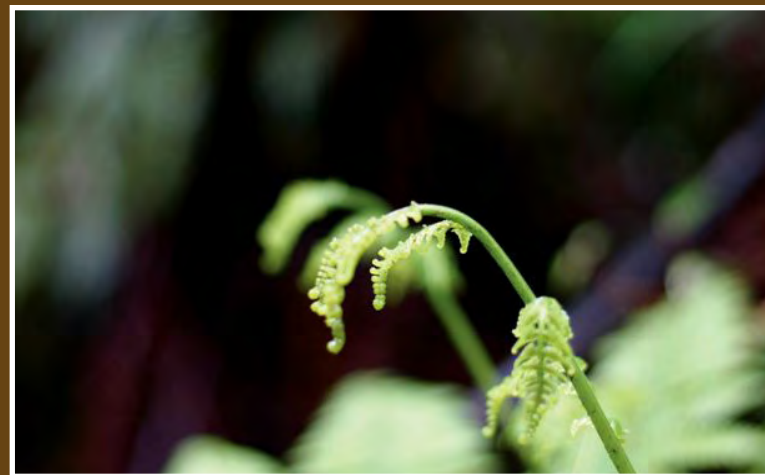


# WAI'ANAE AND LUALUALEI



## *REGIONAL PLAN*

JULY 2010

DEPARTMENT OF HAWAIIAN HOME LANDS





Kaulana H. R. Park  
Chairman  
Hawaiian Homes Commission

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Donald S. M. Chang (O‘ahu)  
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Prepared by: Townscape, Inc.

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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. Wai’anae and Lualualei region is one of the five 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 1). 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.

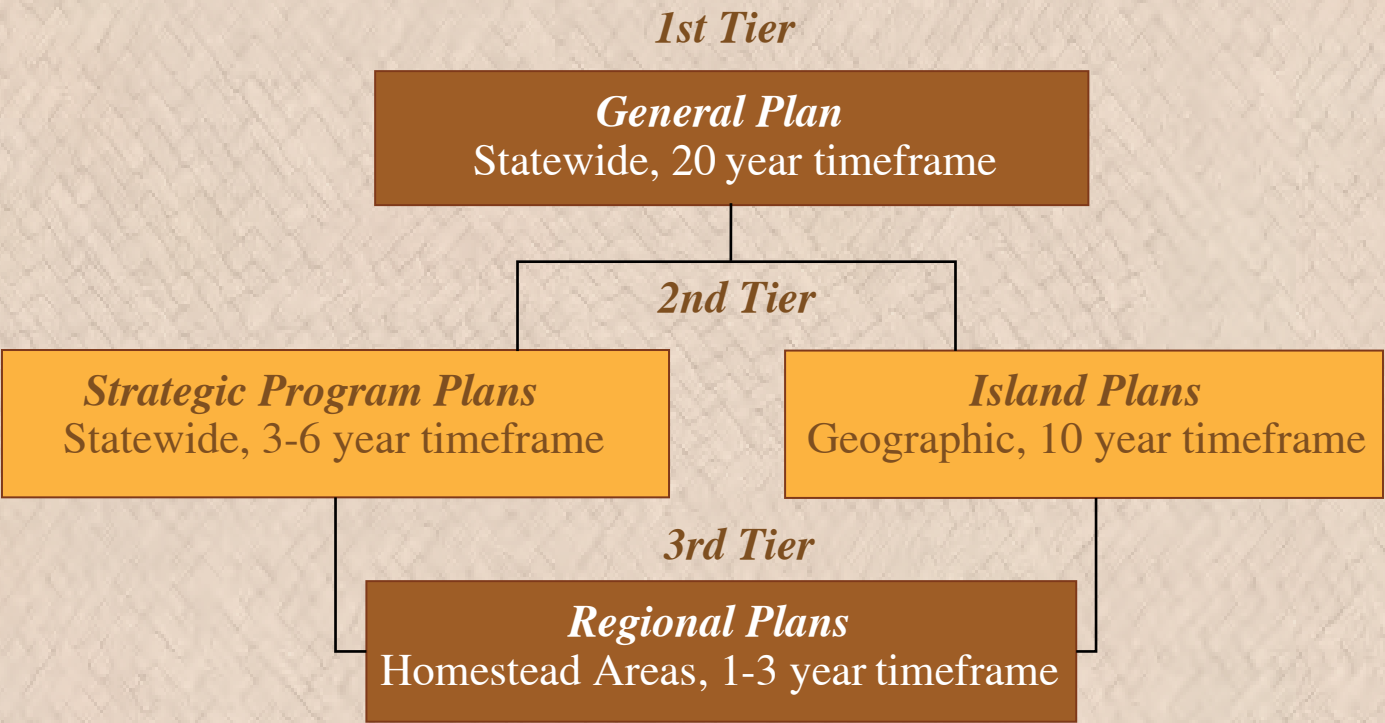


Figure 1. DHHL's Planning System





# I. Introduction - Regional Plan 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 Figure 2. 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 are 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 Plan 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.



Figure 2. The Regional Plan Development and Update Process



# DHHL Partnering Benefits

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 of these are highlighted here.

## 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. A partnership with Kauai Habitat for Humanity resulted in 20 homes in Hanapepe and a partnership with Kokua Housing resulted in 41 self-help homes at Laiopua in Kona. In these types of partnerships, DHHL provides the land, secures federal grants, and provides access to, or assistance in, acquiring tax credits, subsidies, or other financing.

## 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 Hawaii, and the Waiawa-Waipahu water system on Oahu. 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 Lōkahi, the Office of Hawaiian Affairs, Hawaiian community organizations, and the counties. These multi-service complexes are housing preschools, offices, meeting facilities, health clinics, and activity centers. For example, the 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' homeownership counseling center, and a Kamehameha preschool. The Keaukaha homestead on Hawai'i is served by a County park and gymnasium next to an elementary school, DHHL and OHA offices, and a Kamehameha 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 'Aina Hou Management Area, the Pālā'au and Mo'omomi preserves, the Kalaupapa peninsula, and the Kamaaoa-Pu'ueo 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. A three-mile stretch of ocean front Hawaiian home lands property at Anahola on Kaua'i is maintained as open space and made part of the County's walking/biking system, which will eventually stretch from Lihū'e to Moloa'a.



Self-Help Housing in Kapolei



Community Center in Waimānalo



Ka Waihana o ka Na'auao Charter School, Located on the Former Nānāikapono Elementary School Site in Nānākuli



## II. Homestead and Regional Profile - Regional Demographics

The DHHL Waiʻanae and Lualualei Region consists of the lands surrounding the Hawaiian Homesteads in Waiʻanae Valley and Lualualei. This corresponds to the U.S. Census CDPs (Census Designated Places) of Waiʻanae and Māʻili.

Total population of the Region is approximately 16,449, of whom more than 25 percent are native Hawaiian. Compared to the general population of Oʻahu and Hawaiʻi, Waiʻanae and Lualualei have a higher proportion of younger people.

Overall, the Region has lagged behind the rest of Oʻahu and Hawaiʻi in terms of educational attainment and economic development. Those with a bachelors degree or higher account for less than eight percent of the area’s population, a number that is significantly lower than the proportion of those with bachelors degree or higher on Oʻahu and in the State. Also significantly lower is the per capita income of the area, which is only about 61 percent of the per capita income of the rest of Oʻahu and Hawaiʻi. It is thus not surprising that Waiʻanae and Lualualei have a higher percentage of families below the poverty level when compared to the City and State averages.

The Waiʻanae and Lualualei Region has higher percentage of owner-occupied housing units when compared to the rest of Oʻahu and Hawaiʻi. This higher proportion of homeownership may look encouraging, however, these statistics have to be assessed within the context of the substantially lower income level of the Region and the well documented homelessness problem on the Waiʻanae coast. Moreover, the Region’s average household size is significantly higher when compared to the City and State average.

DHHL has a significant presence in Waiʻanae and Lualualei, as approximately 12 percent of the Region’s total housing units are on lands owned by the Department (Homestead units). Additionally, almost 15 percent of the area’s population resides in these units. DHHL currently owns three Homestead parcels in the area: the Waiʻanae Kai Hawaiian Homesteads, the Waiʻanae Valley Hawaiian Homesteads, and the Freitas and Carlos Dairy Projects. Approximately 73 percent of the total Homestead units are located in the Waiʻanae Valley Homesteads. A recent field visit to the Homestead parcels revealed somewhat dilapidated condition of a number of the older homes at the Waiʻanae Valley Homesteads.

<u>General Characteristics</u>	<u>Waiʻanae Region*</u>	<u>Oʻahu</u>	<u>Hawaiʻi</u>	<u>U.S.</u>
Total Population	16,449	876,156	1,211,537	281,421,906
Median age	28.6	35.7	36.2	35.3
<u>Social Characteristics</u>				
High school graduate or higher	78%	84.8%	84.6%	80.4%
Bachelors degree or higher	7.2%	27.9%	26.2%	24.4%
<u>Economic Characteristics</u>				
Median household income	\$46,252	\$51,914	\$49,820	\$41,994
Per capita income	\$13,267	\$21,998	\$21,525	\$21,587
Families below poverty level	18.3%	7.0%	7.6%	9.2%
<u>Housing Characteristics</u>				
Total housing units	4,427	315,988	460,542	115,904,641
Average household size	4.13	2.95	2.92	2.59
Owner-occupied housing units	60.5%	54.6%	56.5%	66.2%
Renter-occupied housing units	39.5%	45.4%	43.5%	33.8%
Median value of single-family owner-occupied homes	\$166,950	\$309,000	\$272,700	\$119,600
<u>Homestead Characteristics</u>				
Homestead units	546 (12.3%)	2,897 (0.9%)	5,875** (1.3%)	
Total population in Homestead units	2,411 (14.7%)	14,556 (1.7%)		

Sources: U.S. Census Bureau, 2000 and Profiles of Homestead Communities within the Hawaiian Home Lands Based on Census 2000 Data;

\*Data for “Waiʻanae Region” is based on the Waiʻanae and Māʻili Census Designated Places, according to the U.S. Census.

\*\*DHHL 2003 Annual Report, based on total number of residential leases.



# Community Leaders and Stakeholders

Waiʻanae Coast  
Neighborhood Board #24  
**Jo Jordan**  
Chair



Waiʻanae Harbor  
**William Aila**  
Harbor Master



Waiʻanae Valley Homestead  
Community Association  
**Lokana Keliʻikoa Pua**  
President



Waiʻanae Kai Homestead  
Community Association  
**Herbert Hew Len**  
President



Kaʻala Farm  
**Eric Enos**  
Program Director



Waiʻanae Coast Community  
Alternative Development  
Corporation (WCCADC)  
**Puanani Burgess**



Waiʻanae Kai Homestead  
Community Association  
**Beatrice Hew Len**



**Thomas Zizzi**  
Law Office of Thomas C. Zizzi



## Waiʻanae Coast Neighborhood Board

Subdistrict 1 Representative  
Subdistrict 1 Representative  
Subdistrict 2 Representative  
Subdistrict 2 Representative  
At Large  
At Large  
At Large

Mālama Mākua

Hawaiʻi Coalition of Christian Churches

Leeward Community College, Chancellor

Nānākuli - Waiʻanae Schools Complex, Superintendent

Waiʻanae and Nānākuli Boys & Girls Club, Director

MAʻO Farm (youth training program)

Waiʻanae Coast Comprehensive Health Center,  
Executive Director

**Suzanne E. Leonida**  
**Johnnie-Mae L. Perry**  
**Michael Anderson**  
**Calvin Endo**  
**Frank D. Slocum**  
**Albert H. Silva**  
**Bob Smith**  
**Fred Saunders**  
**Fred Dodge**  
**Pastor Wade “Boo” Soares**  
**Manny Cabral**  
**Lisa DeLong**  
**Puamamo Waʻa**  
**Kamuela Enos & Kukui**  
**Maunakea-Forth**  
**Richard Bettini**

## Community Planners

Consuelo Foundation, CEO  
Queen Liliʻuokalani Trust, Waiʻanae Unit Manager  
Hawaiian Community Development, CEO  
Kamehameha Schools, CEO  
Mākaha Elementary School, Principal  
Waiʻanae Elementary School, Principal  
Leihoku Elementary School, Principal  
Māʻili Elementary School, Principal  
Waiʻanae Intermediary School, Principal  
Waiʻanae High School, Principal

***The organizations listed below have also been recognized by the Waiʻanae community as important leaders and stakeholders:***

ʻŌpelu Fishermen  
Tamura’s Supermarket  
Habitat for Humanity

Kaiser Permanente  
Waiʻanae Civic Club  
Māʻili Bible School

**Hoʻoipo Decambra**  
**Billie Hauge**  
**Geri Marullo**  
**Leilani Collins**  
**Kali Watson**  
**Dee Jay A. Mailer**  
**Lynn Okamura**  
**John Wataoka**  
**Randall Miura**  
**Disa Hauge**  
**Raechelle Fabrao**  
**Nelson Shigeta**

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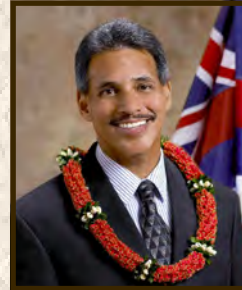




## II. Homestead and Regional Profile - Elected and Appointed Officials



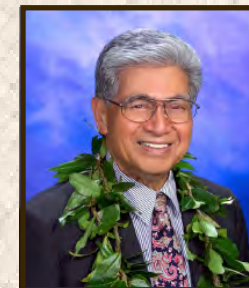
**Linda Lingle**  
*Governor*



**Duke Aiona**  
*Lt. Governor*



**Daniel K. Inouye**  
*U.S. Senator*



**Daniel K. Akaka**  
*U.S. Senator*



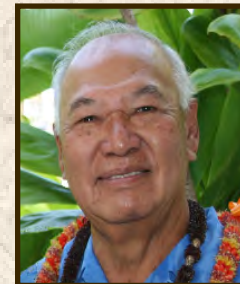
**Mazie Hirono**  
*U.S. Representative  
Congressional District 2*



**Kaulana H.R. Park**  
*Hawaiian Homes Commission  
Chairman*



**Trish Morikawa**  
*Hawaiian Homes Commission  
O'ahu Commissioner*



**Francis K. Lum**  
*Hawaiian Homes Commission  
O'ahu Commissioner*



**Donald S. M. Chang**  
*Hawaiian Homes Commission  
O'ahu Commissioner*



**Haunani Apoliona**  
*OHA Chairperson*



**Mufi Hanneman**  
*Honolulu Mayor*



**Todd K. Apo**  
*City Council Member  
District 1*



**Colleen Hanabusa**  
*State Senatorial  
District 21*



**Maile S. L. Shimabukuro**  
*State House of Representatives  
District 45*



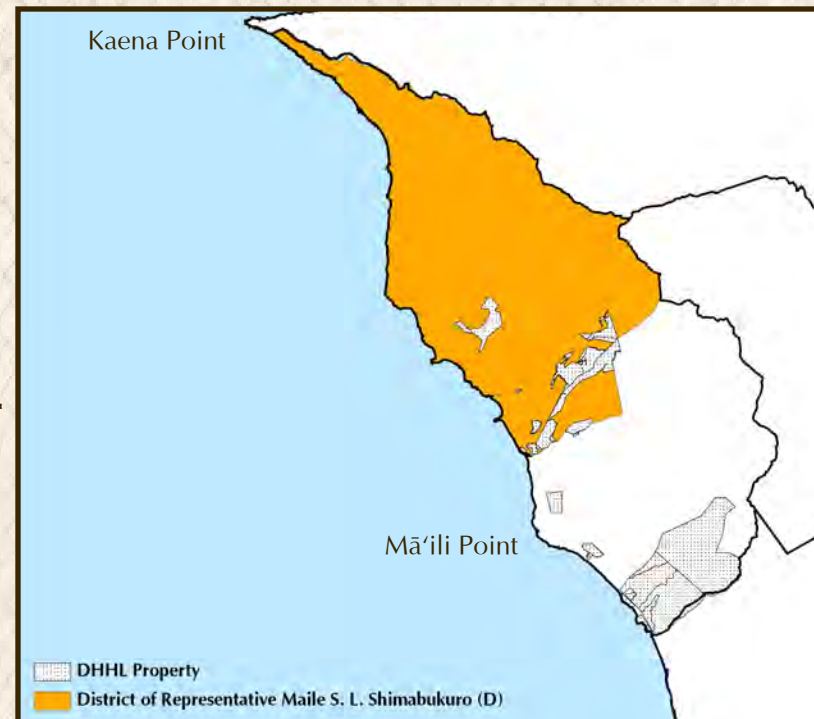
**Walter M. Heen**  
*OHA Trustee, O'ahu Chair*

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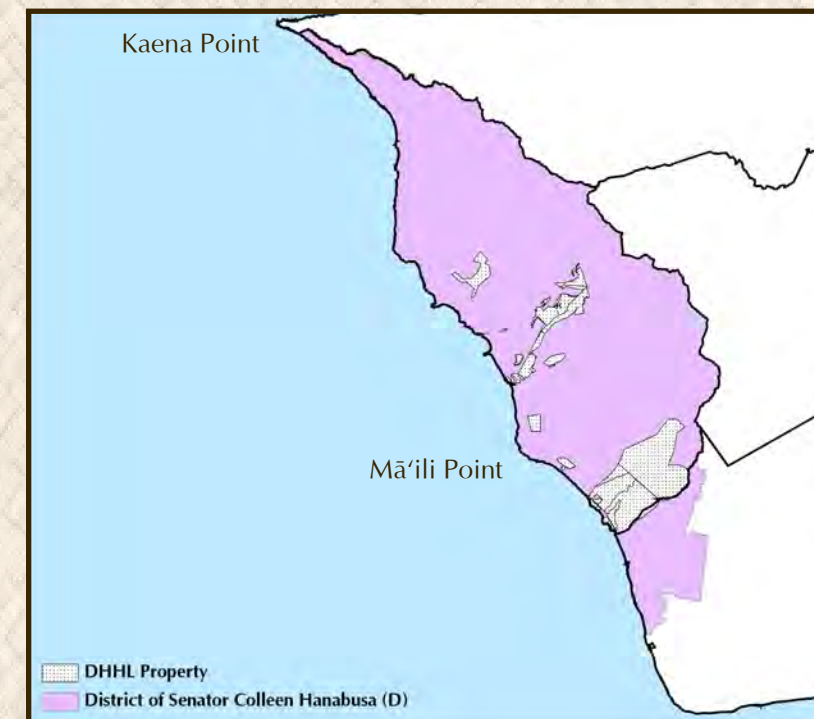


# Political Boundaries

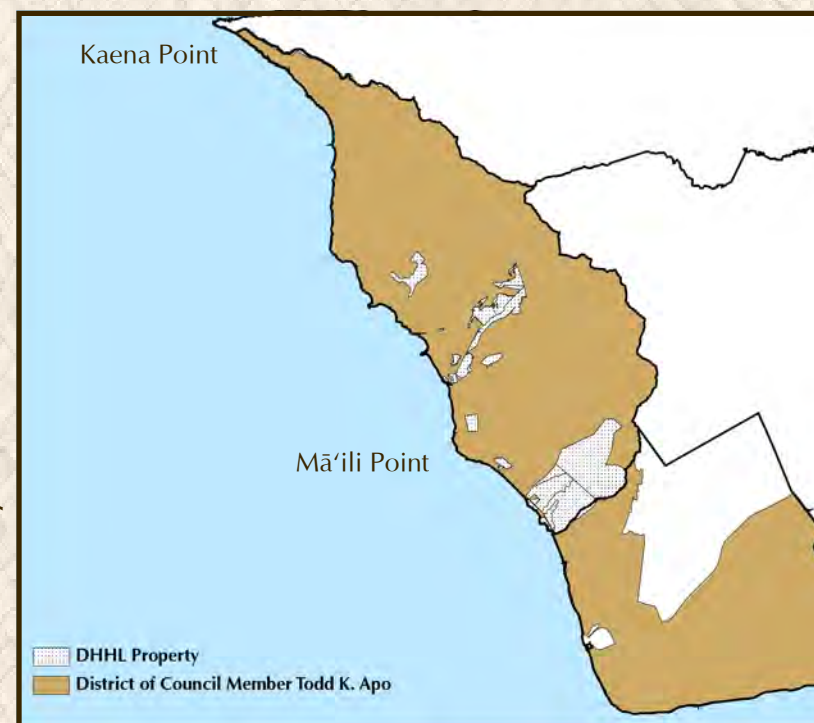
State House of Representatives District 45



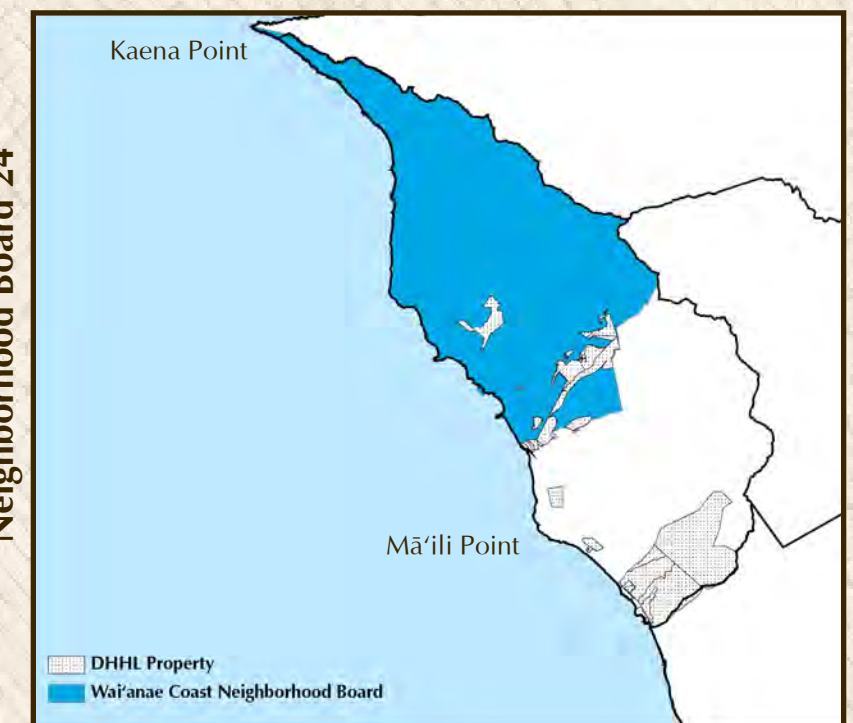
State Senatorial District 21



City Council District 1



Neighborhood Board 24

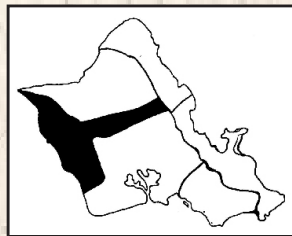




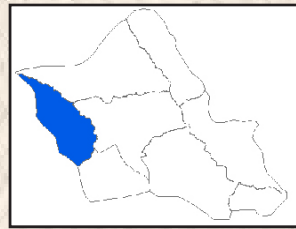
### III. Regional Land and Development - History and Cultural Aspects of the Area

#### The Name

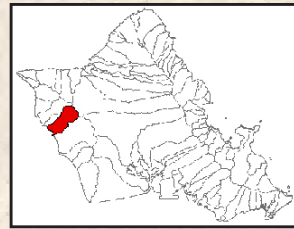
The name Wai'anae means waters (wai) of the striped mullet ('anae). As a location, Wai'anae refers to both the larger district, which encompasses the western coast of O'ahu, as well as the specific ahupua'a. Traditionally, the area was designated as a moku, which included a narrow piece of land that extended across the middle of the island, known as Wai'anae uka.



Wai'anae Moku



Wai'anae District



Wai'anae Ahupua'a

#### Wahi Pana

- The most sacred place in Wai'anae is generally considered to be Mount Ka'ala, easily recognizable as the highest point of the Wai'anae ahupua'a. The peak reaches 4,040 feet, which is also the highest point on O'ahu.
- Pu'u o Hulu - Pu'u Mā'ili'ili'i are hills bounding the lands of Mā'ili. Pu'u o Hulu was said to be a chief who was in love with Mā'ili'ili'i, one of twin sisters, but he could never tell the sisters apart when he saw them. A mo'o (mythical lizard) was said to have turned them all into hills, so Pu'u o Hulu remains there watching and trying to distinguish his loved one.
- Pu'u Pahe'ehe'e Heiau is located on the makai end of Pahe'ehe'e Ridge. The heiau is believed to have been a walled heiau of two or three divisions; completely destroyed with the enlargement of the Oriental Cemetery.
- Kahoali'i Heiau is located on the western side of Pu'u Pahe'ehe'e. The heiau is also known as Kamohoali'i Heiau. When Kahahana became ruler in 1773, he set out to restore the most important heiau. Kahahana was said to have restored Kahoali'i Heiau.
- There are numerous other sacred religious and house sites in Wai'anae and Lualualei ahupua'a.

#### Pre-Contact

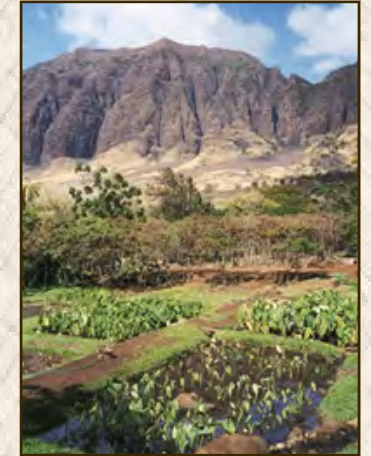
Population (moku): Estimated between 4,000 to 6,000 people, mostly residing in Wai'anae and Lualualei ahupua'a

Livelihood:

- Fishing
- Dry land agriculture
- Kalo farming

Land Use:

- Wai'anae ahupua'a: houses, religious sites, irrigated kalo lands in the mauka and makai areas and dry crop lands scattered throughout
- Lualualei ahupua'a: houses, religious sites, dry crop lands in upper areas, and irrigated lo'i in Kolekole Pass and Pūhāwai.



Restored ancient kalo lo'i at Ka'ala Farm

Source: Environment HI, Inc.

#### 1800s to mid-1900s

Population (moku): Drastically declined, estimated at approximately 500 people (1800s)

Livelihood:

- Changing from traditional subsistence to industrial
- Sandalwood trade lasted from 1811 to 1829

Land Use:

- Cattle ranching (Early 1800s - present)
- Sugar plantation (1878 - 1947)
- Hawaiian homesteaders (1920 - present)
- U.S. Military, Lualualei Naval Magazine Pearl Harbor (1933 - present)



Sugar plantation house at Haua Heiau

Source: CZM Hawai'i

Sources: McGrath, et al., 1973; Cordy, 2002; Sterling, E.P and Catherine C. Summers, 1979



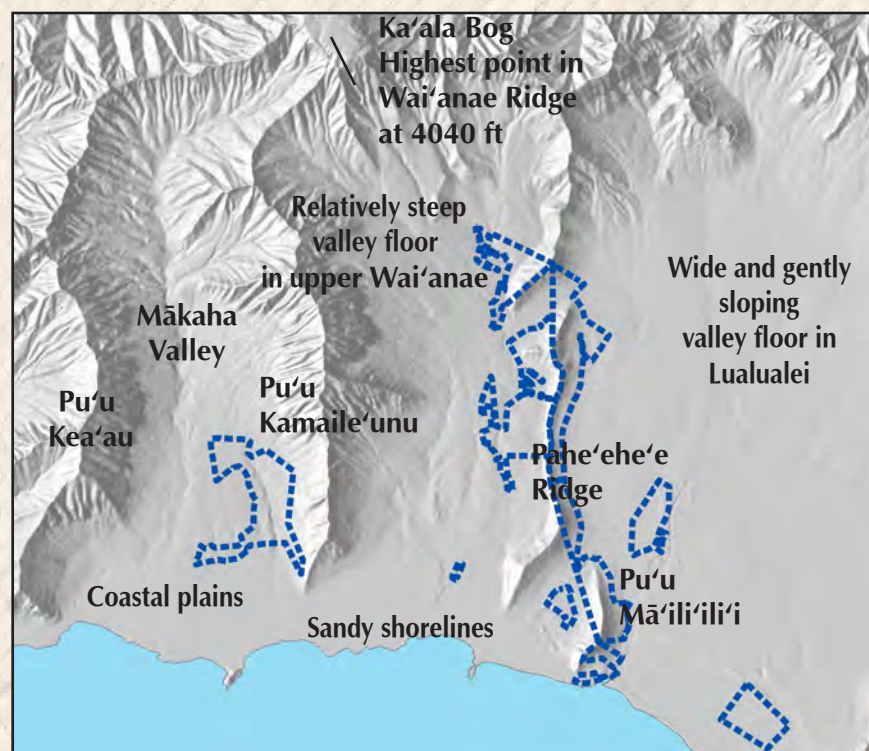


# Wai'anae and Lualualei Land and Natural Resources

## Climate

- The Wai'anae and Lualualei region has a generally arid climate
- The coastal area of the region receives 20 inches of rainfall per year
- In Wai'anae and Lualualei, rainfall gradually increases from 20 inches per year near the shore to 60 and 40 inches per year in the upper valley areas.

## Land Forms and Topography



## Geology

Wai'anae and Lualualei region is part of the Wai'anae Mountains, which was once a large shield volcano that formed a gently sloping dome. Overtime, the massive volcano began to erode from rain, wind, and wave actions resulting in wide and gently sloping valleys with dramatic hills dotting low lying areas, thus forming the dramatic features of Wai'anae today.

## Soils

- Coastal areas: coral outcrops and soils with thin topsoil over coral or sand
- Lower to mid-level elevation: scattered good agricultural soils especially along the main stream channels
- Upper ridges: steep, stony and rocky mountain lands

## Critical Habitat

A critical habitat is an area determined to have essential resources for the continued viability of threatened or endangered species. Several parts of the upper Wai'anae and Lualualei Valleys have been designated as critical habitats for 'elepaio birds and some native plants. Additionally, some wetlands in Lualualei Valley have been designated as waterbird critical habitats.

## Vegetation

- Pre-contact vegetation cover:  
The Wai'anae District was dominated by lowland dry forest and lowland dry shrubland and grassland. The lowland dry forest encompassed approximately 50 percent of the land area, primarily in the valleys. The lowland dry shrubland and grassland covered up to 20 percent of the land area and can be found primarily on the coastal plains.
- Modern vegetation:  
Non-native vegetation communities cover up to 96 percent of the landscape. Native communities can only be found on those lands that are generally inaccessible due to private ownership or rough, steep terrain. Lowland dry forests currently account for only about 0.06 percent of the vegetation and lowland dry shrubland and grassland account for only 0.14 percent of the vegetation.

## Water Resources

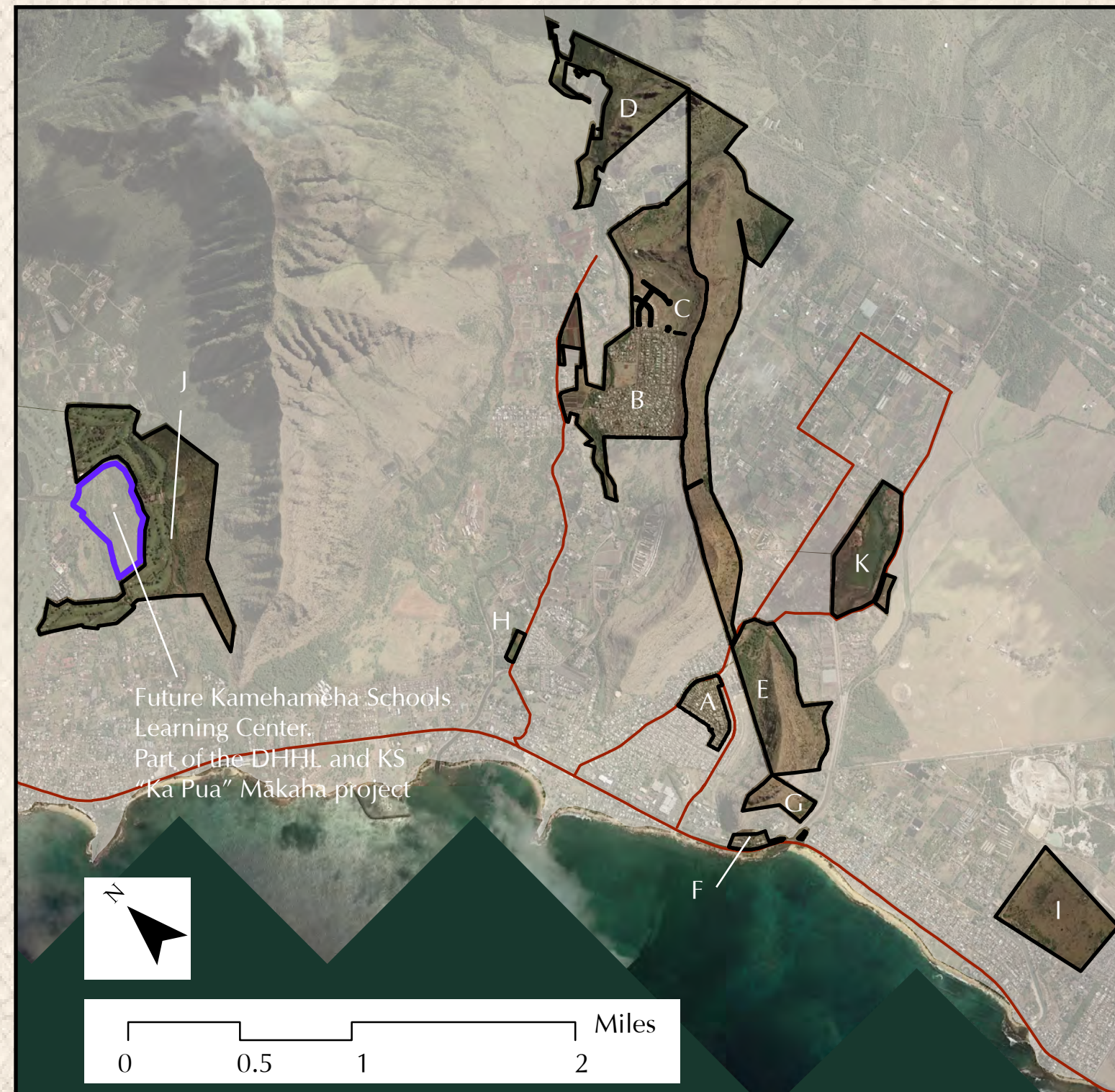
- Two streams are found in the Wai'anae and Lualualei region: Kaupuni Stream and Mā'ili'ili'i Stream. Both streams are "intermittent" or flowing only after significant rainfalls.
- Both Wai'anae and Lualualei have limited ground water resources. Federal and private water systems can be found in Lualualei. Approximately a quarter of all BWS water produced for the Wai'anae District comes from sources within the Wai'anae ahupua'a.
- The nearshore waters of Wai'anae and Lualualei are heavily utilized by residents and visitors. Nearshore water quality has been threatened by both current uses and historical military weapons disposal in the coastal area.

Sources:

Soil Survey for the Islands of Kaua'i, O'ahu, Maui, Molokai, and Lanai, State of Hawai'i, 1972; Volcanoes in the Sea: the Geology of Hawai'i, McDonald, et al., 1983; <http://www.state.hi.us/dbedt/gis/data>



### III. Regional Land and Development - Hawaiian Home Lands in Wai'anae and Lualualei Ahupua'a



#### DHHL PARCELS

- A** **Wai'anae Kai Hawaiian Homesteads**
  - 150 single-family residences on 22 acres; approximate population of 650
- B** **Wai'anae Valley Hawaiian Homesteads**
  - 396 single-family residences on 98 acres; approximate population of 1,760
- C** **Freitas & Carlos Dairy Projects**
  - Planned 32 single-family residences and 21 agricultural lots on 93 acres
- D** **Ka'ala Farm**
  - Native Hawaiian Cultural Center on 97 acres; TMK 8-5-05:36
- E** **Pāhe'ehe'e Ridge**
  - Planned 19 farm lots on 234 acres, site work completed
  - No houses built because area needs drainage plan and rock fall mitigation
- F** **Wai'anae Coast Comprehensive Health Center and Former City Baseyard Site**
  - 7.4 acres on TMKs 8-6-01:22, 40, 41, 46, & 57
- G** **Wai'anae Coast Comprehensive Health Center Site-2**
  - 19.8 acres land on TMKs 8-6-01: 25, 26, 27, 28
  - Currently leased to Wai'anae Coast Comprehensive Health Center for their facilities
- H** **Kaupuni Village**
  - Planned 18 house lots and a community center on a 3.353 acres
  - Lot construction is completed, first house is expected to be completed in 3rd quarter of 2010
- I** **Former Voice of America Site**
  - 89 acres on TMK 8-7-10:7; currently vacant
  - Title is held by the Federal GSA, pending transfer to DHHL
- J** **Proposed Lands for DHHL Homestead Development in Partnership with Kamehameha Schools in the Ka Pua Mākaha Project**
  - 234 acres on TMKs 8-4-02:05, 56, 57; currently used as golf course
- K** **Lualualei Lands**
  - 74.533 acres on TMKs 8-6-03:1-3, 51-52, and 8-6-14:1
  - Mostly in agricultural use

**TOTAL:** • 546 existing single-family residences  
• Approximate population of 2,410

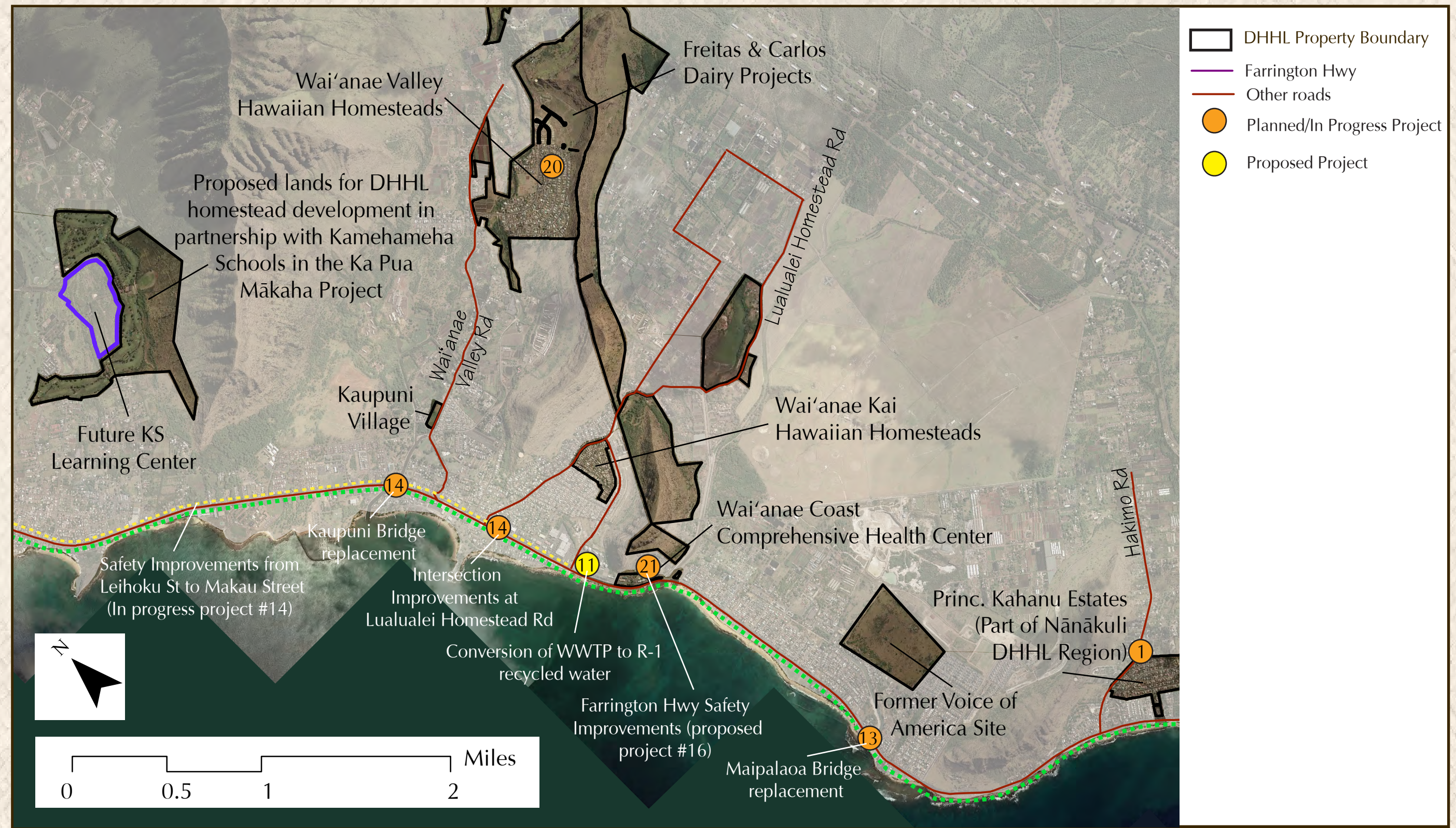




**Reserved for information on the proposed DHHL and  
Kamehameha Schools “Ka Pua” Mākaha  
Project, pending beneficiary consultation and  
Hawaiian Homes Commission approval**



### III. Regional Land and Development - Map of Development Projects





### Water

#### *Planned/In Progress*

- ① Lualualei Line Booster Improvements
- ② Wai'anāe 242 Reservoir No. 2
- ③ Wai'anāe District Water Main Replacement

#### *Proposed*

- ④ Increase Potable Water Imports from the Pearl Harbor Aquifer
- ⑤ BWS Kalaeloa Desalination Plant

### Drainage

#### *Planned/In Progress*

- ⑥ Various City and County Drainage Improvements

#### *Proposed*

- ⑦ Wai'anāe District Local Drainage Improvements Plan and Program
- ⑧ Sediment Control Program
- ⑨ Implementation of Flood Study Recommendations for Lualualei

### Wastewater

#### *Planned/In Progress*

- ⑩ Phased Program for Replacement of Old Sewer Lines

### Wastewater - Continued

#### *Proposed*

- ⑪ Conversion of Wai'anāe Wastewater Treatment Plant to R-1 Recycled Water
- ⑫ Coordination between City and DHHL for Sewer Connection Program

### Roads and Transit

#### *Planned/In Progress*

- ⑬ Bridge Replacement
- ⑭ Various Improvement Projects along Farrington Highway
- ⑮ Honolulu High-Capacity Transit Corridor Project

#### *Proposed*

- ⑯ Farrington Highway Safety Improvements
- ⑰ Emergency Access Road
- ⑱ Wai'anāe Second Access Highway
- ⑲ TheBus Service Expansion

### Community/Public Facilities

#### *Planned/In Progress*

- ⑳ Kaupuni Neighborhood Park
- ㉑ Wai'anāe Coast Comprehensive Health Center - Mālama Recovery Center

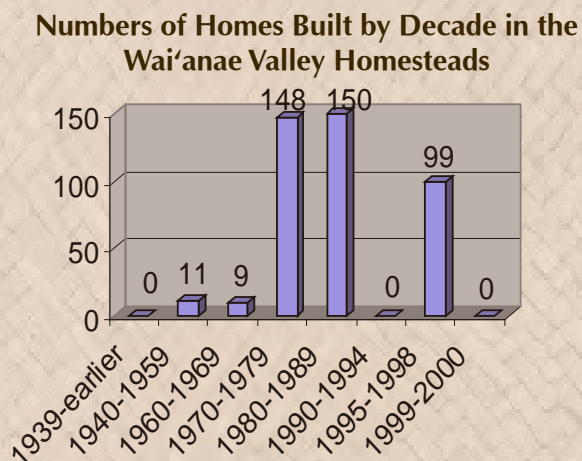
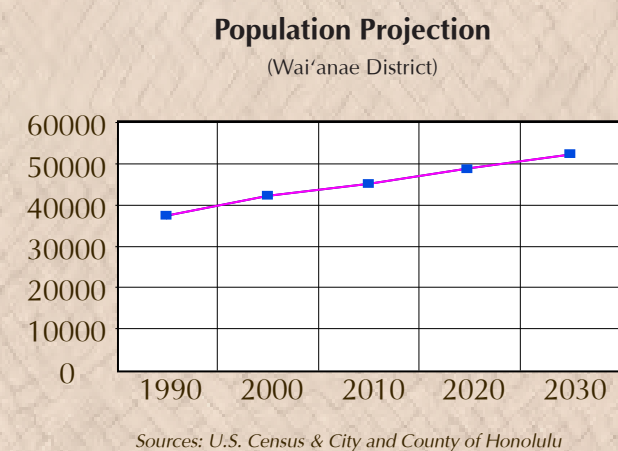
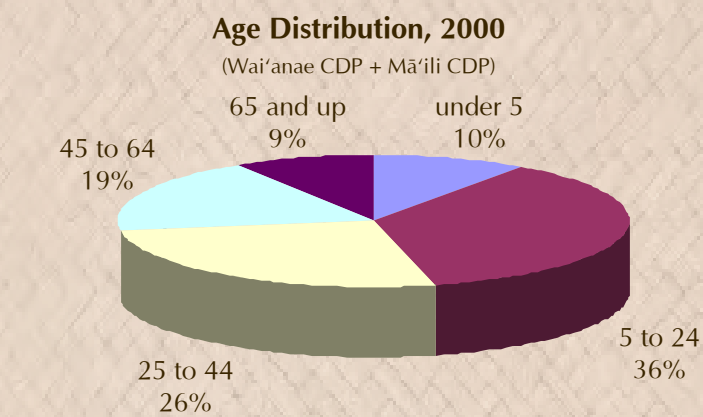
\*Note: Projects that are not demarcated on map are either outside of the map boundaries or do not correspond to a specific location.



# III. Regional Land and Development - Development Characteristics and Trends

## POPULATION BASE AND HOUSING STOCK

The Waiʻanae DHHL Area consists of the lands surrounding the Hawaiian Homesteads in Waiʻanae Valley and Lualualei. This corresponds to the U.S. Census CDPs (Census Designated Places) of Waiʻanae and Māʻili. The area has a stable population base, and is home to approximately 16,500 people, of whom more than 25 percent are native Hawaiian. DHHL has a significant presence there, as approximately 2,410 people, or 15 percent of the population, live in the Waiʻanae Valley and Waiʻanae Kai Hawaiian Homesteads. Over 20 percent of the total housing units are DHHL units. Those areas are basically built out, and have some aging housing stock and infrastructure. New lots are being prepared as part of the Freitas & Carlos Dairy Projects, the Consuelo Foundation Project, and the Kaupuni Village.



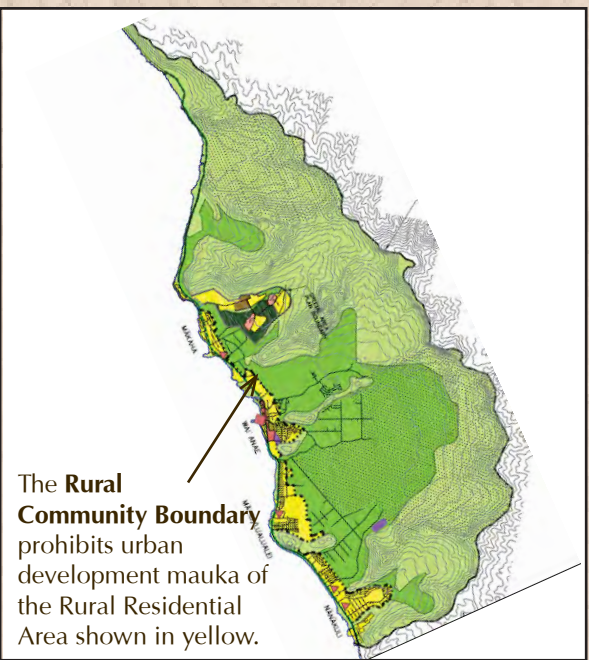
## COMMUNITY VALUES

The City and County's Waiʻanae Sustainable Communities Plan (WSCP) was created in 2000 by and for the members of the larger Waiʻanae District. The Plan was updated in 2009. The WSCP demonstrates the community's desire to preserve the rural landscape and lifestyle while at the same time find ways to create more jobs locally.

## WORKFORCE

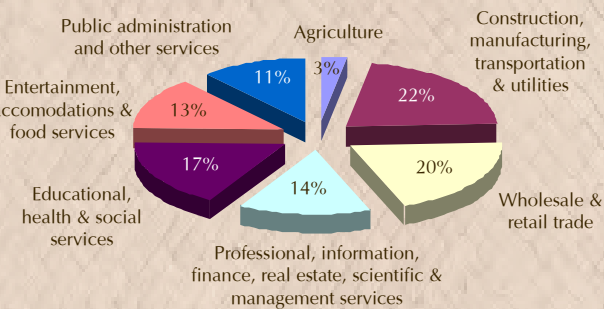
The labor force in the Waiʻanae DHHL Area consists of 6,914 residents, or 59 percent of the working age citizens. Most of these residents are employed outside of the community and commute an average of 41 minutes to work.

High unemployment rate has been a major problem in Waiʻanae. The Draft Leeward Coast Initiative Inventory Report (August 31, 2007) reported that the unemployment rate has been much higher in Waiʻanae than the State average and the gap has widened over the past twenty years.



Source: Waiʻanae Sustainable Communities Plan, 2009

**Employed Civilians by Industry in 2000**  
(Waiʻanae CDP + Māʻili CDP)



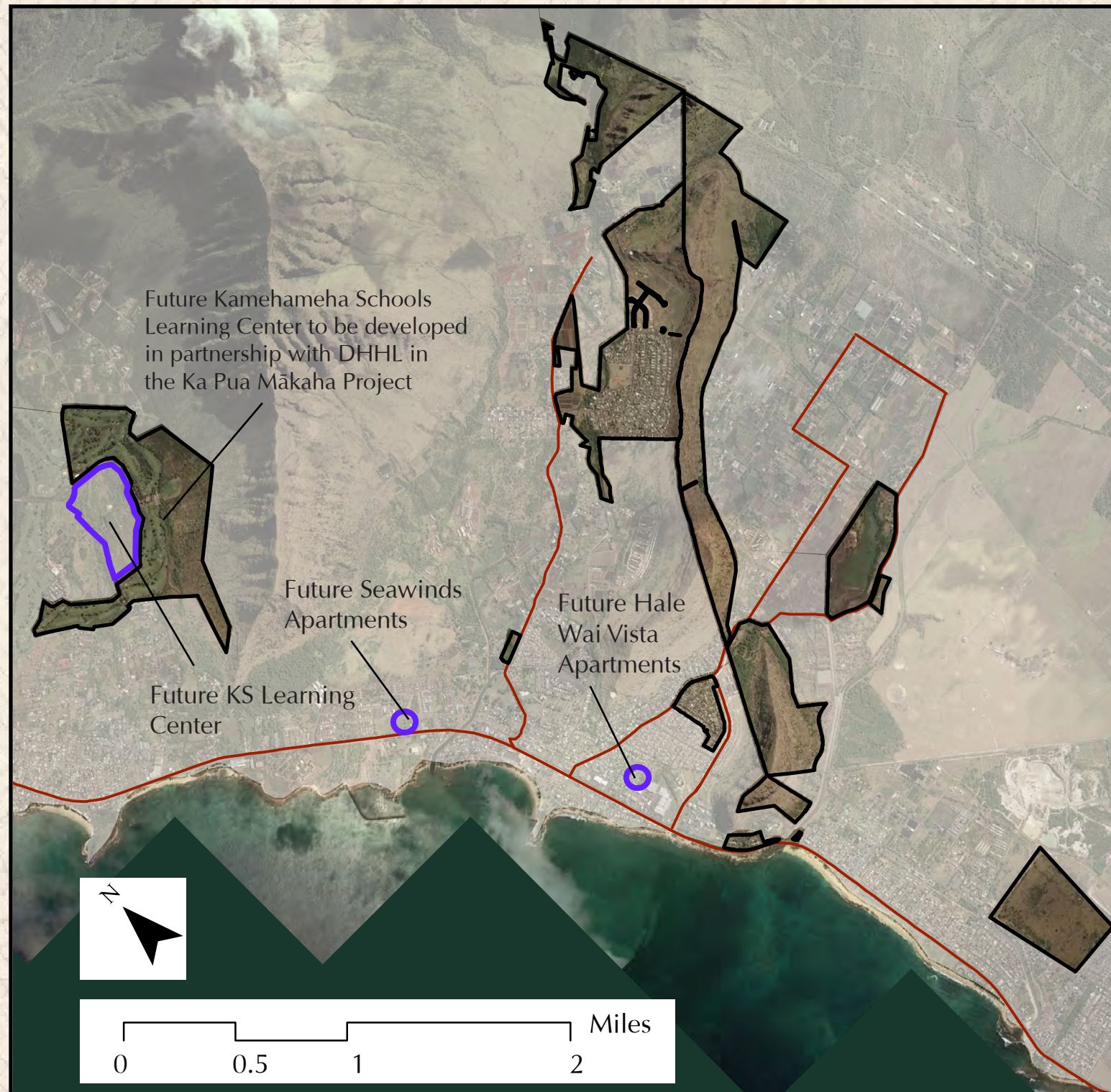
## EMPLOYMENT OPPORTUNITIES

One of the goals of the Waiʻanae Sustainable Communities Plan is to increase employment opportunities within the District. Community members believe that having more job opportunities in Waiʻanae would increase their quality of life, since it would reduce commute time and traffic. Similarly, increased job opportunities within the Kapolei area could also decrease commute time.

The WSCP 2009 recommends the development of more strongly defined local commercial and service centers. Local small businesses and light industrial operations are an important source of jobs for Waiʻanae people.







### Future Kamehameha Schools Learning Center

In Summer of 2009, West Honolulu Investments LLC and HRT, Ltd. announced a plan to transfer 66 acres of their Mākaha lands TMK 8-4-02:07 to Kamehameha Schools. Preliminarily, Kamehameha Schools plans to develop a "Learning Innovation Center" that will include teachers laboratories and land-based learning facilities at an estimated costs of \$100 million. The new Learning Center will complement current Kamehameha Schools' programs on the Wai'anāe Coast and will be developed in partnership with DHHL in the Ka Pua Mākaha Project.

### Seawinds Apartments

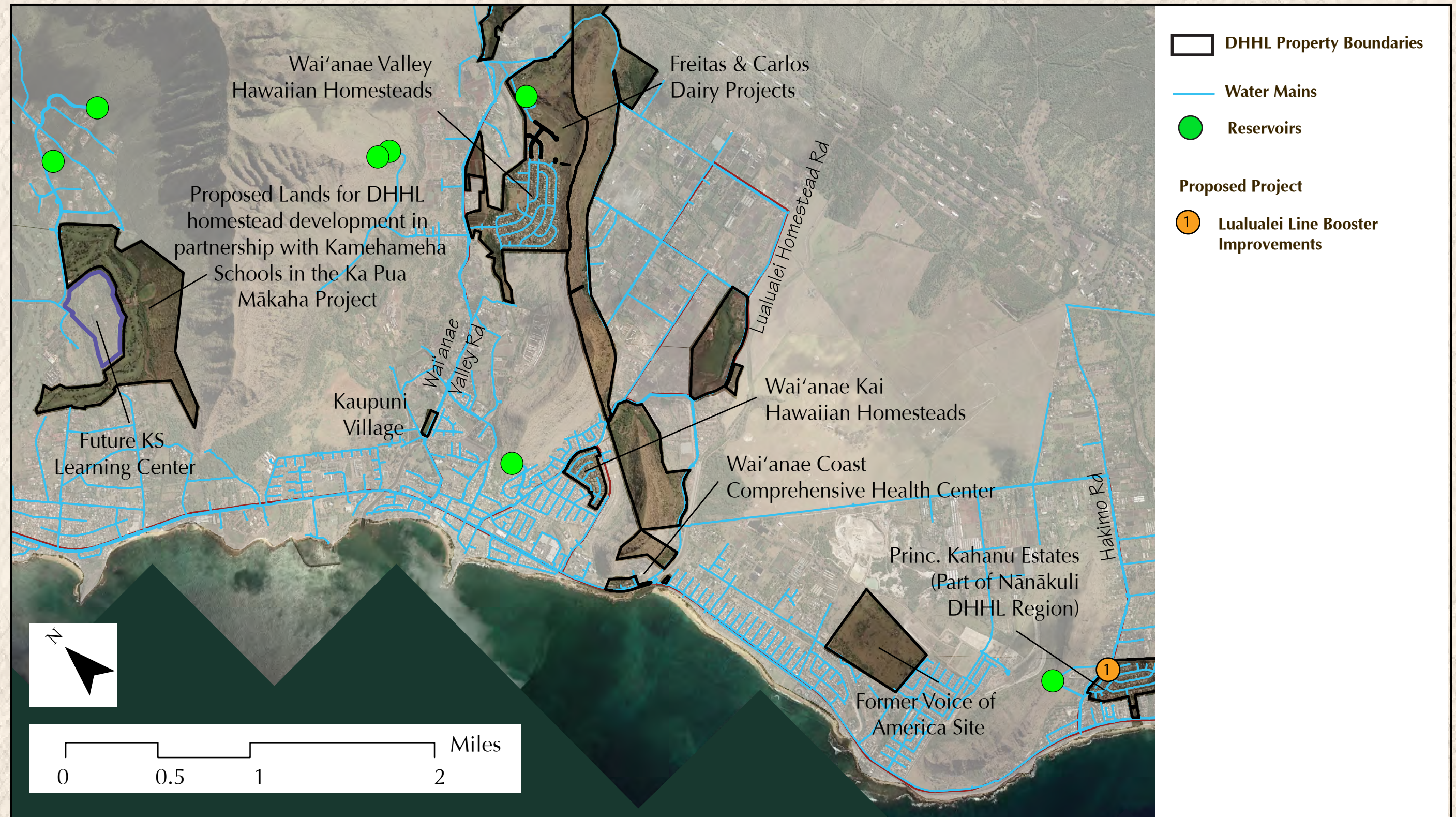
To include 20 studios and 30 two-bedroom units on TMK 8-5-028:44 located mauka of Wai'anāe Satellite City Hall. The Seawinds Apartments was developed by Homeless Solutions, Inc. at an estimated costs of \$13.5 million. Homeless Solutions has secured \$10 million in Federal grants and is hoping to raise the rest of the funds from private foundations.

### Hale Wai Vista Apartments

To include 215-two and three bedroom units on TMK 8-6-1:35 located on the Mākaha (western) side of Wai'anāe Mall. The Hale Wai Vista Apartments plans were originally rejected by the Wai'anāe Coast Neighborhood Board because they did not comply with the 30 ft. maximum building height specified in the Wai'anāe Sustainable Communities Plan. The Hawai'i Housing Development Corporation, developer of the plan, revised their plans to meet the maximum height requirement in 2007 and secured neighborhood board approval. The first building of the Hale Wai Vista is expected to be completed in 2010.



## IV. Infrastructure - Water





## Existing Water System

Based on the pumpage records available from the State of Hawai'i Commission on Water Resource Management (CWRM), the Honolulu Board of Water Supply (BWS) provided almost all of the water consumed in the Wai'anae District in 2008. In the same year, BWS produced about 9.3 mgd (million gallons per day), of which about 8.1 mgd was consumed. The balance was water lost through leaks in the system. The source of the total water produced by the BWS was roughly 45 percent from Wai'anae water sources and 55 percent from the Pearl Harbor aquifer.

DHHL has a reservation with the CWRM for future water allocations for their developments. Although no significant developments are planned in the near term for DHHL lands in the Wai'anae District, the population of the district as a whole is projected to grow, which in turn will drive up water demands. To meet that demand, the Wai'anae Watershed Management Plan (2006) proposes several projects ranging from increase in potable water imports from the Pearl Harbor aquifer to the development of recycled water from the Wai'anae Wastewater Treatment Plant. The projects that are most likely to be implemented are listed under the "Proposed Water Projects." The following projects are already planned or in progress:

### ① Lualualei Line Booster Improvements

*Status:* The Lualualei Booster Improvement project is still under design; construction is scheduled to begin in 2011.

### ② Wai'anae 242 Reservoir No.2

*Status:* Potential sites for the Reservoir are being investigated in the back of Wai'anae Valley; construction is tentatively scheduled in FY 2015.

### ③ Wai'anae District Farrington Highway Water Main Replacement Project

BWS has continued to work on various water main replacement projects within Wai'anae. For FY 2011, three water main replacement projects are planned. They are located along Pūhāwai Road, Kuwale Road, and Pu'uhulu Road in Lualualei Valley with total construction cost estimated at \$ 2.4 million.

\*Note: projects that are not demarcated on map are either outside of the map boundaries or do not correspond to a specific location.

## Proposed Water Projects

### ④ Increase Potable Water Imports from the Pearl Harbor Aquifer

The Wai'anae Watershed Management Plan (WWMP), a City and County comprehensive watershed and water development plan for the Wai'anae District, projects an increase in potable water demand for Wai'anae. To meet this increase, additional water imports from the Pearl Harbor Aquifer Sector have been identified as the most cost-effective short-term solution.

*Status:* This appears to still be an effective short-term solution that will most likely be implemented. However, as water demand grows in 'Ewa and the Primary Urban Center, an increasing amount of water from the Pearl Harbor Aquifer will be allocated to those areas, and other water supply options will need to be developed for Wai'anae. This situation also highlights the importance of water conservation programs for the district.

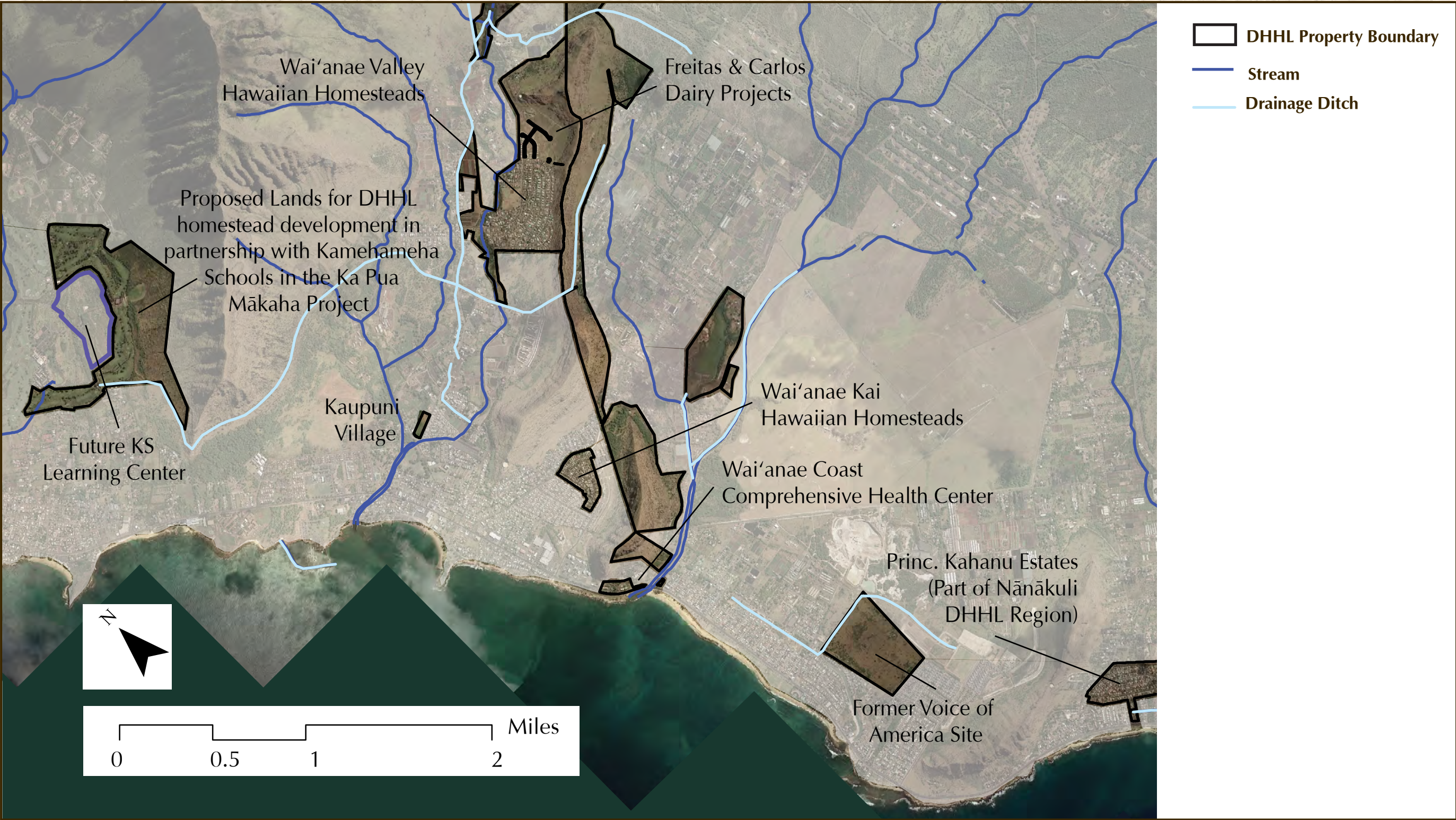
### ⑤ BWS Kalaeloa Desal Plant

The BWS has developed preliminary designs for a future brackish water desalination plant at Kalaeloa, on lands conveyed for public benefit from the federal government. The initial phase would produce 5 mgd, expandable to 15 mgd or more. This facility will utilize Reverse Osmosis (RO) membrane filtration to filter high quality basal brackish water from deep wells into fresh water. Once constructed, it should serve to meet the future water needs of the Districts of 'Ewa and Wai'anae.

*Status:* The final design and construction of the Kalaeloa desalination plant has been deferred. The primary limiting constraint is funding the \$40 million to construct the facility.



IV. Infrastructure - Drainage





## Background of Drainage Conditions

There are no perennial streams in the coastal areas of the Waiʻanae District, and the average annual rainfall in the coastal plain is less than 20 inches. Nonetheless, the area has experienced drainage problems and damage as a result of severe storms. Studies conducted in the 1950s showed that the major cause of flooding was the accumulation of sand at the dry stream mouths, which blocked water runoff during heavy rains.

As a result of these studies, the lower reaches of five streams in the District were channelized to improve storm water flow to the ocean. The Waiʻanae ahupuaʻa contains the Kaupuni Stream channel, while Lualualei has three such streams: the Māʻiliʻiliʻi, the Māʻili, and the Ulehawa Streams. The fifth channelized stream is the Nānākuli Stream, located in the Nānākuli ahupuaʻa.

Localized flooding is still a problem in the District due to the following factors:

- Some areas along Farrington Highway are higher in elevation than mauka lands which creates a damming effect for water flowing to the ocean.
- Lack of adequate drainage facilities in subdivisions and existence of unpermitted property walls that divert storm water
- Alteration to the natural drainage swales and ditches
- Clogged storm drains from debris

### 1 Various City and County Drainage Improvements

The City and County's Capital Improvement Program in Waiʻanae includes a variety of improvements such as repair of cracks along the concrete channels and construction of relief systems for localized flooding on Lahaina Street in Mākaha, Hakimo Road and Auyong Homestead Road in Lualualei, and in the vicinity of Waiʻanae Elementary School.



*Kaupuni Stream in its lower reaches*

## Proposed Drainage Projects

### 2 Waiʻanae District Local Drainage Improvements Plan and Program

To successfully mitigate the current drainage problems within the Waiʻanae District, the Waiʻanae Sustainable Communities Plan 2009 (WSCP 2009) proposes a comprehensive approach that combines the following components: (1) construction of flood mitigation measures; (2) creation of programs for the enforcement of rules and regulations relating to drainage systems on residential and agricultural lands; (3) creation of public education programs. The development of these projects and programs should take into account the need for stream environmental protection as well as the need for preservation of the rural character of the area.

*Status:* The City has recently submitted a proposal to the Department of Land and Natural Resources (DLNR) through the "Flood Mitigation Assistance Program" (FMA Program) to prepare a "Drainage Master Plan" for Waiʻanae.

### 3 Sediment Control Program

The WSCP 2009 also proposes the establishment of a sediment control program to protect both stream quality and the quality of nearshore waters. Minimally, the WSCP proposes that standards for the creation and use of sediment basins at critical locations on both agricultural and urban lands should be established.

### 4 Implementation of Flood Study Recommendations for Lualualei

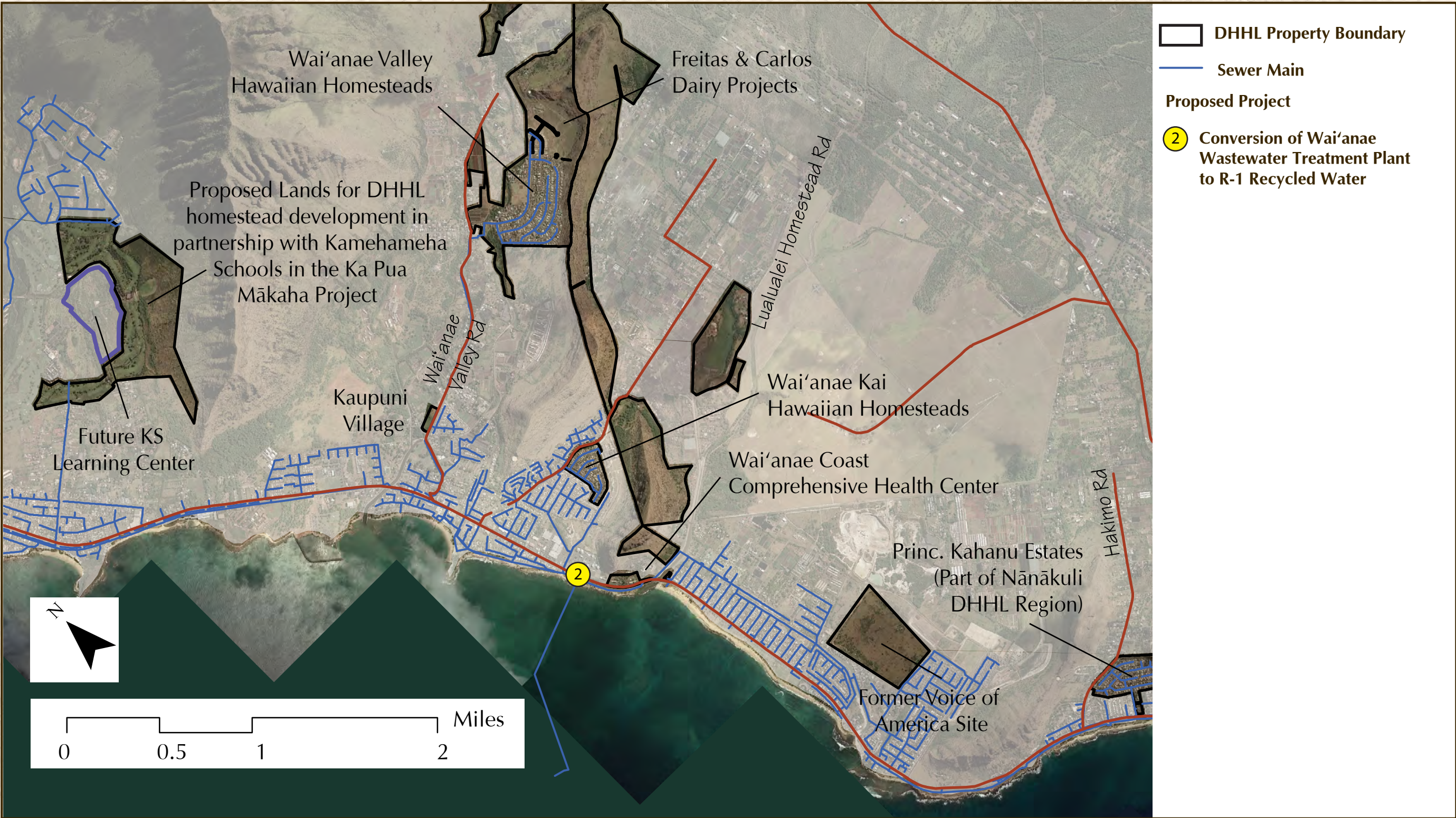
A Flood Study for Lualualei was performed by the US Army Corps of Engineers and the US Department of Agriculture - Natural Resources Conservation Service in 2001. Analysis of flooding in this area found insufficient drainage infrastructure. Sumps without drainage relief were also found to be prevalent in the area.

*Status:* The implementation of the Lualualei Flood Study recommendations has proceeded very slowly and in a piecemeal fashion. The Navy has secured some funding for design studies to implement a detention basin and the City is working on drainage improvements on Hakimo Road and Auyong Homestead Road.

\*Note: projects that are not demarcated on map are either outside of the map boundaries or do not correspond to a specific location.



# IV. Infrastructure - Wastewater/Sewer





## Existing Wastewater, Collection, Treatment, and Disposal

Wastewater for the Waiʻanae District is collected at the Waiʻanae Wastewater Treatment Plant (WWTP) located north of Puʻu Māʻiliʻiliʻi and south of Waiʻanae Mall. The WWTP has design capacity to treat an average of 5.2 mgd (millions of gallons per day), and a peak flow of 13.8 mgd. In 2007, the Plant treated approximately 3.5 mgd, thus it still has excess capacity for additional flows.

Even though the Treatment Plant has excess capacity, many of the older homes that were initially developed with cesspools have not yet connected to the wastewater collection system. In 2000, that number was approximately 1,180 homes in the Waianae District, many of which are on property that was developed by DHHL. For DHHL homesteaders without sewer connection, the responsibility of hooking up lies with the residents.

### 1 Phased Program for Replacement of Old Sewer Lines

The program for the phased replacement of old sewer lines in Farrington Highway and in the main valley roadways should be continued. The sewer main that services areas between Pōkaʻī Bay and Mākaha Valley is operating at capacity and will need to be upgraded should development and growth continue in Mākaha.

*Status:* The sewer lines are currently being replaced in various stages.

\*Note: projects that are not demarcated on map are either outside of the map boundaries or do not correspond to a specific location.

## Proposed Wastewater/Sewer Project

### 2 Conversion of Waiʻanae Wastewater Treatment Plant to R-1 Recycled Water

The Waiʻanae Wastewater Treatment Plant (WWTP) was recently upgraded to secondary level treatment (R-2 effluent). The ocean outfall located approximately 1.1 miles offshore has also been extended to a greater depth.

R-1 is the highest quality recycled water and is approved for a variety of irrigation purposes. The BWS Islandwide Non-Potable Water Master Plan (2006) preliminarily identified several potential users for R-1 recycled water should it be made available through the upgrade of the current WWTP. Potential users identified include various agricultural operations located mauka of the treatment plant, the NAVCAM EASTPAC military facility in Lualualei, and various State and City parks in the vicinity.

No plan is currently in place for further conversion of the R-2 effluent to R-1 quality. The principal constraint for the development of recycled water facilities at the WWTP is the high chloride content of the wastewater due to aging sewer mains that allow for infiltration of seawater.

*Status:* The Waiʻanae Watershed Management Plan (2006) states that the conversion to R-1 effluent should be part of the overall long-range water resources management plan for the district. The Plan also encourages the City and County of Honolulu to plan for a timely replacement of the old sewer mains.

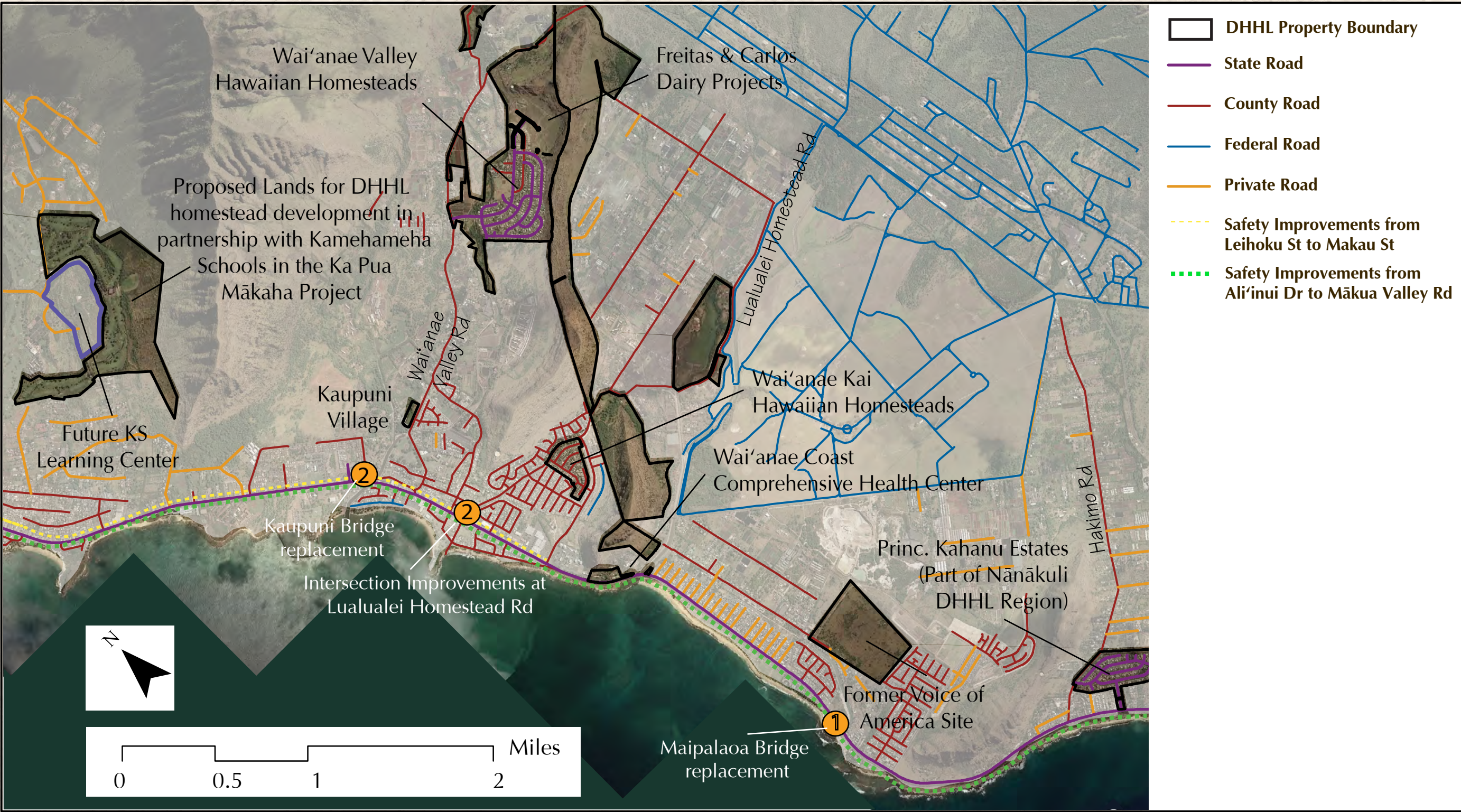
### 3 Coordination Between City and DHHL for Sewer Connection Program

The Waiʻanae Sustainable Communities Plan (2009) recommends that the City and DHHL work together to establish a program that will assist DHHL homesteaders to connect to the wastewater collection system. For this purpose, assistance can be provided in the form of small grants or low interest loans to lower income families.





# IV. Infrastructure - Roads and Transit





## In Progress/Planned Road and Transit Projects

### 1 Bridge Replacement

State Department of Transportation (DOT) currently has two active projects in Waiʻanae, replacement of Mākaha Bridges #3 and 3A in the vicinity of Mākaha Beach Park and replacement of Maipalaoa Bridge near the Maipalaoa Road. These projects are currently in various stages of development.

### 2 Various Improvement Projects along Farrington Highway

The FY 2008-2011 Transportation Improvement Program (TIP) includes several other improvement projects along Farrington Highway, namely Kaupuni Bridge replacement, intersection improvements at Lualualei Homestead Road, and safety improvements from Leihoku Street to Makau Street.

### 3 Honolulu High-Capacity Transit Corridor Project

The Honolulu High-Capacity Transit Corridor Project is a 20-mile elevated rail line project designed to run from East Kapolei through downtown Honolulu to Ala Moana Center. The system will feature electric steel-wheel trains. When completed, this project could be utilized by those people who commute from Waiʻanae to Honolulu, although they would have to first travel to Kapolei.

*Status:* On October 22, 2009, The City awarded the first phase design and construction project to Kiewit Pacific, Co. The first phase rail system will run from East Kapolei to Pearl Highlands near Leeward Community College and is expected to be fully operational in 2012.

\*Note: projects that are not demarcated on map are either outside of the map boundaries or do not correspond to a specific location.

## Proposed Road and Transit Projects

### 4 Farrington Highway Safety Improvements

In addition to improvements listed in the 2008-2011 TIP, longer term improvements have also been proposed on Oʻahu Regional Transportation Plan 2030 (ORTP 2030) Long-Range Plan Project List (2016 to 2030). The project is generally termed “Farrington Safety Improvements” and includes the realignment of Farrington Highway, around Mākaha Beach Park. Project boundaries are from Aliʻinui Drive to Mākua Valley Road and was estimated to cost around \$ 69.7 million (in 2005 \$).

### 5 Emergency Access Road

The Emergency Access Road would go from Farrington Highway, up Lualualei Naval Road, and through Kolekole Pass to Kunia Road. The Road would only be opened in times of emergency.

*Status:* Proposed by the local community, the potential for implementation of the Emergency Access Road is limited due to Navy security restrictions.

### 6 Waiʻanae Second Access Highway

The Waiʻanae Second Access Highway is proposed from Farrington Highway, up Lualualei Naval Road, through the Waiʻanae Mountain Range at Pōhakea Pass, to connect to Kunia Road in the ʻEwa District.

*Status:* The Second Access Highway is currently on Oʻahu Regional Transportation Plan 2030 (ORTP 2030) Long-Range Plan Project List (2016 to 2030), with an estimated capital cost of \$ 423 million (in 2005 \$).

### 7 TheBus Service Expansion

The ORTP Mid-Range Plan Project List (2006 to 2015) includes expanded bus service to Waiʻanae, including increased Express service.

*Status:* The project timeline has not yet been determined.



# IV. Infrastructure - Public Facilities





Parks

The Wai’anae District currently has 20 parks from seven different categories. This number, however, constitutes a shortage especially in the number of Neighborhood Parks and in the total acreage of park lands. Development of adequate public parks is a top priority listed in the Wai’anae Sustainable Communities Plan (2009). The Plan recommends at least one more Neighborhood Park and one additional Community Park be developed by the year 2020.

1 Kaupuni Neighborhood Park

City’s Department of Design and Construction (DDC) has contracted a design consultant to develop the Park Plan. Phase 1 construction is expected to begin by end of October 2010. Phase 1 construction includes lighted basketball courts, retaining walls along the slope on the northwestern edge of the Park, concrete stairs along the retaining walls, pedestrian pathways, and perimeter walls. Next phases of the Park include construction of a T-ball field, volley ball fields, a community center, and the rest of perimeter walls and sidewalks.

Status: Phase 1 construction is expected to be completed by end of May 2011.

Schools

The State Department of Education (DOE) currently operates 9 public schools in the Wai’anae District, three of which are in Wai’anae. This includes four elementary schools, one intermediate, and one high school. In addition, there are two private schools and two charter schools in the area. Overall, these schools generally have sufficient capacity for the limited growth projected for the District.

School	Grades	Capacity SY 09-10	Actual Enrollment SY 09-10	% of Capacity	Projected Enrollment SY 10-11
Wai’anae Complex					
Leihoku Elem	K – 6	995	787	79%	886
Mā’ili Elem	K – 6	928	694	75%	782
Mākaha Elem	K – 6	656	494	75%	587
Wai’anae Elementary	K – 6	892	511	57%	601
Wai’anae Intermediate	7 – 8	1093	713	65%	894
Wai’anae High	9 – 12	1902	1612	85%	1865
Charter School					
Kamaile Academy	K – 6	820	766	93%	890
Ka Waihona o ka Na’auao	K – 8	570	574	1%	N/A
Private Schools					
Adventist Malama Elem	K - 8	39	60	65%	39
Mā’ili Bible School	K - 12	95	260	37%	N/A

The figure in red indicates the percentage by which the school was over capacity for the ‘09-’10 school year.

Library

The Wai’anae Public Library is the only Hawai’i State Public Library in the Wai’anae District. It therefore services the entire region. However, in July 2006, Governor Lingle released \$46,000 to finance a project development report and master plan to assist the Hawai’i State Public Library System in planning a new public library in Nānākuli.

Healthcare Facilities

- **Kaiser Permanente** is located in the Nānāikeola Clinic in Nānākuli. The facility offers regular health care services, including family practice, internal medicine, and pediatrics, along with clinical services such as diabetes education, diagnostic imaging, and nutrition counseling.
- **Queen Lili’uokalani Children’s Center** offers services for Hawaiian orphans and destitute children.
- **Wai’anae Coast Comprehensive Health Center (WCCHC)** is an outpatient medical clinic that offers a wide variety of services including counseling for family violence, substance abuse, and diabetes, health and wellness programs, traditional Hawaiian healing, adult day care, and health screening.

2 Mālama Recovery Center

Mālama Recovery Center is a planned project that will house behavioral health services including treatment and counseling programs for substance abuse. The Center broke ground in September 2009 and is expected to be completed in the Fall of 2010.

Police Facilities

The **Honolulu Police Department** services the Wai’anae District through the Wai’anae Police Station and the Barbers Point substation. The Wai’anae Police Station handles a large number of 911 calls and a large number of arrests, typically about 6,000 to 7,000 calls to 911 and 500 to 600 arrests in an average month. This situation calls for an increase in the manpower for the Wai’anae Station as adequate police services are critical for the safety and welfare of the Wai’anae community.

Fire/EMT Services

The **Honolulu Fire Department** has two fire stations in the Wai’anae District – one in Nānākuli (Station 28) and the other in Wai’anae Valley (Station 26). The Nānākuli Fire Station is equipped with an engine, a tanker truck, and an inflatable rescue boat. The Wai’anae Valley Station is equipped with an engine, a quint (combination pumper/ladder truck), and a tanker. Back-up service is provided by fire stations in Kapolei, Makakilo, ‘Ewa, and Waipahu.





# V. Homestead Issues and Priorities - Issues, Opportunities, and Potential Projects

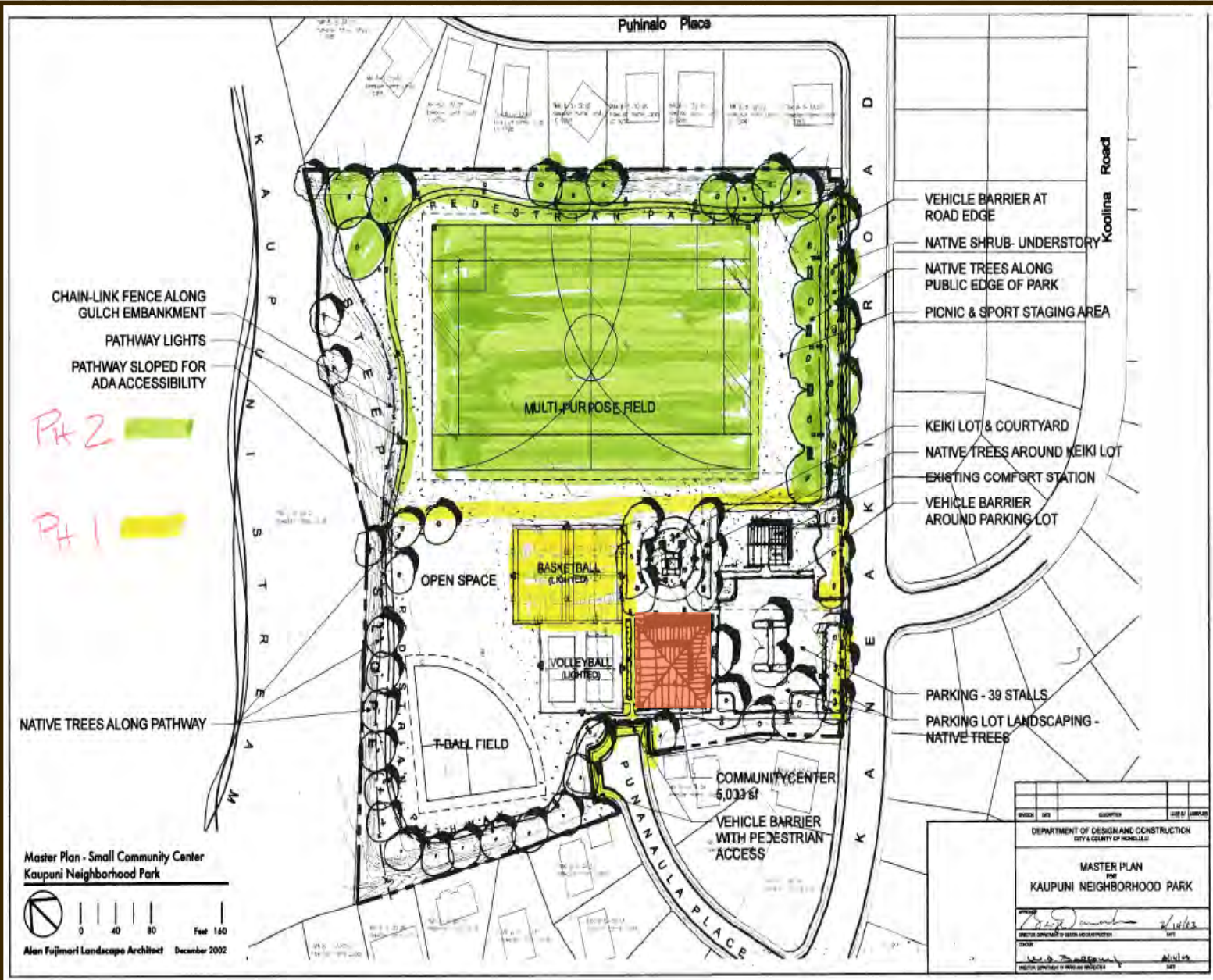
Issues	Opportunities/Potential Projects
<b>Traffic</b>	
Speeding on Leihoku Street especially fronting Elementary School	<ul style="list-style-type: none"><li>● Install speed bumps/humps or raised crosswalks on segment of road fronting Leihoku Elementary</li></ul>
Traffic along Farrington Highway	<ul style="list-style-type: none"><li>● Implement the emergency access road through Kolekole Pass</li><li>● Fix Farrington Highway and other roads to allow for better traffic</li></ul>
Cars parked on the sidewalks in DHHL homesteads	<ul style="list-style-type: none"><li>● DHHL send notes of aloha to remind homesteaders to keep the sidewalks walkable</li></ul>
<b>Community Education</b>	
Quality education for Wai'anae's children and youth	<ul style="list-style-type: none"><li>● Immersion and/or charter school in Wai'anae</li></ul>
Visitors and local community do not know much about local history and cultural roots	<ul style="list-style-type: none"><li>● Develop a center that will educate the public about local history and cultural roots</li></ul>
Need financial literacy and business education programs in Wai'anae	<ul style="list-style-type: none"><li>● Provide financial literacy and business education programs for the community</li></ul>
<b>Community Use Areas</b>	
Need a community center in every homestead	<ul style="list-style-type: none"><li>● Identify and determine areas for community use</li></ul>
Community management of Kaupuni Park and its community center facility once completed	<ul style="list-style-type: none"><li>● Identify steps toward the implementation of community vision for the Kaupuni Park's community center</li></ul>
Use of Voice of America site	<ul style="list-style-type: none"><li>● Development of Voice of America site should include suitable community uses</li></ul>
Acquire nearby lands for community use	<ul style="list-style-type: none"><li>● Explore possibility of acquiring Mākua lands for community use</li><li>● DHHL position itself to receive Lualualei lands once Navy's use is terminated</li></ul>

Issues	Opportunities/Potential Projects
<b>Community-Based Economic Development Project</b>	
Promote community-based economic development opportunities	<ul style="list-style-type: none"><li>● Identify suitable sites for community-based economic development projects</li><li>● Preliminary ideas: community-run gathering facility with certified kitchen; look at possibility of acquiring Pililā'au Army Recreation Center for community-run facility</li></ul>
<b>Cemetery</b>	
No cemetery space in Wai'anae	<ul style="list-style-type: none"><li>● Identify potential sites for a cemetery</li></ul>
<b>Water, Sewer, and Illegal Dumping</b>	
Illegal dumping	<ul style="list-style-type: none"><li>● Investigate potential for homestead associations to police common areas</li><li>● Identify other small and doable projects to address illegal dumping</li></ul>
People are using more water for watering their yards in Wai'anae	<ul style="list-style-type: none"><li>● Develop a feasibility project to reuse gray water</li></ul>
High costs prohibit many families from hooking up to City's sewer lines	<ul style="list-style-type: none"><li>● Develop a program that helps homesteaders hook up to City sewer lines</li></ul>
Sewer bill is expensive	<ul style="list-style-type: none"><li>● Determine possibility of installing separate irrigation water meter to reduce sewer charges</li></ul>
<b>Homesteaders' Houses</b>	
Homesteaders' houses need to be more energy efficient	<ul style="list-style-type: none"><li>● Develop an energy project to retrofit houses with solar or PV panels and identify funding sources</li></ul>
Older homes in need of repairs	<ul style="list-style-type: none"><li>● Repair older homes</li></ul>
Need homestead beautification	<ul style="list-style-type: none"><li>● Get homesteaders to plant one front tree on every homestead lot</li></ul>
<b>Agriculture and Food Security</b>	
Need to be more self-sufficient and sustainable in food production	<ul style="list-style-type: none"><li>● Develop an agriculture master plan for the region in collaboration with agricultural operations in Wai'anae</li><li>● Preliminary ideas: 1) develop small farm lots in Wai'anae; 2) develop community gardens at each homestead site; 3) teach backyard aquaponics system</li><li>● Acquisition of lands leased to Wai'anae Valley Ranch from Department of Agriculture</li></ul>





# Priority Project: Kaupuni Community Center



- First Phase of Project
- Second Phase of Project
- Third Phase of Project

**Description** - The Kaupuni Neighborhood Center occupies a 7.5-acre parcel of land within the Wai'anae Valley Homesteads. The land is owned by DHHL and is leased to the City until the year 2020. The City has a plan to develop Kaupuni Park, including athletic fields and courts as well as a community center. Upon completion of the community center, the Wai'anae Valley Homestead Association proposes to manage it for revenue generating activities.

**Location** - Wai'anae Valley Homestead, TMK 8-5-32:039

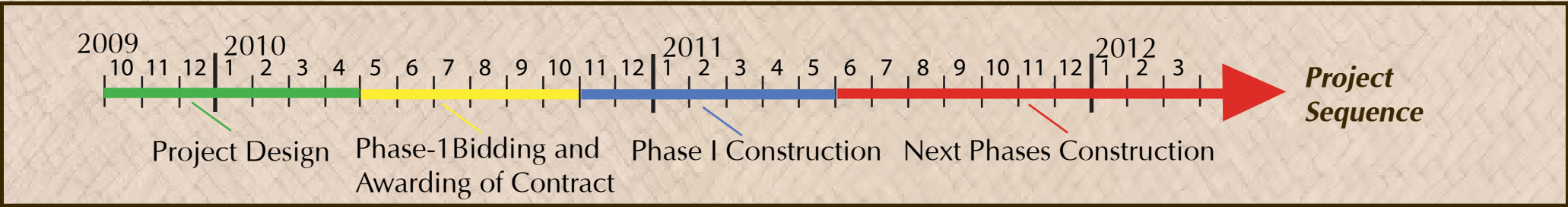
**Status** - Funding has been secured for Phase I construction. Currently, funding has not been programmed for Phase II, Phase III, and Phase IV construction.

**Potential Partners** - DHHL, Wai'anae Valley Homesteads Association, City's DPR, City's DDC

**Phasing** - Phase I: Lighted basketball courts, retaining walls along the slope on the northwestern edge of the park, concrete stairs along the retaining wall, pedestrian pathways connecting the retaining wall and Punanala Street, perimeter walls along Kaneaki Street and around the end of Punanala Street.

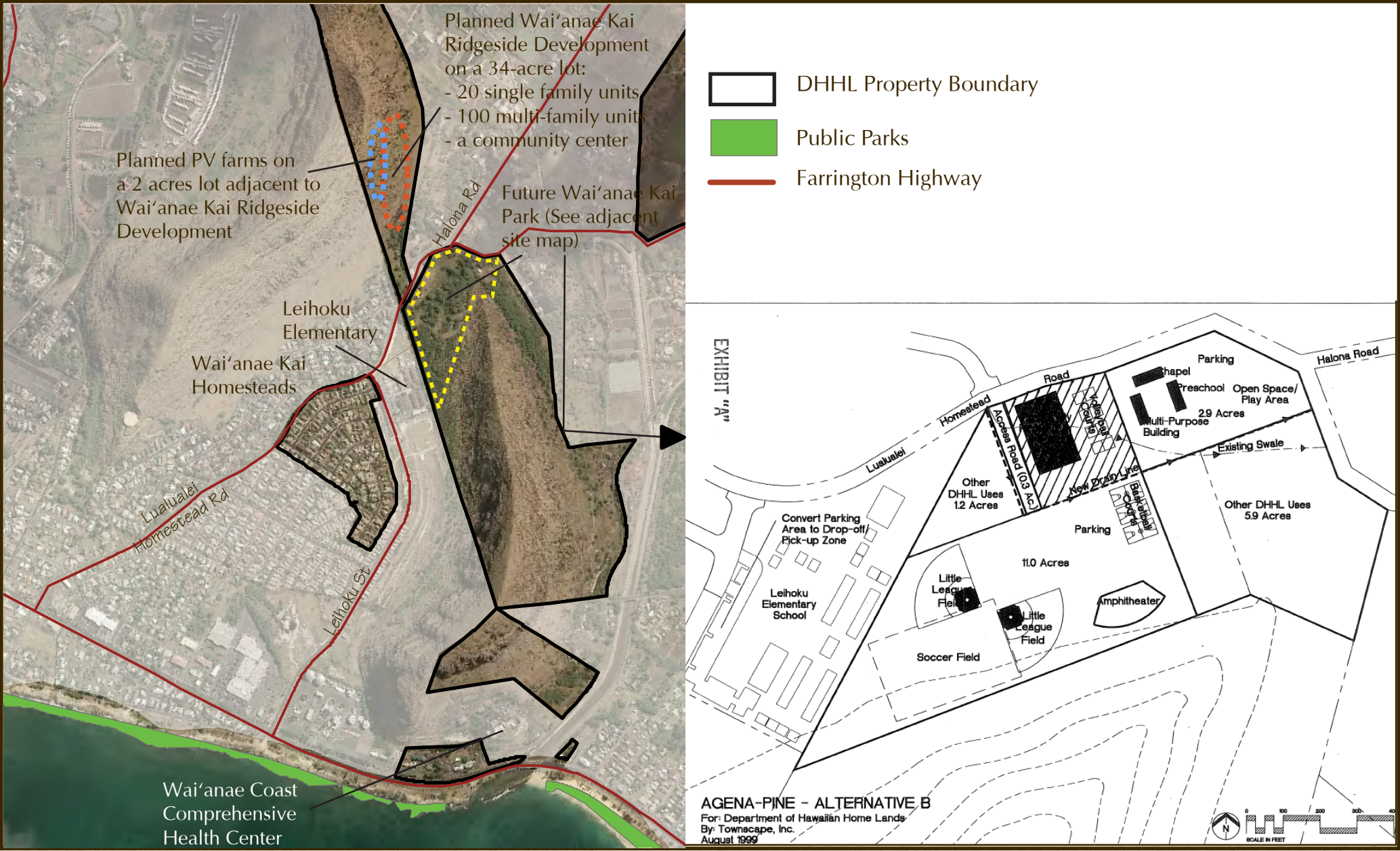
Phase II: Multi-purpose field  
Phase III: Community center  
Phase IV: T-ball field, volley ball field, keiki lot

**Cost**  
Phase I: \$ 1.15 Million (2009 \$)  
Phase II: \$ 1.27 Million (2004 estimate)  
Phase III: \$ 1.12 Million (2004 estimate)  
Phase IV: N/A





# V. Homestead Issues and Priorities - Priority Project: Wai'anae Kai Community Development



**Description** - The Wai'anae Kai Hawaiian Homestead Association (WKHHA) is planning several projects on DHHL lands located in the vicinity of the Wai'anae Kai Homesteads. The concept is to develop both revenue-generating and community facilities, including a photovoltaic (PV) farm, a community center, and kūpuna and transitional housing.

**Location** - DHHL lands in the vicinity of Wai'anae Kai Homesteads.

**Status** - The WKHHA in collaboration with Hawaiian Community Development is currently developing conceptual plans for Wai'anae Kai Ridgeside, an affordable rental housing project on the 'Ewa side of Pahe'ehe'e Ridge. The WKHHA is also developing plans for PV farms and community parks with sports facilities at nearby locations. For these projects, the WKHHA needs to secure a long term lease.

**Potential Partners** - DHHL, WKHHA, Hawaiian Community Development, HECO

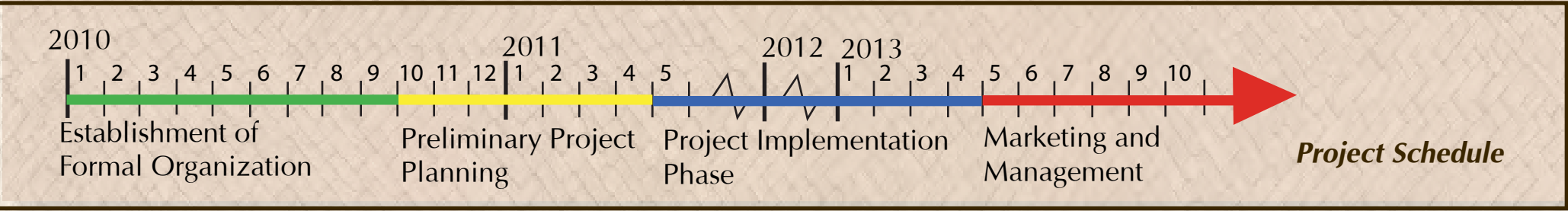
**Phasing** - Phase I: Establishment of a formal organization, typically a non-profit corporation and development of organization's vision, mission, and goals.

Phase II: Preliminary project planning including identification of potential projects and applying for implementation grants.

Phase III: Project implementation steps, including: 1) development of business plans, securing site, property assessment, and development of plans and cost estimates; 2) partnership building, financing, and negotiation with developers; 3) design and construction

Phase IV: Marketing and management for a sustainable project

**Cost** - Not yet determined





# Priority Project: Waiʻanae Transportation Corridor Coordination and Improvements



**Description** - To provide coordination among all stakeholders with the ultimate goal of providing relief for Waiʻanae/Nānākuli coast residents which have had to deal with years of constant interruptions along Farrington Highway. Improvements to coordinate include corridor beautification, undergrounding of utilities, utility repairs, roadway widening where appropriate, and construction of traffic and safety improvements.

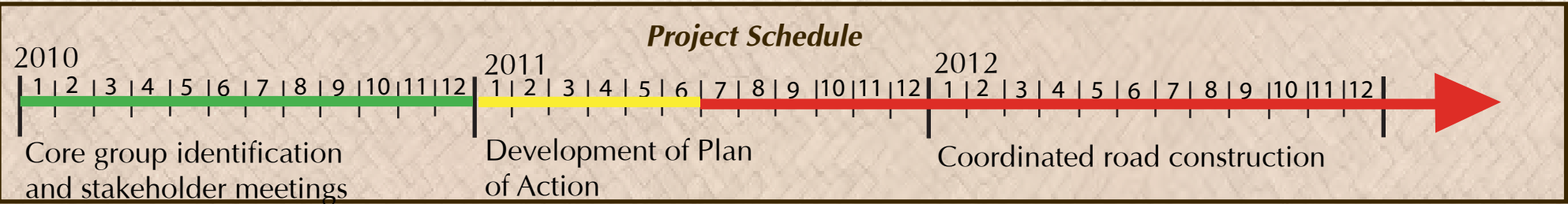
**Location** - Farrington Highway from Hakimo Road to Maluʻu Road.

**Status** - Currently, when work needs to be completed along Farrington Highway, the agency usually schedules a public meeting or addresses the Neighborhood Boards to inform them of their work. There was a recent infrastructure coordination body (City’s Government and Public Utilities Task Force) that was created which may be useful in implementing this Priority Project.

**Potential Partners** - Waiʻanae Kai Homestead Association, Waiʻanae Valley Homestead Association, DHHL, DOT, City’s Government and Public Utilities Task Force

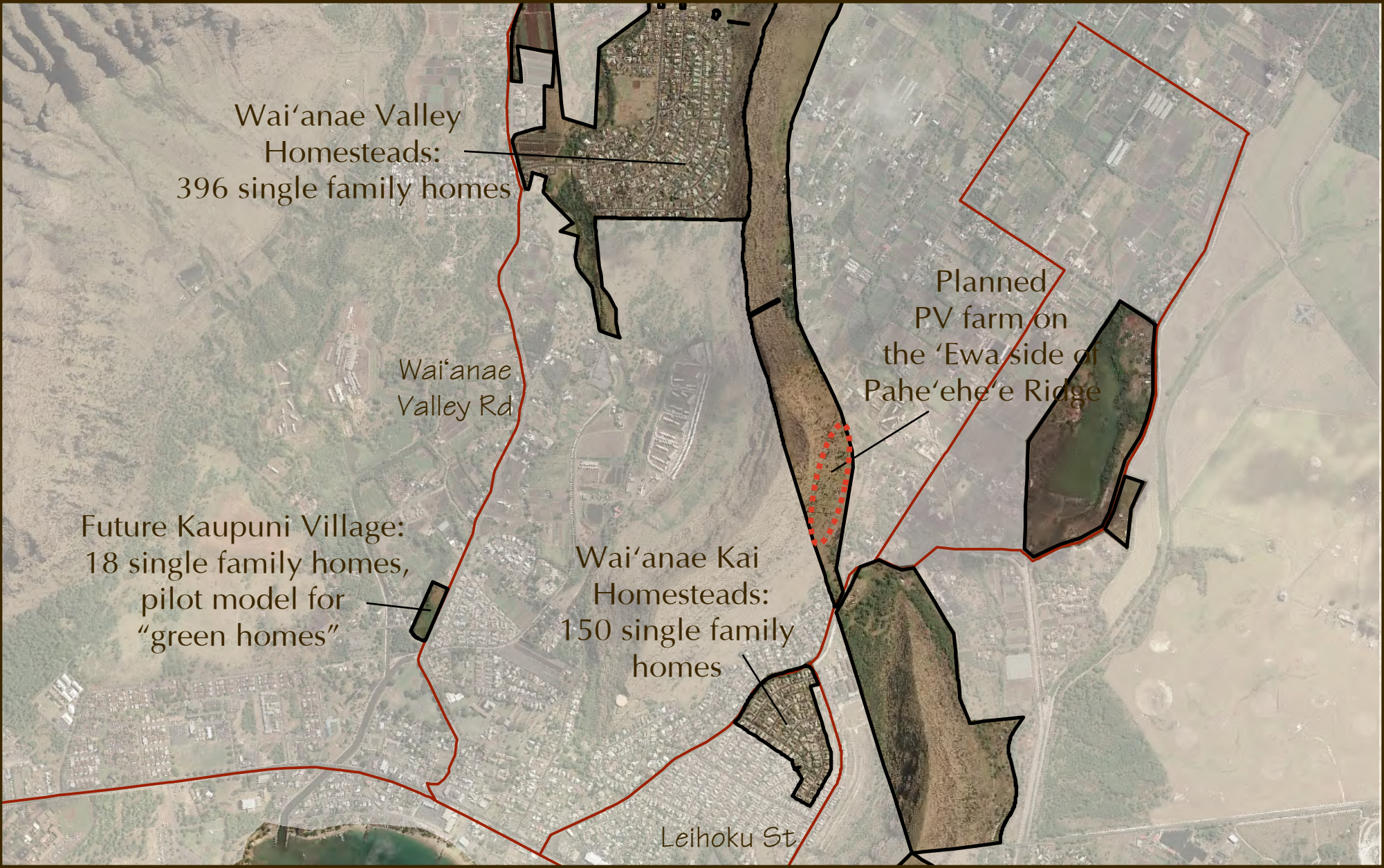
**Phasing** - Phase I : Identify a core group of homesteaders that can work on this project. DHHL call meeting of stakeholders to determine what can be done to implement the project.  
Phase II: Stakeholders develop a Plan of Action for approval/consent by affected agencies.  
Phase III: Coordinated road construction

**Cost** - Not yet determined





# V. Homestead Issues and Priorities - Priority Project: Going Green in Wai'anae



**Description** - The objective of this project is to create energy and water efficient homes within existing DHHL homesteads in Wai'anae. The following components are proposed for inclusion in the project:

- 1. Energy retrofitting and installation of solar water heaters and/or photovoltaic panels.
- 2. Determination of feasibility for reuse of gray water and determination of possibility for installation of a separate irrigation water meter to reduce sewer charges.
- 3. Programs that assist homesteaders hook up to City sewer system.

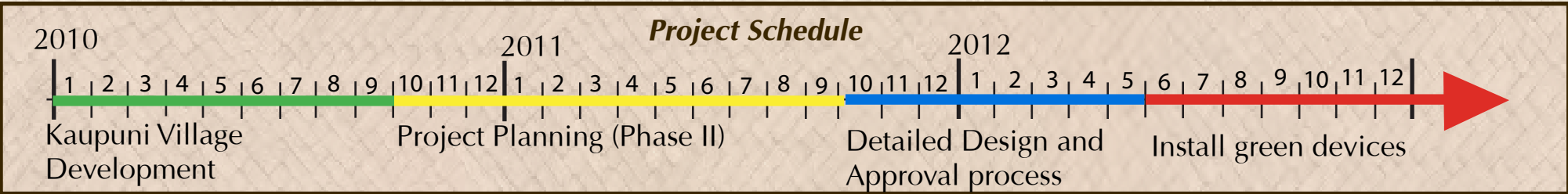
**Location** - DHHL homesteads in Wai'anae

**Status** - A pilot project for "green homes" is being developed at the nearby Kaupuni Village. Kaupuni Village can be the prototype for this project.

**Potential Partners** - DHHL, Wai'anae Kai Homestead Association, Wai'anae Valley Homestead Association, HECO, BWS

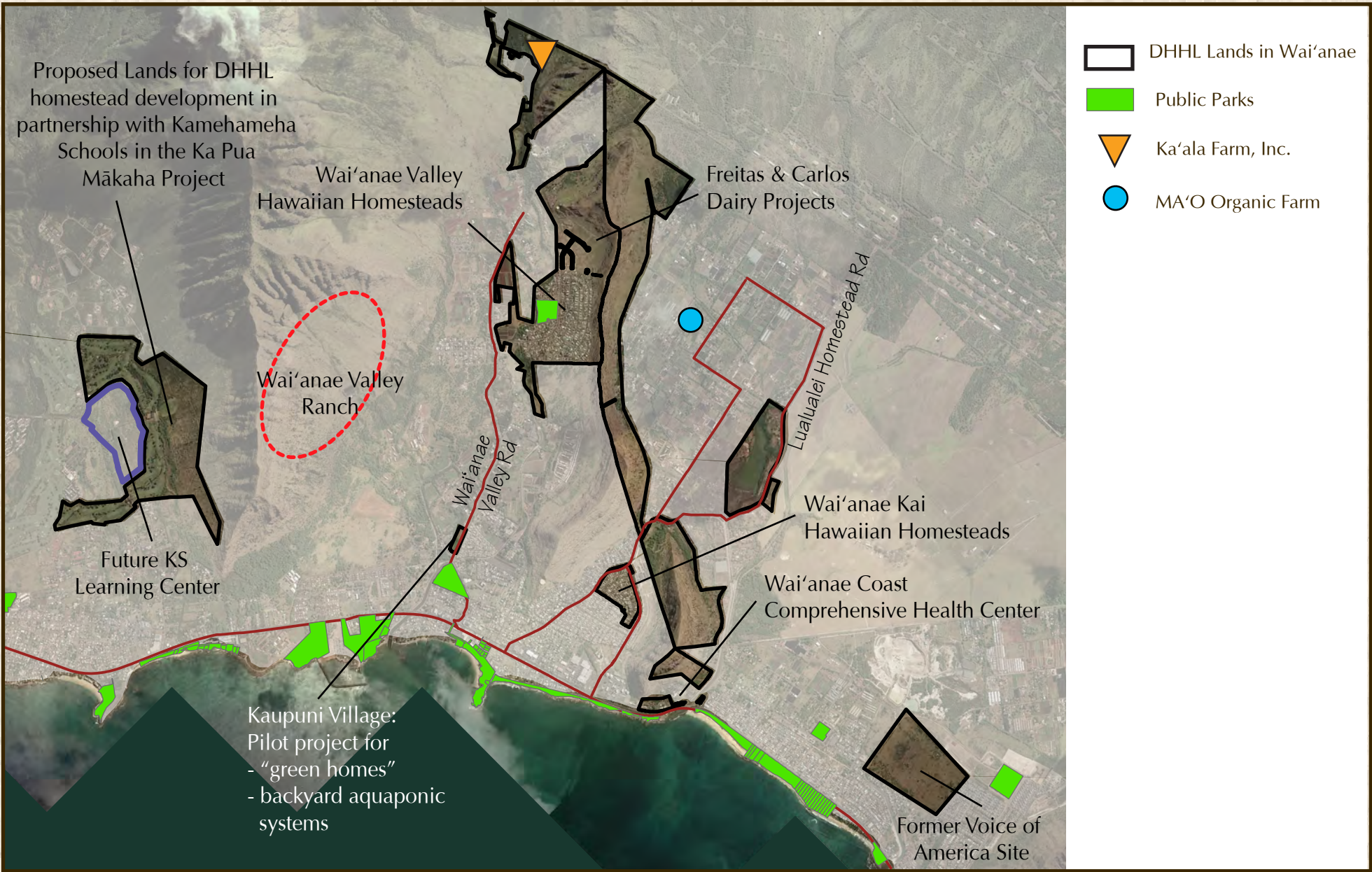
**Phasing** -  
Phase I: Kaupuni Village development.  
Phase II: Learning from Kaupuni Village's experience, the project can proceed with identification of effective and feasible energy and water retrofitting devices for installation in existing homesteaders' houses. This phase should also include identification of sources of grants and partnerships to assist in project implementation.  
Phase III: Detailed design and approval process  
Phase IV: Install green devices

**Cost** - Not yet determined





# Priority Project: Agriculture/Aquaculture Production and Food Security



**Description** - The decline in agricultural operations in Wai'anae is alarming given the importance of food security in the context of Hawai'i's geographical isolation. Active cultivation of agricultural land is of critical importance to the revitalization of agriculture in Wai'anae. Equally important is the development and support for subsistence agriculture, within smaller residential lots. This project aims at providing educational and training programs that would allow existing lessees to engage in agricultural production for subsistence or for supplemental income.

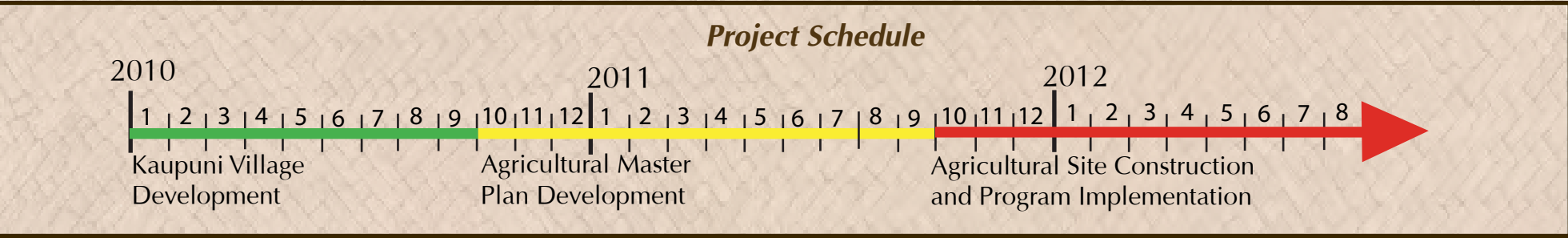
**Location** - DHHL lands in Wai'anae

**Status** - A pilot project for community and backyard aquaponics system is being developed at Kaupuni Village.

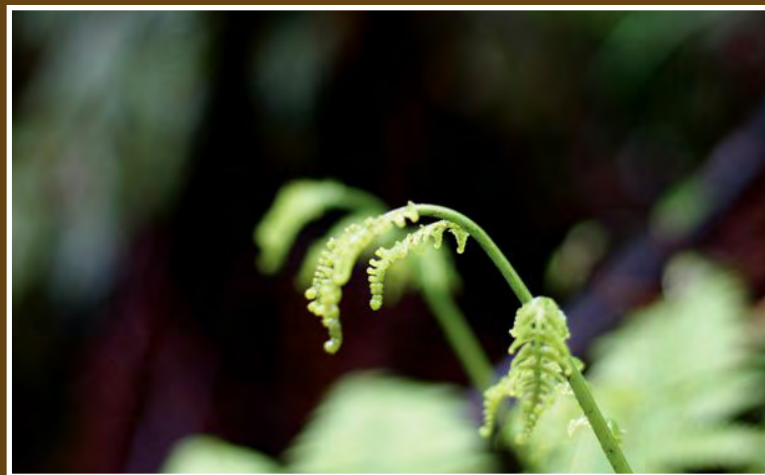
**Potential Partners** - Wai'anae Kai Homestead Association, Wai'anae Valley Homestead Association, Ka'ala Farm, MA'O Organic Farm, OPELU project, other farmers, local fishermen, community gardeners, DHHL, DLNR, DOA, UH-CTAHR

**Phasing** - Phase I: Development of Kaupuni Village, including the establishment of aquaponics system training at the Village; Phase II: Development of agriculture master plan for Wai'anae. The master plan should include components such as development of DHHL agricultural lots and identification of strategic steps toward acquisition of more lands for future farms. Additionally, using experiences from the Kaupuni model, identify effective programs that teach community/backyard farming. Programs that establish linkages between homesteaders and local agriculture/aquaculture practitioners should also be pursued; Phase III: Agricultural site construction and program implementation

**Cost** - Not yet determined







DEPARTMENT OF HAWAIIAN HOME LANDS