

# South Kohala Community Development Plan



FINAL  
November, 2008

APPENDIX A  
ORDINANCE NO. 2008 - 159



Sunset viewed from Ohai'ula (Spencer Beach Park) November 2007

## SOUTH KOHALA'S VISION STATEMENT

**The people of South Kohala are united by our love and reverence for the beauty and peace of our land and waters and by our respect for the richness of our various cultures and traditions.**

**We desire to preserve the past, thrive in the present, and dream about a future that honors economic viability and environmental responsibility which is sustainable and desirable for current and future residents.**

**We are blessed to live in one of the most unique, exquisite places on the planet, and we know it. We promise to plan to do everything possible to live responsibly and wisely on this sacred island for current and future generations.**

**Our actions are guided by our Hawai'i State motto:**

***"Ua mau ke ea o ka 'aina i ka pono"***

**(The life of the land is perpetuated in righteousness.)**

### **South Kohala Community Values**

**"We are a family oriented place."**

**"We love the old stories about our people and places and want them to live on in the hearts of our children."**

**"Our Hawaiian and Paniolo pasts contribute to our unique sense of place."**

**"We honor the kupuna by accepting the values and concerns of Native Hawaiians who have known for centuries the limits of island resources and the need to protect the 'āina."**

**"We understand that the natural and cultural resources of South Kohala are unique and to be cherished."**

**"We embrace rural values and lifestyle."**

**"The pu'u of South Kohala are of great cultural and scenic value and are loved by all."**

**"We treasure gathering places revered for cultural, historical, and social reasons."**

**"We enjoy moving about the South Kohala landscape: on foot, by bicycle, and on horseback."**

# South Kohala Community Development Plan

FINAL

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The County of Hawai'i General Plan section 15.1 (February 2005, as amended) calls for the preparation of community development plans "to translate the broad General Plan statements to specific actions as they apply to specific geographical areas." The General Plan requires CDPs be adopted as an "ordinance", giving the plans force of law. This is a long term plan with a planning horizon to year 2020, consistent with the General Plan. An electronic version of the plan is available for download at

<http://www.hcrc.info/community-planning/community-development-plans/>

**Adopted: NOVEMBER 20, 2008**

**PREPARED FOR:  
THE COUNTY OF HAWAI'I**

**PREPARED BY:  
THE SOUTH KOHALA COMMUNITY**

WITH THE ASSISTANCE OF:  
**THE COUNTY OF HAWAI'I PLANNING DEPARTMENT  
AND TOWNSCAPE, INC.**

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## LIST OF ACRONYMS

<p>ASEA Aquifer Sector Area</p> <p>ASYA Aquifer System Areas</p> <p>CDP Community Development Plan</p> <p>CFD Community Facilities District</p> <p>CRP Community Readiness Program</p> <p>CWRM State Commission on Water Resource Management</p> <p>DBEDT State Department of Business Economic Development and Tourism</p> <p>DHHL State Department of Hawaiian Home Lands</p> <p>DLNR State Department of Land and Natural Resources</p> <p>DOH State Department of Health</p> <p>DOT State Department of Transportation</p> <p>DWS County of Hawai'i Department of Water Supply</p> <p>EA Environmental Assessment</p> <p>EIS Environmental Impact Statement</p> <p>EMS Emergency Medical Service</p> <p>FEMA Federal Emergency Management Agency</p> <p>FIRM Flood Insurance Rate Map</p> <p>FUDS Formerly Used Defense Site</p>	<p>GIS Geographic Information System</p> <p>HCC Hawai'i County Code</p> <p>HPA Hawai'i Preparatory Academy</p> <p>HILT Hawai'i Island Land Trust</p> <p>HICDC Hawai'i Island Community Development Corporation</p> <p>IAL Important Agricultural Land</p> <p>LSB Land Study Bureau</p> <p>LUD Land Use District</p> <p>LUPAG Land Use Pattern Allocation Guide</p> <p>MGD Millions of Gallons per Day</p> <p>SLUD State Land Use District</p> <p>OHCD County Office of Housing and Community Development</p> <p>PCA Puakō Community Association</p> <p>PUC Public Utilities Commission</p> <p>SY Sustainable Yield</p> <p>TDR Transfer of Development Rights</p> <p>TMK Tax Map Key</p> <p>USDA U.S. Department of Agriculture</p> <p>USGS U.S. Geological Survey</p> <p>WHWMO West Hawai'i Wildfire Management Organization</p> <p>WWTP Waste water treatment plant</p> <p>WVA Waikoloa Village Association</p>
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## EXECUTIVE SUMMARY

Adopted as an ordinance in 2005, the County General Plan is the policy document for the long range comprehensive development of the island of Hawai'i, encompassing County-wide goals.

The County of Hawai'i's South Kohala Community Development Plan (CDP) is intended to be the forum for translating South Kohala's community input into **Policies** and **Action Plans** that shape the future land use of the district and translate broad General Plan statements into specific actions.

South Kohala has many sites and landscapes that have significant cultural and historical value to the Native Hawaiian people. It is also the birthplace of the *Paniolo* or "Hawaiian Cowboy." The district is home to one of the fastest growing communities in the County, Waikoloa Village. Several of the best white sand beaches on the island are located on South Kohala's Coast. Three world famous resorts are found here: Mauna Kea, Mauna Lani, and Waikoloa Resorts. Also, one of only two commercial harbors in the County is located in South Kohala. Recognizing the uniqueness and special qualities of the different communities in the South Kohala District, the South Kohala Community Development Plan has been organized into four specific area plans for the communities of Waimea, Waikoloa Village, Kawaihae, and Puakō. The CDP also contains policies and guidelines that address the entire district and are not specific to one particular community.

**A note to the reader on ways to read this document:** The South Kohala Community Development Plan is divided into nine chapters. The chapters do not have to be read sequentially. Chapters One and Two provide background information and the context for the policies, programs, and actions that are presented in later chapters. The reader may choose to skip the first two chapters and go straight to the policies, programs, and actions in the later chapters, referring back to the first two chapters as they wish.

**Chapter 3: District-Wide Policies**, outlines policies related to four issue areas: Preserve Culture/Sense of Place, Transportation, Emergency Preparedness, and Environmental Stewardship / Sustainability.

**Chapters 4 thru 7** outline plans for four specific communities in South Kohala. The key element of the **Waimea Town Plan** is a "Responsible Growth" policy intended to preserve Waimea's sense of place. In the **Waikoloa Village Plan**, the key element of the plan calls for the provision of adequate infrastructure and public services for a growing community. The **Kawaihae Community Plan** calls for a balance of recreational, commercial, residential, and industrial uses around the harbor area and the restoration of marine waters of Pelekane Bay. In the **Puakō Community Plan**, the plan addresses strategies to manage growth, mitigate the impacts of natural disasters to the community, and also to preserve the near shore marine water quality.

Towards the end of each Community area plan, are sections entitled "**Action Programs.**" **Action Program** details outline the following:

- **Who** will take the lead in implementing these actions
- **What** needs to be done
- **When** should actions take place
- **How much** will it cost
- **Intended outcome** of the actions

**Chapter 8: CDP Implementation** covers details of the "CDP Action Committee the future community-based implementing body of the Community Development Plan.

**Chapter 9: Monitoring Plan** provides a systematic way to evaluate the progress of CDP implementation.

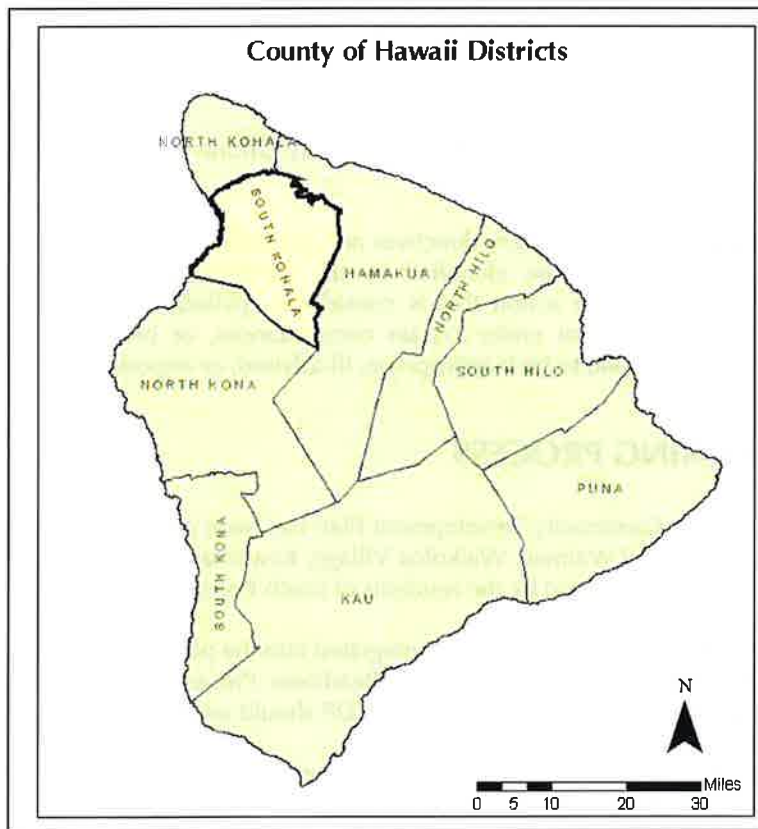


# 1 INTRODUCTION

## 1.1 PLANNING AREA

The South Kohala District lies in the northwest sector of the Island of Hawai'i. Neighboring districts North Kohala to the north, Hāmākua to the East; and North Kona to the south. The Pacific Ocean defines the district's western border. The South Kohala District consists of approximately 176,500 acres and makes up approximately 6.8% of the land area of the County of Hawai'i.

**FIGURE 1.1: DISTRICT OF SOUTH KOHALA**



## 1.2 PURPOSE OF THE CDP

The purposes of the South Kohala Community Development Plan (CDP) are to:

- Identify the South Kohala community's **Priority Issues**
- Develop **Policies** and **Action Programs** to address those Priority Issues

According to the Hawai'i County General Plan, the CDPs are intended to:

- Be the forum for **community input** into **managing growth** and coordinating the delivery of government services to the community
- Create a long-range framework and direction that guides future decision making and actions
- Translate the broad General Plan statements to **specific actions**
- Direct physical development and public improvements within a specific area
- **Focus on action**

The South Kohala CDP will be enacted as a County Ordinance. This means that the provisions of the CDP have the force of law.

The CDP contains both mandatory directives and guidelines. A "mandatory directive" is a required course of action and can be identified by the word "shall" or "required" or "prohibit". A "guideline" is a course of action that is considered advisable and should be followed unless a determination is made that under certain circumstances, or because of specified reasons, that general guideline is found to be inappropriate, ill-advised, or impossible.

## 1.3 PLANNING PROCESS

The South Kohala Community Development Plan has been organized into four focused area plans for the communities of Waimea, Waikoloa Village, Kawaihae, and Puakō. This CDP is built upon a foundation of ideas generated by the residents of South Kohala.

Opportunities to gain public input were integrated into the planning process. Through the first phase of community outreach, the "Community Readiness Process" (CRP), South Kohala communities were asked to identify priority issues that the CDP should address.

During the second phase of outreach, the communities were asked to identify policies and actions that they felt would be reasonable solutions to address the priority issues that they had identified. The South Kohala CDP is thus the result of an extensive public process summarized below. (A more detailed listing of specific meeting dates is included in **Appendix B**.)

- **CRP Process** – The Community Readiness Program (CRP) was intended to prepare the South Kohala communities for the CDP process. The CRP process included consisted of over 60 small group meetings that took place during 2006 and 2007.

- **Steering Committee** – An 11-member Steering Committee was formed to broadly represent the South Kohala communities and assist in the preparation of the CDP. The Steering Committee met once a month between June 2007 and September 2008 (15 meetings) to review CDP material and plan for upcoming events such as community-wide meetings. Many Steering Committee members also participated in Focus Groups.



South Kohala Steering Committee Meeting – June 25, 2008

- **Focus Groups** – Focus Groups were formed for four communities in South Kohala: Waimea, Waikoloa Village, Kawaihae, and Puakō. Each Focus Group met several times to discuss and decide on the issues, strategies, and action plans for their individual community.
- **Community-wide Meetings** – Six Community Meetings were held throughout the CDP process to get community input on ideas that were developed by the Focus Groups, the Steering Committee, the Planning Consultant, and the County of Hawai'i.



Community-wide meeting, Waikoloa Village – August 30, 2007

The following diagram illustrates the overall community outreach process during the CRP process. The process started off with introductory meetings in South Kohala from which “Logistics Teams” were created. The logistics teams consisted of dedicated volunteers from the community. Logistics Team members received training in meeting facilitation as well as meeting organization. The Logistics Teams assisted Hawai'i County Resource Center staff with a series of small group meetings during the CRP process. As previously mentioned, there were over 60 small group meetings during the CRP. Towards the end of the CRP program, candidates for the South Kohala Steering Committee were selected.

**CRP MEETINGS – SUMMARY OF COMMUNITY IDEAS**

**Table 1.2 KEY AREA I – INFRASTRUCTURE, ROADS, PUBLIC SERVICES, FACILITIES,**

<b>Themes</b>	<b># of Ideas</b>
FIX TRAFFIC! BUILD BYPASS, CONNECTOR & ALTERNATE ROADS	188
UPGRADE EXISTING ROADS TO MAKE IT SAFER/BETTER	145
IMPROVE EDUCATION SYSTEM – MIDDLE & HIGH SCHOOL	127
DESIGN & IMPROVE KAWAIHAE HARBOR AS MULTI USE FOR ALL	80
MORE CHOICES FOR PUBLIC TRANSPORTATION – YOUTH, ELDER, WORKER	60
BETTER WASTE & WATER MANAGEMENT; MORE RECYCLING PROGRAM	54
IMPROVE PUBLIC FACILITIES – POLICE & FIRE	50
ALTERNATIVE, RENEWABLE, NATURAL ENERGY	40
<b>Total</b>	<b>744</b>

**Table 1.3 KEY AREA II – COMMUNITY, CULTURE & HOUSING**

<b>Themes</b>	<b># of Ideas</b>
PRESERVE OUR CULTURAL HERITAGE & COMMUNITY CHARACTER	168
AFFORDABLE HOUSING & LAND FOR LOCAL PEOPLE	134
HEALTHY RECREATIONAL OPPORTUNITIES FOR ALL AGES	109
MORE LOCAL REPRESENTATION & GOVERNMENT ACCOUNTABILITY	57
SOCIAL ISSUES – SUPPORT FOR KUPUNA, HOMELESS & DRUG PREVENTION	57
<b>Total</b>	<b>525</b>

**Table 1.4 KEY AREA III – REGIONAL GROWTH**

<b>Themes</b>	<b># of Ideas</b>
WALKABLE TOWN CENTERS & COMMUNITY GATHERING SPACES	110
GROWTH MANAGEMENT – SLOW, RESTRICT, LIMIT, STOP GROWTH	103
BETTER PLANNING, HAZARD PREPARATION AND MITIGATION	77
DIVERSIFIED ECONOMY & MORE LOCAL BUSINESSES	62
INFRASTRUCTURE BEFORE ANY MORE DEVELOPMENT	52
<b>Total</b>	<b>404</b>

**Table 1.5 KEY AREA IV – OPEN SPACE, PARKS, HISTORIC SITES, AND WORKING LAND**

<b>Themes</b>	<b># of Ideas</b>
PRESERVE & MAINTAIN OUR AINA! KEEP IT GREEN!	157
LARGE AND SMALL PARKS – WALKING, BIKING & HORSE PATHS	89
PROTECT OUR AGRICULTURE LAND AND HERITAGE	51
SAVE THE PU’U’S	45
OCEAN AND MOUNTAIN ACCESS	36
RESPECT & HONOR OUR HISTORICSITES & TRAILS	19
<b>Total</b>	<b>397</b>

## 1.4 DRAFTING OF THE FINAL CDP

The South Kohala Steering Committee in cooperation with the County Planning Department has sought to incorporate the needs and concerns of the South Kohala communities into the CDP, taking into account sometimes divergent positions and points of view. This process, as with all community planning, requires balancing the different interests involved:

- Balancing between the need for public facilities in the District versus the cost of providing those facilities;
- Balancing vested private property rights against the need to address the escalating problems associated with development and growth such as environmental degradation and the potential loss of scenic beauty, cultural heritage, and sense of place.
- Balancing developers’ natural profit motivation against the community’s insistence that it is time for developers to shoulder more of the cost of public facilities that will be needed as a result of future development;
- Balancing between the interest of the farm lot owner to develop their land so as to maximize his profits versus the community’s interest in preservation of farm land and open space;
- Balancing between providing a meaningful forum for public participation in the development approval process -- which has heretofore been completely lacking at the critical subdivision stage -- versus the need for efficient and timely consideration of subdivision and plan approval applications;
- Balancing between increased development on mauka slopes versus sedimentation of coastal waters and coral reefs;
- Balancing the needs and desires of the current population against the needs of future generations.

## 1.5 PRECAUTIONARY PRINCIPLE

Recently the Hawai'i Supreme Court provided some guidance for those engaged in this balancing process at the County level. The Court articulated a public trust framework for natural resource decisions both at the State and County level. The Court clarified the constitutionally mandated "Public Trust Doctrine" imposes upon the Counties the stewardship responsibility to "future generations" to conserve and protect Hawai'i's natural beauty and all natural resources. On this point, the Hawai'i Constitution Section XI subsection 1 provides:

*"For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of all people."*

It is on the basis of this constitutional "Public Trust" provision that decisions involving land and water must be guided by the "Precautionary Principle" when we weigh our private wants against the ability of the environment to accommodate those wants. The precautionary principle requires long-term vision and mandates that government entities favor caution and conservation in any case in which information is uncertain. The burden of proving that the resource is adequate and that its proposed use is consistent with the sustainable health of the ecosystem falls on the party proposing to use the resource.



View from the pu'u above Waimea Town

We must also be mindful that if a privately owned resource is of significant value and is worthy of preservation for the benefit of the community at large, that it may well be appropriate for the community to compensate the property owner for the loss in value resulting from significant limitations imposed upon their use of the property.

In its efforts to draft this CDP, the Steering Committee has sought to balance these interests consistent with its stewardship role in preserving the beauty and natural resources of South Kohala for the welfare of both present and future generations.



## 2 SOUTH KOHALA YESTERDAY AND TODAY

### 2.1 GENERAL PHYSICAL SETTING

South Kohala has two distinct physical environments, each with its own kind of natural beauty: the green and lush mountainous region in the north and the rugged, dry landscape in the south.

The mountainous region, which includes the town of Waimea, includes a plateau between the Kohala Mountains and Mauna Kea. The Kohala Mountains provide a backdrop of rolling hills and volcanic *pu'u* covered with pastures and forests kept green by fog, fine mist, and rain.



Green pastures near Waimea Town



Pu'u Hina'i and dry grasslands

The second distinct physical environment is distinguished by pale yellow vegetation, beige to red-brown rock formations along the coast, and barren black lava fields. Amid these rugged and desert like conditions, there are pockets of white sand beaches along the rocky coast. Waikoloa Village, along with the major resort areas, is located in the dry southern region of the district. The Kawaihae area located on the northwest coast of the district is also dry and arid. (County of Hawai'i General Plan, 2005)

Table 2.1 displays the average annual rainfall and temperatures for different regions within the district.

**Table 2.1 Average Rainfall, High Temperatures, and Low Temperatures for South Kohala**

Location	Avg. Annual Rainfall	Avg. Daily High Temperature Range (Fahrenheit)	Avg. Low Temperature Range (Fahrenheit)
Waimea Area	20-80 inches	75 degrees	60 degrees
Waikoloa Area	10-15 inches	77-85 degrees	65-70 degrees
South Kohala Coast	10 inches	83-87 degrees	70-75 degrees

Source: Waikoloa Highlands EIS; Lālamilo EIS; County of Hawai'i

### 2.1.1 LANDFORMS

The major landforms of the South Kohala district and their distinguishing characteristics include:

**Kohala Mountains:** The Kohala Mountains were created from the eruptions of the Kohala Volcano. The Kohala Volcano last erupted approximately 60,000 years ago. The oldest lava has been dated at 460,000 years old. The volcano is extinct and in the erosional stage of its life cycle. Its eastern windward flank is characterized by great erosional valleys, spectacular waterfalls, and dramatic sea cliffs. The of rubble of a dramatic landslide extends fifty miles out on the ocean floor. The mountain's leeward southwesterly side is within the South Kohala district. This side of the mountain is more gently sloping and smooth. The town of Waimea, pasture lands, and farm lands exist on these gentle slopes. The summit elevation of the Kohala Mountains is 5,480 feet.



The Kohala Mountains

**Pu'u:** The Kohala Mountain rift zone extends southeastward from its summit into the district in the vicinity of Waimea. The last eruptions were moderately explosive and formed a series of large cinder cones (*pu'u*) that accent the Kohala Mountain and plateau in the surrounding area of Waimea. A number of *pu'u* are also scattered along the Saddle Road and are associated with Mauna Kea.

**Coastal beaches** dot the otherwise rocky, jagged coastline. Sandy beaches can be found near Anaeho'omalū, Waialea Bay, Puakō, Hapuna State Park, Kauna'oa, Mau'umae, and Ohai'ula (Spencer Beach Park). There are several man made beaches located at the resort nodes. Much of the coastline is defined by old lava flows that have entered into the ocean.



Mau'umae Beach

**Marine seascape:** The diverse coral reef communities that occupy the nearshore waters of South Kohala distinguish the district from other districts on the island. These unique marine environments support an extensive reef system populated by a variety of species. Tidal pools, rock formations, and ancient fishponds are also prominent features of South Kohala.

### 2.1.2 GENERAL DEVELOPMENT PATTERNS IN THE DISTRICT

South Kohala's general land development pattern varies greatly between the district's two main population centers: Waimea Town and Waikoloa Village. Waimea Town is a rural community that has a long and proud history. It is situated on a plateau of the Kohala Mountains. Waikoloa Village is a relatively new, more urbanized residential community. Waikoloa Village was originally designed to be a retirement community when it was developed in 1971. However, due in part to the expansion of upscale hotels, restaurants, and shops along the South Kohala coast, and the corresponding housing needs of these employees, Waikoloa Village has evolved into a suburban community for residents of all ages. Community members from Waikoloa Village note that the Village is isolated from other surrounding areas due to its location away from a major highway. There is currently only one access road, Waikoloa Road that connects Waikoloa Village to other areas in the district.

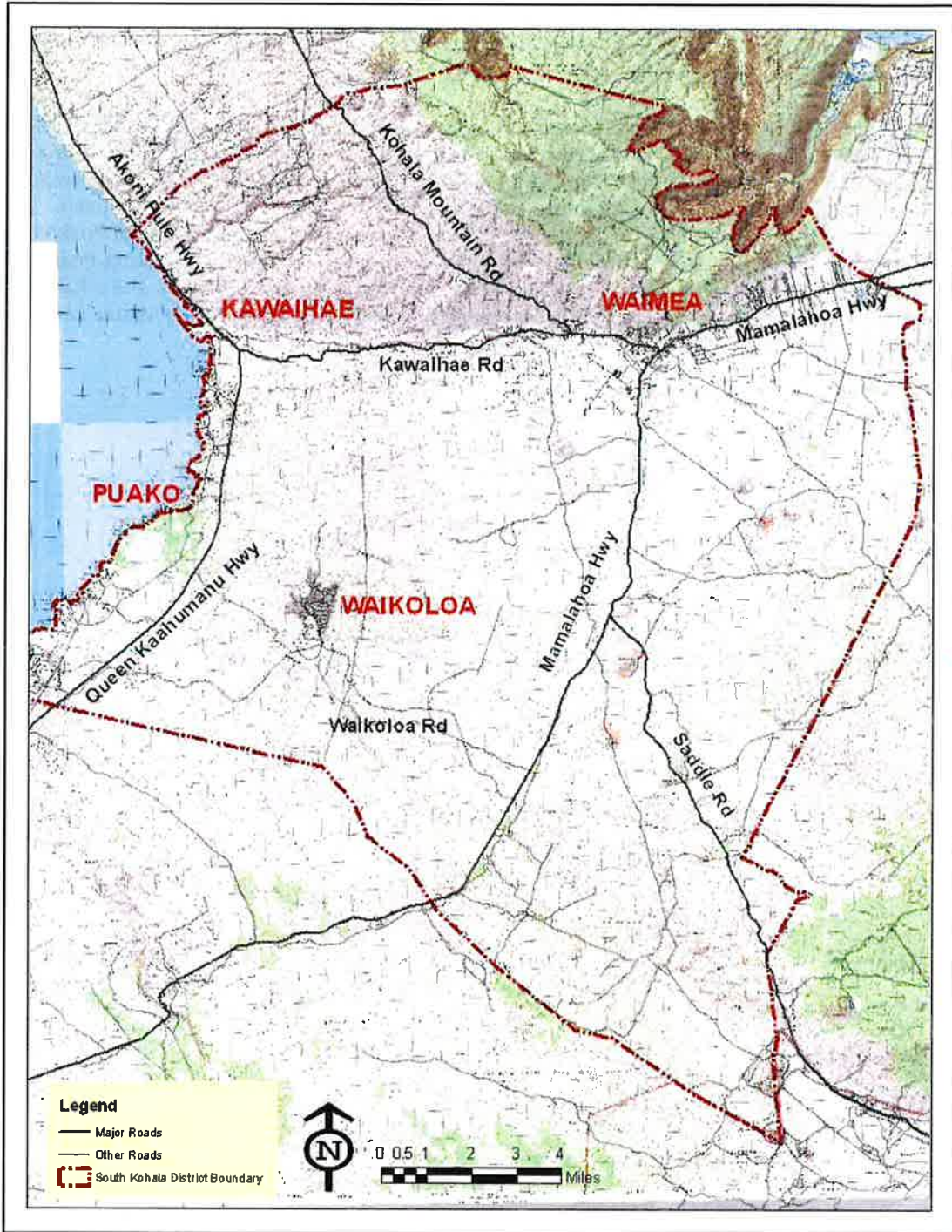
A third key location in the district is the Kawaihae area. Although sparsely populated, the Kawaihae area is home to the only recreational small boat harbor in northwest Hawai'i and the only

commercial harbor in West Hawai'i. The harbor area is a major transportation and activity node, handling both traffic generated from harbor activities and traffic from North Kohala, Waimea, and the resort areas that must all pass through the Kawaihae area at the intersection of the Queen Ka'ahumanu Highway, Akoni Pule Highway, and the Kawaihae Road.

Three large destination resorts are located along the Queen Ka'ahumanu Hwy. The Mauna Kea Resort, Mauna Lani Resort, and the Waikoloa Resort are situated along South Kohala's coastline. Each resort node consists of large-scale, high-end hotels, shops, restaurants, and high-end residential units. Just north of the Mauna Lani Resort is the small residential coastal village of Puakō. Today Puakō mainly consists of single-family homes that have been built along either side of Puakō Beach Drive. A significant number of single family homes are operated as vacation rentals in Puakō. The village is also home to the historic Hokuloa Church, founded more than a century and a half ago by the Reverend Lorenzo Lyons. The Puakō Petroglyph Field is located between the Mauna Lani Resort and the Puakō Beach Lots.



FIGURE 2.1: DISTRICT OVERVIEW MAP



**The key planning implications related to South Kohala’s physical setting include:**

- **South Kohala is a large land area** – Providing adequate public services and infrastructure over such a large area will be challenging.
- **The physical settings and development patterns throughout the district are diverse and distinct** There are several regions in the district that have unique features both physically and in the way that the regions have developed over time. The CDP recognizes the unique qualities in these regions and does not plan for the district in a “one-size fits all” approach.

## **2.2 SOUTH KOHALA YESTERDAY: AN HISTORICAL OVERVIEW**

Anthropologists and archaeologists estimate that the first settlers arrived in the South Kohala region sometime between 750-1000 AD. The warm coast and beaches on the western boundaries of the South Kohala district were used seasonally by early Polynesians who eventually migrated to the cooler plateau. Descendents of these early Polynesian explorers established fishing villages on the leeward coast of the district and along the western extremities of the plains and began cultivating *lo'i kalo* terraces along a series of streams at the southern base of the Kohala Mountains. Construction of the Waimea field system may have involved clearing and burning of the native forest. South Kohala, in particular Kawaihae and Waimea, was an important political region on the Island of Hawai'i. Many high ranking ali'i regularly visited the area and held court here even up to the time of Kamehameha and his son Liholiho. (Clark, 1986) Towards the mid 19<sup>th</sup> century and on into the 20<sup>th</sup> century, the district was heavily influenced by the *paniolo* way of life. Toward the latter half of the 20<sup>th</sup> century, the development of three world class resorts in the district shifted the district's economic base from agriculture to tourism which has influenced land use and development patterns over the last several decades.

### **2.2.1 BRIEF HISTORY OF WAIMEA**

Because of its fertile soils and food productivity, Waimea is known by some as “Edena Nani” (beautiful Eden). The area was a coveted location and was the site of many interisland and intransland battles between Hawaiian Chiefs. Sometime between the 16<sup>th</sup> and 17<sup>th</sup> century, one such interisland battle took place, involving the army of Kamalalawalu, chief of Maui, and the army of Lonoikamakahiki, chief of Hawai'i Island. Kamalalawalu first sent scouts to Kawaihae to spy on the region. The Maui army marched to the plains of Waimea. To their dismay, they were met with a great force of Hawai'i Island warriors. Armies from Waimea, Kohala, Kona, Hāmākua, Hilo, and even as far away as Puna and Ka'u, assembled in Waimea to repel the invading Maui troops. It was said that the host of Hawai'i warriors was so great that they covered the grassy plains of Waimea like “locusts”. (Cordy, 2001)

As many areas of Hawai'i were profoundly impacted socially and economically by the rise of large sugar plantations and the in-migration of immigrant labor, South Kohala had no such large scale plantations. During this time period, South Kohala, and in particular Waimea, was greatly influenced economically and socially by the ranching and cattle industries. The origins of the *paniolo* or ‘Hawaiian Cowboy’ can be traced all the way back to the gift of five cows and one bull that Kamehameha received from Captain George Vancouver of England in 1793. For ten years, a *kapu* on hunting was placed on the small herd. From these six cattle, large herds of cattle eventually developed. In 1838, Kamehameha III asked Spanish-Mexican vaqueros from California to teach Hawaiians how to manage the wild cattle. The vaqueros became known as “*paniolo*.”

In 1847, the legendary Parker Ranch was founded when John Palmer Parker purchased two acres of land in the Waimea area for \$10. Since then, Parker Ranch land holdings have increased

considerably. Today, Parker Ranch is one of the largest privately owned ranches in the world and is a major landowner in South Kohala.

Several legendary *paniolo* contributed to Parker Ranch's growth and expansion. These *paniolo* included the descendants of several notable families in the area including the Lindsey, Purdy, Bell, Stevens, and Spencer families. These families are commonly known as the "Foundation Families" of Parker Ranch. From their initial beginnings in the early 19<sup>th</sup> century, these families grew to become large in number and had great influence on the shaping of Parker Ranch and Waimea.

Alfred Wellington Carter assumed stewardship of Parker Ranch from the beginning of the 20<sup>th</sup> century to the 1950s. He is credited with the further building, maintaining, and preservation of Parker Ranch. Carter also devoted Ranch resources to the education of Ranch employees and their children. He also provided interest free home loans to Ranch employees and was instrumental in getting veterinary service for North and South Kohala and improved medical service for the Waimea community. During his tenure as head of the Thelma Parker Trust, Parker Ranch land holdings grew to 327,000 acres including the acquisition of the 95,000 acre *ahu 'ili* of Waikoloa which includes most of the lands in South Kohala. (Bergin, 2004)

During World War II Parker Ranch played an integral part in hosting 50,000 marines, as they prepared for the battles in Iwo Jima and Okinawa. Waimea had a huge tent city at one point which became known as Camp Tarawa. During their stay in Waimea, the military constructed an entertainment center which was renamed Kahilu Hall and an airstrip that was later converted to commercial use. (<http://www.kamuela.com/history.asp>)

During the early and middle parts of the 20<sup>th</sup> Century many Japanese farmers settled in Waimea. They were an important part of Waimea's agricultural history and remain an important part of the community today, as many of these families are a major presence at the Lālāmilo farm lots.

Richard Smart, son of Thelma Parker, and last remaining heir to the Parker Dynasty, took over Ranch operations from Hartwell Carter, son of A.W. Carter during the middle of the 20<sup>th</sup> century. (Bergin, 2004) Through the remaining years of his life, Smart faced significant challenges when running the Ranch, including the decline in Hawai'i's agriculture and cattle industries and the rise of the tourism industry in the State. Parker Ranch, under the direction of Smart, developed the "Parker Ranch 2020 Plan." Written in the 1980's, the plan described the primary issues of the 80's as "Traffic Congestion," "Inadequate Potable Water and Agricultural Water Sources," and "Inadequate Housing." Smart commented in a publication summarizing the Parker 2020 plan: "Let us work together to make Waimea the kind of community we all desire and deserve. May our land continue to be blessed with all the benefits which make it a better place in which to live."

Richard Smart died in 1992. In his will, Smart bequeathed most of Parker Ranch's assets to the Parker Ranch Trust Foundation. The Parker Ranch Trust Foundation's mission is to "Provide perpetual support for designated beneficiaries engaged in healthcare, education, and charitable support through the sound management of Trust assets while remaining mindful of the needs of the Kamuela community and its unique quality of life." Smart designated five beneficiaries: The North Hawai'i Community Hospital, Lucy Henriques Medical Center, Parker School Trust Corporation, Hawai'i Preparatory Academy, and the Richard Smart Fund of the Hawai'i Community Foundation.

Waimea has also been bolstered by the philanthropic energies of Dr. Earl Bakken, creator of the first battery powered pacemaker. Dr. Bakken moved to Hawai'i in 1989. In 1996 he helped to dedicate the North Hawai'i Community Hospital. Dr. Bakken also helped to establish Tutu's House, "a safe place for people of all ages to learn, share and explore health and healing of the mind, body, and spirit" ([www.tutushouse.org](http://www.tutushouse.org)); and a non-profit organization known as "Five Mountain," all of which have served to enrich and anchor a healthy, engaged community.



**Table 2.4 County Zoning Acreage by County Districts in 2000**

Zoning	Puna	South Hilo	North Hilo	Hama-kua	North Kohala	South Kohala	North Kona	South Kona	Ka'u	Total
Single Family	2,677	8,374	391	631	652	<b>3,382</b>	2,887	414	781	20,189
Multi-Family	4	380	0	4	43	<b>1,507</b>	1,026	0	101	3,065
Resort	1	136	0	42	14	<b>360</b>	740	15	45	1,353
Commercial	74	1,088	10	38	39	<b>426</b>	1,015	108	61	2,859
Industrial	490	2,185	38	15	59	<b>291</b>	2,909	0	52	6,039
Industrial-Commercial Mixed	23	4	0	0	0	<b>0</b>	0	0	0	27
Family Agriculture	22	26	0	0	0	<b>6</b>	39	7	0	100
Residential Agriculture	625	185	55	0	22	<b>585</b>	489	144	0	2,105
Agriculture	198,747	73,750	61,954	165,223	67,977	<b>119,813</b>	167,415	112,051	252,843	1,219,773
Open	5,029	2,065	38	963	27	<b>11,951</b>	173,821	7,628	115,740	317,262
Project District	0	0	0	0	0	<b>0</b>	1,748	0	0	1,748
Agricultural Project District	0	0	0	0	0	<b>0</b>	0	23	0	23

Source: County of Hawai'i Planning Department

As can be seen by the tables, the great majority of lands in South Kohala are designated as agriculture by both the State and County.

**Important planning implications related to South Kohala's land use include:**

- **The majority of the district is designated as agriculture by State and County**

The majority of the land in the district is designated as agriculture. However, the majority of these agricultural lands are designated as "extensive agriculture" by the County rather than IAL. Future development pressures will inevitably impact these "extensive agricultural" lands to be developed for other uses besides agriculture. These "extensive agriculture" lands, although not important for agricultural production, may still be important for other reasons such as open space preservation, environmental and scenic values, and therefore preservation of these lands should be considered.

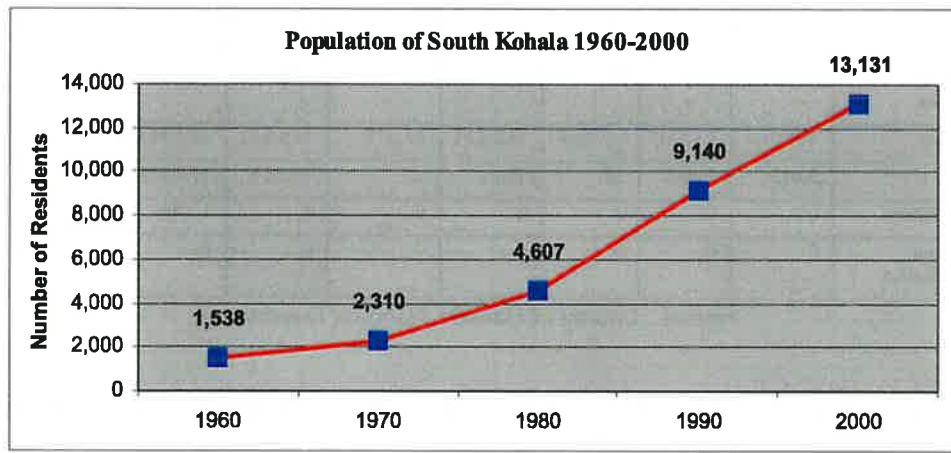
- **South Kohala has the highest amount of lands designated as "Urban Expansion" by the County LUPAG when compared with other County districts.**

It appears that the County is anticipating that significant urban growth and development will occur in South Kohala in the future. The urban expansion areas in South Kohala are primarily located around the Waikoloa area and Kawaihae area. This large Urban Expansion acreage should be re-evaluated during the next County General Plan update.

## 2.4 DEMOGRAPHICS, LOCAL ECONOMY, AND POPULATION CHARACTERISTICS

According to the 2000 Census, South Kohala was the fourth most populated district in the County. However, it was the fastest growing district from 1980 to 1990 and the second fastest growing district from 1990 to 2000. Figure 2.1 below shows the population trends for South Kohala over the past four decades and Table 2.5 shows the rate of population growth for both South Kohala and the County since 1980.

Figure 2.5 Population



Source: Census 2000, 1990, 1980, 1970, 1960

Table 2.5 shows how South Kohala's population compares to the other districts in the County of Hawai'i.

Table 2.5 Hawai'i County Population

District	1-Apr-80	1-Apr-90	1-Apr-00	% of Total Population (Rounded to the nearest %)		
				1980	2000	Change
<b>Hawai'i County</b>	<b>92,053</b>	<b>120,317</b>	<b>148,677</b>	<b>100%</b>	<b>100%</b>	<b>---</b>
Puna	11,751	20,781	31,335	13%	21%	8%
South Hilo	42,278	44,639	47,386	46%	32%	-14%
North Hilo	1,679	1,541	1,720	2%	1%	-1%
Hāmākua	5,128	5,545	6,108	6%	4%	-2%
North Kohala	3,249	4,291	6,038	4%	4%	0%
<b>South Kohala</b>	<b>4,607</b>	<b>9,140</b>	<b>13,131</b>	<b>5%</b>	<b>9%</b>	<b>4%</b>
North Kona	13,748	22,284	28,543	15%	19%	4%
South Kona	5,914	7,658	8,589	6%	6%	0%
Ka'u	3,699	4,438	5,827	4%	4%	0%

Source: County of Hawai'i Data Book

Table 2.6 shows future population projections for the entire district of South Kohala with Projection A being the most conservative estimate and projection C being the least conservative estimate.

**Table 2.6 Population Projections**

Area	2000 Population	2020 Projection A	2020 Projection B	2020 Projection C
<b>South Kohala</b>	13,131	23,947	24,426	26,625
<b>Co. of Hawai'i</b>	148,677	213,452	217,718	237,323

Source: County of Hawai'i Planning Department

### 2.4.1 ECONOMIC CHARACTERISTICS

Mauna Kea Resort, Mauna Lani Resort, and the Waikoloa Beach Resort, the three resort complexes in the district, account for 40 percent of all hotel rooms within the County. Between 1980 and 1998, ten properties within these resorts were developed totaling 3,400 visitor units. South Kohala hotels are some of the County's largest employers, employing residents from all over the County. There are several new projects being planned these resorts. The Mauna Kea Resort is tentatively planning to develop recreational amenities such as a golf course and 135 large acreage residential lots with associated infrastructure and commercial use on its "Ouli 2" property. Stanford Carr is planning to develop 516 hotel units, three golf holes and related support facilities within the Mauna Lani Resort.

Eco-tourism, nature-tourism, and ag-tourism are growing sectors in the tourism market. Encouragement of these tourism markets would be consistent with the community vision and values. Establishing hiking, biking, and equestrian trails will promote economic activities consistent with these values.

**Table 2.7 Hawai'i County's 10 Largest Employers in 2004**

Rank	Employer	Employees
1	State of Hawai'i	7,608
2	County of Hawai'i	2,291
3	United States Government	1,221
<b>4</b>	<b>Hilton Waikoloa Village</b>	<b>1,100</b>
5	KTA Superstores	785
<b>6</b>	<b>Fairmont Orchid Hawai'i</b>	<b>600</b>
<b>7</b>	<b>Mauna Lani Bay Hotel &amp; Bungalows</b>	<b>580</b>
8	Four Seasons Resort Hualalai	557
<b>9</b>	<b>Mauna Kea Beach Hotel</b>	<b>556</b>
<b>10</b>	<b>Hapuna Beach Prince Hotel</b>	<b>542</b>

Source: County of Hawai'i Data Book

Although tourism is currently the leading economic industry in the district, the area is also well known for cattle ranching, vegetable production, and other forms of agriculture. Waimea is one of the most productive areas for vegetable crops on the Big Island. Cabbages, tomatoes celery, lettuce, daikon (radish), peppers, broccoli and carrots are just some of the vegetables grown. Experiments are being conducted on different crops as well as on the improvement of those presently grown. The highly varied climatic conditions on the wet east side of Waimea and the dry west side of the town allow for a variety of crops to be grown.

Further expansion of the agricultural industry, including more truck farms, faces many challenges. This industry, faced with competition for resources from tourism and other urban forces, needs governmental assistance. (County of Hawai'i General Plan, 2005) There has been a continuing trend of small farmers going out of business because of two primary factors: 1) the market price of land has risen dramatically in the last decade encouraging farmers to sell their land; and 2) a lack of younger generations wanting to take over their family's farm.

The cattle ranching industry utilizes most of the land area within the district with pastures situated on the higher slopes of the mountains and extending down to the sea. Parker Ranch, one of the largest privately owned ranches in the world, has its headquarters in Waimea. The Ranch has approximately 230,000 acres of grazing land that supports 45,000 to 50,000 head of cattle. (Waikoloa Highlands EIS, 2006) Feedlots once allowed ranchers to raise cattle from birth to full maturity. The closing of all feedlots within the County has resulted in the export of 90 per cent of all cattle to mainland feedlots.

The Canada-France Hawai'i Telescope on Mauna Kea has its base facility in Waimea. The base has a staff of 51 and an annual operating budget of \$6,200,000. As several planned telescopes are built on Mauna Kea, additional base facilities may choose to locate in Waimea. Waimea is also home to the headquarters of the W.M. Keck Observatory on Mauna Kea, the largest optical and infrared telescope in the world. The headquarters employs about 80 people and has an annual operating budget of \$10,000,000. (County of Hawai'i General Plan, 2005)

The educational sector includes Hawai'i Preparatory Academy (HPA) with a current total enrollment of 600 students in grades K through 12, which includes 175 boarders from grades 6 through 12. In addition, Parker School is a day school with an enrollment of 300 students. Waimea Elementary School had an enrollment of 650 and Waimea Middle Public Conversion Charter School had an enrollment of 400 students in 2008. Kanu O Ka 'Āina Public Charter School in Waimea has an enrollment of approximately 150 students. Waimea has three performing arts venues: Kahilu Theatre, Gates Performing Arts Center at HPA, and Parker School Auditorium. In Waikoloa Village, Waikoloa Elementary and Middle School is the largest employer with an enrollment of 625 students in 2008 and 75 employees.

The North Hawai'i Community Hospital is the 14<sup>th</sup> largest single employer in the County with 269 employees. (County of Hawai'i Data Book) The hospital opened in May 1996 and serves approximately 30,000 residents and visitors of the northern region of the Big Island which includes the districts of South Kohala, North Kohala and parts of Hāmākua and North Kona. The hospital is a non-profit entity that is community owned. ([www.northHawai'icommunityhospital.org](http://www.northHawai'icommunityhospital.org)) In addition to the North Hawai'i Community Hospital's efforts to become a "total body wellness center", there are numerous holistic and alternative health practitioners in this District. Likewise, the resort hotels market wellness and therapeutic vacation packages.

## **Housing**

During the period 2002-2005, Hawai'i's housing market was red hot. However, from 2007, the housing market began to slow across the State, due in part to the nation-wide "sub-prime loans" problems. While more recent data was not available during the writing of the CDP that is South Kohala specific, it is important to note that the housing market nationally has slowed considerably. Hawai'i's housing market has also shown signs of slowing down. By mid 2007, home prices in most areas of the State were flat or slightly lower than their 2006 highs. While home prices have not risen as rapidly as earlier in the decade, many residents still consider the price of homes to be high.

**Table 2.8 West Hawai'i Median Value Home Sale Price\* 2001 – 2006 by District**

District	2001	2005	2006	Percent Change 2001-2006
South Kohala	\$225,000	\$480,000	\$549,950	144%
North Kohala	---	\$675,000	\$695,000	---
North Kona	\$267,000	\$579,030	\$654,900	145%
South Kona	---	\$395,000	\$735,000	---

\*Prices for single-family homes only  
Source: (West Hawai'i Today, 2006)

The key planning implications related to South Kohala's demographics and economy include:

- **The population of the district has increased significantly over the last two decades. The County General Plan projects that the current population of the district will almost double by 2020 if current trends continue**

Given past and future population trends in the district, the underlying planning question that these trends raise is "where will all these new people live and how will the district support this housing expansion with sufficient infrastructure and public services?" If the population of South Kohala increases per the County's General Plan, more public services and facilities will be needed to accommodate this future growth. Services such as schools, fire, police, medical, and various social services as well as more infrastructure, including roads, sewer, water, and electricity will need to be provided.

There may need to be an overarching policy in regards to moderating future population growth for South Kohala.

- **The resort areas in South Kohala are not only major employers in the district, but these resorts are some of the biggest employers in the entire County.**

Both residents of South Kohala and residents who live outside of the district work at the resorts. These large employment and visitor centers need adequate infrastructure to accommodate the large number of guests and employees. Workforce housing near these resorts would reduce daily commute time for hotel employees and also reduce traffic along the major highways.

- **Agricultural related industries are still a major part of the district's economy**

While tourism is South Kohala's largest economic engine, the district still has a viable agriculture industry in the Waimea area. However, for agricultural businesses to remain viable in the future, steps need to be taken to help these businesses deal with the pressures of urbanization, rising land prices, and a labor pool that is in decline.

- **Cost of housing has risen significantly**

There is a great need to provide affordable housing throughout the district.

## 2.5 CULTURAL AND NATURAL RESOURCES

### 2.5.1 CULTURAL AND HISTORIC RESOURCES

#### WAIMEA CULTURAL RESOURCES

Waimea has many historic and cultural resources. Table 2.9 below lists some of the historical sites of Waimea. Note: this list was derived from available source material, and is not intended to be comprehensive or definitive.

**Table 2.9 Historical and Cultural Sites in Waimea**

NATIVE HAWAIIAN CULTURAL SITES			
No.	Site	Structure	Description
1	Haleino "Women's Heiau"	Heiau	Historical accounts attribute the founding of the heiau to high chiefess Hoapiliahae. It is said that young virgins performed ceremonies at the heiau and earned about the science and practices of healing
2	Heiau built by Makuakua	Heiau	The akua Makuakua observed a rainbow and found the goddess Wao. The two lived at Hoku'ula. Wao returned to the Waimea hillsides to bear children. Thus the hillsides were sacred. A kapu was proclaimed in her honor on the hillsides. The boundary of the kapu area was delineated by rolling stones down the hill. The place where the stones stopped delineated the boundary of the area.
3	Lālāmilo Field System	---	Identified in 1976 as a veritable treasure of 400+ acres of pastoral lands, house sites, hearths and stone enclosures. The field system was developed by Native Hawaiians prior to contact with western civilization.
4	Various Agricultural, Habitation, Religious, and Burial sites	---	Several of these sites are known to exist in the vicinity of various streams, pasture lands, and hillsides of Waimea. Although most have not been surveyed, they have been identified especially in areas that have not been altered by farming or urban development.

**Table 2.9 Historical and Cultural Sites in Waimea**

PANILOLO SITES			
No.	Site	Structures	Description
5	Parker Ranch Race Track	Track built in (1901) Horse Barn (1915); Attendant House and Stallion Barn (1930).	---
6	Additional Parker Ranch Structures	Mana Complex (1847); Spencer Home (1875); Manager's House (1885); Kahilu Hall (1918).	---
7	Parker Ranch Slaughter House	---	Stone wall enclosure that formed Minuke Ole pen. Built in the early 1940's.



No.	Site	Structure	Description
8	Pukalani Complex	This complex of buildings consists of: <i>Pu'u Hihale Complex, Breaking Pen Stables, Carriage Barn (Surgery Barn), Black Smith Stable, Pukalani Stables</i>	These buildings were essential to Parker Ranch's ranching operations. Possibility of incorporating this complex into a heritage community with a heritage center / museum. Built in the late 1800's.
9	Breaking Pen	---	Coffee shack and stone wall enclosure. Built in 1905.
10	Pu'u Hihale Complex	Viewing lanai (1900); Cowboy Gang Stables (1930, remodeled 1985); Bucking and Grooming Chute (1944).	Stone wall corral with walls 8' high by 6' wide. Cattle branding viewing lanai. Chute built for the Marine Rodeo. Referred to as the "Paniolo Heiau" and is considered the most significant Paniolo historic site in Waimea. Built in the late 1800's.
11	Waimea Stables	Stone wall that preexisted the stables by 50-100 years.	Converted to a working corral in 1985. Originally constructed in 1960.
12	Kemole Corral	---	Rebuilt often. Originally built in 1930.
13	Pu'u Kikoni Corral	---	Rebuilt often. Originally built in 1930
14	Pu'u Kikoni Dairy Site	---	Called New Dairy. Built in 1920.
15	Anna Ranch	---	Anna Lindsey Perry-Fiske, the last of five generations of Lindseys to run the ranch, died at age 95 in 1995 and left the ranch as her legacy to the people of Waimea
16	Pali Ho'oukapapa Dairy Site	Creamery (late 1800's); Corn Silo (1914); Corral (1920+).	Later became a working corral. Originally built in the late 1800's.
17	Mana House Complex	---	Covered in Naughton's work.
18	Makahalau Complex	Corn Crib and Silo (1914); Cowboy Camp House (1920); Makahalau Stables and Corral (1920); Purebred Bull Barns (1935).	Was once a village like Mana.
19	Hanaipoe Line Cabin	---	Became the home for section chief Seichi Morifuji and was kept as a recreational cabin for ranch employees. Built in the 1930's.
20	Waiki'i Complex	Corn Silos (1914); Cooking ovens (1915); Large Barn, Corn Crib and Cowboy Stable Barn (1920); Attendant Corral, Homes and Quonset Huts (various dates).	Ovens of both Russian and Portuguese origin.

**CHURCHES**

No.	Site	Structures	Significance
21	Imiola Church	---	Listed on National Register of Historic Places. Use of Koa wood both structurally and for decoration. Built by Reverend Lorenzo Lyons in 1857.
22	Ke Ola Mau Loa	---	Built in 1931.

HOMES			
No.	Site	Structures	Significance
23	Frank Spencer House	---	Combined styles and the use of Koa wood. Home of Judge Bickerton and served as an early court house and hotel. Associated with several of Waimea's prominent families. Built in 1850.
24	Antony Smart House	---	Original location in Waiemi. Built during the 1830's.
25	Purdy House	---	Built by Harry W.W. Purdy who was one of Waimea's earliest foreign adventurers and a contemporary of John Palmer Parker. Built in 1840.
26	Old Lindsey House	---	
27	Hale Kea (Jacaranda Inn)		Home of A.W. Carter. The oldest part of Hale Kea was built around 1885 and was first used as an Episcopal Church.
STORES			
No.	Site	Structures	Significance
28	Kamuella Liquor		Formerly this location was the Wakayama Theater, a gathering place for early Japanese settlers in Waimea.
29	Chock In	---	One of the last surviving stores that was built near the turn of the century. Built in 1908.

Table 2.10 Historic and Cultural Sites in Kawaihae

No.	Site	Structures	Significance
1	Pu'ukohola Heiau	---	The heiau was dedicated by Kamehameha the Great to his war god Kukailimoku. Thousands of laborers participated in the construction of the heiau; even chiefs participated. It is at the heiau that Kamehameha became the ruler of the entire Island of Hawai'i when Kamehameha's soldiers slew his cousin Keoua. Built around 1791.
2	Mailekini Heiau	---	Located immediately makai of Pu'ukohola heiau, Mailekini Heiau was converted into a fort by Kamehameha.
3	Hale o Kapuni Heiau	---	Hale-o-kupuni is an off-shore underwater heiau located somewhere in Pelekane Bay. It is believed to be a shark heiau where sacrifices were offered to sharks.
4	Remains of John Young's House	---	John Young was one of Kamehameha's closest advisors. Remains of his house are believed to be near the Makahuna Gulch. The house was originally constructed in the early 1800's
5	Kawaihae Lighthouse	---	
6	Salt making areas	---	Kawaihae was known for salt-making during pre-contact times. The area also provided salt for the cattle and beef industry during the 19 <sup>th</sup> century and early 20 <sup>th</sup> century.
7	The "original" Kawaihae Well	---	The location of the original Kawaihae well where people supposedly fought over the water is located under the anchor at the intersection of Kawaihae Road and Akoni Pule Highway.
8	King's Residence	---	Located mauka of Pelekane Bay, this area was where many ali'i held court including Kamehameha I and Kamehameha II. It is also believed by some that Queen Emma was born here.
9	Keolahou	Church	The church was rededicated in 1859 at a cost of \$800. A hundred years later in 1959, the church was razed. Only ruins of the church remain.

**Table 2.11 Historic and Cultural Resources in Puakō**

No.	Site	Structures	Significance
1	Hokuloa	Church	The church was established by Father Lorenzo Lyons in 1858. The church, named Hokuloa, means “evening star.” Weekly services are still held at the church. The church also serves as a meeting place for the community.
2	Puakō Petroglyph Field	---	The petroglyph field is the largest petroglyph field in the State. Approximately 3,000 symbols were carved in the lava fields here. Access to the petroglyph field is through the Mauna Lani Resort.

### 2.5.2 COASTAL RESOURCES

Land-based sources of pollutants, such as sediment and nutrients, are among multiple factors threatening the quality of coastal waters and coral reef ecosystems in Hawai‘i. These pollutants make their way into the ocean via surface water runoff and seepage from ground water.

The Pelekane Bay Watershed has been classified by the State DOH as a “Category I watershed,” a watershed in need of restoration. The marine environment and coral reefs of Pelekane Bay have been severely stressed because of worsening water quality. The Pelekane Bay watershed has been significantly altered with the construction of the Kawaihae Harbor in the 1950’s and 1960’s. In 2004, Pelekane Bay was listed as an impaired body of water under the federal Clean Water Act because of high turbidity and excess sediment. The State DOH listed the Pelekane Bay Watershed as a priority watershed, in most urgent need of restoration in 2004. In 2003, DOH recorded turbidity in the bay to be close to 18 times the allowable water quality standard. (Pelekane Bay Watershed Sediment Runoff Analysis, 2007)

Waters off of Hapuna Beach Park and Spencer Beach Park are also on the list of DOH impaired water bodies. However, these two sites are not nearly as heavily polluted as Pelekane Bay.

The health and condition of South Kohala’s coral reefs has been affected by both natural and man made events. Natural disasters such as tsunamis, storms, and lava flows have all had a significant negative impact on coastal reefs over time. Man made events have also impacted the health of coral reefs in a negative way such as the dredging of reefs to clear waterways for boats or development and through the introduction of feral ungulates such as goats. The feral ungulates over graze and remove the vegetative cover on land. During rain events, the lack of vegetative cover causes soil to run off into the ocean and smother the reefs.

### 2.5.3 NATURAL DISASTERS AND HAZARDS

#### Wildfires

Dry invasive grasses, especially fountain grass, cover much of the inland and coastal areas in the southern portion of the district. The dry, dense, biomass of grass is an easily combustible fuel that carries fire quickly over large areas. Also located in these areas are small groves of kiawe trees, which are scattered throughout the landscape. Wildfire is a major threat to the health and safety of most South Kohala residents and is the most frequently occurring natural hazard in the region. Wildfires can be defined as any non-structural fire in a



October 2007 wildfire near a Mauna Lani Resort Golf Course

wild area. The district's gusty winds, naturally dry and hot climate in the southern and coastal regions, and the large amounts of fountain grass that grow in these areas not only increases the likelihood of wildfire occurrence, but also contributes to the rapid spread of fire. In July 2007, a brush fire burned over 9,300 acres near the Waikoloa Rd. and Māmalahoa Hwy. junction. Also, in October 2007, nine fires were started by arsonists, including a wildfire that spread over 1,000 acres near the Puakō community.

The dryland forests that once thrived in the region are lost, primarily due to wildfire. Hawai'i Island's dryland forests are one of the most endangered habitats in the world. These native habitats support many Hawaiian cultural activities. As wildfires wipe out more native habitat, invasive grasses invade these areas and the wildfire cycle continues. Remnants of the old dryland forests exist near Waikoloa Village. An intact, but seriously threatened, dryland forest containing rare native Wiliwili trees and native and endangered Uhiuhi trees exists just south of the village. The trees range in age from 5 to 600 years. A significant portion of the forest is cared for by the Waikoloa Village Outdoor Circle's Waikoloa Dry Forest Recovery Project. The project area is about 250 acres.

South Kohala has all the required elements for a wildfire disaster. It is possible that during extreme fire conditions with dry fuels and high winds, fire fighters, equipment, and water supplies can become depleted as numerous homes ignite and burn. Fire crews cannot simultaneously evacuate residents and effectively take suppression action in a subdivision of homes that are igniting within a few minutes of each other. A map of wildfire hazard areas can be found in **Appendix F**.

Suppressing wildfires in unoccupied range or open lands or forests is expensive. These costs increase significantly when firefighters must concentrate resources to save property and lives in developed areas. For instance, the expenses for suppressing the 2005 Waikoloa fire were more than \$250,000. These costs are ultimately born by taxpayers.

The County Department of Public Works (DPW) has maintained a list of heavy equipment needed for fighting wildfires and updates this list on a weekly basis so that the equipment can be mobilized when needed. DPW strategically pre-positions the fire fighting equipment to prepare for wildfires according to the time of year or around special occasions such as long weekends. The Hawai'i Wildfire Management Organization (HWMO), a 501(c)(3) nonprofit, has been working cooperatively with the Big Island Wildfire Coordinating Group and other agencies to increase community awareness about wildfire mitigation hazards. Several communities have begun to implement wildfire management strategies including Waikoloa, Puakō, and Waialea Bay. The HWMO has received wild land urban interface and other grants to build an island wide inventory of wild fire resources, create fire history maps, install dip tanks, conduct hazard assessments and research on mitigation, and to develop community fuelbreaks. Primary government agencies involved in these efforts with HWMO include the County of Hawai'i Fire Department and the State Department of Land and Natural Resources Division of Forestry and Wildlife. (County of Hawai'i Drought Mitigation Strategies, 2004)



A helicopter helps to contain a wildfire near Puakō  
October, 2007

There are no County regulations that require residential subdivisions to participate in wildfire mitigation programs. County regulations for new subdivisions to reduce wildfire hazards, such as requiring adequate fire truck access, hydrant placement, and water system sizing are in place.

While building codes have been recently revised, the design of subdivisions and new developments can be improved to prevent wildfire disasters and costs to the public, e.g strategic use of green spaces and landscaping, placement of dip tanks, etc. Also, the management of fuels, primarily grasses, on the landscape needs to be addressed to reduce risks to neighboring communities and costs to the taxpayers.

### **Earthquakes**

Hawai'i Island experiences thousands of earthquakes each year; the majority of the earthquakes are so small that they can only be detected by sensitive instruments. The most recent major earthquake on the Big Island occurred on October 15, 2006 when a 6.7 magnitude earthquake and magnitude 6.0 aftershock struck the Big Island. The earthquake caused significant damage to infrastructure in South Kohala. The earthquake damaged Piers 1 and 2a at Kawaihae Harbor, severely limiting the amount of cargo and marine traffic that the harbor can accommodate.

The earthquake also caused significant damage to the Mauna Kea Beach Hotel. The hotel has been closed due to earthquake related damage and does not plan to reopen until November of 2008. Many of the hotel guests patronized the small shops and businesses in the Kawaihae area. The hotel's closure has caused the loss of jobs and has significantly reduced the number of people who have patronized local businesses in the last year.



One of the reservoirs that services the Waimea Water Delivery System

In Waimea Town, there is a concern that future earthquakes may catastrophically damage the County reservoirs that are located above the town. With the recent Kaloko Dam tragedy on the island of Kauai, which resulted in the loss of lives, and the recent earthquake that occurred on the Big Island, it would be prudent for the County to consider establishing an early warning system for the reservoirs above Waimea Town. Currently there is an emergency *action plan* that is in place in case of flooding caused by reservoir water overflow from heavy rains, but there is no early warning signal or siren in place, should there be significant damage caused to the reservoir by earthquake or other events. Damage to the County reservoirs above Waimea Town is discussed in more detail in section 2.5.5.

### **General Community Readiness**

To date, a small number of South Kohala residents have undergone CERT training. The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

During times of emergency, children who are attending school could be cut off from access to either their parents/legal guardians or their homes. This was the case during recent fires near Waikoloa Village and Puakō. Students and parents in these areas were cut off from each other. There is a need to provide for safe transport and / or housing for students should natural disasters occur when schools are in session.

### **Unexploded Military Ordnance (UXO)**

From 1943 to 1953, the U.S. military utilized 130,000 acres of land with at least 40 percent of the area being used for training with live military munitions. Following the deactivation of Camp Tarawa and Waikoloa Maneuver Area, the Department of Defense performed cleanup activities in

accordance with the "Explosive Ordnance Details for Disposal", a series of safety and health standards from the 1940s to 1950s, the time in which this cleanup was done. In 1954, two Parker Ranch employees were traversing the former training area and were fatally injured as they encountered UXO. Within the last decade, UXO has been found at Waimea Middle School and near homes in Waikoloa Village.

"FUDS," the Formerly Used Defense Sites program, addresses potential risks on lands formerly owned or controlled by the Department of Defense prior to 1986. The FUDS program is administered and implemented nationally by the U.S. Army Corps of Engineers and within the Pacific Islands by the Honolulu District. The Waikoloa FUDS area covers 137,000 acres with approximately 50,000 acres considered "high risk." Most of the "high risk" land is near Waimea, in the vicinity of the old Camp Tarawa. To date the Army Corps has cleared about 8,000 acres of land and removed approximately 1,800 pieces of live munitions. It's estimated that to clean up the entire 137,000-acre Waikoloa FUDS area will cost \$680 million over the span of 50 years or more. Teaming with experts from the Army Corps' Huntsville Military Munitions Center of Expertise and its contractors, innovative "packages" of sensing technologies have been developed in order to efficiently scan beneath the surface throughout the Waikoloa Maneuver Area FUDS.

Figure 2.5 illustrates the FUDS areas that are at "High," "Moderate," or "Low" risk of having UXO. The area on the map indicated as the "Pu'u Maneuver Area" has not yet been surveyed for UXO. With the continuing development of the Waimea and Waikoloa areas, the Corps' FUDS team has taken on an aggressive approach to reaching current and future homeowners and developers. Private land owners who have property in "High" or "Moderate" risk areas (which have not yet been cleared by the Army Corps) and who intend to develop their lands are advised to contact the Army Corps of Engineers prior to the start of construction. The Army Corps can provide private land owners with UXO support which may include survey of lands for UXO and removal of UXO if UXO are found.



## 3 DISTRICT-WIDE POLICIES

### OVERVIEW

In their initial meetings, the South Kohala Steering Committee was asked to prioritize land use issues for the entire district based upon the results of the Community Readiness Process. While the district faces many more issues than those that are listed below, it was necessary to focus on top priority issues in order to develop actionable plans, for the CDP.

The priority issues that the Steering Committee selected were, not in any order of priority, the following:

- Preserve Culture/Sense of Place
- Traffic and Transportation
- Affordable Housing
- Emergency Preparedness
- Environmental Stewardship and Sustainability

At a subsequent Steering Committee meeting, priority issues for four South Kohala communities were discussed: Waimea, Waikoloa Village, Kawaihae, and Puakō. It was then agreed that the CDP would focus on planning for these four communities, rather than attempting to develop Action Programs on a “district-wide” basis. In effect, then, the “South Kohala Community Development Plan” became a collection of four distinct community plans.

Although the CDP planning process focused on specific issues for the four communities, there were a number of ideas and concerns that were raised that have applicability to the entire district of South Kohala. These policies are still subject to further discussion with the Planning Department and with other County agencies and departments. The policies presented below are intended to guide future developments in the district rather than address specific short-term actions. These ideas are organized by the priority issues that were initially chosen by the South Kohala Steering Committee. The Steering Committee acknowledged other important General Plan topics that because of time constraints were not specifically identified in this CDP. Until such time as these topics can be addressed in more detail for South Kohala, the more general policies, standards, and courses of action listed in the General Plan provide some framework for possible action strategies. (See **Appendix D**)

### **GENERAL POLICY NO.1: PRESERVE THE CULTURE AND SENSE OF PLACE OF SOUTH KOHALA COMMUNITIES**

#### **Related sub-policies are:**

- 1.1 Preserve Cultural and Historic sites and structures.** The newly created Hawai‘i County Cultural Resources Commission shall include in its programs appropriate actions to protect and preserve important cultural and historic sites and structures in South Kohala.

- 1.2 The County Planning Director is requested to submit a draft of a bill to the County Council that sets out a concurrency management system for South Kohala.** The purpose of the bill is to create a system that will impose reasonable and fair infrastructure concurrency requirements on developments within the district that already possess zoning entitlements, and are therefore not currently subject to the concurrency requirements of HCC 25-2-46. The public facilities for which concurrency is to be managed shall be the same as those set out in HCC 25-2-46 as amended. The approach to concurrency management shall be modeled on the approach set out in HCC-25-2-46 as amended, provided that concurrency requirements shall be established at the time of any tentative approval of a preliminary subdivision plat (HCC 23-62 and 25-6-22), tentative approval of a preliminary condominium property regime map (HCC 23-131), plan approval (HCC 25-2-75), planned unit development permit approval (HCC 25-6-6) and project district site plan approval (25-6-46 and 25-6-56) or substantial revision thereof. Concurrency requirements shall be updated when an extension of time to perform a condition of such an approval is granted. The South Kohala concurrency management system shall (1) provide a process by which a developer or land owner can request full or partial relief from the requirement under appropriate conditions, based on the type of development proposed and its overall impact on the adequacy of public facilities, (2) take into consideration voluntary actions that a developer has taken or proposes to take to improve the adequacy of district public facilities in the context of the proposed development (3) exempt subdivisions for the purpose of familial transfers of property, (4) provide for situations in which a developer has vested property rights based on specifically proposed and approved plan elements that were granted at an earlier stage in the development approval process, (5) provide a fair way to address developments that are underway and being relied upon to build infrastructure for the community at large, to ensure that they remain viable, and (6) provide a forum to allow those that would be affected an opportunity to air their concerns.

(See **Appendix E** for list and description of Hawai'i County Codes (HCC) that are referenced.)

- 1.3 Provide for more developed park space and recreational facilities in South Kohala.** The County Planning Director, in consultation with the Director of the Department of Parks and Recreation, shall submit a draft of a bill to the County Council to amend HCC Chapter 8. The intent of the amendment shall be to standardize the requirements for new developments to provide park space in South Kohala and other Hawai'i County Districts. In developing the amendment, the following concepts shall be considered: (1) the definition of "parks and playgrounds" in HCC 8-2(8) shall include only improved areas and facilities used for recreational activities, such as athletic fields, and shall not include golf courses, marinas, or other similar uses for which a fee is charged, (2) the exemption provided in HCC 8-4(a)(1) shall not count existing County beach parks, parks and playgrounds that are State-owned or federally-owned and shall only count parks and playgrounds within the community in which the development is to be located, (3) the park space or off-site improvements shall be located or in-lieu fees shall be used within the community in which the development is to be located, and (4) when the rezoning ordinance for the development has specific requirements that it develop park space within the project, and / or dedicate park land to the County, or provide other public recreational amenities, those requirements shall remain in effect as long as the rezoning ordinance is not amended.

(See **Appendix E** for list and description of Hawai'i County Codes (HCC) that are referenced.)

- 1.4 "Time Share" developments shall only be allowed within the boundaries of the District's three major destination resorts: Waikoloa Resort, Mauna Lani Resort, and Mauna Kea Resort.** Time Share projects are not compatible with residential areas that are located outside of the destination resorts of the district.

- 1.5 The County shall coordinate with the State Department of Education to develop plans for a public high school within the South Kohala District.** As the population of South Kohala continues to grow, the presence of a public high school will be important for promoting the district's sense of place.
- 1.6 It is recommended that the Planning Department provide opportunities and forums for public review and comment for all subdivisions, PUD's, plan developments, and cluster developments, proposed in the District of South Kohala.** Residents of South Kohala have called for like more transparency in the subdivision/plan development approval process, by way of a public presentation of the proposed development and the opportunity for members of the community to raise issues and voice their opinions of the proposed project. Subdivision approval is a key point in the development process in which community input is most important.

**GENERAL POLICY 2: PROVIDE FOR THE TRANSPORTATION AND CIRCULATION NEEDS OF THE SOUTH KOHALA COMMUNITY AND FOR COMMUTERS TO/FROM SOUTH KOHALA.**

Related sub-policies are:

- 2.1 New major roads in the District shall incorporate "complete street" standards, including provisions for vehicular traffic, pedestrians, bicycles, and public transportation, except in the case of extreme mitigating factors.** "Complete Streets" are streets that are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street. (<http://www.completestreets.org/>) Improving the safety and viability of alternate modes of transportation in South Kohala will encourage more people to leave their cars at home and walk, bike, or bus to their destinations more often.
- 2.2 Establish bicycle, pedestrian, and equestrian travel ways to link up the communities within the District (Waikoloa Village, Waimea, Puakō, Kawaihae, and the resort nodes) while also establishing alternative travel ways within the individual communities.** Also, establish public trails to various cultural locations and other sites of interest, where a significant level of visitation is appropriate and does not pose a threat to the resource, as identified by the community.
- See **Appendix H** for list of suggested alternative travel ways and trails.
- 2.3 Build safe roads.** Currently there are existing roads in the district such as the Kawaihae Road and Waikoloa Road that can be considered dangerous without truck runaway ramps.
- 2.4 Identify and establish transit corridors for future mass transit service within the district.** While the provision of mass transit service such as rail may be decades away for South Kohala, the County should plan ahead for future mass transit service in the district by establishing transit corridors. Setting aside land now for transit corridors may help to reduce future costs of implementing mass transit services.

**GENERAL POLICY NO. 3: PROVIDE AFFORDABLE AND WORKFORCE HOUSING RESOURCES FOR LOW AND MODERATE INCOME INDIVIDUALS, FAMILIES, AND FOR THOSE RESIDENTS OF SOUTH KOHALA WITH SPECIAL NEEDS**

Related sub-policies are:

- 3.1 **The County shall establish policies and programs for the implementation of affordable and workforce housing projects in those areas of the island where such projects are most needed, including Waimea and Waikoloa Village.**
- 3.2 **The South Kohala Community shall organize one or more community-based, non-profit entities that can partner with the County Office of Housing and Community Development and with other non-profit organizations and for-profit contractors and developers to provide affordable housing units.**
- 3.3 **The County shall work toward the development of housing for senior citizens and assisted living facilities in South Kohala.**
- 3.4 **The County shall provide more opportunities for low income housing and transitional shelters.**

**GENERAL POLICY NO. 4: DEVELOP PROGRAMS AND STANDARDS THAT WILL PROTECT THE SOUTH KOHALA COMMUNITY FROM NATURAL HAZARDS, INCLUDING MAJOR STORMS, FLOODING, TSUNAMI, LAVA FLOWS, AND WILDFIRES**

Related sub-policies are:

- 4.1 **The County shall develop plans and programs for emergency routes so that people can safely move away from life-threatening natural hazards.** Of special concern is the threat of tsunami in coastal areas, and the threat of wild fires in dry upland areas like Waikoloa Village.
- 4.2 **Adopt development standards and community plans that mitigate wildfire risk and maximize responder safety, where wildfire danger is present:**
  - The County Planning Department should consider requiring all new subdivisions to incorporate through their covenants, codes, and restrictions “firewise landscaping principles” for common areas and for individual homes, including defensible space emphasizing fire and drought resistant plants, as well as native plants when appropriate. This requirement could be a condition for any final subdivision approvals.
  - The Building Department of the County’s Department of Public Works should consider giving every individual or entity applying for a building permit(s) firewise checklists for building and landscaping. These checklists could also be made available on the County’s website for downloading.
  - The County’s Real Property Tax Department should consider implementing an additional tax incentive for landowners of agriculturally zoned land that, 1) would have a grazing management plan reviewed and approved by a qualified County or State agricultural specialist (e.g. the Natural Resources Conservation Services, the University of Hawai’i Cooperative Extension) with an objective for managing wildfire fuels and which may include grazing reserve areas for drought periods, and 2) graze 100% of the usable grazing area identified in the certified grazing plan. Other programs that encourage the use of extensive cattle grazing as a

practical means of controlling fire fuel while maintaining the landscape, could also be considered.

- The County Planning Department should consider requiring all applicants for subdivision approvals to complete a wildfire hazard mitigation plan. This plan should be completed before final subdivision approval is granted. These plans should recommend specific measures for reducing wildfire hazard in the interface areas between the subdivision and any range/open lands or forests and in any open areas within the subdivision. When developing these elements, the following standards should be considered: 1) National Fire Protection Association (NFPA) document 1141, *Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas*, 2) National Fire Protection Association (NFPA) document 1144: *Standard for Reducing Structure Ignition Hazards from Wildland Fire*, and 3) Criteria which delineate when and how new subdivisions will be required to install diptank(s).

- 4.3 Government agencies should consider providing more emergency shelter facilities in South Kohala.** Future civic buildings in South Kohala such as new schools or community centers should be designed to serve as emergency shelters as well. These civic buildings should be built so that they are disaster resistant.

**GENERAL POLICY NO. 5: DEVELOP GUIDELINES AND PROGRAMS THAT PROMOTE ENVIRONMENTAL STEWARDSHIP AND THE CONCEPT OF SUSTAINABILITY**

- 5.1 Proposed uses of natural resources shall be duly evaluated by the responsible public entities to ensure that each such use is consistent with the sustainable long-term health of the eco-system, including the direct and indirect impact on coastal waters.** Public entities shall base their decision-making on the best possible data in order to ensure sound short and long-term management of public resources. In the event of uncertainty of data, consistent with the Public Trust Doctrine of the Hawai'i State Constitution, the public entity shall apply the *Precautionary Principle* to conserve the resource. The Precautionary Principle requires long-term vision and mandates that government entities favor caution and conservation in any case in which information is uncertain. In evaluating any proposed use, consideration must be given to the cumulative impact of existing and previously approved developments.
- 5.2 The County shall require water conservation measures and plans for new large scale development projects (i.e. residential and agricultural subdivisions, resorts, commercial and industrial centers, etc.) in South Kohala**
- 5.3 Ensure the quality of South Kohala's ground water resources and marine resources.** The County should consider adding the following requirement to HCC 23-85(b) for residential projects: No cesspools or seepage pits shall be installed in South Kohala after the effective date of this plan. The effluent from any septic tank installed in South Kohala after the effective date of this plan shall be discharged into an absorption system that meets the design standards of the State Department of Health.
- 5.4 Prohibit the installation of future injection wells in Special Management Areas if waste-water is NOT treated to an R-1 level of water quality.** Injection wells can be a major source of pollution for coastal waters if wastewater is not treated to a high level. Controlling the installation of future injection wells will help to improve the quality of near shore waters. Furthermore, the reuse of treated R-1 quality effluent can be encouraged for irrigation and other purposes.

- 5.5 **Preserve visually and environmentally important open space grasslands, ocean views, views of the pu'u, and South Kohala's unique "Five Mountain Views" of the Kohala Mountains, Mauna Kea, Mauna Loa, Hualalai, and Haleakala.**
- 5.6 **The County should encourage and promote LEED standards for buildings and neighborhood design by providing incentives for projects that achieve a LEED certification level of "Silver" or higher.** LEED stands for "Leadership in Energy and Environmental Design." The United States Green Building Council (USGBC) created LEED as a rating system for green building. Green building refers to the design, construction, and operation of buildings in an environmentally friendly way. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environment. The LEED rating system (used to determine LEED certification) awards points to projects based on how the project incorporates green building principles into its design and construction.

While achieving LEED certification may drive a project's development cost up in the short term, developers should keep in mind the long-term benefits of green building such as savings in energy costs and general benefits of green building to the surrounding community and environment. The County should consider providing incentives to developers who seek LEED certification to offset additional short-term development costs incurred by LEED certification.

- 5.7 **Increase Enforcement of the County Lighting Code and modify the existing code as necessary.** Outdoor lighting fixtures that are not in compliance with the County Lighting Code are a significant source of light pollution in the night skies. This is of special concern for astronomers atop Mauna Kea. The County needs to improve its enforcement of illegal light fixtures in order to reduce light pollution. The County is also currently working with astronomers and is in the process of updating its lighting code to add requirements that would help to reduce light pollution. However, with no enforcement, a newly revised lighting code may have minimal effects in reducing lighting glare in South Kohala's night time skies.
- 5.8 **The County should develop or collaborate with other agencies and organizations to develop watershed management programs for the district of South Kohala.** These programs should address flood mitigation, strategies for reducing water run off such as restoring vegetative cover in mauka areas or construction of detention basins and the effects of impermeable surfaces on groundwater infiltration.
- 5.9 **Water quality monitoring should be considered on a district-wide basis.** Four types of monitoring are needed: ocean water, ground water, leach fields (natural or constructed) and anchialine ponds. Consistent testing and monitoring protocols should be developed. Currently, the resorts in the district perform monitoring and that data is reported to the County. However, this monitoring has not been systematic or consistent. The State Department of Health currently has a weekly beach monitoring program designed to find indicator bacteria at selected beaches in West Hawai'i. The County Planning Department is currently evaluating DOH rules and may adopt additional testing requirements. The Planning Department is also currently evaluating monitoring guidelines for groundwater and anchialine ponds. Monitoring of water quality in the district should be coordinated by the County in order to ensure that there is no duplicate monitoring and to ensure the quality of water throughout the district.
- 5.10 **Encourage the County to review and revise as appropriate rules and guidelines that will reduce flooding and erosion that may occur from developing on steep slopes.**



**5.11 Promote Alternative Energy.** South Kohala is blessed with strong winds and ample sunlight throughout the year. The County should support the development of more natural energy generating facilities.

**5.12 Incorporate the concept of “Sustainability” as defined in the State of Hawai’i “2050 Sustainability Plan” in all future planning and projects in South Kohala.** The State of Hawai’i “2050 Sustainability Plan” defines sustainability as a Hawai’i that achieves the following:

- Respects the culture, character, beauty and history of our State’s island communities
- Strikes a balance between economic, social and community, and environmental priorities
- Meets the needs of the present without compromising the ability of future generations to meet their own needs.

To view the Hawai’i 2050 Sustainability Plan, please see: <http://www.Hawai’i2050.org/>

**5.13 Support policies and programs that promote the concept of food sustainability.** Policies and programs that make food production a priority such as preservation South Kohala’s Important Agriculture Lands, allocating sufficient water resources for productive farming, or encouraging developers to landscape their projects with fruit trees or other types of plants that provide food, should all be emphasized and supported.

