

PANA‘EWA



REGIONAL PLAN

March 24, 2009



DEPARTMENT OF HAWAIIAN HOME LANDS

MICAH A. KĀNE
Chairman
Hawaiian Homes Commission

COMMISSIONERS
Perry O. Artates (Maui)
Donald S. M. Chang (O'ahu)
Stuart Keahiahi Hanchett (Kaua'i)
Malia Patrice Kamaka (West Hawai'i)
Francis Kahoku Lum (O'ahu)
Trisha Morikawa (O'ahu)
Alapaki Nahale-a (East Hawai'i)
Henry K. Tancayo (Moloka'i)

Kaulana H. Park
Deputy to the Chairman

Robert Hall
Executive Assistant
to the Chairman

DEPARTMENT OF HAWAIIAN HOME LANDS
HALE KALANIANA'OLE
91-5420 KAPOLEI PARKWAY
KAPOLEI, HI 96707

www.hawaii.gov/dhhl

CHAIRMAN'S OFFICE
Telephone: (808) 620-9500
Facsimile: (808) 620-9599

MAILING ADDRESS
P.O. Box 1879
Honolulu, Hawai'i 96805

PLANNING OFFICE
Telephone: (808) 620-9480
Facsimile: (808) 620-9559

Contents

Introduction	2
Elected Officials & Political Boundaries	3 - 4
Key Community Stakeholders & Partners	5 - 6
Partnering Benefits & Examples	7 - 8
History & Cultural Aspects of the Area	9
Hawaiian Home Lands Area Map	10
Adjacent Lands	11
Regional Demographics	12
Development Trends	13 - 14
Roads - Infrastructure	15 - 16
Water - Infrastructure	17 - 18
Sewer - Infrastructure	19 - 20
Utilities - Infrastructure	21 - 22
Regional Services & Public Facilities Map	23 - 24
Special Section - Kamoleao	25
Special Section - Pana'ewa Commercial /Industrial Area	26
Special Section - Pana'ewa Family Center	27
Priority Project Selection Process	28
Potential Priority Project List	29 - 30
Priority Projects	31 - 36



The Department of Hawaiian Home Lands' (DHHL) mission is to manage effectively the Hawaiian Home Lands Trust and to develop and deliver lands to native Hawaiians. DHHL works in partnership with other government agencies, private sector entrepreneurs, and non-profit organizations to carry out this mission. This work includes a collaborative vision, long-range planning, resource allocation, and project-specific joint ventures. DHHL believes that these partnerships benefit not only its native Hawaiian beneficiaries but the larger community as well.

This report has been prepared to facilitate the work of such partnerships as DHHL and others develop lands in Pana'ewa. Specifically, this report is intended to:

- *Help identify opportunities for partnerships with DHHL in the development of its Pana'ewa lands;*
- *Provide information essential to the planning of projects, services, and entrepreneurial ventures;*
- *Identify key issues, opportunities, and constraints affecting regional development and area improvements;*
- *Assist in the efficient allocation of resources by DHHL and its partners; and*
- *Identify priority projects that are essential to moving development and community improvement projects forward.*

DHHL knows that regional development is a dynamic process with constantly changing opportunities and emerging issues. With that in mind, this document will be regularly updated as development projects progress and priorities change.



Linda Lingle
Governor



James "Duke" Aiona
Lieutenant Governor



Dan K. Inouye
U.S. Senator



Daniel K. Akaka
U.S. Senator



Mazie Hirono
Congressional District 2



Micah A. Kāne
DHHL Commissioner Chairman



Bob Lindsey
Trustee - OHA



Dwight Takamine
*State Senatorial
District 1*



Russell Kokubun
*State Senatorial
District 2*



Jerry Chang
*State House
of Representatives
District 2*



Clift Tsuji
*State House
of Representatives
District 3*



Billy Kenoi
Hawai'i County Mayor



Donald Ikeda
Council District 2



J Yoshimoto
Council District 3



Dennis "Fresh" Onishi
Council District 4

Linda Lingle
Governor, State of Hawai'i
Executive Chambers
Hawai'i State Capitol
Honolulu, Hawai'i 96813
governor.lingle@hawaii.gov
(T) 808-586-0034 (F) 808-586-0006

James R. Aiona, Jr.
Honorable Lieutenant Governor
Executive Chambers
Hawai'i State Capitol
Honolulu, Hawai'i 96813
ltgov@hawaii.gov
(T) 808-586-0255 (F) 808-586-0231

Daniel K. Inouye
U.S. Senator
722 Hart Building
Washington, D.C. 20510-1102
www.inouye.senate.gov
(T) 202-224-3934 (F) 202-224-6747

Daniel Akaka
U.S. Senator
141 Hart Senate Office Building
Washington, D.C. 20510
www.akaka.senate.gov
(T) 202-224-6361 (F) 202-224-2126

Mazie Hirono
U.S. House of Representatives
1229 Longworth HOB
Washington, DC 20515
mazie.hirono@mail.house.gov
(T) 202-225-4906 (F) 202-225-4987

Micah Kāne
Chairman, DHHL
1099 Alakea Street, Suite 2000
Honolulu, HI 96813
www.hawaii.gov/dhhl
(T) 808-586-3801

Bob Lindsey
OHA Trustee
Office of Hawaiian Affairs
711 Kapi'olani Blvd, Suite 500
Honolulu, HI 96813
info@oha.org
(T) 808-594-1888 (F) 808-594-1865

Dwight Takamine
1st Senatorial District
Hawaii State Capitol, Room 204
415 South Beretania Street
Honolulu, HI 96813
sentakamine@capitol.hawaii.gov
(T) 808-586-7335; (F) 808-586-7339

Russell Kokubun
Hawai'i State Senator
State Senatorial District 2
Hawaii State Capitol, Room 407
415 South Beretania Street
Honolulu, HI 96813
senkokubun@Capitol.hawaii.gov
(T) 808-586-6760 (F) 808-586-6689

Jerry Chang
State House of Representatives District 2
Hawaii State Capitol, Room 435
415 South Beretania Street
Honolulu, HI 96813
repchang@Capitol.hawaii.gov
(T) 808-586-6120 (F) 808-586-6121

Clift Tsuji
State House of Representatives District 3
Hawaii State Capitol, Room 403
415 South Beretania Street
Honolulu, HI 96813
reptsuji@Capitol.hawaii.gov
(T) 808-586-8480 (F) Fax: 808-586-8484

Billy Kenoi
Hawai'i County Mayor
25 Aupuni Street
Hilo, Hawai'i 96720
mayor@co.hawaii.hi.us
(T) 808-961-8211

Donald Ikeda
Council District 2
25 Aupuni Street
Hilo, HI 96720
dikeda@co.hawaii.hi.us
(T) 808-961-8225 (F) 808-961-8912

J Yoshimoto
Council District 3
25 Aupuni Street
Hilo, HI 96720
jyoshimoto@co.hawaii.hi.us
(T) 808-961-8225 (F) 808-961-8912

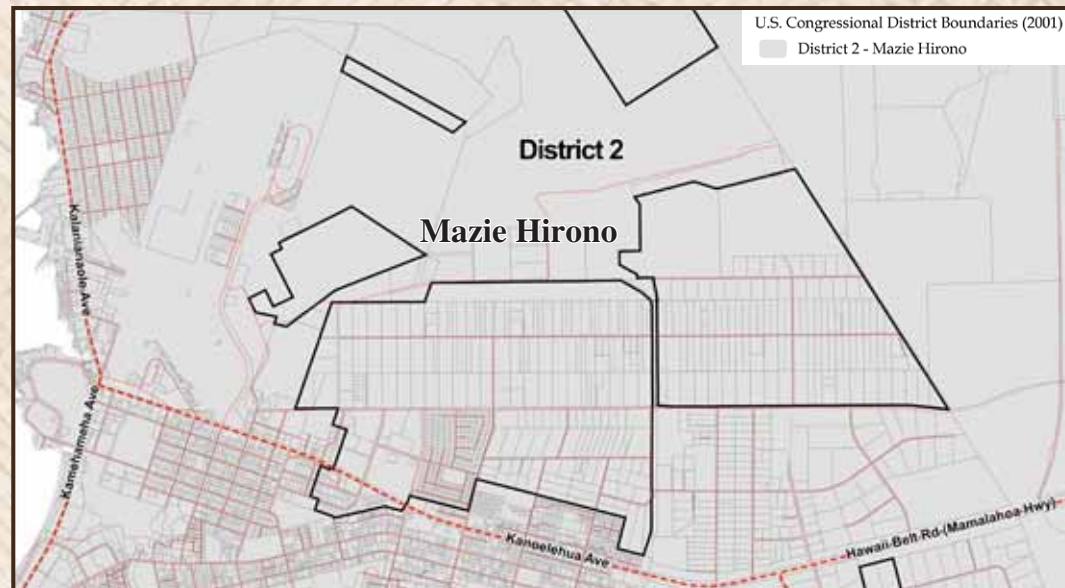
Dennis "Fresh" Onishi
Council District 4
25 Aupuni Street
Hilo, HI 96720
donishi@co.hawaii.hi.us
(T) 808-961-8396 (F) 808-961-8912

State, Federal, & County Leaders

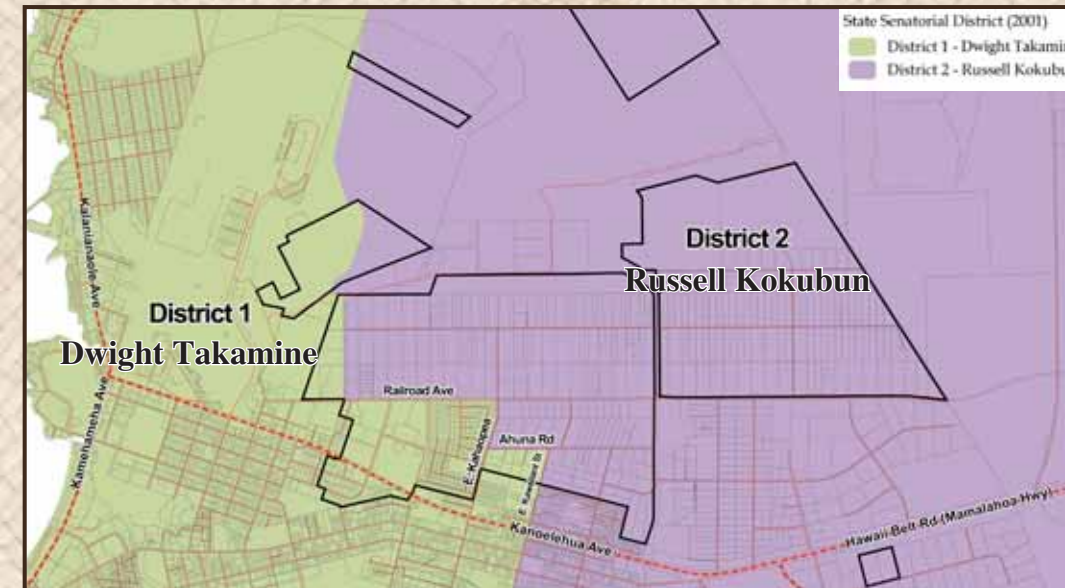
Disclaimer: The information and recommendations expressed in this report are not necessarily endorsed by the people depicted on this page. These same people cannot be held liable for the information presented or the results of the report.

Political Boundaries

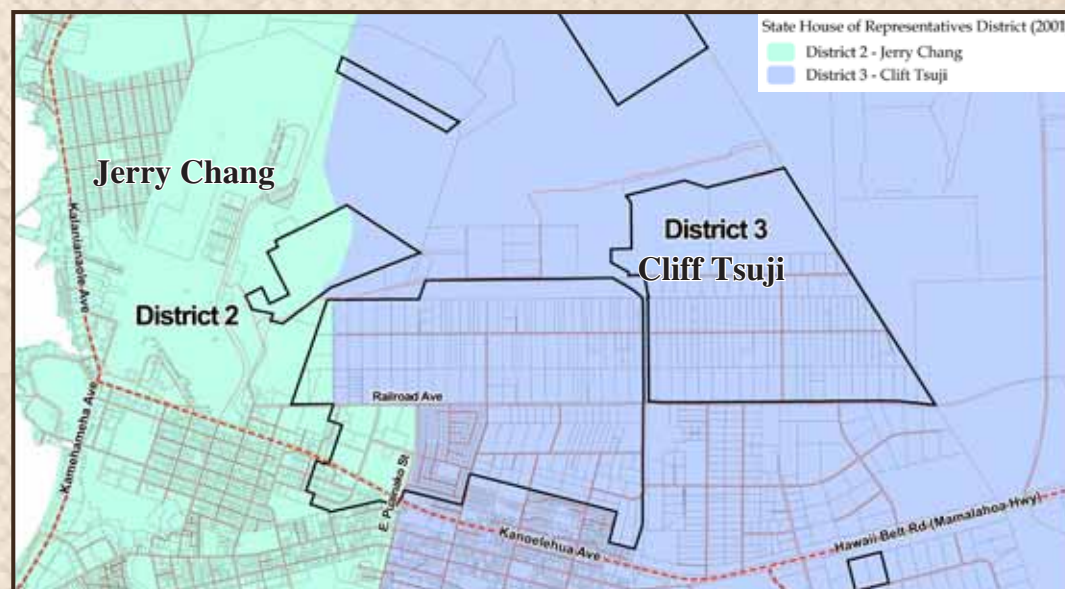
UNITED STATES CONGRESS- DISTRICT 2



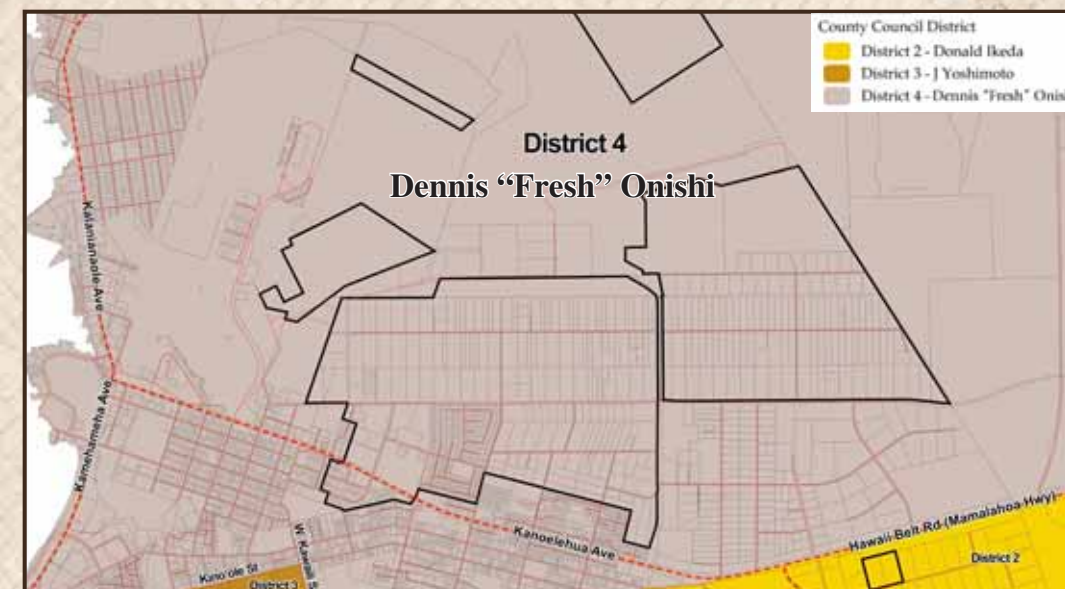
STATE SENATE DISTRICTS



STATE HOUSE OF REPRESENTATIVE DISTRICTS



HAWAI'I COUNTY COUNCIL DISTRICTS



Key Community Stakeholders



Randy Ahuna
Pana'ewa Farm Lots



Leinani 'Āina
Applicant



Maile Akimseu
KPFA-PHHLA



Charmaine Bugado
PHHLCA



Velma Francisco
Pana'ewa Lessee



Donnalyn Kalei
UH-HCC



Jerryl Mauhili
Community Leader



Ken Okimoto
PHHLCA



Russell Pakani
PHHLCA



Stephanie Pakani
PHHLCA



Flo Pua
KPFA



Pete Pua
KPFA



Lehua Veincent
Community Member



Avis Yoshioka
PHHLCA

Not Pictured:

Eleanor Ahuna - Lessee

Christine Hanohano - PHHLCA

Kelly Lincoln - Hawaiian Community Assets & PHHLCA

Ian Lee Loy - Lessee

Sue Lee Loy - Lessee

Milnor Lum - KPFA

Linda Dela Cruz - Lessee

Abigail Napeahi - Lessee

George Nelson - Keaukaha Community Association

Lorena Nelson - Keaukaha Community Association

Mapuana Waipi - Community Member

Disclaimer: The information and recommendations expressed in this report are not necessarily endorsed by the people depicted on this page. These same people cannot be held liable for the information presented or the results of the report.

Key Community Stakeholders



Haunani Apoliona
Office of Hawaiian Affairs



Terry Crowley
Store Manager - Walmart



Pat Englehard
*County Department of
Parks & Recreation*



Willie Kalei
QLCC



Rodney Kaulupali
Sandwich Isles Communications



Kawai Leleohi'ilawe
Haola, Inc.



Mark Munekata
*Hawai'i Economic
Development Board*



Kaloa Robinson
*Hui Malama & Native Hawaiian
Health Care*



Laura Thompson
Alu Like, Inc.

Not Pictured:

Habitat for Humanities - Hilo

Harry Johnston - *Sandwich Isles Communications*

Quince Mento - *Hawai'i Fire Department*

Glenn Sako - *UH - CTAHR*

Kimberly Shimabuku - *General Growth*

Kenneth Vieira - *Hawai'i Police Department, South Hilo District*

Ron Whitmore - *Hawai'i County Planning Department*

Disclaimer: The information and recommendations expressed in this report are not necessarily endorsed by the people depicted on this page. These same people cannot be held liable for the information presented or the results of the report.



Partnering Benefits & Examples

Shared Costs & Multiple Financing Options

DHHL is working in partnership with other government agencies, the private sector and community organizations to develop its lands and improve community life. DHHL believes that partnerships are an effective way to leverage resources and capital investments, mitigate undesirable impacts of development, coordinate area growth, reduce risks in large scale community projects, and create broad community benefits. These partnerships allow for better prioritization and coordination of infrastructure improvement and the development of regional and public residential facilities. This coordination helps individual organizations achieve their goals while bringing long term benefits to the community and region.



DHHL Ground Breaking Ceremony

DHHL brings the following to these partnerships:

- Land for development in strategic locations
- Potential use of tax-exempt financing
- Access to legislative appropriations
- Access to federal funding such as HUD, USDA, SBA
- Flexibility in the application of development standards, zoning, and design
- Cultural understanding and resources

Partnering Benefits & Examples

DHHL has participated in a number of successful partnerships, a few of which are highlighted below.

Public Facilities Partnership

DHHL participated in a number of partnerships involving public facilities and community resources. The most notable partnerships brought together Hawaiian agencies and non-profit organizations into a multi-service complex where a broad range of programs are housed to serve the public. Such multi-service complexes have been built on Hawaiian Home Lands in partnership with Kamehameha Schools, Queen Lili'uokalani Children's Center, Alu Like, Papa Ola Lōkahi, the Office of Hawaiian Affairs, Hawaiian community organizations, and the counties.

These multi-service complexes are housing preschools, offices, meeting facilities, health clinics, and activity centers. For example, the Keaukaha homestead on Hawai'i is served by a County Park on DHHL land, next to a gymnasium and elementary school, DHHL and OHA offices, and a Kamehameha preschool.

Through a series of management partnerships with DLNR and the Nature Conservancy, unique ecosystems and historic sites are being protected. Examples include the Hakalau Forest Reserve, the 'Āina Hou Management Area, the Pālā'au and Mo'omomi preserves, the Kalaupapa peninsula, and the Kamā'oa-Pu'u'eo National Historic District where koa forests, endangered plants and animals, and native species are being protected for future generations.



Kamehameha Preschools on DHHL Property

Infrastructure Partnership

DHHL has partnered with county governments and utility providers on infrastructure improvements that benefit the entire community. DHHL has participated in water-system development with the counties by providing funding, land easements, and access to federal and state programs. Examples include the extension of the Lower Kula Water System on Maui, the Waimea Irrigation System and the Maku'u Water System on Hawai'i, and the Wahiawā-Waipahu water system on O'ahu.

DHHL has also provided numerous easements over its lands to electrical, water, telephone, and cable companies to service both homestead areas and the general public.

Residential Partnership

Through partnerships, DHHL has reduced the cost of homes to low-income beneficiaries. DHHL has done this by sharing in the cost of infrastructure, helping to secure tax credits, and using self-help methods of construction. Partnerships in Kapolei resulted in 70 rent-to-own units constructed by Mark Development using low-income tax credits and 45 self-help homes constructed with Menehune Development and Honolulu Habitat for Humanity. In these types of partnerships, DHHL provides the land, secures federal grants, and provides access to, or assistance in, acquiring tax credits, subsidies, or other financing.

History & Cultural Aspects of the Area

Famous for its abundance of ‘ōhi‘a lehua groves, Pana‘ewa is located in Hilo within the ahupua‘a of Waiākea. According to Pualani Kanahele, Pana‘ewa is the special forest, which borders the Hilo and Puna districts. It is documented as a lush and healthy forest with the largest ‘ōhi‘a lehua trees. Pana‘ewa is also considered the domain of Hi‘iaka and Pele. This forest was named for the infamous mo‘o deity Pana‘ewa who lived in this forest. The imagery of this mo‘o or lizard is the equivalent of a large dragon-type character. The mo‘o is considered a water creature who lives in or is part of a watery landscape. The relevance of the mo‘o and forest adds another descriptive dimension to this forest and that is, this forest is wet and soggy. It was in this forest that Hi‘iaka defeated the supernatural woman, Pā‘ie‘ie and her mo‘o companions.

Mrs. Kanahele noted, “Pana‘ewa is synonymous with uliuli, moku lehua and ulu lehua o Pana‘ewa. Uliuli translates as dark, dense and very green that again translates as healthy. Moku lehua and ulu lehua reveals that Pana‘ewa’s dominate canopy is ‘ōhi‘a lehua. The poetic description of Pana‘ewa as a lehua grove or an island of lehua is visually correct.”

‘Ōhi‘a is often associated with Pele and her beloved sister Hi‘iaka. It is the first hardwood tree known to grow on the lava beds, helping to soften the lava, allowing other plants to grow around it. Of all the forested areas on the island of Hawai‘i, Pana‘ewa is the only one specified in the epic stories of Pele and Hi‘iaka.

Hilo itself has always been a center of political activity for the ruling chiefs since the time of ‘Umi-a-Liloa the first to unite the Big Island in the 16th century. Prior to King Kamehameha beginning his quest to unite the Hawaiian Islands, Hilo served as the royal seat of power for Kalani‘ōpu‘u. When Kalani‘ōpu‘u died in 1782, Kamehameha eventually usurped power from Kalani‘ōpu‘u’s son Kiwala‘ō that same year.

After Captain Cook’s arrival in Hawai‘i in 1778, Hilo became a major port for foreign ships to refuel and seek shelter after a long journey across the Pacific Ocean. When sandalwood was discovered in the forests of Hawai‘i, Hilo like many coastal areas served as a central location for the loading of this valuable timber product onto China bound schooners. Once Hawai‘i’s sandalwood stock was decimated by excessive harvesting in the 1830’s, attention was focused on whaling and sugar.



Today Hilo has expanded into diversified agriculture in addition to tourism, forestry products, and research and development. Hilo also serves as the home to the famed Merrie Monarch Festival which promotes and perpetuates the Hawaiian culture through hula.

In an effort to address the indignities faced by the native Hawaiian population after the overthrow of the monarchy in 1893, Prince Jonah Kūhiō Kalaniana‘ole, in the capacity of U.S. senator, passed legislation for the Hawaiian Homes Commission Act of 1921 which set aside lands for native Hawaiians.

As early as 1955, Keaukaha residents tended to their guava groves in the existing Pana‘ewa farm lots. Pana‘ewa as a residential community came into existence in 1962 when Keaukaha residents were relocated to accommodate Hilo International Airport’s expansion.

Because of its close proximity to Hilo, Pana‘ewa homestead land usage has gone beyond that of residential and subsistence agricultural usage. A large portion 3,152 acres of homestead lands that face Kanoelehua Avenue is currently zoned for commercial and industrial usage. In 1994, the Pana‘ewa homestead increased its acreage through the acquisition of ceded lands. The majority of lands received are zoned for agricultural usage.

Hawaiian Home Lands - Area Map



Introduction

The Pana'ewa homestead lots are located just south of the Hilo International Airport. There are 717 lots comprising 3,152 acres. Because of its close proximity to Hilo there is a relatively wide range of usage and individual parcels. The Pana'ewa homestead lots can be classified into four general categories; Pana'ewa Farm Lots, Pana'ewa Residential, Pana'ewa Industrial/Commercial, and unencumbered lands.

① Pana'ewa Farm Lots

Pana'ewa Farm Lots is located south of the Hilo International Airport. Access to the farm lots is from Kanoelehua Avenue. Railroad Avenue bisects the farm lots from North to South. To the north of the farm lots is the Pana'ewa Industrial/Commercial area. To the east are other unencumbered Pana'ewa lands and State and County properties. Most notably, the County-managed drag race strip is located adjacent to the farm lots. Large parcels owned by W.H. Shipman and C. Brewer border the southern side of the Pana'ewa Farm Lots. The west side of the farm lots is predominately private house parcels and the Pana'ewa Agricultural farm lots.

With a total of 285 parcels encompassing 1,615 acres, these lots are zoned for agricultural usage. Average lot size is 5.66 acres. Due to agricultural zoning classification, tenants are required to carry on agricultural activity on their properties.

At the present moment, traffic through the Pana'ewa Farm Lots is considerably minimal. However, with potential plans to extend Railroad Avenue to Kea'au-Pāhoa may cause potential traffic congestion issues through this normally quiet area.

② Pana'ewa Residential Lots

Pana'ewa Residential Lots is the smallest of the four clusters within the Pana'ewa homestead parcels. There are a total of 311 units with total acreage of 114 acres. Average lot size is 13,503 sq. ft. The residential lots are surrounded by the Pana'ewa Industrial/Commercial and Farm Lots to the north, east and south. Private residential lots lay to the west of the DHHL residential lots. Major road that outline the residential lots are Railroad Avenue to the east, Pū'ainako to the north and Kahaopea Street to the south.

Some residential lots in the Unit 6 section are currently facing issues regarding the completion of their construction. Fredco, the company that held the bid for construction of DHHL housing declared bankruptcy in early 2008. Presently, Hardware Hawai'i, the bonding company is expected to complete the remaining homes. However, due to developed turn around time some unfinished homes have deteriorated due to exposure to the elements.

In January 2007, an arson-instigated fire damaged resulted in nearly \$500,000 in property damage of the Pana'ewa Family Center on 'Ōhu'ohu Street. Though over a year has passed, the main section of the center is still left un-repaired and community usage remains severely restricted. There are current plans to renovate and expand the County's existing facility.

③ Pana'ewa Industrial/ Commercial

The Pana'ewa Industrial/Commercial area encompasses 115 individual parcels with a total of 396 acres. While the average parcel size is 3.45 acres, lot sizes vary greatly from 4,796 sq. ft. to 36 acres in size. Pana'ewa Industrial/Commercial lands are surrounded by Pana'ewa residential and agricultural farm lots to the south and State and County owned land on the west, north, and east.

Parcels that are to the west of Railroad Avenue and those to the west of Kanoelehua Avenue can be best described as used for light industrial and commercial purposes. Some of the larger properties east of Railroad Avenue are used for warehousing, auto-body detailing, and other light industrial activity. Parcels west of Kanoelehua Avenue include several large car dealerships and other light industrial tenants.

Prince Kūhiō Plaza is the largest of all the lots in the Pana'ewa Industrial/Commercial area. Located on 36 acres of land, Prince Kūhiō Plaza is the largest enclosed shopping center on the Big Island. In addition to a variety of shops, there are also a number of dining options and a movie theater complex on the premises.

Kamoleao, a 12.77 acre lot at the intersection of Railroad and Pū'ainako Avenues is the current site for a multi-purpose community/youth center with housing units for elderly kūpuna. The parcel of land is currently partially forested and undeveloped.

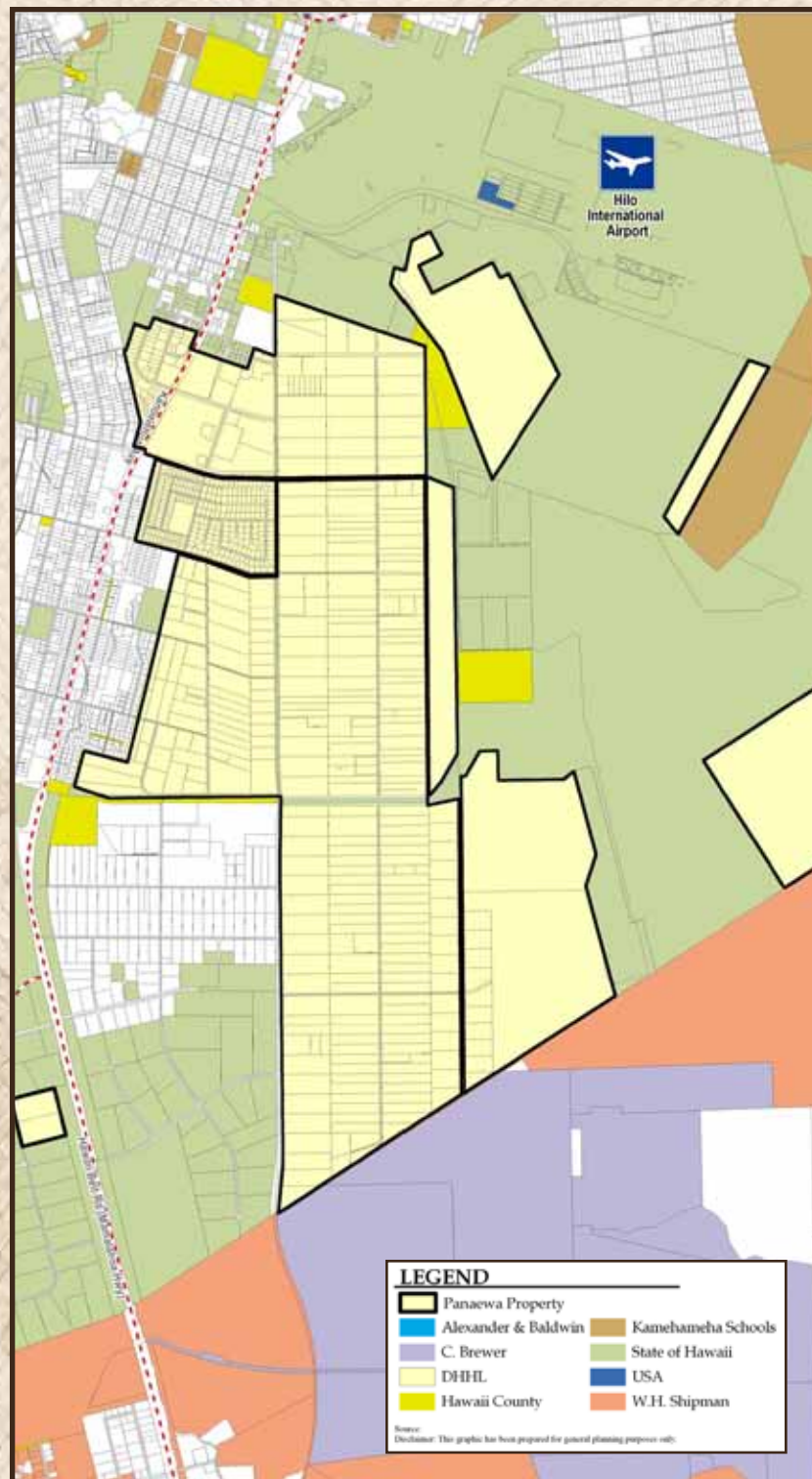
④ Unencumbered Lands

There are a total of 1,027 acres that is considered unencumbered parcels. Though few in number, Pana'ewa's unencumbered lands are comparatively large in terms of acreage. Many of the unencumbered lands are adjacent to State or County lands. Currently most of these parcels are not in use. With their close proximity to Hilo International Airport and/or their lack of infrastructure will make it a challenge to find a feasible way to utilize these parcels.

HAWAIIAN HOME LANDS - AREA MAP			
Pana'ewa	# of Lots	Average Lot Size (AC)	Acreage
Pana'ewa Farm Lots	285	5.66	1,615
Pana'ewa Residential Lots	311	13,503 sq.ft.	114
Pana'ewa Industrial/Commercial	115	3.45	396
Unencumbered Lands	6	171	1,027
Total	717	4.39	3,152



Adjacent Lands



W. H. Shipman (1,907 Acres)

The W.H. Shipman, Ltd. is one of the most prominent kama‘āina companies in the East Hawai‘i region. Initially focused on ranching, W. H. Shipman Ltd. transformed its properties into sugar cane lands under the name of the Puna Sugar Company. Subsequent to the Puna Sugar Company’s closure in 1984, W. H. Shipman Ltd. converted the former sugar lands into municipal development projects and diversified agriculture. Papaya, macadamia nut, and grazing for livestock are some of the various types of agricultural activities currently pursued on Shipman lands. Six miles south of the major W.H. Shipman agricultural parcels, the W.H. Shipman Business Park hosts many businesses on parcel sizes of one acre and up. Some of the business activities at the park include; self-storage, lumber yards, base yard, tow services, sheet metal roofing production and other industrial enterprises.

C. Brewer Company (696 Acres)

Originally one of the “Big Five,” C. Brewer and Company started off specializing in sandalwood for the Chinese market. Like many large landholders in the 19th century, C. Brewer expanded into the sugar cane industry to meet a growing export market. With emerging competition from foreign competition, the fate of C. Brewer Co. as a sugar company was in jeopardy. However, in 1986 under J. “Doc” Buyers, then CEO of C. Brewer Co. led a buyout of the company and began to diversify existing holdings into various agricultural enterprises. Current properties adjacent to Pana‘ewa are devoted to diversified agricultural activity.

Kamehameha Schools (KS) (177 Acres)

Kamehameha Schools (KS) is the largest private landowner in the State of Hawai‘i. Kamehameha Schools is a private, charitable, perpetual trust dedicated to the education of Hawaiian children and youth. Established in her will of 1883, the Kamehameha Schools is a legacy of Princess Bernice Pauahi Bishop, great-granddaughter and last direct royal descendant of King Kamehameha the Great. Income generated from numerous investments, and residential, commercial, and resort lease fund the schools’

maintenance and educational services. Currently, a 140 acre parcel lies directly adjacent to the east of unencumbered homestead land. Though zoned for agricultural uses, Bishop Estate/ Kamehameha Schools currently use the parcel as a quarry site.

State of Hawai‘i (4,332 Acres)

The State of Hawai‘i is currently one of the largest landholders adjacent to Pana‘ewa homestead land. Two major parcels of State land which are adjacent to the Pana‘ewa homestead lands are of particular significance. First, Hilo International Airport which falls under the jurisdiction of the State Department of Transportation, Airports Division serves as a major transportation hub for East Hawaii. The University of Hawai‘i at Hilo which is located to the west of the Pana‘ewa Tracts and serves as the prime center for higher education on the island of Hawai‘i.

County of Hawai‘i (75 Acres)

County of Hawai‘i lands are not as prominent as that of State-owned lands. Lands that are owned by the county serve as important infrastructure for the island. In addition to a County-managed drag racing complex, there is also a County quarry, dump site, and transfer station. All of these key county lands are directly adjacent to Pana‘ewa homestead lands. With the existing East Hawai‘i landfill reaching near full capacity, the County was until recently considering a waste-to-energy plant near the existing landfill. However, the County Council voted against constructing the waste to energy plant and is currently reconsidering all potential solutions to for the disposal of the County’s solid waste problem. One potential solution involves the construction of a waste to energy site to the east of Pana‘ewa farm lots. Further south of the landfill and proposed waste to energy site, the County also manages a racing drag strip on State owned land. Though the existing race course borders unencumbered homestead tracts, noise and increased traffic continues to concern homestead residents.

Regional Demographics

Pana‘ewa Homestead Community is located in the southern portion of Hilo on the Big Island. The 1,307 homesteaders reside on a total of 394 homestead housing units. Children comprise 24.2 percent of the homestead population, while over the age of 65 constituted 7.6 percent. The median income of \$41,223 places homesteaders above average in comparison to Hilo and County residents. A relatively larger number of homestead residents enjoy a shorter commute time to work. Only 11% of residents indicated their daily commute to work took longer than thirty minutes. Higher income may possibly be attributed to a higher percentage of homesteaders that have at least a high school diploma. However, any gains made in through higher income could be eliminated by the higher average number of individuals per household. The average homestead household has an average of 3.72 individuals per housing unit. In Hilo and the County, the average homestead household is 2.71 and 2.75, respectively.

- The Pana‘ewa Hawaiian Homelands is located in Hilo on the Windward side of the Big Island as designated by the Federal Government and the South Hilo District as designated by the County of Hawai‘i.
- The 2000 Census recorded the resident population of the Hilo at 42,425 persons.
- Children under the age of 18 comprise 24.2 percent of the Keaukaha homestead population
- The median age for Hilo residents is 38.7, in Pana‘ewa it is 31.2.
- According to 2000 Census data, the State of Hawai‘i is comprised of 6.7 percent that are of native Hawaiian. In the case of the Pana‘ewa area, native Hawaiians consist of 42.6 percent of the resident population.
- Median income in Pana‘ewa at \$41,223 is slightly higher than the Hilo (\$39,213) and the County of Hawai‘i (\$39,805).
- Per capita median income in Pana‘ewa is considerably less (\$12,239) when compared to the rest of Hilo (\$18,260).
- Despite higher median incomes, Pana‘ewa has a higher percentage of people living below the poverty line (21 percent) than Hilo (17 percent) and Hawai‘i County (16 percent).
- Pana‘ewa’s 429 lots comprise 2.6% of all house parcels in Hilo.
- According to the Hawai‘i County Board of Realtors, median home prices in December 2007 in Hawai‘i County were \$395,000

- while homes within Hilo were \$350,000. Median home price of recently sold properties in neighborhoods adjacent to Pana‘ewa was \$336,500.
- When compared to 2006, 2007 Hilo’s median residential home prices decreased to \$350,000, or by 4 percent.
 - In addition to being the second heaviest populated region in the State, Hilo is home to the University of Hawai‘i at Hilo, Mauna Kea’s science research complex, County government offices, Hilo International Airport, and a considerable mix of retail, commercial, and industrial properties.
 - In addition, Hilo receives a considerable amount of revenue derived from tourism. 2006 DBEDT figures indicate that over 668,000 tourists visited Hilo and spent a total of 2,165,346 visitor days. In comparison to Kona, Hilo’s visitor numbers are considerably smaller. During the same period, Kona received 1,344,00 tourists that spent a total of 8,058,000 visitor days. The Big Island received a total of \$1.65 billion dollars in revenue generated from tourism.
 - Based on a 2007 study of Waiākea lands held by DLNR and DHHL, median household monthly budget in the immediate area was \$4,005. Among those expenditures, transportation (20.6 percent, \$826), and shelter (20.0 percent, \$802) comprised the largest percentage of total monthly income consumption.
 - Hilo’s population grew 7.3 percent during the interim period of the 1990 and 2000 census reports. This pace of growth was slower when in comparison to the State’s overall growth of 9.3 percent and the County of Hawai‘i’s 23.5 percent during that same period.

Characteristics ¹	Pana‘ewa	Hilo	County of Hawai‘i	State of Hawai‘i
POPULATION AND AGE				
Total Population ¹	1,307	42,425	148,677	1,211,537
Median age	31.2	38.7	38.6	36.2
Children under the age of 18 (%)	317 (24.2%)	10,632 (25.1%)	15,151 (10.2%)	289,012 (23.4%)
Population over 65 (%)	99 (7.6%)	7,132 (16.8%)	19,951 (13.4%)	161,141 (13.3%)
EDUCATIONAL ATTAINMENT				
% of population over 25 with high school diploma	90.1%	85.5%	84.6%	84.6%
% of population over 25 with a bachelor's degree	11.6%	24.1%	22.1%	26.2%
HOUSEHOLD				
Household size	3.13	2.71	2.75	2.92
Household median income in 1999 dollars	\$41,223	\$39,213	\$39,805	\$49,820
Percent of households living below poverty line	21%	17%	16%	11%
Percent of households receiving public assistance	15%	10%	10%	7%
Percent of working residents traveling 30+ minutes to work	11%	11%	29%	38%
HOUSING MARKET				
Housing units	378	16,640	62,674	460,542
Population per housing unit	3.72	2.55	2.37	2.63
Median residential price 2007 ²	\$336,000*	\$250,000	\$395,000	\$586,000

GROWTH IN POPULATION BETWEEN 1990 & 2000			
	1990	2000	Change in percentage
State of Hawai‘i	1,108,229	1,211,537	9.3%
Hawai‘i County	120,317	148,677	23.6%
Hilo	39,537	42,425	7.3%

¹ All data gathered from Census 2000 unless otherwise noted
² Hawaii Island Board of Realtors
* The value of \$336,500 was derived from data collected on Pana‘ewa’s homestead home transactions. Data provided from Pana‘ewa is shown only for comparison.

Development Trends

Infrastructure

1 WASTE-TO-ENERGY PLANT HILO

As the current Hilo Landfill reaches its capacity, the County government is faced with finding a solution for future waste disposal. Recent County Council votes have put a stop to developing a waste to energy plant adjacent to Pana'ewa. The County is now in the beginning phase of a Integrated Solid Waste Management Plan (ISWMP) which will reevaluate all potential waste management options.

2 HILO INTERNATIONAL AIRPORT

With the close proximity of Hilo International Airport to the Pana'ewa homestead lands, new developments may have an impact on the community. For the 2007 Capital Projects Improvement Budget, Hilo International Airport will undergo a parking lot expansion and construction of additional warehousing facilities. Further noise attenuation studies around the Keaukaha Homestead Community will also be conducted. In December 2007, \$33.5 million was released for the construction for new cargo facilities.

3 PORT OF HILO

Plans are currently underway to expand and improve existing navigational areas of Hilo Harbor. According to the Hawai'i Commercial Harbors 2020 Master Plan Task Force recommended to construct a Pier 4 Barge terminal, increase the number of access road to the harbor to five, and anticipate increased passenger arrivals from cruise ships. However, the current economic condition within the State may delay construction.

4 HILO CENTRAL FIRE STATION

The Hawai'i Fire Department plans to build a new fire station that will incorporate both a fire fighting unit and battalion headquarters. The proposed fire station will be built on a 1.999 acre parcel which is part of the larger Lanakila Housing Complex that has been unoccupied for some time

5 HILO MEDICAL CENTER

The Hilo Medical Center will incorporate an expansion and upgrade of its existing cardiovascular suite. Site and equipment improvements will be undertaken to further enhance the hospital's operational capacity. Governor Lingle released \$160,000 in funding for the purchase of cardiovascular medical equipment.

6 WAILOA SMALL BOAT HARBOR DREDGING

Dredging of the Wailoa Small Harbor will be undertaken to improve the harbor's navigational waters.

7 KEAUKAHA JOINT MILITARY CENTER

Design and construction of training facilities for soldiers and supporting staff will be built on the Keaukaha Military Reservation. Facilities for the center will include expanded commissary, Veterans' Affairs office, and other supporting facilities. Governor Lingle recently released \$6.5 million in funds for the construction at the military center.

8 HILO BAYFRONT HIGHWAY, SHORELINE PROTECTION

To prevent further erosion along Hilo Bay, groin fields will be implemented in FY 2010.

Commercial

9 HILO FAMILY ENTERTAINMENT CENTER

The Hilo Family Entertainment Center will be built in two phases. The first phase will include a 37,500-sq. ft. family entertainment center, a steak house, a restaurant, and a sports bar. The second phase involves the construction of approximately 16,000-sq. ft. of retail space. The proposed site for the entertainment center is located on Kekūanaō'a and Mililani Streets.

10 WAIĀKEA STATE LANDS / FOREIGN TRADE ZONE

Located adjacent to the Hilo International Airport, the proposed Foreign Trade Zone encompasses 31 acres zoned for commercial and light industrial uses. This expansion site was approved by the Foreign- Trade Zones Board in 1992. The County and the State Department of Business, Economic Development & Tourism are working to develop this site. DHHL/DLNR has also emphasized the potential of the site's ability to generate revenue by developing a commercial project. DHHL hopes the parcel will generate revenue for future homestead building projects.

11 MANA QUARRY INDUSTRIAL PARK

With a combination of growing population, expanding Port of Hilo facilities and potential development of a foreign trade zone, Hawai'i County is faced with a growing need to develop more land for new industrial space. Complimentary to site development,

infrastructure improvements along Leilani Street, Airport Access and New Industrial Access Roads will also be conducted to improve transportation flow. DLNR commissioned an environmental impact statement that was completed in 2006. Construction is planned to be completed by 2010.

Community

12 HAWAI'I COUNTY DRAG STRIP

Adjacent to unencumbered homestead land is a 71 acre strip of state land utilized as for drag racing and other related activities primarily on the weekends. Access to the drag strip is limited to Leilani Street which is located to the north of the industrial/commercial portion of Pana'ewa.

13 ENVISION DOWNTOWN HILO 2025 ('IKE IĀ HILO)

Envision Downtown Hilo 2025 originated in 2004 through the collaboration between the county and the general public. The main objective of this program is to facilitate the process of visioning the key priorities for future development of Hilo's downtown area. The goal of this project is to enhance residents' quality of life.

14 HILO BAYFRONT TRAILS

Hilo Bayfront Trails is a three phase project that will build multi-use pathways between the cruise ship berths at the Port of Hilo to the Wailuku River. The goal of the project is to create a walker-friendly environment in the area, foster business development, and promote greater awareness of the surrounding natural resources.

15 HILO COMMUNITY DEVELOPMENT PLAN (CDP)

Community Development Plans (CDP) are being developed for the different areas of the county to address their specific needs. The process to develop Hilo's CDP will begin in the near future with the selection of its steering committee. Until the Hilo CDP is developed and implemented, the 2005 County General Plan will serve as a guideline for the area's regional development.

16 PANA'EWA BASKETBALL COURT COVERING

A waterproof tensile roof is planned to be built over the existing Pana'ewa Park basketball court. \$1.5 million in general obligation bonds has been earmarked for design and construction for FY '08.



17 HILO MUNICIPAL GOLF COURSE NEW CLUBHOUSE AND FACILITIES

In order to meet the demand and generate more catering opportunities, the existing restaurant at the golf course will be replaced. The budget proposal would entail relocating the sheds in order to allow for golf club facility expansion.

18 EDITH KANAKA'OLE TENNIS STADIUM DRESSING ROOM EXPANSION PROJECT

The current dressing room area is inadequate for performers who use the facility. Renovation of the existing dressing room could possibly attract more shows at the stadium.

Education

19 UNIVERSITY OF HAWAI'I AT HILO

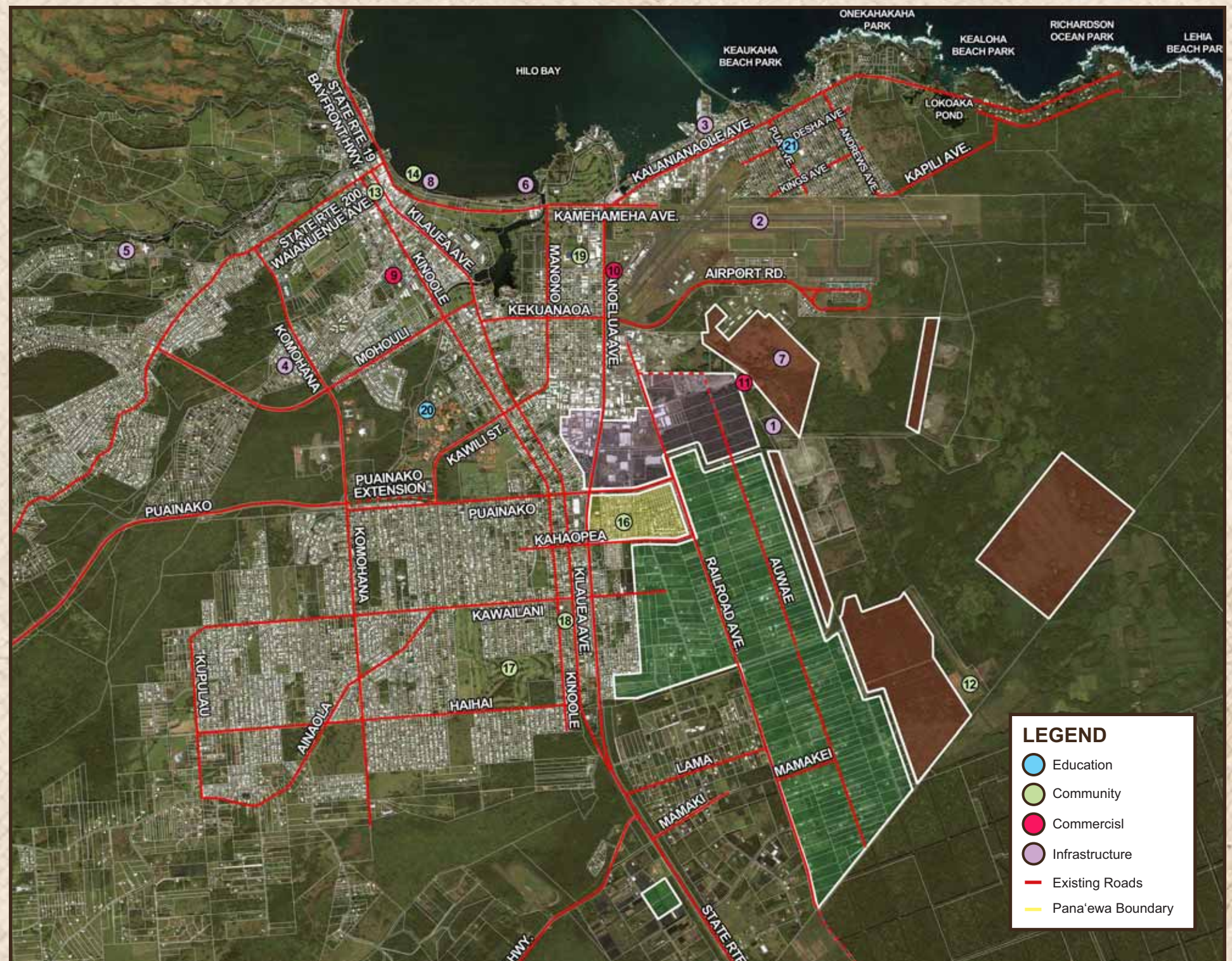
The University of Hawai'i at Hilo will undergo massive improvements and expansion over the next few years that will include construction of the China-U.S. Center, College of Pharmacy school buildings, student service building, and U.S. Geological Survey building. \$6 million in funding for design and construction was released for temporary buildings for the College of Pharmacy in October 2007. Another \$24 million was released earlier 2007 for the construction of a science and technology building at the Hilo Campus.

20 HAWAI'I COMMUNITY COLLEGE

Part of a multi-million dollar appropriation from the 2007-2008 biennium legislature budget was appropriated for construction and renovation for the campus.

21 KEAUKAHA ELEMENTARY SCHOOL KITCHEN

A 6,000 square foot kitchen and dining room will be built on the grounds of Keaukaha Elementary School. Funding will be provided through the State biennium budget for FY '08.



Infrastructure - Roads

General

There is a total of 1,393 miles of public roads in the County of Hawai‘i. 394 miles are state-managed and 879 miles by the County. The major highways on the island of Hawai‘i are the Hawai‘i Belt and the Māmalahoa Highways which link all major towns except North Kohala. Collaboration between Federal, State, and County will also focus on improving the Saddle Road. However, with an increasing population and subsequent strain on existing road infrastructure, Federal, State, and County agencies project a long-term development of Saddle Road (Hwy 200) which would involve vast improvements to existing road conditions to meet existing Federal highway and design standards. Once completed, Saddle Road will become another crucial transportation link between West and East Hawai‘i.

Major Roadways

1 HAWAI‘I BELT ROAD (ROUTES, 11, 19, 190)

The Hawai‘i Belt Road consists of three separate state routes; 11, 19, and 190. The routes circumnavigate the entire Island of Hawai‘i. Routes 11 and 19 in particular bisect central Hilo. Traffic on Hawai‘i Belt Road that runs through Hilo is regulated by traffic signals.

2 SADDLE ROAD HIGHWAY (HWY 200)

The existing road was first built in 1943 as the most direct link between East and West Hawai‘i. The roadway provides access to the Mauna Kea Observatories, Pōhakuloa Training Area Base, Mauna Kea State Park and various hunting and gathering access areas. Plans are currently being developed to widen the existing roadway to allow two-way traffic between Hilo and Kona.

3 KANOELEHUA AVENUE

Kanolelehua Avenue is the main four-lane roadway that bisects Hilo north to south. Hilo International Airport, Port of Hilo, major shopping and commercial areas are accessible via Kanoelehua Avenue.

4 PŪ‘AINAKO STREET

Pū‘ainako Street is a major roadway that connects the Saddle Road Highway and Kāūmana Drive to Hilo and terminates at the

intersection with Kanoelehua Avenue. The majority of Pū‘ainako Street consists of two-way roadways except for the area between Kilauea Street and Kanoelehua Avenue where it widens into four lanes. With impending road improvements to Saddle Road, Pū‘ainako Street will become another major road artery for traffic between Kona and Hilo.

Major Pana‘ewa Roads

5 RAILROAD AVENUE

Railroad Avenue runs north to south through the entire section of the Pana‘ewa farm lots and industrial area. Growing development in the Kea‘au-Pāhoa region has pushed renewed interest to connecting Railroad Avenue with the Kea‘au-Pāhoa Bypass Road. Though connecting both of these roads would create a new alternative route into Hilo, this would come at a cost of increased traffic around homestead lands. Homestead community members have shown strong opposition to any road development going through the homestead.

6 AUWAE ROAD

Similar to Railroad Avenue, Auwae Street runs north to south of the Pana‘ewa Farmlots. Traffic on Auwae Road is considerably minimal due to the smaller population in the farm lots. Auwae Street is currently bisected into two sections by an old drainage canal. If the two sections were to be reconnected by a bridge, traffic circulation will improve.

Proposed Road Infrastructure Development

As a major city on the island with growing developments outside of the city Hilo is in the process of developing and improving current road infrastructure. While some projects are short-term and focus on repairs, others may take years before completion and include considerable upgrades to existing infrastructure.

7 MANONO STREET BIKE AND PEDESTRIAN IMPROVEMENT

This project will provide bicycle and pedestrian facilities on Manono Street from Bayfront Highway to Kawili Street.

8 REED’S ISLAND BRIDGE REPLACEMENT

The current bridge that connects to Reed’s Island does not permit heavy vehicles weighing more than six tons to cross. The County plans to rebuild a new concrete bridge that would allow emergency vehicle access to the island.

9 HOKUPA‘A STREET DRAINAGE PROJECT

Plans are underway to construct a drainage structure on Hokupa‘a Street. Once a drainage structure is in place, flooding risk will be greatly mitigated.

10 KUMAU STREET PROPERTY ACQUISITION

As part of the Hawai‘i Commercial Harbors 2020 Task Force recommendations, suggestions were made to acquire property on Kumau Street to help improve travel flow into the container port.

11 KANOELEHUA AVENUE IMPROVEMENTS -KAMEHAMEHA AVENUE TO PŪ‘AINAKO STREET

This project involves designs plans for widening the north bound lane of Kanoelehua Avenue between Puainako Street and Kamehameha Avenue. Lane widening will improve commuter traffic flow from the areas south of Hilo.

12 PŪ‘AINAKO STREET EXTENSION

Land parallel to Pū‘ainako Street between Komohana Street and the intersection of Kāūmana Drive and Country Club Road will be acquired to construct a two-lane road.

13 PŪ‘AINAKO STREET WIDENING

The project requires land acquisition and design to widen and realign Pū‘ainako Street from two to four lanes is proposed. The affected areas on Pū‘ainako Street would include the areas between Kanoelehua Avenue and Komohana Street.

14 SADDLE ROAD IMPROVEMENTS (*Outside Map Area*)

Various safety improvements to Saddle Road at mile posts 8, 13, and 14 will be added to improve driving conditions. Improvements would include; shoulder width widening, installation of new warning signs, reconstruct sections of road (where possible) to increase sight distance, and install thermoplastic striping and raised pavement markers from mile posts 23 to 53.



Infrastructure - Roads

15 WAIĀNUENUE AVENUE IMPROVEMENTS

Reconstruction efforts along Waiānuenue Avenue will incorporate American Association of State Transportation Officials (AASHTO) standards to increase pedestrian and bicycle safety.

16 UPPER WAIĀNUENUE AVENUE ROAD SAFETY IMPROVEMENTS

Increased traffic flow in the Kaūmana region has exposed existing inefficiencies in the road infrastructure. Proposed improvements include road re-alignment, covering drainage ditches, and installing traffic calming devices.

17 'ĀKŌLEA ROAD SAFETY IMPROVEMENTS

The existing bridge along ‘Ākōlea Drive does not have the capacity to allow emergency vehicles to cross. Proposed improvements would include the construction of a new bridge for vehicular traffic and road re-alignments.

18 KAŪMANA DRIVE ROAD SAFETY IMPROVEMENTS

Because many sections of the road are narrow and have no walkways for pedestrians, construction of sidewalks, covering of drainage ditches, and installation of traffic calming devices are necessary to make the road safe for pedestrian usage.

19 'ĀINAKŌ AVENUE ROAD SAFETY IMPROVEMENTS

Proposed safety improvements include road re-alignment, covering of drainage ditches, and installation of traffic calming and speed reduction devices.

20 BANYAN DRIVE PARKING IMPROVEMENT

Popular local tourist spots such as Liliu‘okalani Gardens, Naniloa Country Club and Hilo Harbor have made parking a problem. To alleviate this problem, additional angle parking will be installed along Banyan Drive.

21 ROAD DIET REVIEW FOR KĪLAUEA, KINO‘OLE, AND WAIĀNUENUE

The road diet will effectively reduce the number of lanes to improve traffic flow and reduce the number of accidents. A three lane designation on Waiānuenue Avenue would eliminate the “One Way” traffic change during schools hours along Haili Street.



Infrastructure - Water

Water Resources

Annual rainfall in Hilo varies from 100 inches near shore to 200 inches in the upslope areas surrounding Hilo Bay. The wettest spot on the Big Island is six miles upland from Hilo's city center.

The Hilo Water Systems extends to 'Alae from the north, Pana'ewa Agricultural Park to the south, Keaukaha in the east and Kaūmana and Waiākea Uka to the west. The water system is a combination of both surface and groundwater.

The primary Hilo's water sources are derived from the Pana'ewa Well Nos. 1, 2, 3, Pi'ihonua Well Nos. 3a and 3b, and Saddle Road Well "A." Water from Pana'ewa is from a basal aquifer which is extracted by three different pumps with an output capacity between 2.2 to 3.1 million gallons per day (MGD). The Pi'ihonua well output is 3.0 MGD. The Saddle Road Well "A" has an output of 1.0 MGD. Hilo's daily water requirements are approximately 6.0 MGD. Water from all six wells can be diverted to different parts of the city depending on demand.

Government Agencies and Water Resource Management

In the February 2003 State Water Projects Plan (SWPP), recommendations were made to develop new sources of water for the year 2020 usage projections. Long term recommendations advise the development of a new water source that would produce approximately 1.6 mgd. Pana'ewa's primary water storage container is located near the Pana'ewa Farm Lots. The Pi'ihonua water storage tank stores water for Pana'ewa and Keaukaha homesteads.

The Department of Water Supply is a semi-autonomous agency of the County of Hawai'i of which operates by rules and regulations as adopted by the Water Board. As a semi-autonomous agency, the Department operates and maintains its water systems with revenues generated wholly through water sales. The primary function of the Department is to provide safe domestic water service through its 24 water systems and 67 sources scattered throughout the island.

Utilizing the Hawai'i County General Plan as a general guideline, there are four main courses of action for the Northeast Mauna Loa Aquifer Sector Area (ASEA)

- 1) Continue to implement water system maintenance and improvement programs in order to provide the city with a dependable and consistently safe drinking water supply
- 2) Investigate groundwater sources in the Upper Waiākea Uka area
- 3) Further investigate future groundwater sources
- 4) Investigate additional groundwater sources in the 'Ōla'a area

Pana'ewa's Water System

All parts of the residential industrial/commercial sections of Pana'ewa are supplied with water through the municipal water system. In the agricultural farm lots, water lines run north to south on Railroad Avenue, Auwae and Elama Roads. Water lines that run east-west are located on E. Kahaopea Road, East Māmaki and Mahi'ai Streets. Unencumbered lands near the airport are also connected to a waterline.

Existing Water System

The following map to the left reflects both existing and proposed water lines, reservoirs, and wells.

- 1 PANA'EWA WELLS NO. 1, 2, 3*** - One of three major water sources for Hilo, Pana'ewa Wells also serves the Pana'ewa homestead community. Output capacity is between 2.2-3.1 MGD.

- 2 PI'IHONUA WELLS NO. 3A, 3B*** - One of three major water sources for Hilo, Pi'ihonua Wells serves the Keaukaha homestead community. Output capacity is between approximately 3.0 MGD.
- 3 SADDLE ROAD WELL, "A"*** - The existing well at the 1,909 foot elevation level is outfitted with deep-well pumping equipment. The well has a daily capacity of 700 gallons per minutes (GPM). Water pumped from this site can be diverted to various parts of Hilo depending on consumer demand.
- 4 UH HILO PANA'EWA FARM (PROJECTED NEW STATE-MANAGED WELL)** - A well will be developed on the UH Hilo Pana'ewa Farm site to provide sufficient water sources for on-site agricultural activity.
- 5 WELL DEVELOPMENT AT PANA'EWA FARM LOTS** - To meet increasing agricultural demand, exploratory wells will be dug in the Pana'ewa Farm Lots area.
- 6 JAS. GLOVER LTD. INDUSTRIAL WELLS** - Jas. Glover Ltd. owns two wells on its property in the Kanoelehua area of the city. Well water is used for industrial purposes. Well water from this system is not used by the general public.
- 7 HELCO HILL STATION 5A, 5B, 5C** - Wells located on HELCO land are utilized to cool on-site power plant turbines. Well water from this system is not used by the general public.
- 8 MAUNA LOA MACADAMIA NUT WATER SYSTEM** - Mauna Loa Macadamia Nut Water System is the only private-public water system in the Hilo area. The 114 acre farm is supported by a primary well source with a pumping capacity of 350 GPM. A secondary onsite well has a potential to pump 500 GPM. Well water from this system is used primarily for the farm's daily operations.
- 9 PI'IHONUA RESERVOIR 1, 2, 3** - Pi'ihonua Reservoir 1 and 3 has a storage capacity of 1.0 MG. Reservoir 2 has a capacity of 800,000 gallons.
- 10 PI'IHONUA RESERVOIRS 2 & 3 BOOSTER PUMP STATION (BPS)** - Booster pump capacity for both pumps is rated between 1-1,500 GPM.
- 11 HAIHAI BOOSTER PUMP STATION (BPS)** - Booster pump capacity for Haihai is rated between 1-1,000 GPM. The backup pump is rated at 1-500 GPM.
- 12 PI'IHONUA NO. 1 (CAMP 4) BOOSTER PUMP STATION (BPS)** - Booster pump capacity for Pi'ihonua No. 1 is rated between 2-100 GPM.
- 13 PANA'EWA BOOSTER PUMP STATION (BPS)** - Both the primary and secondary booster pumps are rated between 1-1,500 GPM.
- 14 WAIĀKEA UKA CAMP 7 (AINAOLA) BOOSTER PUMP STATION** - Booster pump capacity for Waiākea Uka is rated between 2-300 GPM.
- 15 WAIĀKEA UKA CAMP 7 (HOAKA)BOOSTER PUMP STATION (BPS)** - Booster pump capacity for Waiākea Uka Camp 7 is rated between 2-300 GPM.
- 16 AINAKO TANK** - The Ainako tank has a storage capacity of 100,000 gallons.
- 17 WAIĀKEA (KOMOHANA) TANK** - The Waiākea (Komohana) Tank has a storage capacity of 500,000 gallons.
- 18 PŪ'AINAKO TANK** - The Pū'ainako Tank has a storage capacity of 1.0 million gallons (MG).
- 19 UH TANK** - The UH Tank has a storage capacity of 1.0 MG.



Infrastructure - Water

- 20 KAWAILANI TANK** - The Kawaiāni Tank has a storage capacity of 1.0 MG.
- 21 HAIHAI TANK** - The Haihai Tank has a storage capacity of 500,000 gallons.
- 22 WAIĀKEA UKA (CAMP 6) TANK** - The Waiākea Uka Tank has a storage capacity of 500,000 gallons.
- 23 DELIMA TANK** - The Delima Tank has a storage capacity of 50,000 gallons.
- 24 HOAKA TANK** - The Hoaka Tank has a storage capacity of 500,000 gallons.
- 25 KAŪMANA (CAMP POW) TANK** - The Kaūmana Tank has a storage capacity of 57,000 gallons.
- 26 KAŪMANA NO. 1 TANK** - The Kaūmana No. 2 Tank has a storage capacity of 50,000 gallons.
- 27 KAŪMANA NO. 2 TANK** - The Kaūmana No. 2 Tank has a storage capacity of 50,000 gallons.
- 28 COUNTY CLUB ESTATES (WILDER) TANK** - The Country Club Tank has a storage capacity of 300,000 gallons.
- 29 KAHOAMA TANK** - The Kahoama Tank has a storage capacity of 300,000 gallons.

**Well locations are not shown in map due to security concerns.*

New Projects

- 1 PI'ĪHONUA 2.0 MG RESERVOIR NO. 2.** - The new 2.0 MG reservoir will be built next to the existing reservoir. Work is in process to develop the final plan for the reservoir and the project will go to bid by the end of 2008.
- 2 PI'ĪHONUA-KŪKŪAU 2.0 MG RESERVOIR AND TRANSMISSION LINE** - This 2.0 MG reservoir is currently in the planning stage of construction. Currently, the project is awaiting subdivision of the reservoir lot before construction can commence.

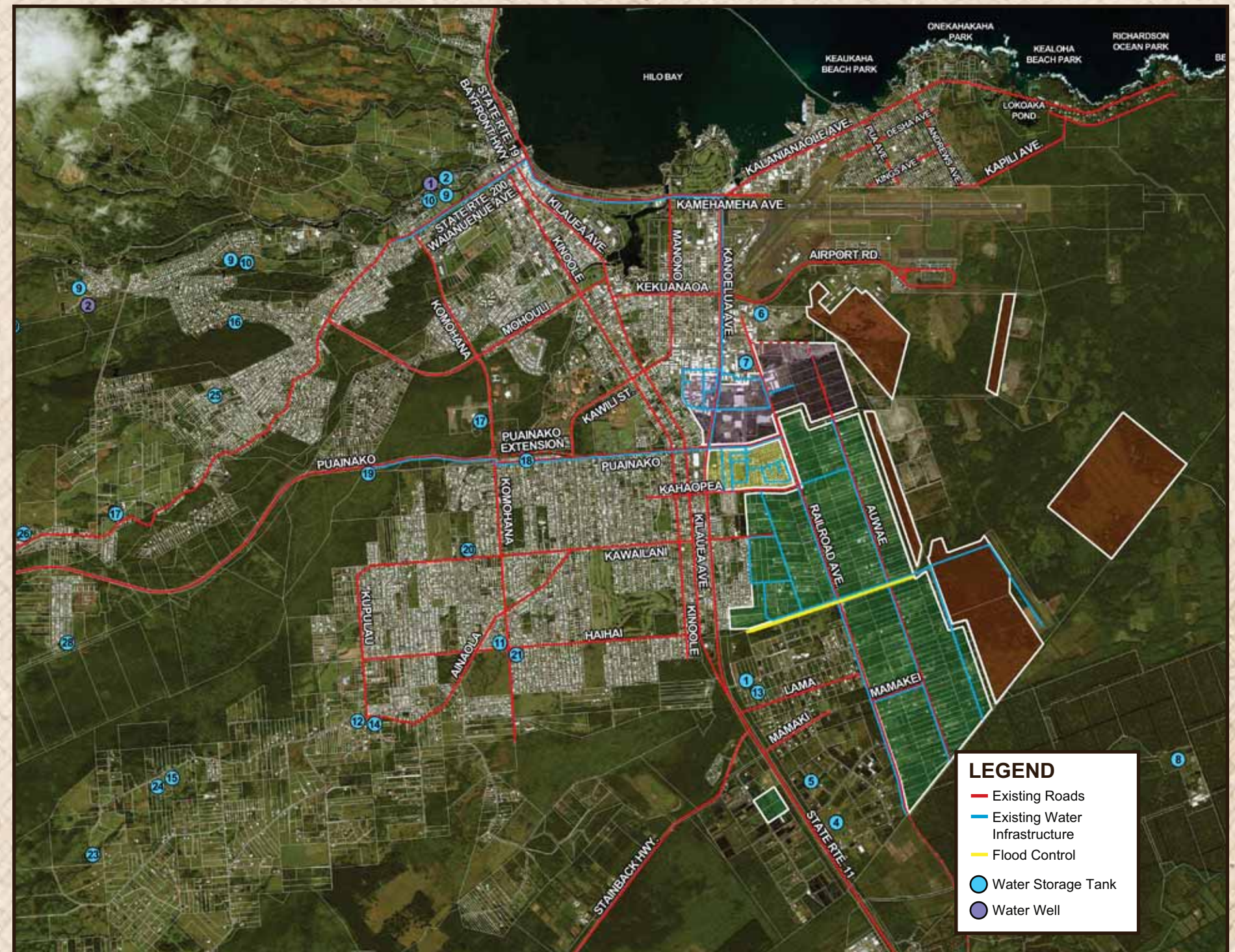
Sources:

County of Hawai'i. Hawai'i County General Plan. 2005

County of Hawai'i. Hilo Water System Annual Water Quality Report. 2006.

Fukunaga and Associates. 2006.

State of Hawai'i. State Water Projects Plan. 2003



Infrastructure - Sewer

Existing Sewer System

Approximately 77 percent of the county's population is served by cesspools. However, due to risk of contamination of the water supply and nearshore water, the State Department of Health plans to implement stringent pollution controls which will curtail future cesspool development.

Hilo's sewer system is supported by one waste water treatment plant and eight pumping stations. The Hilo Wastewater Treatment Plant is located east of Hilo International Airport. Maximum capacity for the wastewater treatment plant is 5.0 MGD. Current running capacity for the wastewater treatment plant is 3.1 MGD. There are no immediate plans to add or expand wastewater treatment plant capacity.

There are a total of eight pumping stations within the city. Pua Pump Station is the largest of the city's pumping stations with an average design flow of 5.0 MGD and a peak flow of 13.0 MGD. Wailoa Pumping Station has an outflow of 20.7 MGD but is documented at 8.5 MGD.

Pana'ewa Sewer System

Farm lots, residential, and unencumbered Pana'ewa lands are currently not serviced by the municipal sewer system. Cesspools are prevalent in these areas. The closest sewer line that is located near the residential and farm lot area is located on Maka'ala Street and terminates at The Home Depot. The Home Depot is serviced by an eight-inch sewer pipe where wastewater is pushed to Wailoa and Pua Pumping Stations. Low population density in the Pana'ewa Farm Lots and Residential area makes extending the existing sewer line into Pana'ewa Farm Lots cost prohibitive.

Pana'ewa's industrial area is currently serviced by the municipal sewer system. In the Industrial/Commercial section of Pana'ewa, the sewer line runs north-south on Holomua Street and then east on Maka'ala Street until Home Depot. Wastewater is pumped from the Wailoa Pump Station and then diverted to the Pua Pump Station in Keaukaha. From the Pua Pump Station, wastewater is actually processed at the waste water treatment facility east of the Hilo International Airport. Once the wastewater is treated, it is sent back to the Pua Pump Station and summarily discharged out through the ocean outfall outside of Hilo's break wall.

Ongoing Projects

- 1 Komohana Heights Large Capacity Cesspool Replacement (Re-Appropriation)**
Large capacity cesspools (LCC) in the Komohana Heights area will be removed. Homes that were connected to LCCs will be integrated into the County's municipal sewer system. Sunrise Ridge Pumping Station will also be eliminated which would result in an approximate savings of \$20,000 per year in operating costs.
- 2 Kalanaiana'ole Interceptor Sewer Rehabilitation**
The existing interceptor sewer pipe will be replaced due to excessive corrosion from long-term use. In the first phase of the project, portions of the pipe were relined to prevent further damage. Failure to replace this pipe may result in two million gallons of raw sewage per day being dumped into Hilo Bay.
- 3 Kapi'olani/Kūkūau Detention Pond Improvements**
Construction of a detention pond will reduce flooding in the area during heavy rains.
- 4 Wailoa Wastewater Pump Station Force Main Replacement**
The existing force main has been in use for over forty-four years and is reaching the end of its service life. Failure to replace the force main could result fines charged by the EPA, the possibility of the existing infrastructure to fail, and dumping at more than two million gallons of raw sewage into Hilo Bay.
- 5 Hilo Wastewater Treatment Plant Modify Digesters**
The proposal involves repairing multiple existing deficiencies (frozen valves, jammed floating cover, improper mixing, and conversion to co-generation for heating). Steel covers are also beginning to corrode and which may lead to methane gas leaks. Failure to replace the covers could increase the risk of methane gas explosions.

Infrastructure - Sewer



Infrastructure - Utilities

Electricity

The Hawai'i Electric Light Company, Inc. (HELCO), supplies electricity for the County. HELCO purchases a total of 112 megawatts of firm power from three privately-owned companies Hilo Coast Power Company (coat at 22 megawatts), Hāmākua Energy Partner (60 megawatts), and Puna Geothermal Venture (geothermal at 30 megawatts). These power plants are located at Keāhole, North Kona; Waimea, South Kohala; Waiākea Peninsula and Kanoelehua, South Hilo; and Kea'au, Puna. HELCO owns four hydroelectric units; two in Pu'ūne'o and two in Waiau.

There are two levels of transmission voltages to transfer power between areas on the Big Island. The main transmission voltage is 69kV. HELCO has four 69 kV cross-island transmission lines. One line is the southern line connecting the Kanoelehua substation to West Hawai'i via the Keālia substation along Highway 11 through the Puna and Ka'ū Districts. The other transmission voltage is 13.8kV that includes three tie-lines in Hilo connecting the Shipman and Kanoelehua power plants. HELCO uses 34.5kV as a sub-transmission voltage. Distribution voltages are 2.4kV, 4.16kV, 12.47kV, and 13.8kV. Distribution substations, which transform voltages to distribution voltages, are also located island-wide in proximity to communities and other developments.

There are three major transmission lines within the South Hilo area. One line runs south along Railroad Avenue and turns right on East Mamaki Street and continues southward on Kanoelehua Avenue/Māmalahoa Highway to Kea'au. The second line runs parallel to Kawaihine Street, south on Kanoelehua Avenue/Māmalahoa Highway and goes to the Puna Power Plant. The last line originates out of the Pana'ewa Rainforest Zoo area and runs parallel southwards on Mamalahoa Highway and continues on toward Kea'au. This last line also has a connector transmission line as it passes the W.H. Shipman Industrial Park. All transmission lines are 69kV. When the transmission lines reach the various substations, voltage is transformed from 69kV to 12,470 volts for consumer consumption.

Gas

Propane gas is widely used in residential and commercial facilities on the island of Hawai'i. In some rural areas of the County, gas is the only source of power. The Public Utilities Commission (PUC) regulates 67 miles of gas mains and service lines on the Big Island. Most of these lines are located in Hilo. Gas service is also available by tank or cylinder. This type of service is not regulated by the PUC. The primary gas line originates outside of the Keaukaha Baseyard along Kamehameha Avenue and terminates at Wainaku. From the main transmission line, a feeder line branches off Kamehameha Avenue on to Manono Street. When Manono Street ends and merges with Kīlauea Street, the transmission line continues until Kawaihine Street and heads mauka and terminates at Iwalani Street.

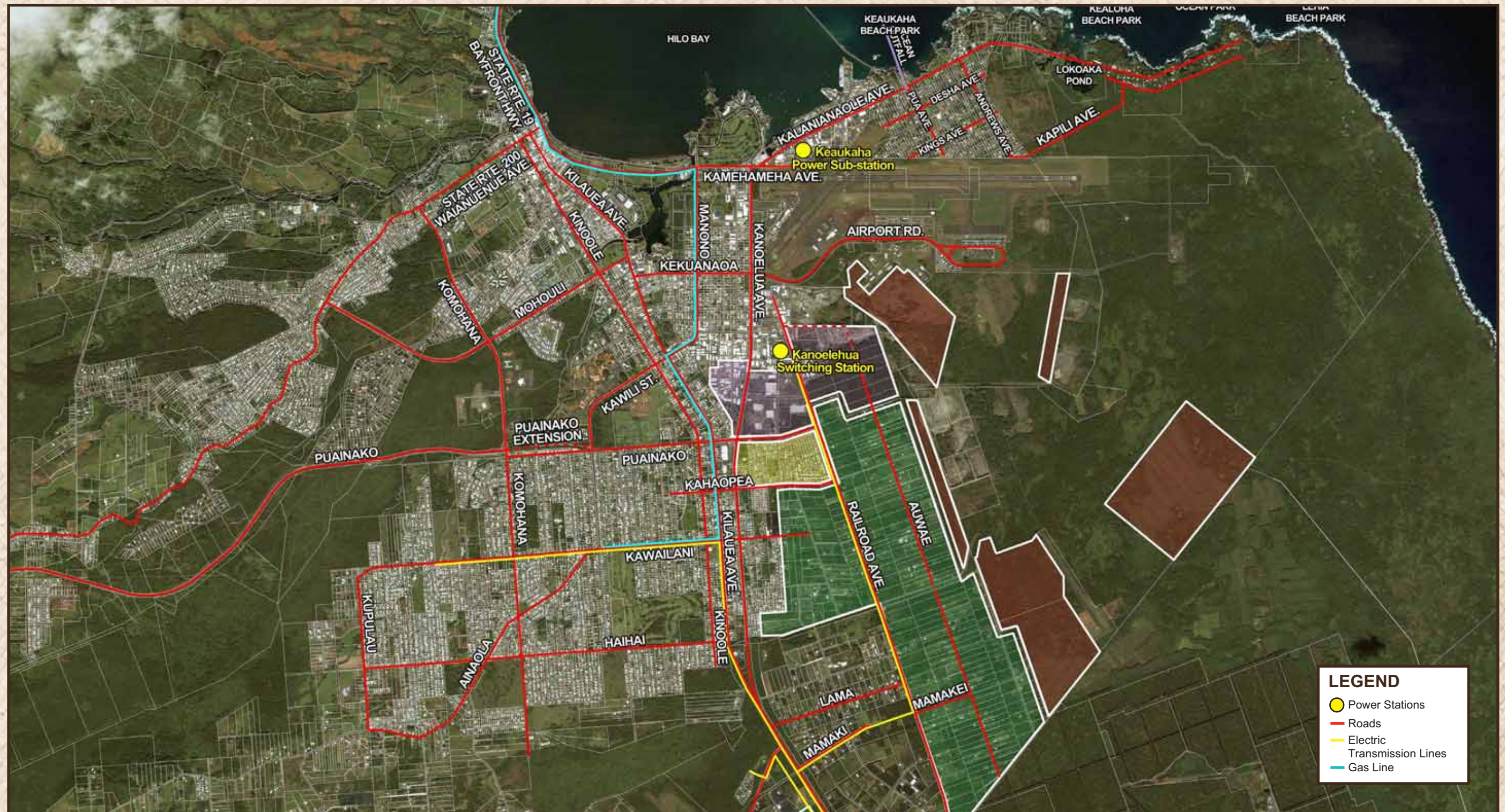
Telephone Service

Sandwich Isles Communication provides fiber optic telephone services to DHHL lands.

Cable Television Service

The Hilo District is within the Oceanic Time Warner Cable Service area.

Infrastructure - Utilities



Infrastructure - Public Facilities

SCHOOLS

The public school complexes in the Hilo District include the Waiākea Complex, Hilo Complex, and Laupāhoehoe Complex. The Waiākea Complex includes two elementary schools, one intermediate school, and one high school. The Hilo Complex includes seven elementary schools, one intermediate school, and two high schools. The Laupāhoehoe Complex is comprised of Laupāhoehoe Elementary and High School. Due to the larger population, there are more private and charter schools in the Hilo area. There are three charter schools within Hilo, two of them being Hawaiian language immersion schools. Within Hilo there are six private schools that provide grade K-12 enrollment.

HIGHER EDUCATION

The University of Hawai‘i System has two campuses which are located within close proximity of Pana‘ewa servicing the higher education needs of East Hawai‘i: University of Hawai‘i at Hilo and Hawai‘i Community College.

The University of Hawai‘i at Hilo offers baccalaureate degrees through an arts and sciences curriculum. Although UH Hilo emphasizes education in the liberal arts tradition, the university also offers advanced degrees in indigenous languages and natural sciences. The campus also hosts the only accredited pharmacy school in the state. Hawai‘i Community College focuses on providing access to those seeking a higher education. The college’s curriculum centers on cultural competency, environment, Hawaiian culture and values, and workforce development. The college also offers the only known degree program in the art of Hula.

FIRE / EMS SERVICES

The Hawai‘i County Fire Department has 20 regular fire stations and 22 volunteer fire stations. In addition to the Central Fire Station located in Hilo, there are three more fire/EMS stations located in Waiākea, Kaūmana, and Kawaiłani.

POLICE AND CORRECTIONAL FACILITIES

The Hawai‘i County Police Department is in charge of enforcing all Federal, State, and local laws in Hawai‘i County. Hawai‘i County has a main police station in each of its eight districts. The police station in South Hilo has a total of eighty-two sworn officers who cover a jurisdiction of 635 miles. In the South Hilo District, there are approximately 1.93 officers per 1,000 residents. There are two correctional facilities located in East Hawaii: Hawai‘i Community Correctional Facility in Hilo and Kulani Correctional Facility.

BUS SERVICE

The Big Island is currently served by the Hele-On Bus Program which provides a total of fourteen routes around the entire county. Of those fourteen routes, seven of them pass through or originates from Hilo. All bus routes that run through Hilo pass through or originate from Pana‘ewa homestead lands in front of Prince Kūhiō Plaza.

MEDICAL CARE

There is one comprehensive medical facility within the immediate vicinity of the Pana‘ewa homestead community.

HILO MEDICAL CENTER

A 264-bed facility, Hilo Medical Center is the largest acute care facility in Hawai‘i County. The center offers 24-hour emergency care including 24-hour emergency services and a Family Practice medical clinic. The hospital is also part of the Hawai‘i Health Systems Corporation.

PARKS

Located at 100 ‘Olu‘olu Street, Pana‘ewa Park is the only recreational facility in the Pana‘ewa homestead region. At the park’s recreational facility, there are many programs available to the Hilo community. The park’s facilities include: one primary field, two baseball diamonds, volleyball court, basketball court, tennis courts, exercise stations, walking path, and a 2,000 sq. ft. recreation facility for administration and activities.

HAWAI‘I VOLCANOES NATIONAL PARK (32 MILES DISTANCE BY CAR)

Hawai‘i Volcanoes National park was established through an Act of Congress in 1916. The park is the island’s most visited attraction, with over 2.6 million visitors passing through the park gates annually. The park encompasses 333,000 acres and includes the state’s two active volcanoes: Kilauea and Mauna Loa. The park is a full service recreational facility of the National Park Service, including lodging, concessions, interactive visitor centers, and numerous trails.

HILO INTERNATIONAL AIRPORT

The Hilo International Airport lies just north of the Pana‘ewa homestead lots. Currently, go!, Hawaiian Airlines, Mokulele Airlines, and Island Air provide direct service to various parts of the State of Hawai‘i. In 2006, Hilo International Airport welcomed over 703,000 domestic and international visitors.

HILO HARBOR

The Port of Hilo serves as the primary entry of goods for the Big Island. In addition to accepting goods, the harbor also plays host to visiting cruise ships. In 2006, Hilo Harbor welcomed over 492,000 cruise ship passengers. However, as the number of cruise ship operators leave the islands, passenger numbers are likely to decrease.

School Name	Private / Public	Grades	Actual Enrollment 2007-2008	Projected Enrollment 2012-2013	Change in Enrollment Numbers	Percent Change	Student / Teacher Ratio
HILO COMPLEX							
DeSilva Elementary School	Public	K-6	367	331	-36	-9.81%	17/1
Ha'aheo Elementary School	Public	K-6	154	146	-8	-5.19%	15/1
Hilo High School	Public	9th - 12th	1,491	1,301	-190	-12.74%	16/1
Hilo Intermediate School	Public	7th - 8th	507	549	42	8.28%	13/1
Hilo Union Elementary School	Public	K-6	483	543	60	12.42%	14/1
Kapi'olani Elementary School	Public	K-6	402	347	-55	-13.68%	15/1
Kalaniana'ole Elementary and Intermediate	Public	K-8	334	331	-3	-0.90%	12/1
Kaūmana Elementary School	Public	K-6	229	204	-25	-10.92%	15/1
Keaukaha Elementary School	Public	K-6	295	235	-60	-20.34%	14/1
WAIAKEA COMPLEX							
Waiākea Elementary School	Public	K-5	893	931	38	4.26%	17/1
Waiākea High School	Public	9th - 12th	1,276	1,209	-67	-5.25%	16/1
Waiākea Intermediate School	Public	6th - 8th	858	900	42	4.90%	17/1
Waiākeawaena Elementary School	Public	K-5	764	759	-5	-0.65%	16/1
PRIVATE / CHARTER SCHOOLS							
Connections Public Charter School	Public	K-12	359	N/A			12/1
E Maka'ala School	Private	PreK-4	61	N/A			9/1
Haili Christian School	Private	PreK-11	379	N/A			13/1
Hale Aloha Nazarene School	Private	PreK-8	86	N/A			22/1
Ka 'Umeke Ka'eo Public Charter School	Public	K-6	168	N/A			17/1
Ke Ana La'ahana Public Charter School	Public	7th - 12th	77	N/A			9/1
Mauna Loa School	Private	K-9	24	N/A			8/1
St. Joseph Jr. / Sr. High School	Private	7th-12th	435	N/A			10/1
St. Joseph School	Private	K-6	169	N/A			17/1
HIGHER EDUCATION							
University of Hawai'i, Hilo	Public	University	3,608	N/A			N/A
Hawai'i Community College	Public	2-Year College	2,551	N/A			N/A



Infrastructure - Public Facilities

HIGH SCHOOL COMPLEX	
1	DeSilva Elementary School
2	Ha'aheo Elementary School
3	Hilo high School
4	Hilo Intermediate School
5	Hilo Union Elementary School
6	Kapi'olani Elementary School
7	Kalaniana'ole Elementary School (beyond map)
8	Kaūmana Elementary School
9	Keaukaha Elementary School
WAIĀKEA SCHOOL COMPLEX	
10	Waiākea Elementary School
11	Waiākea High School
12	Waiākea Intermediate School
13	Waiākeawaena Elementary School
PRIVATE CHARTER SCHOOLS	
14	Connections Public Charter School
15	E Maka'ala School
16	Haili Christian School
17	Hale Aloha Nazarene School
18	Ka 'Umeke Ka'eo Public Charter School
19	Ke Ana La'ahana Public Charter School
20	Mauna Loa School
21/22	St. Joseph Jr./Sr. High School / St. Joseph School
HIGHER EDUCATION	
23	University of Hawai'i, Hilo
24	Hawai'i Community College
25	Hawai'i Community College, Manono Campus
FIRE STATIONS	
26	Central Fire Station
27	Kaūmana Substation
28	Kawailani Fire Substation
29	Waiākea Fire Substation
VARIOUS PUBLIC FACILITIES	
30	Correctional Facility
31	Police
32	Hilo Medical Center
33	Hilo Public Library
34	Hualani Park
35	Edith Kanaka'ole / Ho'oulu Complex



Special Section - Kamoleao

History of Kamoleao

In 1986, the Department of Hawaiian Home Lands commissioned a master plan for 160 acres in the Pana‘ewa homestead tracts. A 12.77 acre portion of this land would be later referred to as “Kamoleao” and earmarked for community use.

Kamoleao Master Plan and 2002 Update

In 1994, Kimura International was hired by the Pana‘ewa Hawaiian Home Lands Community Association (PHHLCA) to create the first Kamoleao Master Plan. Services such as, a one-stop Hawaiian services office complex, child care center, amphitheatre, accommodations for visiting guests, in addition to a 10,000 square feet (sq. ft.) community hall would be offered at Kamoleao.

PHHLCA created Haola Inc., a 501(c) 3 non-profit organization to facilitate the development of the Kamoleao parcel. In March 1995, DHHL approved “License Agreement No. 365” for the 32.3 acre site with PHHLCA and Haola Inc. which allowed for the development and management of a community center and supporting facilities.

Since completing the initial master plan in 2002, Haola Inc. sponsored several studies to assess the feasibility of incorporating a farmer’s market along ‘Olu‘olu Street. Subsequently, the planned construction of a Home Depot store on half of the planned Kamoleao parcel facing Maka‘ala Street changed the master plan.

Kamoleao Illustrative Master Plan

The 2005 Kamoleao Illustrative Master Plan reflects the changes that have occurred since the 2002. Available land for Kamoleao is approximately 12.77 acres on a parcel that is bordered by Railroad Avenue to the east, Pū‘ainako Street to the south, ‘Olu‘olu Street to the west and The Home Depot to the north.

The 2005 concept plan developed by Haola Inc. invited the community to share their views on what role Kamoleao should play within the community. Haola’s recommendations for Kamoleao shifted away from the role of nature and the community to enhancing the quality of life of native Hawaiians. The community center’s activities would focus on providing health care services, educational

assistance, and social opportunities for youths. Kamoleao would also serve as a venue for Pana‘ewa’s farming community to produce, process, and sell their value-added products. The ‘Olu‘olu Market Place would allow for a total of 88 vendor stalls, and stand-alone restroom facility within a 12,520 square foot area.

Challenges

Although water lines do run along the Kamoleao site, sewer lines are not available. According to County of Hawai‘i Wastewater Division documents, the nearest sewer line is located on East Maka‘ala Street and stops in front of Home Depot.

Proposed development of the Saddle Road, and anticipated traffic outflow from Kona will go directly into Hilo via Pū‘ainako Street and consequentially create greater traffic flow around Kamoleao.



Special Section - Pana'ewa Commercial / Industrial Area

Introduction

The industrial/commercial area of Pana'ewa consists of 115 lots with a total of 396 acres. All properties lay adjacent to Kanoiehua Avenue between Lanikaula and Pū'ainako Streets. Parcels west of Kanoiehua Avenue can be generally characterized as being smaller in size. Parcels east of Kanoiehua Avenue tend to be larger in scale. Through rents collected from these properties, DHHL is able to finance various homestead projects throughout the state.

Prince Kūhiō Plaza (36 acres)

Prince Kūhiō Plaza is the largest indoor shopping complex on the Big Island. Within the shopping complex, there is a nine-screen movie theater complex. The shopping centers central location at the intersection of Pū'ainako Street and Kanoiehua Avenue places it in a high traffic area.

Waiākea Center (14 acres)

Waiākea Center is on a 14 acre lot adjacent from the Prince Kūhiō Shopping Center. Within the shopping complex, there is a McDonald's, Ross Dress for Less, Borders Bookstore, Wal-Mart, and other retail shops.

The Home Depot/ Panda Express (10 acres)

The Home Depot is located on a 12 acre parcel of land behind the Prince Kūhiō Plaza, east of Kanoiehua Avenue covering approximately 130,000 square feet of floor space. Panda Express established their first drive-thru restaurant on the Big Island in the northwest corner of the The Home Depot parcel and a Burger King will join the Panda Express site.

DHHL Industrial Development Opportunity (140 acres)

East of the Prince Kūhiō Plaza and Waiākea Center, there are 15 lots totaling 140 acres. Parcel lots are either one or ten acres in size. Currently, the lots are zoned for general industrial use. Access to the parcels is possible via Railroad Avenue. However, further construction of roads through the parcels, and extension of water and sewer lines are some of the infrastructure improvements for further development.

DHHL East Maka'ala Mixed-Use Development (15.5 acres)

The site will be designated for Industrial/Commercial Mixed Use which is located in Waiakea, South Hilo, Island of Hawai'i, TMK: (3)2-2-47:59. It is a rapidly growing area where both industrial and commercial establishments are located. The site is situated directly across Maka'ala Street from Home Depot and within walking distance from Wal-Mart and Prince Kūhiō Shopping Mall.

KANOIEHUA COMMERCIAL / INDUSTRIAL AREA		
Name of Parcel	Number of Parcels	Total Acreage (AC)
Prince Kūhiō Plaza	1	36
Waiākea Center	1	14
The Home Depot/Panda	1	12
DHHL Industrial Development Opportunity	15	140
DHHL East Maka'ala Mixed-Use Development	1	15.5
Total	19	217.5



Special Section - Pana'ewa Family Center

Park Options in Hilo

As the County's largest urban center, residents have access to many recreational facilities. There are a total of eight neighborhood parks that range in size from 3 to 8 acres. There are also 17 gymnasiums: two at the University of Hawai'i Hilo, three managed by the Department of Education, and nine managed by the County. Along the coastline, Hilo's coastline has a number of beach parks that allow residents and visitors to enjoy the area's natural resources. Lastly, Ho'olulu Park is a 56 acre recreational complex that includes the Edith Kanaka'ole Tennis Stadium which is home to the Merrie Monarch Hula Festival.

Pana'ewa Park

Located at 100 'Ōhu'ōhu Street, Pana'ewa Park is the only recreational facility in the Pana'ewa homestead region. The park provides many programs available to the Hilo community. The park's facilities include: one primary field, two baseball diamonds, volleyball court, basketball court, tennis courts, exercise stations, walking path, and the Pana'ewa Family Center, a 2,000 sq. ft. recreation facility for administration and activities.

Activities available at the park include:

- Craft activities
- Fitness walk
- Intersession summer fun
- Kūpuna softball
- Meeting place for various associations
- Quilting
- Pop Warner football
- Thrownet making
- Volleyball

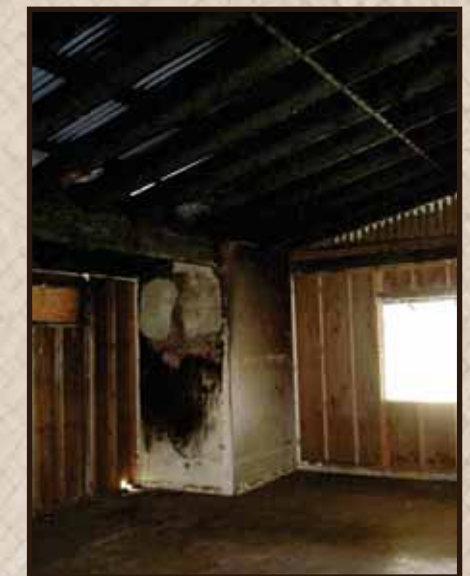


Pana'ewa Family Center

Fire Damage: A community comes together

In February 2007, a fire broke out in Pana'ewa Family Center that caused severe smoke damage. In addition to structural damage, the center's computer lab was damaged beyond recovery. Damage to the park facility resulted in a drastic reduction in programs available to the community. Due to a lack of usable space, over half of the programs and services that were once available are no longer available. Children have been greatly affected by the Family Center fire. Since 2007, approximately 400 children have missed two years of summer fun activities that were once available at the Pana'ewa Family Center.

The County is working on getting the necessary paperwork and site drainage plan to be completed. As of July 2008, through the efforts of the County Parks and Recreation Department and Councilman Stacy Higa, volunteer engineering firms were solicited to lend their expertise in designing the necessary renovation plans. The community has also played a proactive role in expediting the rebuilding process. To date, the community has obtained the necessary volunteers to help with construction.



Existing Pana'ewa Family Center and fire damage

Potential Priority Selection Process

Community Process

Beginning on February 20, 2008, the Department of Hawaiian Home Lands (DHHL) held five (5) Pana'ewa Regional Plan focus group meetings with Pana'ewa homestead leaders and other stakeholders in the region. Meetings were held as follows:

1. February 20, 2008: Pana'ewa Homestead Leaders Meeting
2. May 9, 2008: Pana'ewa Stakeholders Meeting
3. June 10, 2008: Pana'ewa Stakeholders Meeting
4. July 14, 2008: Pana'ewa Stakeholders Meeting
5. August 4, 2008: Beneficiary Community Meeting
6. October 7, 2008: Pana'ewa Homestead Leaders Meeting
7. December 9, 2008: Pana'ewa Homestead Leaders Meeting
8. December 17, 2008: Keaukaha-Pana'ewa Farmers Association Membership Meeting

The first objective of these meetings was to identify and inventory Pana'ewa's needs, opportunities, concerns and issues impacting the community. The second objective was to identify projects that addressed these needs and resolved the issues. Through this community process, a list of fifteen (15) potential projects was generated and presented to the community on August 4, 2008.

Beneficiary Vote On Priority Projects

A voting ballot was prepared and distributed at the August 4, 2008 beneficiary community meeting. The community voted on the top five priority projects from the list of fifteen potential projects.

- A total of 59 ballots were collected from the August 4, 2008 Pana'ewa Beneficiary Community Meeting.
- 58% of the votes were cast by residential lot beneficiaries.
- 42% of the votes were cast by agricultural lot beneficiaries.
- The following five (5) projects received the highest number of total votes cast:
 1. Complete the Restoration of the Pana'ewa Family Center
 2. Reassess Kamoleao to Expedite Its Development
 3. Establish a Working Group to Assess How to Improve Farming at Pana'ewa
 4. Develop DHHL Pana'ewa Industrial Lands to Generate Income
 5. Improve Pana'ewa Road Infrastructure

It should be noted that both the agricultural and residential lessees agreed on the top 4 priority projects. However, for the 5th priority project, the agricultural lessees cast more votes for the establishment of Pana'ewa's Farmer's Market. Pana'ewa's Farmer's Market is a component of the Kamoleao project, which was the 2nd priority project identified. The number of votes for all projects is provided as follows:

BENEFICIARY VOTES ON PANA'EWA PROJECTS							
PROJECT NUMBER*	PROJECT DESCRIPTION	TOTAL VOTES	RANK	RESIDENT LESSEES	RANK	AGRICULTURAL LESSEES	RANK
1	Restore Pana'ewa Family Center	56	1	32	1	24	1
13	Expedite Development of Kamoleao	42	2	24	2	18	2
6	Working Group to Assess How to Improve Farming	41	3	20	3	21	3
2	Develop DHHL Industrial Lands/Generate Income	35	4	20	4	15	4
10	Improve Pana'ewa Road Infrastructure	26	5	15	5	11	
5	Establish Pana'ewa Farmers' Market	21		9		12	5
9	Identify Agricultural Supports for Pana'ewa Farmers	16		8		8	
4	Eradicate Coqui Frogs	14		7		7	
3	Develop Kūpuna Housing	13		9		4	
7	Expedite Completion of FredCo Homes	10		9		1	
8	Secure Fair Appraisals for Homestead Homes	8		7		1	
12	Training & Technical Assistance to Build Org. Capacity	6		5		1	
11	HIEDB Study on Adopting Trash Pick-Up	2		2		0	
15	Representation of Homestead Areas by Homestead Associations	1		0		1	
14	Reassess the Moratorium on the Subdivision of Agricultural Lots						
	TOTALS	294	100%	169	57%	125	43%

* "Project Number" denotes the order it appeared on the ballot. The following two pages presents the projects and descriptions as they appeared on the ballot.

Pana'ewa Farmers Vote On Priority Projects

The Keaukaha Pana'ewa Farmers Association held a membership meeting on December 17, 2009. During that meeting, the membership reviewed the Potential Priority Project List and voted to authorize the Board of Directors to establish a list of the top priority projects for the agricultural community. The Board of Directors identified the following agricultural priorities:

1. Lift Moratorium on Agricultural Leases
2. Establish a Working Group to Assess How to Improve Farming at Pana'ewa.
3. Establish a Pana'ewa Farmers' Market.
4. Obtain Support from DHHL to oppose the use of Railroad Avenue for the Kea'au-Hilo Bypass Road.



Potential Priority Project List

* 1. COMPLETE THE RESTORATION OF THE PANA‘EWA FAMILY CENTER

- Monitor and facilitate the permitting process in order to begin reconstruction of Pana‘ewa Family Center.
- Work with Sandwich Isles Communications (SIC) to provide internet services to the Pana‘ewa Family Center.

* 2. DEVELOP DHHL PANA‘EWA INDUSTRIAL LANDS TO GENERATE INCOME

- To support the Trust and homestead development statewide
- To provide a sustainable revenue stream for Pana‘ewa
 - Develop a process that allows the community to provide input on the development of the Pana‘ewa industrial lands.
 - Appropriate a percentage of the lease revenues from the development of the Pana‘ewa Industrial lands toward a Pana‘ewa community fund.
 - Designate an area within the Pana‘ewa Industrial development for homesteaders to start small businesses.
 - Identify a broader range of entrepreneurial activities that could be allowed on existing homesteads.

3. DEVELOP KŪPUNA HOUSING IN PANA‘EWA

- Create a kūpuna housing assistance program that is administered through DHHL’s Home Owner’s Assistance Program (HOAP).
- Ensure that kūpuna housing is an integral part of any long range plan for the Pana‘ewa community.

4. ERADICATE COQUI FROGS IN PANA‘EWA

- Work with Hawai‘i Island Economic Development Board (HIEDB) Inc. staff to implement a program to eradicate coqui frogs in Pana‘ewa.

5. ESTABLISH PANA‘EWA FARMERS’ MARKET

- Resolve issues with Prince Kūhiō Plaza management for the use of the shopping center employee parking lot on weekends, in order to accommodate patrons of the farmers’ market.

* 6. ESTABLISH A WORKING GROUP TO ASSESS HOW TO IMPROVE FARMING AT PANA‘EWA

- Review the Agriculture Task Force recommendations and apply recommendations that are relevant to Pana‘ewa.
- Commission a study to inventory existing agricultural activity on farm lots and identify potential new trends and markets for Keaukaha-Pana‘ewa Farmer’s Association (KPFA).
- Create a working group to better define what agriculture means for the Pana‘ewa farming community.
- The group could assess where assistance is needed to improve operational performance as well as compliance with DHHL farm lot lease conditions.

7. EXPEDITE THE COMPLETION OF HOMES THAT WERE AFFECTED BY THE FredCo BANKRUPCY

* *Priority Project*

Potential Priority Project List

8. FAIR APPRAISALS FOR HOMESTEAD HOMES

- Address issues pertaining to home equity and appraised value of homesteads on the open market compared to adjacent non-homestead areas.

9. IDENTIFY ADDITIONAL AGRICULTURAL SUPPORTS FOR PANA‘EWA FARMERS

- Expand existing agriculture assistance programs in Pana‘ewa to facilitate the transition of incarcerated individuals into the workforce.
- Develop a seed propagation center on the unencumbered lands next to the drag strip that provides plant stock to Pana‘ewa farmers.
- Work with DHHL and Department of Agriculture to develop a loan matching program for new and existing farmers.
- Work with UH Mānoa College of Tropical Agriculture and Human Resources (CTAHR) and UH Hilo College of Agriculture, Forestry, and Natural Resource Management (CAFNRM) to develop agricultural programs in the community

* 10. IMPROVE PANA‘EWA ROAD INFRASTRUCTURE

- Consider charging a toll for non-homestead traffic traveling along Railroad Avenue.
- Initiate dialogue with County, State, Federal, and other relevant stakeholders regarding impacts of the proposed Kea‘au-Pāhoa Bypass on Pana‘ewa.
- Auwae Road bridge

11. PARTICIPATE IN A HAWAI‘I ISLAND ECONOMIC DEVELOPMENT BOARD (HIEDB) STUDY TO ASSESS THE FEASIBILITY OF ADOPTING TRASH PICK-UP IN PANA‘EWA

12. PROVIDE TRAINING AND TECHNICAL ASSISTANCE TO HOMESTEAD ASSOCIATIONS TO INCREASE THEIR CAPACITY TO MEET THE NEEDS OF THEIR COMMUNITY

* 13. REASSESS KAMOLEAO TO EXPEDITE ITS DEVELOPMENT

- Identify commercial elements of Kamoleao that would be appropriate at the current location.
- Identify community elements of Kamoleao that would be to be located within the Pana‘ewa community.
- Relocate Kamoleao from the commercial center to a location within the residential homestead.
- Address pedestrian safety issues and incompatibility with surrounding uses.
- Construct a crosswalk across Pū‘ainako Street to provide a safe pedestrian connection between the homestead and Kamoleao.

14. REASSESS THE MORATORIUM ON THE SUB-DIVISION OF AGRICULTURAL LOTS

15. REPRESENTATION OF HOMESTEADERS THAT ARE NOT REPRESENTED BY A HOMESTEAD ASSOCIATION

- Provide better representation for Kaūmana Homestead residents.

** Priority Project*

Priority Project: Complete the Restoration of the Pana'ewa Family Center

Beneficiary Priority

Pana'ewa Family Center

The Pana'ewa Family Center is a 2,000 square foot community facility that provides a variety of educational and enrichment programs for the community. Some of the activities available at the Pana'ewa Park include:

- Computer lab
- Craft activities
- Fitness walking
- Intersession summer fun
- Kūpuna softball
- Meeting place for various associations
- Quilting
- Pop Warner football
- Thrownet making
- Volleyball

In addition to the variety of activities provided, the Pana'ewa Family Center serves as a central gathering place for the homestead's residents. Parents cite the center as a safe environment for their children.

Family Center Fire and Rebuilding Process

A February 2007 fire caused severe smoke damage to the Pana'ewa Family Center. In addition to structural damage, the Family Center's computer lab was damaged beyond recovery. The fire drastically reduced the number of available programs and negatively impacted park users. Due to a lack of usable space, over half of the programs and services are no longer available. Parents have also indicated that summer fun programs at the Family Center have been suspended for two summers due to a lack of adequate facilities.

County Department of Parks and Recreation has been continually working on obtaining approval from various County and State departments and drafting the necessary design plans that meet current Americans with Disabilities Act (ADA) compliance guidelines. Past Councilman Stacy Higa (District 4) solicited from several engineering firms pro bono consultative and technical services.

Homestead residents have also gathered the necessary community volunteers and a contractor to oversee the actual renovations of the Pana'ewa Family Center.

Top Priority Project

At the August 4th Community Beneficiary meeting, renovating and repairing the Pana'ewa Family Center was selected as the community's top priority project. The proposed priority project will facilitate the renovation process. The renovation and repairs to the Pana'ewa Family center would restore an invaluable community resource. Completion of this project would be conducted in two phases.

In the first phase, DHHL will facilitate communication regarding planning and the permitting process between County Department of Parks and Recreation and the Pana'ewa community.

Phase two of the project will involve the actual renovations of the project. Once necessary building permits are obtained, the community will cooperate with a local contracting company to begin the renovation process. Construction materials will be provided by the County. The contracting company has agreed to offer their services at no cost to the community and the County. During the renovation process, Sandwich Isles Communications (SIC) will install cable internet infrastructure for the Family Center.

Project Cost

The generosity of various contractors, consultants, and community volunteers has resulted in a reduction of projected costs for consultation, planning, and construction labor fees. Construction material costs have not yet been determined by the County. Internet installation cost estimates have yet to be negotiated with SIC.

POTENTIAL SOURCES OF FUNDING:

Potential funding sources would be primarily provided by County of Hawai'i, DHHL, private firms, and community resources.

Priority Project- Establish a Working Group to Improve Farming at Pana'ewa

Beneficiary Priority and Agricultural Priority

Pana'ewa historically has been a productive area for agricultural activity. As early as 1955, Hawaiian Homes Commission reports indicated Keaukaha farmers actively maintaining bountiful guava groves in Pana'ewa. As one drives through the Pana'ewa Farm Lots, there is a variety of agricultural development. While some parcels are barely developed, others have developed extensive farming operations which produce a variety of crops.

The disparity of Pana'ewa farmers' success is a direct result of various external factors. Increased competition from external markets, higher operation costs, and current agricultural regulations have created an environment where lessees find it difficult to continue farming.

In 2000 an Agricultural Task Force was formed to address the challenges faced by DHHL's agricultural lessees. This Task Force developed a list of recommendations that were directed at improving homestead farming across the state. Although the task force completed its study eight years ago, little to few of the recommendations were implemented in Pana'ewa.

Priority Project

This priority project would establish a working group that would engage in a number of tasks in order to address a range of issues and opportunities related to improving agricultural use of agricultural lots. Specifically, the working group will:

- Assess the impacts (positive and negative) of lifting the current moratorium on the subdivision of agricultural lots, which is a desire expressed by a number of agricultural lessees.
- Recommend conditions and subdivision guidelines that would be necessary in order to lift the current moratorium on the subdivision of agricultural lots.
- Review the Agriculture Task Force recommendations and identify recommendations for application at Pana'ewa.
- Commission a study to inventory existing agricultural activity on farm lots and identify potential new trends and markets for Keaukaha-Pana'ewa Farmer's Association (KPFA).
- Define what agriculture means for the Pana'ewa farming community.
- Identify where assistance is needed to improve operational performance as well as compliance with DHHL farm lot lease conditions.

- Recommend areas where DHHL could better support Agricultural Lessees.
- Expand existing agriculture assistance programs in Pana'ewa to facilitate the transition of incarcerated individuals into the workforce.
- Identify potential sites to develop a seed propagation center that would cultivate and provide plant stock to Pana'ewa farmers, for example, on the unencumbered lands next to the drag strip.
- Work with DHHL and Department of Agriculture to develop a loan matching program for new and existing farmers.
- Work with UH Mānoa, College of Tropical Agriculture and Human Resources (CTAHR) and UH Hilo College of Agriculture, Forestry, and Natural Resource Management (CAFNR) to develop agricultural programs in the community.
- Identify recommendations to best provide training and technical assistance to Homestead Associations to increase their capacity to meet the needs of their community.

This priority project directly addresses farming issues for the community by implementing recommendations that are already recognized and accepted solutions by the original Agriculture Task Force committee. Secondly, the farming inventory study provides Pana'ewa farmers an up-to-date analysis of their farming capacity and insight as to how to diversify production to meet market demand.

Project Phasing

Phase I: Background research, discussion with DHHL on existing agricultural sub-division moratorium, initial workshops with farming community. Commission agricultural inventory study in Pana'ewa (4-6 months).

Phase II: Present initial findings to Pana'ewa Farming Community

Phase III: Revise report and obtain final approval from community.

Project Costs: Research and analysis: \$75,000.

POTENTIAL SOURCES OF FUNDING:

Department of Hawaiian Home Lands (DHHL), County of Hawai'i, Hawai'i State Department of Agriculture (HDOA), United State Department of Agriculture (USDA)



Priority Project: Support Kamoleao to Expedite its Development

Beneficiary Priority; Agricultural Priority - Farmer's Market Component

Pana'ewa's homesteaders have clearly shown a strong desire to develop a 12.77 acre parcel land north of the Pana'ewa residential lots. The proposed site, later known as Kamoleao went through several phases of conceptual development. In the initial 1994 visioning plan, subsequent 2002 updates and 2005 Illustrative Plan, the idea of Kamoleao as a community gathering place transformed into a comprehensive community center that would include:

- Meeting Hale
- Health Care Facilities
- Day Care
- Hawaiian Services
- Farmers' Market - *Agricultural Priority*
- Amphitheatre
- Education Center
- Guest Lodging

The residential lessee community association, Pana'ewa Hawaiian Home Land Community Association (PHHLCA) and Haola Inc., a non-profit organization has also worked with DHHL to execute a 30 year license agreement (License Agreement #365) to develop the Kamoleao parcel. At the August 4, 2008 Community Beneficiary meeting, over 14 percent of all votes identified Kamoleao's construction as a key priority project.



Challenges

Kamoleao's construction is hampered by several factors. First, \$25 million is the approximate cost to construct Kamoleao using a 2002 estimate. This cost estimate is six years old and it'll probably cost close to \$30 million in 2008. Further delays and increasing cost of construction would only further escalate this cost.

Second, Kamoleao has no sewer service. According to County Wastewater Division, the nearest sewer line is located on Maka'ala Street and terminates in front of The Home Depot. Kamoleao is considered to be inside a sewer service area and is required hook-up to the existing sewer line at Maka'ala Street. The estimated cost of hooking up Kamoleao to the Maka'ala Street sewer line is estimated to cost \$327,000. This sewer improvement is the critical first step of developing Kamoleao, however its cost has held the community back from starting the project.

Third, the Department's license agreement to develop Kamoleao is with the Pana'ewa Hawaiian Home Lands Community Association (PHHLCA) and Haola, Inc.. The respective roles and responsibilities of each party to the development of Kamoleao need clarification. Furthermore, the Agricultural Lessees at Pana'ewa, represented by the Keaukaha Pana'ewa Farmer's Association, want to be a part of the Pana'ewa's Farmer's Market, which is one component of Kamoleao and identified as a top agricultural priority by the Keaukaha Pana'ewa Farmers Association. At this time, the role of the farmers and their representative association in the Farmer's Market and Kamoleao, as a whole, has not been defined. This effectively has excluded half of the homestead population at Pana'ewa. Since Kamoleao is envisioned as a community/cultural center, an important step will be to develop working relationships and/or agreements with closely associated organizations like Haola, Inc., the Keaukaha Pana'ewa Farmer's Association, and other organizations that may be involved in the development of Kamoleao.

Priority Project: Support Kamoleao to Expedite its Development

Beneficiary Priority; Agricultural Priority - Farmer's Market Component

Priority Project

This Priority Project proposes to expedite Kamoleao's construction by developing a sustainable revenue source within the community that could fund the construction and operation of Kamoleao. Expediting Kamoleao's construction would be a collaborative effort between the community, State, County and other organizations.

DHHL is currently planning to allocate a parcel of the proposed Pana'ewa industrial lands project to the community. This parcel could create the necessary revenue stream to fund Kamoleao's construction and associated infrastructure costs. In addition, Haola, Inc. receives \$100,000 annually from the Waiakea Business Center which could provide additional revenue to fund Kamoleao's planning, design, and construction.

In the interim, the costs to hook-up to the sewer line on East Maka'ala Street needs to be verified. With an updated cost, both DHHL and the community could seek alternative funding sources via the legislature or Capitol Improvement Project (CIP) financing to the fund the new sewer line.

The community has also taken a pro-active role in securing the necessary funds to expedite Kamoleao's construction. Through a partnership with Hawai'i Community College (HCC), the Pana'ewa community received a \$605,000 grant from the Department of Housing and Urban Development (HUD). A portion of the grant will go toward integrating Kamoleao to the municipal sewer system. In addition to the HUD grant, PHHLCA and HCC leveraged an additional \$200,000 in community resources, including environmental assessment, engineering and architectural consultants to support the initial construction of the Kamoleao Lualaba Community Resource Center.

Opportunities for partnerships also exist and could ultimately lower the overall costs to construct Kamoleao. Currently, DHHL is working to develop industrial lands along Maka'ala Street (TMK (3) 2-2-47:59 Lot 5-A-1). Further coordination with the developers of the Maka'ala mixed use parcel is an excellent partnership opportunity to get the necessary funding to increase the existing wastewater sewage pipe's capacity.

Pana'ewa's residential and farming communities will have a common area to meet and hold various cultural and social events in the community. Furthermore, the site will offer various sub-leasing opportunities which will develop another source of revenue to service construction debt. Development of entrepreneurial opportunities and social and educational programs at Kamoleao will be partially funded by the community's HUD grant.

Project Phasing

PHASE I:

Work with County, Department of Health, and DHHL to find a viable solution to Kamoleao's wastewater issues. Engage Maka'ala mixed-usage developer to share cost in enlarging the existing sewage pipe along Maka'ala Street. Develop sources of income to fund construction. Develop working agreements with other organizations as necessary. Completion of an Environmental Assessment, pursuant to Chapter 343, HRS. Secure necessary county permits. Construct "Kamoleao Lualaba Community Resource Center." (1-2 years)

PHASE II:

Contract planners and architects to design Kamoleao layout

PROJECT COSTS:

Planning, and Design- \$150,000

Construction-TBD based on findings from planning and design.

POTENTIAL SOURCES OF FUNDING:

Department of Hawaiian Home Lands (DHHL), Department of Housing and Urban Development (USHUD), Hawai'i Tourism Authority (HTA), Department of Business, Economic Development, and Tourism (DBEDT), County of Hawai'i, Kamehameha Schools / Bishop Estate, Queen Liliu'okalani Children's Center, Office of Hawaiian Affairs (OHA), and University of Hawai'i, Hawai'i Community College.



Priority Project-Generate Income for Pana'ewa

Beneficiary Priority

Unlike other homesteads, Pana'ewa is a unique combination of farmlands, residential tracts, commercial, and industrial parcels. DHHL's industrial and commercial lands, generate the needed revenue to support the department's operations and build new homestead communities statewide.

Although revenues from Pana'ewa's industrial and commercial lands go to build new homes for applicants on DHHL's waitlist throughout the State, many homesteaders in Pana'ewa feel that a percentage of the revenue generated from these lands should remain within Pana'ewa and directly benefit them. This new revenue stream would empower the community and provide the needed financial means to fund community projects and programs that will serve the homestead.

The reconstruction of the Family Center and development of Kamoleao are just two of the many projects that the residential lessees are working on that could benefit from this new revenue stream. The agricultural lessees also have a number of projects that could benefit from this new revenue stream.

This priority project proposes to create Pana'ewa's revenue stream through the development of DHHL's vacant industrial lands behind Home Depot. These lands are slated in the Hawaii Island Plan for industrial use. By year end the Department will issue a Request For Proposals (RFP) to develop these lands. In response to Pana'ewa's request for a revenue stream from the Pana'ewa's industrial and commercial lands, the department will allocate a parcel from this new industrial development to the community to develop and manage.

This project will be the first of its kind for DHHL. The intent of this priority project is to provide Pana'ewa with an economically viable land base in which to generate income that the community needs. This industrial parcel may be developed by the community or through a RFP process. Once developed the lease rents from this parcel will be the revenue stream that the community can then use to fund its own projects and programs.

DHHL realizes that the planning, development and management of a project of this scale may be challenging for any homestead community, so the department has initiated a capacity building program aimed at training and empowering the homestead leaders with the necessary skills to succeed.



Project Phasing

Phase I: Request for Proposal (RFP) Process for the development of industrial lands.
3-6 months

Phase IA: Capacity building program - Courses in business, property, and revenue management.
3-12 months

Phase II: Transfer of industrial lands to community.
12-36 months

Project Costs: Request for Proposal (RFP) for the development of the Industrial Lands: No Cost

POTENTIAL SOURCES OF FUNDING:

Department of Hawaiian Home Lands (DHHL), Department of Business, Economic Development, and Tourism (DBEDT)

Priority Project: Improve Pana'ewa Road Infrastructure

Beneficiary Priority; Agricultural Priority

The Pana'ewa Homestead community is an eclectic mix of residential, agricultural, and commercial lands in a relatively small area of Hilo. The first agricultural lot lessees tended their guava groves in an environment that was largely removed from Hilo's old city center. As time passed, Hilo grew in size and expanded and began to surround Pana'ewa. Increased traffic congestion and safety issues have become a key concern for homestead residents.

There are two types of road infrastructure issues that affect Pana'ewa residents:

Pana'ewa Road Infrastructure: The first type of infrastructure issue is road safety. Residents cite two areas along Pana'ewa's roadways that pose serious risk to pedestrians. Increased commercial vehicle traffic that travel at all hours along Railroad Avenue pose a serious risk to the area residents. The lack of a traffic signal along Pū'ainako Street in front of Pana'ewa's residential area poses a serious risk for residents.

The Kea'au-Hilo Bypass Road: Bypass Road plans from Kea'au-Pāhoa to Hilo is the second major road infrastructure issue for Pana'ewa residents. The Puna Circulation Study identified Railroad Avenue as a potential alternative entry point into Hilo. Although DHHL has not taken an official stance on the issue, Pana'ewa residents are strongly opposed to a bypass road entering into their community.

Proposed Project

Creation of a comprehensive traffic circulation plan for Pana'ewa's roadways will seek to address the existing infrastructural deficiencies and future development concerns of the community. The goal of this traffic circulation plan will create a safe environment for pedestrians in Pana'ewa.

This priority project will have two major components:

Pana'ewa Road Infrastructure: First, traffic calming devices will be installed along Railroad Avenue and Pū'ainako Street. Construction of speed tables, roundabouts, or planter islands along Railroad Avenue will reduce traffic speed. Pedestrian traffic along Pū'ainako Street can be improved through the installation of a crosswalk and stop light. Construction of the stop light and crosswalk will provide a safe point for the community's kūpuna and children to cross the street to access the Prince Kūhiō Plaza.

The Kea'au-Hilo Bypass Road: The second component of this priority project focuses on involving DHHL to support the community by opposing expansion of the bypass road into Pana'ewa. Allowing the bypass road into Pana'ewa will not only severely negatively impact the flow of traffic in the area, but will also disrupt the quiet character of the area. Specifically, Pana'ewa associations want to initiate dialog with county, state, federal, and other relevant stakeholders regarding the negative impacts they will be faced with should a bypass road be routed through the community on Railroad Avenue. Implementation of this priority project will address a serious need to ensure the safety of Pana'ewa's resident population. A second positive outcome from this priority project will ultimately preserve the relative calm character of the community.

Project Phasing

Phase I: DHHL will consult with community leaders and present to Hawai'i Department of Transportation and relevant County agencies their official stance to any proposed roadway into the homestead community. Community leaders will begin discussions with agencies involved in planning the bypass road to ensure that it will not run through the community on Railroad Avenue.

Phase IA: Conduct a circulation study within the homestead. 6 months.

Phase IB: Survey and planning for traffic calming devices along Railroad Avenue and Crosswalk for Pū'ainako Street. 6 months.

Phase II: Construction of traffic calming devices (speed tables, roundabouts, planter islands, etc.) along Railroad Avenue. 6 months.

Construct cross walk across Pū'ainako Street. 6 months.

PROJECT COSTS

Monitoring of Kea'au-Pāhoa Bypass Road: No cost

Circulation study, surveying and planning: \$200,000

Construction of traffic calming devices: \$15,000 per traffic calming device, \$2 million for crosswalk and traffic signal.

POTENTIAL SOURCES OF FUNDING:

Department of Hawaiian Home Lands (DHHL), County of Hawai'i, Hawai'i Department of Transportation (HDOT), U.S. Department of Transportation (USDOT)





DEPARTMENT OF HAWAIIAN HOME LANDS



PBR HAWAII
ASSOCIATES, INC.