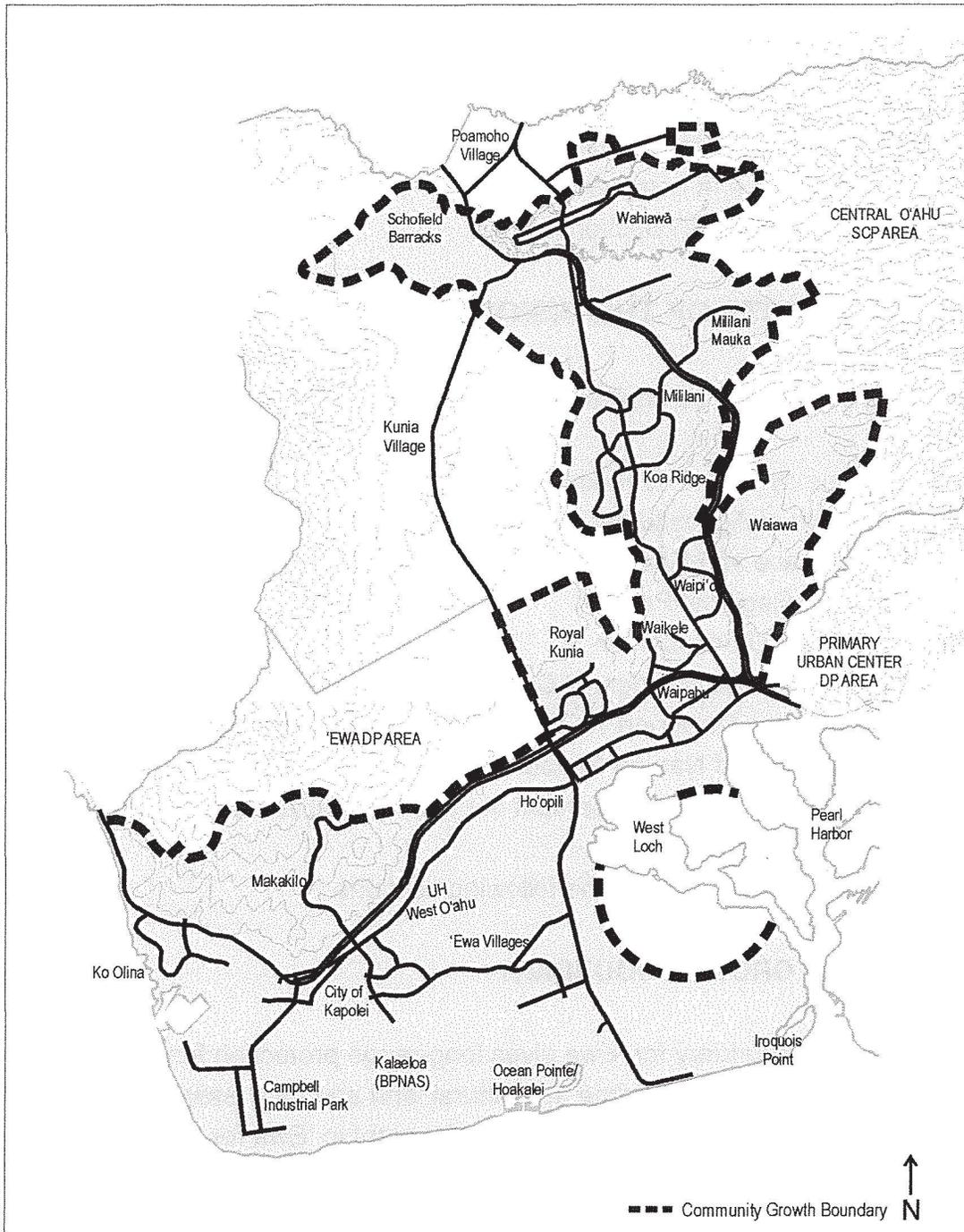


**Exhibit 2.1**

**Community Growth Boundary for 'Ewa and Central O'ahu**



**Boundary Description** - The *mauka* portion of the boundary follows the Special Management Area boundary around Kahe Point, runs along the northern boundary of the Makaīwa Hills project and the existing Makakilo development, and then follows the proposed extension of Makakilo Drive to the H-1 Freeway. It then follows the H-1 Freeway to the intersection with Kunia Road and then up Kunia Road to the boundary between the Central O‘ahu Sustainable Communities Plan and ‘Ewa Development Plan areas.

The *makai* portion of the boundary excludes the Explosive Safety Quantity Distance (ESQD) zone for the Pearl Harbor Naval Munitions Command.

**Protection for Prime Agricultural Land** - The Community Growth Boundary protects prime agricultural lands on the Wai‘anae side of Kunia Road and *mauka* of H-1 freeway from urban development for the foreseeable future, thereby providing an incentive for landowners to give long term leases to farmers. No proposals for urban uses outside the Community Growth Boundary will be considered.

**Open Space Network** - Within the Community Growth Boundary, significant acreage will be retained in open space in parks, wildlife habitats, golf courses, and natural and grass-lined drainageways. (Of the estimated 23,000 acres within the Community Growth Boundary, 5,000 acres or 22 percent of the acreage will be in open space.)

**Capacity for Growth** - Even with the amount of land reserved for agriculture, parks, and open space, there is ample capacity within the Community Growth Boundary for residential, commercial, and industrial development extending beyond the 20-year horizon (2035).

As shown in Table 2.1, over 4,100 acres was available for residential development; almost 700 acres for retail and office development; and over 1,600 acres for industrial development as of July 2009. Providing this capacity allows for competition and promotes more affordable residential, commercial, and industrial development.

Over 50 percent of the residential development acreage is already zoned. Developers of these parcels can apply for subdivision, construction permit, and building permit approvals as needed to meet market demand. However, these projects will be subject to

**TABLE 2.1: 'EWA DEVELOPMENT CAPACITY AND ENTITLEMENT STATUS**

PROJECT AREA <sup>(1)</sup>	Potential Housing Units	Number of Units which		DEVELOPABLE LAND AREA (Gross Acres)				
		Need LUC <sup>(2)</sup>	Need ZON <sup>(3)</sup>	Resid.	Resort	Retail	Ind.	Total
A Kalaeloa Barbers Point Harbor & vicinity							210	210
B City of Kapolei								
Mehana at City of Kapolei	1,130			93		2		95
Leihano Senior Community	714			43				43
Kapolei Mixed Use <sup>(4)</sup>	4,000					91		91
Kapolei Commercial (incl. Kapolei Commons)						91		91
C Ewa by Gentry <sup>(5)</sup>	658			94			64	158
D Ocean Pointe/Hoakalei	2,095			269	39	45	28	381
E Ewa Villages	590			54				54
F Kapolei Business Park & vicinity							268	268
Kapolei Harborside							339	339
G Kapolei Knolls								0
H Pāilailai Residential	350			30		14		44
I Kapolei Shopping Center								0
J Ko Olina Resort	3,286			50	42	16		108
K Makaiwa Hills (Lower)	2,280			424		31		455
L Makakilo C& D1	422			105				105
M Villages of Kapolei	660			28		27		55
N Kapolei West <sup>(6)</sup>	2,500			234		12		246
O, R Ewa by Gentry Makai: East and West	1,067			172				172
P East Kapolei: Ho'opili <sup>(7)</sup>	11,750	11,750	11,750	925		145	50	1,120
Q Laulani Commercial						20		20
S Makakilo D2	400	400	400	96				96
T UH West O'ahu Campus <sup>(8)</sup>	4,040			184		169		353
U Makaiwa Hills (Upper)	2,000			484				484
V DHHL East Kapolei <sup>(9)</sup>	2,513		NA	341		67		408
W Kapolei North	1,200	1,200	1,200	150				150
Kalaeloa (HCDA) <sup>(8)</sup>	6,500		NA	267		8	685	960
<b>TOTAL</b>	<b>48,155</b>	<b>13,350</b>	<b>13,350</b>	<b>4,043</b>	<b>81</b>	<b>738</b>	<b>1,644</b>	<b>6,506</b>
TOTAL ZONED or EXEMPT	34,805			2,872	81	593	1,594	5,140
TOTAL EXEMPT FROM CITY ZONING	9,013			608	0	75	685	1,368

**NOTES:**  
 See Exhibit 2.3 for location of projects. Estimated capacity and entitlements of existing projects as of July 2009.

(1) Parts may not sum to totals shown due to rounding.  
 (2) Project needs State Land Use Commission approval of a Land Use District amendment.  
 (3) Project needs City Council approval of a zone change (and may need State Land Use District Boundary Amendment).  
 (4) As of December 2008, included around 84 acres of vacant BMX-3 zoned lands which could provide residential units as well as commercial and office space.  
 (5) Industrial acreage partly zoned for industrial mixed use.  
 (6) Formerly Ko Olina Phase II. Thirty seven of the residential acres are for mixed use residential development and may include 100,000 s.f. of commercial space. Twenty seven of the commercial acres include mixed-use residential development of 300 units.  
 (7) Twenty acres near Farrington/Fort Weaver intersection for community commercial center; remainder intended for neighborhood commercial use. Some residential acreage may also support retail and office uses in mixed use projects.  
 (8) The 116 retail acres are lands zoned BMX-3 which can include both retail space and residential units. The residential acreage includes lands set aside for student housing.  
 (9) DHHL and HCDA can exempt themselves from County zoning.

infrastructure capacity requirements established through unilateral agreements and subdivision approval requirements.

An additional 19 percent of the residential development acreage is exempt from County zoning and land use regulations. Almost 1,400 acres are controlled by either the State Department of Hawaiian Home Lands or the Hawai'i Community Development Authority who are developing their lands under master plans approved by the Governor. The timing and conditions of the development of these lands are not subject to review and approval by the City Council.

The remaining residential development acreage which is neither zoned nor exempt will require land use approvals by the State Land Use Commission and the City Council before development can proceed. About 1,400 acres of the lands indicated for development are in the State Agriculture Land Use District, and will first have to be approved for transfer to the State Urban District by the State Land Use Commission and then have urban zoning approved by the City Council before they can be developed.

Table 2.1 shows the projected number of housing units and the approximate gross acreage by land use category for previously approved and proposed projects. These represent general indicators of the land areas involved and possible densities. In determining actual land uses and densities, project planning, design and review of project zoning change applications should be directed by the planning policies and guidelines provided in Chapters 3 and 4.

### **2.2.2 RETENTION OF AGRICULTURAL LANDS**

The closure of the O'ahu Sugar Company in 1995 raised serious questions about how thousands of acres of former sugar lands in 'Ewa should be used in the future. The **'Ewa Development Plan** protects the highest value prime agricultural lands from urban development.

These high value lands are located in two areas: lands *mauka* of H-1 Freeway and on the Waianae side of Kunia Road, and lands in the Explosive Safety Quantity Distance (ESQD) arc around the Pearl Harbor Naval Munitions Command. State agencies

indicated in 1996 that these prime agricultural lands should have the highest priority for retention of all the prime agricultural lands in 'Ewa.

These 3,000 acres of agricultural land, protected by the Community Growth Boundary, have been rated, in the most authoritative studies, as potentially among the most productive lands for diversified agriculture in the State.

The State Department of Agriculture's November 1977 study, **Agricultural Lands of Importance to the State of Hawaii (Revised)**, indicates that the Kunia lands and a portion of the lands within the Navy's ESQD arc are "prime" agricultural lands which generally produce the largest yields and the best quality crops for the least expenditure of energy.

The University of Hawai'i Land Study Bureau's December 1972 bulletin, **Detailed Land Classification - Island of O'ahu**, rated productive capacity of the Kunia lands as either A or B and the lands within the Navy's ESQD as B or C (An A rating was given to the highest productivity lands and E was given to the lowest.)

These high value agricultural lands have unique advantages in weather, soil productivity, infrastructure, and water availability from the Wai'ahole Ditch, and access to the local markets of Honolulu and to export markets through Honolulu International Airport.

Successful agricultural operations are currently being pursued on the former sugar lands in the Kunia area, including seed crops, vegetables, melons, and other truck crops. In addition, the Hawai'i Agriculture Research Center (HARC) at the corner of H-1 and Kunia Road is conducting studies on vegetable crops and forage to help diversified agricultural activities in the area. Agricultural lands along Kunia Road and north of H-1 have recently been sold to agricultural companies committed to maintaining those lands in agriculture. In addition, the Navy currently leases out 1,025 acres for agriculture on its lands surrounding the Pearl Harbor Naval Munitions Command. However, agricultural operations on these lands are limited by military safety restrictions and the brackish water supply.

By protecting agricultural lands from urban development, an opportunity is created for retention and development of diversified agriculture on small farms and agricultural

parks. Public-private partnerships will be needed to solve problems of lease terms and tenure, access to capital, research, and marketing if this vision is to be realized.

### **2.2.3 OPEN SPACE AND GREENWAYS**

A network of Open Space and Greenways will link the Secondary Urban Center and associated employment centers, new master planned residential developments and revitalized established communities, an 'Ewa shoreline park, and a major regional park at Kalaeloa. See the Open Space Map in Appendix A.

Table 2.2 lists the major components of the 'Ewa Open Space and Greenways Network.

The Open Space and Greenways Network:

- connects existing and planned communities through a system of linear greenbelts, consisting of drainage, transportation, and utility corridors, and
- creates separate identities for existing and planned communities through use of landscape buffers, golf courses, wildlife preserves, agricultural lands, regional parks, and other large open spaces at the urban edges.

An important new element in the 'Ewa Open Space and Greenways Network will be an 'Ewa Shoreline Park that will stretch along the 'Ewa coastline from the entrance to Pearl Harbor to Ko Olina. It will be anchored by the Kalaeloa Regional Park planned for Kalaeloa.

The Pearl Harbor Historic Trail, running partly along the Pearl Harbor shoreline and across the 'Ewa Plain on the OR&L right-of-way, will allow bikers and pedestrians to travel as far as Nanakuli to the west. Running east, the path will create a greenbelt linking Ko Olina, Kapolei West, Kapolei Harborside, the City of Kapolei, Kalaeloa, the Villages of Kapolei, 'Ewa Plantation Villages, Ewa by Gentry, and West Loch to Rainbow Marina near Aloha Stadium and to the Waipahū Cultural Garden Park.

**TABLE 2.2: 'EWA OPEN SPACE AND GREENWAYS NETWORK**

**Mountain and Agricultural Areas**

Waianae Mountains Conservation District  
(Including the State's Honouliuli Forest Reserve)  
Pu'u Makakilo  
Pu'u Pālailai  
Agricultural Lands *mauka* of H-1 and Wai'anae side of Kunia Road  
Agricultural Lands in the Pearl Harbor Naval Munitions Command ESQD arc

**Natural Gulches and Drainageways**

Honouliuli Stream  
Kalo'i Gulch  
Makalapa Gulch  
Makakilo Gulch  
Awanui Gulch  
Pālailai Gulch  
Makaīwa Gulch  
Keone'ō'io Gulch  
Limaloa Gulch

**Shoreline Areas**

'Ewa Shoreline Park (Lateral Public Access/Easement from Ko Olina to Pearl Harbor)  
Wetlands and Wildlife Habitats  
Honouliuli National Wildlife Refuge  
Apoka'a Ponds  
Batis Salt Marsh at Hoakalei  
Kahe Point Beach Park  
Tracks Beach Park  
Ko Olina Beach Parks (2)  
Barbers Point Beach Park  
One'ula Beach Park  
'Ewa Beach Park  
Iroquois Point Beach Park (military)  
West Loch Shoreline Park

Continued on next page

**TABLE 2.2: 'EWA OPEN SPACE AND GREENWAYS NETWORK**

(Continued)

**Regional and District Parks**

Ocean Pointe District Park  
Kalaeloa Regional Park  
'Ewa Mahikō District Park  
East Kapolei District Park (planned)  
Kapolei Regional Park  
Makaiwa Hills District Park (planned)

**Golf Courses**

Ko Olina Golf Club  
Kapolei West Golf Course (planned)  
Kapolei Golf Course  
'Ewa Villages Golf Course  
Coral Creek Golf Course  
Barbers Point Golf Course (military)  
Hoakalei Country Club  
Hawai'i Prince Golf Club  
'Ewa Beach Golf Club  
West Loch Golf Course

**Greenway Corridors**

Farrington Highway  
Kapolei Parkway  
Pearl Harbor Historic Trail / Historic OR&L Railway  
Kualaka'i Parkway  
Fort Weaver Road  
Ali'inui Drive (Ko Olina)  
Kealanui Avenue (Villages of Kapolei)  
Kama'aha Avenue (Villages of Kapolei)  
'A'awa Drive (West Loch Fairways)  
Keone'ula Boulevard (Ocean Pointe)

See Exhibits 3.1 and 3.2 for locations of Pu'u, parks, wetlands and wildlife habitats.

See Exhibit 4.3 for locations of major natural gulches and drainageways.

## **2.2.4 KALAELOA REGIONAL PARK**

Kalaeloa Regional Park will provide needed open space, recreational opportunities, and access to the beaches and ocean.

Kalaeloa Regional Park is envisioned as a major nucleus of community activity, attracting visitors from all of O‘ahu. To be developed on surplus lands at Kalaeloa, it will feature a regional park with sports and recreation facilities. Taking advantage of its extensive land resources, cultural sites, and spectacular ocean setting, it will offer extensive community-oriented recreation facilities, and public facilities. Ocean recreation areas at Kalaeloa will feature coastal lands providing a setting for ocean sports, beach activities, picnicking and family camping.

## **2.2.5 SECONDARY URBAN CENTER**

The Secondary Urban Center (See Exhibit 1.1) will provide a wide range of employment opportunities by 2035 and consists of:

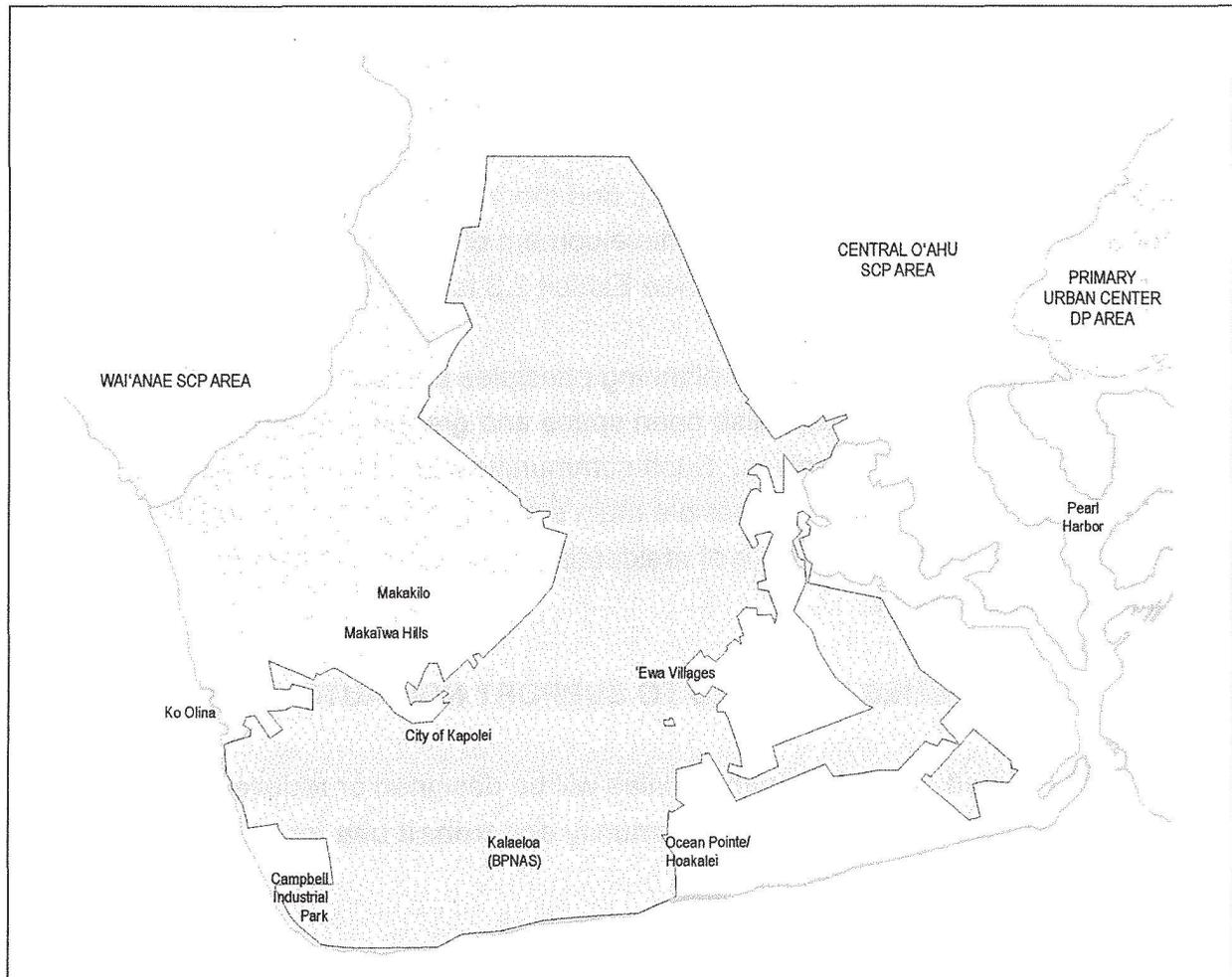
- A major office, retail, and residential center at the City of Kapolei (projected to have over 17,000 private non-construction jobs by 2035);
- A Secondary Civic Center with main headquarters for some State and City agencies (projected to have 2,600 government jobs);
- A major resort destination area at Ko Olina (projected to have 5,500 hotel and resort condominium units);
- A marina resort/mixed use area at Ocean Pointe (projected to have 950 visitor units);
- A deep draft harbor at Kalaeloa Barbers Point, a major industrial center at Campbell Industrial Park, and civilian reuse of Kalaeloa compatible with the rest of ‘Ewa (projected to collectively provide almost 21,000 jobs); and
- The University of Hawai‘i West O‘ahu (projected to have 1,040 faculty and staff and 7,600 students).

See the ‘Ewa Urban Land Use Map in Appendix A.

Almost the entire ‘Ewa Development Plan area (as shown in Exhibit 2.2) has been approved as an Enterprise Zone by the Honolulu City Council.

## Exhibit 2.2

### 'Ewa Enterprise Zone



Under enabling legislation approved by the City Council in 1995 (Resolution 95-292) and in 2002 (Resolution 02-227), qualifying businesses receive a package of incentives including rebates on City property taxes for two years, and waiver of certain county fees for seven years. In addition, under State law (Chapter 209E, Hawai'i Revised Statutes), the businesses may receive exemptions from State excise taxes for seven years, a decreasing State income tax credit for seven years, and a State income tax credit for unemployment insurance premiums.

## 2.2.6 MASTER PLANNED RESIDENTIAL COMMUNITIES

A network of master planned residential communities will provide a wide variety of housing and accommodate the need for affordable housing. Master plans will guide new developments in the City of Kapolei, East Kapolei (DHHL East Kapolei, UH West O‘ahu, Ho‘opili), ‘Ewa by Gentry, Ocean Pointe/Hoakalei, Ko Olina, Makaīwa Hills, Kapolei West (previously part of Ko Olina), and the Villages of Kapolei; the rehabilitation of existing structures and development of new housing in ‘Ewa Villages; and the redevelopment of Kalaeloa. (See Exhibit 2.3 for locations.)

These master plans will incorporate planning principles and guidelines to preserve historic and cultural values, establish open space and greenway networks, and create well-designed, livable communities. Such communities should be designed with an identifiable, distinct and easily accessible main street, town center or neighborhood center which may include a mixture of residential and small scale community related commercial development.

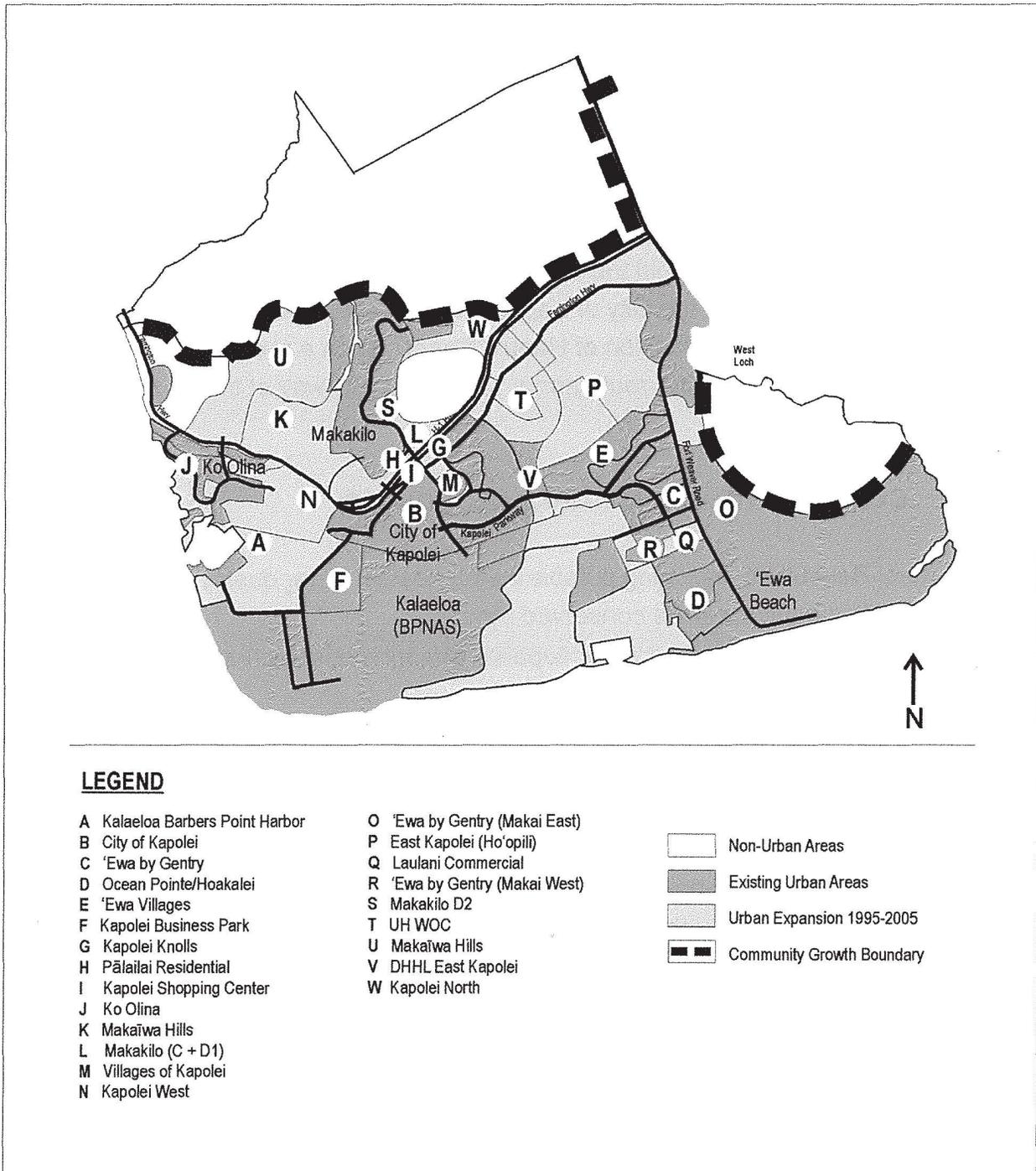
## 2.2.7 COMMUNITIES DESIGNED TO SUPPORT NON-AUTOMOTIVE TRAVEL

The master planned residential communities will be designed or redeveloped to support **pedestrian and bike use** within the community and **transit use** for trips both within and outside of the community.

Connectivity will be established within subdivisions by use of block and street standards and between subdivisions by establishing and implementing a 1/4 mile collector/connector master road plan, where permitted by terrain.

An east-west **Rapid Transit Corridor** will link Kapolei West, the City of Kapolei, the University of Hawai‘i West O‘ahu campus, Waipahū, Leeward Community College, and the Primary Urban Center. Medium density residential development will be built along the corridor within walking distance of transit stops.

**Exhibit 2.3**  
**Existing and New Master Planned Communities**



Medium density residential and commercial mixed-use development will be developed at eight **transit nodes** whose general locations are indicated on the Public Facilities Map in Appendix A. Transit nodes are meant to be located at activity focal points, which would serve as natural points for transferring from one transportation mode to another.

The first segment of the rapid transit system will start near the proposed Kroc Center on Kualaka'i Parkway and continue on to Waipahū along Kualaka'i Parkway and Farrington Highway. Sufficient **right-of-way** will be reserved for the establishment, when needed in the future, of an elevated rapid transit system along a route which would extend the system through Kalaeloa to the City of Kapolei, ending near the intersection of Kapolei Parkway and the planned extension of Hānu'a Street. Such a system will require a 28 to 32 foot right of way along the route and a 75-foot right of way at transit station sites (at the transit nodes).

## **2.2.8 CONSERVATION OF NATURAL RESOURCES**

'Ewa Natural Resources, including potable water, coastal water quality, and wetlands and other wildlife habitat, will be conserved by:

- Efficiently using all water supplies through conservation measures and distribution system leak repair;
- Developing a dual water distribution system with potable water for drinking and other clean water uses and non-potable water for irrigation and industrial use;
- Designing the regional drainage and wastewater treatment system to minimize non-point source pollution of the ocean and Pearl Harbor;
- Protecting valuable habitats for endangered water birds located in Batis Salt Marsh at Hoakalei and in the West Loch of Pearl Harbor and for endangered plants located within Kalaeloa (formerly Barbers Point Naval Air Station) and elsewhere;
- Protecting open space outside the Community Growth Boundary from development;
- Requiring surveys to identify endangered species habitat and requiring appropriate mitigations for adverse impacts on endangered species in new development areas;

- Protecting endangered fish and invertebrates present in sinkholes such as Ordy Pond near the east edge of Kalaeloa; and
- Cleaning up contaminated areas that pose hazards to soil and water quality, especially in the Kalaeloa area.

See Exhibit 3.2 in Chapter 3 for a mapping of key natural resources.

## 2.2.9 PRESERVATION AND ENHANCEMENT OF HISTORIC AND CULTURAL RESOURCES

‘Ewa’s Historic and Cultural Resources will be preserved and enhanced by:

- Preserving significant historic features from the plantation era and earlier periods, including:
  - The ‘Ewa Plantation Villages and other remnants of the plantation era;
  - The OR&L right-of-way and railway stock;
  - The Honouliuli Internment Camp;
  - The ‘Ewa Marine Corps Air Station;
  - Pu‘u O Kapolei/Fort Barrette;
  - Pu‘u Makakilo;
  - Lanikūhonua,
  - Native Hawaiian cultural and archaeological sites;
- Retaining visual landmarks and significant public views and vistas, including:
  - Distant vistas of the shoreline from the H-1 Freeway above the ‘Ewa Plain;
  - Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Wai‘anae Development Plan Area;
  - Views of the Wai‘anae Range from H-1 Freeway between Kunia Road and Kalō‘i Gulch and from Kunia Road;
  - Views of nā pu‘u at Kapolei, Pālailai, and Makakilo;
  - *Mauka* and *makai* views;
  - Views of central Honolulu and Diamond Head, particularly from Pu‘u O Kapolei and Pu‘u Makakilo; and by
- Identifying and protecting sites that are important to Native Hawaiian cultural practices.

## 2.2.10 PLANNED REGIONAL DEVELOPMENT

Planned development of 'Ewa will support the City of Kapolei's development and conserve scarce infrastructure dollars. It will be characterized by:

- **Increased land supply** to support economic development and job creation and to accommodate major residential growth with an emphasis on providing affordable housing and a diversity of housing types;
- **Moderate growth of commercial centers in Urban Fringe Areas** to primarily serve the needs of the surrounding residential communities;
- **Approval of Residential and Commercial development** that supports development of the Secondary Urban Center (See Table 2.1);
- **Adequate Facilities Requirements** adopted as a condition for zoning approval to ensure that infrastructure will be adequate to meet the needs caused by expected development;
- **Coordinated Public-Private Infrastructure and Project Development** that supports the directed growth strategy of the General Plan. Examples of project development include construction of the State and City offices in the Kapolei Civic Center, the Department of Hawaiian Home Lands' State headquarters building Hale Kalaniana'ole, and development of the University of Hawai'i West O'ahu Campus; and
- **Adequate Funding for Infrastructure** through methods such as Tax Increment Financing (TIF) and Community Facilities District (CFD) which provide funding for infrastructure concurrently with, or in advance of, residential and/or commercial development.

Table 2.1 shows the approximate land area and projected number of housing units of projects shown in Exhibit 2.3 and on the Land Use Map and Phasing Map in Appendix A. The projects are categorized by status of land use approvals (fully entitled, need zoning, or need State Urban Land Use District designation and zoning). The estimates of land areas involved and densities for proposed projects are based on proposals and historic behavior. If the proposed project is approved, the actual acreages and densities as well as project design requirements will be determined by Council as part of the approval of the project zone change application.

The capacity for development of 48,100 units in Table 2.1 represents only the **Potential Supply of Housing Units** based upon projects previously approved or proposed. It is

important to emphasize that these projects are **not** necessarily expected to be completed within the next 25 years.

It is expected that housing development activities at many projects would continue for ten years or more after the initial zoning approval. The number of units actually produced and sold, and the timing of their production, will depend upon market forces. Absorption of new units is projected to be almost 26,500 units between 2009 and 2035, which would use only around 55 percent of potential supply identified in Table 2.2.

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### **3. LAND USE POLICIES AND GUIDELINES**

The vision for development of 'Ewa described in the preceding chapter will be implemented through application of land use general policies, and guidelines. These policies and guidelines are not regulations, but provide guidance that decision makers and administrators should follow, where sensible, in approving projects and revising rules, regulations, and best practices standards.

- 3.1 Open Space Preservation and Development
- 3.2 Regional Parks and Recreation Complexes
- 3.3 Community-Based Parks
- 3.4 Historic and Cultural Resources
- 3.5 Natural Resources
- 3.6 City of Kapolei
- 3.7 'Ewa Plantation Villages
- 3.8 Ocean Pointe/Hoakalei
- 3.9 Existing and Planned Residential Communities
- 3.10 Planned Commercial Retail Centers
- 3.11 Ko Olina Resort
- 3.12 Industrial Centers
- 3.13 Kalaeloa
- 3.14 Pearl Harbor Naval Base (West Loch)
- 3.15 University of Hawai'i West 'Oahu

#### **3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT**

The open space system consists of areas in active use, as well as passive areas. Active areas include parks, golf courses and agricultural fields. Passive areas include lands in the State Conservation District, fallow land in the State Agriculture District, drainage and utility corridors. Shoreline areas may be either active or passive.

### 3.1.1 GENERAL POLICIES

Use open space to:

- Provide long-range protection for diversified agriculture on lands outside the Community Growth Boundary;
- Protect scenic views and natural, cultural, and historic resources;
- Provide recreation;
- Define the boundaries of communities, by;
  - Using the large expanses of open space beyond the Community Growth Boundary to provide the basic definition of the regional urban pattern, and
  - Using the open space system within the Community Growth Boundary to visually distinguish and physically separate individual communities, neighborhoods, and land use areas;
- Provide a fire safety buffer where developed areas border "wildlands" either in preservation areas within the Community Growth Boundary or in the State Conservation District;
- Promote the accessibility of shoreline and mountain areas (as required by City Ordinance);
- Preserve natural gulches and ravines as drainageways and storm water retention areas; and
- Create major pedestrian and bikeway linkages between communities, such as the OR&L / Pearl Harbor Historic Trail, through a network of greenways along transportation and utility corridors and drainageways connecting major open space areas.

### 3.1.2 RELATION TO OPEN SPACE MAP

The following areas shown on the Open Space Map in Appendix A are components of the regional open space system:

**Mountain and Agricultural Areas** - These are the areas outside of the Community Growth Boundary, including areas within the State Conservation District.

**Natural Gulches and Drainageways** - Within the Community Growth Boundary, the major gulches, including the Kalo'i Gulch drainage channel, are shown in preservation uses. (See the listing in Table 2.2.)

**Shoreline Areas** - The proposed lateral public easement/access along the shoreline is indicated by a dotted line. Nearshore, coastal-dependent uses and features such as beach parks and wetlands are indicated as parks and preservation areas, respectively.

**Parks** - Only island-wide and regional district parks are shown. Community and neighborhood parks are part of the open space system, but they are generally too small to display on a regional map, and their location is determined more by community design considerations (see Section 3.3) than by their relationship to the regional open space network.

**Golf Courses** - All golf courses are shown, whether public or private-owned, since their visual contribution to the open space system is the same.

**Greenways or Open Space Corridors** - These corridors are indicated on the map following certain public right-of-ways that are extensive enough to make a significant contribution to the regional open space network as a linear connector.

### 3.1.3 GUIDELINES

The following guidelines suggest how the general policies for Open Space Preservation and Development should be implemented:

#### 3.1.3.1 Mountain Areas

- Acquire and maintain a public campground and support public access to hiking trails in the area *mauka* of the Community Growth Boundary on the slopes of the Wai'anae Range.
- Acquire and maintain public access, including vehicular access from Makakilo Drive, to trail heads and public campgrounds.
- Provide access to mountain trails in the Pālehua Ridge area via Pālehua Road as part of the Makaīwa Hills project.

- Maintain the forest at higher elevations, in the State Conservation District. Plan utility corridors and other uses to avoid disturbance to areas with high concentrations of native species.
- Identify endangered species habitats and other important ecological zones and protect them from threats such as fire, weeds, feral animals and human activity.
- Identify and protect areas that are important to Native Hawaiian cultural practices.

### **3.1.3.2 Natural Gulches and Drainageways**

- Preserve the natural gulches on the slopes of the Wai‘anae Range foothills within the Community Growth Boundary as part of the open space system.
- Integrate planned improvements to the ‘Ewa drainage systems into the regional open space network by emphasizing the use of retention basins and recreational access in the design approach. (See Chapter 4, Section 4.6.)
- View drainageways and utility corridors as opportunities to link major open spaces with pedestrian and bike paths along open corridors in order to create the regional open space network.
- Where practical, retain drainageways as natural or man-made vegetated channels rather than concrete channels.

### **3.1.3.3 Shoreline Area**

- Provide public pedestrian access to the shoreline at intervals of approximately 1/4 mile, except where access is restricted by the military for security reasons. To make this access usable by the public, provide adequate parking.
- Where a lateral public easement along the shoreline is available or planned, allow the distance between access points to be increased. However, the intervals should generally not exceed one mile and vehicular parking spaces and limited facilities for waste disposal and potable water supply should be available at the access points.
- Maintain and enhance near-shore wetlands and mangroves, where necessary, as wildlife habitats.

- Identify and protect areas that are important to Native Hawaiian cultural practices.
- Coordinate private and public landowners' efforts to create continuous shoreline easements to ensure the maximum feasible degree of lateral public access.
- Provide lateral shoreline access along the Hoakalei coastline and a pathway providing continuous public access around the Hoakalei Marina.
- Provide, at a minimum, a 60-foot setback along the shoreline, and, where possible, expand the setback to 150 feet where justified, based on historic or adopted projections of shoreline erosion rates.
- Analyze the possible impact of sea level rise for new public and private projects in shoreline areas and incorporate, where appropriate and feasible, measures to reduce risks and increase resiliency to impacts of sea level rise.

#### **3.1.3.4 Agricultural Areas**

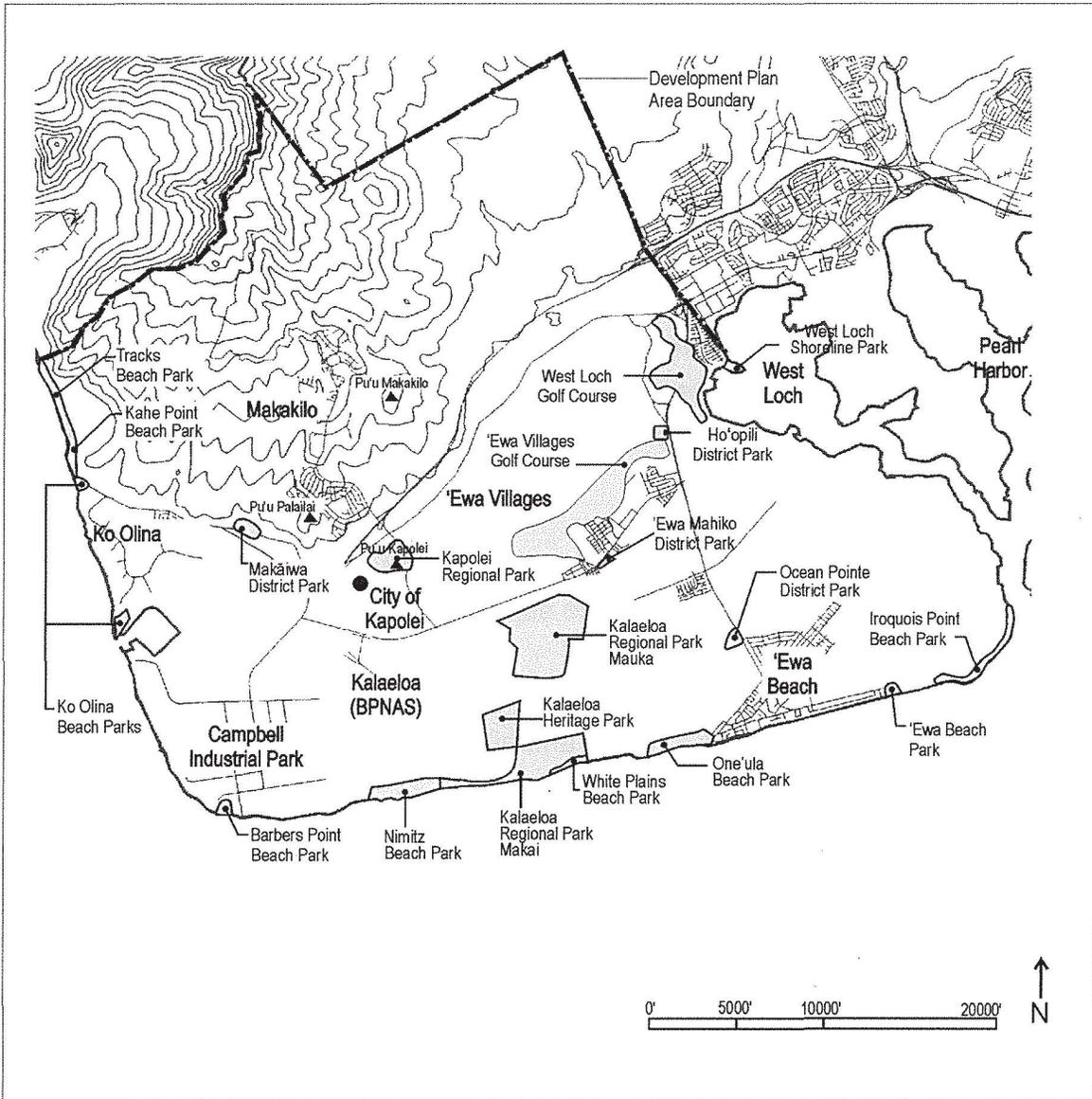
- Permit facilities necessary to support intensive cultivation of arable agricultural lands.
- Permit facilities to support limited outdoor recreation use, such as camping, horseback riding, and hiking, in areas where agricultural use is not feasible.
- Permit residential use only to the extent that it is accessory to the agricultural use. Where several dwellings are planned as part of an agricultural use, they should be sited and clustered to avoid the use of more productive agricultural lands and to reduce infrastructure costs.
- Design and locate buildings and other facilities that are accessory to an agricultural operation to minimize impact on nearby urban areas, arterial roads, and major collector streets.

#### **3.1.3.5 Parks**

- Develop a major regional park at Kalaeloa that provides beach-oriented recreation and support facilities near the shoreline and active recreation facilities in *mauka* areas, and preserves significant cultural resource areas and wildlife habitats such as wetlands and endangered plant colonies. (See Exhibit 3.1: Parks in the 'Ewa Development Plan Area.)

**Exhibit 3.1**

**Parks in the 'Ewa Development Plan Area**



- Locate other beach and shoreline parks throughout the 'Ewa coastline. A beach park at the south end of the Ko Olina shoreline has been built, and it and a shoreline park at the Kahe end of Ko Olina are to be dedicated to the City at some point in the future. One'ula Beach Park will be expanded by 9.4 acres as part of the Ocean Pointe/Hoakalei project.
- Maintain prominent landforms at Pu'u O Kapolei and Pu'u Pālailai as natural visual features and regional landmarks.

### **3.1.3.6 Golf Courses**

- Locate and design golf courses to optimize their function as drainage retention areas.
- Consider the impact on existing and proposed regional trails, paths and bike routes in designing new golf courses. Where necessary for these trails, paths and bike routes, provide safe corridors by or through the course.
- Design golf courses to provide view amenities for adjacent urban areas, including public rights-of-way.
- When screening is necessary for safety reasons, use landscape treatment, setbacks, and modifications to the course layout rather than fencing or solid barriers, where feasible.

### **3.1.3.7 Wildlands - Urban Fire Hazard Setbacks**

- As determined appropriate by the Honolulu Fire Department, require residential or commercial developments that are adjacent either to preservation areas within the Community Growth Boundary or to lands within the State Conservation District to provide a setback to reduce the risk of fire spreading from the "wildlands" to the developed area. Typically, such a setback would be 20 to 30 feet wide and landscaped with low growth, low-burn plantings.

### **3.1.3.8 Greenways and Open Space Corridors**

- Provide additional connectivity for bikers and pedestrians by developing the Pearl Harbor Historic Trail, which will extend for about 18.5 miles from Rainbow Marina near 'Aiea to Nānākuli. The Trail, running west on the OR&L right-of-way across the 'Ewa plain, will allow bikers and pedestrians to connect to the Trail from other access points including City parks, through the addition of scenic shared use paths in 'Ewa and Ko Olina to travel as far as Nānākuli to the west. Running east, the Trail will follow a greenbelt linking a network of shoreline parks stretching from West Loch to Rainbow Marina near Aloha Stadium. Establish the bikeway even in those sections where the railroad itself is not operational.
- Provide sufficient easement width for the major trunk lines and transmission and distribution lines for utility systems, when their alignment is not within a road right-of-way, to permit the growth of landscaping within

- and adjacent to the easement, consistent with all applicable operations, maintenance, and safety requirements.
- When overhead or underground transmission and distribution lines are located within or adjacent to a road right-of-way, provide sufficient width to permit the growth of landscaping adjacent to the transmission line, consistent with all applicable operations, maintenance, and safety requirements. The purpose of the landscaping is to divert attention from the overhead lines and, preferably, obscure views of the overhead lines from the travel way and adjacent residential areas. Place new transmission lines underground where possible under criteria specified in State law.
  - Permit the use of utility easements for pedestrian and bicycle routes, consistent with all applicable operations, maintenance, and safety requirements.
  - Design the rights-of-way for major and minor arterials as landscaped parkways or greenways, complete with a landscaped median strip, landscaped sidewalks, and bikeways. Major arterials should have separate bike paths, and minor arterials should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for minor arterials is 100 feet wide.

### **3.2. REGIONAL PARKS AND RECREATION COMPLEXES**

The following section presents general policies, and guidelines for development of regional parks and recreation complexes.

Regional parks and recreation complexes include the Kalaeloa Regional Park proposed for surplus lands at the former Barbers Point Naval Air Station, Kapolei Regional Park, various beach and shoreline parks, and public and private golf courses.

The City and County and the U.S. Department of the Interior are negotiating the conveyance of the lands for Kalaeloa Regional Park to the City. In the meantime, the Department of Parks and Recreation (DPR) is operating a beach camping area at Kalaeloa under a licensing agreement with the Navy. DPR also operates two Kalaeloa baseball parks on land recently conveyed from the Navy to Ford Island Properties, Inc.

(FIP), and is negotiating an agreement with FIP to continue operating the parks. The Navy operates the Nimitz and White Sands beach parks at Kalaeloa which are open to the public. (The Navy intends to retain the two beach parks.)

Existing City beach and shoreline parks are located at Tracks, Kahe Point, Barbers Point, One'ula, 'Ewa Beach, and West Loch.

Two beach parks at either end of the Ko Olina shoreline have been built and will be turned over to the City at some point in the future as required by ordinance. The larger park at the northern end of the resort provides for picnicking and other passive recreation. A park at the southern end provides direct access to one of the four swimming lagoons. A boat-launching ramp, which is available for public use, is being relocated to the eastern end of the Ko Olina marina.

'Ewa has nine golf courses. In addition, one more course is planned for the Kapolei West development. (See Table 2.2)

The City's courses include the West Loch and 'Ewa Villages golf courses. The 'Ewa Village golf course also provides flood protection and storm water detention for 'Ewa Villages.

Privately owned golf courses include the Hawai'i Prince Golf Club, 'Ewa Beach Golf Club, Hoakalei Country Club, Coral Creek Golf Course, Kapolei Golf Course, and Ko Olina Golf Club. The U.S. military operates a golf course at Kalaeloa. The Coral Creek Golf Course opened in March 1999. The Hoakalei Country Club opened for play in 2008. An 18-hole golf course is planned as part of the proposed Kapolei West project. Plans for golf courses at Makakilo and Maka'iwa Hills have been cancelled. Sports and recreation complexes designed to attract visitors from throughout the region and the rest of O'ahu have been proposed for a number of areas in 'Ewa.

### **3.2.1 GENERAL POLICIES**

- Consider using public-private partnerships to build, and maintain new park and recreation complexes in order to sustain economic development.

- Design the built environment to avoid adverse impacts on natural resources or processes in the coastal zone or any other environmentally sensitive area.

### **Regional Parks**

- Develop a new Kalaeloa Regional Park which will feature a large shoreline park with beach recreation and support facilities; a wide range of activity areas including athletic fields in the *mauka* lands; and preserves for historic and cultural resources, wildlife habitats, wetlands, and endangered plant colonies. The Park will encompass mostly undeveloped lands, bordered by the shoreline on the south, the airfield and developed portions of the facility to the north and west, and the existing military golf course and the Hoakalei Country Club golf course to the east. Key elements of the Park are as follows:
  - The Park will include and preserve two wetland areas and an endangered plant preserve that have been recommended for preservation by the U.S. Fish and Wildlife Service.
  - Proposed uses for the *mauka* areas include a Hawaiian cultural park, continuation of the existing riding stable, cabin and tent camping, archery, and various other passive and active recreation uses.
  - The Park will also provide access to a continuous shoreline easement extending from the Ocean Pointe/Hoakalei development to Ko Olina.
- Complete development of Kapolei Regional Park to provide diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei. The 73-acre park includes the Pu'u O Kapolei and serves as a defining limit for the northeastern edge of the City of Kapolei and as a visual gateway to the City. The park provides diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei.
- Develop Pu'u Pālailai below Makakilo as a private nature park providing hikers excellent views of the 'Ewa Plain and distant views of downtown Honolulu and Diamond Head.

### **Golf Courses**

- Use golf courses, where appropriate, to provide protection for open space, and help reduce flooding and non-point pollution by helping retain storm waters.

### **Recreation Complexes**

- Design recreation complexes to be compatible with surrounding land uses and environmental features.

## **3.2.2 GUIDELINES**

The following guidelines suggest how the general policies for Regional Parks and Recreation Complexes should be implemented.

### **3.2.2.1 Appropriate Scale and Siting**

- Use architectural elements and siting to heighten the visibility of major recreation events areas as they are approached from principal travel corridors.

### **3.2.2.2 Environmental Compatibility**

- Locate and operate uses that generate high noise levels in a way that keeps noise to an acceptable level in existing and planned residential areas.
- To retain a sense of place, incorporate natural features of the site and use landscape materials that are indigenous to the area in the design of recreation areas where feasible.
- Use xeriscaping (the use of native landscape materials with low water demand), non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

### **3.2.2.3 Community Integration**

- Although the design of recreational attractions may have a distinct identity and entry, link these destinations with surrounding areas using connecting roadways, bikeways, walkways, landscape features or architectural design.