

KAPOLEI



REGIONAL PLAN

November 2010



DEPARTMENT OF
HAWAIIAN HOME LANDS



KAPOLEI

DEPARTMENT OF HAWAIIAN HOME LANDS
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 Hawaiian Homes Commission

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I. INTRODUCTION
 Regional Plan Goals & Process 1-2
 Partnering Benefits 3-4

II. HOMESTEAD & REGIONAL PROFILE
 Homestead Regional Profile 5
 Homestead Association & Community Leaders 6
 Elected Officials & Political Boundaries 7-8

III. REGIONAL LAND & DEVELOPMENT
 History and Cultural of the Area 9-10
 Hawaiian Home Lands 11
 East Kapolei I & II 12
 Development Project Characteristics & Trends 13
 Major Land Owners in the Region 14

IV. INFRASTRUCTURE
 Water 15-16
 Roads & Transit 17-18
 Energy 19
 Wastewater 20
 Drainage 21-22
 Public Facilities 23-24
 Consolidated Land Development Projects 25-26
 Consolidated Infrastructure Development Projects 27-28

V. HOMESTEAD ISSUES & PRIORITY PROJECTS
 Homestead Issues & Priority Projects 29-30
Priority Projects
 Support Heritage Center & Community Commercial Development 31-32
 Support New School Development 33-34
 Engage Beneficiaries in a Planning Charette Process 35-36
 Develop Pedestrian/Bike Path Network to Community Resources 37-38
 Preserve & Develop Parks to Service the Homestead Community 39-40



I. Introduction - Regional Plan Goals & Process

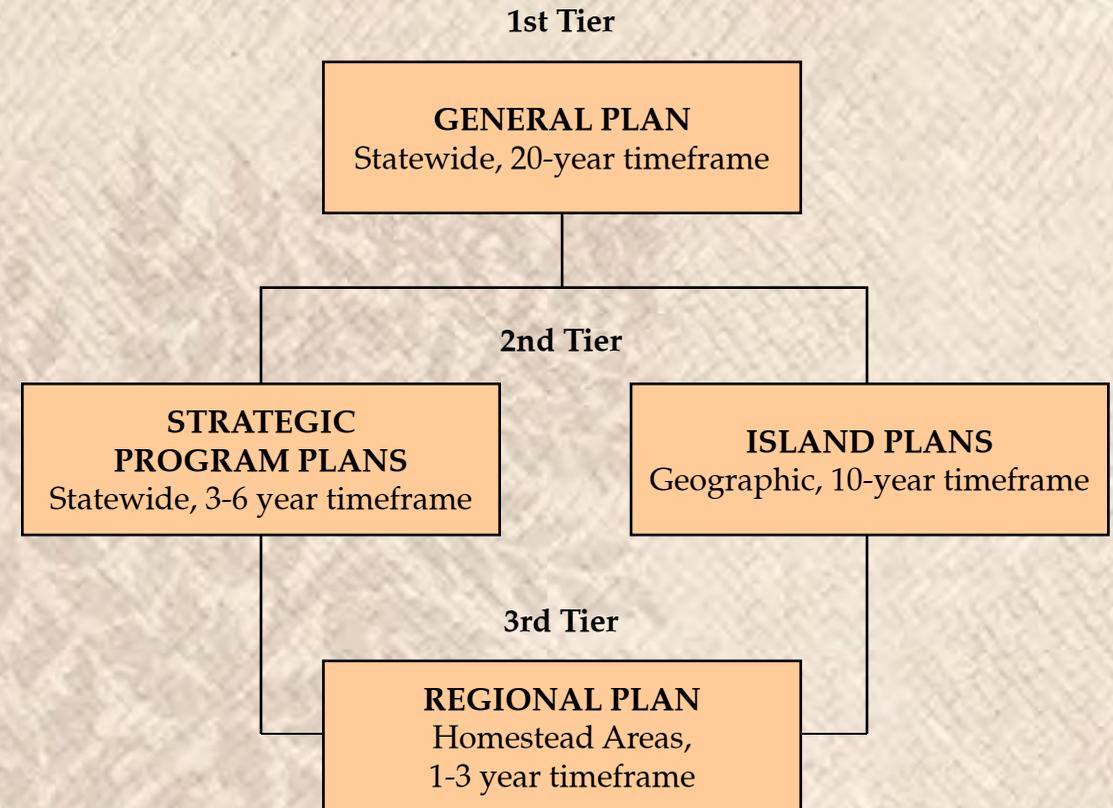
The mission of the Department of Hawaiian Home Lands (DHHL) is to effectively manage the Hawaiian Home Lands Trust and to develop and deliver lands to native Hawaiians. To accomplish this, DHHL works in partnership with government agencies, private landowners, non-profit organizations, homestead associations, and other community groups. Regional plans provide the means to solidify visions and partnerships that are essential to effectively manage Hawaiian Home Lands trust lands for the betterment of native Hawaiian beneficiaries.

This regional plan is one of twenty (20) regional plans that DHHL is developing statewide. Kapolei is one of the regions on O'ahu that have been selected for regional planning. In these regional plans, DHHL takes on a leadership role in the region, working to strengthen the growth of the area, developing partnerships to leverage diverse resources and capital investment; and fostering beneficiary participation in determining the future direction of the homestead community. The regional plans provide the Department and the affected homestead community opportunities to assess land use development factors, identify issues and opportunities, and identify the region's top priority projects slated for implementation within the next three (3) years.

What are Regional Plans?

Regional Plans are part of DHHL's 3-tiered Planning System (see figure to right). At tier one is the General Plan which articulates long-range Goals and Objectives for the Department. At the second tier, there are Program Plans that are statewide in focus, covering specific topic areas such as the Native Hawaiian Housing Plan and a Native Hawaiian Development Program Plan. Also at this second tier are the Department's Island Plans that identify the Department's Land Use Designations per island which function similar to the counties' land use zones. The regional plans are located at the third tier in the Department's planning system which focuses at the community/regional level. The regional plans apply the goals, policies, and land use designations to specific geographic regions. The regional plans are a means to:

- Identify data -- people, lands, and infrastructure of homestead communities and the surrounding region;
- Identify what DHHL and other landowners are planning to do;
- Provide the primary mechanism for beneficiary input in the development of their homestead communities;
- Identify issues and potential projects; and
- Identify Priority Projects determined by the Department and homestead community.



Introduction - Regional Plan Goals & Process

How are Regional Plan Developed?

The regional plans are developed in conjunction with lessees of the region as well as regional stakeholders (landowners, agencies, other organizations) in a series of planning meetings as illustrated in the figure below. During these meetings, issues and opportunities that should be addressed in the regional plan are identified and a list of potential projects is developed to address those issues and opportunities. From this list lessees determine by consensus, their top five (5) priority projects that are written up with project details, budget estimates, and other pertinent project planning information. Draft regional plans are then subject to the approval of the Hawaiian Homes Commission, which means that the Commission and Department officially support the priorities identified in the regional plan.

Upon approval, the homestead community, the Department, and other development partners can seek necessary funding and pursue the implementation of the Priority Projects. The Priority Projects is a key component of aligning support and providing focus to efforts to develop the region. Finally, since DHHL knows that regional development is a dynamic process with constantly changing opportunities and emerging issues, regular regional plan updates are built into the planning process. In this way, regional plans are updated as needed, which generally have amounted to biennial updates (one update every two years), in order to keep abreast of changing conditions and new opportunities.

How are Regional Plans Used?

As a compilation of existing plans and proposed projects for the region, the regional plan helps to coordinate the orderly development of regional infrastructure improvements. With the addition of lessee input in the process, the regional plans become a powerful tool to focus energies and efforts, align interests, and secure funding for the top priorities identified in the regional plan. In this way, regional plans have become a critical tool to unify and support our beneficiary community.



Partnering Benefits

Benefits of Partnering

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 public and residential facilities. This coordination helps individual organizations achieve their goals while bringing long-term benefits to the community and region.

DHHL brings 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

Successful Partnerships

Residential Partnerships

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 often provides the land, secures federal grants, and provides access to, or assistance in, acquiring tax credits, subsidies, or other financing.



Parkway extension, Kapolei



U.H. West O'ahu Center, Kapolei

Infrastructure Partnerships

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 Waiawa-Waipahu water system on O'ahu. DHHL water systems at Anahola on Kaua'i, and Ho'olehua on Moloka'i are interconnected with nearby County water systems providing both parties backup source and storage capacity in the event of emergencies. 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.

Public Facilities Partnerships

DHHL has participated in a number of partnerships involving public facilities and community resources. The most notable partnerships have 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 house preschools, offices, meeting facilities, health clinics, and activity centers. In Kapolei, DHHL is partnering with the Salvation Army to provide a KROC Center full of community resources.

Natural Resource Management Partnerships

Through a series of management partnerships with DLNR, the Nature Conservancy's Honouliuli Preserve, and other property owners, unique ecosystems and historic sites are being protected. For example, DHHL is partnering with DLNR to protect the red 'ilima (abutilon) in East Kapolei. Other 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. Beach front recreational values are protected through management agreements with the City and County of Honolulu for Makapu'u, Kaiona, Kaupō, Waimānalo, and Nānākuli beach parks.

The ko'oloaula or *abutilon menziesii* is a federally protected endangered species found in Kapolei. This shrub has light green heart-shaped leaves and characteristic small dark red to maroon flowers and is also commonly referred to as the red 'ilima. Efforts to preserve the ko'oloaula's habit and distribute its seeds for repopulating is currently underway.



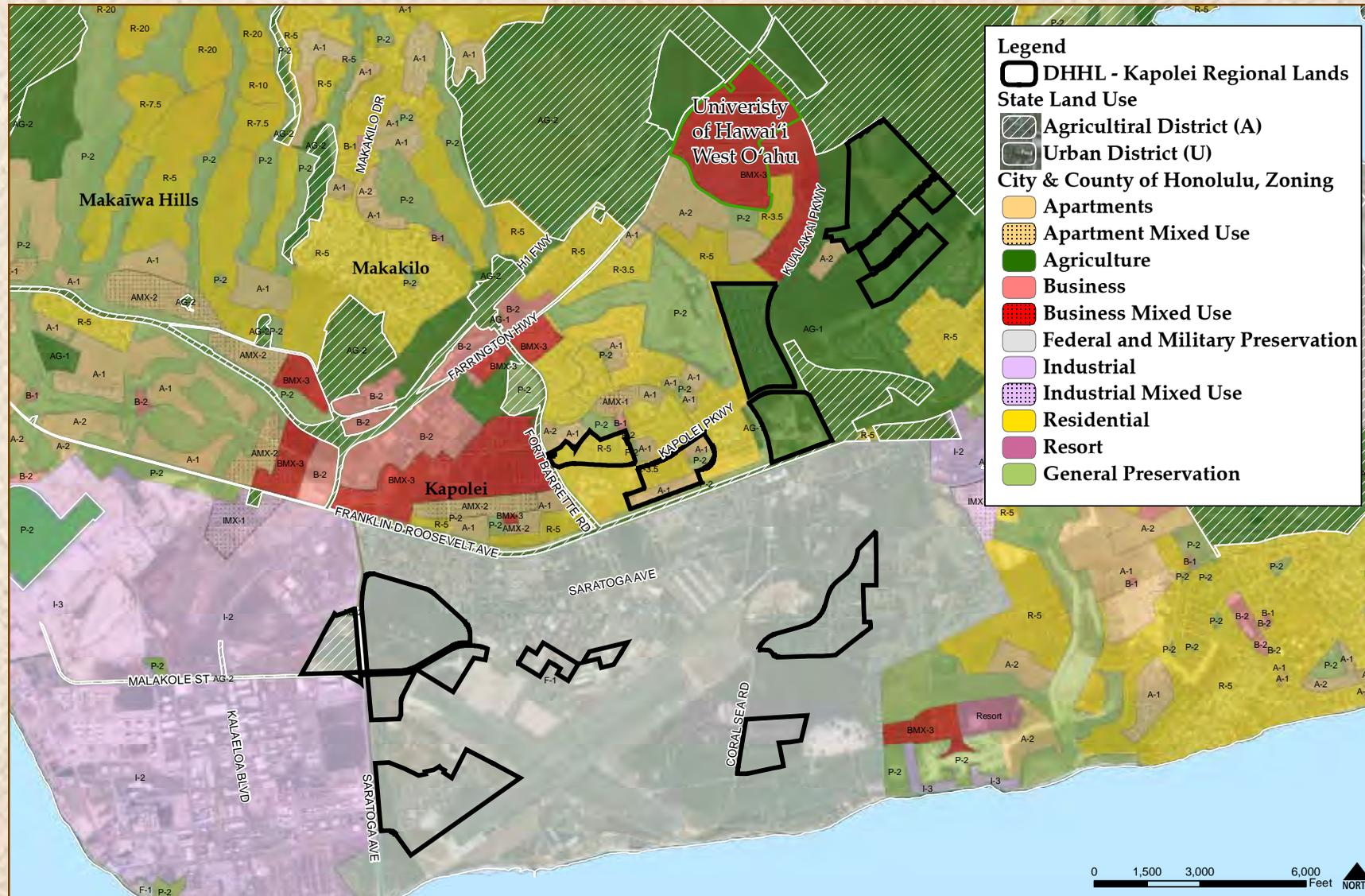
Salvation Army KROC Center, Kapolei



Abutilon flower

II. Homestead Regional Profile

State Land Uses - District & County Zoning Map



General

Characteristics	Kapolei	O'ahu	State	U.S.
Total Population	85,150	868,751	1,227,008	--
Median Age (Years)	31.2	37.9	38	35.3

Social Characteristics

High School Graduate or Higher	71,952 (84.5%)	87.7%	87.2%	80.4%
Bachelor's Degree or Higher	19,201 (22.6%)	30.8%	29.1%	24.4%

Economic Characteristics

Median Income	\$62,340	\$55,624	\$53,554	\$41,994
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Housing Characteristics

Total Housing Units	25,332	325,775	482,873	--
Owner Occupied Units	15,000 (59.2%)	171,775	251,808	66.2
Median Value - Single Family	\$465,000	\$620,000	\$364,840	\$119,600
Median Value - Condo	\$239,000	\$290,000	--	--
Renter Occupied Units	4,500 (30%)	128,291	175,865	33.8
Median Gross Rent	\$985	\$874	\$871	\$519
Vacant units	1,872 (7.4%)	25,729	55,200	9
Homeowner vacancy rate	2.7%	0.6%	0.6%	1.7%
Rental vacancy rate	5.9%	3.1%	4.1%	8.1%
Home ownership rate	70%	55%	--	--
Median Age - Owner	44.8	--	--	--
Median Age - Renter	36.2	--	--	--

Source: American Factfinder 2005, Campbell Estae 2005, & Honolulu Board of Realtors 2005.



Homestead Associations & Community Leaders



Blaine Kalama



Mel Kalama



Herbert Kekauwela



Tina Marie Kepoo



Eliza Martin



Kaipo Pomaikai



Shirley Swinney
President



Michelle Kauhane
President



Homelani Schaedel
President

**Board of Directors
Kānehili Homestead
Community Association**

**Kapolei
Community
Development
Corporation**

**Kaupe'a
Homestead
Community
Association**

**Malu'ohai
Homestead
Community
Association**

'Ahahui Siwila Hawai'i O
Kapolei - Hawaiian Civic Club
Association of Hawaiian
Civic Clubs
Castle and Cooke
DeBartolo Development
Department of Education
D. R. Horton, Schuler Div.
'Ewa Neighborhood Brd. #23
Finance Realty Co. Ltd.

Lance C. Holden, President
Leimomi Khan, President
David H. Murdock, Chairman
Valerie Panou, Representative
Kathryn Matayoshi, Superintendent
Mike Jones, President
Rodger Lacuesta, Chair
Howard Murai, President

Haseko
Hawai'i Community
Development Authority
Hawai'i Maoli
Hunt, LLC
James Campbell Co., LLC
Kamehameha Schools
Kapolei Community
Development Corporation
Kapolei Neighborhood Brd. #34

Nancy Maeda, Exec. Vice President
Anthony J.H. Ching, Exec. Director
Rae Decoito, ED
Steve Colon, Senior Vice President
Steve MacMillan, CEO
Dee Jay A. Mailer, CEO
Shirley Swinney, President
Maeda Timson, Chair

The KROC Community Center
- Salvation Army
The MacNaughton Group
Malu'ohai Residents Assn.
Queen Emma Land Company
The Resort Group
U.S. Coast Guard - Barbers Pt.
University of Hawai'i (UH)
UH - West O'ahu
Villages of Kapolei

Major Phil Lum
Duncan MacNaughton, Chairman
Homelani Schaedel, President
Eric Martinson, President
Jeff Stone, President
Capt. Anthony "Jack" Vogt
M.R.C. Greenwood, President
Gene I. Awakuni, Chancellor
Lori Goeas, President

Barbers Point Elementary
Campbell High School
'Ewa Elementary
'Ewa Beach Elementary
Friendship Christian Schools
Holomua Elementary
'Ilima Intermediate
Iroquois Point Elementary

Claudia Nakachi, Principal
Jamie Dela Cruz, Principal
Stanley Tamashiro, Principal
Sherry Lee Kobayashi, Principal
James E. Reid, Administrator
Gary Yasui, Principal
Jon Kitabayashi, Principal
Heidi Armstrong, Principal

Island Pacific Academy
Kaimiloa Elementary
Kapolei Elementary
Kapolei Middle School
Kapolei High School
Keone'ula Elementary
Lanakila Baptist School
Lanakila Baptist Elementary Sch.

Dr. Daniel E. White, Headmaster
Debra Hatada, Principal
Michael Miyamura, Principal
Annette Nishikawa Director
Elden Esmeralda, Principal
Eileen Hirota, Principal
Rick Denham, Principal
Cynthia Shirata, Principal

Makakilo Elementary
Mauka Lani Elementary
Messiah Lutheran School
Our Lady of Perpetual Help Sch.

Pohakea Elementary
Seagull Schools

Sean Tajima, Principal
Shelley Ferrara, Principal
Art Niermeier, Principal
Sister M. Davilyn Ah Chick,
Principal
Stacie Kunihiisa, Principal
Ann Abeshima, Director

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Elected Officials & Political Boundaries



Neil Abercrombie
Governor



Brian Schatz
Lt. Governor



Daniel K. Inouye
U.S. Senator



Daniel K. Akaka
U.S. Senator



Colleen Hanabusa
*U.S. House of Representatives
Congressional District 1*



Mazie Hirono
*U.S. House of Representatives
Congressional District 2*



Kaulana H. Park
*DHHL Commissioner
Chairman*



Donald S. M. Chang
O'ahu Commissioner



Francis K. Lum
O'ahu Commissioner



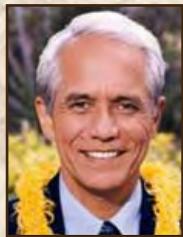
Trish Morikawa
O'ahu Commissioner



Peter Apo
OHA Trustee, O'ahu



Peter Carlisle
Honolulu Mayor



Mike Gabbard
*State Senatorial
District 19*



Will Espero
*State Senatorial
District 20*



Sharon Har
*State House of Representatives
District 40*



Rida Cabanilla
*State House of Representatives
District 42*



Kymberly Pine
*State House of Representatives
District 43*



Nestor Garcia
Council District 9



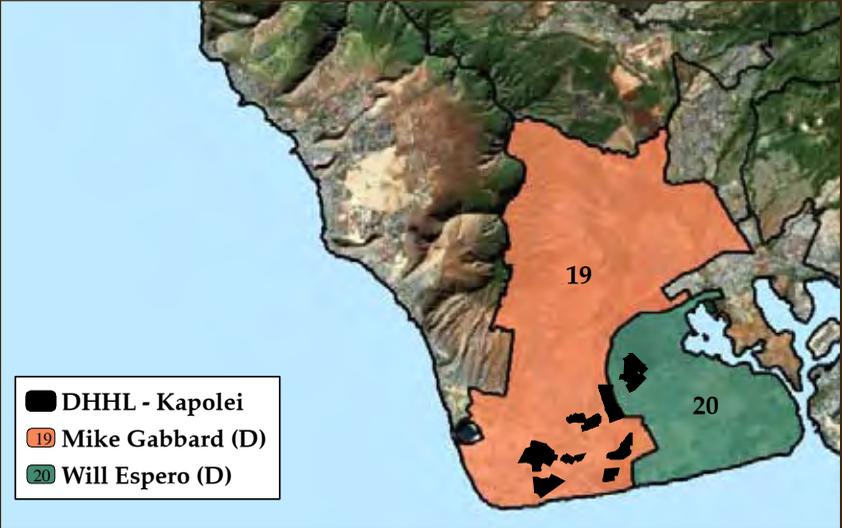
Todd Apo
Council District 1

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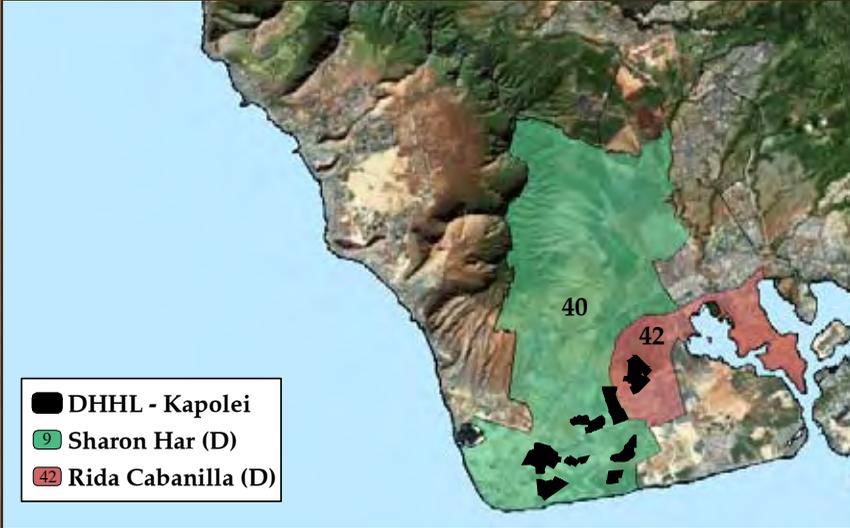


Elected Officials & Political Boundaries

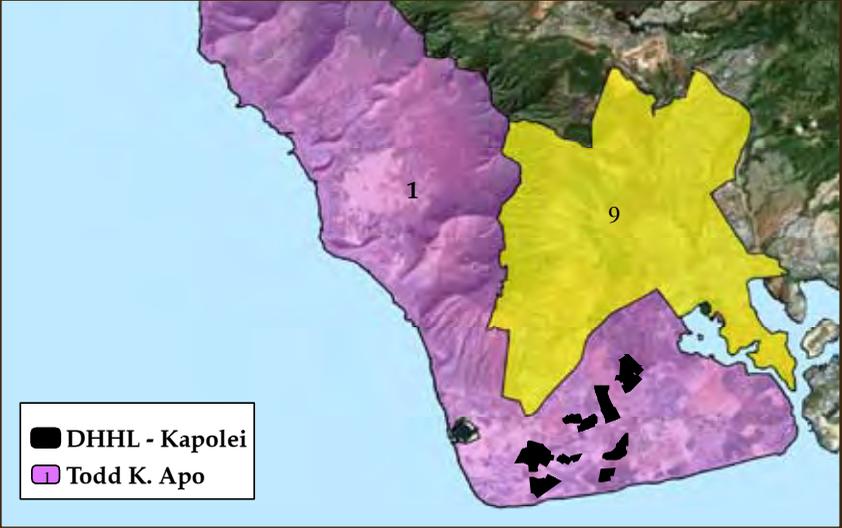
State Senatorial Districts



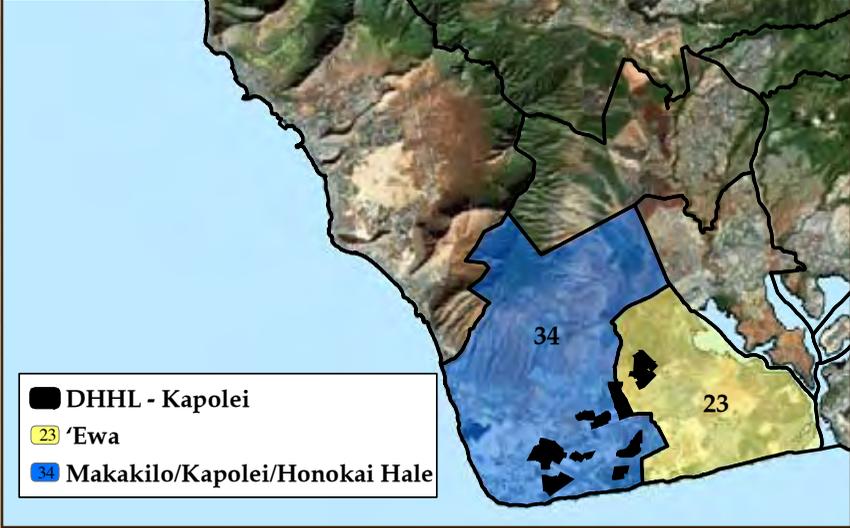
State House of Representatives Districts



City Council Districts



Neighborhood Boards



III. Regional Land & Development

Pre-contact

In olden times, the district we refer to as 'Ewa was much larger; it stretched from Red Hill to Kahe Point at the edge of Nānākuli. This is based on a legend of Kāne and Kanaloa who threw a wayward stone from Red Hill and lost it on the ridge above Kahe Point at Pili o Kahe. Therefore, in olden times, the district included all of what we call Central O'ahu below Schofield Barracks and the valleys from Waimanu to Hālawa. Native names and references imply that lands surrounding the Pearl River or Harbor were a favorite of O'ahu Kings. The sacred birthing stones of Kūkaniloko lie near the high point of the saddle between the Ko'olau and Wai'anae Ranges and this area around Pearl Harbor was ringed with numerous houses, fishponds, coconut groves and taro lo'i along the stream banks. This desirability is further evidenced by ownership of the land after the Māhele by such people as Alice Kamokila Campbell and John Papa I'i, prominent members of the ali'i.

In pre-contact times, the region has many associations with gods and royalty. During the period of internecine warfare between the islands there was a time when the Maui Mō'i, Kahekili, conquered and ruled O'ahu and stories of battles and plots and counterplots abound. After final conquest by Kamehameha, peace settled into the region and during the Mahele the lands were designated to varying members of the ruling families and their allies. The Estate of Bernice Pauahi, last heir of the Kamehameha dynasty, owned large sections of land in the region.

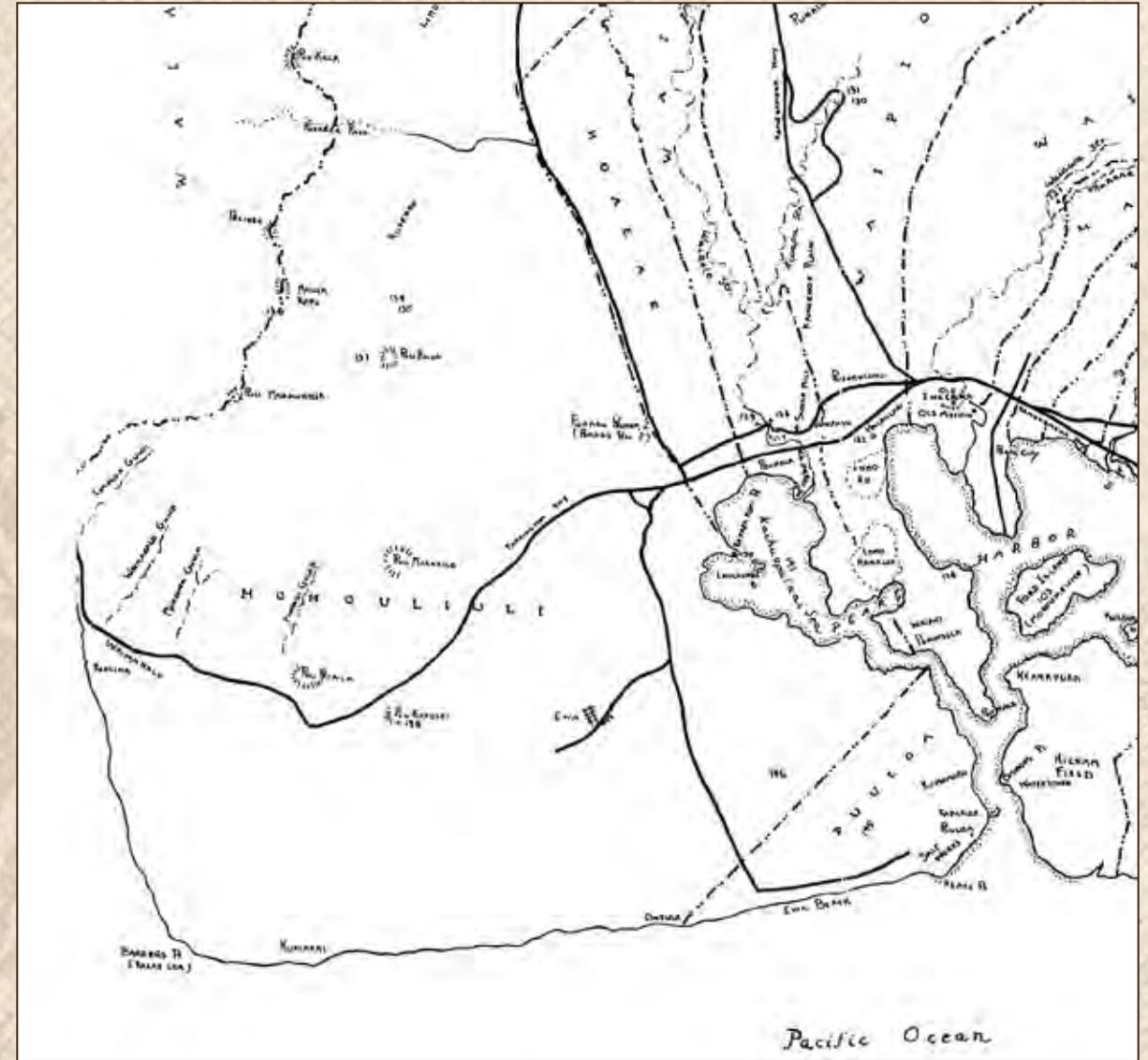
Archibald Campbell reported in 1809 that "where there was no water, the land was under crops of yams and sweet potatoes". Place names give a hint to old uses and concepts: Honouliuli - dark harbor, Kalo'i - the taro paddy, Pu'uloa - the long hill, Kalae Loa - the long peninsula, Kapolei - the lei of Kapo.

Over time the reference to "'Ewa" would evolve so that the sections from Red Hill to Waipahu would come to be identified separately by their own ahupua'a and local names and 'Ewa would refer to the broad plains beyond Waipahu before the Wai'anae coast. However, even today, the general westward location is referred to as the "'Ewa" side, somewhat reminiscent expression "go west, young man, go west," as the land of opportunity.

McAllister records that a heiau, or temple was located in the Kapolei area. It was said to be situated on a hill and may have been used as a point of solar reference or gate to the setting sun.

Kapolei is also documented as being a "Leina Ka Uhane," or "conduit to the afterlife." It is described as a plain where the kūpuna who have passed on, that are not yet ready to cross over into the ao 'aumakua, dwell. Not a purgatory, but a place for the Hawaiian spirits to wander at will.

'Ewa Ahupua'a Map



History and Culture of the Area

Late 1800s to Mid-1900s

In the mid to late 19th century, a young Scotsman named James Campbell dug the first artesian wells in the region and this signaled the beginning of the reign of sugar as king in the 'Ewa Plains. With 'Ewa Mill and O'ahu Sugar in Waipahu, this period lasted through Statehood and into the 1980s. The construction of the Waiāhole Ditch system from windward O'ahu to its terminus in Kunia also sustained this rise and saw the addition of pineapple in the cooler, upper slopes region. Today, with the closing of the sugar industry, the region continues to lead as a region where diversified agricultural activities flourish and new crops reach the market.

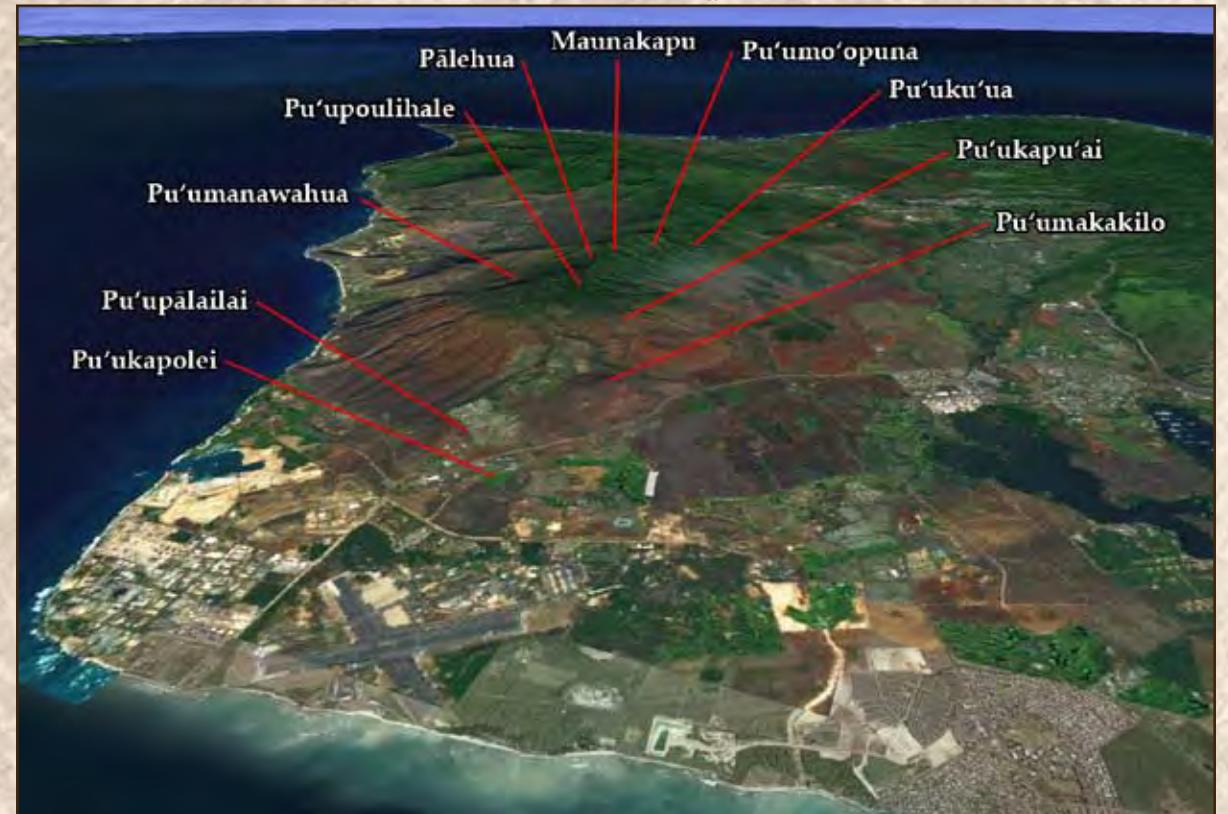
Transitions from the monarchy to the territorial, and then statehood eras brought consequent changes in the economy of the land. During the monarchy and territorial periods, agriculture was important. Military uses in the region, reflected in Pearl Harbor Naval Base and Barbers Point Naval Air Station, indicate the entrenchment of United States' interests, strategically and economically, through the period of two world wars and the advent of the Cold War.

Modern Times

With Statehood, tourism, and continued strategic military interests provided twin supports for 'Ewa and the State as a whole. The development of the Barbers Point Deep Draft Harbor and the growth of the Campbell Industrial Park along with the designation of Kapolei as the secondary urban center set the stage for the current growth that we see today. The new marina at Barbers Point Harbor and the marina under construction at 'Ewa Beach/Ocean Pointe also highlight the growing desirability of 'Ewa as a place to live and do business.

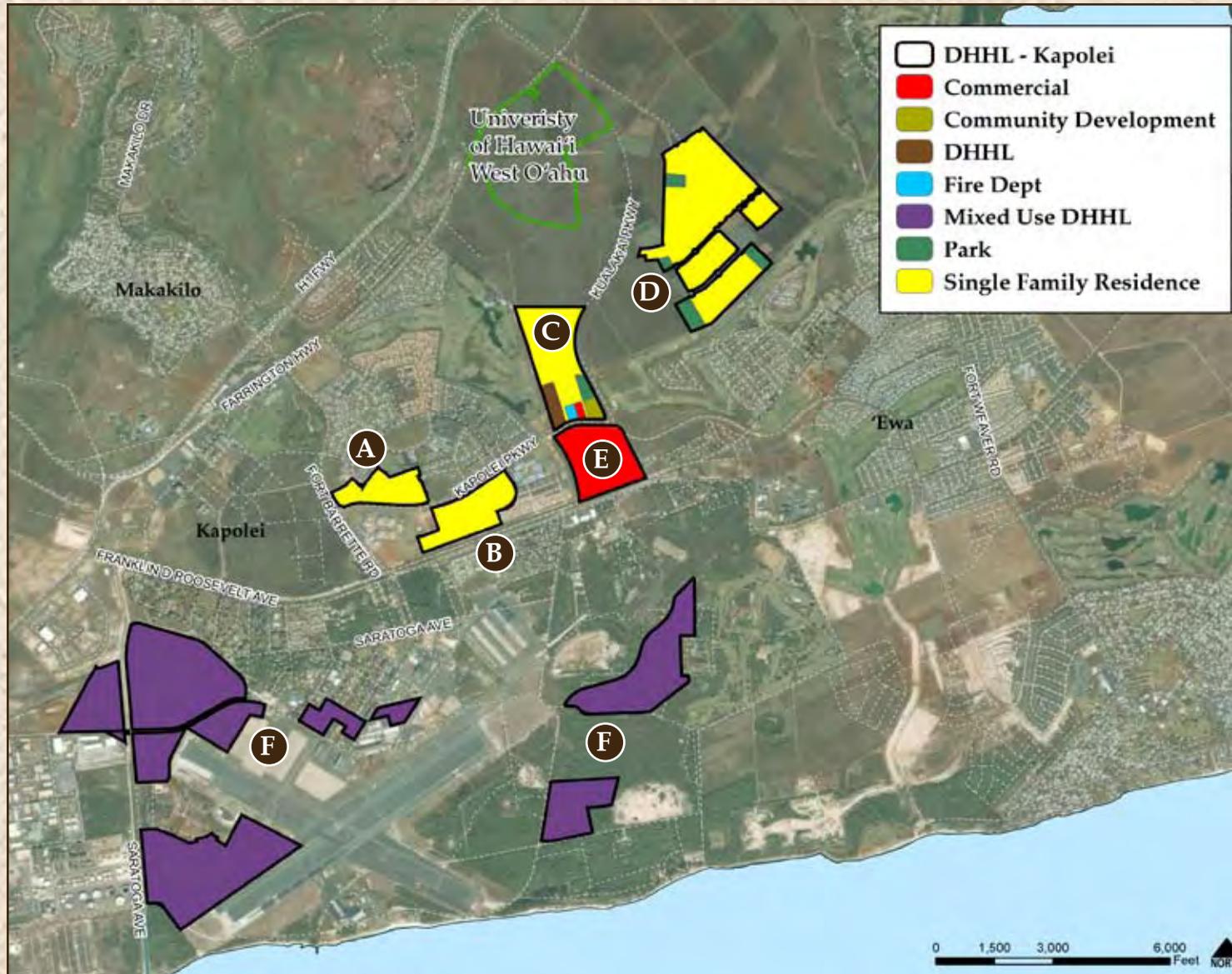
The DHHL Kapolei lands are located in the middle of the 'Ewa Region and at the growing edges of the Second City of Kapolei. They are adjacent to the bedroom community of 'Ewa Villages and the future site of U.H. West O'ahu. The region has experienced twenty-five (25) years of growth and is projected to continue to do so. Kapolei today retains all of the amenities of a true urban community, complete with residential, retail, commercial, recreational, and public service resources. While lands have changed in the region, the pu'u above Kapolei remain steadfast, including: Pu'ukapolei, Pu'upālailai, Pu'umakakilo, Pu'upoulihale, Pālehua, Maunakapu, Pu'umo'opuna, Pu'uku'ua, Pu'ukapua'i.

'Ewa Pu'u Map



Fishponds looking toward 'Ewa

Hawaiian Home Lands



DHHL Owned Parcels

A. Malu'ohai Village 6

Malu'ohai is a 38 acre subdivision within the Villages of Kapolei. 111 single-family homes, 80 single-family rentals, and 35 self-help homes have been constructed.

B. Kaupe'a Village 8

Kaupe'a is a 52 acre subdivision within the Villages of Kapolei. 326 lots will be available with average lot sizes of 5,000 square feet. Houses completed in 2008.

C. Kānehili East Kapolei I (TMK 9-1-151, 152, 153)

Infrastructure completed January 2010. House construction by Gentry Homes started in February 2009. As of August 2010, 210 houses have been occupied.

D. East Kapolei II (TMK 9-1-17: 110)

Majority has been conveyed from DLNR via quitclaim deed. Other uses include two schools, Kroc Community Center and Special Olympics.

E. East Kapolei Commercial (TMK 9116108 - por)

East Kapolei Commercial is a 67 acre parcel located makai of East Kapolei I. 1.5 million square feet of retail/commercial space for a regional shopping center is planned.

F. Kalaeloa

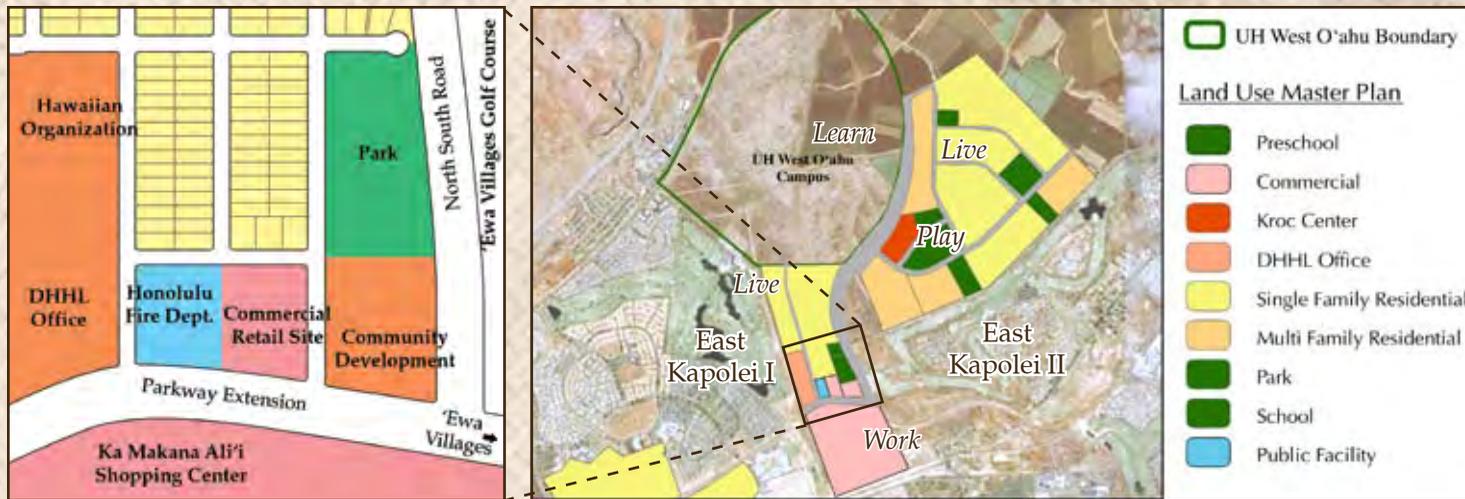
Lands in Kalaeloa are not intended for residential homestead use due to the abundance of land in Kānehili and Kapolei II for residential development and lack of infrastructure. Land parcels are intended for revenue generation.

Land Summary

	Acres	Housing Units
A. Malu'ohai Village 6	38	326
B. Kaupe'a Village 8	56	226
C. Kanehili East Kapolei I	68	403
D. East Kapolei	213	1,457
E. East Kapolei Commercial	67	-
F. Kalaeloa	555	-
TOTAL	997	2,412



Kānehili and East Kapolei II



East Kapolei represents DHHL's master planning community development efforts to provide a thriving community where people can live, work, play and learn. The Headquarters for the DHHL is now located in East Kapolei and land is reserved for park use, community commercial use and fire support use. In addition, a Heritage Center and spaces for Hawaiian organizational services are in development stages. Of the 403 housing units that are planned for East Kapolei 210 homes are occupied and renamed as Kānehili. Approximately 1,457 new homes are planned for East Kapolei II.

The East Kapolei parcels are further surrounded and supported by other work, live, play and learn opportunities. The University of Hawai'i West O'ahu campus will be located mauka adjacent to the Kānehili parcel providing learning opportunities. Recreational opportunities are provided at proposed parks and the Kroc Center, which is situated within walking distance from residential units. A 1.5 million square foot super mall is planned across from the parcel.

The East Kapolei developments also seeks to bring benefits to the region beyond the DHHL parcels. Aside from on site infrastructure improvements such as roads, drainage, sewer, water and electrical, regional infrastructure investments have been committed which include a 4 million gallon water reservoir; extension of Kapolei regional parkway road; connection to the North South Road and improvements to drainage.



Hale Kalamiana'ole DHHL Office



Kānehili homes



Development Characteristics & Trends

The recent economic recession has stalled a few development projects, but plans for growth in Kapolei continue.

Kapolei is the fastest growing region in the State of Hawai'i. There are several public and private investments driving the growth of this secondary urban core on O'ahu. Major road and infrastructure projects, a University of Hawai'i West O'ahu campus (UHWO), major residential clusters, and nodes of commercial development are amongst the investments being supported as Kapolei continues to develop.

DHHL's Kapolei lands are in the middle of this prospering city. The investments in infrastructure, employment, education, recreation, housing and commercial opportunities being contributed by state, county, private and community commitments are building communities in the Kapolei region where families can live, work, play and learn.

Each project in the Kapolei region plays a critical role in creating a synergy that maximizes the investment dollars and facilitates a pace of development that maintains the quality of life for Kapolei residents.

A major driver of growth in the region is the new University of Hawai'i West O'ahu campus. UHWO promises to be an essential educational resource, economic driver and partial traffic solution for this fastest growing region in the state. When finished, the campus is expected to have roughly 743,000 gross square feet of building space with room for expansion that could accommodate 7,600 students and 1,000 faculty and staff. The UHWO proposal attracted partnerships for infrastructure improvements including roads, water, sewer and drainage projects. The proposed campus will be surrounded by housing and commercial developments providing opportunity to create communities where one can work, play, live and learn.

Currently there are a number of major housing and commercial projects under construction or planned for Kapolei.

- Presently, 2,000,000 square feet of commercial, retail, and service sector space is located in region.
- The development of U.H. West O'ahu is anticipated to generate a localized demand for more than 150,000 square feet of retail and service sector space serving 8,600 students, faculty and staff by 2020 when it is fully developed.

More than 4,000 hotel and visitor units are projected for the region by 2020. Ko 'Olina alone will constitute over 3,300 hotel and resort condominium units and over 8,000 resort residential units at buildout.

Campbell Industrial Park is Hawai'i's largest industrial park at 1,367 acres. It is near capacity, with 98% leased or sold, leaving approximately 27 acres (or 1,200,000 square feet) available for new industrial and commercial purposes.

Over 2,000 new housing units are planned and over 1 million square feet of commercial space is proposed for the DHHL developments.

Employment

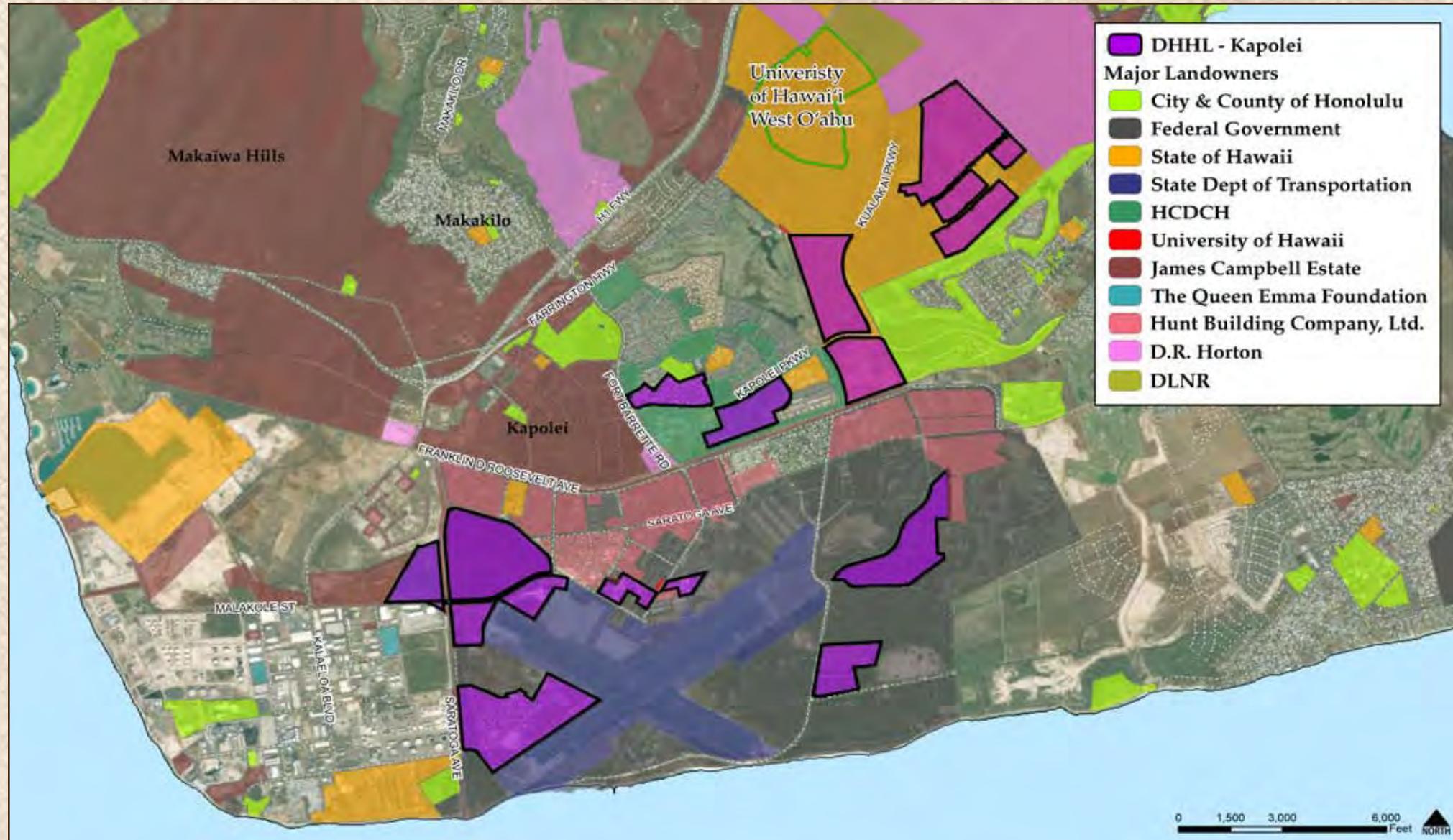
Kapolei's tremendous growth creates a critical mass that will continue to attract new employment opportunities. The University of Hawai'i, Ko 'Olina resort, the planned Ke Makana Ali'i regional shopping complex on DHHL land, and other commercial retail projects promise to provide future employment for some 2000 people and 1200 faculty and staff by 2020.



View of Kapolei



Major Land Owners in the Region



IV. Infrastructure - Water

Existing Regional Water System

Potable, artesian groundwater underlies most of the 'Ewa/Kapolei region. The area is serviced by the Southern O'ahu Basal Aquifer (SOBA) and the Pearl Harbor Aquifer. The fresh water in the basal aquifer is recharged in the Wai'anae Mountains and the central plain by direct rainfall, infiltration of stream runoff and irrigation water. These sources provide potential for up to 68 million gallons per day (mgd) of potable water. Additionally, another 64 million mgd of non-potable water and 12 mgd of recycled water are available for irrigation or other purposes.

The planned developments of DHHL's East Kapolei subdivisions and U.H. West O'ahu, as well as future development in Kalaeloa will require the construction of new water storage and transmission infrastructure to be integrated into the existing aquifer system. DHHL developments expect to demand up to 12 mgd, which is within the sustainable yield of regional aquifers.

A 215-foot water system now supports the DHHL developments and the U.H. West O'ahu development. This system is a linear/looped system that includes a new four million gallon reservoir, three booster pumps, and pipelines of 30", 24", 16", and 12". The transmission lines cost \$4.6 million and were completed in February 2010.

The ground-water flow system in 'Ewa Plain area is composed of a freshwater lens overlying a brackish zone transitioning to a saltwater body. Ground-water moves generally toward the ocean through volcanic rocks but is impeded by a wedge of sediments (caprock) that overlie the volcanic rock near the coast. The 'Ewa Plain caprock is a thick wedge of interbedded marine and terrestrial sediments. (Source: 'Ewa Caprock, Bauer, 1996)



Laying a water pipeline, Kapolei

Proposed Water Projects

① 440' Water System

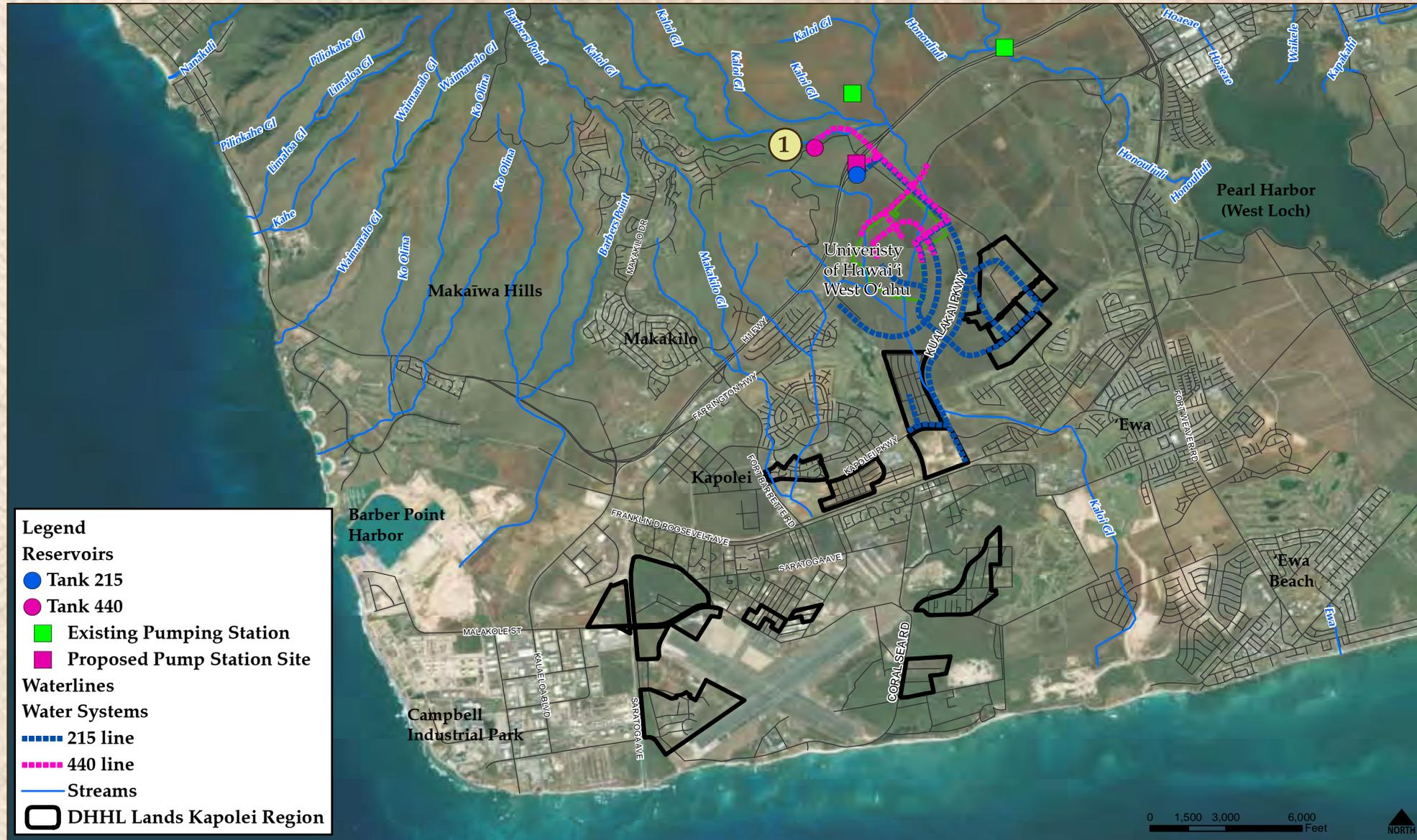
DHHL's East Kapolei Water System Study recommended constructing two systems at the 440-foot and 215-foot levels to serve new developments in the region. The DHHL portion of the 215-foot system has been completed and serves the Kānehili. The DHHL's East Kapolei Water System at the 440-foot level is necessary to support the development of U.H. West O'ahu. The system includes a two million gallon reservoir and pipelines of 16", 12", and 8". The University of Hawai'i and D.R. Horton are currently in negotiations to determine use and occupancy.

Status:

The Board of Water Supply has reviewed and approved the Water Master plan. Engineering work is now in progress. Improvements require an Environmental Assessment, allocation of easements and financing.



4 million gallon water reservoir, Kapolei



Legend

Reservoirs

- Tank 215
- Tank 440

Existing Pumping Station

-

Proposed Pump Station Site

-

Waterlines

- 215 line
- 440 line
- Streams

DHHL Lands Kapolei Region

-



Infrastructure - Roads & Transit

1 East-West Road

The East West Road will provide circulation through the new U.H. West O'ahu campus area, East Kapolei II, and new residential developments in the area. The road is an important part of the proposed regional roadway system serving the growing East Kapolei area and will provide both a major thoroughfare for the planned 14,000 new homes in the area and relieve congestion on Fort Weaver Road. This is an extensive roadway that will be built in several phases. Ground breaking for the first segment that starts at the North South Road and extends to the east boundary of DHHL's East Kapolei II subdivision took place in May 2010. The roadway design is expected to be completed by the end of 2012 at a cost of \$14.5 million.

2 Mass Transit Corridor

The City and County of Honolulu approved an initial plan to develop a fixed guideway 26 mile commuter rail transit system stretching from West Kapolei to the University of Hawai'i Mānoa and Waikiki. There is also an additional extension that would take the rail further west proposed. Proposed locations of 34 transit stations along the rail route were approved on May 10, 2008 by the City Council. Construction on the \$3.7 billion elevated commuter train is hoped to begin in 2015. Preliminary engineering studies and a Draft EIS have been completed and are pending government acceptance.

3 TheBus

The Honolulu Public Transit Authority operates TheBus within the region. In Kapolei, service to Honolulu is provided by buses traveling from Mākaha (Routes C, 93, and 93A), Service, within the vicinity, is provided to and from Campbell Industrial Park (Route 413), Makakilo (Routes 411, 412, and 414), the Villages of Kapolei and 'Ewa Beach (Route 41), and the U.S. Veteran's Housing area (Route 415). New transit stops are planned along Kapolei Parkway and the future North-South Road.

4 Kalaeloa Roadway Improvements

Upgrade and/or reconstruct/rehabilitate the existing roadway, drainage systems, and other facilities to current standards on Enterprise Road, Roosevelt Road, Coral Sea Road, and West Perimeter Road are planned. Project will include the future North-South Road connector right-of-way and realignment of Coral Sea Road to Independence Road. The total estimated project cost is \$23,700,000 with \$900,000 requested in FY 2009 for design funds as S41 in the TIP FY 2008-2011.

5 Makakilo Drive Extension

The City and County Department of Transportation Services proposes to plan, design and construct the extension of Makakilo Drive from the existing terminus of the roadway in the Pālehua Subdivision to the H-1 Freeway. The roadway extension is approximately one mile long. Total estimated project cost is \$37,500,000. Design funds of \$3 million have been requested for FY 2008. \$2,136 million in construction funds has been requested for FY 2010 and advanced construction funds of \$31,363,000 is programmed for FY 2010 as C06 in the TIP FY 2008-2011.

6 Farrington Highway Widening

The City and County of Honolulu is planning to widen Farrington Highway from Fort Weaver Road to the Kapolei Golf Course. The work will increase the existing two lanes to four lanes, create turning pockets and pedestrian walkways. The project is estimated at \$36 million. The project is designed to accommodate the increase in traffic that will result from the future U.H. West O'ahu campus and various subdivisions planned in East Kapolei. Planning and design work are underway.

7 Kapolei Interchange

A new H-1 Freeway interchange is being planned by the State DOT for the City of Kapolei. Phase 2 completes the Kapolei Interchange Complex. Phase 1 involved adding a westbound ramp from Makakilo Drive to the H-1 west and installing eastbound on and off ramps from the new Kapolei Interchange. This project was called Interstate H-1 Addition and Modification of Freeway Access, Makakilo Interchange to Pālailai Interchange (Kapolei Interchange Complex) in previous TIP documents. Total Estimated project cost is \$100,000,000. This project is listed as S21 in the TIP FY 2008-2011.

8 Hanua Street & Pālailai Interchange

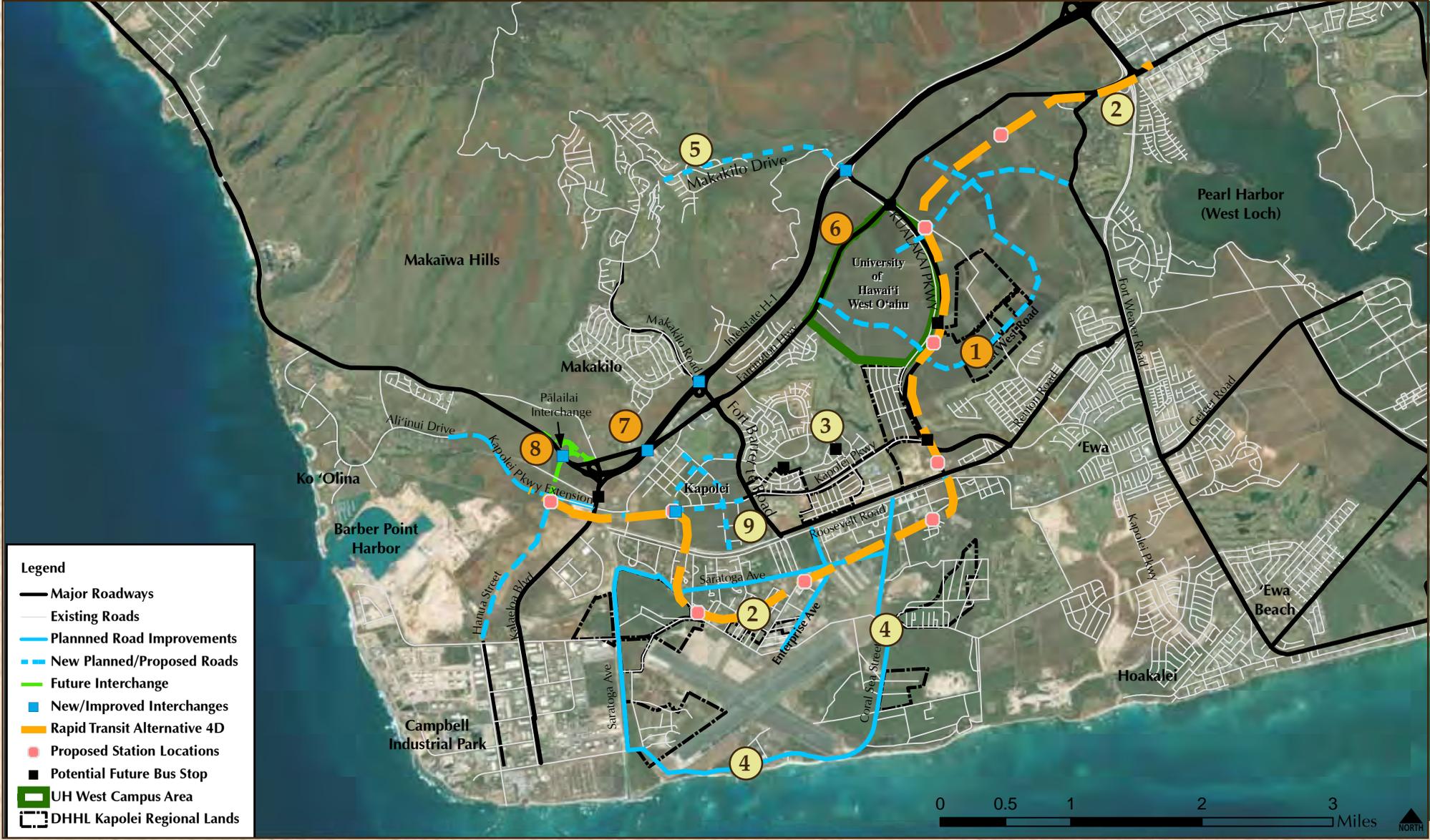
Hanua Street is planned as a future primary north-south road serving Kalaeloa/Barbers Point Harbor. Pālailai Interchange is being expanded to add new on- and off-ramps to Hanua Street. The Hanua Street project is currently estimated at \$61 million. There is no cost estimate for the Pālailai Interchange improvements. The Hanua Street and Pālailai Interchange projects are listed as numbers 84 & 111, respectively, on the 2006-2008 O'ahu Regional Transportation Program (ORTP). These have not been placed on DOT's construction schedule.

9 Fort Barrette Road Widening

The State of Hawai'i DOT proposes to widen Fort Barrette Road from Farrington Highway to Barbers Point gate to four lanes and construct other improvements, including right and left turn lanes, sidewalk, bikeway, highway lighting, drainage, traffic signals, landscaping and other improvements. Total estimated project cost is \$23 million. The state has requested \$200,000 in right of way funding for FY 2008 and \$20 million for FY 2010 in the TIP FY 2008-2011 as project S09.



Infrastructure - Roads & Transit



Infrastructure - Energy

There are several private and public renewable energy partnerships in the Kapolei/Kalaeloa region.

DHHL is currently working with Sopogy to provide a solar power generating plant at Kalaeloa on approximately 34 acres near Saratoga Avenue. The SOPOGY – KALAELOA SOLAR ONE is a concentrated solar power project that creates a reliable source of renewable energy. It will collect and store heat, generate steam, and supply 4 MW to the HECO grid. There will be sufficient energy to provide power for 1,150 homes. The system can be “hybridized” to generate energy and desalinate salt water. Kalaeloa Solar One project is a partnership between the State of Hawai‘i, DHHL and Keahole Solar Power for land in Kalaeloa to establish a home base for the project. The project will supply clean energy for Hawai‘i as well as provide DHHL with rent monies, which will in turn be used to build homes and fund educational programs for native Hawaiians. Ground blessing for the project in October 2010 supports the implementation of the Hawai‘i Clean Energy Initiative to source 70% of its energy consumption from renewable sources by 2030.

The Department of Hawaiian Home Lands (DHHL) offered the second phase of 139 “green” homes in the 403-unit Kānehili subdivision in Kapolei. Each home is offered provisions to accommodate the future use of electric cars as well as energy-saving measures that will help new homeowners save anywhere from 30 to 50 percent of their energy bill. The homes include a solar water system, 16-SEER air conditioning, hybrid insulation, “low flow” plumbing fixtures, dual pane Low E vinyl windows, and a fluorescent lighting package.

It is possible that DHHL’s East Kapolei II homes may follow DHHL’s Kaupuni’s sustainable design initiative and be a net zero development which may utilize renewable power and energy efficient technologies in each home including solar water heating, photovoltaic panels to generate electricity and energy efficient lighting and appliances.

HR BioPetroleum is taking part in an Energy Department-funded project led by Honeywell International Inc.’s UOP unit in Hawai‘i. The pilot project will integrate UOP’s hydroconversion technology with a biomass pyrolysis technology developed by Ensyn Corp. In December 2009, the Energy Department picked the project to negotiate a stimulus-funded grant award of as much as \$25 million. The pilot is expected to start up in 2014 and will use Ensyn’s “rapid thermal processing technology” to convert various forms of waste biomass including algae into bio-oils that will be upgraded by UOP at a refinery in Kapolei owned by Tesoro Corp. The facility will have the capacity to churn out approximately 61,320 gallons (232,402 liters) of green gasoline, diesel and jet fuels per year, according to the Energy Department. Cargill Inc., Boeing Co., General Motors Co., and Michigan Technological University are also participating in the effort. The biofuels projects are located in Cambell Industrial Park.



Photovoltaic panel array



Algae ponds used in biofuel production

DEPARTMENT OF HAWAIIAN HOME LANDS

HO'OMALUŌ
ENERGY POLICY

To enable native Hawaiians and the broader community working together to lead Hawai'i's effort to achieve energy self-sufficiency and sustainability.

<p>OBJECTIVE 1</p> <p>Mālama 'āina: Respect and protect our native home lands.</p>	<p>OBJECTIVE 2</p> <p>Ko'o: Facilitate the use of diverse renewable energy resources.</p>
<p>ACTIVITIES:</p> <p>Develop a comprehensive strategic plan for the protection, restoration and preservation of DHHL's forest lands. (An appropriate plan that incorporates the preservation of values, traditions, and cultures of Native Hawaiians that restores balance, harmony, and sustainability of the forest lands for future generations.)</p> <p>Develop a comprehensive strategic plan for the protection, restoration and preservation of DHHL's other lands—lands other than forest lands, lands for homesteading and lands for general lease.</p> <p>Identify properties in DHHL land inventory that have potential for carbon sequestration and determine if carbon sequestration is a viable use of DHHL lands.</p> <p>Evaluate each Regional Plan to determine if energy self-sufficiency and sustainability goals and objectives should be incorporated into the regions. (The regions contained within the Regional Plans can serve as today's "ahupua'a" - the past Hawaiian land management system of self-sufficiency for future generations.)</p>	<p>ACTIVITIES:</p> <p>Develop, implement, and maintain plans to reduce DHHL's carbon footprint (reduce greenhouse gas emissions).</p> <p>Identify properties in DHHL land inventory that have potential for renewable energy projects.</p> <p>Pursue the leasing of those lands that are identified as suitable for renewable energy projects. (First priority should be given to ventures that would provide "firm" renewable energy power such as garbage-to-energy (incineration), geothermal, pump-storage hydro-power, solar thermal and second priority to "as-available" renewable energy power such as wind, solar photovoltaic, and wave.)</p> <p>Encourage existing and future general lessees and licensees of DHHL's properties to design and build their facilities so that they are energy and resource efficient.</p> <p>Seek partnerships for the development of renewable energy resources. In this connection, build relationships that could assist DHHL on non-energy related issues.</p>
<p>OBJECTIVE 3</p> <p>Kūkulu pono: Design and build homes and communities that are energy efficient, self-sufficient and sustainable.</p>	<p>OBJECTIVE 4</p> <p>Kōkua nō i nā kahu: Provide energy efficiency, self-sufficiency, and sustainability opportunities to existing homesteaders and their communities.</p>
<p>ACTIVITIES:</p> <p>Promote, design, and build new affordable homes that minimize energy and visual impacts using the "Maui Builders" and "ENERGY STAR" programs. (These programs ensure the designing and building of new energy and resource efficient homes in Hawai'i.)</p> <p>Strive to plan, design, and build new communities utilizing the "ahupua'a" concept and the "Green Communities" program. (The Green Communities program's criteria are designed to provide a cost effective approach and standard for creating healthy, affordable, and environmentally responsible homes and communities.)</p> <p>Assist beneficiaries to utilize energy efficiency rebates, financial assistance, tax credits and other incentives offered by utility companies and federal, state and county governments.</p> <p>Promote the benefits of hybrid electric vehicles to help reduce beneficiaries' transportation (auto-related) costs. (70% of Hawai'i's imported fossil fuel is used for transportation that must be use efficiently or conserved.)</p>	<p>ACTIVITIES:</p> <p>Identify effective energy efficiency and conservation retrofit applications and develop a plan to assist homesteaders with the retrofitting of their homes. (Retrofit applications may include: solar hot water heating system, insulation/radiant barriers, low flow toilet and shower head, photovoltaic system, CFL bulbs, ENERGY STAR appliances, energy efficient windows, clothes line, ventilation techniques, and roof/rain water.)</p> <p>Assist homestead communities to achieve potential energy self-sufficiency by identifying properties near existing homesteads that could be utilized for community renewable energy projects that could also generate revenue for their respective regional plan projects.</p> <p>Seek partnerships to assist homesteaders with retrofit applications and energy self-sufficiency projects.</p>
<p>OBJECTIVE 5</p> <p>Ho'ona'auao: Prepare and equip beneficiaries to promote a green, energy efficient lifestyle in and around communities.</p>	<p>ACTIVITIES:</p> <p>Seek partnerships that provide opportunities to learn how to live a self-sufficient and sustainable, greener lifestyle.</p> <p>Develop and implement resource efficiency programs for beneficiaries to reduce, reuse and recycle resources. These resources include construction and demolition materials, household items, yard waste, and other items which might be sent to landfills or incineration.</p> <p>Assist homestead communities to become more aware of their energy use and carbon footprint.</p>

Comprehensive energy policy booklet



Existing Wastewater Conditions

East Kapolei is located within the service area of the Honouliuli Wastewater Treatment Plant (WWTP). Wastewater collected from this area will be transported to the new 42-inch Kapolei Interceptor, which parallels the existing 30-inch Makakilo Interceptor along the northern boundary of Kalaeloa. The Honouliuli WWTP presently has a design capacity of 38 mgd, with plans to expand to 51 mgd. The primary means of disposal is through ocean outfall. The plant has been upgraded to produce 12 mgd of R-1 quality effluent which is suitable for irrigation use. The 12 mgd water recycling facility was purchased by the Honolulu Board of Water Supply and currently distributes recycled water to West Loch and 'Ewa Villages Golf Course, 'Ewa Mahiko District Park, and Fort Weaver Road (Community Planning Inc., 2004).

Proposed Wastewater/Sewer Projects

1 East Kapolei Sewer Trunk Line

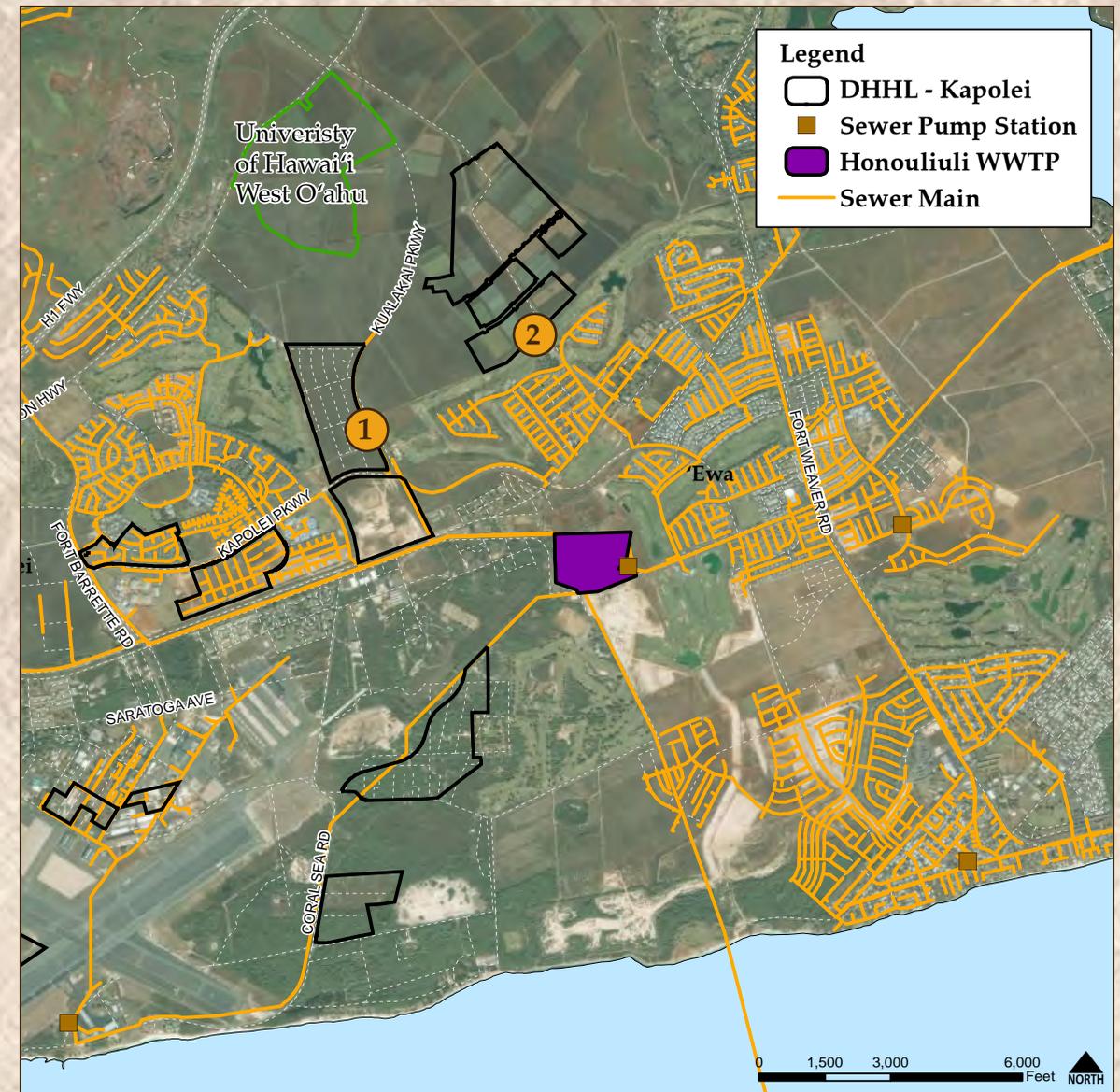
The East Kapolei Sewer Trunk Line will connect sewer lines from DHHL and other properties in East Kapolei to the recently completed Kapolei Interceptor Sewer. In addition to DHHL, partners include U.H. West O'ahu, and D.R. Horton. Each will pay for a share of the construction costs. The total cost is projected at \$4,890,000. A cost sharing agreement has been executed between the partners, with each paying a pro rata share. DHHL will work with DOT on User Occupancy Agreement for North-South Road.

Status:

Construction is complete on the portion from Kapolei Parkway to Kapolei Inceptor Sewer along Roosevelt Boulevard. It is awaiting final inspection reports and acceptance is awaiting final inspection reports and acceptance by the City and County of Honolulu. Construction of Phase 1B of the North-South Road project including the East Kapolei Sewer Trunk Line is underway.

2 East Kapolei II 36" Sewer Trunk Main

The 36" Sewer Trunk Main located along the southern boundary of DHHL's East Kapolei II property, and within the East-West Road, will service the property and the adjoining D.R. Horton development. Construction of the portion along the boundary was completed in May 2010 at a cost of \$2.3 million. Construction of the portion within the East-West Road started in May 2010 and completion is expected by November 2010 at a cost of \$1.5 million.



Infrastructure - Drainage

Existing Drainage Conditions

Run-off that drains into Kalo'i Gulch and Hunehune Gulch enters modified drainage channels, portions of which are man-made consisting of levees built on relatively flat ground. The Kalo'i Drainage Basin is 11 square miles and 7,000 acres in size and has a channelized flow capacity of 2,500 cubic feet per second (cfs). Drainage problems associated with Kalo'i Gulch have limited development of the East Kapolei region. The area is subject to shallow inundation and requires on- and off-site retention to mitigate 100-year runoff flows.

DHHL East Kapolei I and II developments are impacted by regional storm runoff from the Kalo'i Gulch and the Hunehune Gulch drainage basins. Without drainage improvements to the gulches and to the outlet, DHHL properties are required to limit on-site runoff to pre-development conditions, provide for a channelized flow of 2,500 cfs and retain any excess runoff on property. This will require 10-20 percent of developed areas to be set aside for stormwater retention. Detention and retention basins, as well as timely realignment of Kalo'i and Hunehune Gulches and improvements to the gulch outlet are required for development. The proposed drainage facilities of North-South Road plans to intercept flows from the gulches and divert it into the roadway's drainage channel and retention/detention basin.

Proposed Drainage Projects

1 *Kalo'i Gulch and Hunehune Gulch Realignment*

The East Kapolei Drainage Master Plan and the North-South Road Revised EIS recommend diverting Kalo'i Gulch to a channel and align with the east side of the North-South Road. The plans also propose a box drain system to divert flow from Hunehune Gulch to detention basin at the southern boundary of the U.H. West O'ahu property. Phase 1A of the North-South Road will construct a retention/detention basin and about 4,400 feet of the drainage channel. Phase 1B of the North-South Road will install the remaining channel, culverts under the North-South Road to the accommodate development parcels west of North-South Road, and the diversion of the Kaloi Gulch. With the development of U.H. West O'ahu, storm flows from Hunehune Gulch will be redirected to the North-South Road drainage system via culverts under North-South Road.

Until the storm water flows are diverted by the North-South Road drainage system and development of U.H. West O'ahu, DHHL's East Kapolei developments will be partially impacted by storm water runoff from the Kalo'i and Hunehune Gulch drainage basins. To mitigate adverse impacts during this interim period, a 10-foot high earth berm will be constructed on site as part of the mass grading construction to protect early phases of DHHL's East Kapolei developments. It was expected that the developer of the makai portion of the UHWO lands would construct a temporary detention basin at the southeastern corner of the UHWO parcel for additional storm water protection. Because that development agreement was terminated, DHHL must build the detention basin to protect the East Kapolei I houses.

Status:

Phase 1A of the North-South Road is complete. Phase 1B of the North-South Road is underway.

2 *Kalo'i Gulch Drainageway Improvements*

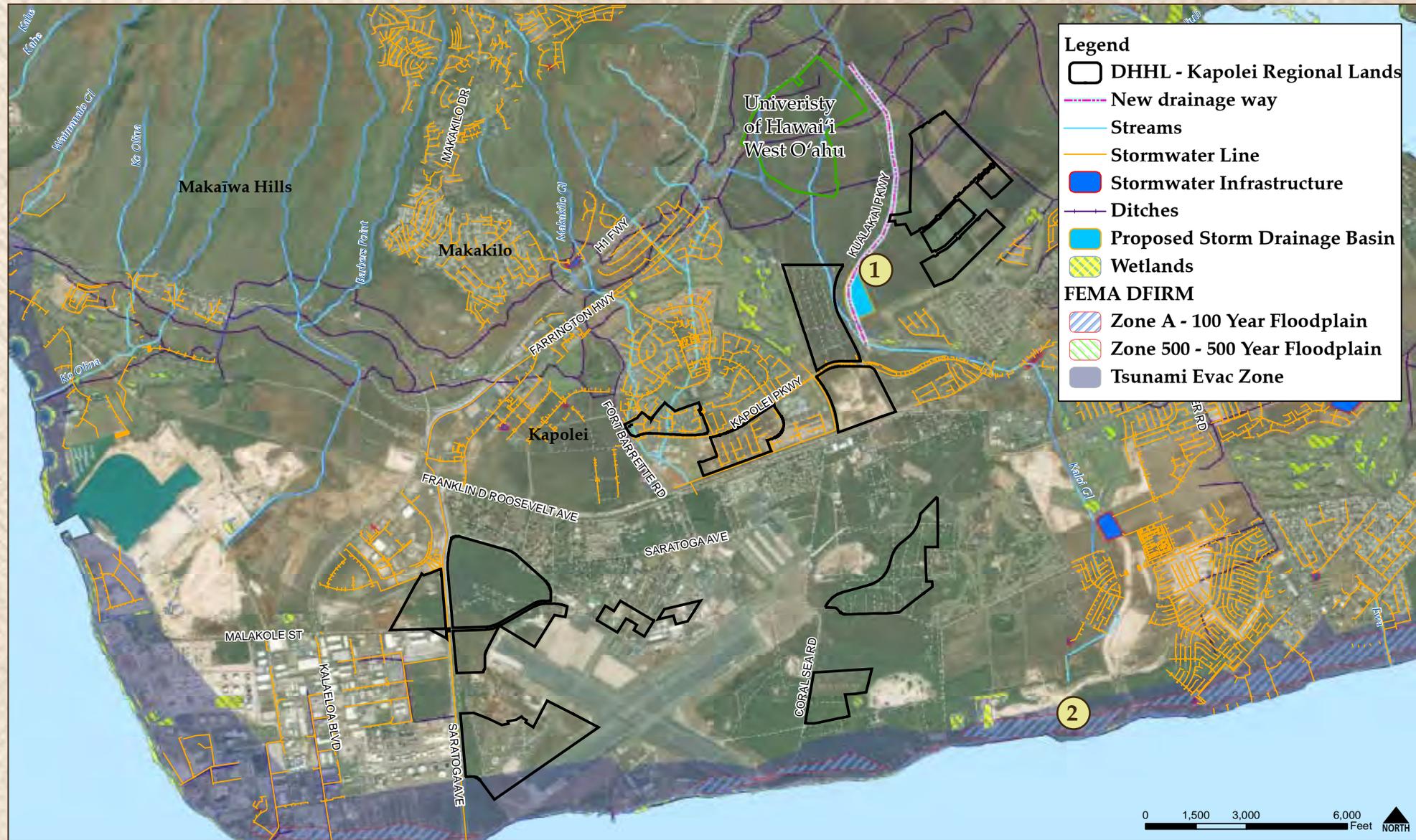
The original drainage plan consisted of an outlet into 'Ewa Marina. At the present time, the Kalo'i Gulch Watershed drainage system lacks an ocean outlet. Haseko is proposing a new outlet at One'ula Beach Park, which would be developed by Haseko and maintained by the City. Development of the drainage outlet will increase the storm water conveyance capacity to accommodate a 100-year flood flow as specified by the drainage standards of the City. The drainage outlet improvements are estimated at \$2.1 million. Construction is pending approval of a State CDUP (Conservation District Use Permit).

Status:

The SMP/SSV for Kalo'i was granted on June 6, 2007 by the City Council. The State CDUP process is underway.



Infrastructure - Drainage



Infrastructure - Public Facilities

Schools - Within the region there are ten elementary, three intermediate, two high schools, and two private schools. Based on construction estimates, the Department of Education has plans for: one elementary school in the Mehana subdivision in the City of Kapolei; one elementary in the DHHL Easy Kapolei project, Phase II; and at least one elementary in the U.H. West O'ahu lands. A number of additional elementary schools will be needed in the Ho'opili project. One middle school will be built in the Gentry 'Ewa Makai project and another middle school in the DHHL East Kapolei project, Phase II. A high school is being proposed on State-owned land north of the UHWO project. Other middle and high schools will be built in the Ho'opili project. DHHL's East Kapolei project is expected to support approximately 900 elementary students, 300 middle school students and 260 high school students. DHHL is also reserving land for preschools in the area.

The University of Hawai'i plans to develop a new four-year university campus in the 'Ewa region. The project includes development of the U.H. West O'ahu Campus and residential (including student housing and workforce/affordable housing), commercial, mixed, and public uses on a 500 acre property. Construction of Phase 1 is projected to begin in 2010.

	Grades	Enrollment 2009-2010	Projected Enrollment (2015)	Capacity
KAPOLEI COMPLEX				
Barbers Point Elementary	K-5	513	589	674
Kapolei Elementary	K-5	1,054	1,305	1,215
Makakilo Elementary	K-5	508	600	595
Mauka Lani Elementary	PK-5	578	569	681
Kapolei Middle School	6-8	1,488	1,632	1,805
Kapolei High School	9-12	2,159	1,256	1,956
'EWA COMPLEX				
'Ewa Beach Elementary	K-6	424		461
'Ewa Elementary	K-6	980		881
Holomua Elementary	K-6	1,428		1,348
Iroquois Point Elementary	K-6	718		956
Kaimiloa Elementary	K-6	638		759
Keoneula Elementary	K-6	801		748
Pohakea Elementary	K-6	549		661
'Ilima Intermediate	7-8	1,337		1,352
Campbell High School	9-12	2,639		1,917
Seagull Schools	PK-5			
Island Pacific Academy	K-9			

Health Care Facilities - In the region, residents have many choices of health care options, with major health care services being provided at: (1) St. Francis Medical Center – West (nearest hospital to DHHL lands), (2) Kaiser Permanente Pūnāwai Clinic in Waipahu, (3) Nānāikeola Clinic, (4) Kapolei Medical Park, & (5) Kapolei Park Square. Existing facilities and their planned improvements are adequate to serve anticipated needs.

Police Facilities - All of West O'ahu is within Honolulu Police Department District 8. In 2000, the City and County of Honolulu opened the Regional Kapolei Police Station. Based on population estimates, the City and County of Honolulu anticipates the need for two additional substations to service the area. These are planned to be in service by 2020 at the following locations: (1) 'Ewa Villages & (2) Ko 'Olina.

Fire/EMT Facilities - Honolulu Fire Department (HFD) operates 3 fire stations in the region. (1) 'Ewa Beach Fire Station (engine company), (2) Makakilo Fire Station (engine company), & (3) Kapolei Fire Station (engine/ladder company and Battalion 4 Headquarters). Based on population estimates, the City and County of Honolulu anticipates the need for three additional fire stations to service the region. These are planned to be in service by 2020 at the following locations: (1) 'Ewa Villages, (2) Ko 'Olina, & (3) Makaiwa Hills. A fire training center is planned for East Kapolei.

A new East Kapolei Fire Station, to be located on a 2 acre parcel on Kinoiki Street across from DHHL Headquarters, broke ground July 2010. This regional fire station will house and engine and a ladder company and feature a regional emergency depot, a four-story training tower and a regional tactical training ground.

Other Community Services -

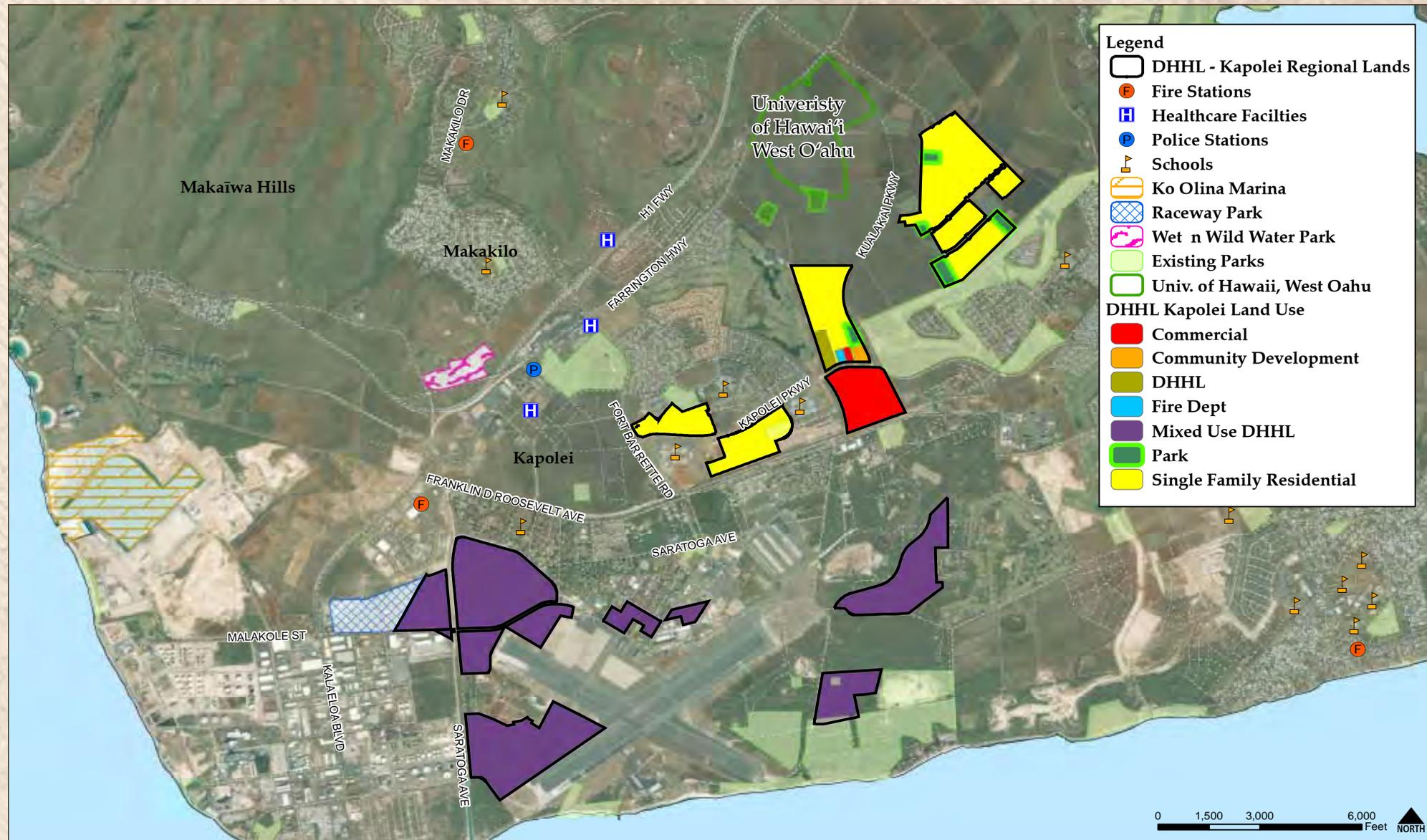
Sandwich Isles Communications - Exclusive telecommunications provider for DHHL parcels, that utilizes the latest technology fiber optic cables and linkups. All upfront infrastructure is provided at no cost to DHHL. Services are offered to customers at rates at, or below, market competition. SIC provides residents of DHHL lands tele-med services, distance learning courses and a community learning center as part of its agreement with DHHL to provide telecommunications infrastructure and networking.

Kamehameha Schools' Extension Education Division provides career education and lifelong learning opportunities for Hawaiian youth and adults.

Recreation - 8 golf courses, 4 more planned; a multifunctional entertainment center; adventure park; access to 2 marinas; Kapolei Regional Park; Camp Timberline; Barbers Point Naval Air Station (Kalaeloa); numerous civic clubs; churches; youth, family & senior organizations; & community & environmental associations.



Infrastructure - Public Facilities



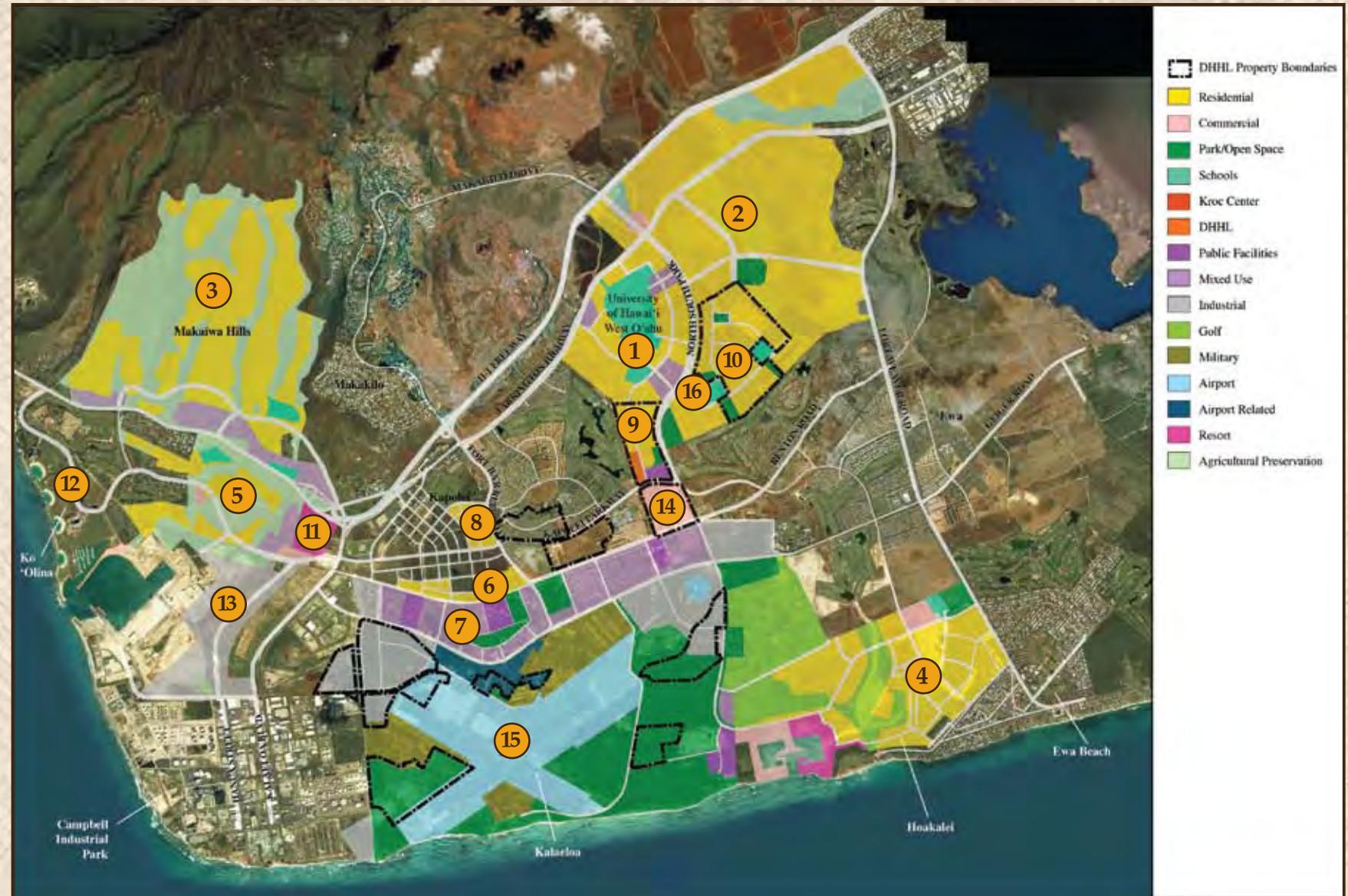
Consolidated Land Development Projects

- 1 U.H. West O'ahu** - University of Hawai'i
 - 500 Ac campus & new town community, 4,000 housing units
 - Status: Received legislative appropriations.
 - Begin Phase 1: 2011
- 2 Ho'opili (East Kapolei)** - D.R. Horton
 - 1,500 Ac, 10,000-15,000 housing units
 - Status: needs SLUBA and Zone Change, environmental planning studies in progress
 - Est. Completion Date: N/A
- 3 Makaiwa Hills** - Kapolei Property Development, LLC
 - 1,781 Ac, 4,100 housing units
 - Status: Awaiting market upturn & finalizing
 - Est. Completion Date: 2020
- 4 Ocean Pointe and Hoakalei** - Haseko
 - 4,850 housing units, 950 visitor units, One golf course
 - Status: Zone Change, SMA, easements
 - Est. Completion Date: 2010
- 5 Kapolei West** - 'Aina Nui Corporation
 - 516 Ac, 2,370 residential units
 - Status: Entitlements completed, awaiting market change
 - Est. Completion Date: 2020
- 6 Mehana** - D. R. Horton
 - 110 Ac, 1,100 housing units
 - Status: partially under construction
 - Est. Completion Date: 2010
- 7 Kalaeloa** - FIPV, Ltd.
 - 675 Ac, 548 housing units
 - Status: Master planning & financing
 - Est. Completion Date: N/A
- 8 Leihano** (previously known as Luana Koa, Hoakalei Senior Village and Kapolei Senior Village)
 - 40 acre retirement campus next to Kapolei Park. 694 units
 - Status: Entitlements completed, awaiting market change
 - Est. Completion Date: 2011
- 9 Kanehili, East Kapolei I** - DHHL
 - 92 Ac, 403 housing units
 - Status: Infrastructure completed January 2010. House construction by Gentry Homes started in February 2009. As of August 2010, 210 houses have been occupied.
 - Est. Completion Date: 2011
- 10 East Kapolei II** - DHHL
 - 318 Ac, 2,060 housing units (1,060 single-family by DHHL, 1,00 multi-family by other developers)
 - Status: Construction of East-West Road, off-site sewer and drainage, Kroc Community Center, and mass grading of increments IIB and IIC in progress. Engineering for increments IIA and IIB, and Low Density Apartment parcel 1 (LDA1) in process. (Note: LDA1 owned by HHFDC, being developed by Mutual Housing Association of Hawai'i.)
 - Est. Completion Date: 2015
- 11 Kapolei Commons** - MacNaughton Group/Kobayashi Group
 - 40 Ac regional retail center, 300K sq ft (1st phase)
 - Status: land purchased, needs SLUBA, Zone Change
 - Est. Completion Date: 2010
- 12 Ko 'Olina Disney Vacation Club** - A Walt Disney Company
 - 21 Ac, 800 unit resort hotel and timeshare
 - Status: N/A
 - Est. Completion Date: 2011
- 13 Kapolei Harborside** - Kapolei Property Development LLC
 - 345 Ac industrial/business park
 - Status: Entitlements completed, awaiting market change
 - Est. Completion Date: 2018
- 14 East Kapolei Commercial** - DHHL
 - 67 Ac regional retail center
 - Status: 1.5 million sf for supermall being planned in partnership with developer (DeBartolo)
 - Est. Completion Date: N/A
- 15 Kalaeloa** - HCDA (new driver)
 - 3,700 Ac former Naval Air Station Barbers Point to be developed into residential, commercial, office space, and industrial
 - Status: Master plan completed
 - Est. Completion Date: 2025 (3 phases)
- 16 The Salvation Army Ray and Joan Kroc Community Center**
 - 15 Ac, 120,000-square foot community center
 - Status: Under construction
 - Est. Completion Date: Winter 2011



Consolidated Land Development Projects

- 1 U.H. West O'ahu
- 2 Ho'opili (East Kapolei)
- 3 Makaiwa Hills
- 4 Ocean Pointe and Hoakalei
- 5 Kapolei West
- 6 Mehana
- 7 Barbers Point
- 8 Leihano
- 9 East Kapolei I
- 10 East Kapolei II
- 11 Kapolei Commons
- 12 Ko 'Olina Disney Vacation Club
- 13 Kapolei Harborside
- 14 East Kapolei Commercial
- 15 Kalaeloa
- 16 The Salvation Army -Kroc Center Community Center



Consolidated Infrastructure Development Projects



East Kapolei

- 1** **Mass Transit Corridor** - DOT, City & County of Honolulu
 - Est. Cost: \$2.8 Billion
 - Status: Awaiting acceptance of EIS by Governor
 - Est. Start Date: 2011
- 2** **East-West Road** - City & County of Honolulu, DHHL, UHWO, D.R. Horton
 - Est. Cost: \$14.5 million
 - Status: Construction started May 2012
 - Est. Completion Date: May 2012 (DHHL section)
- 3** **New Schools** - DOE, UHWO, DHHL
 - Est. Cost: \$25 million Elementary, \$40 million Intermediate, \$90 million High
 - Status: Development dependant on demand
- 4** **East Kapolei Sewer Trunk Line** - DHHL, UHWO, D.R. Horton
 - Est. Cost: \$2,220,000
 - Status: Completed
- 5** **Makakilo Drive Extension** - City & County of Honolulu
 - Est. Cost: \$37.5 million
 - Status: \$31 million advanced construction funds in programmed for FY2010.
 - Est. Completion Date: n/a
- 6** **Kapolei Interchange** - State DOT and City of Kapolei
 - Est. Cost: \$100 million
 - Status: \$2.3 million requested in 2006 TIP for design, needs EA
 - Est. Completion Date: 2011
- 7** **Farrington Highway Widening** - City & County of Honolulu
 - Est. Cost: \$32 million
 - Status: Planning and design work underway
 - Est. Completion Date: N/A
- 8** **Kalaeloa Roadway Improvements** - State DOT
 - Est. Cost: \$23,700,000
 - Status: \$900,000 requested in 2009 TIP for design
 - Est. Completion Date: N/A
- 9** **Water Storage & Transmission** - DHHL, DLNR, UHWO
 - Est. Cost: \$8,426,000
 -Status: Completed
- 10** **Hanua Street & Pālailai Interchange** - DOT, Kapolei Property Development
 - Est. Cost: \$61 million
 - Status: Initial construction underway
 - Start Date: 2009
- 11** **East Kapolei II 36" Sewer Main** - DHHL, D.R. Horton
 - Est. Cost: \$3.8 million
 - Status: Construction of portion along the boundary completed in March 2010, construction of the portion within the East-West Road started May 2010.
 - Est. Completion Date: November 2011
- 12** **440' Water System** - DOT, Kapolei Property Development
 - Est. Cost: \$61 million
 - Status: Initial construction underway
 - Start Date: 2009



Consolidated Infrastructure Development Projects

- ① Mass Transit Corridor
- ② East-West Road
- ③ New Schools
- ④ East Kapolei Sewer Trunk Line
- ⑤ Makaliko Drive Extention
- ⑥ Kapolei Interchange
- ⑦ Farrington Highway Widening
- ⑧ Kalaeloa Roadway Improvements
- ⑨ Water Storage & Transmission
- ⑩ Hanua Street & Pālailai Interchange
- ⑪ East Kapolei II 36" Sewer Main
- ⑫ 440' Water System



V. Homestead Issues & Priority Projects

This Kapolei Regional Plan Update process involved three community planning meetings held on the evenings of September 15, 22 and 29, 2010 at the Kapolei Middle School cafeteria. Approximately 50 community members attended the meetings. Representatives from the Malu'ōhai, Kaupe'a, Kānehili and the future East Kapolei II homesteads participated in the regional plan update process.

Homesteaders expressed appreciation for their new homes in Kapolei and expressed concerns regarding access and safety. Major concerns include the following:

- Lack of park space leaving children to play in the streets.
- Pedestrian safety crossing major thoroughfares like Kapolei Parkway and North South road to access future park and community resources.
- Delay in construction of school facilities.
- Potential traffic from UHWO along Kinoiki street.
- Developmental impact on natural resources.

Potential Projects discussed during these meetings involved the following:

1. Support the relocation of UH Lab school or the development of a new UH Lab school to work in conjunction with University of Hawaii West Oahu.
2. Develop a network of pedestrian/bike paths in order to ensure safety and facilitate access to community amenities and services that are being developed in the region.
3. Preserve and Develop Parks for the homestead community
4. Identify the need and support for a Kapolei Homestead Community Center. Projects like the Heritage center, the Kroc Center, commercial development near DHHL offices, or an active recreational complex at Varona makai could work in concert with the community center. Potential partners would include DHHL and the Kapolei Homestead Associations.
5. Mālama 'iwi kūpuna at Varona mauka site. Dedicate a portion of the Varona mauka site for the return of 'iwi kupuna. This parcel is not yet in DHHL's land inventory, however, the HHC has already approved the exchange of land that would result in the acquisition of the Varona parcels. The 19-acre mauka parcel is intended for reinternment of iwi kūpuna, genealogical research and potentially new cemetery.
6. Protect natural and cultural resources in the area, including Hawaiian stilts.

Status of Previous Priority Projects

1. East West Road: Construction started on DHHL East Kapolei II section.
2. University of Hawai'i West Oahu Campus: Entitlements secured. Partial Phase 1 funding received from legislative appropriation.
3. Mass Transit Corridor: Project is currently awaiting EIS processing.
4. New Schools: Space reserved for new schools. Construction timetable based on student population growth and availability of construction financing.
5. Heritage Center: A door-to-door survey of residents indicated a desire for a community gathering place for homestead families. Elements of the community center includes: a great hall with kitchen, educational services, and a heritage gallery as a tribute to Prince Kūhiō and the original pioneer homesteaders. The 2-story facility will host INPEACE programs. Project under design. Awaiting additional funding for construction.



Community participants at Kapolei Middle School

Homestead Issues & Priority Projects



Presenting the plans



Community members getting involved



Community members



A presentation to community members

Priority Project: Support Heritage Center & Community Commercial Development

Description: The Heritage Center is a proposed two story education, health, and community center for the surrounding residents on Department of Hawaiian Home Lands. The design is seeking LEED silver certification and will integrate renewable energy, sustainable materials, and indigenous landscaping. This center seeks to bring the legacy of Prince Kūhiō in a gallery honoring the past, providing all generational services from preschool to kūpuna care. Workforce training and family counseling will also be a part of the programs housed in this facility. The planning is being led by a collaboration of two organizations: The Kapolei Community Development Corporation (KCDC), and INPEACE, the Institute for Native Pacific Education and Culture.

In addition to the Heritage Center, the business plan for the Center includes the development of a 5-acre commercial site along Kapolei Parkway to generate revenues that will support programs at the Heritage Center which are mostly non-profit or subsidized social services for the community. The commercial component is in the preliminary conceptual planning phase. This priority project seeks to support the development of the Heritage Center and the commercial site for the betterment of the Kapolei homesteads and larger Kapolei community.

Location: Hawai'i Maoli Kīpuka (Heritage Center), Kapolei Parkway & Kualaka'i (commercial site)

Status: Planning and design for the Heritage center is completed. The project is currently going through the City and County of Honolulu Permitting process and additional funding programs for construction. The community commercial development is in discovery phase.

Potential Partners: DHHL, Office of Hawaiian Affairs, Alu Like, University of Hawai'i, Ke Ola Mamo, Hawai'i Maoli. Potential partners for Commercial Center to be determined.

Cost: \$9 Million for construction (Heritage Center)

Phasing & Time Line: Planning & Design Completed. Currently in permitting.

2010	2011	2012
<ul style="list-style-type: none"> Heritage Center Planning and design 	<ul style="list-style-type: none"> Heritage Center Permitting and construction 	
	<ul style="list-style-type: none"> Commercial Center secure lease with DHHL 	<ul style="list-style-type: none"> Commercial Center design and construction



Heritage Center exterior perspective



Project sites at Kapolei Parkway and Kualakai Parkway

Priority Project: Support Heritage Center & Community Commercial Development



Heritage Center plan



Priority Project: Support New School Development

Description: With the development of the UH West O’ahu (UHWO) campus, the Kapolei homestead community is interested in promoting the development of a UH Lab School, similar to the one at UH Manoa, at UH West O’ahu. The University Laboratory School is a public charter school that operates in partnership with the University of Hawai’i College of Education Curriculum Research & Development Group (CRDG) under an agreement with its Local School Board. The school rates high among the state’s schools on participation in extracurricular activities. Its students consistently earn awards in competitions in arts, music, writing, and speech and they earn high scores on the Scholastic Aptitude Test (SAT). It has a high rate of college-bound students going on to college. It is felt that having a similar school in Kapolei will provide Hawaiian Homestead children a wider range of public school options, which ultimately would improve their educational achievement and success.

DHHL has supported schools that benefit Hawaiian children (charter schools, Kamehameha preschools, Hawaiian Immersion Schools etc.), usually by providing lands for these schools. Continued support for these types of projects is encouraged.

There are three Department of Education (DOE) public school sites planned in the Kapolei Homestead area: one elementary school in the UHWO lands, and an elementary and middle school on the DHHL East Kapolei II lands. This priority project supports the timely development of these schools to accommodate the growth of the Homestead and surrounding communities without undue crowding in existing facilities. Homesteaders point out that the Kapolei Middle School, for example, is already on a year-round schedule, indicating that the school is nearing or at its maximum capacity. Timely development of schools will ensure quality public education in the region.

The DOE considers the ‘Ewa District as a potential priority area impact fee candidate zone, setting schools in this zone is consistent with identifying schools in this area as priority projects.

Location: East Kapolei

Status: Elementary, Middle and High Schools are planned for Kapolei. The future High School site is being evaluated for a site between Farrington Highway and the H1 Freeway as one consideration.

Potential Partners: University of Hawai’i at West O’ahu, University of Hawai’i, DHHL, Kapolei Homestead Associations, DOE Charter Schools, Kamehameha Schools

Cost: Elementary School: \$42-\$53 million; Middle School: \$67 million; High School: \$134 million. UH Lab School: TBD.

Phasing: UHWO Phase 1: 2011 Start of Construction, Occupancy 2012; Initiate discussion on potential for new or auxiliary campus in Kapolei. UHWO site DOE Elementary School – dependent on student population growth and DOE.

Time Line: UHWO Phase 1: 2011 Start of Construction, Occupancy 2012; Initiate discussion on potential for new or auxiliary campus in Kapolei; UHWO site DOE Elementary School – dependent on student population growth and DOE

2010	2011	2012
<ul style="list-style-type: none"> 2011 Start of Construction, Occupancy 2012; Initiate discussion on potential for new or auxiliary campus in Kapolei. 		

UHWO site DOE Elementary School – dependent on student population growth and DOE.



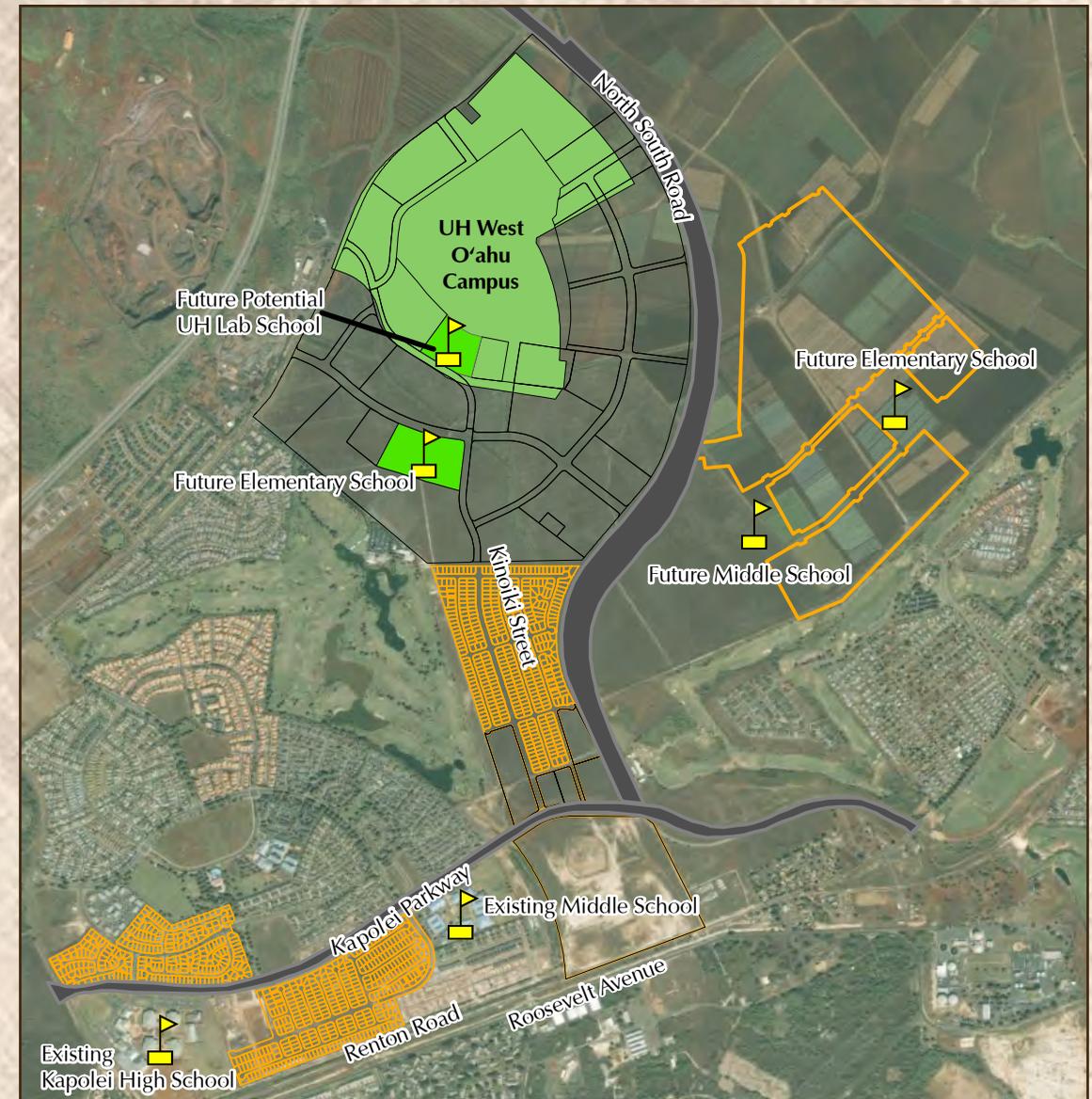
Example of Charter School.



Priority Project: Support New School Development



Elementary and middle school children's science and music programs



Priority Project: Engage Beneficiaries in a Planning Charette Process

Description: The once open plains of Kapolei and 'Ewa are quickly becoming urbanized to accommodate O'ahu's growing population. DHHL was able to capitalize on the opportunity to secure a large portion of lands in Kapolei, in areas that were flat, accessible, and relatively easy to develop to accommodate the high demand for residential homesteads on the island of O'ahu. DHHL plans to provide a total of 2,412 residential units in Kapolei

The vacant lands that are not planned for residential development, are strategically located around the intersection of Kapolei Parkway and the Kūalaka'i Parkway, including the area surrounding the DHHL office building. These strategic parcels have been identified for commercial development, community/public facilities, and other community amenities, like parks and pedestrian/bikeways. However, a "master plan" that integrates these vacant parcels into the residential community, while also maintaining its commercial viability, has not been developed. In order to maximize the potential of these important vacant lands, the community expressed a desire to engage in a comprehensive, strategic planning exercise in order to ensure that the land uses in these vacant parcels complement and enhance the quality of life for the homestead community and are consistent with community desires. At the same time, the community understands the need to maximize revenue generating opportunities, mainly by capitalizing on the strategic location at the crossroads of two major thoroughfares.

The Department has successfully engaged beneficiaries in this type of master planning effort for a specific area within a larger region utilizing a "planning charrette" approach. The planning charrette approach maximizes opportunities for everyone to engage in the planning effort, but does so within a very short time frame. This intensive collaborative effort drafts a solution to meet multiple objectives. It takes place over several sessions in which the group divides into sub-groups. Each sub-group presents its work to the full group as material for discussion. This method quickly generates designs and conceptual lay-out solutions that represent the aptitudes and interests of the varied participants.

The Varona parcel, which is in the charette zone radius, is not yet in DHHL land asset inventory, but is targeted for a land swap with the city. The Commission and the Honolulu City Council have signed an MOA that agree to the swap. The mauka 19 acre parcel is tentatively intended for reinternment of iwi kūpuna, a genealogical research center and a potential new cemetery. The makai parcel is still open to a variety of options.

The shopping center site is being planned by the DeBartolo group but there has been no final license signed and the global economy has stalled development for the present. The future remains uncertain and opportunities to work with the current developer group of some future investment group to integrate the mall into this overall community crossroads concept remains open.

Location: Intersection of Kualakai Parkway and Kapolei Parkway. Includes land on all the corners especially the vacant lands and planned parks in and near Kapolei Homesteads.

Status: A consultant contract is in place to conduct a planning charrette process.

Potential Partners: DHHL, Kapolei Homestead Associations

Cost: Charrette process: \$20,000

Phasing: Activate consultant contract for the Charrette process; develop the charrette process with proposed dates and participants; prepare and distribute informational document and potential survey; conduct charrette planning sessions.

Time Line:

- Initial research and development of process, proposed dates and venues, and potential survey: 3 months
- Conduct planning and design charrette: 4-6 months
- Finalize Plan: 2-3 months

2011	2012
<ul style="list-style-type: none"> • Initial research and development of process, proposed dates and venues, and potential survey: 3 months 	<ul style="list-style-type: none"> • Conduct planning and design charrette: 2-6 months • Finalize Plan: 2-6 months



Priority Project: Engage Beneficiaries in a Planning Charette Process



Music, cultural, and sports community programs



Planning charrette process area (dashed line)



Priority Project: Develop Pedestrian/Bike Path Network to Community Resources

Description: One of the benefits of living in the Kapolei region is having access to a host of community facilities and programs being planned in the region. For example, UH West O’ahu (UHWO), the Kroc Center, Hawai’i Maoli Kīpuka project, other social service programs, commercial projects, schools and parks are all nearby. Currently there are no neighborhood parks and children play on the residential streets. This is dangerous and untenable. Two of the major thoroughfares through the region (Kūalaka’i Parkway and Kapolei Parkway) are convenient for automobiles but due to their widths, are hard to cross for pedestrians. Other roadways also support heavy vehicular traffic on occasion. Homesteaders are concerned with pedestrian safety and access to the facilities; especially for keiki and kūpuna. Safe pathways for pedestrians and bicyclists should be developed throughout the region. Along with these pathways, traffic lights, designated crosswalks, traffic islands and traffic calming measures should be instituted in the appropriate places. Overpasses, mildly elevated crosswalks, and similar measures should be considered and installed where appropriate. These improvements should be planned and designed in an integrated fashion along with street landscaping designed to improve the pleasantness of the walking and bicycling experiences. The streetscape should be safe and inviting to the residents of Kapolei.

Additionally, homesteaders are concerned about potential excessive student parking in residential streets adjacent to UHWO. Planning of UHWO should consider this issue early in the development of the campus before it becomes an issue.

Location: Kinoiki Street, Kapolei Parkway, the North South road (Kūalaka’i) and the East West connector road.

Status: Need to engage in discussion with UHWO, DHHL and the Homestead Organizations should address this issue/opportunity in the planning charrette process

Potential Partners: UHWO, DHHL, DOT, Kapolei Homestead Associations

Cost: Indeterminate at the present time. Grant funding to study the issue is needed.

* Kipukea Project includes KCDC INPEACE Heritage Center, Hawai’i Maoli and Ke Ola Mamo.

Phasing & Time line:

- Establish Pedestrian/Bicycle Plan Committee
- Conduct planning charrette and develop pathway plan
- Lobby for funding and parcel entitlements
- Secure funds and implement first phases

2011	2012	2013
• Conduct planning charrette	• Lobby for funding	• Secure funds and implement



Paved pedestrian and bike-paths



Priority Project: Preserve & Develop Parks to Service the Homestead Community

Description: The community expressed the need for parks and related facilities within or in close proximity to the residential areas. This project includes three specific park projects:

A. Kānehili Area Park. There is an existing 4.59 acre park site designated in the East Kapolei Plans. The acreage of the park should be preserved. Additionally, this park should be given high priority and developed immediately because children are currently playing in Kinoiki street and surrounding side streets for lack of developed park areas. These areas should include sitting areas, trees and places for kids to play. Further, the creation of the Kānehili park will support the Heritage Center and other services planned for the kīpuka area by providing additional areas for programs and social events.

B. Investigate Developing a Park to Service Kaupē'a Lessees in Vacant Lot Adjacent to Kaupē'a. Currently, HHFDC is considering this vacant lot for an affordable housing project. The land does not belong to DHHL and discussion should include a land transfer or a partnership development of a park.

C. Identify and Designate Optimal Locations for Active Recreational Activities. Including baseball, soccer, volleyball, skate park, dirt biking, etc., and incorporate pedestrian/bike paths to facilitate safe access for our children.

It was noted that all existing park areas designated in the DHHL plans should be preserved in future plans. The lack of parks in the Kaupē'a and Malu`ōhai developments is seen as a lesson learned. There is a shortage of active recreational courts and fields.

Location: Planned parks in and near Kapolei Homesteads, Varona Makai parcel.

Status: Development of parks and how they relate to the residential community could be addressed in the planning charrette since they are integral to the overall development of the region.

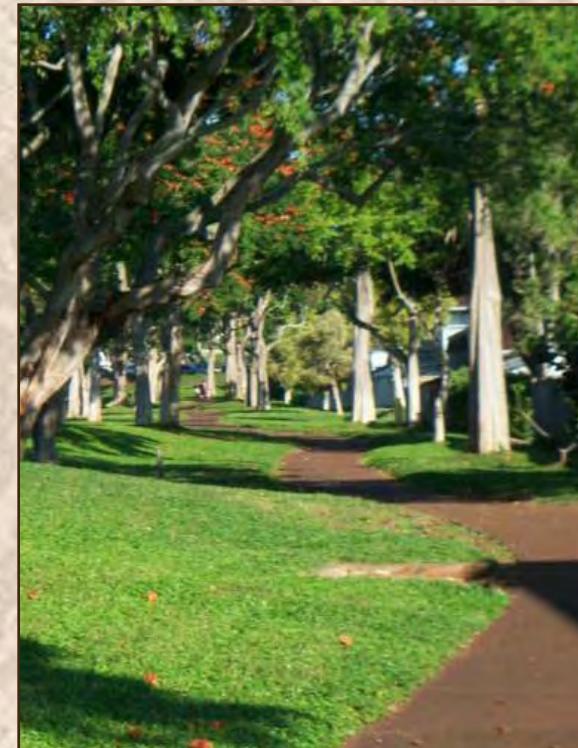
Potential Partners: DHHL, Villages of Kapolei, Kapolei Homestead Associations; City and County of Honolulu Parks Department.

Cost: To be determined after planning and design. Planning and Design funding needed.

Phasing & Time Line:

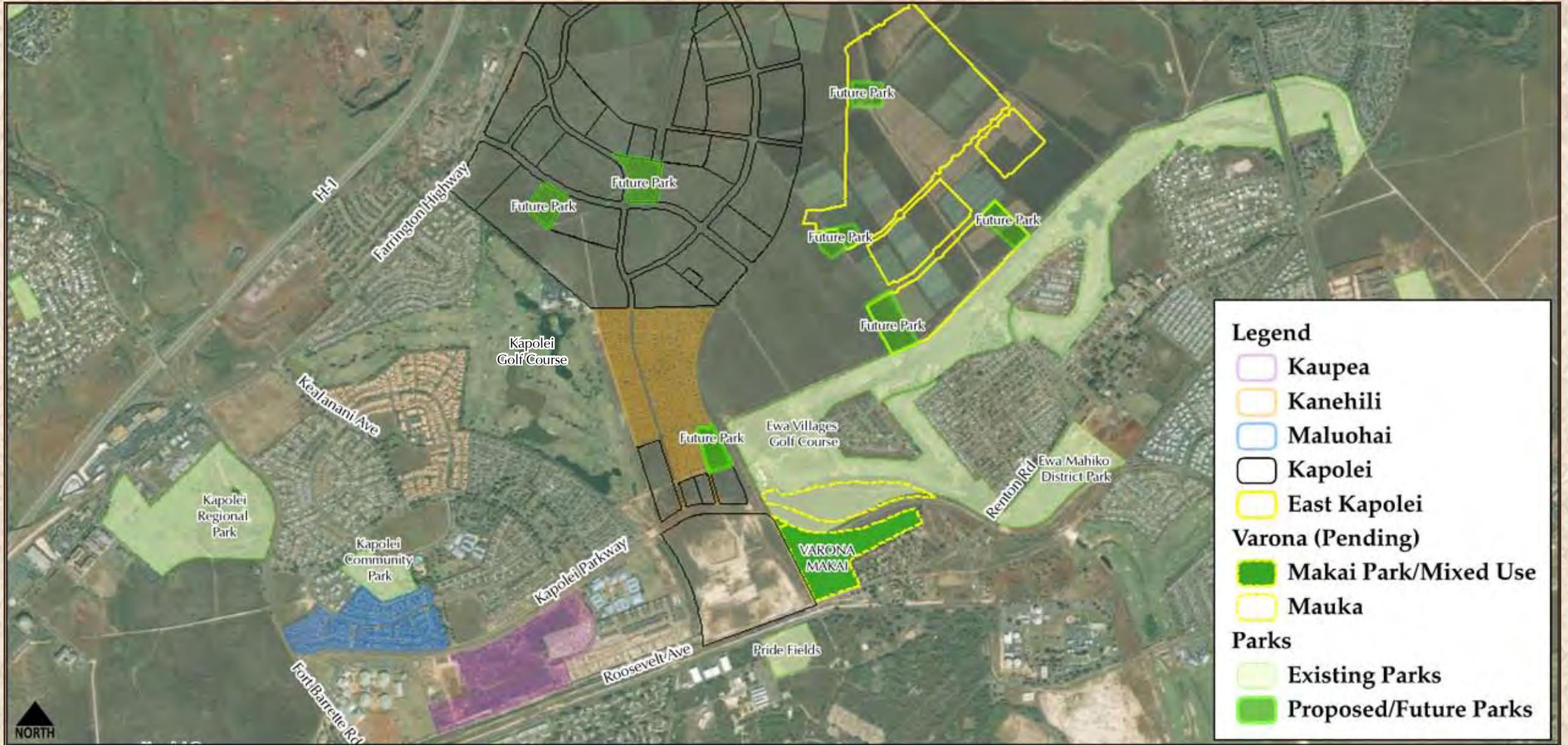
- Organize Kapolei Regional Park Committee (2-4 months)
- Integrate with the charette process
- Identify primary parks projects
- Seek funding for priority parks projects construction

2011	2012	2013
<ul style="list-style-type: none"> • Reconsider parks through a planning charrette 	<ul style="list-style-type: none"> • Seek funding 	<ul style="list-style-type: none"> • Secure Funds and implement



Neighborhood parks and facilities

Priority Project: Preserve & Develop Parks to Service the Homestead Community





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