

**HAWAIIAN ACRES
MASTER PLAN**

BY: HAWAIIAN ACRES PLANNING COMMITTEE

1999

TABLE OF CONTENTS

HISTORY OF HAWAIIAN ACRES PLANNING..... 3

ACKNOWLEDGMENTS..... 4

INTRODUCTION & BACKGROUND INFORMATION

 Introduction..... 5

 History of Hawaiian Acres..... 6

 Assets & Liabilities..... 7

 Water Issues..... 8

 Geological & Native Features..... 8

 Natural Hazards..... 9

 Manmade Threats..... 10

 Agricultural Options..... 11

Economic Assessment & Zoning Issues.....	12
Road Needs & Options.....	14
MASTER PLAN	17
Roads & Transportation.....	18
Water & Sewage.....	20
Land Use & Economics.....	21
Public & Community Services.....	23
Utilities.....	25
Housing.....	26
Environmental Quality.....	27
Natural Hazards.....	29
Population Growth.....	30
Financial Implementation.....	31
FUTURE REVISIONS.....	32
APPENDIX	33
Maps: Road Plan (10	
year).....	
.....A-1	
Facilities Plan (10	
year).....	
.....A-2	
ACRONYMS	34
REFERENCES.....	35

HISTORY OF HAWAIIAN ACRES PLANNING

This planning draft has been over 3 years in the making. In 1992-93 Hawaiian Acres Community Association's (HACA) first planning committee was called Hawaiian Acres Planning Committee, later changed to Parks and Planning. It never got off the ground with an actual plan. The reason was simple, lack of interest and incentive.

The 8 Rd. Puna Emergency Access Road project changed that. The concept of a public highway splitting the largest subdivision in Hawaii (and possibly on earth) is an ominous prospect indeed, to a lot of residents. One thing for sure, it divided our community. Two positive aspects of this controversy were an increase in community participation and an actual plan evolved. It's a valuable asset when you have a community that cares. But as often happens, the community felt betrayed, helpless, frustrated, and began to lose their momentum due to political bickering and lack of consensus.

At one meeting, a motion was made and passed to change the committee name to "Master Plan Committee", and make it a standing committee. It consisted of a small core group that truly observed the big picture. It was as if we, the largest subdivision, were actually similar to the small duck on a big pond analogy, with the tempest of change bearing down upon us. There we were with no plan for the future. With the determination of taking the proverbial bull by the horns, we stuck it out. We researched and compared ourselves to other like entities. We realized we could do this. We did.

Part of accepting change is knowing that change may very well be the only true universal constant. Planning is most definitely the first thing to be impacted by the winds of change. Changes require or necessitate planning.

So here we are, ready to embrace the future, influence it and mold it with our best possible working plan. A plan that helps to insure the survival of humanity and the natural world. A plan that embraces environmental awareness, sustainability, progressiveness, adaptability, conservatism, new technologies, democracy, etc. A plan that will be a model for other unplanned communities. A plan for tomorrow. A plan for our descendants, as well as ourselves in our golden years. But always subject to the vagaries of change.

We know this plan is not perfect. Therefore we will welcome and consider any new concepts, ideas, or methods, etc... that we may have overlooked.

In a true democracy, the governing power represents the majority and/or the most people possible. In our planning efforts, the survey respondents were a determining factor in how we approached our goal.

Jack Russell Brauher, Planning Chair
HACA Vice-President
Volunteer Fire Dept. Assistant Chief

ACKNOWLEDGMENTS

We certainly would not have gotten started on this plan without Bob and Julie Jacobson. The hours that they put in doing the survey tallies and attending community meetings, working on the drafts of this plan and donating the use of their computer are too numerous to count. They both are truly selfless when it comes to their community. They are priceless to Hawaiian Acres.

A heart warming Mahalo! to Alice Suncloud who came to our rescue and provided last minute research on land use, grammar and punctuation corrections, etc. Alice continues to prove herself a positive asset to our community.

Mahalo! to Lia Jones for her invaluable contribution in the form of our road and community facilities maps. The spirit of volunteerism is alive and well in Lia!

Mahalo! to Roberta Brashear, HACA President, for her persistence and drive.

Mahalo! to Dave Taylor, ex-HACA president for arousing our awareness and being instrumental in getting the actual planning process rolling.

Mahalo! to the three HACA councilpersons who submitted vision statements on Hawaiian Acres' future. We regret that the remainder of the council did not see the value in stating their personal visions. Mahalo President Brashear, Area 4 Rep. Pete Epperson, and Area 2 Rep. Bob Jacobson.

Mahalos! to Ken, Nicole, and Roy Charon for their input on youth opportunities.

Though there were more than the following individuals involved in some aspect of planning, a Big Mahalo! goes out to Laurie Saarinen, Bill McClellan, Bill Brundage, Lorraine Penfield, Earl Dunn, Scott Gilbert, Lori Adewlewski, Glen Makuna, Carol Yasui, Paula Weich, Kent Hindes, Stephanie Bath, Tom Hoey, Karen Blue, Sandy Margriter, and all the faces that came and went during our meetings.

INTRODUCTION AND BACKGROUND INFORMATION

Introduction

The residents and landowners of Hawaiian Acres, after reviewing The General Plan Hawaii County (GPHC) and the Puna Community Development Plan (PCDP), feel they have been left out of the planning process. Hawaiian Acres Planning Committee and Community Association has wholeheartedly rejected the PCDP, as even the Hawaii County Council did when they tabled

it in 1996. At the county level of planning, consideration must be given to the issue of Hawaiian Acres and its right to some form of inclusion or self-determination. Both the GPHC and the PCDP were created with no input from our residents or landowners. Therefore the need has arisen for the voice of Hawaiian Acres to be heard and included by some method of self-determination. Definitions of our planning methods consist of the following:

Adaptive - Development that recognizes humans have survived by changing our behavior to meet new conditions, not by trying to keep the environment stable. Devotion to resources with the goal of improving our capability to cope with inevitable but largely unpredictable changes. Adaptive development recognizes current buzzwords of development rhetoric such as diversity, local initiative, empowerment of stakeholders, and human resource development.

Sustainable - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept that individuals, corporations, and nations can synchronize their economic activities with the environment to ensure that future generations will enjoy the same natural amenities (clean air and water, abundant forests, fertile farmlands, and the aesthetics of nature) as our own generation enjoys.

Progressive - Development that aggressively seeks positive outcome and accomplishment.

Conservative - Development that proceeds with complete caution or apprehension due to uncertain outcome. This could also be defined as no change desired.

Preventive - Development of planning measures that are preventive in preparation for natural hazards.

In today's world , with its uncertain and fluctuating economics, politics, environmental quality, meteorology, and in the case of the Puna subdivisions, geological unpredictability, adaptive development must continue to be part of a realistic plan. Adaptive development is wise, prudent, and realistic.

At times throughout this document, we will refer to 2 surveys conducted by our association members. Background information, survey results, and raw data are in the appendix. We strongly recommend that you familiarize yourself with the appendix. This information is available to planners upon request for use in other such surveys. The community was consulted as this survey was constructed. A debt of gratitude is owed to all those that helped.

This introduction will include some history as well as some of the conditions and situations that affect our current lifestyles.

History of Hawaiian Acres

Little is known about the Hawaiian Acres area before 1900. It is known that the forested areas of this region were used by native Hawaiians for hunting and traditional gathering of food and medicinals. Because sandalwood once grew in these forests, it can be reasoned that post-European contact saw the harvest of such. Bird feathers were a much utilized resource of the Ola'a forest. Feathers were sought for making cloaks and helmets for the Ali'i, as well as for religious purposes.

Some traditional Hawaiian burials, usually royalty, utilized lava caves. If any other archaeological sites exist in Hawaiian Acres, they are unknown to Hawaiian Acres Master Plan Committee (HAMPC). We urge landowners to report to the proper agencies any findings that could be of archaeological value.

The mauka border of Hawaiian Acres follows the old Volcano Trail. Work has been performed in recent years to reestablish this trail for the use of those interested.

In 1958, two businessmen from Denver, Colorado, Glen I. Payton and David F. O'Keefe organized a Hawaii corporation called Tropic Estates. They purchased 12,191 acres of land between Kurtistown and Mountain View from Big Island politician and businessman, Robert M. Yamada. The land was divided into 3,944 lots, and put on the market for \$500.00 to \$1,000.00 per lot, with terms as low as \$150.00 down and \$8.00 per month. The project was named Hawaiian Acres. The lots sold very well. 5 lots were later divided into 14 smaller parcels, which, including the road lot, made the total 4,010.

Hawaiian Acres became the first of many speculative subdivisions to be created on the Big Island. This subdivision boom continued until its end in 1975. There was never any plan to provide infrastructure, should the demand arise as a result of these subdivisions filling up. It was even suggested by a Hawaii County planner to have the county buy up these lots. The reasoning stood, that should these subdivisions reach build-out, the county could go bankrupt providing the required infrastructure. It was an ominous economic forecast indeed. As it developed, few people actually resided in Hawaiian Acres in those early years. Though the lots sold well, few would find the rustic nature and rural lifestyle suitable. The type of people to make such a lifestyle change and commitment were either those that could afford nothing else, or those that sought the relief and seclusion from the ever maddening urbanization of Oahu or the mainland, from which many made their pilgrimage.

Assets & Liabilities

The people who endure and flourish in this rural environment love and respect the treasure they have found. The people who live here are our greatest, most inexhaustible asset. The absence of modern amenities separated the dreamers and wannabes from the doers and pioneers. As the years passed, the trend that attracted those pioneer-spirited people continued, and does so to this day. The differences between the early day pioneers and the recent arrivals are simply the differences that modern

technology has had on society in those 30 plus years. Those who came in the beginning could expect slow police and fire response, no electrical service, poorly maintained roads, water catchment, poor communication systems, outhouses, and distant neighbors. Today, with community maintained roads, improved police and fire response, our own volunteer fire department, a working neighborhood watch program, an emergency response team, the availability of alternative energy, satellite television, modern communication systems, refined water catchment techniques, and cesspools, many can make the move in comfort.

Hawaiian Acres is a great place to seek the good life. It offers privacy, abundant rainforest and rain (130" to 200" per year), scenic vistas of 2 active volcanoes (Pu'u O'o and Mauna Loa) as well as the inactive Mauna Kea, sweeping views of the Pacific ocean including ocean sunrises, predominantly clean air due to the tradewinds, access to state land for hunting and traditional gathering of medicinal herbs, and reasonable insulation from the dreaded city life that most came to escape. Hawaiian Acres, under the state land use laws, is a designated agricultural district. It is comprised mostly of 3 acre lots with a few larger and a few smaller. Of the 72 miles of roadway(352 acres), less than 10 miles are paved. Landline telephone service is available to about 90% of the subdivision; cellular phone service is available to the rest. Electrical service is estimated at 75%. Most residents employ alternative energy in some way or another. Examples are solar electricity (a.k.a. photovoltaics), solar water heating, and generator production of power, etc.

Water Issues

All Hawaiian Acres homes use some type of rain catchment to obtain their supply of household water. Some residents haul in their drinking water if their catchment system is substandard or without purification capability, or if the quality is questionable due to rodent, avian, or vegetative contamination.

The high rainfall normally experienced in Hawaiian Acres is both a resource and a potential hazard, if proper management of this resource is not done uphill in Mt View and other mauka areas (see Manmade Hazards). With water conservation, care, and proper sized water storage tanks, residents can withstand lengthy droughts.

The survey indicates that most owners were unwilling to pay the \$18,000+ cost estimated to install water service to each lot. Currently there is also the lack of a reliable source to service new hookups.

Geological & Native Features

At an elevation of 650' to 1350', most of Hawaiian Acres sits on lava flows that range from 200 to 750 years in age. Some G Rd. lots are on flows that date to 3,000 years in age. The predominant vegetation or flora consists of Ohia forest interspersed with Hapu'u (tree ferns), Uluhe (false staghorn ferns), and the introduced Guava and Tibouchina, as well as numerous other less obvious native and introduced species.

The natural wildlife or fauna, consists of the rare Ope'ape'a (Hawaiian Hoary Bat), and the endangered I'o (Hawaiian Hawk), as well as endangered honeycreepers that visit from higher elevations. The latter may be reestablishing their presence here, which was their natural habitat prior to the introduced avian malaria and pox that significantly reduced their once healthy populations. Introduced species of fauna include wild pigs, mongooses, and numerous avian species of which some are agricultural pests.

Hawaiian Acres has some unique geological features, including, most notably, its numerous lava tubes and caves. Some if not all have unique inhabitants that have evolved within, and are found nowhere else on earth. Our goal will be to have these species listed as "endangered". Kazumura Cave is now known as the world's longest lava cave, at nearly 40 miles in length, with several entrances within the subdivision. A few caves are yet to be discovered, as entrances can be small and well hidden. These lava caves are deserving of some form of legally binding protection due to their educational, cultural, and utilitarian value. For a more complete study on the cave issue, the report of the Hawaii and the National Speleological Societies entitled "Resources, Values, and Management of Puna Caves" by William R. Halliday is essential. Other geological features would include tree molds, deep cracks, collapsed lava bubbles, and collapsed lava caves. The latter two are hosts to pockets or islands of vegetation that over the years have been protected from forest fires, thus enabling native vegetation to survive and reach a climax condition.

Natural Hazards

Both the GPHC and the Hawaiian Acres Master Plan should give full consideration to the unstable geological nature of the land underneath. They should also attempt not to repeat what has happened to Royal Gardens (see Sub-dividing The Lava Fields, chapter 8, in LAND AND POWER IN HAWAII, by George Cooper and Gavan Daws). Should we not heed the lessons learned from Royal Gardens, the damage and losses will surely be severe, costly, and magnified in comparison. The likelihood that our best plans could be changed by geological events of major or minor proportions will persist throughout our lives and those of many generations of our descendants.

The most significant geological features affecting Hawaiian Acres future are the same as those from which it was created -- lava flows and earthquakes. Hawaiian Acres sits in Lava Hazard Zone 3. Lava Hazard Zones are rated on a scale of 1 to 10, with a number 1 rating as the most hazardous. We are in Seismic Zone 4, which is the same as California. By these scales, it would appear imminent that Hawaiian Acres will be affected by lava and earthquake activity. How far into the future is unknown. The latest scientific data indicates approximately 400-year intervals for lava inundation for this area. Consider that it's been just over 200 years since the last flow. Recent studies by the U.S. Geological Survey indicate that Kilauea renews 90% of its surface every 100 years (Volcano Watch, Tribune-Herald, 1-25-1999). Earthquakes are more frequent, and a revision of the building codes attempts to prevent or minimize the impact they have on life and property. Judging by the geological history and projected future, and considering the size and areas covered by Mauna Loa, Kilauea, and Mauna Kea, it may be unwise to aggressively develop in the eventual paths of lava inundation. As it currently stands, the GPHC and the PCDP do just that: they promote maximum occupancy or build-out. Some of the lava tube caves are natural hazards and HACA should work closely with the Hawaii Speleological Society to minimize risks to life and property from unexpected collapses into the caves.

Another natural hazard to Hawaiian Acres that deserves attention is the effect of vog (volcanic gases). The predominant wind patterns, or tradewinds, push these noxious gases away from the Puna subdivisions more often than not. The winter weather pattern has the tendency to have a reversed wind direction, known as Kona Winds. During these reversals, Hawaiian Acres has been immersed in the resulting vog for weeks at a time, during which the visibility can be limited to as little as one half mile or less. At these times the vog is thick enough to taste, thus irritating one's mucous membranes, as well as one's eyes; and Civil Defense warns to stay indoors and avoid smoking and strenuous activities. The health effects of volcanic emissions are a topic of concern in areas of geothermal energy production. Though these particular emissions are small in comparison to the vog, they are monitored and studied closely. There is now a VOG HOTLINE in operation, which gives a daily reading. This has a scale of 1 to 10, with a 10 being the most serious. As of this writing, no testing stations are available for Hawaiian Acres, though attempts have been made in the past.

On the subject of weather, and as previously mentioned, the rainfall can and has reached hazardous levels. The annual rainfall here passed the 200" mark for a very recent year; and as recently as Aug. of 1988, one day alone, 28" was recorded. Rain like this and even lesser amounts, can and does cause flash flooding. Despite these potentially hazardous times, Hawaiian Acres does depend on the heavy rain to fill depleted catchment systems. Typically, winter is the dry season. The weather phenomenon known as El Nino can and does extend the dry season into spring. During this time the drought conditions become serious, the most severe conditions being fire hazards and shortage of water. The drought of early 1983 resulted in the biggest fire in Hawaiian Acres history. About 3500 acres were consumed by the fire, with half of that amount in Fern Acres. Another effect of the droughts is the increase in water tanker traffic, as residents are left with few choices for obtaining water. At this time the county-provided water spigots in Kurtistown and Mt. View become busy with the residents that do not have sufficient water tanks and can't afford the cost or the wait to obtain a tanker load (\$100-\$200) (Note: the cost of occasionally having to haul in water may be more affordable than the cost of county-provided water, estimated at \$18,000.00 per lot). Hurricanes, though a significant threat, have never been recorded to have impacted Hawaiian Acres with a hit. Tropical storms do present a direct hazard with high winds.

In response to these threats, surveys from the community call for no increase in ambient pollution levels by new heavy industries.

We have also identified the need to deal with evacuation and public safety issues on a larger level to develop a unified approach to such threats. We will seek to augment existing civil defense and public safety programs when needs are identified.

Manmade Threats

Manmade features that have a significant impact on Hawaiian Acres include a series of water diversion walls that total over one half mile in length and up to 12' in height, that channel water into the subdivision. This channel receives overflow from the Mt. View Drainage Project developed by the county and state. The overflow can and has reached five feet or more in heavy rains. These walls were built by Ola'a Sugar Company (AMFAC) starting in 1938, to divert floodwaters away from sugarcane fields along the Mauna Loa - Kilauea boundary into what was then considered wasteland. W.H.Shipman then owned this which was used for cattle, but was later to become Hawaiian Acres. The original developer of Hawaiian Acres became involved in litigation with AMFAC regarding the diversion walls just after the time of subdivision. AMFAC purchased the lands under and around the walls shortly after but has since sold almost all of them. The unpredictability and poor foresight regarding this flood channel is due to policy failures as well as it is from related geological features. The state and county are currently planning to divert even more rain runoff from the Mt. View watershed into the South Kulani channel where it enters Hawaiian Acres, with no plan of what to do with it when it reaches this point. This unpredictability also increases the risk of planning and/or development for all landowners in the vicinity. There is some concern that

the cemented wall will eventually break apart due to tree roots and lack of maintenance. If this should happen, what is already a problem could become even more serious. At this writing, the county has a proposed Emergency Access Road Project to take the route of 8 Rd. through the worst flooding zone. The proposed design or lack of, is one source of contention among the residents of this area and the users of 8 Rd.

The community seeks to work with the state, county, and private landowners with diversions on their land, and those affected downstream.

Helicopters carrying tourists on their way to view the eruption activity, are a continuous sight to the residents of the subdivision. Though tourist helicopter overflights are disruptive at times to the peace and quiet and privacy of the residents, the disruption is minimal when compared to overflights by law enforcement agencies in their search-and-destroy marijuana efforts. These enforcement activities severely encroach upon the privacy of law-abiding residents.

Recommendations from the community involve a variety of approaches for dealing with overflights. Most residents are more accepting of higher altitude flights. Low level flights are a hazard. Helicopters and planes have crashed in Hawaiian Acres, one crash narrowly missing a resident's home, and some crashes resulting in casualties and death. Some discussions with the commercial operators who profit from this activity have been held. Some residents want to ban commercial over-flights of residential subdivisions. There is a private airstrip in Hawaiian Acres.

Surveys from the community call for no increase in ambient pollution levels by new heavy industries, especially in view of the natural background emissions mentioned under Natural Hazards.

Alien plant species are a threat to native species, mainly due to poor agricultural practices. A planning goal will be to educate residents and lot owners on this subject.

Agricultural Options

Though some consider the soil in Hawaiian Acres to be of poor quality, there are known to be pockets of well-balanced, and relatively abundant, fertile soil. Numerous agricultural ventures exist.

The current agricultural activities in the subdivision consist of coffee, macadamia nuts, citrus, guava, papaya, anthuriums, ginger, orchids, roses, mushrooms, palms, bananas, and various diversified fruit and foliage farms. Other agricultural ventures also exist. An example would be the existing equestrian facilities. Subsistence farming plays a role in the agricultural diversity of Hawaiian Acres. The residents that are involved do so as an attempt to be independent, or less dependent on the mainstream economic system, or because of the mediocre job market. Though the subdivision was once cattle land, today few residents raise cattle. Those who do, do it mainly for self-consumption, or to fertilize and build the soil. There are also sheep, pigs, game birds, chickens, ducks, geese, rabbits, and goats raised by the residents, mostly again, for subsistence

purposes.

Hawaiian Acres is home to one of the most successful goat farms in the Pacific region. It is a producer of fine goats' cheese and milk. Ku'a oko'a farm owned and operated by Steve, Karin, and Aza Sayre, supplies fine restaurants throughout the state with some mainland distribution as well. Their products are very often the subjects in culinary publications and magazine articles on dining out in Hawaii. Hawaiian Acres would like to see more successful agricultural ventures of this nature, with variety as a goal.

There are a few small aquaculture projects underway, but none are known at this time to be of any significant commercial value. Probably, the impeding factor to successful aquaculture here is due to the absence of public water, or because of the high cost of building the appropriate tanks or ponds. We certainly have the rainfall; it's just a matter of catching it and keeping it.

Recommendations from those surveyed include expanded agricultural production, value added Ag products, and permaculture. Most are optimistic about our Ag potential, despite limited water infrastructure. To maintain our zoning as agricultural, residents and owners must keep a majority of the land in agriculture or native forest. If we are predominantly residential, rezoning becomes an issue. The Hawaiian Acres planning committee suggests that lot owners keep this in mind as they develop or preserve their land, if owners wish to continue our current zoning.

Economic Assessment & Zoning Issues

Though agriculture is the legal land use, Hawaiian Acres is to some degree a bedroom community. A significant number of residents occupied outside of agriculture commute to Hilo or other locales for employment. This is to be expected, considering the job market available. More occupations within the community will be a goal of our planning process. Considering the results of our survey of landowners and residents, care should be taken not to change the rural nature, the agricultural zoning, or the potential positive and harmonious composition of our community. There are tremendous differences in the education and socioeconomic levels of community members. However, this has been a strength, not a dividing force for Hawaiian Acres. A healthy diversity of people makes us strong. Any attempts to either gentrify Hawaiian Acres or warehouse large concentrations of the poor in Hawaiian Acres, would be opposed by this current planning committee.

A few concepts that some feel would work harmoniously with agriculture may include: equestrian academies, light repair shops, home businesses, small-scale woodworking shops, art studios, ecotourism, and bed and breakfast facilities. This type of diversity would widen the array of available occupations within, thus enabling us to reach a level of sustainability.

Currently, we have some enterprises that are in violation of zoning codes. We would like to bring these operations into compliance by

encouraging the county to grant Special Use Permits for these operations. Because the owners of these operations were some of the previously mentioned pioneers, they were left with few choices for creating their economic futures. Their services are those that were created by the laws of supply and demand. Some examples of Special Use Permits some feel are needed, would be for businesses such as light industry, auto and tractor repair, welding shops, and farm and home necessities such as water tanks, septic tanks, cesspools, and other services that cater to or supply agriculture.

Results of surveying the landowners indicate a majority opposed to any heavy industry or large commercial operations other than agriculture. Our planning process fully intends to honor and represent the desires of this majority. We intend fully to preserve our sense of community, and to not lose it to over-development and overcrowding.

Recommendations from the community include keeping density low with no change in our zoning from Ag 3. 81% of residents responding to the survey wanted no change in Hawaiian Acres' state agricultural designation or county agricultural zoning.

Recommendations from the survey suggest special permits for small industries are considered more acceptable than village commercial zoning. However, strict notifications and protections such as some form of contested case hearings must be included for residents' protection.

Other economic goals identified in our survey process include: maintaining the high percentage of home ownership enjoyed by Hawaiian Acres residents, keeping property taxes low, and making it possible for those who live here now to remain here without economic hardships being applied.

Road Needs & Options

The issue of roads in Hawaiian Acres is complex and subject to controversy as well as differences in interpretation and opinion. There are as many opinions on how to deal with the roads as there are roads in the subdivision. It is very true that our residents expect to be able to travel these roads in a safe and expedient manner, and rightly so. But many cherish the privacy that comes as a result of unimproved and private roads. Many prefer and favor the privacy over "improved" roads, a significant number, ascertained from the surveys conducted by the community association in recent years, and by the simple fact that only about 25% of the landowners contribute to the road fund.

The roads were the seed that the Hawaiian Acres Community Association (HACA) grew from. Even though the tree that grew from that seed has spread out branches of other interest, the roads remain one of the biggest issues. When the Hawaii County Planning and Traffic Commission approved the subdivision in May of 1958, it imposed several conditions the subdivider was to meet. Those conditions that pertained directly to the roads are as follows:

1. Roadways be kept in private ownership until improved to conform to subdivision standards.
2. All interior lots are granted a perpetual easement over the said private roadways.

When the commission met in June of that same year, it voted to recommend that the developer consider the construction of drainage facilities necessary for the proper use of all the roadways within the subdivision and for the public safety. To this day the only condition that has ever been met to any degree of satisfaction, is the perpetual easement. The roads have never come close to meeting the subdivision standards. If they ever do, it would require funds that are currently unavailable and would be years away. A solution would be to change the current standards, and attempts to do so are being made at this writing. Also, the drainage problem, due to the aforementioned water diversion walls, has had a continuing premature wear effect on all the roads the diverted water crosses, particularly 8 Rd. HACA has spent considerable funds on the maintenance of this stretch of road.

The legal interpretation of who is responsible for the roads has resulted in many community, court, and HACA council battles over the years. In 1985 and 1993 (two different councils) HACA tried unsuccessfully to resolve the issue by pursuing Mandatory Road Fees (MRFs) through the court system, as other Puna subdivisions have, some successfully. In 1989, a Hawaii Supreme Court handed down a decision that said, "The owners and users of private roads are required to pay for the maintenance" (case 6595). But, in the 1993 attempt to institute MRFs, Judge Riki May Amano dismissed the case on the grounds that the 1985 attempt was rejected due to a legal technicality called "with prejudice", which indicates that to successfully institute MRFs, an individual or a group of landowners, not HACA, would have to file suit. Because the 1993 case was rejected at the start, other significant aspects of the issue were never addressed. One of

these was the perception that MRFs would in essence constitute a double taxation. This logic lies in the fact that fuel taxes are the main source of funds for road building, maintenance, and improvement; and to have a private organization collect MRFs would and could be perceived as double taxation. The issue of disproportionate tax use in Hawaii, where the private subdivisions are concerned, is a major factor leading them to produce their own revenues. This has created some legal, organizational, and management problems. These problems have at times been given to ill-equipped private groups governing a large amount of lot owners, who felt underrepresented and frustrated with the decisions being made for them. Many lot owners were concerned about MRFs. Failure to pay would result in property liens that would ultimately result in foreclosure. Management would be in question, because what steps would be taken to prevent graft, collusion, kickbacks, and embezzlement? How would the funds be spent? Who would control them? and who would authorize the work to be done? When Hawaiian Paradise Park sought to collect MRFs, this issue reared its ugly head. Ultimately the solution was to have an outside professional management agency. This solution would be Hawaiian Acres' solution as well, should MRFs be pursued again.

A Land Court decision has rendered the attempted county takeover of 8 Rd., 1/3 mile of F Rd., and about 1/2 mile of 9 Rd., nil. The county and a vocal group of residents have attempted to create a county highway through this private subdivision. This project has been a source of contention for over 3 years, and has split the community into fragments regarding the issue of what is the best solution for dealing with the rapidly deteriorating 8 Road. At the onset of the project, it was called the Puna Emergency Access Road (PEAR). After much public testimony at County Council meetings, the word "Emergency" was dropped from its name. The term is still used, however, to win public support. For the project to proceed without the additional cost of condemnation by way of eminent domain, the county devised a term called "an implied dedication"; but there was not the required 51% of landowners in favor. The county's Corporation Counsel submitted to the Land Court a petition to subdivide Hawaiian Acres' 352-acre road lot into 3 separate lots. In this petition the county claimed ownership of the road lot in their request to subdivide for the PEAR project. The State Land Court rejected the county's submitted plan. In their letter of rejection the Land Court states, "There are various Land Court registered owners that have an undivided 1/3944th interest in lot 6213; all owners must join in." Despite the fact that the County Corporation Counsel had drafted the petition, their attempt failed. Condemnation would require the county taking all 72 miles of the roads as opposed to the approximately 6 miles the project would have required. The cost of condemnation and maintaining 72 miles could be cost prohibitive.

A positive solution to this dilemma would be the improvement of the county-owned connector lot, and retaining private ownership of the Hawaiian Acres road lot. This solution could result in a county/community, private/public partnership, surely an affordable and acceptable concept. In these times of county financial deficits and general lack of funds, this is an appropriate solution.

Because the county owns 1/3944th interest in the road lot, they

contend they have a right to proceed with the widening and paving of the project, and they have done so. Liability issues are forthcoming.

Without a county road dividing Hawaiian Acres, the surrounding communities can now enjoy the safety of having an emergency evacuation route.

Because of a pending lawsuit resulting from an auto accident on 8 Rd., HACA has formed a separate road corporation known as Hawaiian Acres Road Corp. (HARC).

Survey results show residents want to retain ownership of their roads. Opinion was divided concerning the 8 Rd project.

70% of the residents oppose the use of tax increment financing to pay for improvements in infrastructure. This attitude should limit quick upgrades of our infrastructure.

HAWAIIAN ACRES MASTER PLAN

Goals, Policies, and Standards

1. Roads
2. Water and Sewage
3. Land Use
4. Public Services
5. Utilities
6. Housing
7. Environmental Quality
8. Natural Hazards
9. Population Growth
10. Financial Implementation

1. Roads and Transportation

Type of plan: Adaptive

- a. We will retain our private roads and maintain them with some improvements.
- b. We reject plans for any county or state roads through Hawaiian Acres, including the proposed "central subdivision corridor", which is routed along E Rd. in Hawaiian Acres. The State of Hawaii Department of Transportation (DOT) has recently rejected a proposed plan for a state highway through Hawaiian Acres; and we respectfully request that the county amend the current County General Plan to omit proposed county roads, including the "central subdivision corridor", that bisect Hawaiian Acres against the expressed wishes of the majority of lot owners. In addition, we recommend against the county's acceptance of the DOT's Puna Circulation Alternative No.4, described in the Hawaii State Long Term Transportation Plan as including a Komohana-to-Kurtistown extension. That extension, if constructed, might encourage the further construction of a state highway through Hawaiian Acres subdivision, which we would reject on the basis of our survey results.
- c. We support increasing incentives to lot owners to volunteer monies.
- d. We support Mandatory Road Fees (MRFs) or alternatives to MRFs, with well-defined and fair methods of enforcement, collection, and control of funds. For purposes of accountability and consistency with democratic principles, voting on fee decisions and other road decisions should be free to all those charged with mandatory fees, regardless of fee payment history or community association membership.
- e. We support improved road signage.
- f. We support gating (that does not deny access to residents) and the accompanied private property rights in accordance with county, state, and federal law (Hawaiian County Code, sec.22-7. Hawaii Revised Statutes 520-1. U.S. Supreme Court cases, Rak Vs. Ill. 439-US-128, -99-S-Ct.-421-58L-Ed-2d-387, Ruckelshause Vs. Monsanto Co. 467-US-986, -104-S-Ct.-2862-81Ed-2d-815, Russello Vs. U.S.A. 464-US-16, -104-S-Ct.-296-78L-Ed-2d-17). Benefits of gating include retention of property rights over private roads, reduction of criminal traffic, and the possibility of closing gates (by community watch) to help the Hawaii Police Department trap suspects.
- g. We support the widening of 8 Rd. and 1 Rd. to two lanes and pavement to accommodate school buses and morning/afternoon traffic.
- h. We support paving one lettered road, with community approval.
- i. We support installing culverts in flood zones.
- j. We support the designation of equestrian use roads.
- k. We support the promotion of pedestrian and bicycle safety by designating lanes and installing appropriate signage.
- l. We support instituting weight limits for heavy truck traffic or assessing impact fees.

- encourage car-pooling or ride sharing and provide for such.
- m. We will parking
- n. We will
- support and encourage public buses and bus stops.
- o. We will leave several lettered roads unpaved but with minor maintenance for pedestrians, joggers, bicyclists, and equestrian use.
 - p. We support the correlation of planning with knowledge about lava tube caves. "Blind hills" consisting of ridges containing lava tube caves should be eliminated by building up the approaches rather than cutting down into them.
 - q. We support the restriction of thru commercial traffic on the Puna Access Rd.
 - r. There are no solid commitments to any of the proposed road designs. These road plans (see attached map) are subject to change due to community input or community opposition.
 - s. We support the gating of the entrance roads one day per year to meet the criteria of what is legally defined as private roads.

2. Water and Sewage

Type of plan: Sustainable and progressive.

- a. We will retain individual household rain catchment. Common sense dictates that residents, when given the option, would choose to have extra water catchment capacity as opposed to county water and its cost to the individual and the community.
- b. We support obtaining a community-owned water tanker that could subsidize community development funding, with discounts to HACA members and contributors to road maintenance funds.
- c. We support providing private or county water lines without mandatory hook-up and without visual impacts of over-the-ground lines. Cost of project would be paid only by those wanting such service. (The most recent estimate per lot, for municipal water, is \$18,000.00 per lot.)
- d. We support construction of county, community, or county/community partnership water wells, or have large water tanks available to residents. Current Dept. of Water Supply plans call for exploratory wells near 1 Rd. and E Rd. They estimate the aquifer to be about 400' below the surface.
- e. Some residents advocate making a large reservoir at the top of Hawaiian Acres to draw from for fire and emergencies. Costs would still be substantial. With water and soil conservation agency assistance or grants, and community help, this may be practical. We support building a reservoir where the diversion walls currently exist.
- f. Wastewater is managed at each residence in the form of cesspools, self-composting toilets and other methods. There is no central line or treatment facility. If population were allowed to increase significantly, different wastewater standards would apply. Upgrades would become mandatory.
 - 1) We reject county sewers.
 - 2) We support retaining cesspools & septic systems with health code enforcement. Planning of septic tanks, cesspools, etc. should correlate with knowledge of lava tube caves. Wastewater should not be channeled into lava caves. We support stringent controls.
 - 3) We support and encourage the installation of composting or anaerobic toilets for new homes. We support further education of our residents on this subject.

Survey results show the majority of respondents opposed to municipal water. Therefore this Planning Committee rejects the Central Puna Water Master Plan's main line through Hawaiian Acres.

3. Land Use - Economics

Type of plan: Sustainable, Progressive, and Conservative.

Land Use and Economics are inseparable in a true agricultural community. Special permits that do not distract from the agricultural theme will be a goal of our long term planning. Hawaiian Acres was never intended to be anything other than agricultural. Nothing in the initial concept of subdivision provided for commercial development, such as was planned for Hawaiian Paradise Park. It is a goal of our planning process, in order to retain our existing integrity as a large agricultural subdivision, to promote the commercial revitalization of Mt. View, Kurtistown, Keaau, and the Hwy. 11 corridor.

- a. This Master Plan retains our state agricultural designation and county agricultural zoning, and we encourage conformity to the permitted uses. We also encourage a limited number of special permits for non-nuisance, non-polluting light industry, home occupations, farm vehicle and light repair shops, bed and breakfast establishments, limited eco-tourism of lava caves that meet the approval of the Hawaiian Community and are of no archaeological value, as well as other services that cater to or supply agriculture. We recommend that residents whose occupations do not comply with both state land use laws for agricultural districts (see Hawaii Revised Statutes, Chapters 201-205) and county agricultural zoning (see county zoning code, Sec. 25-5-72) apply to the County Planning Dept. for a special permit as soon as possible. Since the county code may allow uses which the state land use laws do not allow, it is advisable to speak with a State Land Use Commission representative for an authoritative opinion regarding whether or not your occupation requires a special permit (call 808-507-3822). All special permits for "home occupations" or "bed and breakfast" establishments as defined in the county zoning code (Section 25-4-7 and section 25-4-13 respectively) that meet state standards for special permits and are not opposed by neighboring residents or lot owners are acceptable to this Master Plan. Special permits for any occupations other than "home occupations" or "bed and breakfast" establishments are not acceptable unless the applicant can show that he/she has practiced that occupation on that property since 1995 or before, and there are no valid objections from neighboring lot owners. We encourage enforcement of all land use, health, and environmental laws.

b. We

support and encourage diversified agriculture. Diversity promotes sustainability.

- c. We support and encourage environmentally friendly, sustainable agricultural practices, possibly by covenant. Example: Organic produce commands a higher retail value as well as the health benefits.

accompanied

- d. We support restrictions on excessive herbicide

and pesticide use, due to its wind-borne intrusion of water catchment, organic and subsistence gardens, neighboring homes, etc., possibly by means of restrictive covenants.

e. We support the creation of a farmer's co-op as a viable method of bringing Ag. products to market for the larger scale producers.

f. We support the creation of a farmers' market for smaller scale producers.

g. We support the creation of tax breaks for subsistence farmers and landowners that wish to dedicate their land for conservation or preservation of native forest.

h. We support protecting the rights of property owners and instituting restrictive covenants accordingly.

i. We recommend that Hawaii County planners include sustainable agriculture in the GPHC.

4. Public and Community Services

Type of plan: Adaptive, Sustainable, and Progressive.

- a. Police services are currently based in Keaau, approximately 5 to 10 miles distant. Hawaiian Acres currently has an effective Community Watch Program (HACWP) that works as the eyes & ears for the Puna police. It is the desire of the HACWP to have a police sub-station within the subdivision. The county-owned connector lot on 9 Rd. is the chosen location by HACWP. However at this time the current population and county budgetary concerns probably does not warrant or justify such.
- b. County fire services are currently based in Keaau, approximately 5 to 10 miles distant. When the population requires such, a manned fire station will be mandated. Hawaiian Acres currently has a Volunteer Fire Dept. (VFD) trained and supplied by the county, the community, and by donations. This is a very effective public and community service. Hawaiian Acres plans to expand this critical service due to the large size of the subdivision. Plans for the future include a 20,000 gal. water tank (from the county) and a certified community owned water tanker truck to augment our VFD and supply water to residents at a reasonable fee during drought conditions.
- c. Medical facilities exist in Hilo, approximately 25 miles distant. Hawaiian Acres does not plan or expect these services to be made any more readily available.
- d. Schools exist in Mt. View, Keaau, and Hilo. Due to land use allowances and current population, Hawaiian Acres does not at this time anticipate the need for public schools within. Hawaiian Acres does promote home schooling and private schools as the need arises, again subject to permitted land uses. The current public school bus traffic however does justify the need to make 1 Rd. and 8 Rd. two lanes and finish the paving to accommodate such. Hawaiian Acres will actively pursue such an endeavor.
- e. Parks do not exist at this time. Hawaiian Acres does plan to create parks within when funds become available, subject to permitted land uses and liability issues. The Volcano trail is currently being restored.
- f. Refuse collection stations are a goal of Hawaiian Acres. The nearest existing transfer stations are Glenwood, Keaau, and Hilo. The county-owned 9 Rd. lot might provide such a location. The issue of the upper subdivision needs to be addressed. Currently no sites are planned. HACA has a recycling center that has fallen into disuse. Plans are to revitalize this facility. A recyclable materials pick-up service would create an incentive for residents to participate. This location may be an option for a transfer station.
- g. Emergency shelter is currently offered by HACA's Emergency Response Committee (ERC). The ERC works in conjunction with the HACWP, the VFD, County Police & Fire Dept., Civil Defense,

and the American
is the shelter with
Fall-out shelters for
lava caves. The caves
now are known to have been

Red Cross. The Hawaiian Acres community center
an existing emergency communication system.
uses during hurricanes exist in the many
formerly designated as fallout shelters
unsuitable for this purpose.

service is currently obtained through the rental of P.O.
in Mt. View, Kurtistown, Keaau, and Hilo. The current
population of Hawaiian Acres does not justify postal delivery.
Hawaiian Acres has no plan to pursue such at this time. However,
discussion has begun regarding the placement of P.O. Boxes at the
community center. Private delivery systems are available, such as
FED-EX, U.P.S., etc.

h. Postal
boxes

i. Newspaper delivery by the Tribune Herald is in place for Hawaiian
Acres but is limited to the request of the consumer and is not a
planning goal.

center located
meetings are
some of which
county, HACWP and
Hawaiian Acres does plan to
become available.

j. Currently Hawaiian Acres has a community association
at the intersection of 8 Rd. and C Rd. Association
held there as well as other community functions,
include VFD training sessions conducted by the
ERC meetings, and food co-op functions.
expand to the upper subdivision when funds

supports some forms of mass transportation. It is in
best interest to promote the concept of public bus
if the demand arises. Hawaiian Acres also promotes
ride share parking. This could be accommodated at
community center and our future facility as well.

k. Hawaiian Acres
our community's
service when and
car-pooling or
our

l. Animal control: the future could warrant our own animal control
agent.

m. Youth opportunities: Keeping the youth of the Hawaiian Acres
community entertained is a goal of our planning process. Until
money becomes available for parks, sports fields, etc., it will be
the parents' responsibility to provide what's required. At this
time the Mt. View gym is available, as is the Kurtistown ballpark.
There are school facilities for sports at Mt. View and Keaau. Keaau
offers Shipman Park with its baseball, basketball, soccer fields,
and a tennis court. HACA's property could support a basketball
court and a skateboard facility. The HACA facility could be used
for after school programs and activities.

*Because of the subdivisions large size, HACA needs to obtain property
in its mauka area.*

The State of Hawaii owns one lot in the lower subdivision.

5. Utilities

Type of plan: Sustainable, Adaptive, and Progressive

- a. We will continue to promote and utilize independent power generation, such as homeowner financed photovoltaics (solar electricity) and solar water heating. We will promote wind power generation.
- b. We will continue to utilize the existing electrical power grid, with expansion only as needed or requested by the end consumer.
- c. Due to the nature of the resource (see references regarding Dr. Goddard's report) we would discourage geothermal production of electricity on this island until safe and economical methods are perfected to meet the challenge of our unique resource.
- d. We support and encourage the installation of Utility Inter-tie Systems. About 20 states currently have Net Metering laws that ensure excess home-generated power is traded back and forth with the local utility.
- e. We will continue to utilize existing landline telecommunications systems. We will promote competition regarding service and rates.
- f. We support bringing cable television service to Hawaiian Acres. No such service is currently available. Satellite dish service is available to those able to finance the initial cost. Wireless transmitted service from an antenna in Mt. View to owner-purchased dishes is soon to come on line.
- g. The potential for hydropower may exist in the future on a seasonal and limited scale. This scenario is contingent upon the state plan to funnel more of the Mt. View drainage into Hawaiian Acres. This particular location may be an optimal site for a reservoir.
- h. Natural gas or propane is delivered to those residents that have the capacity to store large amounts. Hawaiian Acres will promote and encourage residents to obtain such tanks. The benefits are less traffic because of the longer periods between refills, and cost savings due to bulk purchases. Oxygen deliveries are available to those requiring such.
- i. Hawaiian Acres plans to support, promote, encourage, and utilize sustainable technologies, as they become available for power production and communications in the future.

6. Housing

Type of plan: Sustainable

The current state land use laws adequately address the planning procedures for this issue. Because of our plan to retain our state agricultural designation, it is in our best interests to encourage adherence to the current state land use allowances. Ohana dwellings are not permitted in Hawaiian Acres because of our state agricultural designation. Farm Dwellings and Additional Farm Dwellings are permitted on each property, but only after approval by the county on a case-by-case basis. For example, if you have a house on your lot and you want to build just one more house, you are required to fill out an application to show that the additional house will be used only as a farm dwelling. "Farm dwelling" is defined as "... a single-family dwelling located on and used in connection with a farm, including clusters of single-family farm dwelling permitted within agricultural parks developed by the State, or where agricultural activity provides income to the family occupying the dwelling" (H.R.S. 205-4.5). Farm Dwellings and Additional Farm Dwellings are acceptable to our plans. However, in our efforts to keep growth in check and at a sustainable level, we would limit dwellings to one Farm Dwelling and one Additional Farm Dwelling per lot. All care will be taken to avoid exceeding our carrying capacity.

7. Environmental Quality

Type of plan: Adaptive, Sustainable, Conservative, Progressive.

In Hawaii, the quality of the environment is interrelated with a variety of factors. Weather and natural hazards are the basic composers of our physical environment, such as rainfall and volcanic activity. Other factors are our tropical latitude and its resulting flora and fauna. Some of our flora and fauna have specifically evolved to be interdependent to our unique geological environment. Lava cave denizens are some specific examples. Because of superficially enforced grubbing laws, lava cave denizens and their homes have come under assault from bulldozers as well as the increase in cesspools that leach out. Because of our heightened awareness of their ecology, lava caves deserve and demand proper stewardship. Manmade threats to the environment pose the biggest concern. Natural catastrophes are self-healing from the recovery perspective, except where human activities are impacted. Manmade threats also impact recovering endangered flora and fauna populations, due to habitat destruction. Historical and archaeological assets, though protected by law, are not adequately addressed. Stricter laws, penalties, and enforcement need to be in place to seriously protect these assets. Too often, the overseeing agencies turn their heads when violations occur, partly due to developers' money and their promise of benefits to the economy. Currently, the visual threats to the Hawaiian Acres' environment are from helicopter overflights, increased roadside litter, and abandoned cars. Geothermal wells could cause visual threats to our environment, if allowed on the north and west sides of Kilauea's east rift zone. A possible threat to our environment and our residents comes from the potential placement of irradiation facilities upwind from Hawaiian Acres. Additional penal facilities threaten to disrupt the tranquillity and safety of our community.

- a. We plan to implement a process by which more responsibility would be given to the Hawaiian Acres community for taking up the shortcomings of the agencies that issue grading permits. An example would be, tasking our HACWP to report violators.
- b. We plan to create an information sheet to be attached to, or printed on the reverse side of escrow papers, that states the laws regarding grubbing.
- c. We support an ordinance that would require posting of grubbing permits on job sites.
- d. We support increased penalties for grubbing violations.
- e. We support appropriate signage stating requirements for such work to be performed.
- f. We discourage the placement of future geothermal ventures in areas that impact on Hawaiian Acres.
- g. We will work to insure that irradiation facilities are not placed in Hawai'i.
- h. We support composting or anaerobic toilets for new homes.
- i. The Hawaiian Acres planning committee seeks to

preserve and protect the nonrenewable resource of the lava tubes.

- j. We plan to institute a policy whereby heavy equipment operators i.e. bulldozers, notify HACA as to the locations of lava caves. HACA will reciprocate.

8. Natural Hazards

Type of plan: Adaptive and Preventive

There is absolutely no way to plan for natural hazards, except from the adaptive perspective. The adaptive concept is simply adjusting to whatever natural hazards impact our community. The preventive concept can be accomplished by stringent building codes and by discontinuing the practice of promoting build-out by certain governmental agencies and planning groups.

- a. We plan to strategically install community water tanks for fire-fighting and resident use during droughts.
- b. We support stringent building codes for earthquake and hurricane damage prevention.
- c. We oppose build-out promotion by professional planners and the current GPHC, due to the inevitable lava inundation of this geographical area.
- d. We support the installation of a vog monitoring station in proximity to Hawaiian Acres.
- e. We support repairing or rerouting the Mt. View drainage that currently runs through Hawaiian Acres.
- f. We support building a water reservoir for agricultural and fire-fighting uses during droughts, at the location where the Mt. View drainage enters Hawaiian Acres.
- g. We support installing sufficient culverts in the flooding zones of 8 Rd. and other roads.
- h. We support improving the county-owned lot between Hawaiian Acres and Ainaloa subdivisions so as to provide an adequate escape in the event of certain natural disasters.
- i. We oppose the county's planned Emergency Access Road highway through Hawaiian Acres that is routed over the worst flooding zone in Puna.

9. Population Growth

Type of plan: Adaptive and Sustainable

Currently, there are no concise figures for a population status of Hawaiian Acres. However, there are approximately 800 homes. This figure indicates an approximate 20% of the lots have homes. The Dept. of Water Supply's estimate is 13%. It has taken 40 years to reach this status. The figure of 800 homes is an unofficial driveway count that only estimates a home does exist regardless of whether one is visible from road. A significant number of these driveways are simply for agricultural access.

Currently, the accepted estimated average number of residents per household is 2.9. At this figure we estimate our population at about 2,320, more or less, and if every lot had one home at build out, 11,626, with one home and one Additional Farm Dwelling at build out, 23,252. This scenario is very unlikely due to multiple lot ownership, and because many parcels are in Ag. use only. Also there will undoubtedly be lot owners that will choose to leave their lots in native forest or conservation. Different planning groups and governmental agencies have attempted to project population growth rates. Every study ever conducted has been based on past growth rates and the associated trends. Those methods may be reasonable ways in which to estimate growth. Reasonable is not necessarily wise. Wise is taking into account all the factors of population dynamics that can and do effect rates and trends. The most common factors include economics, epidemic disease, cultural patterns, pestilence, warfare, famine, natural disasters, as well as the carrying capacity of the environment. Estimating future growth has its difficulties and may well be an effort in futility. Historically growth rates in Hawaiian Acres have fluctuated considerably. The first 20 years saw little growth. The late 1970's saw an increase, though small. The late 1980's and early 1990's have seen the biggest change. This current trend has its roots in the availability of inexpensive land. There are no statistics to indicate this trend will or will not continue. The recent explosive growth is a perfect example of the difficulties in projecting increases in population. The impact of the most recent trend on the community and its infrastructure, the environment, increased crime, our few endangered species, and the human biological and psychological character, all indicate clearly the dangers of continued unchecked growth. It is the responsibility of the community stewards and planners of Hawaiian Acres, to make the best choices for our descendants' future and ours. Common sense, innovation, and our imagination will determine the plans and proposals we will need to implement, in order to realize our goal of sustainability for all aspects of our community's future and health.

10. Financial Implementation

Type of plan: Sustainable, Adaptive, and Progressive

Basically the roads will be our biggest financial endeavor. The funds to complete the desired road projects as stated in goal, will continue to be derived from voluntary sources until or unless Hawaiian Acres can institute a reliable MRF program. It is not reasonable to forecast the cost of our road plans due to unknown cost escalation over the years it will take to complete them. Hawaiian Acres has successfully endured the road issue for 40 years using these same voluntary funds and adaptive planning. Tax Increment Financing and Rural Town Districts (Financial Improvement Districts) were both rejected by the majority of survey respondents. Community facility expansion goals will be accomplished by the following plans:

- a. Donation of land.
- b. Deriving income from such ventures as a community owned water tanker.
- c. Allocation of funds from community association memberships.
- d. Public and private partnerships.
- e. Impact fees.
- f. Low interest loans.
- g. Grants.
- h. Fund-raisers.
- i. Matching funds.
- j. Land banking (see PCDP)
- k. Correction of the disproportionate tax use problem.

Future Revisions

HAMPC will begin reviewing this document within 2 years before each revision of the County General Plan (i.e. every ten years), or as necessary.

Appendix

1. Maps

Road Plan (10 year)	A-1
Facilities Plan (10 year)	A-2

Acronyms

AMFAC	Ola'a Sugar company
DOT	Department of Transportation (State)
ERC	Emergency Response Committee
GPHC	General Plan Hawaii County
HACA	Hawaiian Acres Community Association
HACWP	Hawaiian Acres Community Watch Program
HAMPC	Hawaiian Acres Master Plan Committee
HARC	Hawaiian Acres Road Corporation
HPD	Hawaii Police Department
HRS	Hawaii Revised Statutes
MRF's	Mandatory Road Fees
PCDP	Puna Community Development Plan
PEAR	Puna Emergency Access Road
VFD	Volunteer Fire Department

References

1. Surveys conducted by HACA (1995 & 1997).
2. HACA files and newsletters.
3. Land and Power in Hawaii by Gavan Daws and George Cooper.
4. "Puna Community Development Plan" and its technical reference by Community Management Associates, Inc.
5. "General Plan of Hawaii County."
6. "Hawaiian Paradise Park Community Master Plan" by the Community Action Committee of Paradise Hui Hanalike.
7. "Speleological Survey 1995" by William Halliday M.D.
8. "A Report on the Resource of Puna Geothermal Venture 1991" by Wilson B. Goddard Ph.D.
9. "Hawaii Revised Statutes."
10. "Hawaii County Code."
11. "The Fallacy of Global Sustainable Development", Asia Pacific Issues by Terry Rambo, Publication No. 30, East-West Center.
12. Land Use Commission (Tel# 808-507-3822).
13. "State of Hawaii Long-Range Transportation Plan", Hawaii department of Transportation.

Hawaiian Acres Community Association
PO Box 368
Kurtistown, HI 96760
808-966-9892

e-mail: haca@aloha.net

web site: http://www.intelcities.com/Old_Mill_Road/hiacres