mentioned and were especially popular to the people who came from these areas.

The southeast point of Lana`i, Kamaiki, is described as being a breeding ground for the uhu fish, who travel in linear procession according to this chant. The method of catching uhu is also alluded to. To catch the uhu, the fisherman uses another uhu attached to a line to attract the attention of the other fishes. The next lines describe the preparation of the fish, showing that internal organs as well as flesh were eaten. The gravy that is mentioned probably refers to juices produced when preparing the fish raw. Another variety of uhu is mentioned as a "good when salted," which shows how the fish were preserved for later consumption.

The closing lines talk about what was eaten with the fish. The mention of the Kawelo variety of sweet potato shows that this was a staple in the diet on Lana`i. The name Kawelo for this variety of sweet potato also indirectly refers to the legend of Kawelo, a priest who plays an important role in Lana`i's past. Similar to other dry areas in Hawaii, the sweet potato and yam were the most cultivated starch. The other staple mentioned, which would be a luxury on Lana`i, is a wetland lehua taro poi grown only in the terraces of Maunalei Valley.

This chant celebrates the delicious foods as well as the legends and places of Lana`i. If all the verses were included for this chant, the "kaona," or word meanings hidden in symbolism, would provide another level of interpretation for the same chant. This level of meaning celebrates procreation and a variety of other human emotions. The author of this chant has compressed a tremendous amount of information into a deceptively short number of words that, when understood, reveal many aspects of traditional Hawaiian existence on Lana`i.

Places and Place Names

Hawaiians believe that a name possesses an individuality and spirit all its own. These names were like their ancestors, linking them to their past as well as recording important places, events and people. In order to fully understand the nature of early Hawaiian life on Lana`i, we should look at its traditional place names.

Two studies discuss Hawaiian place names on Lana`i. The first was by Emory in 1924 as part of his survey report, and the second was done by Larry L. Kimura, et al., during the summer of 1982. Kimura's study deals primarily with the proper pronunciation of place names by native speakers. That study should assist in any standardization of the spelling of place names on Lana`i.

Emory's report includes a list of 324 names with their translations and related stories that explain the significance of the area and how the names were obtained. A few of these places have a considerable amount of folklore associated with them. Of these Pu`upehe (Gibson 3/3/1867:3:7), and Keahikawelo (Gibson 5/13/1873) are the most well-known.

Both these legends were still being told in 1921 when Emory conducted his survey. The following is a brief synopsis of these two legends.

Pu`upehe

Pu`upehe is the name of the rock island at Manele Bay. The island gets its name from the girl, Pu`upehe, who was the daughter of Uaua, a chief of Maui. Pu`upehe was awarded to Makakehau as a result of war and became his wife. Pu`upehe was so beautiful that her husband jealously protected her whenever he was not at home.

One day her husband went to the upland spring of Pulou to get good drinking water and Pu`upehe was placed in the sea cave of Malauea. While Makakehau was gathering water he noticed a kona storm approaching from the ocean. He threw his water gourds down and rushed to help Pu`upehe. By the time he reached the sea cave Pu`upehe had been drowned by the sudden rush of water. Makakehau asked to spend the night with his dead wife prior to burial, and the next day he was seen on the top of Pu`upehe Island finishing a rock tomb for her.

Because of the sheer cliffs around the small island, no one could figure out how he ascended the cliffs with his wife's body in hand. After lamenting his loss, Makakehau jumped off the island and killed himself. To this day, the island still has a rock platform, and the sea cave of Malauea is still in the vicinity of Pu`upee.

Keahikawelo

Two compatible incidents relate the significance of Keahikawelo, or the fire of Kawelo. Kawelo was a famous kahuna or priest who kept a sacred fire burning on the altar of his temple at Ka`a. In the first story, he goes to Molokai Island across the channel to visit Lanikaula, a very famous priest of Halawa Valley. Kawelo's mission for coming to Molokai was to get the excrement of Lanikaula so he could burn it in his altar fire, and through sorcery kill Lanikaula. Kawelo caught Lanikaula in a drunken moment and stole his feces, concealed in a sweet potato. He returned to Lana`i and burned the feces and thus killed Lanikaula.

The second version of this story talks of Kawelo's daughter, Pepe, and the Molokai prophet, Waha, who had a son, Nui, across the channel from Kawelo's altar. Both these prophets kept fires constantly burning. Kawelo declared as long as there was fire burning on his altar there would be pigs and dogs on Lana`i. Both these animals were a regular part of the Hawaiian diet. One day he entrusted the fires to his daughter, who had fallen in love with Nui across the channel. Lost in passion, the lovers neglected the fire and it burned out. Kawelo, seeing this, feared facing the people of Lana`i and killed himself by throwing himself over the cliffs at Maunalei. Today there are no pigs on the island of Lana`i, and the site of Kawelo's altar is still called Keahikawelo.

The War of Kamokuhi, 1778

Five generations after Kaululau there is mention in the History of Kualii (Fornander 1918-19:V:422) that Lana`i chiefs wanted to be independent from Kamalalawalu, King of Maui. This documentation confirms an early subordinate relationship between Lana`i and Maui.

As a tributary of Maui, Lana`i was pulled into the struggle for power between Kalaniopu`u, ruler of Hawaii island and Kahekili, ruler of Maui. After an

unsuccessful attempt at trying to acquire Maui, Kalaniopu`u and his forces raided and pillaged the islands of Kahoolawe and Lana`i. The battle that ensued on Lana`i was described by native historian Kamakau:

Kalaniopu`u carried the war onto Lana`i and attacked the chiefs and soldiers in their stronghold called Hookio, mauka of Maunalei, which was their place of refuge ... The whole island of Lana`i was ravaged by forces of Kalaniopu`u. At Paomai, at Kaea close to the forest, and at Koahai was the place called Kamokupeu ... (Kamakau 1961:90).

Because of the scarcity of food, people were forced to eat the native tuber kupala, which caused diarrhea. Thus, this battle was referred to as the battle of "diarrhea island" of Kamokuhi. The notched fortifications, that were carved into the mountain ridge at Hookio for defense, are still visible today.

According to Kamakau, a skilled cliff jumper Kini, who leaped to safety, was the only survivor of this battle. All existing accounts state that this battle was confined to the Maunalei area, so it might be safe to assume that the population of this area was nearly depleted. There is no evidence to believe that all the island would have been affected by this invasion. When Ellis visited the island (Ellis:1917:91) 45 years after this battle, he estimated the population to be 2,000, which is not far from the pre-contact maximum estimate that Emory gives of 3,000.

Western Impact - 1779-1854

Population

Estimates of Lana`i's population during the early years of western contact are unreliable since these guesses were usually made by passing ships who never landed on the island. The first reliable census of the island came in 1846, when the population of the island was 616. (Jarves 1847:238) From this period of time until the twentieth century, the native population on Lana`i steadily declined.

This rapid demise of the Hawaiian race was not unique to Lana`i. In fact, entire villages on other islands were abandoned and left to decay. This decrease in population was due primarily to the introduction of western diseases to a Hawaiian population who had little or no immunity. Between the time of Cook's arrival in Hawaii and Kalaniopu`u's raid on Lana`i in 1778,

and the arrival of the first missionaries in 1820, the native population in Hawaii was reduced by one half. (Schmitt:1968)

When Emory took his inventory of native Hawaiians in 1921 he counted 50 on the coast and 52 on the uplands, a total of 102. Emory asked the Lana`i Hawaiians how they felt about the decrease in their population. He recorded their answer to this question in his field notes:

"Over here they given little thought to it. They do not seem fully aware that they are disappearing and they appear indifferent to it. In fact, on all issues that go beyond their immediate comfort they rarely occupy their minds. They are utterly without ambition. Not that they haven't the capacity for it. But it is simply not stimulated by what is held forth to them and their children by the white man. It is now much easier (for them) to live and (at the same time) much harder to gain success than in the old strenuous days when famine and war were never far off." (Krauss 1988:79)

Religion

Following a chaotic internal overthrow of the established Hawaiian religion in 1819, Hawaiians on all islands turned to Christianity. Although a newly converted Queen Kaahumanu visited Lana`i in 1829 (Bingham 1855:375) and tried to influence the Hawaiians to turn to Christianity, it wasn't until 1835, according to the records, that protestant evangelization occurred on Lana`i. By 1837 there were three permanent church-affiliated schools to educate the children of Lana`i.

The Hawaiian population on Lana`i was eager to find a system of faith to replace their old traditional order and Christianity filled this void. The last major temple used for worship was probably Halulu Heiau at Kaunolu, which was activated during Kamehameha's residency there. Fishing shrines and agricultural shrines for propitiating the lesser gods of the various occupations would still have been in use well into the nineteenth century.

Prison

From 1830-1848 the northwest point of the island at Kaena was used as a penal colony for women. Neighboring Kahoolawe was used correspondingly as the male penal colony. The choice of Lana`i as a penal colony reflects the depopulated and barren eroded nature of the island in the mid-1800's.

Great Mahele of 1848

During the Battle of Kamokuhi a forty-two-year-old Kamehameha I fought alongside his Uncle Kalaniopu`u. After the death of Kalaniopu`u, Kamehameha eventually conquered and ruled the entire island chain, including Lana`i. Lana`i, like all the other islands, was subject to the rules and taxation of Kamehameha I, the ruling King, who did spend some of his time in residency at Kaunolu.

Kamehameha established a dynasty that would rule through four successive heirs. Kamehameha's form of government reflected the changing times. The unification of Hawaii under one ruler was never accomplished prior to Kamehameha. In the midst of this change, he stuck to the traditional system when dealing with land ownership. In this old system, the ruler owned all the property in his domain. Subjects under the ruler were allocated lands on a revocable basis.

There was a growing discontent during the succeeding reigns of Kamehameha's sons over the existing land tenure system. Foreign residents of Hawaii wanted to have secure title to property and exerted pressure on Kamehameha's son, Kauikeaouli, who in 1848 engineered a departure from the feudal system of land tenure. This system of land reform was called The Great Mahele. (Chinen:1958)

All current deeds and formal ownership records for Lana`i trace their roots to the time of The Great Mahele. At that time, lands on Lana`i were divided between lands claimed by Kauikeaouli (40,665 acres), which were known as the Crown Lands, and the lands to be claimed by the chiefs and people (48,640 acres), which were called the Government Lands. The total land area of Lana`i was then 89,305 acres, which included 13 ahupua`a or traditional land divisions.

The government set up a commission to hear people's claims for land. This commission, called the Land Commission, eventually awarded lands to chiefs and commoners according to the legitimacy of their claim. The first Lana`i land awards made to commoners by the Land Commission occurred on August 12, 1852, to Waimalu for seven acres of land situated in five areas on the island.

By 1907, more than half the island of Lana`i was in the hands of native Hawaiians. Just 14 years later, in 1921, when Emory conducted his Lana`i research, only 208.25 acres of land remained in native Hawaiian ownership.

Once land could be owned and sold, Lana`i was ready for invasion of entrepreneurs who felt that Lana`i would fulfill their dreams of an island empire.

During the years between the Mahele in 1848 and Lana`i's emergence into the twentieth century, a dwindling native population witnessed recurring waves of speculators and developers who were to leave permanent marks on the face of Lana`i.

From Mormons to Sugar, the Gibson Era 1854-1902

Overview

Beginning in the 1850's, immediately after the Mahele, Lana`i embarked upon a drastic period of change that was dictated by outside forces. Lana`i's lands, with the exception of government-owned property, began to be consolidated away from the original native Hawaiian tenants and brought under the monopolistic control of Walter Murray Gibson and his progeny. With the large-scale introduction of goats and sheep that grazed freely on the island, this era was largely responsible for the destruction of the dry lowland forest, which in turn irreversibly changed the balance of nature on the island.

Mormonism

In 1854 the Mormon church decided to establish a colony on the east side of Lana`i at the Palawai Basin, which they called the City of Joseph. Mormon missionaries were in Hawaii since 1850 and Lana`i was to be their first major attempt to organize an entire colony. In 1854 they received permission from Halelea, a Hawaiian landowner in the Palawai area, to use his property rent-free.

Walter Murray Gibson, 1854-1888

The early Mormon settlers developed their property independently until 1861 when a self-declared leader of the colony, Walter Murray Gibson, arrived on Lana`i. Gibson arrived in Hawaii on June 30, 1861 from California with the intention of helping to organize Mormon activity in Hawaii, and envisioning himself as the leader of his own island utopia on Lana`i. Gibson reported to the Mormon leader, Brigham Young in Salt Lake City at the end of 1861:

I continue to abide at the Hawaiian Zion on this island (Lana`i); chiefly employed in organizing the labour of the Hawaiian Saints. I

have built a good meeting house here; a dwelling house; and am now engaged in a large school house, 50 by 20 feet. We have 82 children on Palawai; and it is noted for being the healthiest and most prolific spot, this "Mormon den," in all the Kingdom." (Adler and Kamins 1986:64)

By late 1863 Gibson had purchased a sizeable amount of land in the Palawai area, partly from native Hawaiian citizens and partly from the Hawaiian government. In 1864 Gibson was involved with a struggle for autonomy on Lana`i between himself and the Elders of the Mormon Church. Land that Gibson purchased on Lana`i was purchased in his name and he was reticent to relinquish ownership to the Church. The dispute ended with Gibson's excommunication. After Gibson's dismissal from the church, most of the Mormons on Lana`i moved to Laie, Oahu to start a new center for Mormon operations. A Mormon temple was eventually built in Laie, which is now the center for Mormon activities in the Pacific.

Lana`i Ranch

By 1865 the Mormon colony had disappeared from the island, but Gibson remained, and during this time he established the Lana`i Ranch. Deciding that grazing was more profitable than agriculture, he began to consolidate most of the lands into one large sheep ranch. Although Hawaiians had herded goats prior to Gibson's arrival, Gibson was the first to launch a large scale business venture using goats and sheep. In a January 5, 1867 census report he counted the sheep population to be 10,000 and the goats 18,000.

Erosion

The introduction of free grazing livestock in large numbers took its toll on Lana`i. Within a brief period of time the entire dryland forest area, with a few exceptions in the Kanepu`u area, was decimated. Initially, there was an abundant land cover of grasses, especially the native pili grass that supplied the goats and sheep with their needs. During frequent drought periods the free-roaming animals would cluster on the eastern slopes of Lana`i where there was available water. The large numbers of livestock grazing in this area eventually denuded the land and gave it the desert-like appearance that it has today.

In 1876 Gibson realized that Lana`i was being denuded at a "fearful rate." (Advertiser:9/10/1946). One of Gibson's nephews, Mr. Moorehead, started

planting bermuda grass over all the northwestern end of the island to reclaim barren land. But over the next 35 years, Lana`i was primarily left to rambling herds of sheep and goats.

One-Family Rule

By 1875 Gibson had control, either through lease or direct ownership, of nine-tenths of Lana`i's lands. This was the first time since the occupation of Lana`i by humans that power was consolidated this way. In the traditional system, land managers or konohiki, existed for all ahupua`a land divisions of which Lana`i had 13. These konohiki were subject to control by the ruling chiefs. Because of the poor rural nature of Lana`i, the ruling chief probably had very little to do with Lana`i other than occasional fishing trips and collecting yearly tribute.

In 1874, Gibson's daughter Talula married Frederick Hayselden. Talula and her husband eventually moved permanently to Lana`i, where Fred took over as proprietor of ranch operations, which were shifted from the Palawai Basin to Koele in 1874. Koele remained the center for ranching activities on Lana`i until the closing of the Lana`i Ranch in 1951.

Gibson was drawn more and more to the political arena in Honolulu. In 1878 he was elected to the assembly of the government, thus entering into a full-scale career in Hawaiian politics. In the same year a manager's house for the Hayseldens was built at Koele where the first two Norfolk Island pines were planted in 1875. (Munro:1954:69) The ranch at Koele employed 12 Japanese men and two women to carry on daily activities. (Thurston:1886:30) Hawaiians were usually employed just for shearing.

Although this house was destroyed, one of the two pines still stands to mark this site today. In 1879 Gibson left Lana`i permanently. (Thurston:1886:31) Caught up in the limelight of a political career in Honolulu, his management and involvement with the environment and people of Lana`i was delegated to other members of his family. From this time onward, all operations of the ranch were in the control of Fred and his assistant managers.

Hawaiian Lifestyles

In 1886, five Lana`i natives filed a complaint against Gibson and his managers for oppression of themselves and their families. The testimony of these native tenants of Lana`i supplies us with a feel for life on Lana`i at this time. (Thurston:1886)

The traditional system of land management that existed in pre-contact time was undergoing changes in late nineteenth century Lana`i. Although Hawaiians were given ownership of kuleana grants to live on, many of their grazing and fishing rights were still under the control of the konohiki, or land manager, who was Gibson under special government leases. A special government inquiry into the matter of native oppression found Gibson and one of Gibson's managers, Moorehead, guilty of putting undo pressure on certain elements of the population who voted contrary to Gibson's desires. Hawaiians were now being charged monetary amounts to use lands that were at one time under the control of the ruling chiefs. Since many Hawaiians had a subsistence way of life, the charging of money for land fishery use placed new monetary restrictions on their way of life. They now had to find a means of obtaining money for survival. A simple act such as this forced the Hawaiians to enter into the western market economy.

Most of the Hawaiians who gave testimony lived simple lives, growing sweet potatoes, grazing horses and sheep in a controlled small scale pasture arrangement, gathering marine resources, and collecting firewood from the beaches and the inland regions. If you were not fortunate enough to have a spring or well on your property, obtaining water was also a day-to-day concern. Most well sites, such as Waiapaa, were controlled by the new konohiki, Gibson. These wells were critical for survival during times of drought. From their testimony, it becomes obvious that Hawaiians on Lana`i were concerned that their own destinies could now be manipulated by someone who was not bound by the traditional ethics of their past.

Gibson's Final Years

Gibson's involvement in Hawaiian politics eventually placed him in the position of Prime Minister of the Kingdom of Hawaii, where he was involved in a series of scandals and forced to resign and take refuge in California. In January, 1888, he died in San Francisco, leaving all of his interest in the island of Lana`i to his daughter, Talula, and her husband, Frederick Hayselden. In 1902, Gibson's house in the Palawai Basin was still standing (Gay, Lawrence, K:1965:14). This area was later cleared and plowed for the cultivation of pineapple.

Hayseldens, 1888-1902

During Hayselden's period on Lana`i, Koele became a permanent sheep ranch center for Lana`i. By 1898, there were 50,000 sheep and only 174 people on the island. (Tabrah:1976:79) Attempts were made to control the rampant erosion on the island by planting thousands of acres of Bermuda grass. The eucalyptus and Norfolk pine during Koele were also planted at this time. Water reservoirs at Koele and Kaiholena Gulch were also built.

Maunalei Sugar Company

In 1882, Gibson mortgaged all his lands on Lana`i to W.G. Irwin, his business agent, and Claus Spreckles, a wealthy sugar planter. This mortgage was refinanced in 1887, putting Gibson deeper in debt. Since sugar was making good profits elsewhere in the Kingdom, Hayselden felt that a successful sugar operation could salvage his land holdings in Lana`i.

In 1898, the Maunalei Sugar Company was started at Keomuku. A decision was made to mill the sugar on Maui, so a mill was not built on Lana`i. Instead, a wharf was constructed at Halepalaoa with a connecting railroad to transport the sugar from the fields to waiting ships. Most of the laborers came from off-island, and were of Chinese, Japanese, and Gilbertese ancestry. Camp houses, barracks, a two-story office and hotel were built to accommodate the 710 laborers and staff.

The company prospered for one year, when an epidemic broke out among the Chinese workers. A similar epidemic raged in Honolulu's Chinatown at the same time. Like Honolulu's Chinatown, the residences of the infected workers were burned, but this did not stop the spread of the disease. As a result, most workers fled Lana`i, and by March, 1901, only 12 employees were left to shut down the plantation.

Hayselden's insensitivity to local custom was severely criticized during the initial stages of plantation construction at Keomuku when he tore down a portion of a traditional Hawaiian heiau at Kahea to construct a railroad bed. A similar incident occurred earlier on the other side of the island at Kaunolu. While tampering with the village's only well he destroyed the traditional Hawaiian plastering and turned the water brackish, thus ruining Kaunolu's drinking supply. Like the well at Kaunolu, Hayselden's entire sugar venture at Keomuku went brackish and the Maunalei Sugar Company closed down in 1902. The sugar company's failure forced the estate into receivership and the Hayseldens moved to Ka`u, Hawaii to start a new venture. Many Hawaiians felt that the Hayseldens destruction of the traditional religious site at Kahea was responsible for his downfall on Lana`i.

After the collapse of the Maunalei Sugar Company, two thirds of Hayselden's holdings were sold at public auction to satisfy liens. These were bought by Charles Gay in 1902. In 1905, the two-story company store and hotel at Keomuku was dismantled and floated across the channel to Lahaina, where it was reassembled and became the extant Pioneer Inn. With the purchase of Hayselden's remaining interest in Lana`i by Gay in March of 1903, the final connection of Gibson to Lana`i ended.

Charles Gay and the Consolidation of Lana`i, 1902-1910

Charles Gay came to Hawaii from New Zealand at the age of one. His grandmother, Elizabeth Sinclair, purchased the island of Niihau and parts of Kauai at that time. Charles grew up on Kauai and Niihau, and eventually married Louis Kala, a direct descendent of Kaumualii, the last King of Kauai. Filled with the desire to own an entire island, like his family, Charles Gay moved to Lana`i in November, 1902, and began his efforts to consolidate the island.

Ranching

There were a few cattle (Munro:1954:99) when the Gays arrived on the island in 1902. They kept Mr. Dowsett on as manager of the ranch and began to build up the stock of cattle on Lana`i. Most of the new cattle came from Niihau and Kauai. By the time that Munro took over as ranch manager in 1911, there were 799 heads on the island, but sheep-ranching was still the primary occupation. Gay realized the destruction that wild goats were causing to the island and initiated a program for their eradication. He also began fencing projects to keep animals contained and protect the remaining vegetation.

Consolidating Lana`i

Most of Charles Gay's time was spent on consolidating land on Lana`i. In 1907 he exercised an option to buy from Irwin, Gibson's financier, the ahupua`as of Kaa and Kaohai. By this time, through an interesting series of land transactions by W.M. Giffard, who served on the Board of Agriculture and Forestry and was also a Vice President of Irwin Co., 324 acres of Giffard's forest land in Tantulus, Oahu, were exchanged for 49,270 acres of government land on Lana`i. These lands were then transferred to Irwin, who offered the Lana`i land to Gay.

A member of the Territorial legislature, Lincoln McCandless, heard about the sale of government lands on Lana`i and filed suit to stop the transaction. McCandless, a rancher and realtor, felt that if the sale went through, two of Hawaii's eight major islands would be owned by one family. McCandless' suit went all the way to the U.S. Supreme Court, where the mismanagement of Lana`i's environment was the central issue. The court felt a single owner could manage Lana`i's resources properly and Gay was allowed to purchase the ahupua`as of Paomai, Mahana, Kamoku, Kalulu, Kaunolu, Kealia, Paawili, and Kamao.

The amount of money that Gay spent in court and on acquiring lands on Lana`i put him in a bad financial situation, which worsened in 1908 with the beginning of a three-year drought. By 1909, Gay had been forced to sell all but 600 acres of Lana`i to a group called the Lana`i Company Ltd. to pay off his mortgage to Irwin. The Gay family stayed on the island, but moved to Keomuku where they lived on their remaining land.

The Early Munro Years, 1910-1922, from Sheep to Cattle

Lana`i Company Ltd., 1910-1917

The group that purchased Lana`i for \$375,000 was organized by Cecil Brown, president of First National Bank. Much of the impetus for this investment was done by one of the investors, John T. McCrosson, who had just finished building the Hamakua Ditch on the island of Hawaii. (Munro:1954:29) Initially, the directors of Lana`i Company wanted to produce sugar beets, but the lack of water quickly ended this venture. Cattle rancher, Eben Low, was hired to give an assessment of economic possibilities on Lana`i. Acting upon Low's recommendations, the company hired New Zealander, George Munro, to take over as island manager.

George Munro

Munro worked previously on the Gay and Robinson Ranch on Kauai, as well as Molokai Ranch across the channel on Molokai. During his 20 year stay as ranch manager on the island of Lana`i, he exerted almost tireless energy trying to protect what was left of the environment, as well as trying to make the island profitable for the three owners he worked under.

From Sheep to Cattle

In 1911, the sheep count was 20,588. This herd of sheep produced 37,274 pounds of wool in 1913, but there were problems. The dry and now dusty lowland was a healthy climate for the sheep, but was bad for wool production, while the upland produced clean wool, but was unhealthy for the sheep. Foremost of their problems was that the native vegetation, which provided food and water for the sheep in the past, was nearly all gone.

Munro recommended that a transition be made from sheep to cattle, which would be more lucrative, given the ecological crisis he was facing. For the next few years he juggled the profits of a reduced sheep herd with the building up of a cattle herd to take its lace. This system kept a constant profit coming in to the investors. By 1916 large-scale sheep ranching had come to an end on Lana`i. When Lana`i Company sold the island in 1917 there were 4,000 head of cattle.

Environment

A special clause in the mortgage deed for Lana`i called for the permanent removal of goats. As stated earlier, wandering herds of goat and sheep were responsible for the destruction of most of the dryland forest. W.M. Giffard, who represented the mortgage, was a naturalist, and he realized the threat goats were to the island's forests. He also realized that the forests were vital to the survival of Lana`i.

Munro, with his employees, immediately attacked this problem, killing as many as 1,160 goats in one month, and 5000 in a year. Although a few goats remained when Lana`i Company sold the island, the threat that these animals were putting on the environment was greatly reduced. Goats were eventually eliminated from Lana`i.

Lifestyle

Munro described the lifestyle on Lana`i during the first twelve years of his residency there, prior to the purchase of the island by the Hawaiian Pineapple Company:

The total population was around 75, all ranch people except the Charles Gay family and their employees and a few fishermen. There was no wireless or radio communication. The nearest doctor was at Lahaina on Maui, twelve miles on horseback from Koele to Keomuku and ten miles across the channel by open launch, often in very rough seas. There were roads except the wagon trail from the

landing at Manele to Koele over which our six-mule-team wagon and later our truck, hauled supplies shipped from Honolulu each week. (Munro:1954:134)

Since Lana`i was not realizing the profits they anticipated, the Lana`i Company began to look for potential buyers. The Hawaiian Pineapple Company, under the leadership of James Dole, was approached, but Dole was not able to purchase the island at that time. The Baldwin brothers, Harry and Frank, who were successfully operating sugar plantations on Maui, bought Lana`i in 1917 for \$588,000.

H.A. and F.F. Baldwin, 1917-1922

During the brief ownership of Lana`i by Baldwins, the island blossomed into a well-ordered and profitable cattle ranch. At its peak, the Koele center consisted of up to 30 buildings, including a ranch manager's house, office, store, bachelor quarters, stables, blacksmith shop and residences.

With only one ranch on the island, there was no need for branding cattle on Lana`i. Lana`i was a dry ranch and thus where the cattle grazed was determined by the season and rainfall. The lowland algaroba bean forest was used during the dry summer months when the upland forest was bare. After the first winter rains, the herd was driven to the upland pastures. When animals were ready to be shipped to market, they were driven to Hulopoe Beach, where they were floated out into the water and tied to a smaller boat, which took them to the waiting steamer. There, they were hoisted out of the water and onto the ship. This method of shipping cattle lasted until Kaunapali Harbor was built in 1925.

Reclaiming Lana`i

Munro, who was a naturalist at heart, implemented a number of projects during this time that were to have good and bad effects on the island of Lana`i. In 1918, about 50 acres of the Kanepu`u dryland forest were fenced as protection from grazing animals. This area remained fenced until 1935, and is now part of the dryland forest currently managed by the Nature Conservancy. Munro's foresight protected one of the only lowland forest areas left in Hawaii today. Munro also introduced many species of plants, especially from New Zealand, to help recover the barren topography of Lana`i. Some of these plants, which include the New Zealand tea, flax, New Zealand cabbage, and the fire tree have become pests in recent years in the upper native forest.

Munro regretted his introduction of the axis deer early in 1920. The axis deer population in the upland forest is currently threatening the existence of the few surviving native plants. Even during Munro's time, the rapidly multiplying deer were becoming pests. Later, during the time of Hawaiian Pineapple's ownership of Lana`i, Munro ran a nursery where he propagated and planted many of the exotic trees seen on Lana`i today, including Lana`i City's Norfolk Island pines.

In 1922, for the first time in Lana`i's history, the island was sold while the owners, the Baldwins, were making a profit. Munro felt that at the back of their minds the Baldwins later regretted selling Lana`i. (Munro:1954:31) The main reason for the sale was that Ulupalakua Ranch on Maui was put up for sale during that time. The Baldwins had been waiting for an opportunity to purchase Ulupalakua, and by selling Lana`i they generated the needed capital. They offered Lana`i to James Dole for 1.1 million and he accepted.

Hawaiian Pineapple Company, Ltd.

The Beginning

The first crop of pineapples on Lana`i was planted by Gay in 1921. Gay experimented with the crop and initially had problems due to the high amount of manganese in Lana`i's soil. This problem was later solved when someone discovered that iron sulfate sprayed into the soil would permit the cultivation of pineapple. On several occasions James Dole visited the Gay homestead on Lana`i to inspect their fields. When Dole finally purchased the island he said:

We found soil there that tested well. Climate, altitude, rainfall and natural drainage were about what we wanted. On the other hand, there was no harbors, no roads, no towns, no labor, no food or water supply, no population, and much of the good soil was densely covered with enormous cactus. (Taylor, Frank J.:1976:166)

Dole immediately got underway by removing the five foot cactus from the basin. The plants were pulled down by tractors dragging heavy chains behind them. The toppled plants soon died and were cleared away, leaving 12,000 acres of potential pineapple land, ready for development.

Ranching Ends

When Dole bought Lana`i, ranching was a thriving business under the control of Munro. Shortly after the purchase, Dole got Munro working at removing cattle from potential pineapple lands. As soon as cattle were fattened they were sold. Ranching operations became a secondary priority to pineapple development. Finally, in 1927, Dole decided that all cattle would be cleared from the plantation lands.

In 1935, an era came to an end when Munro resigned from his position with the ranch at Koele. Munro advised the company that the lands not needed for pineapple at that time should be used for light ranching activities. Munro's advice was followed, and although the formal ranching business on Lana`i came to an end in 1938, ranching did not stop until 1951.

While Munro worked for Hawaiian Pineapple Company, his ranching duties lightened and he spent more time nursing the environment. He worked at planting windbreaks, and reclaiming eroding soil by planting a variety of grasses and ground cover. A nursery was started in back of the reservoir at Koele and trees propagated from the nursery were planted all over the island. The Norfolk Island pine trees in Lana`i City were planted by Munro during the first years of Lana`i City's existence.

Lana`i City

During 1923, the company embarked on making major improvements to the island of Lana`i. Efforts were concentrated on a breakwater, 400 foot wharf, roads, and a town site. At first, Dole wanted to name the town Pine City, but the post office department objected because there were too many "pine" post offices in the mainland United States. So the plantation town was called Lana`i City.

Dole hired Mr. Root, an engineer, to lay out and plan the town. On March 23, Root arrived at Manele Bay to begin his work. He designed the central park with a symmetrical grid of residential streets, which remains the configuration of Lana`i City today.

In 1924, the company started planting the fields of Lana`i under the direction of H. Bromfield Brown, an Australian. Two years later, the first crop of 5,800 tons of pineapple was harvested. The first harvest coincided with the opening of Kaunapali Harbor and the first crop was shipped to Honolulu by barge. Up to this point, the company had spent \$4,301,234 on Lana`i, not including the original purchase price.

In town, tennis courts, a gymnasium, theater, post office, hospital, churches and a school were completed. On February 4, 1926, for the first time, Lana`i City was connected to Honolulu by a line-of-sight radio telephone. Lana`i was no longer the isolated wilderness that had greeted Munro just fifteen year earlier. This communication linkup symbolized Lana`i's emergence into the technological world of the twentieth century.

By 1930, population figures reflected the importation of a large work force for the plantation. The ethnic makeup of Lana`i at this time was 43 Portuguese, 78 Chinese, 82 Puerto Ricans, 102 Koreans, 965 Japanese, 46 haoles, 173 Hawaiians, and 867 Filipinos, for a total population of 2,356. It's hard to believe that just a decade earlier Lana`i's population was a mere 185, the majority of whom were Hawaiian. Reflected in these numbers is the dramatic change in lifestyle that occurred after the development of Lana`i by James Dole. Hawaiians were no longer the dominant ethnic group, and many of them were still involved with ranching. Gradually, as ranching closed, most Hawaiians found employment in the pineapple industry.

Plantation History

The pineapple industry boomed until the Great Depression in 1931, when the Company recorded its first major net loss. By 1932, the company had been reorganized into the Hawaiian Pineapple Company, LTD., with James Dole as Chairman of the Board. In 1942, as the U.S. entered into World War II, operations on Lana`i were hard hit by shipping restrictions. But by 1950, Lana`i was back on her feet again, boasting 950 full-time employees on one of the world's largest pineapple plantations. The total population of Lana`i at that time was 3,000.

A good plantation history of Lana`i has not been written. Castle and Cooke does have company archives that should have records to tell the story of this period of Lana`i's history. This history should cover the recent takeover by David Howard Murdock, and the construction of the two new hotels by Rockresorts. Perhaps this next chapter should be called, "From Pineapples to Hotels."

B. Identification of Major Problems and Opportunities of the Region

This description of key problems and opportunities, formulated by the 1993 Citizens Advisory Committee, provides the underlying basis for the planning goals, objectives and policies which are described in Part III.

1. Problems

- a. ECONOMIC ACTIVITY. The role and responsibility of a single major landowner representing the dominant force in the island's economy are of major concern. There is a strong desire to encourage harmony through economic diversification which will broaden the range of employment choices and opportunities for residents. In this regard, it is recognized that small business development opportunities must be fostered through the provision of additional business/commercial zoned lands. There is also a concern that current economic conditions provide little incentive for the youth of the community to remain on the island. Furthermore, limited employment opportunities are a constraint to residents' ability to achieve a higher standard of living.
- b. SOCIAL ISSUES. The need to address social issues is of major concern to the community. For example, there is a growing awareness that alcohol and drug abuse, child and spouse abuse, and divorce are increasing. The adequacy of support services to address these problems, as well as related service needs such as medical care and care for the elderly are of equal concern. Additionally, the shift away from an agricultural-based economy has given rise to concern that long-time residents, new residents, and foreign immigrants are not socially integrated. In this regard, the degradation and loss of community harmony which once prevailed is cited as a significant problem.
- c. HOUSING. There is a need to provide a range of affordable housing opportunities for the residents of Lana`i. The lack of inventory, the high cost of renting and the limited choices of housing types (e.g., housing for singles, elderly, young families) have created a housing crisis requiring immediate and long-term solutions.
- d. PUBLIC SERVICES AND FACILITIES. Inadequacies in public services and facilities are cited as major community issues. The expressed need for additional recreational facilities and services, day care services, library services, and elderly care facilities are essential to the well-being and welfare of the island's residents. The problems associated with the foregoing inadequacies are partially attributed to the lack of direct access to government offices which, for the most part, are located on the island of Maui.

- e. TRANSPORTATION AND INFRASTRUCTURE. The need to improve air and sea transportation services to and from the island of Lana`i is a primary concern. The provision of expanded services is viewed as a means of reducing public inconvenience and providing opportunities for improving efficiencies for small businesses. With regard to infrastructure systems, there is a strong concern that adequate capacities be made available concurrent with, or prior to the generation of new system demands.
- f. ENVIRONMENT. There is a need to refocus efforts to restore and maintain respect for Lana`i's environmental resources. Educational programs which emphasize recycling and reuse are tools for restoring awareness of Lana`i's valued resources.

Protection and restoration of the watershed is of primary importance. As much as one half of Lana`i's recharge depends upon this critical resource.

2. Opportunities

- a. ENVIRONMENT. While the need to restore respect for the island's environment is recognized as a problem, there is also an understanding that the environment represents an opportunity for all residents and visitors to share common goals and objectives of preserving and protecting Lana`i's natural resources. This shared perspective will help to ensure the long-term integrity of the island's natural environment.

The critical need for watershed protection creates an opportunity for residents and businesses of diverse orientations to work together on an issue of importance to all. Active, well supported community based efforts toward the preservation of the watershed could provide opportunities for education, training, volunteerism, and/or employment in forest management activities such as weed identification and removal, planting and propagation techniques, standard transect and monitoring techniques, maintenance of fences and exclosures, and game management.

- b. RURAL COMMUNITY ATTITUDES. Positive qualities of the "small town" environment found on Lana`i are reflected in personal relationships which exhibit honesty and concern for the welfare and well-being of other members of the community. The small town

atmosphere provides an excellent family environment, fostering strong family units. Such an environment encourages the return of former Lana`i residents with their families. The "*ohana*" attitude which creates a supportive network of neighbors and residents, is viewed as an opportunity to facilitate problem solving which can benefit the greater community.

- c. LAND USE. The existing land use spatial pattern of Lana`i City provides an opportunity to enhance a country town lifestyle unique in the State of Hawaii. The town's spatial orientation, with Dole Park at its focal point, encourages face-to-face gatherings among residents and provides a centrally located, pedestrian-oriented core. The compact nature of Lana`i City promotes the delivery of government and commercial services which are in close geographic proximity to the majority of the island's population.
- d. SINGLE MAJOR LANDOWNER. While unique conditions are acknowledged with a single major landowner, it is also recognized that a single landowner may be viewed as an opportunity for residents. Community needs may be brought to the direct attention of the landowner. Such needs may be negotiated without involving a multiplicity of parties, which may otherwise stall required action.

C. Interregional Issues

In the consideration of possible amendments to the Lana`i Community Plan, there are several issues which affect other regions or require a Countywide or islandwide analysis. This section discusses these issues which need interregional, island-wide or County-wide comprehensive policy analysis and formulation.

1. Interisland Transportation: The Island of Lana`i is highly dependent on sea transportation for the provision of goods and services to sustain the local economy. It is recognized that the reliable provision of shipping services is highly dependent on goods and services from the neighbor islands. In this regard, the need to provide adequate commercial harbor facilities on Maui is recognized as a means of ensuring reliable ocean transportation service to Lana`i.
2. Interisland Visitor Links: Visitor day trips to Lana`i from Maui are provided by several tour operators. The impact of this daily visitor traffic from Maui is manifested in employment opportunities for Lana`i residents, as well as environmental concerns related to visitor-related activities. In considering

Countywide visitor impacts, therefore, the relationship between daily visitor trips to Lana`i and its impacts to the island should be taken into account.

3. **Geographic Locale:** The Island of Lana`i is centrally located in terms of its geographic proximity to the other inhabited Hawaiian islands. This geographic location provides an opportunity for developing facilities for telecommunication systems. The extent to which Lana`i is considered as a communications "center" must be viewed in terms of both Countywide and Statewide perspectives.

PART III

GOALS, OBJECTIVES, POLICIES, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE LANA`I REGION

A. Intended Effects of the Lana`i Community Plan

Policy recommendations contained herein express the long-term visions for the Lana`i community. They will be used in formulating and prioritizing programs and strategies for each of the planning categories and, significantly, to establish a long-range land use pattern for the island.

For these reasons, the Lana`i Community Plan will play a key role in directing economic growth and stabilization for the Lana`i region. Accordingly, the population of Lana`i will, to a large degree, be affected by the policy recommendations contained in the Community Plan.

Population projections, while subject to a host of variables and external factors, provide a useful benchmark for conceptualizing growth in a region and providing a measure of the effectiveness of the Community Plan and future strategies to direct and manage growth. Population forecasts from Community Resources, Inc. were utilized as planning guidelines. These forecasts indicate a projected population of approximately 4,968 residents over the next 20 years and serve as "guidelines" in determining future land use and community development needs to the Year 2010. This translates into approximately 1,019 additional housing units.

With the shift in the island's economic base from an agricultural to visitor orientation, the need to provide socio-economic stability is a major issue addressed by the Lana`i Community Plan. For example, through the Community Plan's land use map, directions are charted to ensure long-term housing availability, economic diversification and cultural and recreational opportunities for the island's residents. Furthermore, policy recommendations set forth in the Plan address the need to

protect and enhance Lana`i's unique rural island atmosphere. Recommendations for the urban design and cultural resources, for example, are a direct reflection of the CAC's pride in Lana`i City's special plantation town character which is to be perpetuated. From an islandwide perspective, the Lana`i Community Plan further seeks to protect the limited and valuable environmental resources which define Lana`i's unique character. Through implementation, the Lana`i Community Plan will maintain this rural island ambiance for its future generations.

B. Goals, Objectives, Policies and Implementing Actions

Policy recommendations for the Lana`i Community Plan region have been developed to guide decision-making in a number of subject areas having community-wide impact. Simply interpreted, the goals are those broad statements which identify a preferred future condition. The objectives and policies specify steps and measures to be taken to achieve the stated goal. Finally, the implementing actions identify specific programs, project requirements and activities necessary to successfully bring reality to the desired goal.

ECONOMIC ACTIVITY

Goal

Create a stable and diverse economic climate which is consistent and compatible with Lana`i's rural island lifestyle.

Objectives and Policies

1. Ensure the long-term viability of the island's visitor industry, and maintain its position as the island's primary economic stimulus.
2. Recognize and promote government services as a means of meeting community needs and providing employment opportunities for local residents.
3. Promote diversification of Lana`i's economy by supporting locally-based new business ventures which are sensitive to community needs.
4. Promote diversified agriculture as a means of establishing job and income stability.
5. Promote the fishing and aquaculture industries as economic activities and a source of local food products.

6. Promote the continued development and expansion of career and job training programs for residents.
7. Recognize and support small businesses and cottage industries as a key element of Lana`i's economic base.
8. Support land use policies which provide economic development incentives for small businesses, including, but not limited to, the provision of appropriately zoned lands for country-town business use and baseyard use.
9. Support the communications industry on the island as a means of improving access to educational opportunities and improving the opportunities for small businesses to access larger markets.

Implementing Actions

1. Update the County's socio-economic forecast model as new data becomes available to provide an on-going basis for evaluating socio-economic issues and conditions in the Lana`i Community Plan region.
2. Analyze the zoning and subdivision ordinances to identify amendments which will facilitate and support the maintenance and development of small businesses and cottage industries.
3. Seek government and private sector funding for the continued development and expansion of career and job training programs which incorporate technical support from the visitor industry, Maui Community College and the Department of Education.
4. Provide fee simple land ownership opportunities to small businesses.
5. Establish and reserve a minimum water allocation to meet the needs of diversified agriculture consistent with the Water Use and Development Plan for Lana`i as approved by law.

LAND USE

Goal

Maintain and enhance Lana`i's rural atmosphere, respecting its vast open space character and small island town environment which are unique in the State of Hawaii.

Objectives and Policies

1. Limit State Urban District boundary expansion to areas which are designated for urban uses on the Lana`i Community Plan Land Use map.
2. Establish and enforce land use performance standards for agricultural lands which address the agricultural needs of the island's residents.
3. Discourage approvals of Special Permits in State Agricultural and Rural Districts unless: (1) to accommodate public/quasi-public facility uses such as utility installations, landfills and wastewater treatment plants whose location is determined by technical considerations; (2) supportive of agricultural uses; or (3) required for the use or distribution of economic resources and not otherwise adversely affecting the environment or surrounding agricultural uses.
4. Recognize and respect the Community Plan land use map as an expression of residents' needs and desires.
5. Enforce zoning and subdivision codes to ensure consistency with the Community Plan objectives, policies and land use map.
6. Continue to encourage the development of a regulatory review process which encourages and facilitates public participation in all major land development activities.
7. Provide an adequate supply of accessible fee-simple lands designated for residential use to address the housing needs of local residents.
8. That the Department of Hawaiian Home Lands shall consult with and take under advisement the recommendations of the Lana`i Hawaiian community concerning the location of and the types of uses for the 50 acres of land from the Lana`i Company.
9. Preserve the unique island town character of Lana`i City by maintaining Dole Park and its surrounding environs as the land use focal point for future growth.

10. Provide for a mix of multi-family land use and single-family land use designations, sensitively integrated to provide a range of housing opportunities for Lana`i residents.
11. Preserve and maintain lands used for hunting or which are designated as game management areas.
12. Provide for adequate land use allocations for public facilities, including, but not limited to, landfill sites.
13. Ensure that coastal land uses are compatible with management, protection and restoration needs of Lana`i's coastal resources.
14. Discourage the establishment of commercial heliport facilities outside of Lana`i Airport.
15. Discourage the development of commercial spaceport facilities.

Implementing Actions

1. Undertake a comprehensive rezoning program to implement the Lana`i Community Plan Land Use Map.
2. Establish a strong enforcement program to ensure compliance with zoning and subdivision standards appropriate for Lana`i as a means of implementing the Lana`i Community Plan.
3. Implement long-term lease agreements between the State and the major landowner for the purpose of preserving and maintaining game management areas.
4. Prepare a Dole Park master plan which improves and preserves the Park's recreational, urban design and social functions.
5. Study and appropriately designate Dole Park and its adjoining town core in order to protect and preserve the historic character of the area.
6. Implement Country Town design guidelines for Lana`i City.
7. Designate all lands within the coastline Open Space, with the exception of existing and appropriately designated urban areas and *kuleana*

landholdings. Regulate the coastline Open Space lands using special management area regulations.

A 50-100 year coastal erosion rate analysis shall be developed. Where new major waterfront structures or developments are to be approved, open space preservation should be assured by employing a shoreline setback based upon the erosion rate established by the coastal erosion rate analysis.

8. Create a direct control overlay district in and around Lana`i Airport. The boundaries of this district shall be generally defined by the 60 Ldn isoline of the Federal Aviation Administration (FAA) approved noise contour map for the airport. The intent of this district shall be to establish specific guidelines for development within the area which would define uses compatible with the airport and design standards, particularly with respect to sound attenuation.
9. Provide for an alternate site for a new County landfill at Kamalapau Quarry to permit compatible activity with the quarry.

ENVIRONMENT

Goal

Protect and enhance Lana`i's land, water and marine environmental resources to perpetuate resource values which may be enjoyed and respected by future generations of Lana`i residents and visitors.

Objectives and Policies

1. Manage, protect, and where appropriate, restore Lana`i's coastal resources.
2. Protect and manage coastal water quality through best management land treatment practices.
3. Incorporate waste recycling and reuse as major elements of the island's environmental resource management and protection program.
4. Ensure the long-term availability of low-cost water for agricultural purposes consistent with the Water Use and Development Plan for Lana`i as approved by law.

5. Establish agricultural water needs as a priority in developing and allocating the island's limited water resources consistent with the Water Use and Development Plan for Lana`i as approved by law.
6. Protect, preserve, restore and enhance Lana`i's existing and potential watershed recharge areas.
7. Recognize and preserve traditional uses of the environment to address subsistence needs of the residents of Lana`i.
8. Protect and restore native habitats through conservation, land management and educational programs.
9. Restore the environmental integrity of Lana`i's terrestrial resources through development of a comprehensive forest management and reforestation program utilizing native species.
10. Protect and enhance the island's native plant and animal species by prohibiting the importation of alien species.
11. Recognize and support agricultural, forestry and game management as key elements in maintaining, preserving and protecting Lana`i's land, water and marine resources.

Implementing Actions

1. Update and implement watershed, flood prevention and soil conservation programs.
2. Establish and reserve a minimum water allocation to meet the needs of diversified agriculture consistent with the Water Use and Development Plan for Lana`i as approved by law.
3. Maintain the Marine Life Conservation District at Manele/Hulopoe Bays.
4. Maintain the existing boundaries of the Kanepu'u Dryland Forest.
5. Identify coastal access opportunities through former agricultural roads and trails, including:

AG Trail 1
AG Trail 2

Koaia Gulch Trail
Koloiki Ridge Trail

AG Trail 3	Ko`olana`i Trail (Kaho`olana`i)
AG Trail 4	Kuahua Trail
AG Trail 5	Kuahua 1
Ana Puka Trail	Kukui Trail
Awalua Trail	Lana`i Hale (Munro Trail)
Awehi Trail	Lana`i Hale Lookout
Cemetery Road	Lapaiki Trail
East Hauola Trail	Mahana Trail
Hi`i Flats Trail	Mahana 1
Hi`i Flats 1	Mahana 2
Hi`i Flats 2	Manele Road
Hi`i Flats 3	Manele Road 1
Hi`i Flats 4	Mauna Kui Trail
Hi`i Flats 5	Maunalei Lookout
Ho`ike Road	Maunalei Valley
Honopu Trail	Miki Road
Honuaula Point Trail	Naha Trail
Ho`opapalani Hill Trail	Naupaka Trail
Hulopoe Beach Road	North Hauola Trail
Hulopoe Gulch Trail	Old Harbor Road
Kaa Trail	Palia Mano Gulch Trail
Ka`akaka Trail	Palikoa`e Gulch Loop
Keahikawelo Trail 1	Palikoa`e 1
Keahikawelo Trail 2	Palikoa`e 2
Ka`ena Trail	Piliamoe Gulch Trail
Kahilikalani Trail 1	Pipeline Trail
Kahilikalani Trail 2	Pohakuloa Point Trail
Kaholo Pali Trail	Polihua Trail
Kaholo Pali 1	Polihua 1
Kaholo Pali 2	Polihua Road 1
Kahua Trail	Polihua Road 2
Kakalani Trail	Puhielehua Trail
Kakalani 1	Pu`umahanalua Trail 1
Kaiolohia Bay Trail	Pu`umahanalua Trail 2
Kalaeahole Trail	Pu`umakani Trail
Kaluanui Flats Trail	Pu`umakani 1
Kane Puu Trail	Pu`umakani 2
Kapano Gulch Trail	Pu`umakani 3
Kapohaku Gulch Trail	Pu`umakani 4
Kapukoloa Trail	Pu`umakani 5
Kaumalapau Highway	Pu`umanu Trail
Kaunolu Trail	Pu`unene Trail 1

Kaunolu 1
Kaunolu 2
Kaupili Road
Keomuku Road
Keomuku Beach Trail
Keone Bay Trail
Keoneheehee Trail

Pu`upehe Trail 1
Pu`upehe Trail 2
Waiakeakua Trail
Wai`opae Trail
Wawaeku Trail
Wawaeku Trail 1

6. Prohibit the use of high level aquifer water for golf course irrigation purposes, consistent with the Water Use and Development Plan for Lana`i as approved by law.
7. Conduct a regional land resource assessment to:
 - a. Identify areas suitable for revegetation and reforestation with native plant species; and
 - b. Identify areas suitable for designation as groundwater recharge expansion areas.
8. Establish a feral animal control program and apply appropriate game management techniques (e.g., provision of feed and water stations) for purposes of protecting and preserving groundwater recharge areas.
9. Develop a system of floating preserves (e.g. "*konohiki* system") as a means of managing nearshore coastal resources.
10. Encourage and support the establishment and/or expansion of native Lana`i plant species, utilizing appropriate practices and techniques for propagation, planting, and distribution of native plant species. Support the development of approval processes for nursery sources of native plant species.

CULTURAL RESOURCES

Goal

Identify, preserve and where appropriate, restore and promote cultural resources and practices which reflect the rich and diverse heritage found on Lana`i.

Objectives and Policies

1. Provide opportunities for visiting art exhibits, concerts, plays, and other cultural events.
2. Provide an assimilation program for new residents.
3. Recognize the importance of historically and archaeologically sensitive sites and encourage their preservation.
4. Support public and private efforts to inventory, evaluate, classify and register archaeological sites to increase public knowledge of the region's cultural resources and their relative values.
5. Respect and preserve the multi-cultural nature of Lana`i's resident population.
6. Promote community awareness of Lana`i's rich and diverse cultural and historic backgrounds through the establishment of museums, cultural centers and related educational programs.
7. Maintain the integrity of Lana`i's cultural resources through controlled access to historic, archaeological and other culturally important sites.
8. Preserve and protect native Hawaiian rights customarily and traditionally exercised for subsistence, cultural, and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 Haw. 425 (1995).

Implementing Actions

1. Implement the Interpretive Master Plan for the island of Lana`i.
2. Preserve Kaunolu Village on the National Register of Historic Places.
3. Establish a Maunalei Historic Preserve.
4. Inventory and identify old plantation camps.
5. Seek funding to establish a Lana`i cultural center which will document the rich and diverse heritage of the island. Components of the cultural center should include:

- a. A multi-cultural-based museum which documents pre-contact and post-contact histories and resources;
 - b. An oral history program to document local history;
 - c. An educational program to expand awareness and understanding of Lana`i's cultural resources; and
 - d. An on-going cultural resources inventory program.
6. Fund and establish a cultural resources preservation program which would address the protection, preservation and restoration needs of the following:
- a. Historic cemeteries.
 - b. Keomoku Church and surrounding environs.
 - c. Kaiolohia (Federation Camp) and buildings.
 - d. Hawaiian fishponds.
 - e. Stone trail at Naha.
 - f. Salt blocks and *pipi* chutes at Manele.
 - g. Kaumalapau Village.
 - h. Old locomotive engine at Halepalaoa.
 - i. Train whistle at the top of the shop.
 - j. Post Office building.
 - k. Police Station building and jail.
 - l. Old Gymnasium.
 - m. Old Bowling Alley.
 - n. Old Administration building.
 - o. Old Theater.
 - p. First Hawaiian Bank building.
 - q. Bomb shelter at Maunalei.
 - r. Brackish water pond at Lopa.
 - s. Boat shelter at Naha.
 - t. Old Lana`i School flagpole at Cavendish Golf Course.
 - u. Hotel Lana`i.
 - v. Community flagpole.
 - w. Senior Citizens Center.
7. Maintain the 8:00 p.m. siren.
8. Preserve the Brown house (social hall) for continued community use.

9. Conduct a feasibility study to establish a State cultural park on the Island of Lana`i.
10. Expand the community cemetery program.
11. Build and maintain interpretive trails at Kapihaa, Hulupoe, and Kaunolu, to provide educational opportunities about Hawaiian architecture, art, and social systems for residents and visitors. Maintenance includes removal of any rubbish, regular grading of the dirt roads, clearing of trails, and the repair and periodic replacement of interpretive signs. Brochures with information about the Hawaiian culture and settlement of the Island of Lana`i should be provided at the library, museum, and schools.
12. Move the parking at Kaunolu away from the structure identified as Kamehameha's house. Develop parking in accordance with the interpretive plan done by the Bishop Museum in 1992.
13. Stabilize the hillside at Luahiwa to protect petroglyphs from erosion. Consider the potential effects of increased foot traffic on erosion in the vicinity of the petroglyphs before deciding to develop an interpretive trail or other access.
14. List significant historic properties and districts on the State and National "Register of Historic Places" including Kapihaa, Luahiwa, Manele Site Complex, Naha Site Complex, Lopa Fishpond, Keomoku Church, Lana`i Gym, Lana`i Theater, Former Administration Building, Hotel Lana`i, and the Senior Citizens Center.
15. Support and expand the Lana`i Museum to provide an enhancement to the tourist experience on Lana`i, and to provide continuity and identity to the resident community. Consolidate archaeological collections from Lana`i sites at the museum along with display facilities and climate-control devices rather than relying on the resorts to care for and appropriately utilize those collections.

INDIGENOUS ARCHITECTURE

Goal

Reserve for future implementation provisions for indigenous architecture as may be adopted from time to time by the County Council and/or the County Cultural Resources Commission.

Objective and Policy

- a. To legitimize indigenous architecture as viable spaces for living, work, and recreation.

Implementing Actions

- a. Develop a County ordinance for indigenous architecture.
- b. Adopt standards for indigenous architecture.

URBAN DESIGN

Goal

Preserve and enhance the unique urban design character of Lana`i through consideration of planning, land use and design standards which respect the island's rural plantation history.

Objectives and Policies

1. Establish design standards in the commercial/civic center area of Lana`i City, to provide special treatment in the maintenance and/or enhancement of the unique visual and physical identity of the town. Design standards should be based on the following guidelines:
 - Maintain the existing scale and street layout pattern of Lana`i City.
 - Develop off-street parking as part of expanded commercial facilities.
 - Promote an architectural style within the commercial/civic center areas that is consistent with existing buildings and neighborhood character.
 - Preserve Dole Park as the focal point of Lana`i City.
2. Provide additional landscaping in Lana`i City, to enhance the environment, utilizing native and non-invasive climate-adapted plants appropriate for the region.

3. Promote the development of a County urban design review process for proposed projects falling within the State Urban District.
4. Encourage the use of wood construction for residential and commercial projects.
5. Minimize urban design restrictions for single family residential projects.
6. Maintain existing road rights-of-way within Lana`i City.
7. Encourage the development and utilization of subdivision and roadway design criteria and standards which are compatible with the rural character of Lana`i.
8. Promote the appropriate use of street lighting to ensure public safety and to preserve the rural ambiance of Lana`i.
9. Utilize strategically placed and designed neighborhood parks as a key element in preserving the unique design character of Lana`i.
10. Encourage the use of traffic management systems and techniques which eliminate the need for traffic signalization at major intersections.
11. Ensure that proposed land use patterns in Lana`i City will preserve and complement the existing town design qualities.
12. Encourage architectural designs of government facilities to be consistent and compatible with the existing design character of Lana`i City and its surrounding environs.

Implementing Actions

1. Conduct a parking study for Lana`i City's commercial core to define parking needs and to identify parking solutions which maintain the country town character of Lana`i City. Consideration shall be given to:
 - a. Maintaining existing parking patterns around Dole Park.
 - b. Developing and adopting parking standards which are compatible with Lana`i City's country town environs.

- c. Identifying new off-street parking areas which facilitate the implementation of the Lana`i Community Plan land use map.
2. Expand the role of the County's Urban Design Review Board to include the review of proposed public buildings on Lana`i.
3. Develop and implement rural standards for public facilities and privately sponsored building improvements, roadways and subdivisions.
4. Study and appropriately designate Dole Park and its adjoining town core in order to protect and preserve the historic character of the area.
5. Prohibit the removal of plant material necessary for water recharge. Plant material necessary for water recharge shall not be used as a source of landscape planting materials.

PHYSICAL INFRASTRUCTURE

Goal

Provide adequate, reliable and well-designed public infrastructure systems in a timely fashion to meet the social, economic and public safety and welfare needs of the Lana`i community.

Transportation

Objectives and Policies

1. Support and construct a paved by-pass road along the northern and western perimeter of Lana`i City, connecting Kaumalapau Highway and Keomoku Road.
2. Establish a comprehensive transportation planning and management philosophy in keeping with the social, economic, and public safety needs of the island's residents.
3. Encourage commercial concession and lease opportunities for local residents at State harbor and airport facilities.
4. Support roadway management policies which recognize the need to establish designated bus and truck traffic routes.

5. Encourage and support a pedestrian orientation for the Lana`i City core.
6. Establish safe pathways connecting schools, recreation facilities, and commercial and residential areas for use by walkers, joggers and bicyclists.
7. Promote traffic safety through provision of roadway safety, maintenance and signage improvements, and through strict enforcement of traffic operating rules and regulations.
8. Ensure that planning, design, operation of, and access to airports and harbor facilities address the needs of the island's residents.
9. Encourage competitive pricing for interisland airfares to provide increased opportunity for interisland mobility by residents.
10. Maintain public access along agricultural roads and historic trails for hunting, access to coastal resources, hiking and other appropriate activities.

Implementing Actions

1. Develop rural design standards for roadway improvements.
2. Restrict commercial trucks and buses to established routes through Lana`i City.
3. Establish tour bus routes and drop-off points which will support local businesses.
4. Identify and establish central transportation pick-up points for employees.
5. Conduct a traffic study for Lana`i City to evaluate roadway volumes, capacities and patterns, and to identify roadway and traffic safety improvements needed to provide safe, functional and smooth operating conditions.
6. Provide adequate parking, public telephone and pier lighting facilities at Manele Small Boat Harbor.
7. Prohibit the extension of Lana`i Airport's runway in the direction of Lana`i City.

8. Implement adequate land-side support areas for small boating facilities in accordance with the recommendations of the Manele Boat Harbor Advisory Committee.
9. Prohibit aircraft flight patterns over Lana`i City as a means of noise mitigation.
10. Identify and implement other aircraft noise mitigation measures such as the prohibition of late-night aircraft operations.
11. Identify major public roadways and general transportation routes on the Community Plan Land Use map. Also identify other roads and trails which may be appropriate for coastal access, hunting, fishing, hiking and other similar activities.

Water

Objectives and Policies

1. Encourage and support comprehensive planning and management of Lana`i's water resources, consistent with the Water Use and Development Plan for Lana`i as approved by law, to ensure long-term economic stability and diversification, and sufficient water allocated for, but not limited to:
 - a. the agricultural park;
 - b. the Hawaiian Home Lands;
 - c. those lands designated for affordable housing;
 - d. the community gardens; and
 - e. the Lana`i Horse Owner's Association paddock.
2. Complete and properly maintain the existing potable water distribution system to provide sufficient water pressure throughout Lana`i City.
3. Use recycled or brackish water for irrigation.
4. Encourage comprehensive water resources planning and management for domestic and agricultural water systems prior to urban development outside Lana`i City.
5. Improve the quality of potable water.
6. Promote a water conservation program.

7. Support the creation of a permanent Lana`i Water Advisory Board comprised of Lana`i residents.
8. Encourage, support, and ensure protection and restoration of watershed and critical recharge areas.

Implementing Actions

1. Provide incentives for water conservation practices.
2. Prepare a comprehensive water resource management plan for the Island of Lana`i to establish priorities and allocations for water use.
3. Implement a Lana`i Water Advisory Board as a mechanism for monitoring water conservation practices on the island as may be adopted by the Board of Water Supply.
4. Include provisions for the protection of the watershed and recharge in the Water Use and Development Plan.
5. Include a proposal for continued community representation on water issues in the Water Use and Development Plan.
6. Ensure that water allocations as defined in the community plan are incorporated in the Water Use and Development Plan.
7. Include suggestions for demand management opportunities in the Water Use and Development Plan.

Liquid and Solid Waste

Objectives and Policies

1. Encourage comprehensive waste management planning for the island.
2. Support improvements to the wastewater collection and treatment system to ensure full and adequate service to Lana`i City and its immediate surrounding environs.
3. Encourage a conservation ethic which supports wastewater reclamation and utilization of alternative resource conservation technologies.

4. Maintain and enhance solid waste landfill operations such that adverse impacts upon the physical environment are minimized.

Implementing Actions

1. Prepare a wastewater system master plan for Lana`i as a basis for programming and implementing facilities improvements which will meet the needs of the island's residents in a timely manner.
2. Connect existing residences within the mauka portion of Lana`i City to the County's wastewater collection and treatment system.
3. Conduct a wastewater reuse feasibility study for Lana`i.
4. Provide funding to the Department of Public Works and Waste Management's Solid Waste Division for the proper landscaping and maintenance of solid waste facilities and surrounding environs.
5. Provide for an alternate site for a new County landfill at Kaumalapau Quarry to permit compatible activity with the quarry.

Energy

Objectives and Policies

1. Develop incentives to promote the use of alternative energy sources.
2. Promote energy conservation and awareness programs.
3. Provide electrical generation capabilities which will reliably meet current and anticipated needs.
4. Discourage the use of nuclear energy-based operations on the island of Lana`i.

Implementing Actions

1. Develop and adopt an integrated energy functional plan for the County of Maui that includes, but is not limited to, strategies for energy conservation, reuse of treated wastewater, recycling, reduction in the use of fossil fuels (e.g., through use of solar and wind energy), public education and awareness

and other strategies and actions related to transportation and utilities, housing, environment, urban design and economic activity.

HOUSING

Goal

Provide for the housing needs of all Lana`i residents in order to ensure a healthy and vibrant social and economic environment.

Objectives and Policies

1. Require the development of a comprehensive plan for housing assistance which coordinates all available public and private financial resources and incorporates appropriate regulatory measures.
2. Encourage the development of a housing rehabilitation program, including loans, grants and/or technical assistance and community outreach.
3. Provide sufficient land area in appropriate areas to promote the development of affordable housing and elderly care homes for Lana`i residents.
4. Require the development of employee housing in connection with the establishment of major economic development initiatives.
5. Support self-help housing as a means of addressing affordable housing needs for Lana`i residents.
6. Recognize and address the social implications associated with the lack of decent and affordably priced housing.
7. Provide housing types which are consistent with Lana`i's rural community lifestyle.
8. Promote the sale of rental residential properties to current occupants as a means of encouraging homeownership by residents.

Implementing Actions

1. Provide programs such as, but not limited to, home ownership counseling and self-help housing to enhance home ownership opportunities.

2. Develop a comprehensive plan for housing assistance programs which coordinates all available public and private financial resources and incorporates appropriate regulatory measures.
3. Establish a housing rehabilitation program, including loans, grants and/or technical assistance and community outreach.
4. Provide adequate government-sponsored affordable housing units to be used by government personnel and Lana`i residents.

SOCIAL INFRASTRUCTURE

Goal

Provide a public facilities and services system which is responsive to the needs of Lana`i's rural island environment and lifestyle.

Recreation

Objectives and Policies

1. Provide neighborhood parks which serve a variety of needs, including, but not limited to, active play fields and passive areas which may be used for community gardens.
2. Ensure Dole Park's long-term value as a social and recreational gathering place.
3. Encourage the development, and maintenance of leisure activities for all segments of the population.
4. Require land dedication to satisfy parks and playgrounds assessment requirements.

Implementing Actions

1. Prepare a Dole Park master plan which improves and preserves the Park's recreational, urban design and social functions.
2. Identify and develop parcels which are suitable for neighborhood park use.

3. Re-open Lana`i City's bowling alley as a functional bowling facility open to residents and visitors.
4. Maintain the quality and availability of the Cavendish Golf Course for golf course use in perpetuity for Lana`i residents.

Health and Public Safety

Objectives and Policies

1. Improve accessibility to medical and dental care by increasing professional or para-professional full-time staff.
2. Expand public health programs, services and facilities which support family planning and the special needs of children, elderly and immigrants.
3. Ensure the long-term integrity of medical and emergency medical facilities and services with appropriate allocation of capital improvements funding and staff positions, adequate provision of supporting programs and facilities, and ready access to state-of-the art medical technologies.
4. Provide for adequate foster care services and facilities.
5. Provide for adequate emergency shelters for family intervention needs.
6. Support the development of a new public safety facility.
7. Improve water rescue service and fire protection by providing necessary equipment, training, and staffing.

Implementing Actions

1. Plan, design and construct a new police station for Lana`i.
2. Fund new staff positions to provide medical and public health services for the island's residents.
3. Prepare a capital improvements plan to address the immediate and long-term facilities requirements for medical and public health services.
4. Purchase a four-wheel drive fire truck for the Fire Department in order to serve rural areas.

5. Study the feasibility of a medical service facility site at Manele.
6. Identify and support a helipad site for medical transport purposes in accordance with the Maui County Disaster Plan for Lana`i.

Education

Objectives and Policies

1. Designate an appropriate site consisting of a minimum of five acres for the use of Maui Community College in consultation with the Board of Regents of the University of Hawaii.
2. Provide remedial education programs and language classes for adults.
3. Provide adequate and affordable daycare and preschool facilities and programs for Lana`i families.
4. Expand educational and career counseling services for youths.
5. Support post-secondary education, career counseling and training needs for Lana`i residents.
6. Encourage the development of separate elementary and secondary school campuses.
7. Encourage and support community based management for Lana`i's public schools.
8. Provide a driver's education program on Lana`i.

Implementing Actions

1. Fund a drivers' education program, to include staffing and educational materials.
2. Develop appropriate incentives to attract and retain teachers and administrators.
3. Seek funding to implement and expand community education and telecommunications programs.

4. Seek the assistance and cooperation of employers in establishing child care services for visitors and employees.
5. Provide access to the HITS program for the Lana`i High and Elementary School.

GOVERNMENT

Goal

Ensure the effective, efficient, and reliable provision of government services through recognition of the unique access, communication and program needs of Lana`i's residents.

Objectives and Policies

1. Streamline regulatory approval processes through means such as consolidated public hearings and concurrent processing of applications.
2. Develop land use, building and subdivision codes and standards which are appropriate for Lana`i.
3. Utilize the County's budgeting process as a means to carry out the policies and priorities of the Community Plan.
4. Utilize the County's real property tax assessment function as both a means to carry out the policies and priorities of the Community Plan and a mechanism for monitoring and updating the Community Plan.
5. Acknowledge and support the role and responsibility of the Lana`i Planning Commission in monitoring and enforcing the implementation of the Lana`i Community Plan.
6. Encourage and expand chore and transportation services for the elderly.
7. Maintain and support non-profit preschool and childcare facilities and services.
8. Provide public information in multi-lingual formats.

9. Encourage State and County officials to conduct regularly scheduled public informational meetings on Lana`i, with appropriate follow-up to address questions and concerns of residents.
10. Encourage improved communications among government agencies and between the public and government agencies in order to improve public service reliability and efficiency.
11. Encourage and support the use of telecommunications technology to link Lana`i residents with State and County government functions and activities through an interactive communication mode.
12. Provide for adequate cemetery facilities to meet the current and future needs of Lana`i's residents.
13. Establish a permanent Lana`i Water Advisory Board.

Implementing Actions

1. Develop a satellite government center for Lana`i with scheduled days for different State and County agencies.
2. Revise building, subdivision and roadway standards appropriate for rural areas to maintain the regional character and reduce costs of development.
3. Fund programs and staff positions which meet community service needs for child care and the elderly.
4. Support the centralization of government services in the Lana`i City town core. Establishment of centralized government services at the Administration Building shall be considered.
5. Support the provision of land at Keomoku for distribution by the Department of Hawaiian Home Lands.

C. Planning Standards

The following planning standards are specific guidelines or measures for development and design. These standards are essential in clarifying the intent of the land use and town design objectives and policies and the Land Use Map.

1. Land Use Standards:

- a. Fifty percent of the 10-acre Light Industrial area above the Kaumalapau Quarry, identified as TMK 4-9-2:portion of 1, shall be sold in fee simple upon development. (Matrix No. 5)
- b. Fifty percent of the 10-acre Light Industrial area at the Shuttle Station, identified as TMK 4-9-2:portion of 1, shall be sold in fee simple upon development. (Matrix No. 6)
- c. Fifty percent of the 20-acre Heavy Industrial area at Miki Road, identified as TMK 4-9-2:portion of 1 and 50, shall be sold in fee simple upon development. (Matrix No. 7)
- d. Fifty percent of the 3.4-acre Business/Commercial area at the Lana`i City shop area, identified as TMK 4-9-4:portion of 90, shall be sold in fee simple upon development. (Matrix No. 31)
- e. No trees shall be removed from the additional 1-acre Hotel area behind Hotel Lana`i, identified as TMK 4-9-11:portion of 1, because of hotel or related use. (Matrix No. 13)
- f. No applications for zoning shall be filed for the 1-acre Business/Commercial area at the Police Station, identified as TMK 4-9-6:4, until a new Police Station has been built and the Courthouse has been relocated. (Matrix No. 21)

2. Building Height:

Limit building heights to two stories or 30 feet above grade except as follows:

- Buildings within heavy industrial areas may be as high as 40 feet and may exceed this height subject to design review by the County.
- Buildings within business/commercial areas surrounding Dole Park shall not exceed one story in height.

3. Landscaping:

Native plant species which are found on Lana`i shall be utilized for public and quasi-public facilities.

4. Building Design:

All commercial buildings and government or private infrastructure improvements shall be designed in accordance with design guidelines developed for Lana`i City.

5. Cultural Resources:

Require appropriate building setbacks from fishponds and other archaeological resources as determined by the Cultural Resources Commission.

6. Project District Standards:

PROJECT DISTRICT 1 (Manele)

This Project District builds around one of Lana`i's most beautiful and easily accessible beaches, Hulopo`e Bay, and provides a major employment opportunity to the island through a planned luxury resort.

The project district shall include hotel, residential, golf course, limited commercial, open space, park and public marina uses. Limiting commercial use to the hotel, golf clubhouse and Manele Small Boat Harbor areas will compliment the objectives of the Manele-Hulopo`e Marine Conservation District.

The project district shall be designed with appropriate setbacks from the shoreline and large undeveloped areas in order to afford long time Lana`i residents the opportunity and encouragement to continue using Hulopo`e Beach and other shoreline areas for recreation and camping.

Alternate water sources shall be developed, xeriscape landscaping encouraged, and strict water conservation enforced to protect the island's limited fresh water resource.

The total area within the Project District shall be approximately 868 acres, provided that the minimum land use pattern requirements shall be as described below.

1. The entire Pu`upehe Peninsula (approximately 130 acres) shall be kept in open space for public use. This open space area shall encompass all lands on the peninsula previously planned for multi-

family use and shall exclude those lands previously planned for commercial use. No dwellings (residential units) of any kind shall be permitted. However, structures to promote cultural resources and preserve archaeological resources, based upon a resource management plan for the area, shall be permitted.

A portion of the multi-family use displaced from the project district due to the designation of open space referenced above shall be accommodated within the project district east of Manele Road. Further, a small area adjacent to the northeast portion of the existing hotel lot shall be redesignated from single family to hotel use.

During the rezoning process, limit impacts of the multi-family uses east of Manele Road by having the Cultural Resources Commission and the Hui Malama Pono O Lana`i organization, in cooperation with the landowner, work to achieve the following through a unilateral agreement:

- a. Cultural protection of archaeological sites at the Manele area proper.
 - b. Creation of a buffer zone at least 200 feet between the closest building and the nearest heiau.
 - c. Completion of a drainage plan prior to construction, which would include addressing the adequacy of the siltation basin currently used to protect the small boat harbor.
 - d. Hiring of a Kupuna from Lana`i to monitor the project's development during construction, consistent with the current agreement with the Lana'i Archaeological Committee.
2. The provision of these open space areas, along with the provision of the multi-family area within the project district, shall not increase the total number of hotel units within the project district in accordance with the density standards provided in the project district ordinance.

Implementation of residential development around the golf course shall not proceed until the following actions have been fully addressed.

1. That the "Interpretive Plan for Archaeological Sites within the Manele Golf Course and Residential Area" shall be implemented.
2. That a hydrologic model of Lana`i's aquifer shall be completed by the U.S. Geological Survey or other independent agency.

3. That the results of the hydrologic study shall confirm the availability of water to meet Islandwide water needs.

PROJECT DISTRICT 2 (Koele)

This project district is intended to provide employment and housing opportunities within a planned resort, adjacent to and integrated with Lana`i City. The project district shall be comprised of low density housing with greater lot sizes appropriate to the outskirts of Lana`i City.

The project district shall incorporate site planning and building design complimentary to Lana`i City and shall provide public areas, recreational uses and mountain access available to all Lana`i residents.

Careful environmental design and limited tree cutting to preserve native species, shall protect the watershed's principle recharge zone and preserve the legacy of arborist George Munro. Preservation of the character of the historic structures, street pattern and open spaces in the area mauka of Queen Street shall provide a buffer area and transition between the Lana`i City grid and the newer residential areas of the project district.

Continued implementation of the Project District shall be based on the following requirements.

1. That the open wooded area bordered by Ninth, Pualani and Sixth Streets shall be maintained in public open space. A minimum of 12 acres shall be designated for this purpose.
2. The provision of this open space area shall not reduce, or in any way affect, the total number of approved units within the project district.

PART IV

IMPLEMENTATION CONSIDERATIONS

To facilitate the implementation of the Lana`i Community Plan, implementing actions shall be considered by County and State agencies in their planning, programming and budgeting. In this regard, respective County agencies shall review and consider applicable implementing actions, as well as the broader statements of goals, objectives and policies contained in the Lana`i Community Plan as follows:

1. Annual budget requests shall address requirements identified by implementing actions contained in the Lana`i Community Plan;
2. Capital improvements programming undertaken by each agency shall incorporate, as appropriate, specific projects listed in the Lana`i Community Plan;
3. Priority assignments to capital improvement projects shall consider implementing actions contained in the Lana`i Community Plan;
4. Agency master plans shall address project, program and policy actions advanced in the Lana`i Community Plan;
5. Agency program and policy formulation processes shall consider, and where appropriate, incorporate implementing actions set forth in the Lana`i Community Plan; and
6. Agency reviews of and recommendations on individual projects being processed for approval shall consider the relationship of the proposed action to implementing provisions contained in the Lana`i Community Plan.

It is noted that a number of implementing actions identified herein, would need to be considered and advanced by the landowner, Lana`i Company. In these instances, the role of the County of Maui would be to facilitate implementation. Therefore, where implementing actions are deemed to be the responsibility of the landowner, the Office of the Mayor has been designated the lead office for coordinating implementation responsibilities.

The following table summarizes and categorizes each action as either a program, policy or project-related implementing action to further facilitate agency review, consideration and action on applicable implementing provisions.

**TABLE 1
LANA`I COMMUNITY PLAN REGION
IMPLEMENTATION RESPONSIBILITIES**

Action Category	Implementing Action	Planning Category
DEPARTMENT: Planning Department		
Program	1. Fund and establish a cultural resources preservation program which would address the protection, preservation and restoration needs of the following: <ul style="list-style-type: none"> a. Historic cemeteries. b. Keomoku Church and surrounding environs. c. Kaiolohia (Federation Camp) and buildings. d. Hawaiian fishponds. e. Stone trail at Naha. f. Salt blocks and <i>pipi</i> chutes at Manele. g. Kaumalapau Village. h. Old locomotive engine at Halepalaoa. i. Train whistle at the top of the shop. j. Post Office building. k. Police Station building and jail. l. Old Gymnasium. m. Old Bowling Alley. n. Old Administration building. o. Old Theater. p. First Hawaiian Bank building. q. Bomb shelter at Maunalei. r. Brackish water pond at Lopa. s. Boat shelter at Naha. t. Old Lana`i School flagpole at Cavendish Golf Course. u. Hotel Lana`i. v. Community flagpole. w. Senior Citizens Center. 	Cultural Resources
Policy	1. Expand the role of the County's Urban Design Review Board to include the review of proposed public buildings on Lana`i.	Urban Design
Project	1. Update the County's socio-economic forecast model as new data becomes available to provide an on-going basis for evaluating socio-economic issues and conditions.	Economic Activity
	2. Analyze the zoning and subdivision ordinances to identify amendments which will facilitate and support the maintenance and development of small businesses and cottage industries.	Economic Activity
	3. Undertake a comprehensive rezoning program to implement the Lana`i Community Plan Land Use Map.	Land Use
	4. Study and appropriately designate Dole Park and its adjoining town core in order to protect and preserve the historic character of the area.	Land Use
	5. Implement Country Town design guidelines for Lana`i City.	Land Use
	6. Identify coastal access opportunities through former agricultural roads.	Environment
	7. Conduct a regional land resource assessment to: <ul style="list-style-type: none"> a. Identify areas suitable for revegetation and reforestation with native plant species; and b. Identify areas suitable for designation as groundwater recharge expansion areas. 	Environment

Action Category	Implementing Action	Planning Category
	8. Implement the Interpretive Master Plan for the island of Lana`i.	Cultural Resources
	9. Preserve Kaunolu Village on the National Register of Historic Places.	Cultural Resources
	10. Seek to establish a Maunalei Historic Preserve.	Cultural Resources

	11. Inventory and identify old plantation camps.	Cultural Resources
	12. Seek funding to establish a Lana`i cultural center which will document the rich and diverse heritage of the island. Components of the cultural center should include: a. A multi-cultural-based museum which documents pre-contact and post-contact histories and resources. b. An oral history program to document local history; c. An educational program to expand awareness and understanding of Lana`i's cultural resources; and d. An on-going cultural resources inventory program.	Cultural Resources
	13. Conduct a parking study for Lana`i City's commercial core to define parking needs and to identify parking solutions which maintain the country town character of Lana`i City. Consideration shall be given to: a. Maintaining existing parking patterns around Dole Park; b. Developing and adopting parking standards which are compatible with Lana`i City's country town environs; and c. Identifying new off-street parking areas which facilitate the implementation of the Lana`i Community Plan land use map.	Urban Design
	14. Study and appropriately designate Dole Park and its adjoining town core in order to protect and preserve the historic character of the area.	Urban Design
	15. Develop and adopt an integrated energy functional plan for the County of Maui that includes but is not limited to strategies for energy conservation, reuse of treated wastewater, recycling, reduction in the use of fossil fuels (e.g., through use of solar and wind energy), public education and awareness and other strategies and actions related to transportation and utilities, housing, environment, urban design and economic activity.	Physical Infrastructure (Energy)
DEPARTMENT: Department of Parks and Recreation		
Project	1. Establish a Lana`i City's bowling alley.	Social Infrastructure (Recreation)
	2. Identify and develop parcels which are suitable for neighborhood park use.	Social Infrastructure (Recreation)
DEPARTMENT: Department of Public Works and Waste Management		
Program	1. Establish a strong enforcement program to ensure compliance with zoning and subdivision standards appropriate for Lana`i.	Land Use
Policy	1. Restrict commercial trucks and buses to established routes through Lana`i City.	Physical Infrastructure (Transportation)
Project	1. Provide for an alternate site for a new County landfill at Kamalapau Quarry to permit compatible activity with the quarry.	Land Use and Physical Infrastructure
	2. Update and implement watershed, flood prevention and soil conservation programs.	Environment
	3. Develop and implement rural standards for public facilities and privately sponsored building improvements, roadways and subdivisions.	Urban Design

4. Develop rural design standards for roadway improvements.	Physical Infrastructure (Transportation)
5. Conduct a traffic study for Lana'i City to evaluate roadway volumes, capacities and patterns, and to identify roadway and traffic safety improvements needed to provide safe, functional and smooth operating conditions.	Physical Infrastructure (Transportation)

	6.	Prepare a wastewater system master plan for Lana`i as a basis for programming and implementing facilities improvements which will meet the needs of the island's residents in a timely manner.	Physical Infrastructure (Liquid and Solid Waste)
	7.	Connect existing residences mauka of Lana`i City to the County's wastewater collection and treatment system.	Physical Infrastructure (Liquid and Solid Waste)
	8.	Conduct a wastewater reuse feasibility study for Lana`i.	Physical Infrastructure (Liquid and Solid Waste)
	9.	Provide funding to the Department of Public Works and Waste Management's Solid Waste Division for the proper landscaping and maintenance of solid waste facilities and surrounding environs.	Physical Infrastructure (Liquid and Solid Waste)
	10.	Revise building, subdivision and roadway standards appropriate for rural areas to maintain the regional character and reduce costs of development.	Government
DEPARTMENT: Office of the Mayor			
Program	1.	Expand the community cemetery program.	Cultural Resources
	2.	Provide incentives for water conservation practices.	Physical Infrastructure (Water)
Policy	1.	Provide fee simple land ownership opportunities to small businesses.	Economic Activity
	2.	Establish and reserve a minimum water allocation to meet the needs of diversified agriculture consistent with the Water Use and Development Plan for Lana`i as approved by law .	Economic Activity and Environment
	3.	Prohibit the use of potable water for golf course irrigation purposes consistent with the Water Use and Development Plan for Lana`i as approved by law .	Environment
	4.	Maintain the 8:00 p.m. siren.	Cultural Resources
	5.	Preserve the Brown house (social hall) for continued community use.	Cultural Resources
	6.	Implement a Lana`i Water Advisory Board as a mechanism for monitoring water conservation practices on the island as may be adopted by the Board of Water Supply.	Physical Infrastructure (Water)
	7.	Support the centralization of government services in the Lana`i City town core. Establishment of centralized government services at the Administration Building shall be considered.	Government
	8.	Support the provision of land at Keomoku for distribution by the Department of Hawaiian Home Lands.	Government
Project	1.	Seek government and private sector funding for the continued development and expansion of career and job training programs which incorporate technical support from the visitor industry, Maui Community College and the Department of Education.	Economic Activity
	2.	Establish tour bus routes and drop-off points which will support local businesses.	Physical Infrastructure (Transportation)

3.	Identify and establish central transportation pick-up points for employees.	Physical Infrastructure (Transportation)
4.	Prepare a Dole Park master plan which improves and preserves the Park's recreational, urban design and social functions.	Land Use & Social Infrastructure (Recreation)
5.	Maintain the quality and availability of the Cavendish Golf Course for golf course use in perpetuity for Lana`i residents.	Social Infrastructure (Recreation)
6.	Develop a satellite government center for Lana`i with scheduled days for different State and County agencies.	Government

DEPARTMENT: Department of Housing and Human Concerns		
Program	1. Provide programs such as but not limited to home ownership counseling and self-help housing to enhance home ownership opportunities.	Housing
	2. Develop a comprehensive plan for housing assistance programs which coordinates all available public and private financial resources and incorporates appropriate regulatory measures.	Housing
	3. Establish a housing rehabilitation program, including loans, grants and/or technical assistance and community outreach.	Housing
	4. Provide adequate government-sponsored affordable housing units to be used by government personnel and Lana`i residents.	Housing
	5. Seek the assistance and cooperation of employers in establishing child care services for visitors and employees.	Social Infrastructure (Education)
Policy	1. Fund programs and staff positions which meet community service needs for child care and the elderly.	Government
DEPARTMENT: Police Department		
Project	1. Plan, design and construct a new police station for Lana`i.	Social Infrastructure (Health & Public Safety)
DEPARTMENT: Department of Fire Control		
Project	1. Purchase a four-wheel drive fire truck.	Social Infrastructure (Health & Public Safety)
DEPARTMENT: State Department of Land and Natural Resources		
Program	1. Implement long-term lease agreements between the State and the major landowner for the purpose of preserving and maintaining game management areas.	Land Use
	2. Maintain the Marine Life Conservation District at Manele/Hulopoe Bays.	Environment
	3. Maintain the existing boundaries of the Kanepu`u Dryland Forest.	Environment
	4. Establish a feral animal control program and apply appropriate game management techniques (e.g., provision of feed and water stations) for purposes of protecting and preserving groundwater recharge areas.	Environment
	5. Develop a system of floating preserves (e.g. "konohiki system") as a means of managing nearshore coastal resources.	Environment
Policy	1. Prohibit the use of plant material necessary for water recharge. Plant material necessary for water recharge shall not be used as a source of landscape planting materials.	Urban Design
Project	1. Conduct a feasibility study to establish a State cultural park on the Island of	Cultural Resources

	Lana`i.	
2.	Provide adequate parking, public telephone and pier lighting facilities at Manele Small Boat Harbor.	Physical Infrastructure (Transportation)
3.	Prepare a comprehensive water resource management plan for the Island of Lana`i to establish priorities and allocations for water use.	Physical Infrastructure (Water)

DEPARTMENT: State Department of Health		
Policy	1. Fund new staff positions to provide medical and public health services for the island's residents.	Social Infrastructure (Health & Public Safety)
Project	1. Prepare a capital improvements plan to address the immediate and long-term facilities requirements for medical and public health services.	Social Infrastructure (Health & Public Safety)
	2. Study the feasibility of a medical service facility site at Manele.	Social Infrastructure (Health & Public Safety)
DEPARTMENT: State Department of Education		
Program	1. Develop appropriate incentives to attract and retain teachers and administrators.	Social Infrastructure (Education)
Policy	1. Fund a drivers' education program, to include staffing and educational materials.	Social Infrastructure (Education)
	2. Seek funding to implement and expand community education and telecommunications programs.	Social Infrastructure (Education)
	3. Provide access to the HITS program for the Lana`i High and Elementary School.	Social Infrastructure (Education)
DEPARTMENT: Department of Hawaiian Home Lands		
Policy	Consult with the Hawaiian community on the Island of Lana`i concerning the location of 50 acres of land to be provided pursuant to conditions of the State Land Use Commission.	
DEPARTMENT: University of Hawaii, Maui Community College		
Policy	Coordinate consultations between the Lana`i Company and the Board of Regents of the University of Hawaii for an appropriate site consisting of a minimum of five acres for a permanent facility on the Island of Lana`i.	

PART V

LAND USE MAP

A. Land Use Categories and Definitions

Conservation (C)

This category primarily recognizes the designation of lands in the State Conservation District and is used to protect and preserve wilderness areas, beach reserves, scenic areas and historic sites, open ranges, and watersheds; to conserve fish and wildlife; and to promote forestry and grazing.

Agriculture (AG)

This use indicates areas for agricultural activity which would be in keeping with the economic base of the County and the requirements and procedures of Chapter 205 HRS, as amended.

Rural (R)

This use is to protect and preserve areas consisting of small farms intermixed with low density single-family residential lots. It is intended that, at minimum, the requirements of Chapter 205 HRS, as amended, shall govern this area.

Single-Family (SF)

This includes single-family and duplex dwellings.

Multi-Family (MF)

This includes apartment and condominium buildings having more than two dwellings.

Hotel (H)

This applies to transient accommodations which do not contain kitchens within individual units. Such hotel facilities may include permissible accessory uses primarily intended to serve hotel guests.

Business/Multi-Family (BMF)

This includes a mixture of retail, office, and commercial services which are oriented to neighborhood service and single family and multi-family residential uses.

Business/Commercial (B)

This includes retail stores, offices, entertainment enterprises and related accessory uses.

Business/Industrial (BI)

This includes a mixture of warehousing, distribution, service operations, retail and offices uses.

Light Industrial (LI)

This is for warehousing, light assembly, service and craft-type industrial operations.

Heavy Industrial (HI)

This is for major industrial operations whose effects are potentially noxious due to noise, airborne emissions or liquid discharges.

Airport (AP)

This includes all commercial and general aviation airports, and their accessory uses.

Public/Quasi-Public (P)

This includes schools, libraries, fire/police stations, government buildings, public utilities, hospitals, churches, cemeteries, and community centers.

Project District (PD)

This category provides for a flexible and creative planning approach rather than specific land use designations for quality developments. The planning approach would establish a continuity in land uses and designs while providing for a comprehensive network of infrastructural facilities and systems. A variety of uses as well as open space, parks and other project uses are intended in accord with each individual project district objective.

Park (PK)

This designation applies to lands developed or to be developed for recreational use. This includes all public and private active and passive parks.

Open Space (OS)

This use is intended to limit development on certain urban and non-urban designated lands which may be inappropriate for intensive development due to environmental, physical, or scenic constraints; this category would include but not be limited to preservation areas, shoreline buffer areas, landscape buffers, drainageways, viewplanes, flood plains, tsunami inundation areas. Activities which do not significantly affect the natural contours of the land, such as grazing, farming, equestrian activities, hunting, or other recreational or outdoor activities, including related structures, may be allowed. Other appropriate urban and non-urban development may be allowed on a permit basis or other legal process.

COUNCIL DESIGNATIONS FOR THE LANAI COMMUNITY PLAN LAND USE MAP

Matrix No. & Name	Approx Acres	Tax Map Key, Location	Existing Designation	Lanai CAC Recommendation 1993	Planning Department Recommendation 1995	Planning Commission Recommendation 1995	COUNTY COUNCIL VOTE 1998
1 Coastal Zone Buffer	Large Area	TMK 4-9-2:1p Entire shoreline, not <i>kuleana</i> & urban uses	Conservation	Change to Open Space (for 1500-ft buffer along shoreline).	Same	Same	OS SMA regulates shoreline area. Setbacks determined by erosion study.
2 North & East Areas	Large Area	Cemetery TMK 4-9-2:51 Others TMK 4-9-2:1p	Agriculture & Open Space	Change to Conservation	Change to Open Space. Cemetery to Public/Quasi-Public.	Same	P/QP Cemetery OS Remaining lands:
3 Roads & Trails	Large Area	Various	Various	Identify roads & trails on land use map.	Same	Same	Continue research to identify recommended trails.
4 Keomoku Road Open Space	8.7 acres	TMK 4-9-2:1p	Open Space	Change to Conservation	No change. Leave in Open Space	Same	OS
5 Kaumalapau Quarry	30 acres quarry 10 acres above	TMK 4-9-2:1p	Agriculture	Change to Public/Quasi-Public, for future landfill.	Same. Provides future site if needed	Same	P/QP LI 10 acres more above quarry, 50% fee simple, include Amaral
6 Shuttle Station	10 Acres	TMK 4-9-2:1p Existing uses stay, but be in addition to new acres.	Agriculture	Change to Light Industrial Fulfill SLUC condition.	Same	Same	LI 50% fee simple
7 Miki Road Heavy Industrial	5 acres 20 acres	TMK 4-9-2:50p, 1p Existing power plant & relocate town HI.	Agriculture	Change to Heavy Industrial	Same	Same	HI 50% fee simple
8 Kaupili Road Realignment	n.a.	TMK 4-9-2:1p	Agriculture	Designate realignment in case of runway expansion	Same	Same	REALIGN ROAD
9 Manele	130 acres	TMK 4-9-17:1, 3, 2p	Project District,	Expand to 868 acres.	Expand to 868 acres, but	Same	Within PD OS 130 acres

Project District	25 acres 6.6 acres	Puupehe OS is approx. 130 acres	Conservation & Agriculture	Additional Open Space at Manele & Puupehe.	additional Open Space reflected in text.		at Puupehe SF to MF 25 acres east of road SF to Hotel 6.6 acres
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Matrix No. & Name	Appr x Acres	Tax Map Key, Location	Existing Designation	Lanai CAC Recommendation on 1993	Planning Department Recommendation on 1995	Planning Commission Recommendation on 1995	COUNTY COUNCIL VOTE 1998
10 Koele Project District, NW	57 acres	TMK 4-9-2:1	Project District	Change to Agriculture	Same, except that tennis and equestrian to remain in PD	Same	AG Northwest PD tennis & equestrian
11 Koele Woods & Cavendish Golf Course	OS 12 acres GC 98 acres	Woods TMK 4-9-1:24 Golf Course TMK 4-9-18:3p	Project District	Change wooded areas to Open Space. Change Cavendish to Park (GC)	Leave in wooded areas in PD. Reflect OS areas in CP text. Cavendish to Park (GC)	Same	OS in PD Woods PK (GC) Cavendish
12 Koele Area North	238 acres	TMK 4-9-2:1p	Rural	Conservation east of Keomoku RD, Ag west of Keomoku Rd.	OS east of road and Ag west of road	Same	OS east of road AG west of road
13 Hotel Lanai	1 acre	TMK 4-9-11:1p	Hotel	Change to Open Space	Same	Same	HOTEL on the condition trees not removed
14 Nurse's Quarters & First Hawaiian Bank	2 acres	P/QP 0.2 acre TMK 4-9-11:13 B/C 0.2 acre TMK 4-9-11:5p SF 1.6 acre TMK 4-9-11:5p, 6	Multi-Family	Change to Public/Quasi-Public for nurse's quarters Business/Commercial for remainder of block.	Same	Change to P/QP for nurse's quarters; Coml for bank; SF for remainder	P/QP nurse's qtrs B/C for bank SF for remainder
15 MCC Block	1 acre	TMK 4-9-06:11	Multi-Family	Change to Business/Commercial.	Same	Same	B/C
16 Senior Center	0.3 acre	TMK 4-9-06:6	Multi-Family	Change to Public/Quasi-Public.	Same	Same	P/QP
17 Former Church	0.3 acre	TMK 4-9-07:29	Public/Quasi-Public	Change to Single-Family, existing use.	Same	Same	SF
18 Fraser Ave. Park	1.0 acre	TMK 4-9-14:16	Single Family	Change to Park, existing use.	Same	Same	PK
19 Haw Tel Building	0.2 acres	TMK 4-9-06:38	Business/Commercial	Change to Public/Quasi-Public.	Same	Same	P/QP
20 Former Church	0.15 acres	TMK 4-9-05:37	Public/Quasi-Public	Change to Single-Family	Same	Same	SF

Parcel				to reflect existing use.			
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Matrix No. & Name	Appr x Acres	Tax Map Key, Location	Existing Designation	Lanai CAC Recommendation on 1993	Planning Department Recommendation on 1995	Planning Commission Recommendation on 1995	COUNTY COUNCIL VOTE 1998
21 Existing Police Station	0.34	TMK 4-9-06:4	Business/Commercial	Change to Public/Quasi-Public. If Police Station moves, retain in public use.	Same	Same	B/C no zoning until new police station built & court relocated
22 New Police Station	1 acre	TMK 4-9-14:1p SW corner of 9th Street & Fraser Ave. If station not needed, use for other P/QP.	Open Space	Change to Public/Quasi-Public for new police station.	Same	Same	P/QP
23 Old Bowling Alley	0.5 acres	TMK 4-9-06:33p	Park	Change to Public/Quasi-Public.	Same	Same	P/QP
24 Lanai School Expansion	10 acres	TMK 4-9-14:1p, 2, 11p	Agriculture	Change to Public/Quasi-Public, expand Lanai school facilities.	Same	Same	P/QP
25 School Area Park Expansion	16 acres	TMK 4-9-14:1p, 11p	Agriculture	Change to Park for possible expansion.	Same	Same	PK
26 STPs & WWRFs	39 acres	TMK 4-9-14:15	Agriculture	Identify sewage treatment Public/Quasi-Public.	Same	Same	P/QP
27 STP Buffer	55 acres	TMK 4-9-2:1p	Agriculture	Change to Open Space, buffer at sewage facility.	Same	Same	OS
28 North 12th St. Heavy Industrial	15 acres	TMK 4-9-14:9p	Heavy Industrial	Change to Open Space. Existing HI uses relocate to Miki Road.	Same	Same	B/C 3 acres to move offices OS 12 acres
29 South 12th St. Heavy Industrial	6 acres	TMK 4-9-14:13	Heavy Industrial One acre Open Space	Change to Light Industrial. HI uses then move to Miki RD	Same	Same	LI
30 Lands Adjacent to	3 acres	TMK 4-9-14:13p, 17 NW corner	Open Space	Change to Park	Same	Same	PK

Fire Dept.		of Fraser Ave & Kaumalapa u					
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Matrix No. & Name	Appr x Acres	Tax Map Key, Location	Existing Designation	Lanai CAC Recommendation on 1993	Planning Department Recommendation on 1995	Planning Commission Recommendation on 1995	COUNTY COUNCIL VOTE 1998
31 Shop & Dorms	8 acres	Shop area TMK 4-9-05:90p 3.4 acre Dorms TMK 4-9-04:50 4.6 acres	Multi-Family	Change to Commercial. (To be a portion of SLUC conditions.)	Same	Shop area to Coml; Dorm area to Park	BC for shop area 50% fee simple MF for dorm area
32 Lanai City Service	1.2 acres	TMK 4-9-12:1	Single Family	No change. Leave as existing non-conforming use.	Change to Commercial to reflect existing use	Same	B/C
33A New County Housing	115 acres	TMK 4-9-2:1p Intended to be the site of future County affordable housing.	Agriculture	Change to Single-Family (SW of Kaunalapau Hwy. & Manele Rd.	Same	Changed to a site north/northwest of town. See 33B below.	AG
33B New County Housing	105 acres	TMK 4-9-2:1p TMK 4-9-14:1p	Agriculture	Recommends site 33A above.	Same	Change to Single-Family.	SF 105 acres County OS to MF adjacent to 201E OS to SF adjacent to DHHL
33C New Single Family	10 acres	TMK 4-9-2:1p	Agriculture	Proposed after CAC process	Proposed after CAC process	Proposed after CAC process	SF
34 New MCC	15 acres	TMK 4-9-2:1p	Agriculture	Change to Public/Quasi-Public for new MCC campus	Same	Leave in Ag. But add text for site consultation	AG
35 New Commercial Area	5 acres	TMK 4-9-2:1p	Agriculture	Change to Business/Commercial	Same	Leave in Ag	AG
36 New Park	10 acres	TMK 4-9-2:1p	Agriculture	Change to Park	Same	Leave in Ag	AG
37 New Town Buffer	large area	TMK 4-9-2:1p	Agriculture	Change to Open Space	Same	Leave in Ag	AG
38 Airport Direct Control	240 acres	TMK 4-9-2:1p, 41 Special controls for	Agriculture & Airport	Proposed after CAC process	Add Special Control District with 60 LDN line boundary	Same	CONTROL DISTRICT ON LAND

District		noise & uses					USE MAP
39 Lumber Yard	1.1 acres	TMK 4-9-13:34	Park	Proposed after CAC process	Proposed after CAC process	Change to Business/ Commercial	B/C

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40 First Assembly of God Church	0.5 acres	TMK 4-9-14:9p	Heavy Industrial & Open Space	Proposed after CAC process	Proposed after CAC process	Proposed after CAC process	P/QP
41 State Business/Commercial	10	TMK 4-9-2:1p	Agriculture	Proposed after CAC process	Proposed after CAC process	Proposed after CAC process	B/C
42 State Light Industrial	15	TMK 4-9-2:1p	Agriculture	Proposed after CAC process	Proposed after CAC process	Proposed after CAC process	LI

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