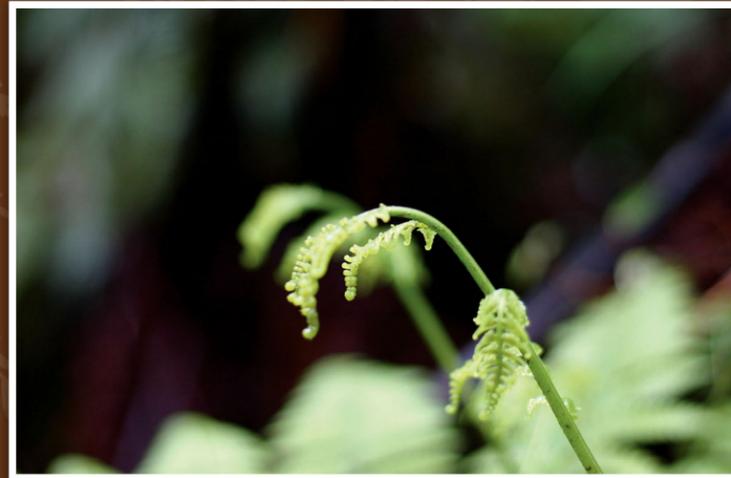


WAIMĀNALO



REGIONAL PLAN

July 2008

DRAFT
July 11, 2008

DEPARTMENT OF HAWAIIAN HOME LANDS



Contents

Micah A. Kane
Chairman
Hawaiian Homes Commission

COMMISSIONERS
Vacant (East Hawai'i)
Donald S. M. Chang (O'ahu)
Stuart Hanchett (Kaua'i)
Malia Kamaka (West Hawai'i)
Francis K. Lum (O'ahu)
Perry O. Artates (Maui)
Trish Morikawa (O'ahu)
Henry K. Tancayo (Moloka'i and Lāna'i)

Kaulana H. Park
Deputy to the Chairman

Robert J. Hall
Executive Assistant

DEPARTMENT OF HAWAIIAN HOME LANDS

Hale Kalaniana'ole
91-5420 Kapolei Parkway
Kapolei, Hawai'i 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

Introduction	1
Elected Officials and Political Boundary Map	2 - 3
Community Leaders and Stakeholders	4
DHHL Partnering Benefits and Examples	5
History and Cultural Aspects of the Area	6
Hawaiian Home Lands Map	7
Regional Map, Land Use and Demographics	8 - 9
Major Land Owners Map	10
Development Characteristics and Trends	11
Waimānalo Homestead Village Center	12 - 13
Roads and Transit - Infrastructure and Characteristics	14 - 15
Water - Infrastructure and Characteristics	16 - 17
Wastewater/Sewer - Infrastructure and Characteristics	18 - 19
Drainage - Infrastructure and Characteristics	20 - 21
Regional Services and Public Facilities Map and Characteristics	22 - 23
Development Projects Map and Characteristics	24 - 25
Priority Project: Wong Farm Relocation	26
Priority Project: Kumuhau/Kaka'ina Street Development	27
Priority Project: Ilauhole Street Extension	28
Priority Project: Community Technology, Telehealth and Employment Center	29
Project Tracking	30
Contact Information	31



WAIMĀNALO

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 collaborative visioning, 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 continues to develop its lands in Waimānalo. Specifically, this report is intended to:

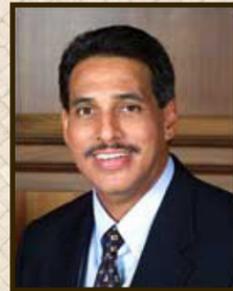
- Help identify opportunities for partnerships with DHHL for further development of its Waimānalo lands;*
- Provide information essential to the planning of projects, services, and entrepreneurial ventures;*
- Identify key issues, opportunities, and constraints effecting regional development and area 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.

Elected Officials



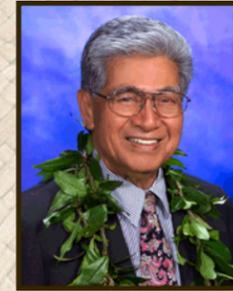
Linda Lingle
Governor



Duke Aiona
Lt. Governor



Daniel K. Inouye
U.S. Senator



Daniel K. Akaka
U.S. Senator



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



Micah Kane
DHHL Commissioner
Chairman



Donald S. M. Chang
O'ahu Commissioner



Francis K. Lum
O'ahu Commissioner



Trish Morikawa
O'ahu Commissioner



Walter Meheula Heen
OHA Trustee, O'ahu Chair



Mufi Hannemann
Honolulu Mayor



Barbara Marshall
Council District 3



Fred Hemmings
State Senatorial
District 25



Tommy Waters
State House of Representatives
District 51



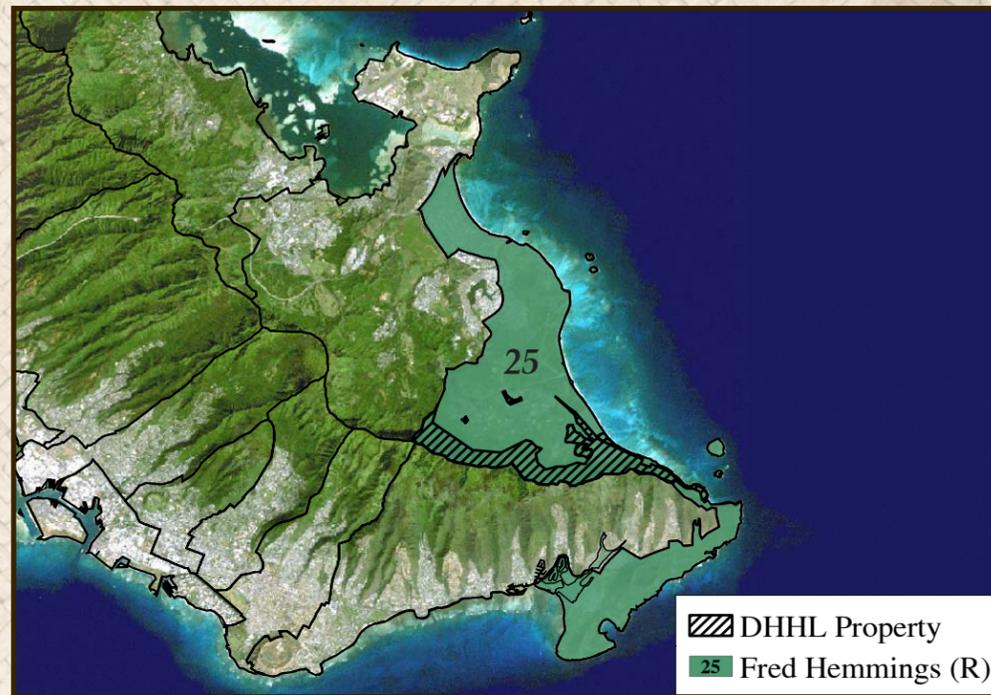
Kamaki Kanahele
Chairman, O'ahu Representative
Sovereign Councils of the Hawaiian
Homelands Assembly

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.

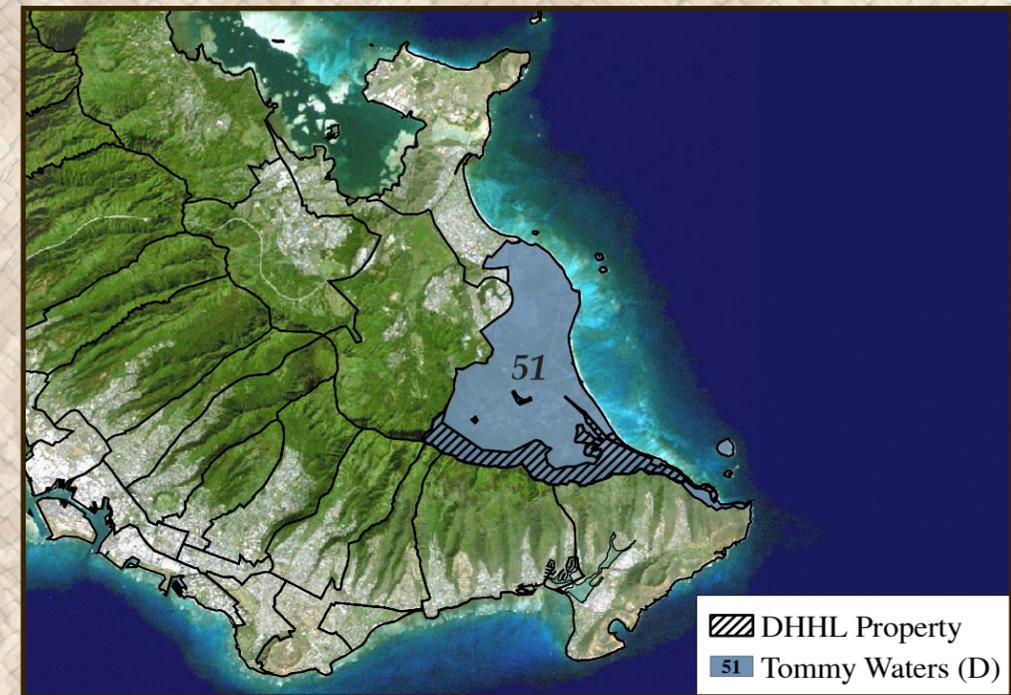


Political Boundaries

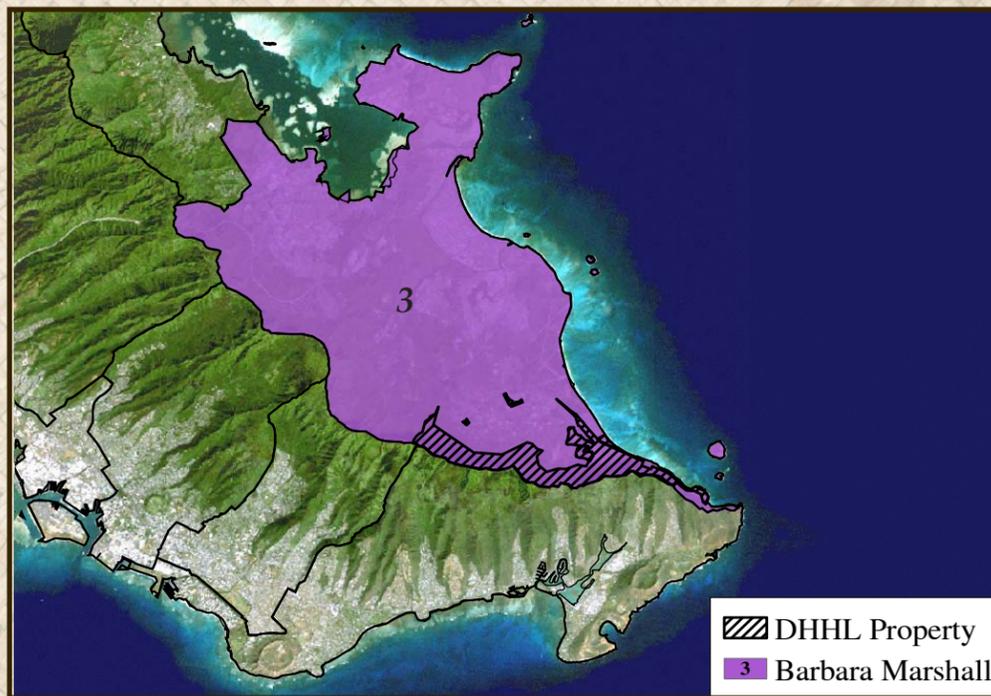
State Senatorial District



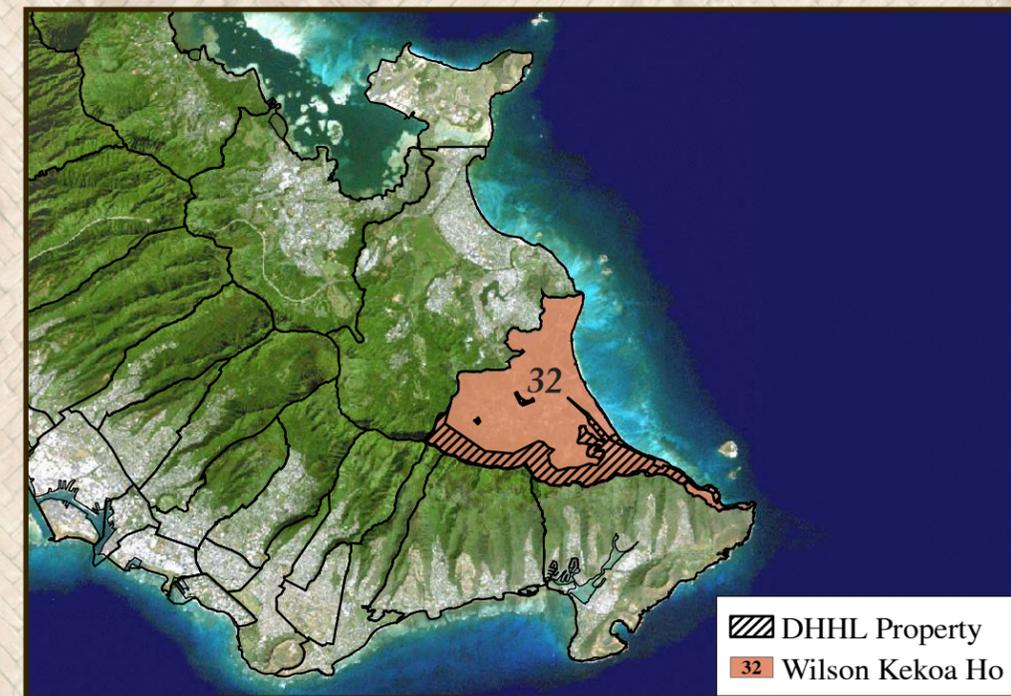
State House of Representatives District



City Council District



Neighborhood Board



DRAFT



Community Leaders and Stakeholders



Wilson Kekoa Ho, Chair
Waimānalo NB - #32



Paul Richards, President
Waimānalo Hawaiian Homes Association



Christina Kealoa Lee, M.D.
Medical Director
Waimānalo Health Center



Clifford Migita
Waimānalo Agricultural Association



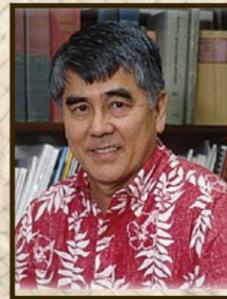
Ben Henderson
President & Executive Director
Queen Lili'uokalani Children's Center



Dee Jay A. Mailer, CEO
Kamehameha Schools



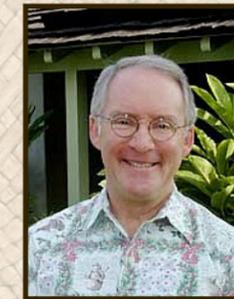
Laura H. Thielen, Chairperson
Department of Land
and Natural Resources



Dr. Andrew G. Hashimoto Dean, CTAHR
University of Hawai'i
Agricultural Experiment Station



Kevin A. Roberts, President
Castle Medial Center



Mitch D'Olier, President & CEO
The Harold K. L. Castle Foundation &
Kaneohe Ranch Company



Kevin Andrews, President
Waimānalo Chamber of Commerce



Colonel Giovanni K. Tuck, Commander
Bellows Air Force Station 15th Airlift Wing



Colonel Mark A. Dungan, Commander
Marine Corps Training Area at Bellows AFS



Colonel Marty Wong, Commander
Hawai'i Army National Guard
Regional Training Institute

Friends of Waimānalo
Hawai'i Job Corps Center
'Aikahi Elementary
Blanche Pope Elementary
Enchanted Lake Elementary
Ka'elepulu Elementary
Kailua Christian Academy
Kailua Elementary
Kailua Intermediate
Kailua High School

Jan Nagano, President
Anita Sharp, Center Director
Gay Kong, Principal
Ofelia Carag, Principal
Pua'ala McElhaney, Principal
Sue Stock, Principal
Diana M. Abraham, Principal
Lanelle Hibbs, Principal
Suzanne Mulcahy, Principal
Francine Honda, Principal

Kainalu Elementary
Kalāheo High School
Kamehameha Schools Preschool
Ke Kula 'o Samuel M. Kamakau
Laboratory Public Charter School
Keolu Elementary
Le Jardin Academy
Maunawili Elementary
Mōkapu Elementary
Lanikai Public Charter School

Sheri Sunabe, Principal
James Schlosser, Principal
Mahealani McClellan, Director

Marci Wai'ale'ale Sarsona, Principal
Alma M Souki, Principal
Adrian Allan, Headmaster
Ryan Amine, Principal
Annette Ostrem, Principal
Frederick Birket, Principal

Redemption Academy
Trinity Christian School
Waimānalo Elementary & Intermediate
Waimānalo Fire Station
Olomana Fire Station
Kailua Fire Station
City and County of Honolulu Police
Department District 4
'Ohana Physicians Group

Dr. Adrian Yuen, Founder & Dean
Nancy Shaw, Director
Susan Hummel, Principal

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.



DHHL Partnering Benefits and Examples

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

DHHL has participated in a number of successful partnerships. A few are highlighted here.



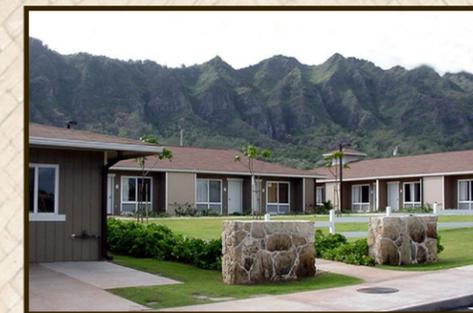
Queen Lili'uokalani Children's Center Office



Self Help Housing in Waimānalo



Kamehameha Schools Preschool in Waimānalo



Kupuna Housing in Waimānalo

SUCCESSFUL PARTNERSHIPS

1. 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.

2. 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.

3. 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 Lokahi, 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. For example, the Paukūkalo homestead on Maui is served by a County park on DHHL land next to a community hall, the DHHL district office, the Hawaiian Community Assets' home ownership counseling center, and a Kamehameha Schools preschool. DHHL, private businesses, government agencies, and private foundations have joined together to provide materials for playgrounds constructed by homestead associations and other community volunteers.

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 Pala'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. Beachfront recreational values are protected through management agreements with the City and County of Honolulu for Makapu'u, Kaiona, Kaupō, Waimānalo, and Nānākuli beach parks.

DRAFT



History and Cultural Aspects of the Area

Pre-contact

Waimānalo – *potable or sweet water* – Ahupua‘a, named for its largest stream, covers just over 11 square miles. The ahupua‘a was once rich with Hawaiian sites, though many have vanished or been destroyed over the years. Stories tell of former small fishing villages along the shore. The pu‘uhonua of Haununāniho (binding the teeth), a sacred site where anyone was forgiven, formerly rested on a small hill mauka of the present highway. Various sources have recorded at least four heiau in Waimānalo and numerous sacred pohaku (stones). They include Kini, a fishing shrine that was tossed inland when the road was built, and Pōhaku Pa‘akiki, found in the shoreline waters near Sea Life Park and Kaupō Beach Park, the site of the ancient fishing village of Ko‘onāpou which was abandoned in 1853, due to the smallpox epidemic. Some of the earliest habitation sites in the State of Hawai‘i are located in the Bellows dune fields. Twelve major archeological sites, including religious temples (heiau), have been identified in the watershed.

In pre-contact and pre-sugar days the area supported a large system of taro lo‘i with a wide variety of traditional Hawaiian crops clustered around stream areas. Additional upland taro lo‘i, fed by small streams and springs, existed along the base of the Ko‘olau range. These lo‘i were served by a system of ‘auwai (irrigation ditches) from the springs and streams. The areas agricultural tradition has a long and rich tradition. The lo‘i were destroyed when the entire ahupua‘a was leased and cattle were introduced. These changes destroyed the traditional plantings of sugar cane, ti, and wauke, as well as large trees, resulting in the loss of vegetation throughout the whole area.

During the Great Mahele of King Kamehameha III from 1846 to 1848, the approximately 7,000 acres Waimānalo Ahupua‘a was reserved as “Crown Lands.” Between 1846 and 1851, native Hawaiians were awarded fee simple patents for their home sites and cultivated lands. In 1840, Waimānalo was a ranch for sheep and cattle, but ten years later, sugar dominated the ahupua‘a.



Early Lo‘i Field



Ceremonial Heiau



Waimānalo Sugar Plantation



Irrigation in Waimānalo



Small Waimānalo Farms



Sunrise over Waimānalo Bay

Late 1800s to mid-1900s

During the period 1850 to 1920, one family leased the King’s land and acquired about 200 acres of fee simple land. They raised livestock and later developed a sugar cane plantation, the Waimānalo Sugar Company. Due to an inadequate water supply in Waimānalo and the high water volume needed to grow sugar, an irrigations system was developed to draw water from Kawainui Stream to Waimānalo. The Waimānalo Irrigation System ditches developed during this period are eligible for the National Register of Historic Places. In 1917, the 29-year-old Waimānalo Sugar Company sold 1,500 acres of beachfront property to the U.S. Government; the area that is presently Bellows Air Force Base.

The Sugar Company was liquidated in 1947. Leased land was sublet to local farmers, and fee simple lands were sold. As sugar became less profitable throughout the rest of the island, numerous farmers relocated away from the rapidly growing suburban centers of Kailua and Kāne‘ohe to the relatively unpopulated Waimānalo watershed.

In 1921, the Hawaiian Homes Commission Act listed most of the Valley floor as “available lands” but excluded military areas, cultivated cane lands, and beach lands. The first Hawaiian Homes Commission lots were made available in 1925. The DHHL Waimānalo lands are located in the southern end of the Ko‘olau Poko District on the windward side of O‘ahu. Comprising almost 2,000 acres and almost 4,000 Native Hawaiians, Waimānalo reflects a well-developed and mature Hawaiian community.

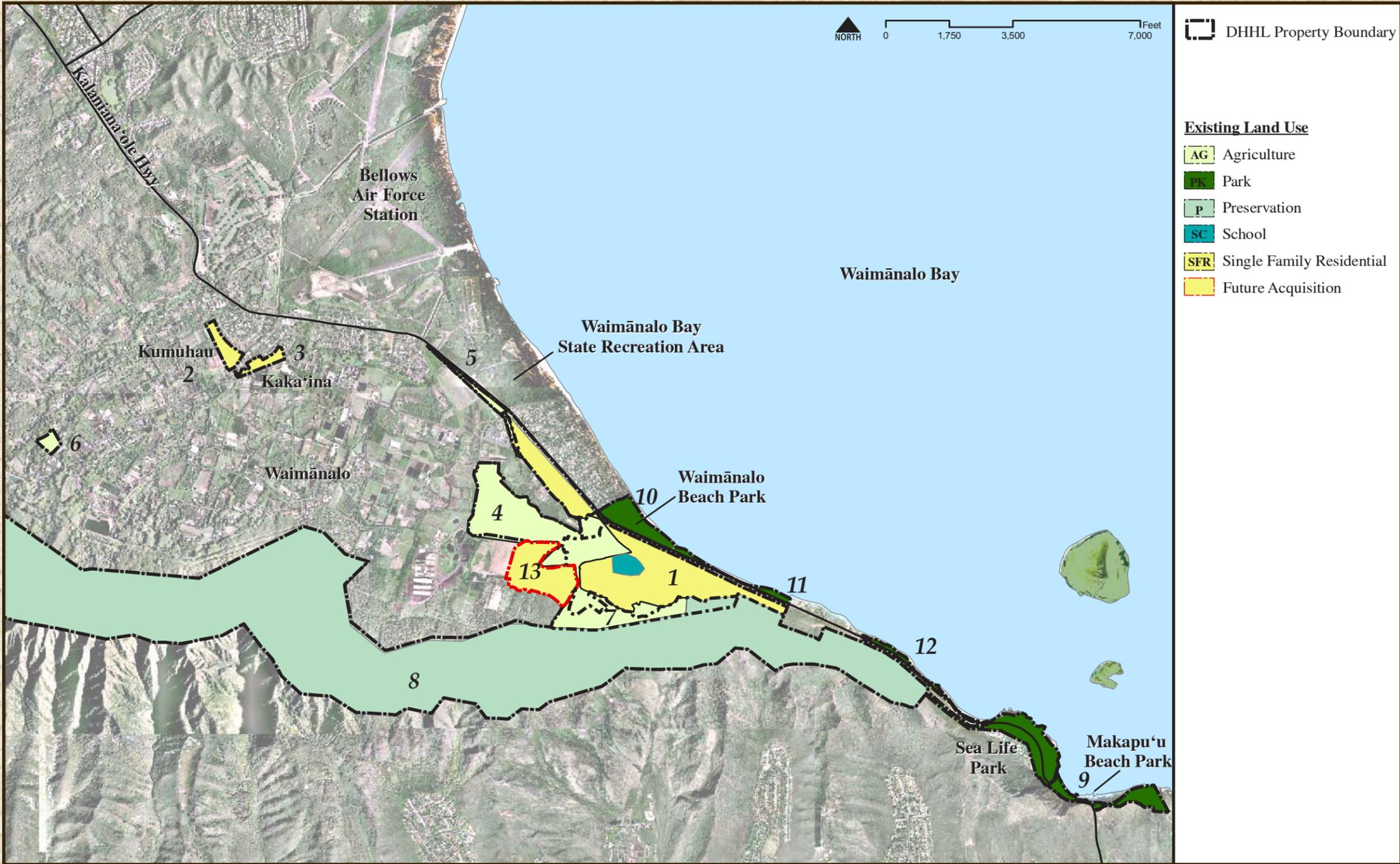
Modern times

The City and County’s Long Range Plan and the Ko‘olau Poko Sustainable Communities Plan call for maintaining agricultural land uses for flower growing, aquaculture, livestock production, and other types of diversified agriculture, while placing limits on new housing. The plans suggest revitalizing existing commercial centers and maintaining development character that is generally low-density, low-rise, small scale, and reflective of a “country” setting.

Waimānalo is country. Waimānalo is local style. Waimānalo is home. Waimānalo is Hawaiian. The words from the popular song “Waimānalo Blues” expresses the deep love of place and people that the community represents. It reflects a laid back local lifestyle that is soothing and healthful; friendly, family oriented with an unhurried pace. Slack key guitarist, Gabby Pahinui and his ‘ohana and impromptu musical jamming in the garage remain quintessential Waimānalo symbols. Trade winds blow constantly and sand and sea and windblown hair are as natural as the naupaka on the beach. Fishing and surfing, picnicking and ‘ukulele, paddling and horses all make up the outdoor lifestyle that is Waimānalo. Long, sandy beaches edged with Ironwood trees and the dramatic Ko‘olau cliffs frame the community. In the continuing development and growth of this community DHHL is committed to maintaining these precious qualities.



Hawaiian Home Lands - Area



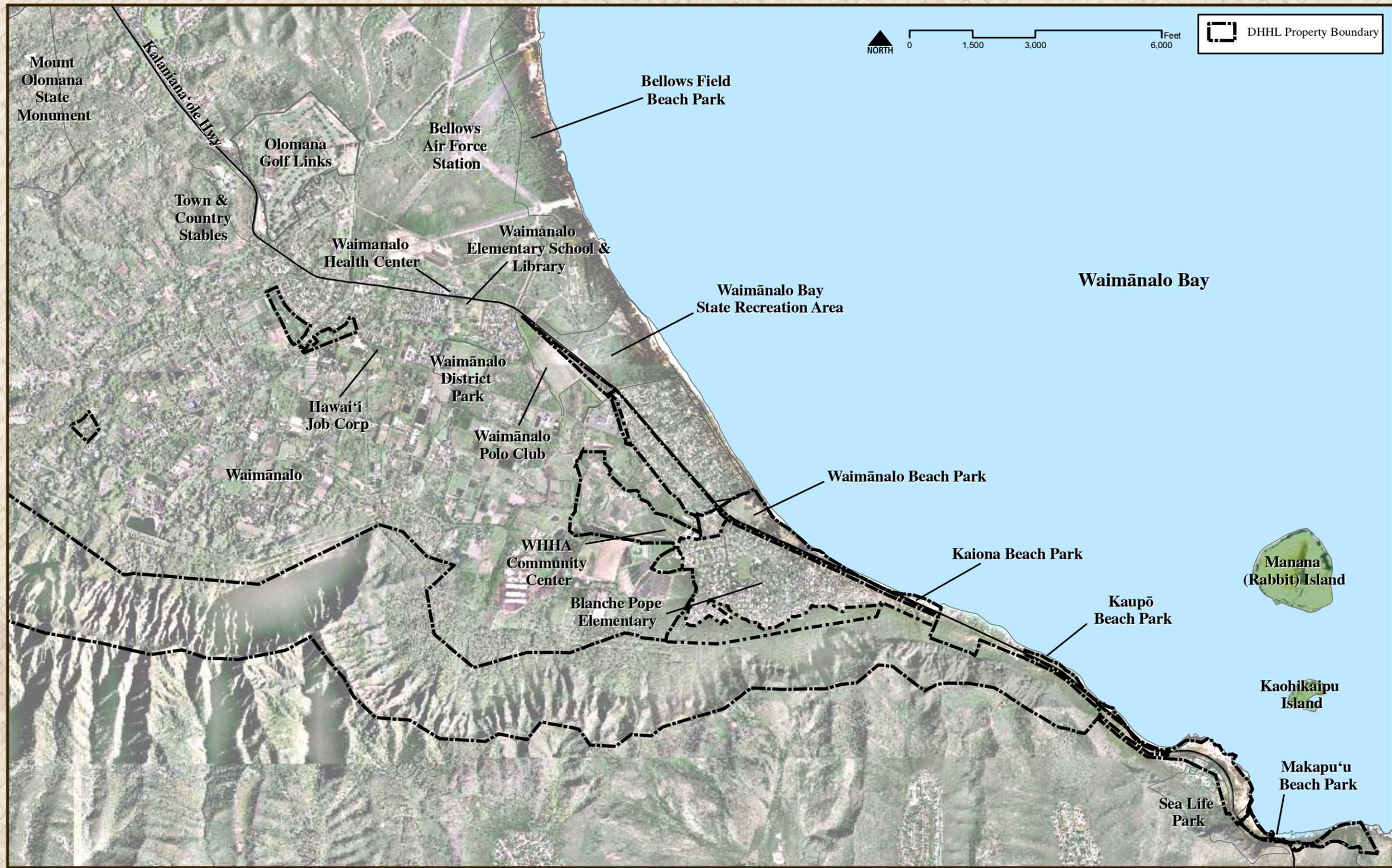
DHHL OWNED PARCELS

- 1 **Waimānalo Villages**
- urban/residential (180.5 ac)
- 2 **Kumuhau**
TMKs 41008011 & 41023065
- agriculture (11.6 ac)
- 3 **Kaka'ina**
TMKs 41008081, 91, & 10
- agriculture (8 ac)
- 4 **Quarry Site**
TMKs 41008002 & 4, 41008093-96, & 41019032-33
- agriculture (86.2 ac)
- 5 **Pine Tree Triangle**
TMKs 41009263, 71, 81 & 84
- agriculture (8.65 ac)
- 6 **Homestead Farm Lots**
TMK 41010033
- agriculture (5.2 ac)
- 7 **Waimānalo Foothills**
TMKs 41017001 & 41008001
- agriculture & unimproved res (52.1 ac)
- 8 **Waimānalo Forest Reserve**
TMKs 41011001, 07-08 & 41017021
- conservation (1,470 ac)
- 9 **Makapu'u Beach Park and Lookout**
TMKs 41014002, 05, 15
- conservation (47 ac)
- 10 **Waimānalo Beach Park**
TMK 41003016
- unimproved res (22 ac)
- 11 **Kaiona Beach Park**
TMK 41003039
- unimproved res (5 ac)
- 12 **Kaupō Beach Park**
TMK 41014006
- conservation (8 ac)
- 13 **Wong Farm (Pending Acquisition)**
TMK 41008079
- agriculture (50.3 ac)

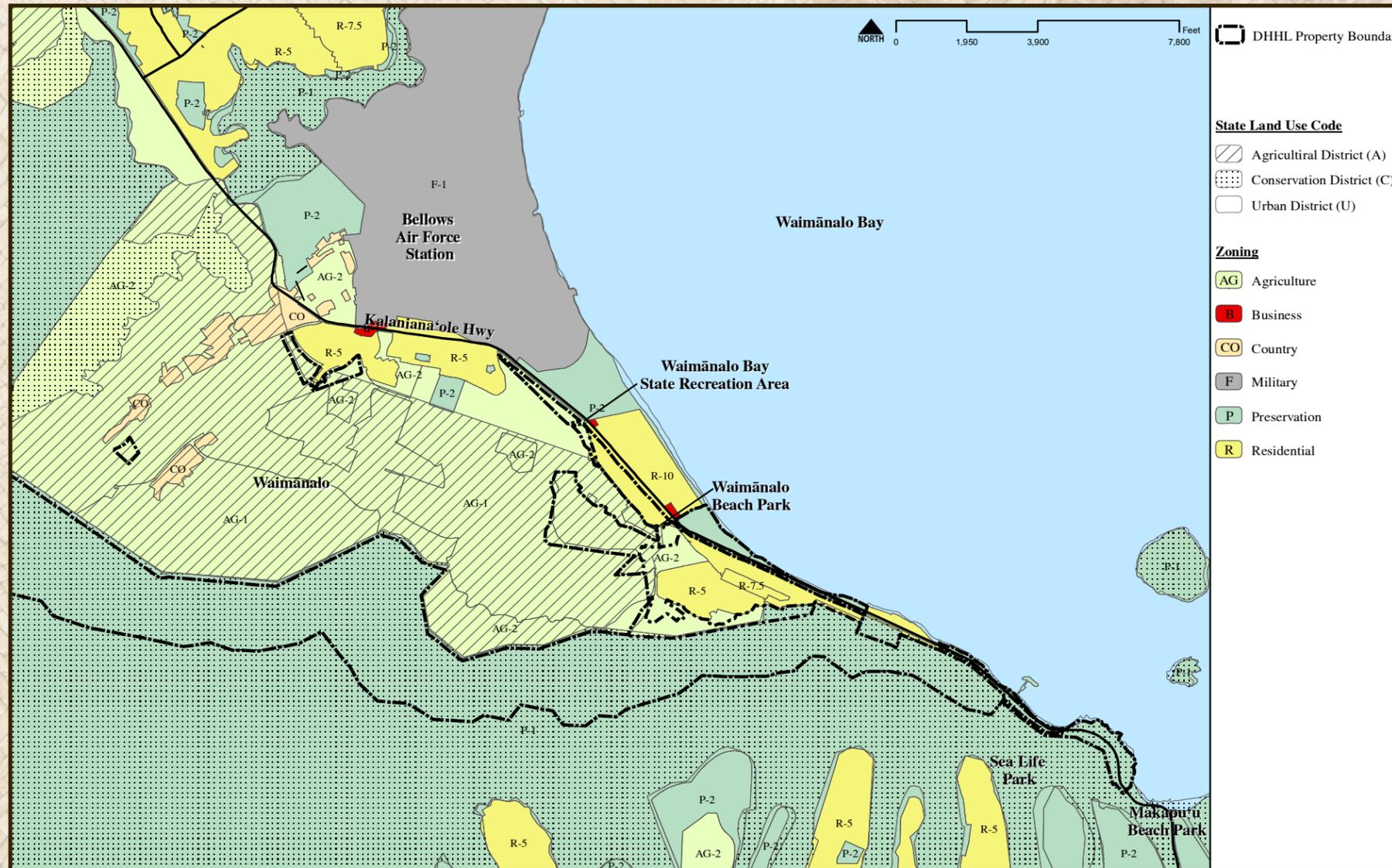
LAND SUMMARY
Total = 1,952.75 Acres

DRAFT

Regional Map



Regional Demographics



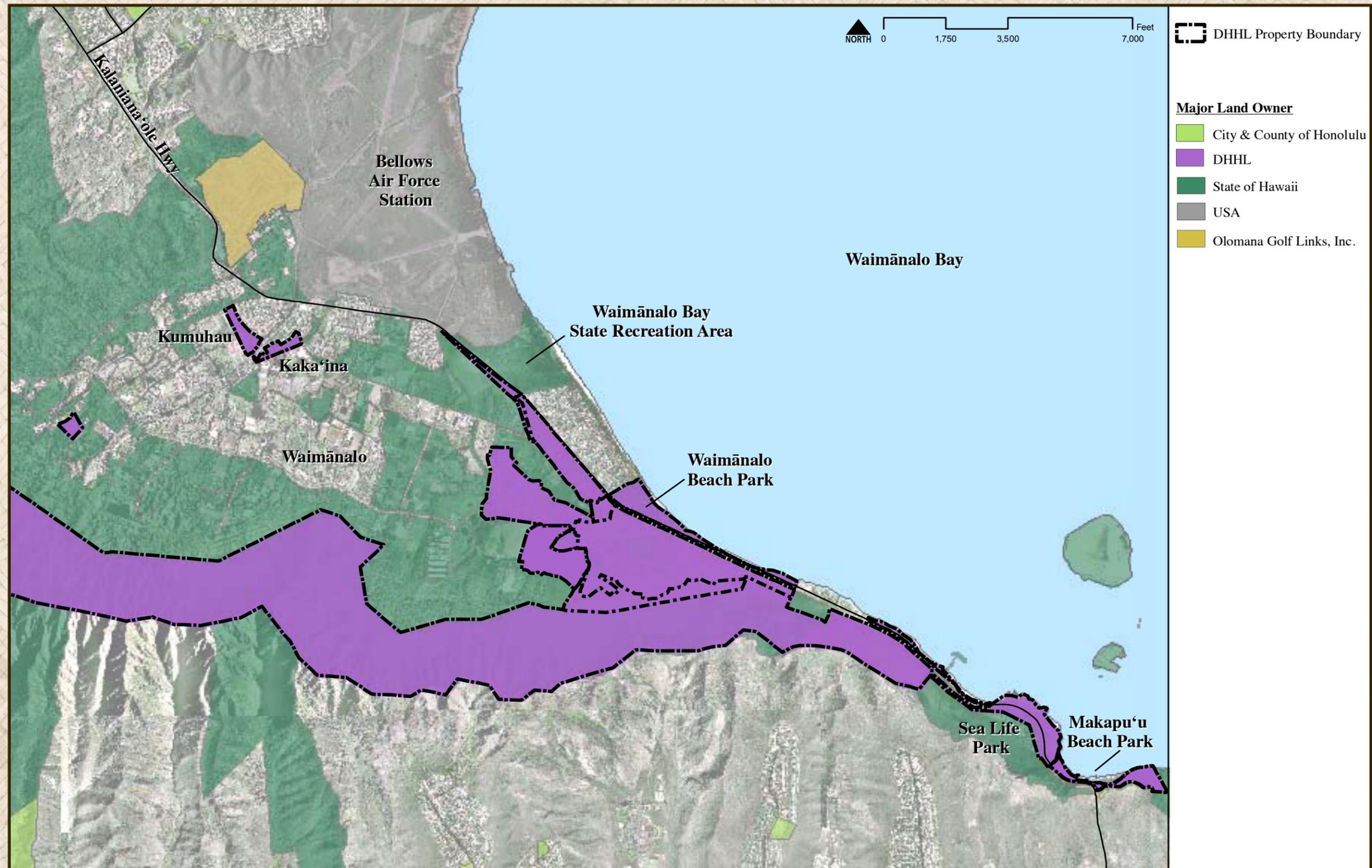
<u>General Characteristics</u>	<u>Waimānalo</u>	<u>Oʻahu</u>	<u>State</u>	<u>U.S.</u>
Total Population	10,919	868,751	1,227,008	--
Median age (Years)	32.9	37.9	38	35.3
<u>Social Characteristics</u>				
High School Graduate or Higher	8,899 (81.5%)	87.7%	87.2%	80.4%
Bachelor's Degree or Higher	1,671 (15.3%)	30.8%	29.1%	24.4%
<u>Economic Characteristics</u>				
Median Household Income	\$49,242	\$55,624	\$53,554	\$41,994
Per Capita Income	\$15,302	\$24,878	\$24,452	\$21,587
<u>Housing Characteristics</u>				
Total Housing Units	2,486	325,775	482,873	--
Occupied Units	2,354 (94.7%)	88%	88.5%	91%
Units Occupied by owner	1,591 (67.6%)	52.7%	52.1%	66.2%
Median Value - Single Family Home	\$477,500	\$620,000	\$364,840	\$119,600
Units Occupied by Renter	763 (32.4%)	39.3%	36.4%	33.8%
Median Gross Rent	\$751	\$874	\$871	\$519
Vacant units	135 (5.3%)	0.07%	11.4%	9%
Homeowner vacancy rate	0.9%	0.6%	0.6%	1.7%
Rental vacancy rate	3.2%	3.1%	4.1%	8.1%
Home ownership rate	70%	55%	--	--
Median Age - Owner	53.8	--	--	--
Median Age - Renter	43.7	--	--	--

Source: American Factfinder, 2005 & Honolulu Board of Realtors, 2005

DRAFT



Major Land Owners

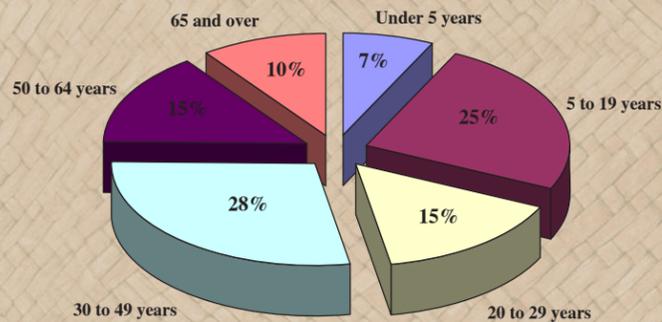


Development Characteristics and Trends

POPULATION GROWTH & INVESTMENT

Waimānalo has a stable population base. The area is home to almost 11,000 individuals, of whom more than 50% are full or part Native Hawaiian. The community has experienced relatively slow developmental growth, in part, due to its rural community boundary.

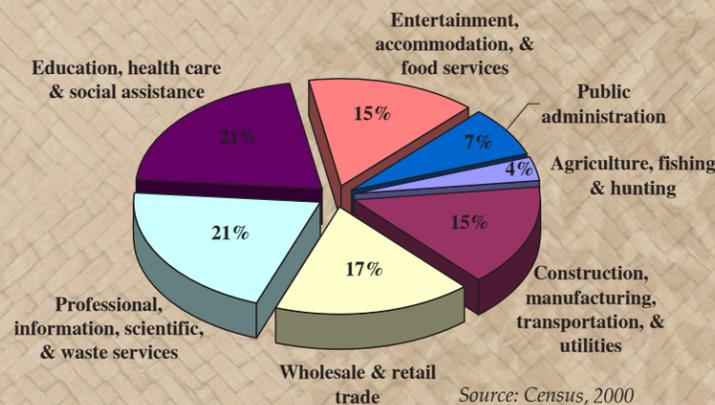
Waimānalo Age Distribution in 2000



Source: Census, 2000

Waimānalo has significant tax incentives for businesses and investors, due to its inclusion in the Foreign Trade Zone and O'ahu Enterprise Zone. Bellows Air Station presents potential reuse opportunities for industrial, commercial or recreation activities.

Employed Civilians by Industry in 2000

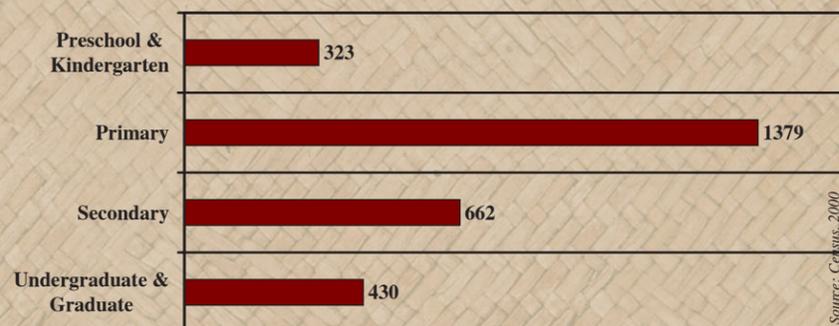


Source: Census, 2000

WORKFORCE

Over 4,500 residents of Waimānalo are in the labor force, equal to 63% of working age citizens. Most of the working residents are employed outside of the community and commute, on average, 35 minutes to work. Small-scale employment opportunities in the immediate region are generally limited to agricultural related activities, retail and outdoor recreation. Additionally, another 2,800 residents are enrolled in school.

School Enrollment



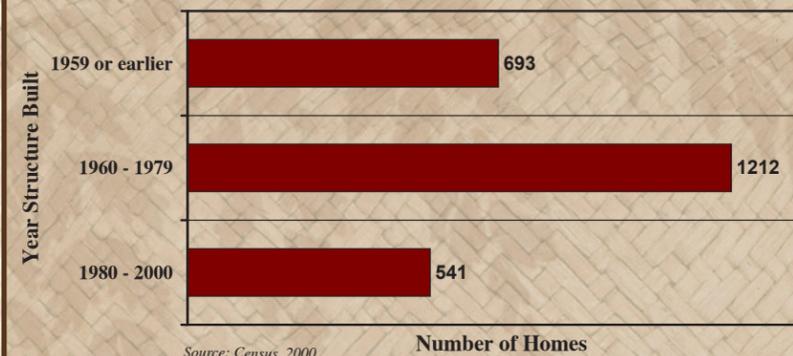
Source: Census, 2000

HOUSING & COMMERCIAL

There are almost 2,486 housing units in Waimānalo and the area has a 70% home ownership rate. Native Hawaiian home ownership rate is almost 70%. The vacancy rate is 1.5% for homes that are for sale and a 3% rental vacancy rate. The region is characterized by older dwellings and is near buildout. Its aging infrastructure, facilities and dwellings, though, are in need of improvements and upgrades. The community places a high emphasis on natural resource preservation, agricultural and rural retention and traditional ways of life. As Waimānalo's aging housing stock is replaced, expanded or remodeled, the area is experiencing growth in the area of multi-generational and "non-traditional" households, as well as larger dwelling sizes on single-family residential lots.

Commercial uses in Waimānalo are clustered in commercial strips along Kalaniana'ole Highway. These strips are primarily located in two areas: Waimānalo Town and the makai side of the beach area between Waimānalo Bay State Recreation Area and Waimānalo Beach Park. Sea Life Park also represents a significant commercial venue.

Waimānalo's Aging Housing Stock



Source: Census, 2000

Median Home Values



Source: Census, 2000

AGRICULTURE

The Waimānalo district is a vibrant area for nursery and orchard operations. Small-scale truck farms growing fresh greens and organic foods are growing in number. The area's relatively close proximity to markets, in addition to fertile growing lands is a significant positive attribute for agricultural activities. The UH Agricultural Experiment Station and Oceanic Institute serve as incubators for new crop development, best practice models, and emerging agriculture and aquaculture operations, while equestrian and ranching operations present potential opportunities to capitalize on traditional and rural activities.

DRAFT



Waimānalo Homestead Village Center

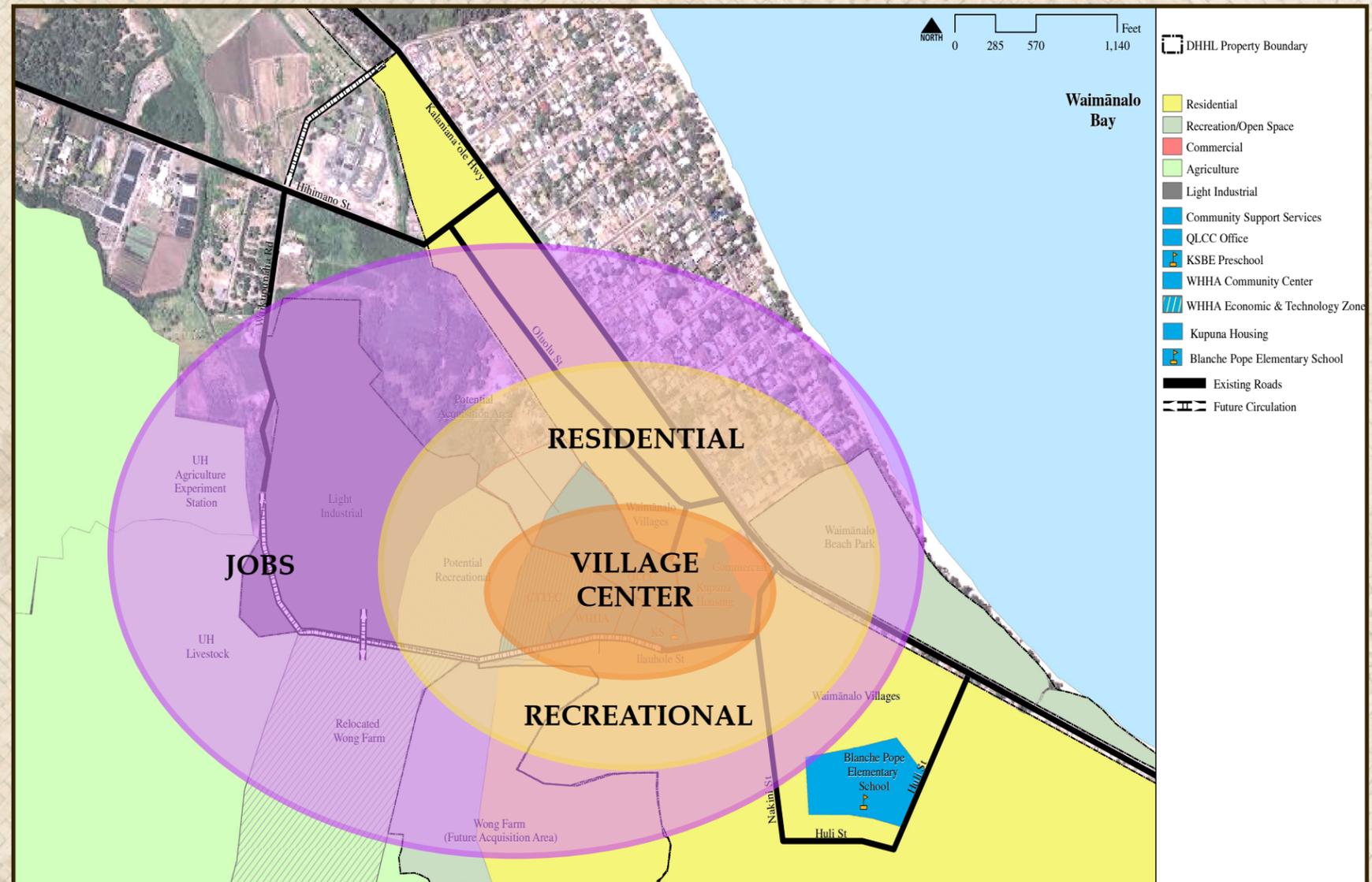
Waimānalo is a long standing Hawaiian Homes community which has evolved organically over many decades. Over time an internal development pattern has emerged. Within this context the Department of Hawaiian Home Lands' recently articulated policy of creating communities instead of simply housing guides the policy for the area. The plan calls for an extension of uses in the quarry parcel and the Wong Farm transfer area to solidify the concept of a Waimānalo Village Center with concentric elliptical, rainbow-like bands. These bands would be extensions of residential and employment areas as shown in the figure. This pattern complements existing DHHL and non-DHHL land uses adjacent to the project areas.

The village center concept builds on the existing kupuna housing complex, QLCC office, Kamehameha preschools and the Waimānalo Homestead Community Center to form a nucleus of what will eventually be the center of the social and economic activities in the Waimānalo Homestead. The quarry building parcel adjacent to Kalaniana'ole Highway will be developed into commercial uses due to its access to the highway and proximity to businesses and services along the highway. Its location allows it to meet homesteader needs and drive-by travelers along the highway. This commercial development will provide employment, entrepreneurial opportunities and a potential new revenue stream to DHHL. Other service and office uses may be added to the areas immediately mauka of the QLCC and KS facilities. Recreational and community facilities may be added to create a critical mass of activity integrated around a definable center. This will be a retail and community service core for the Hawaiian Home Lands and its residents. It will enhance the sense of place and provide a clear, central, sustainable area that will define the character of the Waimānalo homestead community as well as the neighboring properties.

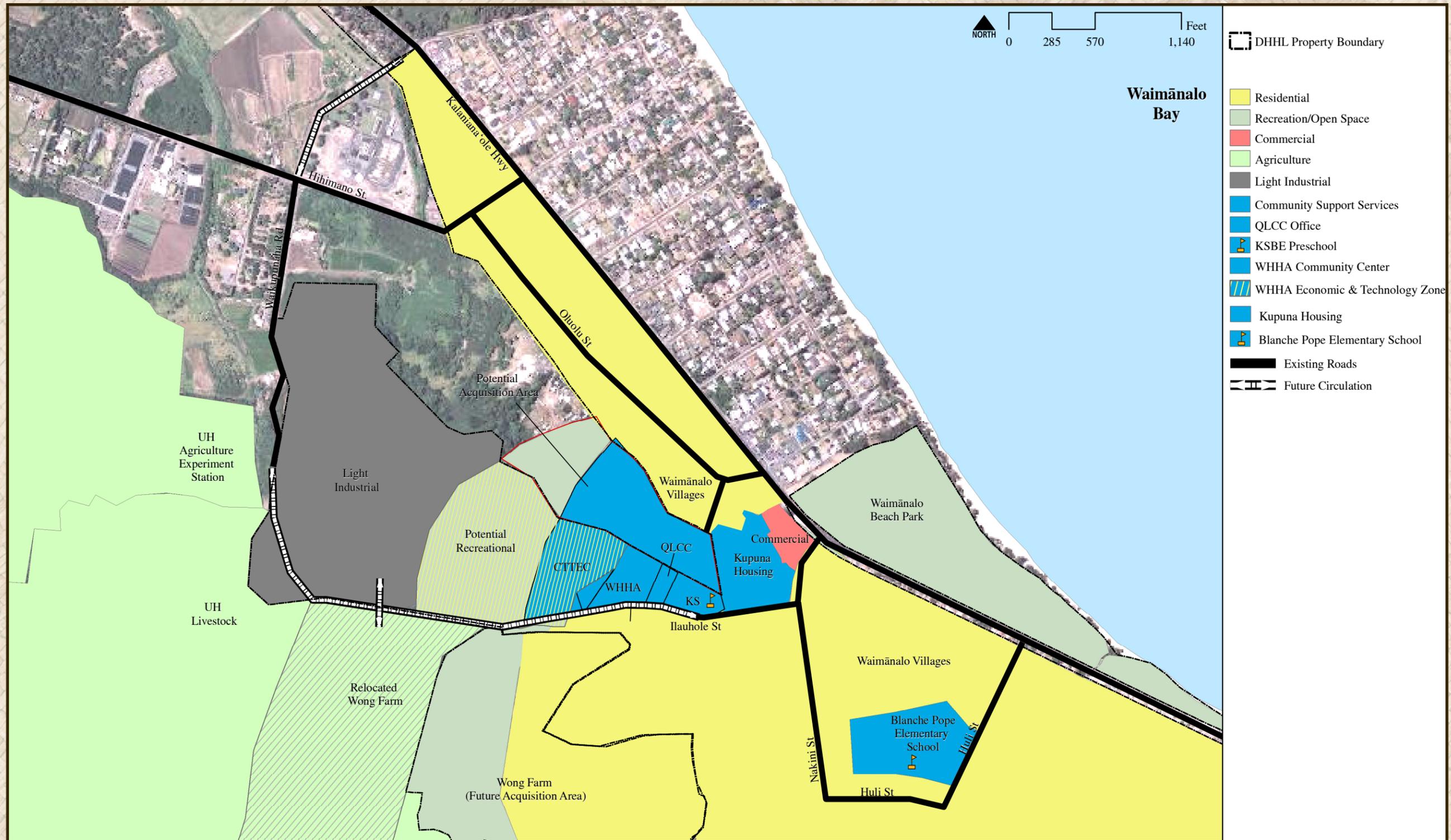
Around the village center the plan calls for a ring of residential development mixed with recreational uses and facilities. Active and passive areas should be integrated together with recreational areas being accessible to the village center area. This residential/recreational ring should integrate the existing residential areas, the planned development of the Wong Farm site into an extension of the subdivision and a portion of the 20-acre community association expansion area. Waimānalo Beach Park could be viewed as part of this ring.

The final ring around the village center would be the non-service and employment ring. The relocated Wong Farm, the old quarry and University of Hawai'i Waimānalo Agricultural and Livestock Extension Service Areas would be a part of this ring. Recreational or open space areas would serve as a buffer from the residential areas. Ideas are being explored to make the old quarry a light industrial and entrepreneurial zone.

New roads are needed to provide access across the bands and separate alternative access routes to the agricultural and light industrial areas. The new roads will allow trucks, service vehicles and worker traffic to access the industrial area without going through residential areas. Landscaping, buffers and setbacks will mitigate potential conflicts of use and beautify the area.



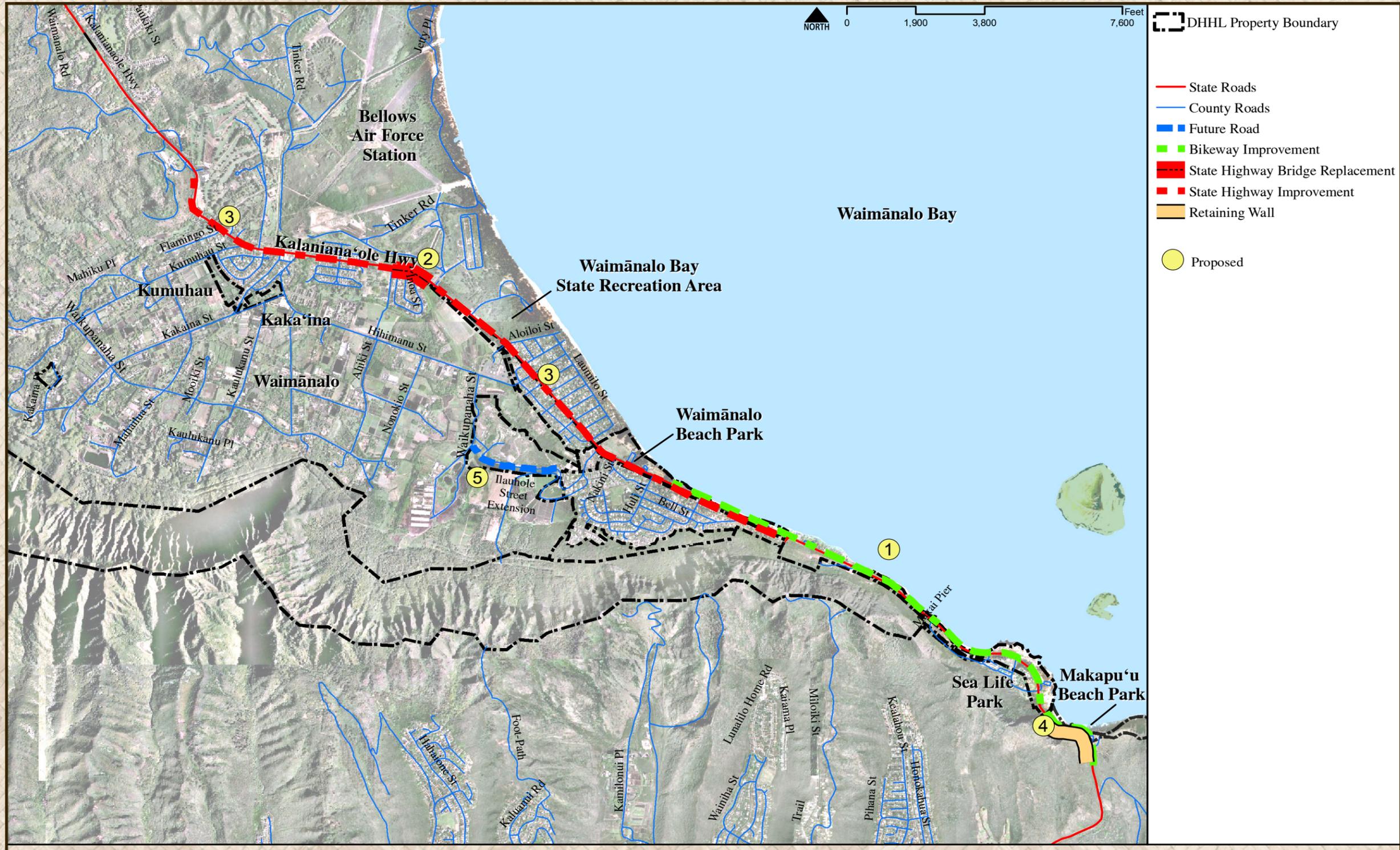
Waimānalo Homestead Village Center



DRAFT



Infrastructure - Roads and Transit



Infrastructure - Roads and Transit Characteristics

BACKGROUND OF ROADS AND TRANSIT CONDITIONS

Kalaniana'ole Highway serves as the major access highway to the Waimānalo area. It links Waimānalo to communities in East Honolulu and serves as a scenic, secondary route for travel between Kailua/Waimānalo and Honolulu. The 2-lane Kalaniana'ole Highway is the primary arterial through Waimānalo and sometimes backs up during peak travel times. Right of way is ample for expansion to a four-lane roadway which has been proposed by the City and County of Honolulu between 2006 - 2020. Most DHHL lands lie in close proximity to familiar transit stops and park and ride facilities. The Bus services the region with routes 57, 77, & 89.

PROPOSED ROAD AND TRANSIT PROJECTS

1 Kalaniana'ole Highway Bikeway

New bike lanes have been proposed in the Ko'olau Poko Sustainable Communities Plan linking Waimānalo to East Honolulu & Kailua/Enchanted Lakes. The 2008 -2011 O'ahu Transportation Improvement Program (TIP) lists this project as S42, requesting \$1,200,000 for construction in FY 2009. The project will provide improvements to the bike route on Kalaniana'ole Highway from Huli Street to Makapu'u Beach Park. The bikeway would provide a shared roadway with paved, continuous shoulder for bicycle use. Total estimated project cost \$2,833,000.

2 Kalaniana'ole Highway Bridge Replacement

The State Department of Transportation (DOT) will be replacing the existing single-cell culvert Inoa'ole Stream Bridge structure with a multi-cell culvert bridge structure. The project includes improvements to roadway approaches, a possible detour road, and utility relocations. State DOT is currently assessing the detour road option through Bellows Air Force Base, and working on the environmental assessment and design process for this project. Estimated total cost is approximately \$10.5 million. Funding for this project as reported in the FY 2008-2011 TIP, as Project S49, includes \$100,000 for pre-right-of-way in FY 2008; \$500,000 for rights-of-way purchases in FY 2010 and; \$6,600,000 for construction in FY 2011.

3 Kalaniana'ole Highway Improvements

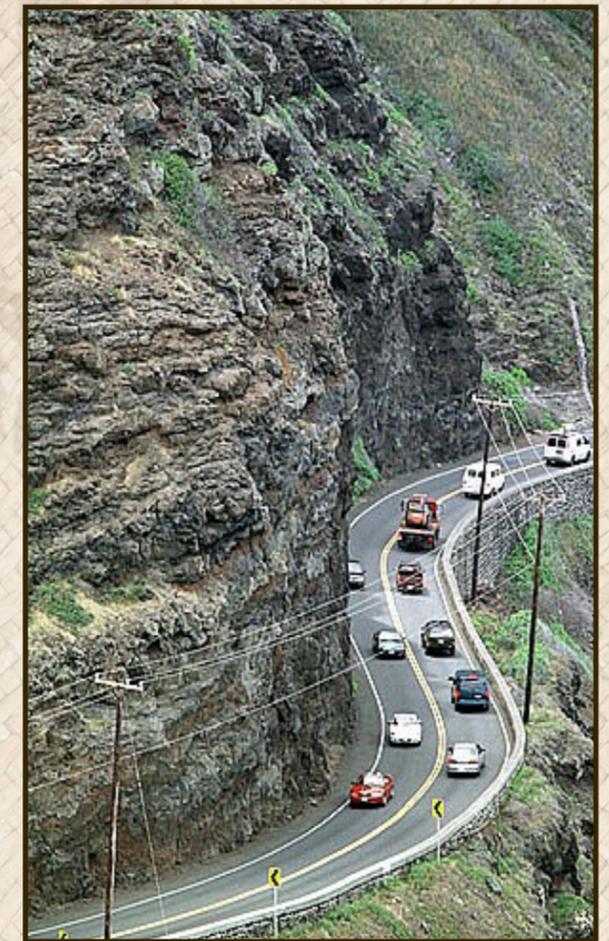
The State DOT O'ahu Transportation Improvement Program proposes improvements to Kalaniana'ole Highway from Olomana Golf Course to Waimānalo Beach Park. The proposed improvements include construction of turning lanes, sidewalks, wheelchair ramps, bike paths or bike lanes, traffic signal upgrades, utility relocation, and drainage improvements. The project is listed as S43, S44, S45 and S46 in the FY 2008-2011 TIP. A Final EA has been filed. Total cost is projected at \$40 million and will be constructed in four phases.

4 Kalaniana'ole Highway Retaining Wall

The State DOT O'ahu Transportation Improvement Program proposes to construct and/or repair a retaining wall in the area of Makapu'u. The project would include slope protection and mitigation. \$11,400,000 for construction has been requested. The project is S47 in the FY 2008-2011 TIP. State DOT has completed the design phase for this project. The State has received funds for this project. Construction bid expected December 2008.

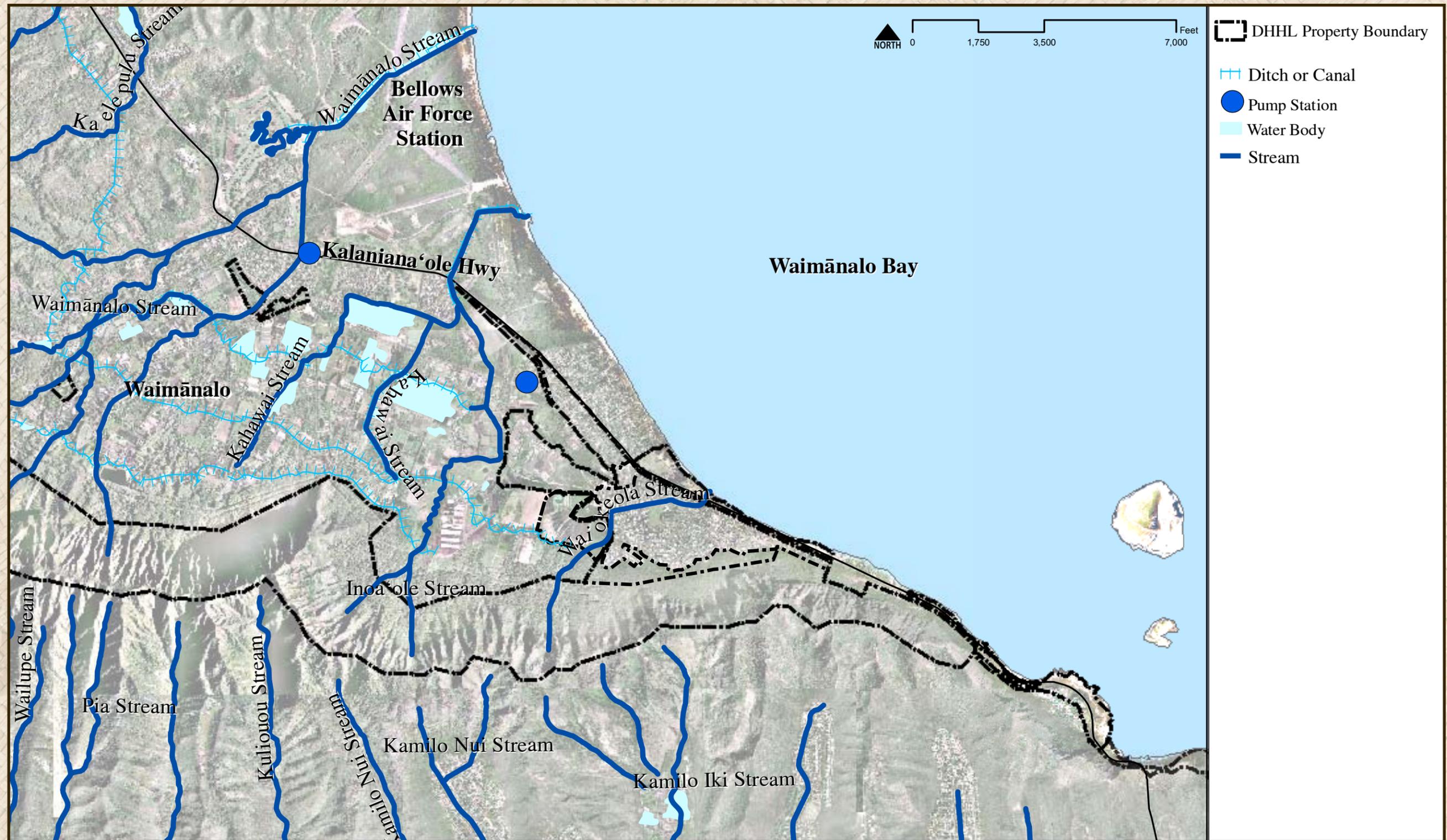
5 Ilauhole Street Extension

The Waimānalo Hawaiian Homes Association proposes to plan and design a road to lead from Ilauhole Street to Waikupanaha Street through land leased by the DHHL to the WHHA. This new road connects agricultural and industrial areas to the Waimānalo Village Center, providing circulation access. WHHA requested \$60,000 as part of the Waimānalo Homestead Village Center development but did not receive funding. DHHL is resubmitting the funding request for \$100,000 for planning and design in the FY 2009 CIP budget.



Kalaniana'ole Highway at Makapu'u

Infrastructure - Water



BACKGROUND OF CURRENT REGIONAL WATER SYSTEM

The Waimānalo watershed's fresh water sources come from the mountains, springs, and a diversion from Kailua. The Board of Water Supply estimates potable water capacity at approximately 28 mgd and current demand at 22 mgd. Waimānalo Stream, formerly called Puha Stream, serves as the primary freshwater drainage of the Waimānalo Basin into Waimānalo Bay. Waimānalo Stream runs through a predominately agricultural land use area and has been designated a Water Quality Limited Segment (WQLS) for failing to meet the State's water quality standards. Studies indicate that Waimānalo Stream is a highly altered waterway that no longer functions as a natural stream. Heavy rain often results in discharged pollutants from the land, transported via Waimānalo Stream into Waimānalo Bay, significantly degrading water quality for several weeks at a time. Stream channels are severely modified due to various flood control projects, resulting in clogged channels. Inoa'ole Stream is the second major stream draining the basin. Like Waimānalo Stream it is subject to high nutrient loads, excessive sedimentation and a clogged waterway.

All of the streams in Waimānalo suffer from poor circulation due to extensive plant growth, lack of water, and trash dumping. The community believes that animal waste, excessive fertilizer, seepage from individual cesspools, disposal of water from chicken coops, and nutrients from the holding ponds at the dairy are sources of pollution and algal blooms in nearshore waters. Another possible source of pollution is the Waimānalo Wastewater Treatment Facility, which is operating near its maximum capacity of 0.7 million gallons per day.

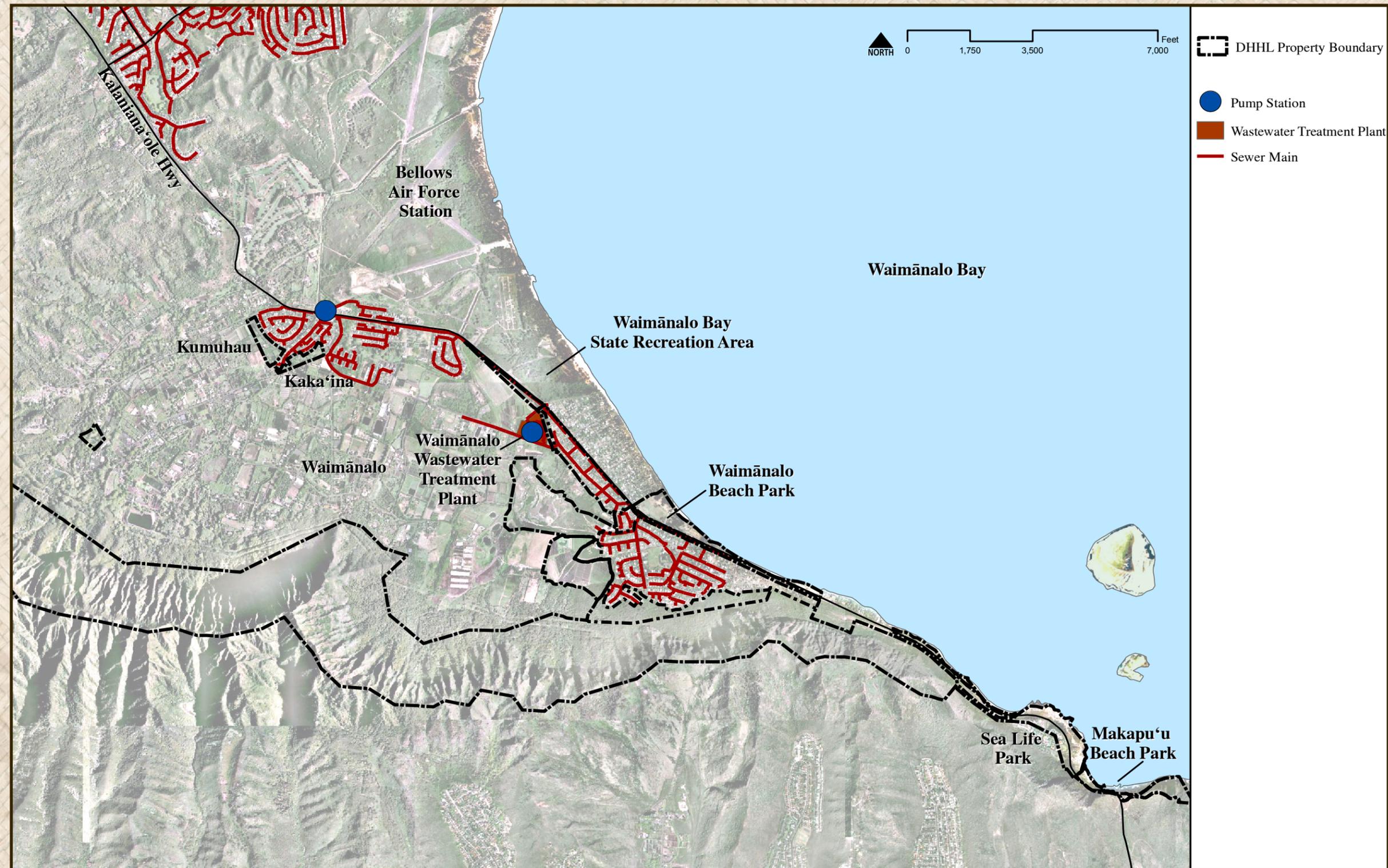
Source: Ko'olau Poko Water Quality Action Plan, Kailua Bay Advisory Council, 2002 & Ko'olau Poko Sustainable Communities Plan, City and County of Honolulu, 2000

PROPOSED WATER SYSTEM PROJECTS

There are no proposed water system projects for Waimānalo at this time.



Infrastructure - Wastewater/Sewer



Infrastructure - Wastewater/Sewer Characteristics

BACKGROUND OF WASTEWATER SYSTEM CONDITIONS

In May 2008, the State completed upgrades to the Waimānalo Wastewater Treatment Plant, increasing its capacity to serve future needs. The Waimānalo Wastewater Treatment Plant is now operational with a capacity of 1.1 mgd and a new secondary biological treatment process. New hookups were not being allowed due to capacity and performance issues of this treatment plant. The completion of this project allows housing developments in the area to move forward.

Approximately 65 percent of residences in the Waimānalo Wastewater Service Area are served by a centralized wastewater collection, treatment, and disposal system. Wastewater is collected by a network of gravity sewers, and is then treated at the Waimānalo Wastewater Treatment Plant (WWTP), which has a 1997 rated average design capacity of 1 million gallons per day (mgd) and average flow of approximately 0.7 mgd. The wastewater collection system, including the Kahawai WWPS, is owned by the State of Hawai'i and operated and maintained by the City and County of Honolulu. Homes in Waimānalo that are not connected to the public sewers are served by individual wastewater systems, which are generally either cesspools or septic tanks with leaching fields. The unsewered areas include certain portions of the low lying coastal areas and all of the inland agricultural lots. Nearly 15 percent of the homes in sewerred areas are not connected to the sewer system and continue to use individual wastewater systems. There are water quality and public health concerns associated with the continued use of individual treatment systems (primarily cesspools) in the low-lying coastal areas. Algal blooms occur periodically in the nearshore waters of Waimānalo, possibly stemming from nutrient loading by individual wastewater treatment systems, stormwater runoff, and/or treatment plant effluent.

Source: Ko'olau Poko Water Quality Action Plan, Kailua Bay Advisory Council, 2002 & Ko'olau Poko Sustainable Communities Plan, City and County of Honolulu, 2000.

PROPOSED WASTEWATER PROJECT

Waimānalo Wastewater Treatment Plant Upgrade

The State envisions future improvements to the Waimānalo Wastewater Treatment Plant to address issues relating to reuse. Potential improvements may include planning and design of an ultraviolet disinfection system and effluent pumping facilities to allow the use of recycled water for irrigating selected agricultural lots and the Olomana Golf Links.

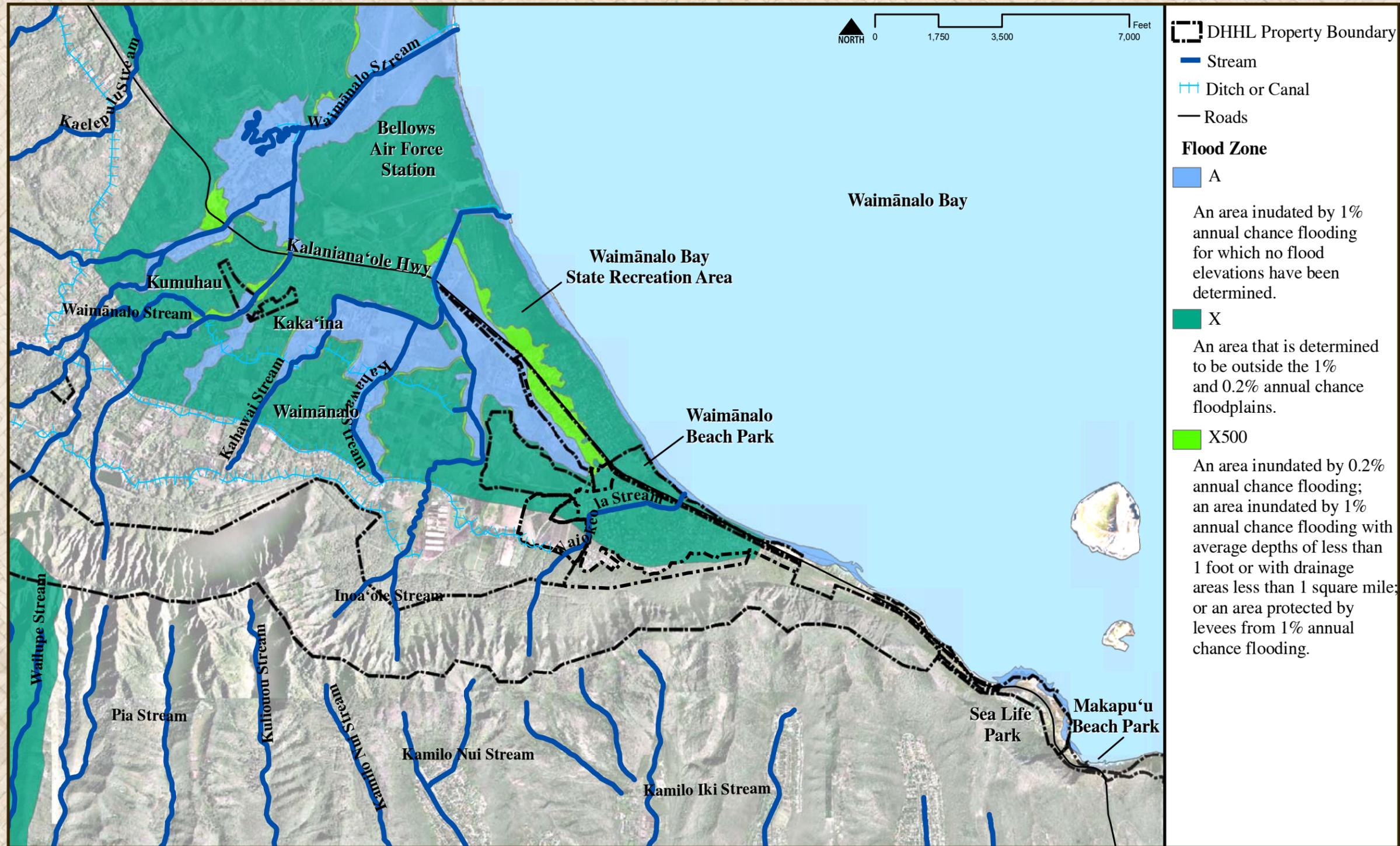


Waimānalo Wastewater Treatment Plant

DRAFT



Infrastructure - Drainage



Infrastructure - Drainage Characteristics

BACKGROUND OF DRAINAGE CONDITIONS

Although dry most of the year, Waimānalo Valley is severely affected during storms. The streams are shallow, overgrown with grass, and often incapable of carrying the large flows resulting from flash floods. The road culverts and bridges are inadequate and subject to obstruction by debris or siltation. These conditions often result in flooding of the adjacent lowlands, especially near the highway. At least 10 major storms have inundated the watershed since 1941, and it is reasonable to assume more damages can be expected as developments increase. Runoff drains into Kahawai, Waiōkeola, Waimānalo, and Inoa'ole Streams. The drainage problem in the Waimānalo watershed is characterized by small capacity channels, badly restricted by vegetation. The vegetation not only reduces channel capacity but produces debris that moves downstream during flood flows. This debris collects at channel restrictions such as bridges and culverts resulting in flow blockages. The channels are usually very steep in the upper reaches and flat in the lower reaches that extend through the sandy soils along the coast. Large areas of Waimānalo Valley become flooded during severe rain storms, primarily because of small stream carrying capacities, inadequate road crossings, and low lying coastal plains. During past severe storms, flood waters ponded over low lying areas in the flat coastal plains, causing inundation of residential and commercial lands as well as roads and highways. Unlike the low flow velocities occurring in the ponding areas, storm waters flowing on steeper areas have high velocities, and become a greater hazard to life and property. In the steeper middle and upper sections of the valleys, overflowing waters have eroded agricultural lands, damaged crops, and partially washed out roadways. A DLNR study identified the following major problems of drainage in Waimānalo:

1. Poor maintenance of existing ditches, channels and culverts
2. No single agency responsible for maintenance
3. Irrigation ditches need manual adjustments for flood control
4. Kailua Reservoir releases can aggravate flooding
5. Local ponding behind channel walls and at roads
6. Land development potential restricted by flooding problems and floodplain zoning.

Source: Ko'olau Poko Water Quality Action Plan, Kailua Bay Advisory Council, 2002; Ko'olau Poko Sustainable Communities Plan, City and County of Honolulu, 2000; Report to the Twenty-First Legislature Regular Session of 2002 "Task Force to Create a Master Plan for Water Quality and Flood Mitigation for Waimānalo, DLNR December 2001; & "Total Maximum Daily Loads Estimated for Waimānalo Stream" Prepared to U.S. Environmental Protection Agency Specifications by the Hawai'i SDOH, Environmental Planning Office January 2001.

PROPOSED DRAINAGE PROJECTS

While there are no specific proposed drainage improvement projects for Waimānalo at this time, sources used for this report identify the following actions to improve drainage and stream health in Waimānalo.

In-stream flow levels must be increased by removing channel-clogging vegetation and construction of low flow channels in order to increase the ability of the stream to assimilate sediments and nutrients. Pollutant-reducing Best Management Practices, reasonable stream restoration, and an increase in base flow will bring Waimānalo streams closer to their desired condition – streams that meet the State Water Quality Standards and are fishable and swimmable.

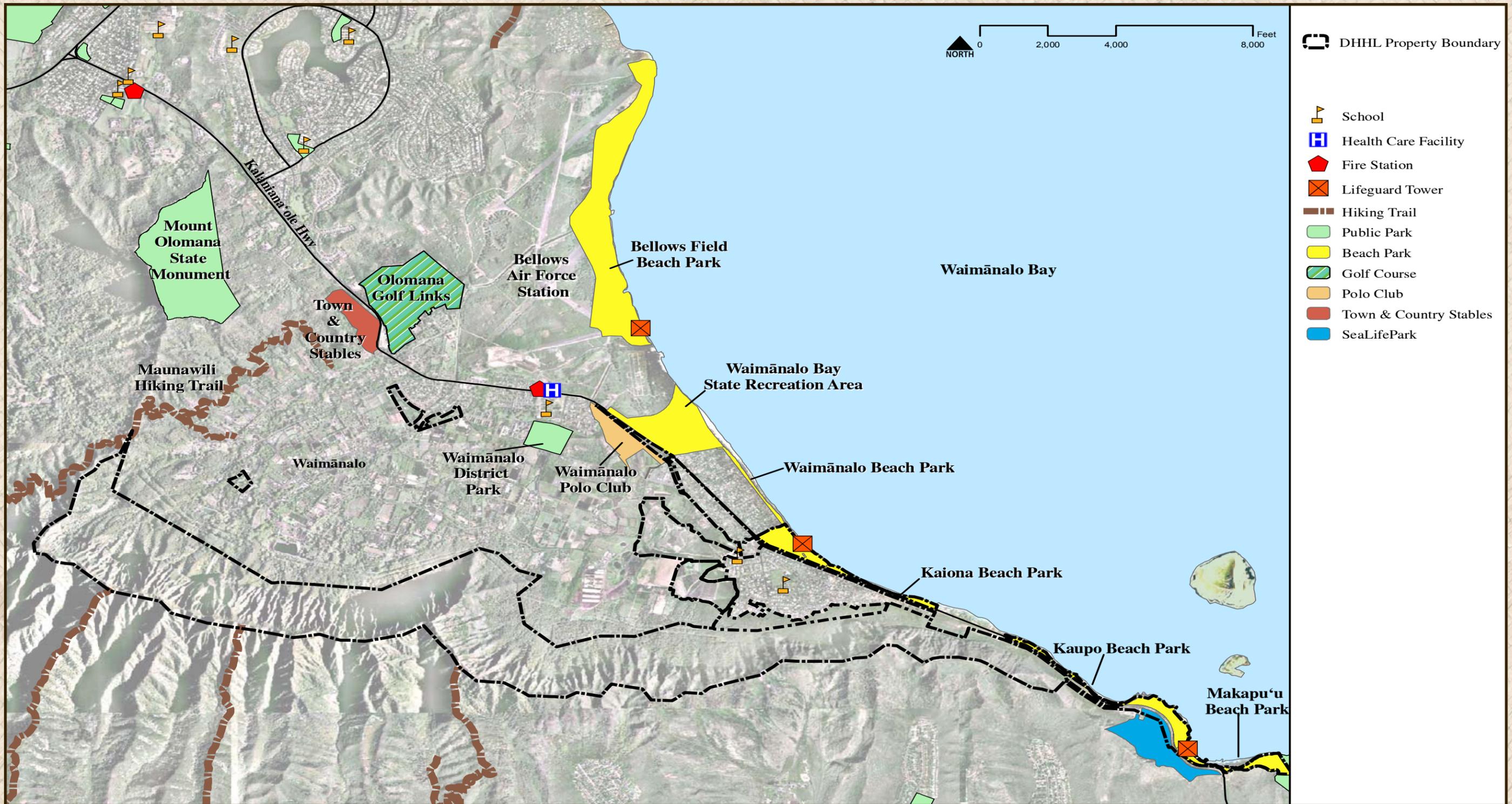
Specific suggestions for drainage and stream improvement include:

- Increase the community's ability to protect and enhance streams;
- Improve the streams' ability to move water, filter pollutants, and support aquatic life;
- Establish vegetated buffers next to streams;
- Improve wastewater treatment;
- Assure good agricultural management practices;
- Assure good animal waste management practices;
- Reduce nutrients and sediments in urban runoff;
- Develop methods for stabilizing stream channels to allow them to filter pollutants and support aquatic life.
- Conduct regular stream cleanups and maintenance.
- Install signs and create community awareness about the effects of stream pollutants.
- Ensure access along the entire reach of channel to permit the use of heavy equipment for maintenance. Establish a perpetual easement would have to be provided by the landowners to the public agency performing the work. This easement would need to be approximately 50 feet wide, 25 feet each side of the existing channel centerline.
- Install bridge trash racks along the Hihimanu and Kaka'ina Streets bridge crossings to reduce the possibility of the plugging of these bridges and of the downstream road crossing.

DRAFT



Regional Services - Public Facilities



Regional Services - Public Facilities Characteristics

SCHOOLS

Within the Kailua-Kalaheo Complex-Area are ten elementary schools, two intermediate schools, three high schools, four private schools.

Future Need

Existing facilities are adequate to serve the needs of Waimānalo's stable population.

	Grades	Actual Enrollment 2007/2008	2007/2008 Capacity	Projected Enrollment 2012
KAILUA COMPLEX				
Enchanted Lake Elementary	K-6	396	496	295
Ka'elepulu Elementary	K-6	191	275	161
Keolu Elementary	K-6	178	364	159
Pope Elementary	K-6	279	508	261
Waimānalo Elementary/Intermediate	K-8	519	538	501
Ke Kula 'o Samuel M. Kamakau Laboratory Public Charter School	K-12	N/A	N/A	160
Kailua High School	9-12	988	1225	775
KALĀHEO COMPLEX				
'Aikahi Elementary	K-6	496	666	501
Kailua Elementary	K-6	366	546	343
Kainalu Elementary	K-6	536	761	459
Mōkapu Elementary	K-6	750	792	765
Lanikai Public Charter School	K-6			330
Kailua Intermediate	7-8	706	1305	581
Kalāheo High School	9-12	922	1138	761
PRIVATE				
Kailua Christian Academy	K-12			
Le Jardin Academy	PK-12	788		1000
Redemption Academy	PK-12			
Trinity Christian School	PK-6			
TOTAL		6,327	8,614	7,052

HEALTH CARE FACILITIES

Waimānalo Health Center and Castle Medical Center in Kailua provide health care services for the Waimānalo region.

Future Need

Existing facilities are adequate to serve the needs of Waimānalo's stable population. However, an increased need for elder care services is anticipated to accommodate the region's aging population.

POLICE FACILITIES

Windward O'ahu, including Waimānalo is within the Honolulu Police Department's District 4.

Future Need

Existing facilities are adequate to serve the needs of Waimānalo's stable population.

FIRE/EMS FACILITIES

Honolulu Fire Department operates 3 fire stations in the region. They are the Waimānalo Fire Station (Engine Company), the Olomana Fire Station (Engine Company), and the Kailua Fire Station (Engine and Ladder Company)

Future Need

Existing facilities are adequate to serve the needs of Waimānalo's stable population.

LIFEGUARD STATIONS

The City and County of Honolulu operates 3 lifeguard stations in Waimānalo. They are Makapu'u Station 5, Waimānalo Bay Stations 6A & 6B, and Bellows Beach Station 7

Future Need

Existing facilities are adequate to serve the needs of Waimānalo's stable population.

OTHER COMMUNITY SERVICES

Sandwich Isles Communications (SIC)

Exclusive telecommunications provider for DHHL parcels that utilizes the latest technology fiber optic cables and linkups. As part of its agreement with DHHL to provide telecommunications infrastructure and networking, all upfront infrastructure is provided at no cost to DHHL. SIC's affordable access to both telephone and broad band services provides residents of DHHL lands with high speed internet access to telemed services, distance learning courses and e-commerce opportunities, among others.

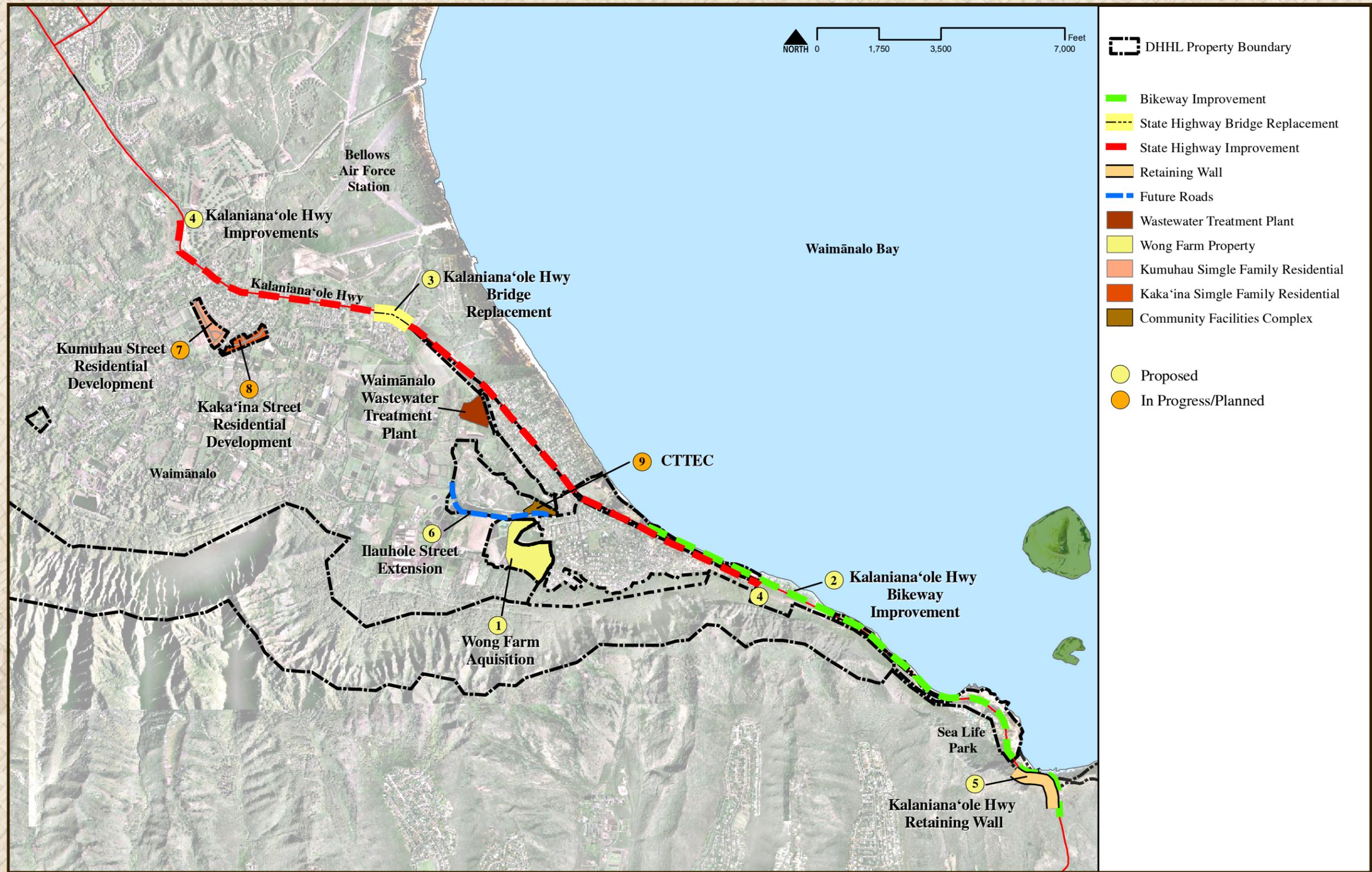
Kamehameha Schools' Extension Education Program provides career education and lifelong learning opportunities for Hawaiian youth and adults.

Recreation & Other Resources - Olomana Golf Course, Waimānalo Beach Park, Kaiona Beach Park, Kaupō Beach Park, Makapu'u Beach Park, Waimānalo Regional Park, Waimānalo Bay State Recreational Area, Bellows Air Force Base, Ka Iwi Scenic Shoreline, horse-riding and rodeo facilities, churches and multiple historical / cultural sites.

DRAFT



Development Projects



Development Project Characteristics

1 Wong Farm Acquisition

- Cost: N/A
- Description: Negotiate transfer of lands, relocate lessee to another property for purpose of constructing new homes
- Status: DLNR has agreed to transfer lands to DHHL for Wong relocation. Need to develop formal agreement, relocation plan and subdivision of relocation site. Survey work underway.
- Est Comp: 2009

2 Kalaniana'ole Highway Bikeway, Waimānalo Beach Park to Makapu'u

- Cost: \$2.5 million
- Description: Provide a shared roadway with paved, continuous shoulder for bicycle use
- Status: Design work underway, \$1,000,000 for construction was requested in the FY 2008-2011 TIP
- Est Comp: N/A

3 Kalaniana'ole Highway, Bridge Replacement, Inoa'ole Stream Bridge

- Cost: \$8 million
- Description: Replace existing bridge with a larger bridge. Project to include improvements to roadway approaches, detour road, and utility relocations
- Status: Development money was requested in the FY 2008-2011 TIP for rights-of-way purchases and construction. A environmental impacts and design alternatives are being assessed.
- Est Comp: Construction pending design

4 Kalaniana'ole Highway Improvements, Olomana Golf Course to Waimānalo Beach Park

- Cost: \$40 million
- Description: Construction of turning lanes, sidewalks, wheelchair ramps, bike paths or bike lanes, traffic signal upgrades, utility relocation, and drainage improvements. Planned to be developed in four phases.
- Status: Construction bid opening July 2008 for Phase I. Construction to begin December 2008.
- Est Comp: Phase 4 construction to begin in 2015

5 Kalaniana'ole Highway Retaining Wall at Makapu'u

- Cost: \$12,600,000
- Description: Construction and/or repair of a retaining wall
- Status: Design is completed. Funding received. Construction bid expected August 2008
- Est Comp:

6 Ilauhole Street Extension

- Cost: \$100,000 for planning and design
- Description: Improvements to extend Ilauhole Street to connect with Waikupunaha Street
- Status: WHHA requested \$60,000 in state funding for planning and design of road extension. Funding not received but DHHL is resubmitting the request in the FY 2009 CIP budget.
- Est. Comp: 2010

7 Kumuhau Street Residential Development

- Cost: \$6.43 million for engineering and site construction
- Description: Development of 52 new single family homes
- Status: 50 leases awarded July 2006. Groundbreaking held June 2008
- Est Comp of site construction: July 2009

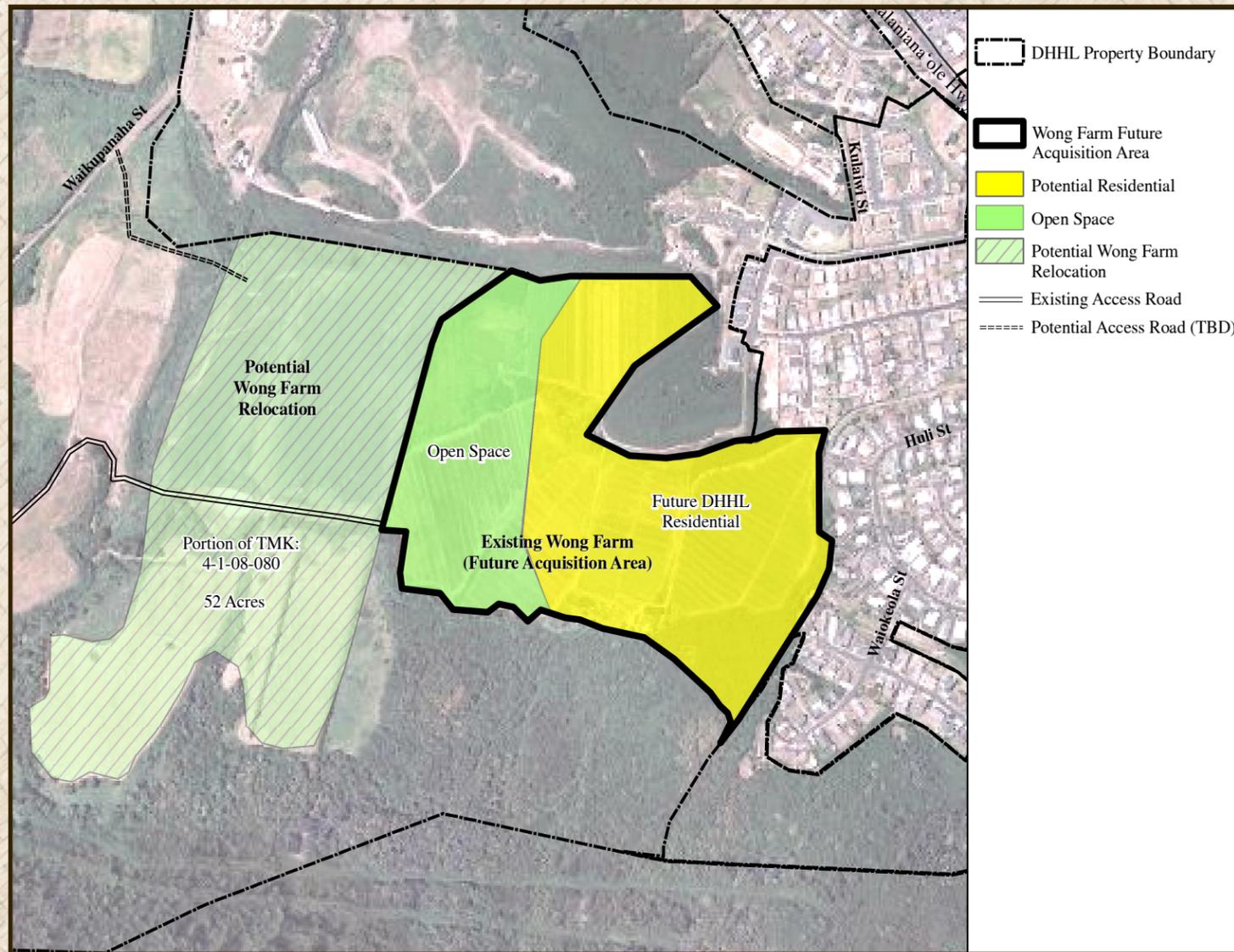
8 Kaka'ina Street Residential Development

- Cost: \$9.55 million for engineering and site construction
- Description: Development of 50 new single family homes
- Status: 50 leases awarded July 2006. Construction plans underway. Construction to begin April 2009
- Est Comp of site construction: April 2010

9 Community Technology, Telehealth and Employment Center (CTTEC)

- Cost: \$2.5 million
- Description: Phase 4 of the Waimānalo Hawaiian Homes Association Community Facilities Complex to provide a new services and employment-generating center for technology-related activities
- Status: Siting agreement is being developed. Planning and design funding are being requested
- Est Comp: 2010

Priority Project: Wong Farm Acquisition & Relocation



Partners - DHHL, DLNR, Wong Farms, and UH

Location - Wong Farms, behind quarry location

Cost - N/A

Status - DLNR has agreed to transfer land to UH and DHHL, contingent upon completion of a relocation plan. A topographic survey is underway to determine the boundaries for the Wong Farm and provide a tool to discuss future road access to the farm.

Description - DHHL has selected the Wong Farm parcel as part of the settlement under Act 14. On February 23, 2007, the Board of Land and Natural Resources approved the issuance of a direct lease to the University of Hawaii, College of Tropical Agriculture and Human Resources (CTAHR), and a fee simple conveyance of state lands to the Department of Hawaiian Home Lands (DHHL) on approximately 335 acres of state lands at Waimanalo, known as the former Meadow Gold Dairies site, further identified by Tax Map Key Nos. (1) 4-1-08:5 & 80 & (1) 4-1-26:4. The UH-CTAHR will get approximately 283 acres and DHHL will get 52 acres, more or less. The exact area will be worked out between UH and DHHL. The purpose of the subdivision is to allow DHHL to relocate the Wong Farm to the newly subdivided parcel so that DHHL can develop homestead on its existing farm lot under Tax Map Key No. (1) 4-1-8:79. The subdivision process involves approval by the City and County of Honolulu and is targeted for December 2009. Once subdivision approval is granted for the new Wong Farm, operations will be relocated and DHHL will begin work on a proposed 200 unit residential subdivision.

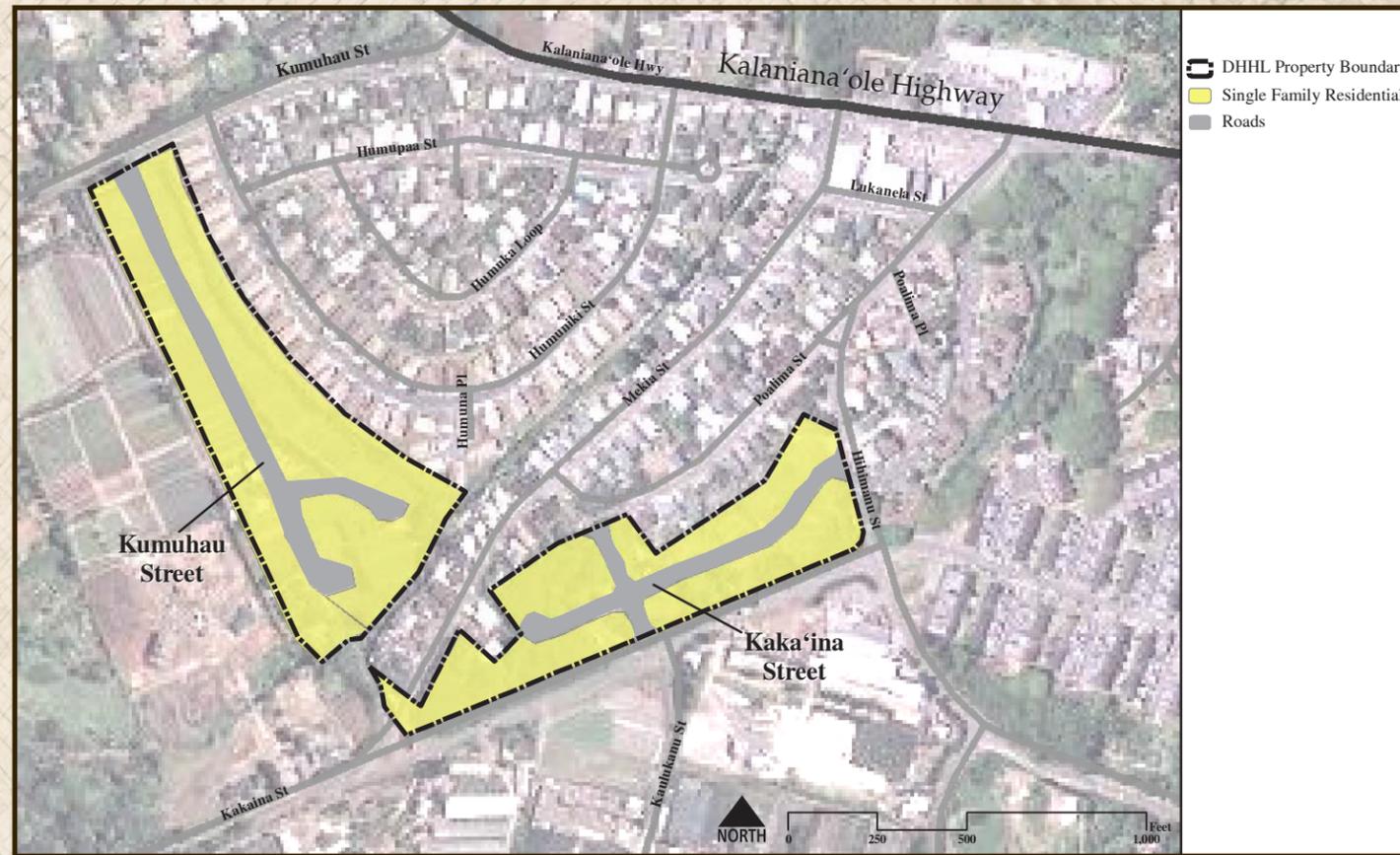
Estimated Completion Date - 2009



Wong Farms



Priority Projects: Kumuhau/Kaka'ina Street Residential Development



Kumuhau

Partners - DHHL

Location - Southeast of Bellows Air Force Station

Cost - \$6.43 million for engineering and site construction

Status - 50 undivided interest leases awarded. Design and planning work on the Kumuhau parcel has begun. Groundbreaking held June 2008.

Description - In July 2006, DHHL awarded 50 undivided interest leases for the Kumuhau parcel. Development of 52 single family homes. Planning and design work on the Kumuhau parcel is expected to be completed by November 2007. Funding for site construction (\$7 million) will be included in DHHL's FY 2007-2008 CIP budget. Site improvements expected to be completed by June 2009 with home construction to follow.

Estimated Completion Date - The Kumuhau parcel will be ready for house construction around July 2009.

Kumuhau



Kaka'ina

Partners - DHHL

Location - Southeast of Bellows Air Force Station

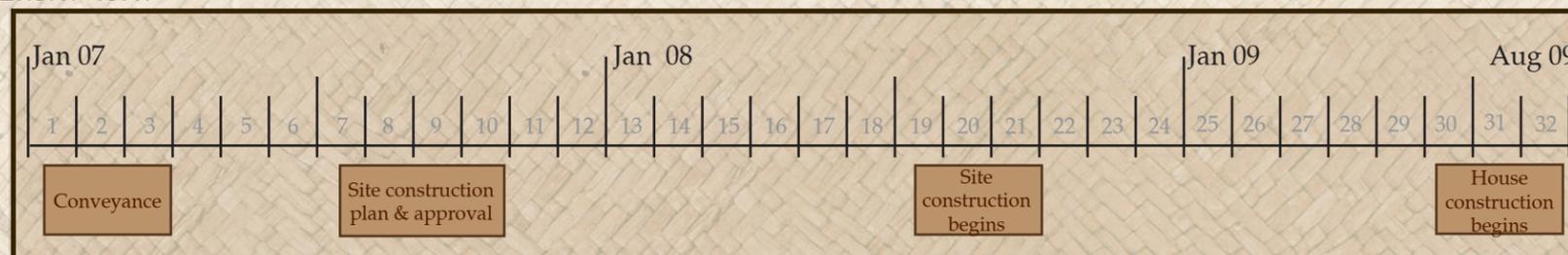
Cost - \$9.55 million for engineering and site construction

Status - 50 undivided interest leases awarded.

Description - In July 2006, DHHL awarded 50 undivided interest leases for the Kaka'ina parcels. There will be approximately 50 single family lots. Conveyance for the Kaka'ina parcel was completed in February 2007. Construction plans are underway. Construction is expected to begin in April 2009 with completion targeted for April 2010.

Estimated Completion Date - Site construction for the Kaka'ina parcel is scheduled for completion in April 2010.

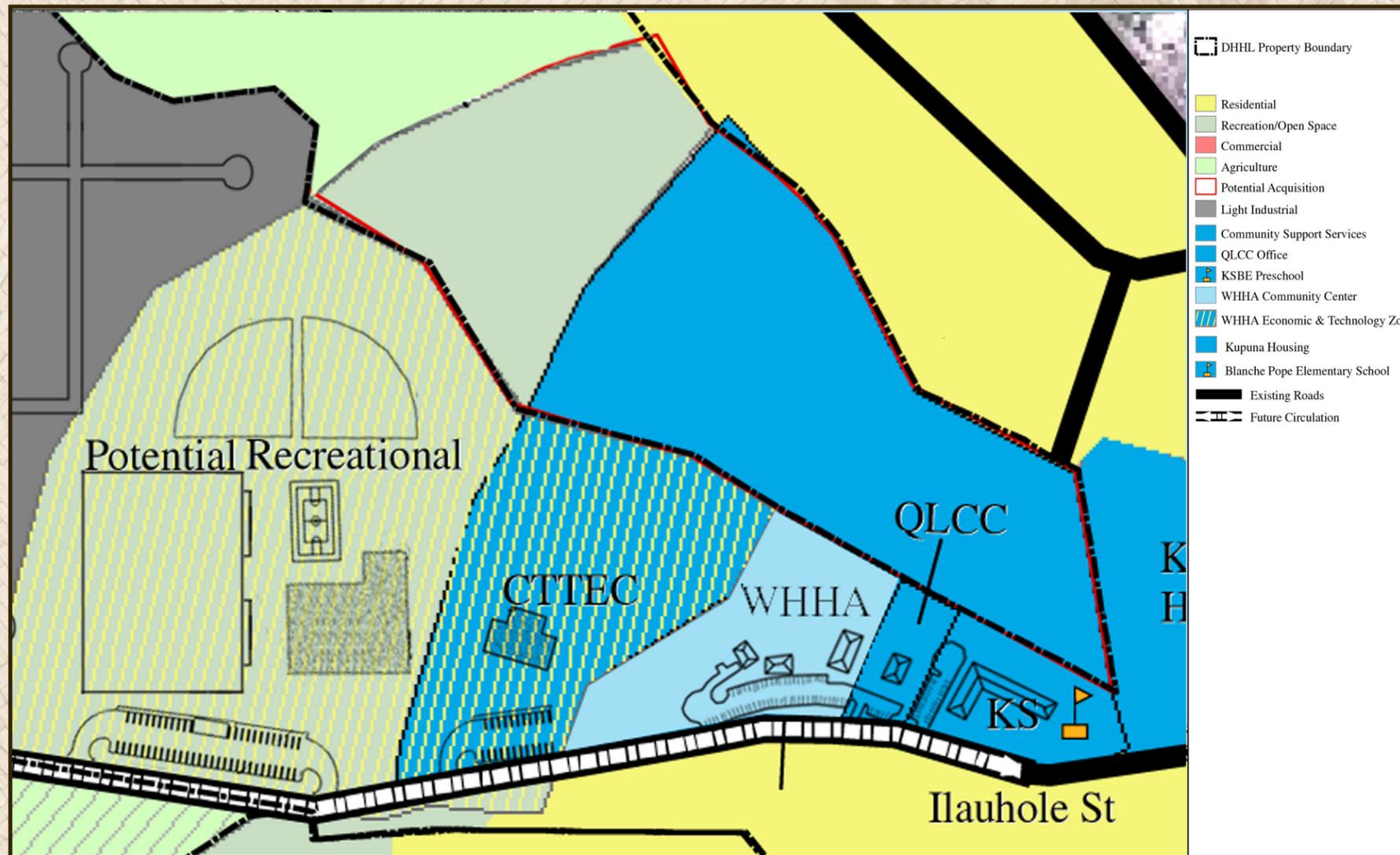
Kaka'ina



DRAFT



Priority Project: Community Technology, Telehealth and Employment Center (CTTEC)



Potential Partners - DHHL, WHHA

Location - Waimānalo Hawaiian Homes Association Community Facilities Complex

Cost - Estimated at \$2.5 million dependent upon excavation and grading requirements, and final design. Planning, design, and permitting is estimated at \$100,000 for a new road and \$298,000 for CTTEC.

Status - DHHL and WHHA are working out an agreement for locating the new CTTEC facilities in the old quarry. WHHA is also seeking preliminary planning and design funding the building and a road to access the area.

Description - Phase 4 of the Waimānalo Hawaiian Homes Association Community Facilities Complex focuses on creating an “Economic and Technology Zone” that will be the services and employment-generating center for technology-related activities. The new Community Technology, Telehealth and Employment Center (CTTEC) facilities will provide internet access, distance learning, and technology training to residents. It will also provide access to telehealth services and high technology and information industry business incubation services in partnership with local schools, community colleges, Native Hawaiian Health Systems and community health centers and other non-profit organizations and private businesses. The CTTEC will be a gateway for community learning, health information and related services, employment training, and e-commerce business development.

The Economic and Technology Zone concept includes locating a multi-tenant retail business center with state-of-the-art office space nearby on Kalanianaʻole Highway to provide a retail outlet for businesses’ products and services developed at the CTTEC. The retail center will provide additional employment and entrepreneurial opportunities for homestead residents. The center will be designed to include a multi-media studio, a made-in-Waimānalo products shop, a café, and 4 or more market rate, high tech enabled office/retail spaces with shared office equipment.

In addition, Ilauhole Street will be extended beyond the Community Facilities Complex to connect with Waikupunaha Road in order to provide greater accessibility to the Economic and Technology Zone from both the North and South ends of Waimānalo.

Expected Completion Date - 2010



DRAFT



Project Tracking

Project	Type	Lead	Earlier Actions	4Q 2007	1Q 2008	2Q 2008	3Q 2008	4Q 2008	1Q 2009	2Q 2009	3Q 2009	4Q 2009	1Q 2010	2Q 2010
Kumuhau	Residential	DHHL	50 Leases awarded 4Q 2006 Site plans completed 1Q 2007 Site construction began 3Q 2007				Site construction begins				House construction begins			
Kaka'ina	Residential	DHHL	50 Leases awarded 4Q 2006		Site plans completed	Site construction begins				Site construction completed		House construction begins		
Community Technology Telehealth & Employment Center	Community Service	WHHA	Submission for funding 2Q 2007	Funding secured; conceptual drawings		Schematic & construction documents submitted	Permit applications		Permit approvals	Construction begins				Project completed
Wong Farm Acquisition	Residential	DHHL	Relocation plan approved by BLNR 2Q 2007 Subdivision planning begins 3Q 2007			Survey property						Acquisition completed		
Ilauhole Street Extension	Highway improvements	DHHL WHHA		Funding requested										Project completed
Kalaniana'ole Highway Bikeway	Highway improvements	DOT	Design process started 4Q 2006						Construction funds requested					
Kalaniana'ole Highway Bridge Replacement	Highway improvements	DOT	Design process started 4Q 2006	Design in progress									Rights-of-way purchased	
Kalaniana'ole Highway Improvements	Highway improvements	DOT	Design process started 4Q 2006 Bid process for construction 3Q 2007		Right-of-way				Phase III design				Phase II construction	
Kalaniana'ole Highway Retaining Wall	Highway improvements	DOT	Design process started 4Q 2006			Bid process for construction								



Priority Project



Other Important Projects to Track



Contact Information

DEPARTMENT OF HAWAIIAN HOME LANDS

Hale Kalanian'ole
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

Phone (808) 620-9500

Fax (808) 620-9599

Micah Kane
Darrell Yagodich

www.hawaii.gov/dhhl

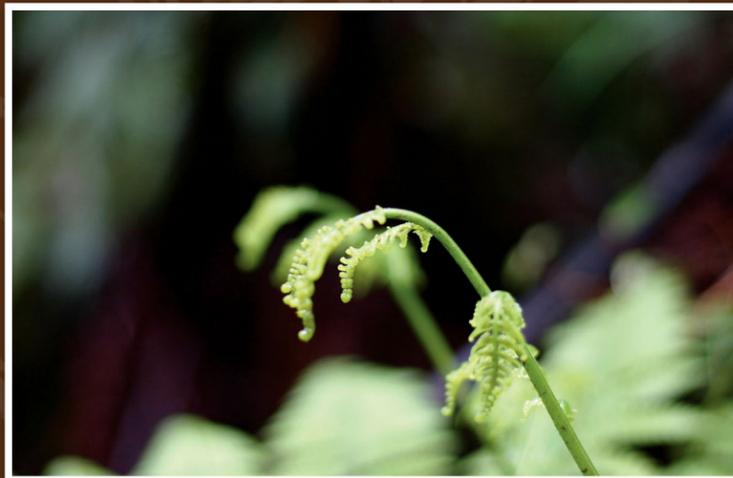
Prepared by:



DRAFT

WAIMĀNALO





DEPARTMENT OF HAWAIIAN HOME LANDS