

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Develop a parallel paved bikeway along the length of the rail route as part of the Pearl Harbor Historic Trail, even in those sections where railroad rides are not operational. Design structures and elements to reflect the historic nature of the railway. Provide landscaping, interpretive signs, and occasional rest stops	State CIP	DOT	Implementer
	BPH	DOT	Implementer
	Hist Pres	SHPD	Regulator
Lanikūhonua			
Maintain the visual identity and unique setting of Lanikūhonua as closely as possible to its present condition through the use of native landscaping, maintenance of the architectural style of the original buildings, and limits on public access and use.	SMA LUO	DPP	Regulator
	Hist Pres	SHPD LCI	Regulator Implementer
Native Hawaiian Cultural and Archaeological Sites			
Determine the appropriate preservation method, site boundaries, setbacks, and restrictions for adjacent uses on a site-by-site basis, in consultation with the State Historic Preservation Officer.	Hist Pres	SHPD	Regulator
	ZC/UA UDP	DPP	Regulator
Determine the appropriate level of public access on a site-by-site basis, in consultation with the State Historic Preservation Officer, Hawaiian cultural organizations, and the land owner.	Hist Pres	SHPD	Regulator
		OHA	Advocate
	ZC/UA UDP	DPP	Regulator
NATURAL RESOURCES			
Conserve potable water by supporting water conservation measures (e.g. non-potable irrigation, xeriscaping).	WUP	CWRM BWS	Regulator Advocate
	SUB	DPP	Regulator
Protect valuable habitat for waterbirds, fish, invertebrates and other endangered animals and plants. Require surveys for proposed new developments to identify endangered species habitat, and require appropriate mitigations for adverse impacts.	ESA/MBTA	USFWS/NOAA	Regulator
		USACE	Regulator
		DLNR	Regulator
	SMA ZC/UA UDP	DPP	Regulator

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Policies and Guidelines Statements	Programs	Agencies	Roles
Clean up contaminated areas that pose hazards to soil and water quality, especially in Kalaeloa.	EPA Act	EPA	Regulator
		DOH	Regulator
		HCDA	Regulator
		DHHL	Implementer
Reduce light pollution's adverse impact on wildlife and human health and its unnecessary consumption of energy by using, where possible, fully shielded lighting fixtures using lower wattage.	ESA/MBTA	USFWS	Regulator
		DLNR	Regulator
		DOT	Implementer
		DTS	Implementer
	BC UDP LUO	DPP	Regulator
MASTER PLANNED COMMUNITIES			
City of Kapolei			
Develop the City of Kapolei as the downtown for the Secondary Urban Center with a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. Allow development of a business hotel in the Mixed Use District of the City. Create a grid system of public streets and keep block lengths relatively short. Allow buildings up to 150 feet high in the City Center. Use best practices to conserve potable water, make the City a garden city, and encourage walking, biking, and transit usage.	UDP UA SUB TOD	DPP	Regulator
'Ewa Plantation Villages			
Preserve and enhance the rural form and historic character of the Villages. Use the 'Ewa Villages Master Plan as a vehicle for preservation and redevelopment efforts within the existing villages. Rehabilitate or adapt existing village structures in the 'Ewa Villages for reuse. Develop additional neighborhood parks/open space and a small shopping center. Make infrastructure improvements. Establish community facilities and a market place for local businesses.	EVMP/MOA	DPR	Implementer
		DFM	Implementer
		FmHA	Implementer
		ACHP	Advocate
	HHF	Advocate	
City CIP	DDC	Implementer	
Hist Pres	SHPD	Regulator	
201H	DPP	Regulator	
CC&R	AOHO	Implementer	

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Ensure continued tenancy and ownership opportunities for current residents. Develop or rehabilitate 1,900 affordable and market housing units.	Hist Pres	SHPD	Regulator
	EVMP/MOA	DFM	Implementer
	CDBG/HOME	DCS	Implementer
	201H	DPP	Regulator
	City CIP	DDC	Implementer
	RPT	BFS	Implementer
Ocean Pointe/Hoakalei			
Develop Hoakalei as the region's principal recreational marina for local residents and visitors. Develop the project by following best practices to ensure environmental compatibility. Provide expanded public recreation areas and access to shoreline and waterfront areas. Develop a mix of activities around the marina basin, including a Marina Mixed Use area with resort and commercial development, a Medium Density Residential area, and a Marine Industrial area. Develop the marina as a commuter ferry terminal if feasible and if financing for improvements can be found. Retain, enhance, and protect wetlands and other wildland habitat. Develop the golf course to provide open space and detention basins for run-off from light storms.	UDP UA SUB Drain MP	DPP	Regulator
	ORTP TIP	OMPO	Implementer
	City CIP	DDC DTS	Implementer Implementer
Other Existing and Planned Residential Communities			
Develop suburban residential areas with housing density of 10 to 15 units per acre. Develop residential areas along the rapid transit corridor at housing densities of 25 units per acre, and mixed use residential/commercial areas within ¼ mile of transit stations at densities from 25 to 90 units per acre. Require that 30 percent of the housing units be affordable to low and low-moderate income households.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD	DPP	Regulator
Develop or redevelop residential communities to have an identified pedestrian-friendly town center or "Main Street" area, and design commercial development to help establish and support that center. Encourage walking and biking and bus transit usage by providing ample path and roadway connectivity both to the town center and throughout the community, and by providing sufficient right-of-way to provide bus shelters and pull-outs.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP SUB TOD	DPP	Regulator

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Provide land for community facilities including churches, community centers, and elderly and child care centers.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD Park Dedic.	DPP AOHO	Regulator Implementer
	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
Use xeriscaping, non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.	SUB	BWS DPP	Regulator Regulator
Ko Olina			
Develop Ko Olina as an integral part of the Secondary Urban Center.	UA UDP SUB	DPP	Regulator
Provide substantial waterfront areas for public use and retain the shoreline as natural open space softened by landscaping and focused on the beach and swimming lagoons. Avoid adverse impacts on natural resources or processes in the coastal zone. Follow best practices with respect to urban form, natural environment, shoreline access, views and vistas, circulation system and transportation facilities, water conservation, and landscaped treatment.	UA UDP SMA SUB	DPP	Regulator
Kalaeloa			
Develop Kalaeloa in ways that integrate the circulation system and land use pattern of the 'Ewa Plain. Provide additional ways for Ewa residents and workers to cross 'Ewa from east to west and north to south.	KMP	HCDA	Regulator
	State CIP	DOT	Implementer
	City CIP	DDC	Implementer
Develop a major new regional park. Provide continuous lateral shoreline access with links to adjacent pathways in Ocean Pointe/Hoakalei and Campbell Industrial Park.	KMP	HCDA	Regulator
	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
Provide ample lands devoted to uses that will create long-term jobs for 'Ewa residents.	KMP	HCDA	Regulator

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Follow best practices for shoreline setback and access; protection of archaeological, cultural, historical, and natural resources; separation of use areas; appropriate scale; accessibility and connectivity; landscaping; and water conservation.	KMP	HCDA	Regulator
	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
University of Hawai'i West O'ahu			
Develop University of Hawai'i West O'ahu campus to be environmentally and culturally sensitive to the site, to be reflective of the Hawaiian culture and Ewa, and, in combination with an adjacent University Village, to be an important civic and cultural institution for Ewa. Follow best practices for place making, design, landscaping, circulation, open space, and views.	ZC/UA	DPP	Regulator
	UDP	UHWO	Implementer
	LUO		
	PRU		
Provide direct vehicle access to the campus from both Farrington Highway and Kualaka'i Parkway. Orient the campus to support pedestrian access to and transit usage from two rapid transit stations planned for locations on Kualaka'i Parkway.	PRU	DPP	Regulator
	SUB	DOT	Regulator
		UHWO	Implementer
Design the campus to use open space areas for flood detention and retention as part of the Kalo'i Gulch watershed master plan in order to reduce the downstream impact of major storm events and keep storm water flows and velocity below design levels used for earlier developments in the Kalo'i Gulch watershed.	Drain MP	DPP	Regulator
PLANNED COMMERCIAL RETAIL CENTERS			
Develop planned commercial centers, outside of the City of Kapolei, to provide retail shopping and offices delivering services for the 'Ewa residential communities in which they are located. Concentrate commercial uses in central locations instead of in continuous commercial strips along arterial roads, and design the centers to support pedestrian-friendly centers or "Main Streets" for their communities. Allow medium density mixed use commercial development within a quarter-mile radius of proposed transit stations on the rapid transit corridor.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD	DPP	Regulator
Locate Major Community Commercial Centers or Regional Commercial Centers and major office buildings in the City of Kapolei. Allow offices providing support to the University of Hawaii West Oahu to be located in the TOD areas around the two transit stations closest to the campus.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA	DPP	Regulator

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Permit multi-family residential use above the first floor and include it wherever possible in commercial centers.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA LUO	DPP	Advocate Regulator
Follow best practices for architectural character, building siting, building height and density, accessibility, connectivity, pedestrian and bicycle facilities, visual screening, water conservation, lighting, and signage.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP LUO SUB	DPP	Advocate Regulator
INDUSTRIAL AREAS			
Maintain the Barbers Point Industrial Area as one of O’ahu’s and the State’s most important industrial areas. Develop the northern parts of Kapolei Business Park, Kapolei Harborside, and any Kalaeloa lands designated for industrial use for light industrial uses or compatible commercial uses as a transition between heavy industry at Campbell Industrial Park and the City of Kapolei. Allow development of marine industrial uses at Hoakalei.	KMP	HCDA	Regulator
	LUO UDP	DPP	Regulator
If a major film studio is developed within the Barbers Point Industrial Area, allow accessory uses, such as film production offices, film crew overnight accommodations, a "back lot" area with commercial uses, and visitor attractions.	LUO	DPP	Regulator
Develop Honouliuli as a smaller industrial area, used for wastewater treatment and for light industrial and industrial-commercial mixed uses to serve the surrounding communities. Expand the Honouliuli Wastewater Treatment Plant to accommodate additional growth in the region as well as to provide additional facilities for higher levels of wastewater treatment.	UA LUO	DPP	Regulator
	City CIP	DDC ENV	Implementer Implementer
Allow the Hawaiian Electric Company generating plant in Kahe Valley to be expanded to take advantage of available land area, cooling system capacity, and power transmission lines.	PUC	PUC HECO	Implementer Implementer
	LUO	DPP	Regulator

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Follow best practices for appropriate scale, environmental compatibility, building height and mass, shoreline setback and access, roadway setbacks, water conservation, and landscape treatment.	KMP	HCDA	Regulator
	ZC/UA	DPP	Regulator
	UDP		
	LUO SUB		
TRANSPORTATION SYSTEMS			
Provide adequate access between residences and jobs, shopping, and recreation centers in ‘Ewa as development occurs. To improve connectivity, provide a multi-modal network of interconnected routes that safely accommodate walkways, bikeways, and streets throughout ‘Ewa and that efficiently link arterials, residences, schools, parks, community facilities, commercial and employment centers, and transit stops.	ORTP	OMPO	Implementer
	TIP		
	State CIP	DOT	Implementer
	City CIP	DDC	Implementer
		DTS	Implementer
KMP	HCDA	Regulator	
Provide improved access and capacity to and from adjacent areas, especially Central O‘ahu.	ZC/UA	DPP	Regulator
	UDP		
	ECS		
	SUB		
Provide adequate capacity for major peak hour commuting to work in the Primary Urban Center. Meet demand for peak-period transportation capacity by increased use of transit, and by transportation demand management (improved HOV lane service, provision of park-and-ride facilities, and reduction of single occupant automobile traffic). Establish a commuter ferry from Hoakalei Marina if feasible and if financing for improvements can be found.	ORTP	OMPO	Implementer
	TIP		
	State CIP	DOT	Implementer
	City CIP	DDC	Implementer
DTS		Implementer	
Reserve land for the right-of-way for the Council-identified rapid transit corridor in Ewa and plan to develop medium density high-traffic land uses and transit-oriented development nodes along the route.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA	DPP	Regulator
	UDP TOD	DTS	Advocate

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Policies and Guidelines Statements	Programs	Agencies	Roles
WATER ALLOCATION AND SYSTEM DEVELOPMENT			
Require new developments to provide adequate potable and nonpotable water, and implement water conservation measures. Require developments with large landscaped areas, roadway landscaping, or industrial processes to have dual water lines (potable and non-potable) to conserve use of potable water through use of non-potable water for irrigation and other appropriate uses	ZC/UA SUB	DPP	Implementer
		BWS	Regulator
Develop an adequate supply of nonpotable water for irrigation and other suitable uses on the 'Ewa Plain. Require nonpotable water used for irrigation above Pearl Harbor aquifer to be low in chlorides and total dissolved solids. Request that the State Commission on Water Resource Management consider all sources of water in making allocations of nonpotable water.	Water	CWRM	Regulator
	OWMP	BWS	Implementer
	City CIP	DDC	Implementer
Develop alternative water supplies using new technologies in water reclamation, membrane and distillation desalination and deep ocean water applications. Encourage use of technologies conserving water and using renewable energy that could support alternative water supplies.	Water	CWRM	Regulator
	OWMP	BWS	Implementer
	City CIP	DDC	Implementer
WASTEWATER TREATMENT			
Require all wastewater produced by new developments in 'Ewa to be connected to a regional or municipal sewer service system.	SUB	DPP	Regulator
		ENV	Implementer
Where feasible, use recycled water recovered from wastewater effluent for irrigation and other uses below the Underground Injection Control (UIC) line and the "No-Pass" Line.	WP	DOH	Regulator
	OWMP	BWS	Implementer
	ZC/UA SUB	DPP	Regulator
Locate wastewater treatment plants in areas shown as planned for industrial use and away from residential areas	WP	DOH	Regulator
	City CIP	DDC	Implementer
	WMBFP	ENV	Implementer
	LUO	DPP	Regulator
ELECTRICAL POWER DEVELOPMENT			
Analyze and approve system improvements based on island-wide studies and siting evaluations. Give strong consideration to placing any new transmission lines underground.	PUC	PUC HECO	Regulator Implementer
	LUO	DPP	Regulator
	BID/CFD	BFS DA	Regulator Implementer

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Locate electrical power plants in areas shown as planned for Industrial use and away from residential areas	PUC	PUC HECO	Regulator Implementer
	LUO	DPP	Regulator
SOLID WASTE HANDLING AND DISPOSAL			
Analyze and approve siting and/or expansion of sanitary landfills based on island wide studies and siting evaluations. Do not develop Makaīwa Gulch as a landfill.	SUP	LUC DPP	Regulator Advocate
	SWIMP	ENV	Implementer
For master-planned communities, in consultation with the Department of Environmental Services, estimate the amount of solid waste to be generated and plan how solid waste will be collected and recycling will be encouraged.	ZC/UA	DPP	Regulator
	SUB	ENV	Implementer
DRAINAGE SYSTEMS			
Design drainage systems to emphasize flood control, minimize non-point source pollution, and retain and/or detain storm water. Use storm water for aquifer recharge. Use natural and man-made vegetated drainageways and retention basins as the preferred solution to drainage problems. Permit concrete-lined channels if there is no other feasible alternative. Insure that solutions to handling drainage problems on lands above 'Ewa Villages are compatible with the drainage design of the 'Ewa Villages Master Plan and other developments in the Kalo'i Gulch drainage basin.	NPDES	DOH	Regulator
	Drain MP	DPP	Regulator
Integrate planned drainage system improvements into the regional open space network by allowing recreational use of retention basins, and creating passive recreational areas and pathways for pedestrians and bikers.	Drain MP	DPP	Regulator
SCHOOL FACILITIES			
Request DOE to report to DPP if adequate school capacity can be provided as part of the project review and approval process, both at the entitlement and permit approval stages.	ZC/UA SUB	DPP	Implementer
Require developers to comply with DOE school impact fees requirements and/or existing UA school impact conditions and pay their fair share of all costs needed to provide adequate school facilities for the children living in their developments.	SIF	DOE	Regulator
	ZC/UA	DPP	Implementer
Design school facilities to facilitate community use during non-school hours and weekends.	State CIP	DOE	Implementer
		DPP	Advocate

Table 5.1: Implementation Matrix

Policies and Guidelines Statements	Programs	Agencies	Roles
Co-locate neighborhood or community parks with elementary and intermediate schools and coordinate design of facilities with the State DOE when needless duplication of parking and of athletic, recreation, and meeting facilities can be avoided.	State CIP	DOE	Implementer
	City CIP	DDC	Implementer
		DPR	Implementer
PUBLIC SAFETY FACILITIES			
Provide adequate facilities and staffing to ensure public safety and provide fire protection, police protection, and emergency medical service for existing and new development.	City CIP	DDC	Implementer
	Op Bud	BFS	Implementer
		HFD	Implementer
		HPD	Implementer
Survey and retrofit, as appropriate, existing Department of Education and other public buildings to make up the shortfall in hurricane resistant shelters. Require new City buildings which are "critical facilities used for public assembly and able to perform as shelters" to be designed and built to withstand a Category 3 hurricane.	State CIP	HSCD	Implementer
		DOE	Implementer
	City CIP	DDC	Implementer
		DEM	Implementer
	BC	DPP	Regulator
Provide incentives for private organizations to create hurricane resistant shelter areas in their facilities and for homes to include hurricane resistant "safe rooms."	CDBG/HOME	DCS	Implementer
		DEM	Implementer
	Op Bud	BFS	Regulator
OTHER COMMUNITY FACILITIES			
Encourage co-location of antennae. Mount antennae on existing buildings or structures so that public scenic vistas and open spaces will not be negatively affected. Use "stealth" technology to minimize visual impacts.	LUO	DPP	Regulator

Table 5.1: Implementation Matrix

Key to Abbreviations

Programs	Agencies	Roles
<ul style="list-style-type: none"> • Agric Distr: State Agriculture District, Chapter 205, Hawaii Revised Statutes (HRS) • BC: Building Code, Chapter 16, ROH • BID: Business Improvement District, Chapter 34, Revised Ordinances of Honolulu (ROH) • BPH: Bike Plan Hawai'i • CDBG: Community Development Block Grant, HUD • CFD: Community Facilities Districts, Chapter 34, ROH • CIP: Capital Improvement Program • Cons Distr: State Conservation District, Ch. 205, HRS • CZM: Coastal Zone Management, Chapter 205A, HRS • Drain MP: Drainage Master Plan • ECS: 'Ewa Connectivity Study • EPA Act: Environmental Protection Agency Act • ESA: Endangered Species Act • EVMP/MOA: 'Ewa Villages Master Plan / Memorandum of Agreement • HOME: Home Investment Partnerships Program, HUD • Hist Pres: Historic Preservation, Chapter 6E, HRS • HSCD: Hawaii State Civil Defense • INRMP: Integrated Natural Resource Master Plan • Kapolei MP: Kapolei Area Long Range Master Plan, The Estate of James Campbell • KMP: Kalaehoa Master Plan • KRMP: Kapolei Regional Master Plan, DHHL • LUO: Land Use Ordinance, Chapter 21, ROH • MBTA: Migratory Bird Treaty Act • NPDES: National Pollutant Discharge Elimination System • OMTP: O'ahu Metropolitan Transportation Plan 	<ul style="list-style-type: none"> • AOHO: Association of Home Owners • BFS: Department of Budget and Fiscal Services • BWS: Board of Water Supply • CWRM: State Commission on Water Resource Management • DA: Business Improvement District Association • DCS: Department of Community Services • DDC: Department of Design and Construction • DEM: Department of Emergency Management • DES: Department of Enterprise Services • DFM: Department of Facility Maintenance • DLNR: State Department of Land and Natural Resources • DOD: United States Department of Defense • DOE: State Department of Education • DOH: State Department of Health • DOT: State Department of Transportation • DPP: Department of Planning and Permitting • DPR: Department of Parks and Recreation • DTS: Department of Transportation 	<ul style="list-style-type: none"> • Implementer • Advocate • Regulator

Table 5.1: Implementation Matrix

Programs	Agencies	Roles
<ul style="list-style-type: none"> • Op Bud: City Operating Budget • Park Dedic: Park Dedication, Chapter 22, ROH • Park MP: Park Master Plan • PRU: Plan Review Use • PUC: Public Utilities Commission , Ch. 269, HRS • RPT: City Real Property Transactions, Chapter 37, ROH • SIF: School Impact Fees, Chapter 302A-1601 to 1611, HRS • Shore Stbk: Shoreline Setback, Chapter 23, ROH • SLUBDA: State Land Use District Boundary Amendment • SMA: Special Management Area, Chapter 25, ROH • State Parks: DLNR State Parks; Division of Forestry and Wildlife Camping permits • State Trails: DLNR Nā Ala Hele State Trails and Access Program • SUB: Subdivision • SUP: Special Use Permit • SWIMP: Solid Waste Integrated Management Plan • TIP: Transportation Improvement Plan • TOD: Transit Oriented Development • UA: Unilateral Agreement, LUO Sec. 21-2.80 • U&OA: Use and Occupancy Agreement • UDP: Urban Design Plan • Water: State Water Code, Chapter 174C, HRS • WMBFP: West Māmalā Bay Facilities Plan • WP: Water Pollution, Chapter 342D, HRS • WUP: Water Use Permit/Well Permit, CWRM • ZC: Zone Change 	<p>Services</p> <ul style="list-style-type: none"> • ENV: Department of Environmental Services • EPA: Environmental Protection Agency • HCDA: Hawai'i Community Development Authority • HECO: Hawaiian Electric Company • HIRS: Hawaiian Railway Society • HFD: Honolulu Fire Department • HSCD: Hawai'i State Civil Defense • HUD: U.S. Department of Housing and Urban Development • LCI: Lanikuhonua Cultural Institute • LUC: State Land Use Commission • NOAA: National Oceanic and Atmospheric Administration • OHA: Office of Hawaiian Affairs • OMPO: O'ahu Metropolitan Planning Organization • OP: State Office of Planning • PUC: State Public Utilities Commission • SHPD: State Historic Preservation Division of the Department of Land and Natural Resources • UHWO: University of Hawai'i West O'ahu • USACE: United States Army Corps of Engineers • USFWS: United States Fish and Wildlife Service 	

APPENDIX A: CONCEPTUAL MAPS

This appendix includes the four primary conceptual maps used to illustrate the vision for 'Ewa's future development. The maps include:

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URBAN LAND USE	A-17
PUBLIC FACILITIES	A-19
PHASING	A-21

These maps illustrate the long-range vision of the future of the plan area and the major land use, open space, and public facility policies that are articulated in the plan. In using these maps, the reader should keep in mind that:

1. These maps are general and conceptual, and are not intended to be used to determine specific land use boundaries. Such boundaries are to be determined during the review of specific land use or public facilities investment decisions, and their exact locations are to be guided by the vision and policies of this Plan.
2. These maps illustrate the Plan's vision and policies which are presented in Chapters Two, Three, and Four. These policy statements are considered the most important elements of the Plan.

The maps are considered illustrations of the policies. However, the text should be consulted to determine the appropriate application of the Plan vision, policies, and guidelines for any specific project or location. In case of disagreement, the text should prevail over the map depiction.

A brief explanation of the terms used in each of these maps follows.

GLOSSARY OF TERMS

Descriptions of elements common to each of the four maps are presented in the following section. Descriptions of elements specific to each map (Open Space, Land Use, Public Facilities, Phasing) are presented in separate sections for each map which follow the section on Common Elements.

COMMON ELEMENTS

Preservation Areas

Preservation areas are lands with natural, cultural, or scenic resource value.

They include the following types of land:

- Land necessary for protecting watersheds, water resources and water supplies.
- Lands necessary for the conservation, preservation and enhancement of sites with scenic, historic, archaeological or ecological significance.
- Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other related activities to these uses.
- Lands with topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban, rural or agricultural use.
- Lands with general slopes of 20 percent or more which provide for open space amenities and/or scenic values.
- Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or Federal Government, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the lands' susceptibility to landslides and/or inundation by tsunami and flooding.

- Lands used for national, state or city parks.
- Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

Agricultural Areas

Agricultural areas are lands with agricultural value by virtue of current agricultural use or high value for future agricultural use, including those areas identified as Prime, Unique, or Other Important lands on the Agricultural Lands Important to the State of Hawai'i (ALISH) maps. These are lands suitable for crop growing, grazing and livestock raising, flower cultivation, nurseries, orchards, aquaculture, or similar activities.

Under the State Constitution, the State is to identify Important Agricultural Lands (IAL). Once identified, these lands cannot be rezoned except under a "super majority" vote. To date, IAL lands have not been identified. In 2005, Act 183 was adopted to address this mandate. It established a two-step process:

- The State Legislature would adopt incentives to assure the long term use and protection of IAL.
- The State Legislature would approve adequate funding to allow the counties to prepare maps identifying IAL lands which would then be adopted by the State Land Use Commission.

Act 233, enacted in 2008, adopted the incentive programs. To date, no state funding has been appropriated to the counties for the mapping. Lands identified for agricultural purposes by this plan can serve as the basis for the county mapping process.

Parks

The maps show locations of existing public and private parks and recreational facilities, including regional parks, district parks, shoreline parks, and nature parks and conceptual locations for planned and proposed parks. Smaller community-based parks, including community parks, neighborhood parks, and mini-parks, are not shown.

Golf Courses

The maps show the locations of existing and proposed public and private golf courses.

Historic Railway/Bikeway Corridor

The corridor shown on the 'Ewa maps is part of the Pearl Harbor Historic Trail, a continuous greenway stretching from Nānākuli across the 'Ewa Plain to West Loch and then along the shores of Pearl Harbor to Rainbow Marina near Aloha Stadium with a connection to the Waipahū Cultural Garden Park. The corridor will include a major pedestrian and bike path and a restored OR&L right-of-way that would allow train operations between 'Ewa Plantation Villages and Nānākuli.

Community Growth Boundary

The Community Growth Boundary defines and contains the intended extent of developed or "built up" areas of urban and urban fringe communities.

Its purpose is to provide adequate land to support established or developing communities while protecting lands outside this boundary for agriculture or open space values. Areas within this boundary are generally characterized by extensive tracts of residential, commercial, industrial, or mixed-use development clearly distinguishable from undeveloped or more "natural" portions of a region's environment.

In the **'Ewa Development Plan**, the *mauka* portion of the Community Growth Boundary follows the Special Management Area boundary around Kahe Point, runs along the *mauka* boundary of the Makaīwa Hills project and Makakilo, follows the proposed extension of Makakilo Drive to the H-1 freeway, and then follows the H-1 freeway to the Kunia Road where it turns and follows Kunia Road to the boundary between the 'Ewa Development Plan area and the Central O'ahu Sustainable Communities Plan area. It excludes all State Agricultural and Conservation District lands *mauka* of the boundary from urban development.

The *makai* portion of the Community Growth Boundary excludes the area within the Explosive Safety Quantity Distance (ESQD) arc for the West Loch Naval Magazine from urban development.

Highways, Arterials, and Major Collector Streets

Major existing and proposed roadways providing east-west and *mauka-makai* linkages across the 'Ewa Development Plan area.

OPEN SPACE MAP

The Open Space Map illustrates the vision for the 'Ewa Open Space Network. The Open Space Network consists of large areas of preservation and agricultural lands outside the Community Growth Boundary and a network of parks, wildlife habitats, golf courses, agricultural lands, ravines, grass-lined drainageways, and greenways along utility corridors and major arterials within the Community Growth Boundary. (See definitions of terms and discussion in Sections 2.2.1, 2.2.2, 2.2.3 in Chapter 2 and in Section 3.1 in Chapter 3.)

The Open Space Map shows major open space elements and resources, including agricultural and preservation lands, major recreational facilities, important "panoramic" views, natural stream corridors and drainageways, and important boundaries.

Terms on the Open Space Map which are not common to all of the maps include:

Natural Drainageways/Gulches

Natural waterways which are to be retained as flood plains and open space resources and protected from development, disturbance, or channelization except where absolutely necessary to protect existing urban development from flooding.

Panoramic Views

Significant views and vistas which are to be retained, whenever possible. (See Table 3.2, Exhibit 3.2, and Section 3.4.2.)

Shoreline Access

The proposed lateral public easement/access along the 'Ewa shoreline with public pedestrian access to the shoreline at intervals of approximately 1/4 mile.

Urban Areas

Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

Landscaped Boulevard/Greenway

Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.3.8 and 3.8.3.)

URBAN LAND USE MAP

The Urban Land Use Map illustrates the desired long-range land use pattern for ‘Ewa resulting from implementation of the plan's vision and policies. It portrays the vision for development of the City of Kapolei, for the development of master planned residential communities, and for creation of new jobs at the Ko Olina Resort, Campbell Industrial Park, Kapolei Business Park, West Kalaeloa Industrial Park, Kalaeloa, the University of Hawai‘i West O‘ahu, and the resort area at Ocean Pointe/Hoakalei. (See definition of terms and discussion in Sections 2.2.4, 2.2.5, 2.2.6, 2.2.7, and 2.2.10 in Chapter 2, and in Chapter 3.)

Terms on the Urban Land Use Map which are not common to all the maps include:

Residential and Low-Density Apartment.

Suburban communities characterized by:

- Single-family detached homes;
- Attached homes or townhouse units with individual entries; and
- Low density, low rise, multi-family residences, including townhouses, stacked flats, or apartment buildings.

In addition to residential uses, these areas may include neighborhood commercial centers, elementary schools, parks, churches, community centers, elderly care centers, child care centers, fire stations and other public facility and utility uses serving the community.

Medium-Density Apartment

Mixed use communities adjacent to transit nodes or resort areas which are characterized by medium density, low- to mid-rise multi-family residences with retail or service commercial uses on the ground or lower floors, where appropriate.

Community Commercial Center

This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center. Community Commercial Centers may contain up to 250,000 sq. ft. of floor area. Major attractions typically include a large grocery store, a drug store, and/or a department store.

City of Kapolei

The urban core or "downtown" for 'Ewa which is intended to be 'Ewa's center for shopping, civic activity, and municipal services. It offers a wide range of shopping and dining opportunities and professional, business and industrial services, and provides housing in high and medium density residential mixed-use buildings.

Resort/Recreation Area

Areas at Ko Olina and Ocean Pointe/Hoakalei to be developed for hotels, apartments, and accessory commercial and recreational facilities for resort use.

Industrial

Areas shown include the State's prime location for heavy industry at Campbell Industrial Park and Kalaeloa Barbers Point Harbor as well as areas designated for light- and service-related industrial uses associated with repair, processing, construction, manufacturing, transportation, wholesaling, distribution, storage and similar economic activities. Industrial areas also can include a range of compatible commercial activities. See Sec. 3.11 for more details on the appropriate uses for specific industrial locations in 'Ewa.

Military

Lands for military and military support purposes.

Public Institution

Major facilities for public use or benefit.

Transit Node (Medium Density Apartment and Commercial)

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

Civic Center

The regional center with City and State offices and facilities providing services to all O‘ahu residents.

Electric Power Plant

Existing power plants at Kahe Point and Campbell Industrial Park.

Wastewater Treatment Plant

The existing wastewater treatment plant at Honouliuli.

Intermediate/Middle School

Existing intermediate/middle schools, ‘Ilima Intermediate in ‘Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate/middle schools at ‘Ewa by Gentry (Makai), East Kapolei (DHHL and Ho‘opili), and Makaīwa Hills.

High School

Existing high schools, James Campbell High in ‘Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of Kualaka‘i Parkway (formerly North-South Road) and Farrington Highway and near the corner of H-1 and Kunia Road.

UH West O‘ahu

Proposed campus location on 136 acres near the intersection of Kualaka‘i Parkway and Farrington Highway

Hospital

The existing Hawai'i Medical Center West on Fort Weaver Road.

Small Boat Marina

The existing Ko Olina Marina and the proposed Hoakalei Marina.

Commercial Harbor

The existing Kalaeloa Barbers Point Deep Draft Harbor.

Airfield

The existing airfield at Kalaeloa.

Quarry

The existing quarry in Makakilo on the slopes of Pu'u Makakilo.

PUBLIC FACILITIES MAP

The Public Facilities Map illustrates the major infrastructure needed to implement the vision for 'Ewa. It shows the location of existing facilities and conceptual locations for some of the future required infrastructure facilities.

It is not meant to be amended between revisions of the Plan, and should not be confused with the Public Infrastructure Map used in the Capital Improvement Program budget process.

Major public facilities which are to be funded through Capital Improvement Program budget appropriations must be shown on the Public Infrastructure Map (PIM). The PIM is not part of the **'Ewa Development Plan**, and is adopted and amended by resolution.

Projects which are not listed in the **'Ewa Development Plan** or not shown on the **'Ewa Development Plan** maps can still be added to the Public Infrastructure Map by Council resolution if the Council finds them to be consistent with the vision and policies of the

'Ewa Development Plan. (For definitions, information about existing and planned public facilities, and functional planning processes, see Chapter 4 and Sec. 5.3 in Chapter 5.)

Terms on the Public Facilities Map which are not common to all maps include:

Urban Areas

Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

Grade Separated Interchange

Existing interchanges at Kunia Road and H-1 Freeway, Kualaka'i Parkway and H-1 Freeway, Makakilo Drive and H-1 Freeway, Kalaeloa Boulevard and H-1 Freeway, and Ali'inui Drive and H-1 Freeway, and proposed interchanges at Kapolei (Wākea Street and H-1 Freeway), and Makaīwa Hills.

Transit Corridor

An area designated for establishment of communities that encourage use of transit, walking, and biking to go to work, to school, to shop, or to have fun by providing easy access to high speed mass transit; designing streets, public places, and pathways to be friendly to pedestrians and bikers; and locating medium density housing and commercial development within easy walking distance of the nearest rapid transit station. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.9.1, 3.10.1, and 4.1.4.2.).

Transit Node

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

Park and Ride Site

Special parking lots where commuters park their cars and continue their commute by mass transit.

HOV (High Occupancy Vehicle) Lane

An exclusive lane on a roadway reserved for transit and vehicles with more than one occupant which is developed to improve transit speed and to provide incentives for commuters to opt for mass transit or carpooling.

Bike Lane

A biking facility (bikeway) which is a four- to six-foot lane exclusively for bike use which is included in a roadway.

Bike Path

A biking facility (bikeway) which is separate from the roadway network.

Civic Center

The regional center with City and State offices and facilities providing services to all O'ahu residents.

Electric Power Plant

Existing power plants at Kahe Point and Campbell Industrial Park.

Wastewater Treatment Plant

The existing wastewater treatment plant at Honouliuli.

Intermediate/Middle School

Existing intermediate/middle schools, Ilima Intermediate in 'Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate/middle schools at 'Ewa Makai, East Kapolei (DHHL, and Ho'opili), and Maka'iwa Hills.

High School

Existing high schools, James Campbell High in 'Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of Kualaka'i Parkway and Farrington Highway and near the corner of H-1 and Kunia Road.

UH West O‘ahu

Proposed campus location on 136 acres near the intersection of Kualaka‘i Parkway and Farrington Highway

Hospital

The existing Hawai‘i Medical Center West on Fort Weaver Road.

Small Boat Marina

The existing Ko Olina Marina and the proposed Hoakalei Marina.

Commercial Harbor

The existing Kalaeloa Barbers Point Deep Draft Harbor.

Airfield

The existing airfield at Kalaeloa.

Corporation Yard

The existing Kapolei Corporation Yard in Campbell Industrial Park.

Landfill

The current Waimānalo Gulch Landfill site.

Desalination Plant

The Board of Water Supply's existing deactivated pilot desalination plant located in the Kapolei Business Park and the proposed desalination plant site located in Kalaeloa adjacent to the Campbell Industrial Park.

PHASING MAP

The Phasing Map shows where urban development has already occurred in ‘Ewa, where new development will take place within the Community Growth Boundary, and the only area in Ewa that has a Special Area Plan (Kalaeloa).

Terms on the Phasing Map which are not common to all of the maps include:

Existing Urban Areas

Areas which already have been developed for residential, retail, office, institutional, or industrial uses. Growth in such areas can occur through re-development or in-fill.

Urban Expansion Areas

Undeveloped areas formerly in agricultural uses which are either already approved or will be considered for approval for development for residential, retail, office, institutional, or industrial uses. Applications for zone changes and other development approvals needed for new urban development in the Urban Expansion Area will be accepted for processing, and will be supported for approval if the project supports the vision and implementing policies of the **‘Ewa Development Plan** and if adequate infrastructure can be provided. (See Sections 2.2.10, 5.1.2, and 5.3.) Total acreage as of July 2009 was estimated at over 6,500 acres with capacity for development of over 48,000 housing units (See Table 2.1.)

Kalaeloa Special Area

Special areas are areas which require more detailed planning than can be provided in a Development Plan (See Section 5.2). Kalaeloa is the only area in ‘Ewa currently designated for a Special Area Plan.

Transit Corridor

An area designated for establishment of communities that encourage use of transit, walking, and biking to go to work, to school, to shop, or to have fun by providing easy access to high speed mass transit; designing streets, public places, and pathways to be friendly to pedestrians and bikers; and locating medium density housing and commercial development within easy walking distance of the nearest rapid transit station. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.9.1, 3.10.1, and 4.1.4.2.).

Transit Node

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

Landscaped Boulevard/Greenway

Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.4.8 and 3.8.2.)